Annual Report 2016

E11

Health Research Council of New Zealand
Te Kaunihera Rangahau Hauora o Aotearoa

Report of the
Health Research Council of New Zealand
for the year ended 30 June 2016

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

Table of Contents

Chairman's Report

Earlier this year the New Zealand government took decisive action to prioritise investment in health research to underpin the future health and prosperity of the people of New Zealand. The Health Research Council (HRC) is the government's key agency for health research, responsible for maximising the potential benefits of this investment, and ensuring these results are felt widely across New Zealand. We are proud to have this role and are intent on delivering.

The HRC has received an unprecedented increase in investment of 56% over the next four years. This came at the conclusion of a big year for our organisation as we embraced opportunities offered by the government review of our operations in the Strategic Refresh. This Refresh took a hard look at how we address health research needs in New Zealand. Our response will continue into the coming year as we streamline, optimise and innovate our operations to face the major challenges that we have identified for health research.

Choosing our investments wisely

In 2014, The Lancet journal published a series of papers on how to increase value and reduce waste in health research[1]. The series highlighted the waste that occurs when research is purchased through sub-optimal processes (due to design flaws, asking the wrong questions, asking questions that have already been answered or don't require research to supply the answer, or not publishing the results). We have worked very hard to ensure that every dollar of public investment that is entrusted to the HRC makes a difference, through robust processes that are internationally recognised as best practice. Every application we receive is reviewed by national and international experts. We do whatever we can to ensure the HRC only invests in research that is well designed and asks the right questions. We review our processes, and improve them based on that review.

Leveraging maximum value from investments

We are not the only health research investor within New Zealand and we are proud to partner with others to add and leverage value when we can achieve more together than alone. The Health Research Strategy consultation revealed significant expectations exist on what our Partnership Programme will deliver and we have initiated a review which will influence what we do in that domain in 2017 and beyond.

Driving the knowledge out to the people that can use it

Robust investment processes are only the first step in ensuring that research is not wasted. As the National Statement of Science Investment identifies, our system must be built on the dual pillars of *excellence* and *impact*. The HRC is known for our focus on excellence, and we aim to maintain this because excellence is crucial for beneficial impact –that makes a positive difference. We have made good progress in identifying barriers to driving knowledge development and innovation with stakeholders in the Health Research Strategy consultation and we will strengthen our approach to this into the future.

However, perhaps our greatest challenge is in developing robust approaches to assessing *prospective impact* (in grant assessment processes) and evaluating *actual impact* (in our reporting). Wherever possible, we aim to ensure findings of the work we support are translated beyond the research and publication, into healthcare, health outcomes, health policy and the myriad of returns on investment that health research can produce.

We are committed to improving our systems, and our data, to better tell the story of the difference health research investment makes, and to quantify that difference. We appreciate the government's trust and confidence in us with the new investment and are looking forward to increasingly realise outcomes that matter for New Zealand.

I am pleased with the progress that has been made this year, but there is much work still ahead of us. I am excited by what I know we can achieve for New Zealand.

Dr Lester Levy,
CNZM
Chair

[1]Chalmers I, Bracken MB, *et al.* How to increase value and reduce waste when research priorities are set. Lancet 2014; 383: 156–65 Published Online January 8, 2014 http://dx.doi.org/10.1016/ S0140-6736(13)62229-1

Chief Executive's Summary

It has been an exciting year for the HRC, as we welcomed our new Chair, Dr Lester Levy in January 2016, and then embarked on the development of the first New Zealand Health Research Strategy with MBIE and Ministry of Health. This Strategy heralds an unprecedented degree of commitment, and indeed alignment across government and the wider sector, in terms of the health research vision and agenda. I attended many of the consultation meetings, and greatly enjoyed the frank exchange of ideas - which have informed not just the development of the Strategy document, but also our thinking of how the HRC can optimise our focus and processes to make this joint vision a reality. I would like to thank everyone who gave their precious time to help us in this endeavour. We expect to have a strategy in place by early 2017 and for this to inform our investment strategy in the years to come.

Another development to come out of the Refresh was the need for clear and consistent messages from government on strategic priorities. This has led to a revision of the Memorandum of Understanding between our two Ministers, meaning that they and their ministries will be working together more closely than ever before. This is good news for the HRC and for health researchers in New Zealand.

In the 2016/17 Budget process, the HRC received $97M in new funds over four years – a truly significant step-change in our ability to invest in high-quality research that benefits New Zealand and New Zealanders. This investment signifies the Government's trust and confidence in the HRC and what we can achieve with this new funding - some indication of which is provided in this report. On p8, we show how the work we do contributes to the five strategic themes of the New Zealand Health Strategy – providing a strong degree of alignment and support, even before the New Zealand Health Research Strategy reaches completion.

Although there is always more to do, we consider our performance against our measures in the past year to be strong. We have met the majority of our targets, and on the one Output measure where we have not approached the predicted performance, it was due to circumstances we could not control – the restructuring of the duties and responsibilities of the National Health Committee.

Through our Partnership Programme, we have established important new initiatives in the areas of breast cancer and long-term conditions – a tripartite agreement that includes the Ministry of Health and the Healthier Lives National Science Challenge. We have also commenced a partnership with PHARMAC to provide the evidence that they need to ensure the best health outcomes from pharmaceutical funding in this country.

HRC-funded research has featured in the media frequently in the past year because of the impact it has had. Just some examples being research on rental property 'Warrants of Fitness' being taken up and applied by both Dunedin and Wellington City Councils. Huge international interest has been generated by a new melanoma vaccine that helps the patient's immune system to fight the disease. This should be available within the next five years – a tremendous outcome following 20 years of HRC investment in the ground-breaking research. Research on combating superbugs means that we can now work out how bacteria evade our immune systems and prevent them from escaping the white blood cells that kill them.

In 2016, we have invested in research to improve outcomes for patients in intensive care units around the world and make strides in breaking the resistance to treatment of some of the most aggressive cancers. We are also supporting further work to contribute to the global effort to produce 'good drugs for bad bugs', as we seek to combat the growing threat of antibiotic resistance.

The HRC looks forward to working with the others in the science, innovation and health sector over the next twelve months to expand the benefit of health research for New Zealand and New Zealanders.

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 (HRC) 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, and updated in 2016.

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 26 years in 2016. 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 HRC is the Crown Entity with the primary responsibility for facilitating the Government's investment in health research.

Our primary objective is to generate the knowledge and discoveries needed to bring a healthier future for New Zealanders. We need to garner the evidence 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, p21), 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 Business, 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.

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. $92M per annum in health research, using stringent peer-review processes that maximise the value from the taxpayers' investment

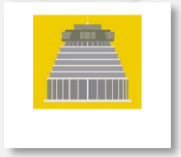
Attracting & retaining the best researchers & clinicians in New Zealand through our major programme of **career development awards**

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 to stakeholders & developing research **IT systems** for applicants to streamline processes & facilitate **data - sharing**

Our mission: Benefiting New Zealand through health research

These Outputs provide the framework for reporting in our Statement of Service Performance.

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.

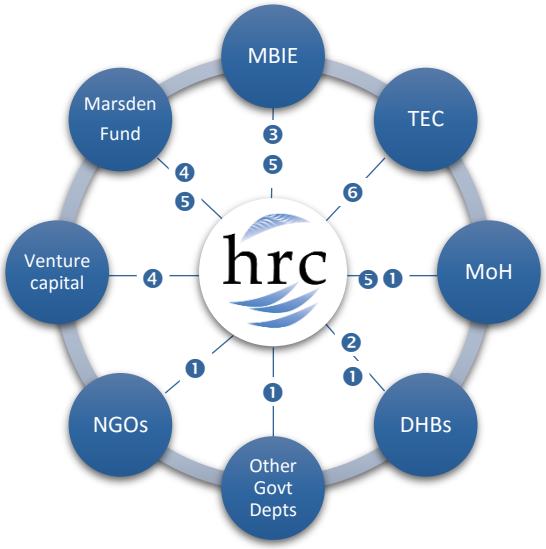
In 2016, we have been working with MBIE and the Ministry of Health on the New Zealand Health Research Strategy for the next ten years, the first national strategy that has ever been developed. This will be a very important document for all health research funders in New Zealand, but especially for the HRC. The Strategy will guide our strategic directions going forward and provide a shared vision, across government, on what we need to achieve from health research investment over the next decade.

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.

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.

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



❶ HRC Partnership Programme
❷ Research Partnerships for NZ Health Delivery
❸ National Science Challenges
❹ Co-funding
❺ Strategic alignment
❻ University-based health research

MBIE – Ministry of Business Innovation & Employment; TEC – Tertiary Education Commission; MoH – Ministry of Health; DHBs – District Health Boards, NGOs – non-government organisations

The relationship between the HRC and other agencies is shown in Figure 1. We are heavily focused on working collaboratively wherever possible to maximise the resources available for health research and capacity building.

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 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 the National Statement of Science Investments (NSSI). The HRC works with the science and innovation sector to deliver research within the priority framework (see the diagram on p9).

Additionally, we continue to work to simplify the processes for researchers seeking funding - to limit transaction costs and ensure value for money in the health research investment. Our efforts to attract and retain the best health researchers in New Zealand also directly deliver to the need to increase the number of excellent scientists outlined in the NSSI. Increasing the impact, responsiveness and uptake of the excellent research we fund is a key part of what we do, and impact and excellence are the two pillars on which the NSSI is built.

In the 2015/16 Letter of Expectations from the Minister of Health, particular emphasis was placed on the HRC's role in:

- 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).

How are we addressing Government goals, priorities and recommendations?

Addressing the Recommendations of the Government's Strategic Refresh of the HRC

In early 2015, the Ministry of Health in conjunction with MBIE undertook a strategic Refresh of the HRC. The resulting report, published in early 2016, provided us with some clear recommendations and addressing them has been a strategic priority in the last year - and will continue to focus our activities into 2016/17. This has 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, along with that from the consultation process for the New Zealand Health Research Strategy, will shape work going forward. Following on from this, we received a large increase in our budget for allocation. This will see investment substantially increased to $120M per annum by 2020.

Addressing our Minister's expectations

All Boards are expected to look for service improvements, and take opportunities to work with other entities to maximise system-wide efficiency and effectiveness. 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 2015/16:

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

The New Zealand Health Strategy – how we contribute to the strategic themes

People powered

We are:

- Reaching out to the New Zealand public using innovative ways to increase understanding of what we do & levels of 'health research literacy'
- Supporting development of public health interventions delivered through personal technology – such as mobile phones
- Raising the expectation that consumers will be involved in creating the research agenda, planning projects & disseminating the results

Closer to home

We are:

- Promoting a shared & co-ordinated research agenda across government agencies – through the National Health Research Strategy & through our Partnership Programme
- Working with the National Science Challenges to improve outcomes in long-term conditions
- Supporting the generation of a wealth of knowledge, diagnostics, predictive tools, interventions & treatments that will keep New Zealanders happy, healthy & living independently for longer

Value & ↑ performance

We are:

- Improving health services through working with stakeholders to ask the right questions, fill knowledge gaps, improve the quality, reach & parity of services, & generate an evidence-based culture to promote innovation & evaluation
- Directly plugging gaps in knowledge by providing a conduit between policy-makers & researchers through our Partnership Programme

One team

We are:

- Fostering collaboration across research disciplines, institutions & government departments
- Principal funder of research on health systems, with a Research for New Zealand Health Delivery investment stream designed to bring researchers & stakeholders together as teams

Smart system

We are:

- Supporting the development of decision-support systems in primary care
- Resourcing the population of major research databases of risk factors for serious health conditions that can be used as a national & international resource
- Working with the Ministry of Health to undertake health technology assessment for fast, cost-effective implementation of innovations
- Collecting & sharing large amounts of data on New Zealand health research and the health research workforce

All New Zealanders | live well | stay well

MBIE's National Statement of Science Investment 2015-2025 – how we build on the pillars of excellence and impact to bridge the gaps and support the vision

*Showing the key components of MBIE's strategy (**blue text**) in realising the vision for 2025, based on the pillars of impact and excellence, and the ways in which the HRC is working to bridge the gap (**black text**).*

Gaps to bridge in 2015

We need: more good scientists; a simpler more agile funding system; a focus on excellence & impact & evidence of tangible benefits from science for NZ people

Vision for 2025

A highly dynamic science system that enriches NZ, making a more visible, measurable contribution to our productivity & wellbeing through excellent science

Excellence

The best people

The prestigious **Sir Charles Hercus Health Research Fellowship, builds future research leaders**

A rigorous approach

Our investment processes involve over 700 national & international experts, doing both external & internal review of applications

Optimal results

Health research funded by the HRC is highly cited internationally & our data suggest that the **HRC outperforms other NZ funding sectors in terms of the quality & impact of publications** arising from investments in the majority of fields

Our results contribute to improving the health of our country and our economy, with **new diagnostics, pharmaceuticals & vaccines coming on stream & bringing the latest treatments to our people, as well as returns from commercialisation**

Impact

Improved population health & health status – especially for disadvantaged groups

World-leading **indigenous health research capacity-building & funding processes, only govt Pacific health research funding & career development programme in NZ,** monitoring & oversight of HRC research relevant to Māori, Pacific peoples, older adults, children & youth, & people with disability. Dedicated investment for **large, diverse portfolio of research on health & wellbeing – with emphasis on prevention**

Reduction in health maintenance costs

HRC-funded research highlights potential savings worth millions of dollars for our health system. We **bring researchers, clinicians & decision-makers together** through our Partnership Programme activities & our **dedicated funding for NZ health-delivery research**

Early detection & mitigation of health risks

Agile processes with **rapid response funding for emerging health threats**, large portfolio of applied biomedical research on **biomarkers & diagnostics, major investment in prevention & early diagnosis of diabetes, cancer and heart disease**.

Horizons of research activity

Generate new ideas

Our targeted- basic research **fuels NZ's innovation machine** with novel discoveries – with **Explorer Grants for transformational, high-risk research**

Develop emerging ideas

We have a track record of **supporting research over decades, resulting in new treatments for cancer & major breakthroughs** for cardiovascular disease patients & the understanding of dementia

Leverage proven ideas

Our investment feeds MBIE's health innovations portfolio with knowledge & **novel technologies for the global market**, & **adapts MBIE supported advances for direct applications in health**. We work with health decision-makers on vital **health technology**

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.

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

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.

The picture on the following page illustrates all the different factors that the HRC must consider when balancing the research investment.

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.

[2] 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.

Factors HRC considers when balancing the research investment

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

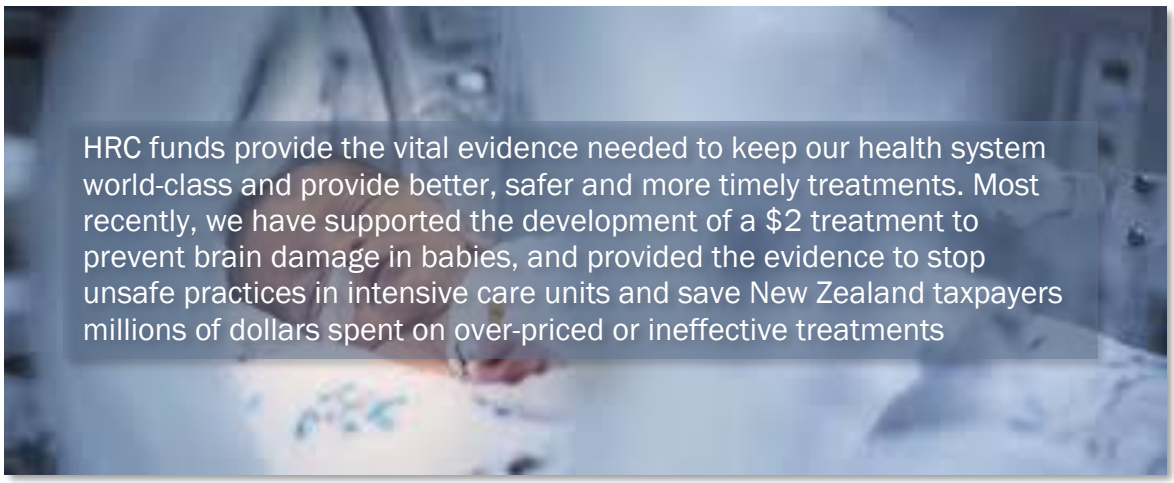
The HRC team

A strength of the HRC continues to be its highly skilled 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 the HRC team 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.

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

The HRC team works closely with both the Board and the HRC's statutory and standing



committees. Relationships between the HRC team, 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 prioritised 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.
- **A Data Information Report** provided to MBIE, for the purpose of monitoring the performance of Vote Business, 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.

Other reports

- **Investment Impact Report** – provided to MBIE and MoH every three years, 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.

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, which 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 delivering health research 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 2016, more than 30 different organisations received HRC funding, ensuring that investment is directed 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.

Equity Position

From a financial perspective, the goal of the HRC is to ensure that all funds appropriated by Parliament to the HRC are fully utilised in health research.

The HRC has built up reserves or Public Equity in its balance sheet totaling $14.1M at 30 June 2016 ($12.5M at 30 June 2015). This has occurred for two main reasons.

1. Research is unpredictable in terms of its execution and outcome. This drives changes in planned research time frames.
2. The HRC has ring-fenced funding for partnerships with other organisations. However, the rate at which research expenditure has taken place has not been as rapid as expected.

The focus of the HRC Board and Management is to manage these reserves in a prudent fashion, ensuring they are invested in high-quality research and therefore reduce as rapidly as possible.

As at June 2016, the HRC has undertaken to provide successful applicants grant funding in future years totaling some $241M (30 June 2015 $175M) - subject only to parliamentary appropriated funds being made available and applicants successfully meeting the grant criteria (and ongoing contractual requirements once the grant has been awarded). The funding of these undertakings will come from existing funding streams and the recently announced increase in funding for the HRC of $97M over the next four years.

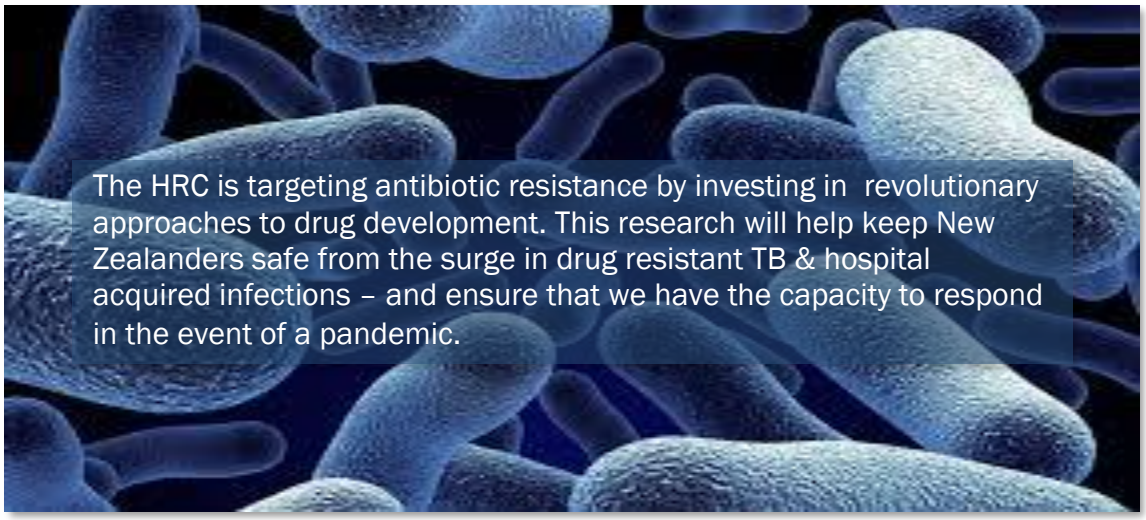
In addition, the HRC Board and Management have developed a strategy which will see reserves reduce to around $3.0M by June 2019. This will be done by:

- a redirection of reserves from the Partnership Programme into the HRC's Annual Funding Round;
- short-term increases in the numbers of approved applications through the HRC's Annual Funding Round;
- the implementation of a new research contract that will enable better reporting on impact and research progress to the HRC, and
- education of the research community about the importance of timely execution of contracts and good communication.

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. 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 few years. In all likelihood, this has nothing to do with the quality of the health research the HRC funds and everything to do with the extreme stress, disruption and on-going



uncertainty caused by frequent earthquakes and the ongoing disruption to daily living 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.

The HRC's outcome framework

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 prioritise 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.

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 improve health

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. Health research 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?

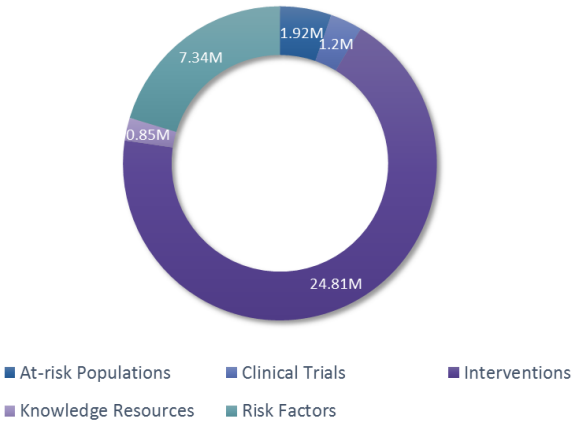
We maintain a strong focus on keeping New Zealanders healthy and productive …

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[3]. Our total investment in research in these areas over the last decade is approximately $124M (including investments committed through the 2016 funding round).

The graph opposite breaks down a decade of investment in research on smoking – showing that by far the greatest funds have been expended on prevention strategies and interventions. This research has made a major contribution to the achievement of New Zealand's Smokefree 2025 goal, and supports the Ministry of Health's objective of 'maintaining wellness for longer by improving prevention'. One example of this was the study reported by Scoop in May 2016, which showed

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

A breakdown of ten years of HRC investment in research on the impact of smoking on health and prevention strategies



that smokers who used a nicotine inhaler were twice as likely to quit smoking, compared with those inhaling one containing no nicotine. The study leader, Professor Julian Crane, commented on the significance of this discovery.

> *"New Zealand is a world-leader in tobacco control public policy and this new, home-grown development offers a world-first opportunity to help the 80% or more smokers who want to quit achieve their aims."*
>
> Professor Julian Crane

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 affects so many people, has such a significant impact on their lives and requires expensive drugs and treatments. The 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, particularly in respect to melanoma.

In our 2016 annual funding round, we are supporting a team looking at how **a newly discovered immune cell within melanoma tumours acts to block attacks from the patient's immune system – actually multiplying within the tumour to boost the cancer's defences**. This provides **a whole new approach to treatment of this aggressive and devastating cancer** that affects so many New Zealanders.

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 2016, we invested over $111M in improving understanding, prevention and treatment of heart conditions[4].

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. Also, our sustained investment in **children and youth health** has achieved media attention in the past year:

- ONE News reported on a study of the long-term impact of premature birth, that we have been funding since 1998. The internationally-acclaimed study followed 110 New Zealand babies from birth and found that **those born very prematurely suffer brain abnormalities that persist into late childhood, affecting their motor skills, IQ and social skills**.
- ONE News also reported on the biggest ever clinical trial on preterm nutrition that we have supported. This will investigate whether **giving specially boosted nutrition to preterm babies in the first, crucial days of life could prevent chronic diseases later in life and help intellectual development**.
- In April, Scoop reported more results from the HRC's long-term investment in housing insulation and health – showing that insulating houses keeps children out of hospital. **Retrofitting insulation to current standards in private rental housing reduces hospitalisation rates for children by 19%.**
- *Whānau Hauora*: the first years of life, starting from pregnancy, are crucial for good health outcomes and the long-term achievements of children as adolescents and adults. However, for Māori pregnant women and their tamariki, the social and health disadvantages are stark. **This HRC programme puts Māori pregnant women and children at the centre to explore the healthcare-delivery system and structural determinants of health** (e.g. housing, racism, transport, income and education) that impact on the health of Māori women and their babies and whānau. This will provide vital knowledge for designing maternity and child care that works for Māori.

... 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.

We have recently funded a number of studies with a focus on partnering with New Zealanders, particularly those that experience inequalities in health outcomes, to design health services that meet their needs. ***Honour Project Aoteroa* is the first project to explore the health needs of Takatapui**

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

Māori as a community and provide insights into processes through which health service delivery can serve their needs. It is informed by kaupapa Māori methodology, and will gather data as a basis for **understanding the complexities of being a minority group within an indigenous population**.

BODE3: Modelling preventative interventions to improve health and social outcomes – is **an investment in optimising preventative care in New Zealand**. The study will quantify the impact of a range of dietary and physical activity interventions on health inequalities and estimate the societal benefits, costs and cost-effectiveness.

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.

... 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 poor 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 over 500 peer-reviewed publications disseminating the findings through the international literature**.

Our latest 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 over **200 international collaborations**. These collaborations illustrate that our teams are both contributing to and benefiting from the global efforts in their area of expertise. 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:

- The New Zealand arm of the International Tobacco Control (ITC) project - a leading ITC collaboration aims to support the achievement of NZ's Smokefree 2025 goal and promote equal enjoyment of the health, social and economic benefits that follow among Māori, Pacific peoples, and lower socio-economic groups. **The study will evaluate the impact of**

interventions within the cohort and through cross-country comparisons with other ITC countries, including an indigenous cohort in Australia.

- Following on from the discovery that the application of a glucose gel in the mouth of newborns at risk of low blood glucose prevents brain damage at a cost of $2 per baby, the study team will work with researchers in the US (Stanford University and the University of Colorado) and Canada (McGill University) to follow up trial babies to determine if there are benefits or adverse effects at two years of age. **Since approximately 30% of babies are born at risk of hypoglycaemia, hence may be eligible for dextrose gel if it proves effective, this evidence of longer term efficacy and safety will be essential before introduction into clinical practice**.
- Fluid resuscitation is a fundamental component of the management of critically ill patients and the choice of fluid is a longstanding issue of debate. While 0.9% saline is the most commonly used worldwide, recent data suggest that the high chloride content in 0.9% saline might have clinically important adverse consequences and that resuscitation with so-called 'balanced fluids' might achieve better patient outcomes. Despite this, the safety and efficacy of one over another has not been tested in a high-quality, large-scale randomised controlled trial. We are funding an 8800-participant, multicentre, double-blind, randomised controlled trial to determine whether fluid resuscitation and therapy with a 'balanced' crystalloid solution (Plasma-Lyte 148® [PL148]) compared to saline decreases day 90 mortality in critically ill patients. **The study will be conducted in 40 ICUs in New Zealand and Australia, all major ICUs in New Zealand will participate.**

… 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 2013 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 20 proposals supported to date[5] 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 2015.** 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

[5] Including those successful in the 2016 funding round.

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 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.

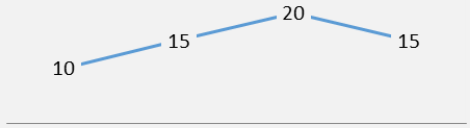
Using our main metric for health research excellence – peer-reviewed publications – we can monitor and measure the return on our investment, through cost per publication. The greater the number of publications in international journals, the greater the global profile of our researchers. This gives us 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: *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 2015/16 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 – which we will report on in 2017, when we will also produce our new Statement of Intent. 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.

Outcome 1: Key impacts, performance indicators and targets

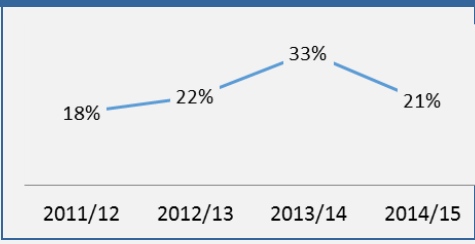
Annual performance indicator	Baseline	Actual 2015/16	Target 2015/16
Medium-term indicator, 2017: **New Zealanders benefit from HRC's focus on prevention research** *Target:* A public-health intervention (see Glossary, p108) is implemented across multiple centres as a result of HRC-funded research. We have already met this target and will report in 2017.			
1. Number of public-health intervention contracts tracked by the HRC		23	18

Performance: Achieved

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 prioritised resources to increase the number of projects that we track in this way over the next three years.

Impact — **A strong research focus on keeping New Zealanders healthy & productive**

Medium-term indicator, 2017: **'Cross-pollination' of innovative research between HRC & MBIE** *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) *(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		46%	18%

Performance: Achieved

There has been an unusually large number of contracts funded in the 2015/16 year, and an unusually high number of contracts that meet this criterion. We can think of no obvious reason for this, other than the normal, random, variation in terms of the nature of the research submitted.

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.

Impact — **Innovative health technologies & therapies develop**

Annual performance indicator	Baseline	Actual 2015/16	Target 2015/16
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). We will report on this in 2017. *(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 6.7 in 2001/02	Triennial measure	6.0

Impact

New Zealand research contributes to national & international advances

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 20th 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 prioritise 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 2016, **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 hypoglycaemia that keeps newborns out of the neonatal intensive care units, mentioned under Outcome 1. 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)[6].

In 2016, we committed a further $16M to research providing evidence to improve the cost-effectiveness or reduce costs in the healthcare sector. This includes a timely project looking at **reducing the number of New Zealanders that succumb to gastroenteritis caused by protozoan, bacterial and viral contamination of drinking-water supplies each year – currently tens of thousands of individuals**. This has had a major impact on our health services in Havelock North and surrounding districts. Current tools available for assessing microbial removal from water supplies are limited to E. coli and turbidity. This research will test new technology for detecting Cryptosporidium, rotavirus and adenovirus assessing both the practicality and cost-effectiveness of the new tests.

A team in the Hawkes Bay are **testing the effectiveness and cost-effectiveness of an intervention to prevent the progression of prediabetes to type 2 diabetes** (T2DM) in the primary care setting. Prediabetes is a high-risk state for T2DM and cardiovascular disease. Regression to normal blood glucose levels significantly reduces risk, even if regression is transient. In New Zealand the prevalence of diabetes is 7% and the prevalence of prediabetes is 26%. Primary

[6] 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.

care-based lifestyle advice needs to be more effective if prediabetes is to be well managed and cases of T2DM prevented. The team will **determine if there are clinically relevant and modifiable differences between those with prediabetes who regress to normal glucose levels at 6 months, and those who do not**, following participation in their structured practice nurse-delivered dietary intervention. Results will inform more effective prediabetes management and clinical decision-making. **Established networks will facilitate widespread adoption of the novel prediabetes intervention tool.**

In 2016, we have funded a study to **determine the correct dose of oxygen to provide to patients who require life-support.** More than 20,000 New Zealanders (and 20 million people globally) are admitted to an ICU annually. ICU patients are the sickest patients in the hospital, most require life-support (invasive mechanical ventilation), and many die from their critical illness. **Supplemental oxygen is universally administered to patients who require life-support but the correct dose of oxygen to provide is currently not known**. Providing a dose that is either too high or too low may have serious long-term consequences for the patient – with the associated social and healthcare costs, including extending their stay in the high-cost intensive care environment.

... 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 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.**

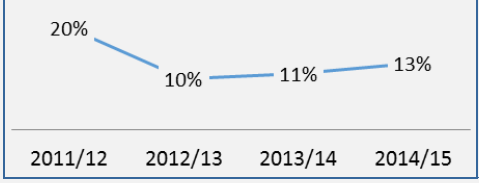
How have we measured our success?

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.

Are we on track to achieve this outcome?

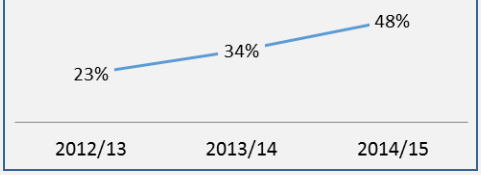
Although we have not met all of our targets, the results do show that we are investing in, and making progress towards achieving our critical goal of improving the healthcare system through research evidence and innovation. Unfortunately, we were just below the target we have set ourselves for the quantum of research we want to fund (15 percent of annual research budget), as this area of research is still relatively new. However, we are confident that the quality of proposals and the experience of research teams will grow each year. Therefore, the HRC is committed to continuing to make 20 percent of annual funds available to support high quality research in this vital area. We have well exceeded our target for engaging researchers based at a DHB or PHO in HRC-funded research. We are also continuing our support for research focused on finding new and innovative tools for disease prevention, detection, screening, diagnosis, treatment and decision making.

Outcome 2: Key impacts, performance indicators and targets

Annual Performance Indicator	Baseline	Actual 2015/16	Target 2015/16	
Medium-term indicator, 2017: **HRC-funded research contributes to improved clinical practice, decision-making & healthcare policy in New Zealand** *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[7] and RPNZHD[8]		9%	15%	Impact **Research that improves the quality, cost-effectiveness & sustainability of NZ's health system is prioritised**

Performance: Not achieved
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. We are disappointed not to meet our target this year, and are looking at the way these contracts are assessed in the future, and options to increase funding in this space.

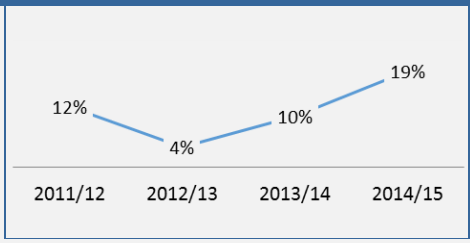
About this indicator
These two investment tools are comparatively recent. The ability of the research sector to respond to the Investment Signals will gradually increase the longer they are in place. We want to grow the investment in high-quality research that makes an immediate contribution to our health 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** *Target:* 35% of new contracts are led by a principal investigator engaged in health delivery (currently 52%) – our medium-term target has been met				
2. Percentage of current contracts with a named investigator based at a DHB or PHO		52%	20%	Impact **Research is easily accessed, understood & applied by end-users**

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 prioritised 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.

[7] The New Zealand Health Delivery Research Investment Stream
[8] Research Partnerships for New Zealand Heath Delivery contracts, under our Partnership Programme.

Annual Performance Indicator	Baseline	Actual 2015/16	Target 2015/16
Medium-term indicator, 2017: **HRC research underpins the creation of new health technologies & innovations** *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		5%	20%

Performance: Not achieved

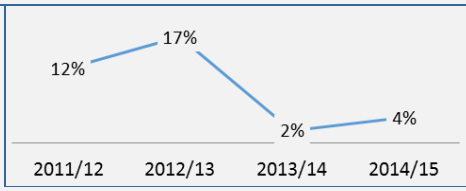
In the 2014/15 year, we all but reached our ambitious target of one-fifth of applications focused on clinical application of innovations. However, fewer applications in this field were considered fundable in 2015/16 and we have fallen well short of our target this year. We are reviewing the way that clinical research applications are reviewed for future funding rounds and considering new partnership models. It is worth noting that we do not included our new Partnership Programme contracts and RPNZHD contracts in this measure – which would most likely lift the percentage. This measure relates purely to contracts funded through our Annual Funding Round. The trend data suggests that we have set the target too high whilst we are attempting to build capacity in this area.

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.

Impact

HRC research contributes to earlier diagnosis & better treatments for New Zealanders living with serious conditions

4. Percentage of new contracts focused on innovative clinical decision-making tools & models of care		10%	12%

Performance: Not achieved

In the previous 2 years, we have identified 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. This year's result, while still slightly below our target, seems to imply that the number of applications is gradually increasing again.

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.

Research that improves the quality, cost-effectiveness& sustainability of New Zealands health system is prioritised

Outcome 3: The best clinicians and health researchers are 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 **2923 research positions, we provide 133 researchers with career development awards**, and support **286 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 (CDA).

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:

- **42%** of researchers named on contracts **are clinically trained** and of these clinicians, **66% are practising**
- **57% 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 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 **13 percent of named individuals identifying as Māori.** Of whom nearly 34% are senior researchers, with a further 19% categorised as emerging. In 2015/16, 11 Māori CDA recipients were allocated $1.68M.

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 89 research positions**, making up 3 per cent of our workforce. A third are emerging researchers (33 individuals, 37%), and quarter are senior researchers (26 individuals, 29%). In 2015/16, 11 Pacific CDA recipients were awarded $1.35M.

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.

The recently launched 2017 Annual Funding Round includes the introduction of Project grants specifically targeted towards Pacific health. This is a new approach, as previously the HRC investment in Pacific health research has been through building capacity and capability. The aim of these grants has been to support high-quality Pacific health research in priority areas that will achieve better outcomes for Pacific peoples, families and communities, and to provide funding support for early to mid-career Pacific health researchers.

... 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.**

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 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.**

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.

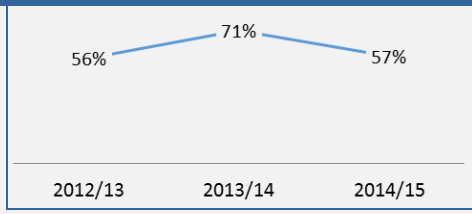
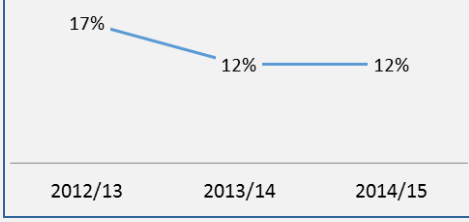
Our measures in this section also focus on the retention of career development award recipients in the health research sector. The number of career development awardees who stay engaged in health research is a critical measure of the success of our career development opportunities. Retention of emerging 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?

All of the targets we set for 2015/16 have 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 2015/16	Target 2015/16	
Medium-term indicator, 2017: **The HRC nurtures new research talent** *Target:* 100% of former Sir Charles Hercus Fellowship recipients retained in research (currently 100%) *(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		69%	55%	Impact **Promising emerging researchers gain valuable research experience**
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** *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		13%	12%	Impact **NZ has the capacity to address the needs of our unique population**
Performance: Achieved We have reached our target for the percentage of the named workforce that identify as Māori, by the number of positions held. However, 17% of FTE's are contributed by Māori researchers on contracts, and this may in fact be a better measure than the number of positions. ***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**.

By working in partnership, the HRC is currently **leveraging an additional $1.25 for every dollar we invest, although in previous years we have leveraged three times this amount ($3.91 in 2014/15).**

… 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**.** In the ten years between 2006 and 2016, approximately **$347.5M** 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 2016, we invested nearly $95.1M in Pacific health research contracts**.

... 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 2015 year, 53% percent of our on-going contracts were translational – up from 18 percent in 2008. Of these, 85 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 **the majority 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.

... 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?

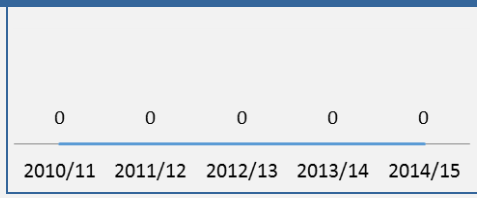
The performance indicators that we have set for this outcome relate to the HRC's role in running robust assessment processes that are trusted and successful in identifying the highest quality research with the greatest potential to improve health outcomes; our engagement with end-users; and our capacity 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 2015/16 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

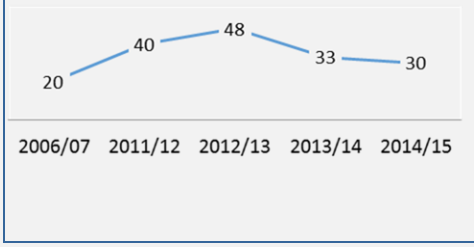
Annual performance indicator	Baseline	Actual 2015/16	Target 2015/16	
Medium-term indicator, 2017: **The HRC continues to attract the number & quality of experts needed to run a best-practice, peer-reviewed funding process** *Target:* Zero appeals against HRC funding decisions *(Link to Statement of Performance Expectations – no corresponding Output)*				
1. Number of appeals for reconsideration of an HRC funding decision by the Board		0	0	Impact **New Zealand has a high-quality & consistent system of ethical review**

Performance: Achieved

There have been no appeals for reconsideration of a funding decision by the Board.

About this indicator

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.

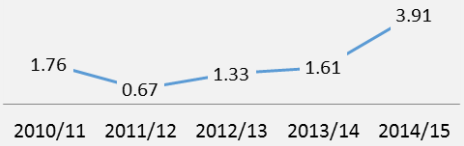
Medium-term indicator, 2017: **HRC forms strategic partnerships to maximise the utility & benefit of health research** *Target:* (1) 2 new partnerships with end-users; (2) 2 new health technologies/treatments implemented as a result of research funded in partnership with the National Health Committee *(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		24	40	Impact **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 24 active partnerships is a reasonable result, given the comparatively low level of investment. However, we will be reviewing the Programme in the coming year with a view to improving the model, reducing transaction costs and increasing 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.

Annual performance indicator	Baseline	Actual 2015/16	Target 2015/16	
3. Dollar value of co-funding leveraged through the Partnership Programme		$1.25	$1.00	Impact **Strategic partnerships engage end-users, leverage benefit & improve research uptake**

Performance: Achieved
The HRC aims for a 'dollar-for-dollar' leverage model and so this result exceeds our expectations. However, it is clearly possible to leverage a greater investment, as we have done so in the past and this will be part of the review of the Programme.

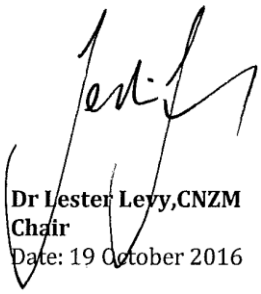
About this indicator:
One of the goals of the Partnership Programme is to leverage HRC funds to gain greater funding, collaboration and support for high-quality health research that addresses specific national knowledge needs. The ratio of HRC investment to our partners' investment is an indicator of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

Statement of responsibility

For the year ended 30 June 2016

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 2016.



Dr Lester Levy,CNZM
Chair
Date: 19 October 2016

Board Member
Professor Andrew Mercer
Date: 19 October 2016

Statement of objectives and service performance

For the year ended 30 June 2016

© Paparico | Dreamstime.com - 3 Feathers Photo

HRC Outputs

Introduction

The funding the HRC receives from the 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 2015/16	Actual 2016 $(000)	Budget 2016 $(000)	Actual 2015 $(000)
Funding from Crown	73,031	73,042	73,048
Interest Received	256	190	662
Other	–	753	513
Total Revenue	73,287	73,985	74,223
Cost of Output	73,256	74,422	76,661
Surplus (Deficit)	31	(437)	(2,438)

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.

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,

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

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 improve health.
- Outcome 2: The healthcare system is improved through research evidence and innovation.

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.

Performance indicators for Output 1: Health research contracts

Annual performance indicator	Baseline	2015/16 Actual	2015/16 Target
Outcome: New knowledge solutions and innovations improve health			
1. Average number of expert reviewers engaged in assessing each research proposal for the Annual Funding Round	3.7 2014/15	3.5	3-5

Performance: Achieved

About this indicator

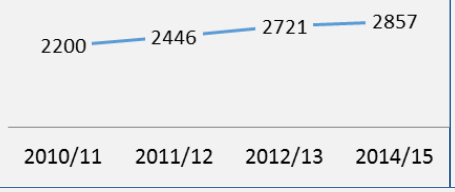
One of the key tenets of the HRC's approach to commissioning research is ensuring that the applications are reviewed by experts in the field with the appropriate expertise to judge if the research will make an original and valuable contribution to existing knowledge in an area. Many funders are struggling to maintain a rigorous peer-review process due to the numerous competing demands on health research experts. We are proud of our ability to maintain our high standards in this area.

2. Time between receipt of Expressions of Interest to invitation to proceed to full proposal	2.5 months (2013/14)	2.7 months	2-3 months

Performance: Achieved

About this indicator

The HRC runs a two-stage process, starting with receipt of Expressions of Interest. Timeliness in making funding decisions is critical. Applicants need to know as early in the process as possible if they are not likely to be supported, so they can make alternative arrangements to resource their research. Similarly, those who will be invited to submit a full application need to know as soon as possible so that they can plan and have an indication of when funding is likely to commence. Even Expressions of Interest are subjected to a peer-review process. Consequently, we must maintain a tight schedule for external and internal assessment and announcement of results.

Outcome: The best clinicians & health researchers are supported & retained in NZ			
3. Number of salaried research positions on HRC contracts		2923	1500-1800

Performance: Achieved

We are exceeding our target for workforce positions. Given the upward trend, and the fact that we will have an increased budget for 2016/17, we will increase our target for the next financial year.

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.

Annual performance indicator	Baseline	2015/16 Actual	2015/16 Target
Outcome: The impact, responsiveness and uptake of research is increased			
4. Percentage of Māori experts on the committee reviewing research proposals that are led by Māori	100% (2013/14)	100%	80-100%

Performance: Achieved

About this indicator

If we are to generate research findings that are accepted and taken up by the Māori community, we must maintain specialised funding processes that incorporate Māori values, knowledge and expertise. We do this by tailoring our peer-review process specifically to Māori research, so that applicants know that the cultural importance and relevance of their methodologies and ideas will be understood and appreciated. The number of Māori reviewers involved in this process is a good measure of how successfully we are doing this.

Output 2: Career development contracts

Cost 2015/16	Actual 2016 $(000)	Budget 2016 $(000)	Actual 2015 $(000)
Funding from Crown	5,898	5,899	5,899
Interest Received	239	202	316
Other	–	65	41
Total Revenue	6,137	6,165	6,256
Cost of Output	6,900	6,104	6,715
Surplus (Deficit)	(763)	62	(459)

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 30 June 2016, there were 154 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

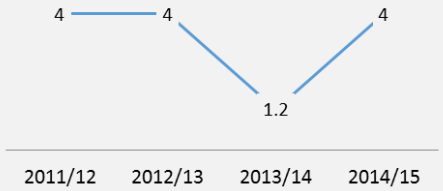
Career development contracts awarded through this Output deliver to the following outcomes:

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

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	2015/16 Actual	2015/16 Target
Outcome: The best clinicians & health researchers are supported & retained in NZ			
1. Average number of HRC Project or Programme contracts awarded to Sir Charles Hercus Postdoctoral Fellowship (SCHPF) award recipients		3.4 Jan 2016	2-5

Performance: Achieved

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 12 years, and so the number of previous awardees included in the analysis is relatively small (26 in 2016). The analysis is done annually at the beginning of the year, and so the baseline does not correspond to a financial year.

2. Number of Pacific Health Research Scholarships awarded (including Masters, PhD and postdoctoral awards)	6 (2014/15)	11	4-8

Performance: Achieved

We have increased our focus on Pacific workforce development with the introduction of two new types of scholarship.

About this indicator

Pacific peoples in New Zealand are faced with the greatest disparities in health in comparison to the rest of the population. If this is to be meaningfully addressed, we need to build the capacity and capability for Pacific people to build the body of knowledge required to find solutions that work within their community. Currently, this capacity is low. We are working hard to build it and have increased the number of Pacific Health Research Scholarships awarded in recent years.

3. Number of Māori Health Research Scholarships awarded (including Masters, PhD and postdoctoral awards)	9 (2014/15)	11	6-10

Performance: Achieved

About this indicator

The HRC has ring-fenced funding for Māori health research for well over a decade, whilst simultaneously offering a broad spectrum of career development awards to Māori researchers to ensure that they have the skills and experience to compete for this funding. Maintaining this capacity is critical to what we are trying to achieve.

Output 3: Co-funding relationships

Cost 2015/16	Actual 2016 $(000)	Budget 2016 $(000)	Actual 2015 $(000)
Funding from Crown	4,164	3,917	4,115
Interest Received	330	54	105
Other	646	39	29
Total Revenue	5,139	4,009	4,249
Cost of Output	2,942	4,870	1,658
Surplus (Deficit)	2,197	(861)	2,591

Scope of the Output

Through research co-funding relationships, the HRC can maximise the investment in health research. By using Vote Business, 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.

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.

In 2015/16, the **HRC, Ministry of Health, and the Healthier Lives National Science Challenge** have entered into a partnership to fund research supporting the development of effective, research-led approaches that can be implemented across the health system to reduce or prevent the impact of long-term health conditions on New Zealanders. Also new this year, **the HRC and PHARMAC have formed a joint research initiative to support innovative research and advance the strategic objectives of both organisations**.

Catalyst Crown Fund

The Catalyst Crown Fund (CCF, previously The International Relationships Fund) 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 CCF 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).

New developments in 2015/16 include:

- Professor John Windsor has received funding ($0.4M) through the **New Zealand-China Strategic Research Alliance.** This programme aims to facilitate the development of research collaborations between New Zealand researchers and international colleagues. Professor Windsor's research focuses on reducing gut dysfunction and organ dysfunction in severe acute pancreatitis. Methods for optimising resuscitation (by

using haematocrit to direct it and by supplementing with ethyl pyruvate) and protect the gut (by a proven oral decoction of Chinese herbs) will be tested in experimental studies (based in Auckland) which will directly impact the design of a randomised clinical trial of optimised fluid resuscitation (based in Chengdu). The impact of this project will be far-reaching because of its relevance to many acute diseases, especially in high-risk groups (including Māori).

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 16/17 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 whom are encouraged to make full applications. A New Zealand researcher (currently based in Australia) was successful in gaining an award in 2016. 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 prioritised 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.

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.

A coalition of experts in tropical infectious diseases led by University of Otago's Professor John Crump have secured about $0.45M in funding for research **investigating causes of**

fever and how patients with fever are managed in Myanmar and Lao Peoples Democratic Republic.

No new calls were issued for the EU, US or China collaborations. However, the existing projects continue to progress. For China, we are continuing to invest in non-communicable diseases – building on our existing two projects.

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

- Outcome 1: New knowledge, solutions and innovations improve health.
- Outcome 2: The healthcare system is improved through research evidence and innovation.
- Outcome 4: The impact, responsiveness and uptake of health research is increased.

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.

Performance indicators for Output 3: Co-funding relationships

Annual Performance Indicator	Baseline	2015/16 Actual	2015/16 Target
Outcome: The healthcare system is improved through research evidence & innovation			
1. Number of Research Partnerships for NZ Health Delivery (RPNZHD) contracts awarded	4 2014/15	4	4

Performance: Achieved

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 four new projects per year.

2. Number of new contracts supported through the Health Innovation Partnership fund	2 2013/14	0	2

Performance: Not achieved

We have been unable to support new contracts under this activity as a result of the restructuring of the duties and responsibilities of the National Health Committee in 2016, and the absorption of their functions into the Ministry of Health. Both the Ministry and the HRC remain committed to this important venture and we anticipate that we will resume joint investment in research in the coming financial year.

About this indicator

This partnership provides much needed evidence on the utility and cost-effectiveness of health technologies.

Output 4: Contribution to policy, regulatory and ethical frameworks

Cost 2015/16	Actual 2016 $(000)	Budget 2016 $(000)	Actual 2015 $(000)
Funding from Crown	285	285	285
Interest Received	–	–	–
Other	–	7	–
Total Revenue	285	292	285
Cost of Output	240	300	217
Surplus (Deficit)	45	(8)	68

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: The impact, responsiveness and uptake of health research is increased.

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	2015/16 Actual	2015/16 Target
Outcome: Health research in NZ is ethical and safe			
1. Number of *Ethics Notes* published to inform researchers of issues on ethics in health research	3 2013/14	2	1-3
Performance: Achieved ***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. We are planning to reduce this to an annual publication, as there is insufficient content to justify two.*			
2. Percentage of appeals resolved within the target timeframe of 6 weeks from acceptance of the appeal	New measure	N/A	100%
Performance: Not measured We were unable to calculate this measure because we received no appeals in the timeframe. This is a positive thing, as it means that no applicants thought that they had been dealt with unfairly and so no intervention was required from the HRC. ***About this indicator*** *Timeliness is key for responding to appeals on the decision of an HDEC because researchers cannot proceed with their work until a resolution is obtained, funders cannot release the funds, and the HDEC cannot close the case. Although we get few appeals (there has not been one since 2013), this is an important function for the HRC.*			
3. Number of HDECs reviewed & approved by HRC annually	4 2013/14	4	4
Performance: Achieved ***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. Approving HDECs is an important role for the HRC and so we continue to set targets.*			

Statement of Comprehensive Revenue and Expense

for the year ended 30 June

	Note	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Revenue				
Funding from the Crown	2	83,377	83,142	83,347
Interest Revenue		825	683	1,083
Other Revenue		646	731	583
Total Income		**84,848**	**84,556**	**85,013**
Expense				
Research Grant costs	3	78,796	81,000	80,960
Operational costs				
Assessment and Council Committee costs		912	908	890
Personnel costs		2,741	2,691	2,601
Depreciation and amortisation expense		76	39	49
Fees to Audit New Zealand for the audit of the financial statements		61	61	59
Other costs		752	997	691
Total operational costs		**4,542**	**4,696**	**4,290**
Total Expenses		**83,338**	**85,696**	**85,250**
Surplus/(Deficit)		**1,510**	**(1,140)**	**(237)**
Total comprehensive revenue and expense		**1,510**	**(1,140)**	**(237)**

Statement of Changes in Equity

for the year ended 30 June

	Note	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Equity at the beginning of the year		14,335	13,094	14,572
Total comprehensive revenue and expense for the year		1,510	(1,140)	(237)
Equity at the end of the year	**5**	**15,845**	**11,954**	**14,335**
Represented by				
Public Equity		14,159	9,990	12,478
Foxley Estate Reserve Fund		1,686	1,964	1,857
Total Equity at 30 June	**5**	**15,845**	**11,954**	**14,335**

The accompanying accounting policies and notes form part of these financial statements

Statement of Financial Position

as at 30 June

	Note	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Current Assets				
Cash at Bank		812	650	1,112
Short Term Deposits	4	18,371	11,812	15,782
Funds held on behalf of – Other Agencies	4	16,418	17,773	18,363
Funds held on behalf of – Foxley Estate	4	1,686	1,967	1,857
Receivables		1,079	361	545
Total Current Assets		**38,366**	**32,563**	**37,659**
Non-Current Assets				
Property Plant & Equipment		348	222	42
Intangible Assets		103	10	113
Total Non- Current Assets		**451**	**232**	**155**
Total Assets		**38,817**	**32,795**	**37,814**
Current Liabilities				
Payables		466	417	513
Contract Retentions		4,646	2,430	3,611
Employee Entitlements		190	133	174
Rental Benefit in Advance		21	0	0
Unearned Management Fees		468	544	603
Funds held on behalf of other agencies	4	2,346	2,861	5,827
Total Current Liabilities		**8,137**	**6,385**	**10,728**
Non-Current Liabilities				
Funds held on behalf of other agencies	4	14,655	14,456	12,751
Rental Benefit in Advance		180	0	0
Total Non-Current Liabilities		**14,835**	**14,456**	**12,751**
Total Liabilities		**22,972**	**20,841**	**23,479**
Net Assets		**15,845**	**11,954**	**14,335**
Equity				
Public Equity		14,159	9,990	12,478
Foxley Estate Reserve Fund		1,686	1,964	1,857
Total Equity	5	**15,845**	**11,954**	**14,335**

The accompanying accounting policies and notes form part of these financial statements

Statement of Cash Flow
for the year ended 30 June

	Note	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Cash flows from operating activities				
Cash was provided from				
Receipts from the Crown		83,377	83,142	83,347
Interest received		871	683	1,124
Other Revenue		683	731	384
		84,931	84,556	84,855
Cash was applied to				
Payments to suppliers		(79,520)	(83,034)	(82,028)
Payments to employees		(2,719)	(2,691)	(2,335)
GST		(279)	36	(91)
		(82,518)	(85,689)	(84,454)
Net cash flow from operating activities	11	**2,413**	**(1,133)**	**401**
Cash flows from Investing activities				
Cash was provided from				
Funds held on behalf of other agencies		3,654	7,070	5,176
Maturing Term Deposits		106,666	110,828	118,559
		110,320	117,898	123,735
Cash was applied to				
Funds paid on behalf of other agencies		(5,738)	(6,825)	(7,866)
Reinvestment of Term Deposits		(107,140)	(109,822)	(115,614)
Purchase of Property Plant & Equipment		(155)	(118)	(151)
		(113,033)	(116,765)	(123,631)
Net cash flow from investing activities		**(2,713)**	**1,133**	**104**
Net increase (decrease) in cash held		**(300)**	**0**	**505**
Cash at Bank beginning of year		1,112	650	607
Cash at Bank end of year		**812**	**650**	**1,112**

The accompanying accounting policies and notes form part of these financial statements

Notes to the Financial Statements
For the year ended 30 June

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 Crown Service Enterprise Act 2002 and the HRC 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 the HRC are for the year ended 30 June 2016, and were approved by the Board on 19 October 2016.

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. HRC has elected to early adopt Disclosure Initiative (Amendments to PBE IPSAS 1), issued in July 2015, which apply to reporting periods beginning on or after 1 January 2016. The early adoption of these amendments only affects the presentation and disclosure of the financial statements. There are no other new standards, amendments to standards and interpretations that have been issued but are not yet effective that are applicable to HRC for the year ended 30 June 2016

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.

Presentation currency and rounding

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

Summary of Significant Accounting Policies

Significant accounting policies are included under the note to which they relate. Significant accounting policies that do not relate to a specific note are outlined below.

a) Revenue

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 revenue received in advance and recognised as revenue when the conditions of the grant are satisfied.

Interest revenue
Interest revenue 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.

Summary of Significant Accounting Policies (continued)

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 non-exchange revenue when control over the asset is obtained.

b) Expenditure

Capital Charge

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

c) Property Plant & Equipment and Intangible Assets

All property, plant and equipment (PP&E) and intangible assets (IA) are stated at cost less accumulated depreciation or amortisation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition and development of the items. Where an asset is acquired in a non-exchange transaction for nil or nominal consideration the asset is initially measured at its fair value. Subsequent expenditure is capitalised only if it is probable that the future economic benefits associated with the expenditure will flow to HRC and the cost can be measured reliably. All other repair, maintenance and costs of day-to day servicing are recognised in surplus or deficit as incurred. The costs of self-constructed assets are recognised as work in progress and not depreciated or amortised until the assets are operating in the manner intended, at which time they are transferred to PP&E or IA. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount of the asset, and are reported net in the surplus or deficit.

Depreciation and amortisation are recognised in surplus or deficit and are calculated to write off the cost of items of PP&E and IA less their residual values using the straight-line method over their useful lives as follows. The assets' residual values and useful lives are reviewed, and adjusted prospectively, if appropriate, at the end of each reporting period.

PP&E	Office and computer equipment	3 to 5 years	20 – 33%
PP&E	Leasehold improvements	5 years	20%
IA	Acquired computer software	3 Years	33%
IA	Developed computer software	5 Years	20%

d) Impairment of property, plant & equipment and intangible assets

HRC only holds non-cash-generating assets as no assets are used to generate a commercial return. PP&E and IA 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.

Summary of Significant Accounting Policies (continued)

e) Contract Retentions

Contract retentions relate to amounts withheld equivalent to one month's funding for each year of the term of the health research contract until such time as a contractor provides a final research report. The contract funding retention is recognised as a financial liability at the end of the contract term, until such time as the funding withheld is paid when the final research report is completed and provided to HRC.

f) 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.

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.

Contributions to 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.

g) Receivables

Short-term receivables are recorded at the amount due, 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.

h) Payables

Short-term payables are recorded at the amount payable.

i) 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.

j) 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.

Summary of Significant Accounting Policies (continued)

k) 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. Explanation of major variances against budget are provided in note 15).

l) Cost allocation

HRC has determined the cost of outputs using the cost allocation system outlined below. There have been no changes to the cost allocation methodology since the date of the last audited financial statements. 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.

m) 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. There are no 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.

n) 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. HRC has 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.

Notes to the Financial Statements (continued)

Note 2 - Revenue from the Crown

	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Non-exchange revenue			
Ministry of Business, Innovation and Employment (MBIE)	83,092	82,857	83,062
Ministry of Health (MoH)	285	285	285
	83,377	**83,142**	**83,347**

Accounting Policy

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

Funding from the Crown
HRC is primarily funded from 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.

Restrictions attached to revenue from the Crown
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.

Note 3 - Research Grant Expenditure by Parliamentary Appropriation

	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Vote Health & Society Research	77,327	78,540	79,496
Vote Vision Matauranga	1,084	1,954	1,285
Vote International Relationships	385	506	179
	78,796	**81,000**	**80,960**

Accounting policy

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.
Critical judgements in applying accounting policies

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.

Notes to the Financial Statements (continued)

Note 4 – Cash, Short term deposits and Funds held on behalf of other agencies

Accounting policy

Cash and cash equivalents include cash on hand, deposits held on call with banks. The carrying value of short term deposits which are invested with maturity dates of four months or less approximates their fair value.

Interest Rates
In FY2016 the effective interest rates on deposited funds ranged from 3.11% pa to 4.40% pa.

Restricted use of funds
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. The release of those funds to research projects are approved jointly by HRC and partners. Funds held on behalf of the Foxley Estate are pursuant to an HRC resolution to hold the bequested funds to support the Foxley Fellowship from the interest earned by the fund.

Notes to the Financial Statements (continued)

Note 5 - Equity	Actual 2016 $000	Budget 2016 $000	Actual 2015 $000
Movements in Equity			
Public Equity			
Balance 1 July	12,478	11,235	12,795
Surplus/(deficit) for the year	1,510	(1,140)	(237)
Transfer of Net Income from/(to) Foxely Reserve Fund	171	(105)	(80)
Balance 30 June	14,159	9,990	12,478
Foxley Reserve Fund			
Balance 1 July	1,857	1,859	1,777
Transfer (to)/from Accumulated Surplus/(deficit)	(171)	105	80
Balance 30 June	1,686	1,964	1,857
Total Equity at 30 June	**15,845**	**11,954**	**14,335**

Accounting policy

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.

Foxley Estate Reserve Fund

The Foxley Estate Reserve Fund relates to the assets bequeathed to the HRC in 1988. The Council resolved to hold the bequest funds as the "Foxley Estate Reserve Fund" and to support the Foxley Fellowship from the interest earned by the fund. Interest received on these assets is credited to the reserve. Grants made for research sabbaticals are charged against the reserve.

Notes to the Financial Statements (continued)

Note 6 - Operating Lease Commitments	**Actual 2016 $000**	**Actual 2015 $000**
Operating Leases as lessee		
Not later than one year	248	248
Later than one year and not later than five years	869	993
Later than five years	-	124
Total non-cancellable operating leases	**1,117**	**1,365**
Operating Leases as lessor		
Not later than one year	21	0
Later than one year and not later than five years	75	0
Later than five years	-	0
Total non-cancellable operating leases	**96**	**0**

Accounting policy

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.

Current Lease Arrangements

The HRC current lease office premises. The lease payments recognised as an expenses in the period totalled $248,000 (2015: $2 29,000). No restrictions are placed on HRC by any of its leasing arrangements. In the current year, part of the office premises was sub-let.

Notes to the Financial Statements (continued)

Note 7 - Categories of financial assets and liabilities	Actual 2016 $000	Actual 2015 $000
Loans and Receivables		
Cash and cash equivalents	812	1,112
Short Term Deposits	18,371	15,782
Funds held on behalf of – Other Agencies	16,418	18,363
Funds held on behalf of –Foxley Estate	1,686	1,857
Receivables	1,079	545
Total loans and receivables	**38,366**	**37,659**
Other Financial Liabilities measured at amortised cost		
Payables	466	513
Contract Retentions	4,646	3,611
Funds held on behalf of other agencies	17,001	18,578
Total other financial liabilities	**22,113**	**22,702**

The fair values of the financial assets and financial liabilities are equal to their respective carrying amounts.

Accounting policy

The HRC classified financial assets into the category of loans and receivables and financial liabilities into the other financial liabilities category. The HRC initially recognises loans and receivables on the date that they are originated and derecognises a financial asset when the contractual rights to the cash flows from the asset expire or are transferred and does not retain control over the transferred asset. The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the HRC has a legally enforceable right to offset the amounts and intends either to settlement them on a net basis or to realise the asset and settle the liability simultaneously.

Loans and receivables and other financial liabilities

Loans and receivables and other financial liabilities are initially measured at fair value plus/(less) any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortised costs using the effective interest method

Notes to the Financial Statements (continued)

Note 8 - Financial Instruments Risk

a) Market risk

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 which are held at fixed rates of interest. The HRC does not actively manage its exposure to fair value interest rate risk. The interest rates on HRC's cash and cash equivalents are disclosed in note 4.

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.

b) 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 and debtors. 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-.

c) 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.

Notes to the Financial Statements (continued)

The table below analyses payables (not including employee entitlements) contract retentions, and funds held on behalf of other agencies 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	6 to 12 months $000	More than 1 year $000
2016					
Payables	466	466	466	0	0
Contract Retentions	4,646	4,646	4,646	0	0
Funds held on behalf of other agencies	17,001	17,001	1,630	716	14,655
Total	**22,113**	**22,113**	**6,742**	**716**	**14,655**
2015					
Payables	513	513	513	0	0
Contract Retentions	3,611	3,611	3,611	0	0
Funds held on behalf of other agencies	18,578	18,578	3,541	2,286	12,751
Total	**22,702**	**22,702**	**7,665**	**2,286**	**12,751**

Note 9 - 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.

Notes to the Financial Statements (continued)

Note 10 - Employee Remuneration

Employees receiving over $100,000	**Actual 2016 No. of Staff**	**Actual 2015 No. of Staff**
100,000 to 109,999	1	1
110,000 to 119,999		
120,000 to 129,999	3	2
130,000 to 139,999		1
140,000 to 149,999		3
150,000 to 159,999	2	1
160,000 to 169,999		
170,000 to 179,999	1	
290,000 to 299,999	1	

Councillors' Fees	Appointed	Retired	**Actual 2016 $**	**Actual 2015 $**
Sir R Stewart, KNZM	Sept 09	Dec 15	12,000	24,000
Dr L Levy, CNMZ	Jan 16		12,000	
Professor R Beasley, CNZM	Sept 09	Jul 16	15,000	15,000
Dr M Harwood	Sept 09	Jun 16	12,000	12,000
Ms E Ludemann	Sept 09		12,000	12,000
Professor L McCowan, ONZM	Feb 14		12,000	12,000
Professor A Mercer	Nov 12		15,000	15,000
Associate Professor S Pitama	Jun 15		15,000	
Dr C Powell	Sept 09		12,000	12,000
Professor A Richardson	Aug 11			12,500
Ms S Snively, ONZM	Dec 10		12,000	12,000
Professor L Tuhiwai Smith, CNZM	Aug 08			15,000
Professor J Douwes	Sep 15		12,500	
			141,500	**141,500**

Note 11 - Reconciliation of Operating surplus (deficit) to net cash flow from operating activities	**Actual 2016 $000**	**Budget 2016 $000**	**Actual 2015 $000**
Surplus/(deficit) for year	1,510	(1,140)	(237)
Add non-cash items			
Depreciation and Amortisation expense	76	39	49
Rent recovered	(15)	0	0
Add/(deduct) movements in working capital items			
Receivable (increase)/decrease	(27)	0	(217)
Payables increase/(decrease)	869	(32)	806
Net cash flow from operating activities	**2,413**	**(1,133)**	**401**

Note 12 - Related party information

The HRC is a Crown Entity.

Related party disclosures have not been made for transactions with related parties that are:

- Within a normal supplier or client/recipient relationship; and
- On terms and conditions no more or less favourable than those that it might reasonable to expect HRC would have adopted in dealing with the party at arm's length in the same circumstances.

Further, transactions with other government agencies are not disclosed as related party transactions when they are on normal terms and conditions consistent with the normal operating arrangements between government agencies.

Key Management personnel compensation

	2016 $000	**2015 $000**
Board Members		
Remuneration	142	142
Full-time equivalent members	0.72	0.73
Leadership Team		
Remuneration	1,212	1,141
Full-time equivalent members	8.0	7.50
Total Key Management Personnel Remuneration	**1,354**	**1,283**
Total Full Time Equivalent Personnel	**8.72**	**8.23**

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

Note 13 - Contingencies

As at 30 June 2016 the HRC has no contingent assets or contingent liabilities. (2015: Nil)

Note 14 - Post Balance Date Events

There have been no post balance date events that could impact the financial statements for the year ended 30 June 2016. (2015: Nil)

Notes to the Financial Statements (continued)

Note15 - Explanation of major variances against budget $000

Statement of comprehensive revenue and expense

Revenue
Revenue is above budget driven by additional Co-funding Relationship funding provided by MBIE $235K and additional interest received from short term deposits $141K.

Expenditure
Research Grant Expenditure is lower than budget $2,204K or 2.7% driven by slower than expected progress in finding and establishing effective research partnerships and low number of applications meeting the criteria for Vision Matauranga grants.

Statement of financial position

Current assets
The increase in current assets $5,803K is the result of higher term deposits driven by higher than budgeted levels of contract retentions $2,216K and equity $4,171K.

Total liabilities
The increase in total liabilities $2,131K is the result of higher contract retentions $2,216K driven by a greater level of final research contract reports outstanding than assumed in budget.

Statement of Cash Flow

Operating cash flows were higher than budget by $3,546K driven by lower than planned research grant cash paid $3,290K.

Statement of Resources

As at 30 June 2016

Operating Resources

- Computer systems
- Photocopying machines
- Furniture and fittings

Accommodation

The HRC is located at 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 2016	FTEs 2015
Operational staff		
Chief Executive	1.0	1.0
Senior Managers	5.0	7.0
Manager Pacific Health Research	1.0	0.8
Support staff	18.4	16.6
	25.4	**25.4**
Research staff		
Senior research staff	1	1
Other research staff	1	2
	2	**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

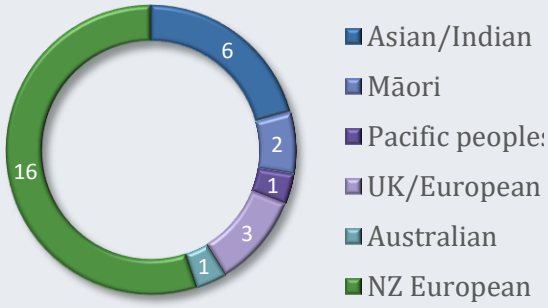
1) An Employers' Liability policy to cover any event in which the HRC becomes legally liable to pay costs in respect of all employees who sustain injury
2) A Directors' and Officers' liability policy to cover any event in which Board members find themselves personally liable to third parties
3) A Professional Indemnity policy to help protect professional advice and service providing individuals from bearing the full cost of defending negligence claims by third parties, and damages awarded in such a civil lawsuit

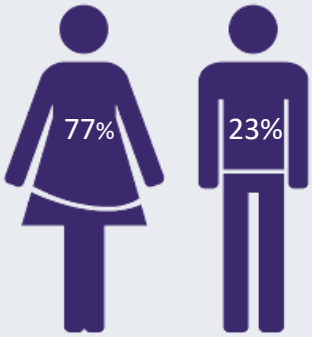
Organisational information

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. Employee numbers at the Health Research Council have stayed relatively steady with 25 FTE at the end June of 2016. 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

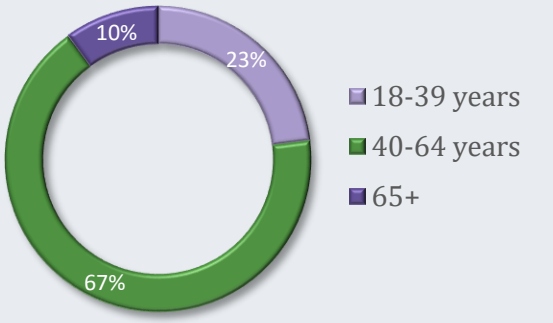
Meet Our People

Ethnicity





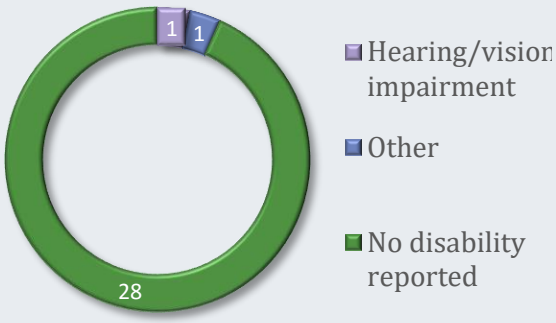
Age



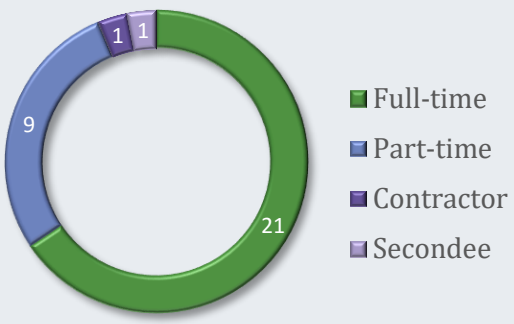
Average length of service **10.9 years**

Staff turnover in 2015/16 **10%**

Disability



Employment type



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.

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 2016 with two members of the Executive Management team resigning to pursue new opportunities, and one member retiring. Replacing these staff is being achieved in conjunction with a restructuring of the organisational structure to streamline operations.

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). This process was completed in June 2016.

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 HRC team 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 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 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 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 2016

Council

Dr Lester Levy, CNZM (Chair)	Professor (Adjunct) of Leadership, University of Auckland Business School
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
Professor Jeroen Douwes	Director, Centre for Public Health Research, Massey University, Wellington
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
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 Andrew Mercer, (Chair)	Department of Microbiology and Immunology, University of Otago, Dunedin
Professor Laura Bennet	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	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 (Co-opted)	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

Public Health Research Committee

Professor Jeroen Douwes (Chair)	Centre for Public Health Research, Massey University, Wellington
Associate Professor Jacqueline Cumming	Health Services Research Centre School of Government, Victoria University of Wellington, 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 Mark Weatherall	Department of Medicine, University of Otago, Wellington
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

Māori Health Committee

Ms Suzanne Pitama (Chair)	Māori Indigenous Health Institute, University of Otago, Christchurch
Dr Matire Harwood	Research Fellow and Clinical Director, National Hauora Coalition, Auckland
Dr Meihana Durie (co-opted)	Postdoctoral Fellow
Professor Helen Moewaka Barnes	Director, Whariki Research Group, Massey University Albany Campus, Auckland
Dr Mohi Rua	Senior Lecturer, School of Psychology, University of Waikato
Mr Paul White	Director, Torea Tai Consultants Ltd, Northland
Dr Emma Wyeth	Director, Ngāi Tahu Māori Health Research Unit, Dunedin School of Medicine, University of Otago

Ethics Committee

Dr Barry Smith (Chair)	Lakes District Health Board, Rotorua
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
Associate Professor Huia Tomlins Jahnke	Māori Education, Te Uru Maraurau, School of Māori and Multicultural Education, Massey University, Palmerston North

HRC contracts that were current as of 30 June 2016, or expired in the financial year

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
08/209R	Phase 3 trial studying optimal radiotherapy timing after radical prostatectomy	$1.17M	Project	Dr Maria Pearse	Auckland DHB Charitable Trust
09/643b	How can medical education reduce disparities in chronic disease care and improve outcomes of Indigenous populations	$1.97M	International Collaborative Indigenous Health Research Partnership Grant	Dr Rhys Jones	The University of Auckland
09/644b	Reducing disease burden and health inequalities arising from chronic dental disease among Indigenous children: an early childhood caries intervention	$2.35M	International Collaborative Indigenous Health Research Partnership Grant	Professor John Broughton	University of Otago
10/055	Antioxidant strategies to prevent eye disease: is the lens a glutathione reservoir?	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Julie Lim	The University of Auckland
10/079	Quantifying the health effects of climate change mitigation policies in NZ	$0.25M	Clinical Practitioner Research Fellowship	Dr Caroline Shaw	University of Otago
10/161	Children of SCOPE: The influence of fetal and maternal adiposity on obesity at 5	$1.06M	Project	Professor Edwin Mitchell	The University of Auckland
10/170	Cognitive decline during aging and Alzheimer's: Biomarkers & therapeutic targets	$4.63M	Programme	Professor Wickliffe Abraham	University of Otago
10/248	Burden of Disease Epidemiology, Equity and Cost-Effectiveness Programme (BODE3)	$5.M	Programme	Professor Tony Blakely	University of Otago
10/458	ARCOS IV: measuring and reducing the stroke burden in New Zealand	$4.94M	Programme	Professor Valery Feigin	Auckland University of Technology
10/471	Experiences of recovery and adaptation after disabling traumatic brain injury.	$0.73M	Project	Dr Kathryn McPherson	Auckland University of Technology
10/477	Safer Sleeping Environments: Evaluating new options for NZ babies	$1.2M	Project	Professor Barry Taylor	University of Otago
11/1076	Signalling pathways involved in the control of glucose metabolism	$2.66M	Programme Extension	Professor Peter Shepherd	The University of Auckland
11/113	Effect of calcium supplements on cardiovascular events and other health outcomes	$0.4M	Sir Charles Hercus Health Research Fellowship	Associate Professor Mark Bolland	The University of Auckland
11/125	Influence of tobacco smoking on dynamic cerebral auto-regulation	$0.5M	Sir Charles Hercus Health Research Fellowship	Associate Professor Yu-Chieh Tzeng	University of Otago
11/126	Developing strategies to better meet the needs of partners of people with brain injury	$0.11M	Disability Placement Programme PhD Award	Ms Elisa Lavelle	Auckland University of Technology

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
11/146	Health outcomes for mental health service users - exploring the case of cancer	$0.25M	Clinical Practitioner Research Fellowship	Dr Ruth Cunningham	University of Otago
11/148	The suicide and serious harm risk of "Mixed Presenters' to emergency departments	$0.25M	Clinical Practitioner Research Fellowship	Ms Silke Kuehl	University of Otago
11/167	Environmental Associations of Overweight and Obesity for Pacific Island Children in New Zealand	$0.09M	Pacific Health PhD	Mr Faasisila Savila	Auckland University of Technology
11/203	Safety and efficacy of high dose allopurinol in the management of gout: a randomised interventional study	$1.2M	Project	Professor Lisa Stamp	University of Otago
11/270	TRIO: Targeted Rehabilitation, Improved Outcomes	$1.13M	Project	Associate Professor Cathy Stinear	The University of Auckland
11/283	Neurological Development of the Very Preterm Infant: A Longitudinal Study	$0.92M	Project	Professor Lianne Woodward	University of Canterbury
11/314	The outcomes of Lactobacillus and Trichomonas vaginalis interaction	$0.15M	Emerging Researcher First Grant	Dr Augusto Barbosa	The University of Auckland
11/318	A maternal probiotic intervention for infant allergic disease prevention	$1.18M	Project	Dr Kristin Wickens	University of Otago
11/445	Comparative effectiveness research: one-off sigmoidoscopy or iFOBT screening	$0.67M	Project	Associate Professor Brian Cox	University of Otago
11/514	Toxicity of mesenteric lymph in critical illness	$1.13M	Project	Professor John Windsor	The University of Auckland
11/516	Internet-based Intervention to Improve Mental Health Outcomes for Abused Women	$1.19M	Project	Professor Jane Koziol-McLain	Auckland University of Technology
11/518	Single cell RNA profiling for the early detection of urological cancers	$0.82M	Project	Professor Parry Guilford	University of Otago
11/545	Low-cost telerehabilitation to improve outcomes for people with chronic stroke	$0.99M	Project	Professor Denise Taylor	Auckland University of Technology
11/583	Sodium Lowering In Dialysate (SOLID) Study	$1.17M	Project	Associate Professor Mark Marshall	Middlemore Clinical Trials Trust(Counties Manukau DHB)
11/626	M-health Delivery for Reducing Alcohol in the Trauma Environment (MoDeRATE)Trial	$1.19M	Project	Professor Shanthi Ameratunga	The University of Auckland
11/642	Probing illness with a novel multi-omic time-course statistical platform	$0.14M	Emerging Researcher First Grant	Dr Katya Ruggiero	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
11/645	Longitudinal study of development and cessation of self-harm among adolescents	$1.12M	Project	Dr Marc Wilson	The Research Trust of Victoria University of Wellington
11/792	The Christchurch Health and Development Study - Birth to 35 Years	$3.91M	Programme	Associate Professor John Horwood	University of Otago
11/800	Vascular Informatics using Epidemiology and the Web (VIEW)	$4.94M	Programme	Professor Rodney Jackson	The University of Auckland
11/802	Neurodegeneration in the human brain - mechanisms and therapeutic targets	$4.47M	Programme	Professor Michael Dragunow	The University of Auckland
11/818	The grand challenge: Innovative research to halve smoking prevalence in Aotearoa New Zealand	$5.M	Partnership Programme Project	Professor Christopher Bullen	Auckland UniServices Ltd
12/026	Ngaitai wellbeing indicators: measuring iwi health outcomes	$0.11M	Award Māori PhD Scholarship	Miss Jodi Porter	Massey University
12/057	Multifunctional roles of a norovirus protein	$0.36M	Pacific Health Postdoctoral Fellowship	Dr Zabeen Lateef	University of Otago
12/1071	He Kainga Oranga/Community Housing and Health Intervention Research Programme	$3.75M	Programme Extension	Professor Philippa Howden-Chapman	University of Otago
12/1110	Mechanisms and Management of Musculoskeletal Disease	$5.24M	Programme Extension	Distinguished Professor Ian Reid	The University of Auckland
12/1111	Microbial virulence and pathogenesis	$4.94M	Programme Extension	Professor John Fraser	The University of Auckland
12/129	New Zealand very low birthweight young adults: mapping the road ahead	$1.15M	Project	Professor Brian Darlow	University of Otago
12/147	Zoledronic acid and fracture prevention in early postmenopausal women	$1.16M	Project	Associate Professor Mark Bolland	The University of Auckland
12/182	Restoring thalamocortical activity to treat Parkinson's disease symptoms	$1.17M	Project	Professor Brian Hyland	University of Otago
12/197	Defining the genetic predisposition to biliary atresia	$1.2M	Project	Professor Stephen Robertson	University of Otago
12/223	Determining the health-related impact of dysglycaemia in a local population	$0.39M	Project	Dr Patricia Metcalf	The University of Auckland
12/297	Unpasteurised milk: protective for allergies and asthma?	$1.2M	Project	Professor Jeroen Douwes	Massey University
12/305	Permissive Hypercapnia, Alveolar Recruitment and Limited Airway Pressure in ARDS	$0.32M	Project	Dr Shay McGuinness	Auckland DHB Charitable Trust

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
12/306	Randomised trial of hydrocortisone in critically ill patients with septic shock	$0.77M	Project	Dr Colin McArthur	Auckland DHB Charitable Trust
12/308	The Influence of Anaesthetic Depth on Patient Outcome after Major Surgery	$1.2M	Project	Associate Professor Timothy Short	Auckland DHB Charitable Trust
12/329	Built Environment and Physical Activity in New Zealand Youth	$1.2M	Project	Professor Grant Schofield	Auckland University of Technology
12/372	Multi-centre case control stillbirth study	$0.54M	Project	Professor Lesley McCowan, CNZM	The University of Auckland
12/380	MOBI-KIDS New Zealand: risk factors for brain cancer in children and adolescents	$0.47M	Project	Associate Professor Andrea 't Mannetje	Massey University
12/470	Building BRIDGES for culturally ethical biobanking & genomic research	$1.14M	Project	Mr Maui Hudson	University of Waikato
12/499	Best Health for Māori: Te Hoe Nuku Roa - Housing, Hazards and Health	$0.79M	Project	Professor Christopher Cunningham	Massey University
12/525	RCT of levetiracetam vs. phenytoin for status epilepticus in children	$1.2M	Project	Dr Stuart Dalziel	Auckland DHB Charitable Trust
12/529	Molecular and hypoxia biomarkers of sensitivity to new nitroCBI anticancer drugs	$1.19M	Project	Dr Frederik Pruijn	The University of Auckland
12/575	Standard issue transfusion versus fresher red blood cell use in intensive care	$0.78M	Project	Dr Colin McArthur	Auckland DHB Charitable Trust
12/613	Pathogenesis, detection and treatment of perinatal brain injury	$4.84M	Programme	Professor Alistair Gunn	The University of Auckland
12/614	The role of multisubstrate deacetylase HDAC6 in influenza A virus replication	$0.15M	Emerging Researcher First Grant	Dr Matloob Husain	University of Otago
12/616	Towards a greater understanding of mechanical dysfunction in the pelvis	$0.15M	Emerging Researcher First Grant	Dr Melanie Bussey	University of Otago
12/629	Pacific Mens Health and Well Being: The case of Niue and the Cook Islands	$0.15M	Emerging Researcher First Grant	Dr Vili Nosa	The University of Auckland
12/657	Medical practices that hasten death: ethical implications for decision-making	$0.11M	Emerging Researcher First Grant	Dr Phillipa Malpas	The University of Auckland
12/664	Improving health and well being in low decile classrooms with a low cost solar ventilation system	$0.15M	Emerging Researcher First Grant	Dr Mikael Boulic	Massey University
12/670	Neural Control of Fertility	$4.84M	Programme	Professor Allan Herbison	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
12/709	The genetics of wellbeing in daily life	$0.15M	Emerging Researcher First Grant	Dr Tamlin Conner	University of Otago
12/722	Translating best practice research to reduce equity gaps in immunisation	$0.44M	Partnership Programme Project	Dr Nikki Turner	Auckland UniServices Ltd
12/786	What are 'real world' outcomes after surgery for children with cerebral palsy?	$0.2M	Clinical Practitioner Research Fellowship	Dr Nichola Wilson	The University of Auckland
12/788	Pharmacological determinants of oxaliplatin neurotoxicity in cancer patients	$0.25M	Clinical Practitioner Research Fellowship	Dr Hye-won Han	The University of Auckland
12/799	Genetic variation and breast cancer development	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Logan Walker	University of Otago
12/805	Preventing cardiovascular disease in New Zealand: An mHealth approach	$0.5M	Sir Charles Hercus Health Research Fellowship	Professor Ralph Maddison	The University of Auckland
12/828	Ka puawai nga Kohungahunga Turi: The early development of Māori deaf tamariki	$0.33M	Award Erihapeti Rehu-Murchie Fellowship	Dr Kirsten Smiler	Victoria University of Wellington
12/829A	The best Exercise for Māori men	$0.07M	Award Māori Health Postdoc Fellow	Dr Isaac Warbrick	Auckland University of Technology
12/850	Implementing Models of Primary Healthcare for Older Adults with Complex Needs	$1.2M	Partnership Programme Project	Associate Professor Nicolette Sheridan	The University of Auckland
12/867	Healthy public policy for children in NZ: overcoming the obstacles	$0.25M	Clinical Practitioner Research Fellowship	Dr Amanda D'Souza	University of Otago
12/884	Aged Residential Care Healthcare Implementation Project (ARCHIP)	$0.2M	Partnership Programme Project	Professor Martin Connolly	Auckland UniServices Ltd
13/012	Foot and ankle characteristics associated with falls in rheumatoid arthritis	$0.25M	Clinical Practitioner Research Fellowship	Mrs Angela Brenton-Rule	Auckland University of Technology
13/014	Brainstem Hypoperfusion as a Causative Mechanism for Neurogenic Hypertension	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Fiona McBryde	The University of Auckland
13/026	Investigating the role of histone acetylation in memory formation	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Helen Fitzsimons	Massey University
13/044	Investigation of Cardiovascular Pathology in the Emergency Department	$0.71M	Clinical Practitioner Research Fellowship	Dr Martin Than	Canterbury District Health Board
13/049	Switching off tumour-promoting immune cells to develop novel cancer therapies	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Bridget Stocker	The Research Trust of Victoria University of Wellington
13/062	SMIRQ: Smokefree Messages: Interpretations, Responses and Quitting	$0.5M	Project	Professor Janet Hoek	University of Otago
13/064	Understanding kidney injury and the role of HNF1beta	$0.88M	Project	Associate Professor Alan Davidson	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
13/065	Predicting response to anti-TNF therapy based on serum cytokine and gene profile	$1.2M	Project	Professor Lisa Stamp	University of Otago
13/067	Central regulation of natural birth processes	$1.M	Project	Professor Colin Brown	University of Otago
13/087	Addressing the burden and preventability of severe acute maternal morbidity	$1.2M	Project	Associate Professor Beverley Lawton	University of Otago
13/088	Breast cancer, cytomegalovirus, and Epstein-Barr virus	$0.32M	Project	Professor Ann Richardson	University of Canterbury
13/099	He Kura: Asthma Support for Māori Tamariki at School	$1.2M	Project	Mrs Bernadette Jones	University of Otago
13/1002	International Relationship Fund: US-NZ collaboration	$0.4M	International Relationship Fund	Associate Professor Robyn Whittaker	The University of Auckland
13/1003	International Relationship Fund: US-NZ collaboration	$0.4M	International Relationship Fund	Professor Boyd Swinburn	The University of Auckland
13/1019	Developing new anti-cancer drugs against genetically defined targets	$0.4M	Partnership Programme Project	Professor Peter Shepherd	The University of Auckland
13/1020	Tumour-targeted FGFR therapeutics for smoking-related lung cancer	$0.4M	Partnership Programme Project	Dr Jeffrey Smaill	The University of Auckland
13/104	Renal Denervation in Heart Failure with Preserved Ejection Fraction	$1.2M	Project	Professor Mark Richards	University of Otago
13/131	Preventing Neonatal Hypoglycaemia with Oral Dextrose Gel	$1.2M	Project	Professor Jane Harding	The University of Auckland
13/135	Astrocyte-Neuron Communication in a Novel Homeostatic Form of Metaplasticity	$0.57M	Project	Professor Wickliffe Abraham	University of Otago
13/143	The conservative management of young women with CIN2	$1.2M	Project	Associate Professor Peter Sykes	University of Otago
13/152	Imaging the Labyrinthine-Blood Barrier in Meniere's disease	$0.97M	Project	Professor Peter Thorne	The University of Auckland
13/161	Does the D133p53 isoform promote cancer invasion and metastasis?	$1.19M	Project	Professor Antony Braithwaite	University of Otago
13/169	A randomized clinical trial of a new binocular treatment for amblyopia	$1.17M	Project	Associate Professor Benjamin Thompson	The University of Auckland
13/177	Can Azithromycin Prevent Bronchiectasis in Infants with Cystic Fibrosis?	$0.71M	Project	Associate Professor Catherine Byrnes	The University of Auckland
13/196	Novel small molecule therapeutics for treatment of smoking-related lung cancer	$1.18M	Project	Dr Jeffrey Smaill	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
13/213	PulMoDS: Pulmonary Model-based Decision Support to Optimise ARDS/ALI Care	$0.66M	Project	Professor Geoff Chase	University of Canterbury
13/235	Pesticide Exposure and Neuropsychological Effects in Children	$1.2M	Project	Professor Jeroen Douwes	Massey University
13/238	Role of kisspeptin in hyperprolactinemia-induced infertility	$1.16M	Project	Professor David Grattan	University of Otago
13/242	STRIDER (NZAus): RCT of Sildenafil Therapy In Dismal Prognosis Early-Onset IUGR	$1.15M	Project	Dr Katie Groom	The University of Auckland
13/263	Structure-directed antifungal discovery	$1.19M	Project	Associate Professor Brian Monk	University of Otago
13/279	Pesticide exposure and early biomarkers of NHL risk in farmers	$1.2M	Project	Associate Professor Andrea 't Mannetje	Massey University
13/285	Living well with a long term neurological condition	$1.2M	Project	Dr Suzie Mudge	Auckland University of Technology
13/293	Pakeketanga: Living and Dying in Advanced Age	$1.19M	Project	Professor Merryn Gott	The University of Auckland
13/317	Characterising Heart Failure With Clinical Imaging and Structure-Based Modelling	$1.18M	Project	Professor Martyn Nash	The University of Auckland
13/330	Adrenomedullin 1 receptor antagonists as novel anti-angiogenic agents	$1.2M	Project	Professor Debbie Hay	The University of Auckland
13/331	Modular evidence-based treatment of child and adolescent mental health problems	$1.67M	Project	Professor Sally Merry	The University of Auckland
13/332	Understanding how WT1 and its binding partner WTX cause renal disease	$1.17M	Project	Associate Professor Alan Davidson	The University of Auckland
13/394	Preventable Māori Mortality	$1.2M	Project	Mr Andrew Sporle	The University of Auckland
13/408	Long-term impact of initial and recurrent TBI in the NZ community	$1.19M	Project	Professor Valery Feigin	Auckland University of Technology
13/428	Delivering a new measure of neighbourhood disadvantage for New Zealand	$1.1M	Project	Dr Daniel Exeter	The University of Auckland
13/442	Myocardial microinjury & Arterial Compliance in the SOLID Trial (Mac-SOLID)	$0.25M	Project	Associate Professor Mark Marshall	Middlemore Clinical Trials Trust(Counties Manukau DHB)
13/458	RCT of continuous vs intermittent beta-lactam antibiotics in the critically ill	$0.21M	Project	Dr Colin McArthur	Auckland DHB Charitable Trust

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
13/490	Māori health identities: affecting and driving health?	$0.67M	Project	Professor Helen Moewaka Barnes	Massey University
13/541	Recovery from obesity - Kia Akina: A community-based food addiction programme	$0.18M	Partnership Programme Project	Professor John Sellman	University of Otago
13/543	Pepipods for a safe infant sleep? A video, physiological and thermal evaluation	$0.2M	Partnership Programme Project	Professor Barry Taylor	University of Otago
13/553	Whanau Pakari: a multi-disciplinary intervention for children with weight issues	$0.25M	Clinical Practitioner Research Fellowship	Dr Yvonne Anderson	The University of Auckland
13/556	Paediatric Emergency Research	$0.77M	Clinical Practitioner Research Fellowship	Dr Stuart Dalziel	Auckland DHB Charitable Trust
13/575	Taku aroha ki nga tai e ngunguru e ra:Transforming Māori health cancer workforce	$0.11M	Award Māori PhD Scholarship	Ms Monica Koia	Massey University
13/577	Establishing Māori focused standards for neuropsychological measures	$0.38M	Award Māori Health Postdoc Fellow	Dr Margaret Dudley	Auckland University of Technology
13/579	Te Maramatanga: How education positively affects M?ori health over time	$0.35M	Award Erihapeti Rehu-Murchie Fellowship	Dr Reremoana Theodore	University of Otago
13/580	Māori Elders' wellbeing and resilience indicators: measuring iwi health outcome	$0.11M	Award Māori PhD Scholarship	Ms Sharon Awatere	Massey University
13/590	Kaupapa Māori Evaluation of a Health Literacy-Appropriate CVD Intervention	$0.11M	Award Māori PhD Scholarship	Miss Teah Carlson	Massey University
13/594	Whānau kopepe: Young Māori parents experiences of raising a family	$0.11M	Award Māori PhD Scholarship	Miss Felicity Ware	Massey University
13/604	Arterial Function, Vitamin D and Cardiovascular Disease	$0.39M	Pacific Health Postdoctoral Fellowship	Dr John Sluyter	The University of Auckland
13/615	Promoting health literacy improves health outcomes for Samoan people	$0.11M	Pacific Health PhD	Mrs Tuaupua Taueetia-Su'a	Victoria University of Wellington
13/679	Understanding nasal flora and prevention of Staphylococcus aureus disease	$0.15M	Emerging Researcher First Grant	Dr Stephen Ritchie	The University of Auckland
13/692	Reducing the treatment burden of ocular diseases	$0.15M	Emerging Researcher First Grant	Dr llva Rupenthal	The University of Auckland
13/718	Restricting the availability of alcohol to reduce alcohol-related harm in NZ	$0.15M	Emerging Researcher First Grant	Dr Taisia Huckle	Massey University
13/724	Effective interventions and policies to improve population nutrition and health	$4.99M	Programme	Professor Cliona Ni Mhurchu	The University of Auckland
13/745	The Genetics of Dentofacial Growth Anomalies	$0.15M	Emerging Researcher First Grant	Dr Joseph Antoun	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
13/753	'Acceptability' and access to primary care: the reception process	$0.15M	Emerging Researcher First Grant	Dr Patricia Neuwelt	The University of Auckland
13/763	Rational design of kinase inhibitors to target cancer	$4.92M	Programme	Professor William Denny	The University of Auckland
13/770	Thyrotoxicosis: Assessment of ethnic differences in presentation and outcome	$0.15M	Emerging Researcher First Grant	Dr Marianne Elston	The University of Auckland
13/774	Exploiting the therapeutic potential of viruses	$4.94M	Programme	Professor Andrew Mercer	University of Otago
13/775	Living with chaos: Structural remodelling and persistent atrial fibrillation	$0.13M	Emerging Researcher First Grant	Dr Jichao Zhao	The University of Auckland
13/779	Mapping determinants of arrhythmia in structural heart disease	$4.99M	Programme	Professor Peter Hunter	The University of Auckland
13/858	Using circular polarised light to evaluate cell differentiation status in vivo	$0.15M	Explorer Grant	Professor Michael Eccles	University of Otago
13/959	Identifying risk factors for rheumatic fever in New Zealand	$0.8M	Partnership Programme Project	Professor Michael Baker	University of Otago
13/961	Household Crowding and Rheumatic Fever Study	$0.3M	Partnership Programme Project	Professor Philippa Howden-Chapman	University of Otago
13/965	The significance of rheumatic heart disease detected by echocardiography	$0.8M	Partnership Programme Project	Associate Professor Nigel Wilson	Auckland DHB Charitable Trust
13/969	Which school model for group A streptococci and acute rheumatic fever reduction?	$0.8M	Partnership Programme Project	Professor Diana Lennon	Auckland UniServices Ltd
13/970	Probiotic intervention to reduce streptococcal disease burden in NZ children	$0.79M	Partnership Programme Project	Professor Julian Crane	University of Otago
14/002	A novel biosynthetic tissue substitute for transplantation	$0.5M	Clinical Practitioner Research Fellowship	Associate Professor Dipika Patel	The University of Auckland
14/004	Transforming research into child health equity: a 21st century approach	$0.25M	Clinical Practitioner Research Fellowship	Dr Paula King	University of Otago
14/010	Can we predict CVD risk population-wide using only routinely collected data?	$0.17M	Clinical Practitioner Research Fellowship	Dr Suneela Mehta	The University of Auckland
14/015	Spatially-resolved metabolomics of cataractogenesis	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Angus Grey	The University of Auckland
14/016	Pathways to healthy development in New Zealand preschool children	$0.25M	Clinical Practitioner Research Fellowship	Dr Cordelia Russell	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/018	Stimuli-responsive ocular implants - More than meets the eye?	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr llva Rupenthal	The University of Auckland
14/025	Paramedic response to acute stroke; investigating current practice and outcomes	$0.25M	Clinical Practitioner Research Fellowship	Ms Bronwyn Tunnage	Auckland University of Technology
14/031	Diet and risk of colorectal cancer in UK Biobank	$0.18M	Award Girdler's	Dr Kathryn Bradbury	University of Otago
14/040	Lower limb immobility and VTE risk: investigating preventive measures	$0.25M	Clinical Practitioner Research Fellowship	Dr Irene Braithwaite	Medical Research Institute of New Zealand
14/041	Road injuries in the Pacific: disability, costs and health system indicators	$0.25M	Clinical Practitioner Research Fellowship	Dr Iris Wainiqolo	The University of Auckland
14/042	The Community Child Well-being Tool: a framework for population health action	$0.19M	Award Foxley	Dr Timothy Jelleyman	The University of Auckland
14/047	Use of EpiNet platform for clinical trials & epidemiological studies in epilepsy	$0.91M	Clinical Practitioner Research Fellowship	Dr Peter Bergin	Auckland DHB Charitable Trust
14/052	Testicular cancer in Māori men: what is driving the disparity?	$0.36M	Award Māori Health Postdoc Fellow	Dr Jason Gurney	University of Otago
14/060	Te Waka Oranga; bringing the recovery destination to whānau	$0.46M	Award Māori Health Postdoc Fellow	Dr Hinemoa Elder	Te Whare Wananga O Awanuiarangi
14/063	Injury and disability among Pacific people in the Cooks Islands and New Zealand	$0.34M	Pacific Health Postdoctoral Fellowship	Dr Josephine Herman	The University of Auckland
14/064	Cook Island youth views toward positive mental wellbeing and suicide prevention.	$0.11M	Pacific Health PhD	Miss Eliza Puna	The University of Auckland
14/074	Te whakangungu rakau: Prevalence, severity, outcome of thyrotoxicosis in Māori	$0.02M	Award Māori PhD Scholarship	Dr Jade Tamatea	The University of Auckland
14/075	Lipoprotein biomarkers and cardiovascular risk in Māori and Pacific communities	$0.24M	Pacific Health Postdoctoral Fellowship	Dr Allamanda Faatoese	University of Otago
14/081	A kaupapa Māori intervention for stroke-related communication disorders	$0.37M	Award Māori Health Postdoc Fellow	Dr Karen Brewer	The University of Auckland
14/082	Urban Design, Mental Health, and Māori	$0.02M	Award Māori Master Scholarship	Mr David Patterson	The University of Auckland
14/095	What are the mortality outcomes following diabetes-related lower extremity amputation	$0.02M	Award Māori Master Scholarship	Mr Stephen York	Auckland University of Technology
14/098	Māori whānau and their engagement with healthcare services	$0.07M	Award Māori PhD Scholarship	Ms Dianne Wepa	Auckland University of Technology
14/1002	Independent Research Organisation Funding	$6.8M	Independent Research Organisation Fund	Professor Richard Beasley	Medical Research Institute of New Zealand

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/1003	Independent Research Organisation Funding	$14.24M	Independent Research Organisation Fund	Professor Graham Le Gros CNZM	Malaghan Institute of Medical Research
14/1004	Independent Reserach Organisation Funding	$2.8M	Independent Research Organisation Fund	Dr Heather Gifford	Whakauae Research Services Limited
14/1005	Independent Research Organisation Funding	$3.78M	Independent Research Organisation Fund	Dr Cherryl Smith	Te Atawhai o te Ao: Independent Māori Institute for Environment & Health
14/104	Gestational Diabetes Trial of Detection Thresholds: Impact on health and costs	$1.2M	Project	Professor Caroline Crowther	The University of Auckland
14/105	Uncovering mechanisms and inhibitors of tumour-induced lymphangiogenesis	$1.2M	Project	Dr Jonathan Astin	The University of Auckland
14/115	Early goal-directed sedation in mechanically ventilated intensive care patients	$1.12M	Project	Dr Colin McArthur	Auckland DHB Charitable Trust
14/117	CKD-FIX: trial of xanthine oxidase inhibition to slow kidney disease progression	$0.99M	Project	Dr Janak de Zoysa	Waitemata District Health Board
14/129	Clinical translation of an anxiety process biomarker	$1.04M	Project	Professor Dr Neil McNaughton	University of Otago
14/136	Individualised neuromodulation for motor recovery after stroke	$1.18M	Project	Professor Winston Byblow	The University of Auckland
14/146	Preventing Chronic Conditions: Learnings from participatory research with Māori	$1.2M	Project	Dr Heather Gifford	Whakauae Research Services Limited
14/152	A randomised controlled trial of nortriptyline in knee osteoarthritis	$1.19M	Project	Dr Ben Hudson	University of Otago
14/153	Antenatal magnesium sulphate: mechanisms of fetal neuroprotection	$1.2M	Project	Professor Caroline Crowther	The University of Auckland
14/155	An epigenome-wide study for abdominal aortic aneurysm	$1.14M	Project	Associate Professor Greg Jones	University of Otago
14/156	Pacific Islands Families: Understanding growth from birth to fourteen years	$1.17M	Project	Professor Elaine Rush MNZM	Auckland University of Technology
14/158	Mechanisms of Gastric Dysmotility: Advances from Cell to Clinic	$1.19M	Project	Associate Professor Leo Cheng	The University of Auckland
14/160	Quality of care and outcomes in children with cleft lip and/or palate	$1.01M	Project	Associate Professor John Thompson	The University of Auckland
14/167	Life-course predictors of mortality inequalities	$1.09M	Project	Professor Peter Davis	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/168	Improving hydrocephalus management through an implantable device	$1.19M	Project	Professor Simon Malpas	The University of Auckland
14/173	Multimorbidity: the most common chronic condition of all.	$1.2M	Project	Professor Diana Sarfati	University of Otago
14/174	ProViDe RCT: does better early nutrition in preterm babies improve development?	$1.19M	Project	Professor Frank Bloomfield	The University of Auckland
14/185	Patient Harms in New Zealand General Practices: Records Review Study	$1.17M	Project	Professor Susan Dovey	University of Otago
14/191	Seeking New Insights and New Routes to Diabetes Prevention: PREVIEW NZ	$1.12M	Project	Professor Sally Poppitt	The University of Auckland
14/200	Defining genetic regulators of neurogenesis in humans	$1.19M	Project	Professor Stephen Robertson	University of Otago
14/203	Food environments in New Zealand: Policies and impacts on health and equity	$1.16M	Project	Professor Boyd Swinburn	The University of Auckland
14/216	Protecting brain development after clinically silent infection before birth	$1.15M	Project	Professor Alistair Gunn	The University of Auckland
14/219	A role for p53 isoforms in inflammatory disease	$1.18M	Project	Professor Antony Braithwaite	University of Otago
14/222	Restrictive vs. Liberal Fluid Therapy in Major Abdominal Surgery - The RELIEF study	$0.77M	Project	Dr Shay McGuinness	Medical Research Institute of New Zealand
14/260	Legionnaires' disease in New Zealand: improving diagnostics and treatment	$1.M	Project	Professor David Murdoch	University of Otago
14/262	Understanding the impact of racial discrimination on adult health and wellbeing	$0.45M	Project	Dr Ricci Harris	University of Otago
14/269	Low dose aspirin for venous leg ulcers: a randomised trial	$1.2M	Project	Associate Professor Andrew Jull	The University of Auckland
14/276	Degradable metallic mini-plate and screw system for craniofacial osteosynthesis	$0.69M	Project	Dr Mark Staiger	University of Canterbury
14/281	Delivering lens anti-oxidants: a strategy to develop anti-cataract therapies	$1.2M	Project	Professor Paul Donaldson	The University of Auckland
14/285	Monocyte-derived dendritic cells for tumour immunotherapy	$1.2M	Project	Professor Franca Ronchese	Malaghan Institute of Medical Research
14/289	Colonising tumour necrosis with Clostridium sporogenes for precision therapy	$1.19M	Project	Associate Professor Adam Patterson	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/290	Silencing oncogenic signalling in hypoxic tumour cells with the prodrug PR610	$1.19M	Project	Associate Professor Adam Patterson	The University of Auckland
14/331	Is the family pet a risk factor for multidrug resistant bacterial infections?	$1.13M	Project	Professor Nigel French	Massey University
14/368	Restoring HDL levels	$1.04M	Project	Professor Sally McCormick	University of Otago
14/371	Addressing avoidable harm suffered by Māori babies	$1.2M	Project	Associate Professor Beverley Lawton	University of Otago
14/373	Augmenting neuroplasticity in the Huntington's disease brain	$1.19M	Project	Dr Melanie Cheung	The University of Auckland
14/399	Prevalence and impact of inherited myopathies in New Zealand	$1.2M	Project	Dr Alice Theadom	Auckland University of Technology
14/412	Evaluation of New Zealand's alcohol reform legislation	$1.19M	Project	Dr Brett MacLennan	University of Otago
14/429	Incidence Study of Status Epilepticus in the Greater Auckland Region	$0.67M	Project	Dr Peter Bergin	Auckland DHB Charitable Trust
14/436	Neighbourhoods for active kids	$1.2M	Project	Associate Professor Melody Oliver	Auckland University of Technology
14/440	Genetics, brain imaging, and cognitive decline in Parkinson's disease	$1.18M	Project	Professor Tim Anderson	University of Otago
14/441	AMH regulation of female reproduction	$1.17M	Project	Professor Ian McLennan	University of Otago
14/474	Non-inflammatory mechanisms in asthma	$1.2M	Project	Professor Jeroen Douwes	Massey University
14/475	Regulating hormone secretion via dynamic modulation of beta-catenin levels	$1.19M	Project	Professor Peter Shepherd	The University of Auckland
14/494	Alcohol Policy Interventions in NZ (APINZ) - effects of change in sale & supply	$1.19M	Project	Professor Sally Casswell	Massey University
14/499	Optimal glycaemic targets for gestational diabetes: the randomised trial TARGET	$1.2M	Project	Professor Caroline Crowther	The University of Auckland
14/500	Vaccination and immunomodulation: Creating effective therapy for cancer	$1.19M	Project	Associate Professor Ian Hermans	Malaghan Institute of Medical Research
14/502	Synthetic vaccines that exploit the innate immune response	$1.19M	Project	Associate Professor Ian Hermans	Malaghan Institute of Medical Research
14/512	Samoan peoples' experiences of CVD pathways of care	$0.11M	Pacific Health PhD	Mrs Victoria Lesatele	Massey University

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/521	HEART FAILURE: markers and management	$4.98M	Programme	Professor Mark Richards	University of Otago
14/527	Urate and gout: genetic control, environmental and drug interactions	$5.M	Programme	Professor Tony Merriman	University of Otago
14/528	Antimicrobial and anti-inflammatory effects of nicotinamide in bronchiectasis	$0.15M	Feasibility Study	Dr Conroy Wong	Middlemore Clinical Trials Trust (Counties Manukau DHB)
14/538	Biomarker-guided drug targeting of the tumour microenvironment in radiotherapy	$4.92M	Programme	Professor William Wilson	The University of Auckland
14/541	Study of the Control of Oxygen levels during cardiopulmonary bypass	$0.14M	Feasibility Study	Dr Shay McGuinness	Auckland DHB Charitable Trust
14/547	Characterising Cannabinoid Receptor 2 Polymorphisms Implicated in Mental Illness	$0.15M	Emerging Researcher First Grant	Dr Natasha Grimsey	The University of Auckland
14/549	Simvastatin treatment for patients with COPD and elevated CRP	$0.15M	Feasibility Study	Associate Professor Robert Young	Middlemore Clinical Trials Trust (Counties Manukau DHB)
14/552	Assistive Communication Technology for Adults with Intellectual Disability	$0.15M	Emerging Researcher First Grant	Dr Larah van der Meer	The Research Trust of Victoria University of Wellington
14/557	Digital design of therapies to combat age related nuclear cataracts	$0.14M	Emerging Researcher First Grant	Dr Ehsan Vaghefi	The University of Auckland
14/560	Prevention of the common cold with topical nasal Carrageenan	$0.1M	Feasibility Study	Professor Julian Crane	University of Otago
14/564	Primary Rectal Cancer Management in Advanced disease with Chemotherapy	$0.15M	Emerging Researcher First Grant	Dr Christopher Jackson	University of Otago
14/565	Built Environment and Active Transport to School: BEATS Parental Survey	$0.15M	Emerging Researcher First Grant	Dr Sandra Mandic	University of Otago
14/568	Healthy pregnancy, healthy babies	$4.99M	Programme	Professor David Grattan	University of Otago
14/570	Venous thromboembolism prevention in lower leg injury requiring immobilization	$0.15M	Feasibility Study	Professor Richard Beasley	Medical Research Institute of New Zealand
14/572	Feasibility study of HPV infection, awareness and vaccine acceptability in men	$0.15M	Feasibility Study	Dr Helen Petousis-Harris	The University of Auckland
14/573	Tracking cognitive decline in Parkinson's disease with serial MRI	$0.15M	Emerging Researcher First Grant	Dr Tracy Melzer	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/581	Which Diet? Dietary interventions and blood pressure	$0.15M	Emerging Researcher First Grant	Dr Katherine Black	University of Otago
14/584	Neurodevelopmental Outcomes of Children Exposed to Methadone during Pregnancy	$0.15M	Emerging Researcher First Grant	Dr Jacqueline Henderson	University of Canterbury
14/585	Beta-blockers in COPD: Feasibility of a Randomised Controlled Trial	$0.15M	Feasibility Study	Associate Professor Bob Hancox	University of Otago
14/591	Carbohydrate-restricted diets in the treatment of obesity in children.	$0.15M	Feasibility Study	Dr Caryn Zinn	Auckland University of Technology
14/596	Accelerating recovery after stroke with neuromodulation: A feasibility study	$0.15M	Feasibility Study	Associate Professor Cathy Stinear	The University of Auckland
14/598	Improving multi-faceted functioning in people after brain injury: a feasibility study	$0.15M	Feasibility Study	Dr Alice Theadom	Auckland University of Technology
14/603	Bio-orthogonal Prodrug Activation for Targeted Chemotherapy	$0.14M	Emerging Researcher First Grant	Dr Alan Gamble	University of Otago
14/604	Transforming ways of living and ageing	$0.15M	Feasibility Study	Dr Ruth Teh	The University of Auckland
14/605	Does intensive insulin therapy promote healing in diabetic foot ulcers?	$0.15M	Feasibility Study	Dr Ajith Dissanayake	Middlemore Clinical Trials Trust (Counties Manukau DHB)
14/608	Māori Disability Outcomes: Pathways and experiences after injury	$0.15M	Emerging Researcher First Grant	Dr Emma Wyeth	University of Otago
14/613	Growing better placentas for healthy babies	$0.14M	Emerging Researcher First Grant	Dr Joanna James	The University of Auckland
14/629	Screening for APOBEC3B inhibitors: a new approach to fighting breast cancer	$0.15M	Emerging Researcher First Grant	Dr Elena Harjes	Massey University
14/636	Implementing new ways of working in physiotherapy practice to optimise outcome	$0.15M	Emerging Researcher First Grant	Associate Professor Nicola Kayes	Auckland University of Technology
14/663	What do Tamariki have to say about Hauora? A qualitative study using photography	$0.02M	Award Māori Master Scholarship	Ms Paris Pidduck	University of Otago
14/682	Effectiveness of maternal pertussis booster in pregnancy - outcomes in infants	$0.1M	Partnership Programme Project	Dr Helen Petousis-Harris	Auckland UniServices Ltd
14/689	Evaluation of frailty and co-morbidity in patients with ischemic heart disease	$0.35M	Partnership Programme Project	Professor Dr Ralph Stewart	Auckland DHB Charitable Trust
14/696	Targeting the immune response to improve outcomes in ER+ve breast cancer	$0.2M	Partnership Programme Project	Dr Anita Dunbier	University of Otago
14/704	SHON as a novel biomarker predicting endocrine therapy response in breast cancer	$0.2M	Partnership Programme Project	Dr Dong-Xu Liu	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/706	Synthetic lethal targeting of lobular breast cancer	$0.2M	Partnership Programme Project	Professor Parry Guilford	University of Otago
14/708	Inhibiting the human GH receptor with small molecule antagonists	$0.19M	Partnership Programme Project	Dr Jo Perry	The University of Auckland
14/709	Developing a molecular "fingerprint" as a non-invasive screen for breast cancer	$0.2M	Partnership Programme Project	Dr Annette Lasham	The University of Auckland
14/711	Improving Care Processes for Patients with Possible Acute Coronary Syndrome	$0.35M	Partnership Programme Project	Dr Martin Than	Canterbury District Health Board
14/718	New Echocardiography Reference Ranges for Aotearoa	$0.2M	Partnership Programme Project	Professor Gillian Whalley	UNITEC Institute of Technology
14/724	SMS4BG: self-management support for people with diabetes	$0.2M	Partnership Programme Project	Associate Professor Robyn Whittaker	Auckland UniServices Ltd
14/730	Integrating patient data to optimise medicines and reduce polypharmacy	$0.18M	Partnership Programme Project	Dr Alesha Smith	University of Otago
14/731	Managing gout in the community	$0.1M	Partnership Programme Project	Professor Lisa Stamp	University of Otago
14/749	International Relationship Fund: EU-NZ collaboration	$0.2M	International Relationship Fund	Professor Rodney Jackson	The University of Auckland
14/750	International Relationship Fund: EU-NZ collaboration	$0.19M	International Relationship Fund	Professor Geoff Chase	University of Canterbury
14/751	International Relationship Fund: EU-NZ collaboration	$0.2M	International Relationship Fund	Professor Tony Merriman	University of Otago
14/752	International Relationship Fund: EU-NZ collaboration	$0.2M	International Relationship Fund	Professor Robert Doughty	The University of Auckland
14/763	Coalition to Advance Vaccines Against Group A Streptococcus (CANVAS): A Trans-Tasman Initiative Against Rheumatic Fever	$1.5M	Partnership Programme Project	Professor John Fraser	Auckland UniServices Ltd
14/805	Re-thinking the cross talk between bacteria and host cells	$0.15M	Explorer Grant	Dr Anthony Phillips	The University of Auckland
14/808	Temporal and spatial control of drugs for improved treatment of brain disorders	$0.15M	Explorer Grant	Associate Professor John Reynolds	University of Otago
14/810	Evolution in Action: a novel model for studying pathogen adaptation in vivo	$0.15M	Explorer Grant	Dr Siouxsie Wiles	The University of Auckland
14/811	Designing metabiotics to combat multidrug-resistant pathogenic microorganisms	$0.15M	Explorer Grant	Professor Gregory Cook	University of Otago
14/831	Can we avoid unnecessary hospital admissions for COPD?	$0.35M	Partnership Programme Project	Associate Professor Bob Hancox	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
14/833	Smart inhalers for improved COPD management in the Sensing City	$0.35M	Partnership Programme Project	Dr Michael Epton	Canterbury District Health Board
14/835	RCT of air versus oxygen-driven nebuliser use in exacerbations of COPD	$0.26M	Partnership Programme Project	Dr Philippa Shirtcliffe	Medical Research Institute of New Zealand
14/840	Using technology to support patients with COPD	$0.35M	Partnership Programme Project	Dr Elizabeth Broadbent	Auckland UniServices Ltd
14/845	Nga Puna Hauora	$0.13M	Ngā Kanohi Kitea Project	Mr Garry Watson	Te Rangatahi o te Whenua Trust
14/854	Exploring aspects of Food Security & Sovereignty with R.E.K.A Trust in Whakatane	$0.2M	Ngā Kanohi Kitea Project	Ms Mate Heitia	REKA Trust
15/008	Better Outcomes after Bariatric Surgery: The BOBS Study	$0.17M	Clinical Practitioner Research Fellowship	Dr Melanie Lauti	The University of Auckland
15/009	In vitro and in vivo evaluation of bone graft substitutes for bone healing	$0.17M	Clinical Practitioner Research Fellowship	Dr Ryan Gao	The University of Auckland
15/019	Chronic stress induced adaptations in hypothalamic brain circuits	$0.49M	Sir Charles Hercus Health Research Fellowship	Dr Karl Iremonger	University of Otago
15/030	Towards the treatment of toxic thoracic lymph in critical illness	$0.25M	Clinical Practitioner Research Fellowship	Dr Alistair Escott	The University of Auckland
15/035	New insights into pancreatogenic diabetes	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Max Petrov	The University of Auckland
15/048	Oxaliplatin induced corneal nerve microstructural changes	$0.25M	Clinical Practitioner Research Fellowship	Dr Ellen Wang	The University of Auckland
15/054	Hepatitis B, Diabetes and Outcomes	$0.17M	Clinical Practitioner Research Fellowship	Dr John Hsiang	The University of Auckland
15/057	The role of the Pax-Notch pathway in kidney disease	$1.07M	Project	Associate Professor Alan Davidson	The University of Auckland
15/070	Gene discovery in epilepsy: the building block of precision medicine	$1.2M	Project	Associate Professor Lynette Sadleir	University of Otago
15/072	The New Zealand International Tobacco Control Project	$1.2M	Project	Professor Richard Edwards	University of Otago
15/081	Registry based clinical trials	$0.8M	Clinical Practitioner Research Fellowship	Professor Dr Ralph Stewart	Auckland District Health Board
15/086	Hypertension after stroke - therapeutic or pathological?	$1.06M	Project	Dr Fiona McBryde	The University of Auckland
15/087	Lung cancer genetic testing in New Zealand	$1.18M	Project	Professor Mark McKeage	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
15/091	Subsequent Injury Study (SInS): Improving outcomes for injured New Zealanders	$0.59M	Project	Associate Professor Sarah Derrett	University of Otago
15/097	Probing novel pathways mediating Polycystic Ovarian Syndrome	$0.91M	Project	Dr Rebecca Campbell	University of Otago
15/103	Cellular Reprogramming: A Unique Approach to Understanding Huntington's Disease.	$1.19M	Project	Associate Professor Bronwen Connor	The University of Auckland
15/125	Safety on steps: a randomised controlled trial	$1.2M	Project	Associate Professor Michael Keall	University of Otago
15/141	TARGET (The Augmented versus Routine approach to Giving Energy Trial)	$1.2M	Project	Dr Paul Young	Medical Research Institute of New Zealand
15/153	Te whakahawea tangata: decoding discrimination	$0.33M	Project	Dr Donna Cormack	University of Otago
15/165	Aspirin harm benefit calculator to guide cardiovascular primary prevention	$0.63M	Project	Dr Vanessa Selak	The University of Auckland
15/172	TeeVax - a novel vaccine against group A streptococcus?	$1.12M	Project	Associate Professor Thomas Proft	The University of Auckland
15/186	Prehospital injury deaths: preventability, service accessibility and equity	$0.6M	Project	Dr Bridget Kool	The University of Auckland
15/202	The combined use of nicotine replacement therapy and e-cigarettes	$1.2M	Project	Associate Professor Natalie Walker	The University of Auckland
15/209	A healthy life starts with a bio-energetically healthy placenta	$1.19M	Project	Professor Larry Chamley	The University of Auckland
15/216	Does preventing neonatal hypoglycaemia improve outcome at two years of age?	$1.6M	Project	Professor Jane Harding	The University of Auckland
15/229	Investigating a Novel Drug Target in Acute Myeloid Leukaemia	$1.15M	Project	Associate Professor Julia Horsfield	University of Otago
15/244	Carrageenan for the reduction of asthma exacerbations in adults	$1.2M	Project	Professor Julian Crane	University of Otago
15/247	The chemoprevention and treatment of diffuse gastric cancer	$1.19M	Project	Professor Parry Guilford	University of Otago
15/260	Enabling participation for children and young people with disabilities	$0.78M	Project	Professor Karen Witten	Massey University
15/261	Older drivers, families and GPs: Navigating the path between mobility and safety	$1.19M	Project	Dr Rebecca Brookland	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
15/263	The impact and management of rising osteoarthritis burden	$1.2M	Project	Associate Professor J. Abbott	University of Otago
15/265	Oral health from childhood to mid-life	$1.19M	Project	Dr Jonathan Mark Broadbent	University of Otago
15/273	The gut microbiome: a new pathway to obesity prevention and metabolic health	$1.2M	Project	Professor Bernhard Breier	Massey University
15/284	0.9% saline vs. Plasma-Lyte 148 ® for fluid therapy	$0.17M	Clinical Practitioner Research Fellowship	Dr Sumeet Reddy	Medical Research Institute of New Zealand
15/297	Self-directed rehabilitation RCT after stroke: a practical, low cost programme	$1.2M	Project	Dr Harry McNaughton	Medical Research Institute of New Zealand
15/299	Mitochondrial injury and inter-cellular mitochondrial transfer	$1.04M	Project	Dr Melanie-Jane McConnell	Victoria University of Wellington
15/311	Persistent airflow limitation and the airway microbiome in childhood asthma	$1.2M	Project	Professor Jeroen Douwes	Massey University
15/315	Whakapai e te Ara Hā: A health literacy approach to Tamariki Asthma	$1.2M	Project	Dr Tristram Ingham	University of Otago
15/331	CaMKII inhibition as a novel therapy for diabetic cardiomyopathy	$1.05M	Project	Dr Jeffrey Erickson	University of Otago
15/333	Oxidative Stress in Cystic Fibrosis	$0.8M	Project	Professor Anthony Kettle	University of Otago
15/347	Role of the Trib1 pseudokinase in breast cancer pathology	$1.13M	Project	Dr Peter Mace	University of Otago
15/352	Molecular predictors of liver cancer in Māori with chronic hepatitis B	$0.53M	Project	Professor Edward Gane	Auckland District Health Board
15/395	Pacific Health and Obesity Research	$0.3M	Pacific Health Davis Award	Dr Tupa'ilevaililigi Ridvan Firestone	Massey University
15/397	Pacific students' health, wellbeing & success in higher education	$0.1M	Pacific Health PhD	Associate Professor Faafetai Sopoaga	University of Otago
15/400	Anti-inflammatory effects of oral and transdermal clonidine in bronchiectasis	$0.15M	Feasibility Study	Dr Conroy Wong	Middlemore Clinical Trials Trust(Counties Manukau DHB)
15/401	PINTO: Pre-diabetes in pregnancy, can early intervention improve outcomes?	$0.15M	Feasibility Study	Dr Ruth Hughes	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
15/402	Effects of tart cherry concentrate on gout flares and serum urate	$0.14M	Feasibility Study	Professor Lisa Stamp	University of Otago
15/403	Food availability for Māori children - A rights based approach	$0.12M	Award Māori PhD Scholarship	Ms Christina McKerchar	University of Otago
15/408	Hookin' Up - Mental health and Pasifika students intimate relationships	$0.34M	Pacific Health Postdoctoral Fellowship	Dr Byron Seiuli	University of Waikato
15/410	Premature celebration? The late effects of early birth.	$0.15M	Emerging Researcher First Grant	Dr Mary Berry	University of Otago
15/413	"Created Equal": Investigating health system perspectives of disparities	$0.07M	Award Māori PhD Scholarship	Mrs Tania Huria	University of Otago
15/415	Defining a biomarker profile for anastomotic leak following colon surgery	$0.03M	Pacific Health PhD	Dr Bruce Uelese Su'a	The University of Auckland
15/418	The Korimako Practice-led Māori Social Work Model of Theory and Praxis	$0.02M	Award Māori Master Scholarship	Mrs Margaret Cheung	Te Whare Wananga O Awanuiarangi
15/419	Facilitating partner notification and rescreening for STIs in primary care	$0.15M	Feasibility Study	Dr Sally Rose	University of Otago
15/426	Māori participation in traditional Māori health practices	$0.11M	Award Māori PhD Scholarship	Ms Erena Wikaire	The University of Auckland
15/429	He Kainga Oranga:translating housing research to practice for children's health	$4.94M	Programme	Professor Philippa Howden-Chapman	University of Otago
15/430	Development of a brain controlled prosthetic	$0.02M	Award Māori Master Scholarship	Mr Mahonri William Owen	University of Waikato
15/431	Microaggressions and Māori	$0.02M	Award Māori Master Scholarship	Miss Jordan Gabrielle Nottingham Pearse	The University of Auckland
15/436	Te Papa o Te Ora	$0.42M	Award Māori Health Postdoc Fellow	Dr Meihana Durie	Te Wananga o Raukawa
15/441	Paramedic Systems of Care for ST-Elevation Myocardial Infarction Patients	$0.11M	Award Māori PhD Scholarship	Mr Paul Davis	Auckland University of Technology
15/444	The health and disability experiences of Whānau haua	$0.38M	Award Māori Health Postdoc Fellow	Dr Huhana (Susan Jane) Jane Hickey	Auckland University of Technology
15/446	Teaching immune cells old tricks: an innovative strategy for treating Cancer	$0.39M	Award Māori Health Postdoc Fellow	Dr Kimiora Henare	The University of Auckland
15/447	Developing a Pacific Youth Health Model	$0.11M	Pacific Health PhD	Ms Hana Tuisano	Massey University
15/454	Lipid profiles as a risk factor for metabolic disease in Polynesians	$0.11M	Pacific Health PhD	Jarrod Moors	University of Otago
15/460	Pasifika solutions to reduce sugary drink consumption	$0.3M	Pacific Health Davis Award	Dr Gerhard Sundborn	The University of Auckland

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
15/465	An Evaluation of a Māori Health Weight Loss and Lifestyle Change Model	$0.02M	Award Māori Master Scholarship	Miss Nicola Grace	Victoria University of Wellington
15/471	Iho - a cord between two worlds. Traditional Māori Birthing Practices.	$0.08M	Award Māori PhD Scholarship	Ms Kelly Tikao	University of Canterbury
15/476	Towards medical education that addresses Indigneous rights to health	$0.06M	Award Māori PhD Scholarship	Ms Anna Fay	The University of Auckland
15/477	Formulation of anti-tuberculosis drugs for high dose pulmonary delivery	$0.14M	Emerging Researcher First Grant	Dr Shyamal Das	University of Otago
15/479	Neutrophil oxidants in infection and inflammation	$4.83M	Programme	Professor Anthony Kettle	University of Otago
15/483	Growth Factors Delivery System for Bone Regeneration and Vascularisation	$0.15M	Emerging Researcher First Grant	Dr Khoon Shen Lim	University of Otago
15/485	The Nose Knows the Way: An Intranasal Approach to Treat Drug-resistant Epilepsy	$0.14M	Emerging Researcher First Grant	Dr Shakila Bano Rizwan	University of Otago
15/491	Developing a diagnostic tool for myelodysplastic syndrome	$0.14M	Emerging Researcher First Grant	Dr Euan Rodger	University of Otago
15/494	Magnesium for Endocrine Related Cognitive Problems in Breast Cancer	$0.15M	Feasibility Study	Professor Michael Findlay	The University of Auckland
15/496	Professional rugby clubs as a vehicle to deliver weight loss programmes for men	$0.15M	Feasibility Study	Professor Ralph Maddison	The University of Auckland
15/500	p53 and variants in inflammatory disease and cancer	$4.9M	Programme	Professor Antony Braithwaite	University of Otago
15/510	IL-1 signalling and developmental programming of offspring metabolic health	$0.14M	Emerging Researcher First Grant	Dr Clare Reynolds	The University of Auckland
15/513	Diabetes in Pregnancy effects on subsequent generations	$0.1M	Feasibility Study	Dr Rosemary Megan Hall	University of Otago
15/517	Mucosal associated invariant T cells: mechanisms of bacterial control in humans	$0.15M	Emerging Researcher First Grant	Dr James Ussher	University of Otago
15/527	The effectiveness of a monitor & feedback device for changing postural behaviour	$0.15M	Emerging Researcher First Grant	Dr Daniel Ribeiro	University of Otago
15/540	Systematic review and meta-analyses on health effects of dietary carbohydrates	$0.15M	Emerging Researcher First Grant	Dr Lisa Te Morenga	University of Otago
15/541	The efficacy and feasibility of modifying tumour metabolism for therapeutic gain	$0.1M	Feasibility Study	Professor Margreet Vissers	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
15/547	0.9% saline vs. Plasma-Lyte® as standard fluid therapy in hospitalised children	$0.15M	Feasibility Study	Dr Brent James McSharry	Auckland District Health Board
15/573	RCT of an ICS/LABA reliever therapy regimen in mild asthma	$4.98M	Programme	Professor Richard Beasley	Medical Research Institute of New Zealand
15/576	Mechanisms and Management of Musculoskeletal Disease	$5.M	Programme	Distinguished Professor Ian Reid	The University of Auckland
15/599	Citizen empowerment for creating healthy community environments in New Zealand	$0.15M	Explorer Grant	Dr Stefanie Vandevijvere	The University of Auckland
15/604	Squeezing through cracks reprograms cells	$0.15M	Explorer Grant	Dr Justin O'Sullivan	The University of Auckland
15/607	Cyclic voltammetry of the critically ill: a new window on disease status	$0.15M	Explorer Grant	Dr Anthony Phillips	The University of Auckland
15/623	Discovering novel pathways for gout via functional genetics	$0.15M	Explorer Grant	Associate Professor Julia Horsfield	University of Otago
15/636	Testing a new drug target that promises to impair breast cancer cell growth.	$0.1M	Partnership Programme Project	Dr Evelyn Sattlegger	Massey University
15/639	Identifying breast cancer patients with clinically relevant mutations	$0.2M	Partnership Programme Project	Dr Logan Walker	University of Otago
15/642	Understanding the role of aspirin in breast cancer treatment	$0.2M	Partnership Programme Project	Dr Anita Dunbier	University of Otago
15/644	Catalysts of Health and Wellbeing: A Retrospective Study of West Auckland Whānau	$0.2M	Ngā Kanohi Kitea Project	Dr Tanya Lee Allport	Te Rangatahi o te Whenua Trust
15/648	Whole-genome sequencing of drug-resistant Mycobacterium tuberculosis strains for diagnostics and outbreak detection	$0.45M	Partnership Programme Project	Professor Gregory Cook	University of Otago
15/649	Stress ulcer prophylaxis in the Intensive Care Unit	$0.2M	Partnership Programme Project	Dr Paul Young	Medical Research Institute of New Zealand
15/655	Delivering better care for people with severe COPD in the Southern Region	$0.2M	Partnership Programme Project	Professor Timothy Stokes	University of Otago
15/665	Development and implementation of an app to support antimicrobial prescribing	$0.2M	Partnership Programme Project	Ms Gayl Humphrey	Auckland UniServices Ltd
15/667	Text4Heart: Improving adherence in people with heart disease	$0.2M	Partnership Programme Project	Professor Ralph Maddison	Auckland UniServices Ltd
15/681	Te Ara Ririki	$0.17M	Ngā Kanohi Kitea Project	Ms Ngaropi Cameron	Tu Tama Wahine o Taranaki

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
15/682	He Pūkenga Kōrero: Rangatahi and Sexually Transmitted Infections in the Waikato	$0.2M	Ngā Kanohi Kitea Project	Dr Jillian Tipene	Te Puawai Tapu Trust
15/685	Improving Māori child health outcomes through Māori father involvement	$0.2M	Ngā Kanohi Kitea Project	Dr William Edwards	Mana Ririki
15/688	Kokiritia te Ora: Promoting Vitality, Enhancing Belonging for Ngatiwai Tamariki.	$0.2M	Ngā Kanohi Kitea Project	Ms Gayle Dowsett	Ngatiwai Education Limited
15/690	Using the NZ Breast Cancer Registries for targeted molecular research	$0.1M	Partnership Programme Project	Associate Professor Michael Black	University of Otago
15/696	When is enough, enough? Margins of excision after breast conservation for BCa.	$0.2M	Partnership Programme Project	Associate Professor Ian Campbell	The University of Auckland
16/001	Gut Peptides Post Bariatric Surgery: Mechanisms of Adaptive Metabolism	$0.17M	Clinical Practitioner Research Fellowship	Dr Brian Corley	University of Otago
16/003	Extending the window of opportunity for saving babies brains	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Joanne Davidson	The University of Auckland
16/022	Osteoarthritis: a case of cellular mismanagement?	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Raewyn Poulsen	The University of Auckland
16/023	Perioperative care in chronic rhinosinusitis	$0.08M	Clinical Practitioner Research Fellowship	Dr Ravi Jain	The University of Auckland
16/034	Taking Charge After Stroke (TACAS)	$0.25M	Clinical Practitioner Research Fellowship	Dr Vivian Fu	Medical Research Institute of New Zealand
16/043	Can placental stem cells be used to improve fetal outcomes?	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Joanna James	The University of Auckland
16/045	Serotonin agonists to prevent post-operative ileus after abdominal surgery	$0.25M	Clinical Practitioner Research Fellowship	Dr Tony Milne	The University of Auckland
16/054	Predicting brain tumour prognosis from cell immortality pathways.	$0.5M	Sir Charles Hercus Health Research Fellowship	Dr Tania Slatter	University of Otago
16/056	Exploring and improving hospital care quality for New Zealand rural communities	$0.22M	Award Foxley	Dr Carol Atmore	University of Otago
16/059	Thermal properties of the liver: improving outcome from ablation of liver cancer	$0.17M	Clinical Practitioner Research Fellowship	Mr Peter James Swan	The University of Auckland
16/065	A model of care for Māori and Pacific People with chronic airways disease	$0.24M	Clinical Practitioner Research Fellowship	Dr Sandra Hotu	The University of Auckland
16/072	Prescription Medicine Use in Pregnancy	$0.25M	Clinical Practitioner Research Fellowship	Dr Sarah Donald	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
16/083	IL-1 signalling and developmental programming of offspring metabolic health	$0.41M	Sir Charles Hercus Health Research Fellowship	Dr Clare Reynolds	The University of Auckland
16/125	High flow nasal cannulae therapy in COPD and Heart Failure	$0.25M	Clinical Practitioner Research Fellowship	Dr Steven McKinstry	Medical Research Institute of New Zealand
16/428	Tongan Youth Suicide Prevention Resource	$0.01M	Award Pacific Knowledge Translation	Dr Jemaima Tiatia-Seath	The University of Auckland
16/430	The epigenome is compromised in Huntington's disease	$0.15M	Emerging Researcher First Grant	Dr Pritika Narayan	The University of Auckland
16/434	Oral Cavity Squamous Cell Carcinomas: Cancer Stem Cells and the Role of the RAS	$0.15M	Emerging Researcher First Grant	Dr Tinte Itinteang	Gillies McIndoe Research Institute
16/436	Preventable illness in Pacific children and infants	$0.01M	Pacific Health Summer Studentship	Miss Damaris Dekker	University of Otago
16/437	Alcohol consumption and behaviours of pacific youth	$0.01M	Pacific Health Summer Studentship	Mr David Nair	University of Otago
16/438	Exploring Māori People's Satisfaction with Health Care Accessibility Over Time	$0.01M	Award Māori Health Summer Studentship	Miss Correna Matika	The University of Auckland
16/439	Māori Satisfaction in Their Health By DHB Regions, Do These Make a Difference?	$0.01M	Award Māori Health Summer Studentship	Ms Cinnamon-Jo Lindsay	The University of Auckland
16/440	Taiora Taimau	$0.3M	Award Nga Pou Senior Fellowship	Dr Mihi Ratima	Te Pou Tiringa Incorporated
16/448	Rheumatic fever injection compliance rates in Samoa	$0.01M	Pacific Health Summer Studentship	Miss Kaylarina Fuatai	University of Otago
16/449	Optimising Post-Operative Pain Relief Following Abdominal Surgery	$0.11M	Award Māori PhD Scholarship	Dr Jamie-Lee Rahiri	The University of Auckland
16/451	Associations between mental wellbeing and diabetes biomarkers in Pasifika youth	$0.M	Pacific Health Summer Studentship	Miss Hilla Fukofuka	University of Otago
16/452	Inflammation or infection? The role of biomarkers after colon surgery	$0.17M	Pacific Health Clinical Training Fellow	Dr Bruce Uelese Su'a	The University of Auckland
16/453	Koi Te Mata Punenga	$0.3M	Award Nga Pou Senior Fellowship	Dr Leonie Pihama	University of Waikato
16/460	Samoan patients' pathways to renal services – A paired case study	$0.01M	Pacific Health Summer Studentship	Mr Ryder Fuimaono	University of Otago
16/462	Kava drink-driving: Driver safety and injury minimisation to improve health	$0.23M	Pacific Health Postdoctoral Fellowship	Dr Apo Aporosa	University of Waikato
16/464	Pacific meets West in Advancing Palliative Care for Pacific populations	$0.3M	Pacific Health Davis Award	Dr Sunia Foliaki	Massey University
16/465	Pacific Peoples Falls Prevention Research	$0.01M	Pacific Health Summer Studentship	Mr Troy Ruhe	University of Otago
16/468	Pacific peoples experience of mental disorder and mental health services	$0.02M	Pacific Health Masters	Mrs Acelini Hakopa	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
16/478	Pacific young people's perspective of Oral Health and Oral Health Care	$0.01M	Pacific Health Summer Studentship	Mr Zebulun Laqekoro	University of Otago
16/482	Patterns of nutritional behaviour among a Pacific Christchurch cohort	$0.01M	Pacific Health Summer Studentship	Miss Brogan Maoate	University of Otago
16/483	Group exercise-based six-week training programme on sedentary Pacific adults	$0.01M	Pacific Health Summer Studentship	Mr Suli Tuitaupe	University of Canterbury
16/491	Investigating customary Māori philosophies regarding the whare tangata (womb)	$0.11M	Award Māori PhD Scholarship	Ms Ngahuia Murphy	University of Waikato
16/494	Spiritual care and kidney disease in NZ: Perspective of the patient	$0.01M	Pacific Health Summer Studentship	Mr Jonathan Feki	University of Otago
16/496	How does alcohol exposure affect an infant's epigenome?	$0.M	Award Māori Health Summer Studentship	Mr Nathaniel Carter	The University of Auckland
16/498	Tika tonu - young Māori mothers' experiences of wellbeing following birth	$0.06M	Award Māori PhD Scholarship	Mrs Aria Graham	Victoria University of Wellington
16/500	Does language have a positive impact on the prevalence of Mental Health	$0.01M	Pacific Health Summer Studentship	Miss Eirenei Tauai	University of Otago
16/503	Anti-Fibrotic effect of Remote Ischemic Preconditioning on the Diabetic Heart	$0.01M	Pacific Health Summer Studentship	Miss Tapuaki Vehikite	University of Otago
16/504	Epigenetic effects of alcohol exposure in the first trimester	$0.M	Pacific Health Summer Studentship	Mr Nathaniel Carter	The University of Auckland
16/508	Improving the uptake of hearing health services in older Pasifika people	$0.29M	Pacific Health Postdoctoral Fellowship	Dr Ravi Reddy	The University of Auckland
16/512	Pacific People's Opinions about Prescription Charges	$0.01M	Pacific Health Summer Studentship	Ms Ulalei Aiono	University of Otago
16/515	Suitability of a Low Carb High Fat diet amongst Pasifika peoples	$0.01M	Pacific Health Summer Studentship	Miss Theresa Fitzpatrick	University of Otago
16/516	Exploring the perceptions and experiences of Tongan males towards gambling in NZ	$0.11M	Pacific Health PhD	Mr Edmond Fehoko	Auckland University of Technology
16/517	Vulnerable at Risk Unborn babies at Counties Manukau Health, Auckland	$0.01M	Pacific Health Summer Studentship	Mr James Devoe	University of Otago
16/520	To better understand how cultural context can make a difference for Hauora	$0.02M	Award Māori Master Scholarship	Mrs Jewell Albert	Auckland University of Technology
16/526	Enhancing community healthy lifestyles: digital technologies	$0.01M	Pacific Health Summer Studentship	Mrs Tessa Malolo-Seu	Auckland University of Technology
16/530	Rethink: factors influencing student's life-work balance decision	$0.01M	Pacific Health Summer Studentship	Miss Nina Maifea	University of Otago

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
16/531	A Mother's Hope: Pacific Teenage Pregnancy in New Zealand	$0.01M	Award Pacific Knowledge Translation	Dr Seini Taufa	The University of Auckland
16/532	Her side of the Kava Story	$0.01M	Award Pacific Knowledge Translation	Ms Afu Taufa	The University of Auckland
16/536	Ethical issues in sexuality education – an exploration of Pacific approaches	$0.01M	Pacific Health Summer Studentship	Miss Fuakava Tanginoa	University of Otago
16/541	Kia Maanu, Kia Ora: Examining Māori Water Safety	$0.08M	Award Māori PhD Scholarship	Miss Chanel Phillips	University of Otago
16/547	Barriers and Enablers for Māori Children Accessing Primary Healthcare	$0.01M	Award Māori Health Summer Studentship	Mr Jordan Tewhaiti-Smith	University of Otago
16/549	Analysis of the demographics and barriers to access for patients in Vanuatu	$0.01M	Pacific Health Summer Studentship	Mr Steven Frederick Claude Young	The University of Auckland
16/550	Development of a Neural Interface for Prosthetics	$0.11M	Award Māori PhD Scholarship	Mr Mahonri William Owen	University of Waikato
16/553	The relationship between multimorbidity and polypharmacy	$0.01M	Pacific Health Summer Studentship	Mr Adaab Azam	University of Otago
16/555	Exploring Pacific children's unfavourable health outcomes using a Community-Based Participatory Research approach	$0.11M	Pacific Health PhD	Mrs Ellaine Ete Rasch	Victoria University of Wellington
16/558	An exploration of changes in Pacific Island family composition, 2000-2015	$0.01M	Pacific Health Summer Studentship	Ms Stevie Davis-Tana	Auckland University of Technology
16/560	Ko Māhuhu Te Waka: Māhuhu is the Ancestral Canoe	$0.01M	Award Māori Health Summer Studentship	Ms Samantha Jackson	University of Otago
16/561	Health Promotion in Pregnancy and Infancy for Pacific Disabled Parents.	$0.01M	Pacific Health Summer Studentship	Miss Natalie Taule'alo-Russell	The University of Auckland
16/569	Nga Arataki ki te Hauora Māori: Pathways for Māori Health Development	$0.01M	Award Māori Development Grant	Dr Tanya Lee Allport	Independent researcher
16/574	A survey of Māori Health Professional students at Otago	$0.01M	Award Māori Health Summer Studentship	Miss Nadine Houia-Ashwell	University of Otago
16/577	Māori Mental Health - Models of Kaupapa Māori Therapy	$0.01M	Award Māori Health Summer Studentship	Ms Acacia Wratten-Stone	Auckland University of Technology
16/583	Oranga Niho Mokopuna: A literature review of early childhood caries in Aotearoa	$0.01M	Award Māori Health Summer Studentship	Miss Ngareka Bensemann	University of Otago
16/585	Catalyst for Māori Health Development: A Case-Study of Māori Nursing	$0.01M	Award Māori Health Summer Studentship	Miss Erana Burrows	Te Whare Wananga O Awanuiarangi
16/586	Whakarauora Hapori	$0.48M	Award Māori Health Postdoc Fellow	Dr Ruakere Hond	Te Pou Tiringa Incorporated

Contract	Title	Budget ($000)	Contract type	Lead researcher	Research host
16/598	University of Otago Ethics Summer Studentship	$0.01M	Ethics Summer Studentships	Dr Kerry Galvin	University of Otago
16/601	Massey University Ethics Summer Studentship	$0.01M	Ethics Summer Studentships	Ms Shirley Morris	Massey University
16/603	Auckland University of Technology Ethics Summer Studentship	$0.01M	Ethics Summer Studentships	Ms Liz Turle-Smith	Auckland University of Technology
16/606	Nga Ahuatanga Hauora o nga Whānau o te Waipareira	$0.01M	Ngā Kanohi Kitea Development Grant	Dr Tanya Lee Allport	Te Whanau o Waipareira Trust
16/616	University of Auckland Ethics Summer Studentship	$0.01M	Ethics Summer Studentships	Mr Robin Bensley	The University of Auckland
16/633	Improving papakainga: linking health, housing and toiora (wellbeing)	$0.01M	Ngā Kanohi Kitea Development Grant	Ms Denise Riini	Waiariki Institute of Technology
16/636	Improving child and whānau health outcomes - intervention in early life settings	$0.01M	Ngā Kanohi Kitea Development Grant	Ms Erana Hond-Flavell	Te Pou Tiringa Incorporated
16/637	Mauri ora ki te whenua, He tatai nui ki te rangi	$0.01M	Ngā Kanohi Kitea Development Grant	Ms Heeni Shortland	Te Ahikaaroa Trust
16/640	Improving COPD Outcomes for Māori Whanau	$0.01M	Ngā Kanohi Kitea Development Grant	Ms Cheryl Davies	Tu Kotahi Māori Asthma Trust

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 2016

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

We have audited:

- the financial statements of the Health Research Council on pages 52 to 68, that comprise the statement of financial position as at 30 June 2016, the statement of comprehensive revenue and expense, statement of changes in equity and statement of cash flow 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 Health Research Council on pages 23 to 24, 28 to 29, 32, 36 to 37, and 40 to 51.

In our opinion:

- the financial statements of the Health Research Council:

- present fairly, in all material respects:

  - its financial position as at 30 June 2016; and

  - 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 Health Research Council's performance for the year ended 30 June 2016, 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; and

  - its actual revenue and output expenses as compared with the forecasts included in the statement of performance expectations for the financial year.

- complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 19 October 2016. 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 Board 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 Health Research 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 Health Research 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 Board;
- the appropriateness of the reported performance information within the Health Research 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 Board

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

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

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

The Board 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 Board 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 Health Research Council.

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

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 • High-impact, original research is conducted & translated across the research pipeline • Expertise is harnessed to create local solutions to global health challenges • NZ research contributes to international advances	1. New knowledge, solutions & innovations for health are created 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 • Expertise is harnessed to create local solutions to global health challenges • NZ research contributes to international advances • Innovative health technologies & therapies develop	1. New knowledge, solutions & innovations for health are created 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 • Research is easily accessed, understood & applied by end-users • Research increasingly guides policy & informs decisions • Overseas research is adapted for NZ conditions • New Zealanders have access to new treatments, technologies & improved services that meet their needs • The cost-effectiveness & sustainability of NZ's health system is improved through research	1. New knowledge, solutions & innovations for health are created 2. The healthcare system is improved through research evidence & innovation 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 • NZ has the research capacity to address the needs of our unique population • Promising emerging researchers gain valuable research experience • Sustainable career pathways enhance the skills of researchers & clinicians	1. New knowledge, solutions & innovations for health are created 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.

Published by the Health Research Council of New Zealand
PO Box 5541, Wellesley Street, Auckland 1141, New Zealand
Telephone 09 303 5200, Fax 09 377 9988, Email info@hrc.govt.nz

This document is available on the Health Research Council of New Zealand Website:
http://www.hrc.govt.nz