

hrc nz

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

Annual Report 2018

For the year ended
30 June 2018

Presented to the House of Representatives pursuant to Section 38 of the Health Research Council Act 1990 and Section 150(3) of the Crown Entities Act 2004

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Chairman's Report

Health research in New Zealand achieves great things for our country, and the Health Research Council is working hard to ensure it makes a valuable contribution to building a strong health research system now, and in the future.

Our organisation continues to rethink how we work to ensure we are efficient and effective and bring on board changes as a result. I am proud of how the staff have risen to the multiple challenges the organisation has faced in my time as Chair. Work over the last few years has led to health research being well and truly on the government's agenda, with the introduction of our country's first ever *Health Research Strategy* placing a stake in the ground about what we are aiming to achieve and the direction of travel for the next decade.

In recent years it has become clear to us that the public, and even some government agencies, do not know the extent of what the HRC does, and how it benefits New Zealanders. This is partly because we are often in the background – building up and sustaining the work of others – and rightly so. But for New Zealanders to value our contribution, they have to see what we do. They have to know that the HRC is part of the story for the majority of high-quality health research they read about. To that end, we have made a major effort to communicate what we do and the value of it more clearly, and in accessible and compelling ways – and we hope this annual report demonstrates that to readers.

The report does tell the 'accountability story' – vitally important for government and our population to know because this demonstrates we are fiscally responsible and take the responsibility for managing tax payer investment in health research incredibly seriously. Astute management of our funds and accurate modelling of our investment in out-years, has led to a marked decrease in financial equity, with more efficient and timely investment in partnerships with others, and our major investment rounds.

The report also tells of how well we are delivering on our goals and aspirations – we do what we say we'll do. Finally – the report demonstrates just how impactful the health research system is in New Zealand in building knowledge to inform health policy and practice, strengthening the health research workforce in our universities, hospitals and communities and – contributing to New Zealand's wellbeing. We are proud of these stories of achievement, but we know we can do more and that is the goal for the years ahead.

The Council's strong focus on achieving health equity was reflected in the launch of a new partnership with the Ministry of Social Development to bring innovative approaches to bear on improving employment outcomes for people with illness or disability. This also reflects our strategic intent to work across government sectors to address poverty and disadvantage and the ways that this profoundly undermines physical and mental health.

We have also invested in a research programme that brings multiple agencies together to investigate marae teachings as the basis to build resilience in Māori youth – by providing a positive focus for their future and strengthening their connections to the Māori world. The Council believe that this is the type of research that could pay health dividends for years to come and we look forward to telling you more as results are released.

The health of our children and young people is a major focus for the government, and so also for the HRC. We have a very strong record of investing in research that quite literally saves the lives of New Zealand children. We supported the seminal discovery that babies must be put to sleep on their backs, halving the incidence of sudden unexplained death in infants in just a few years. This year, HRC funds have been used to show that the lives of 100 babies over five years could be saved if pregnant women simply sleep on their sides.

I have been working in the health sector for many years, and this year I have been struck by the increased will to make changes, connect and co-ordinate efforts, and just to do things differently. *The New Zealand Health Research Strategy 2017-2027* is a spur for this and the Council is pleased to be playing a core part in it. We are leading the actions to set national health research priorities, improve outcomes for Māori and Pacific peoples and develop and sustain a strong health research workforce. We are supporting the Ministry of Health and MBIE in leading their actions, as they support us.

The HRC strongly supports this more collaborative approach and I have no doubt that the New Zealand public will benefit from concerted efforts to collaborate meaningfully.



A handwritten signature in black ink, appearing to read 'Lester Levy'.

**Dr Lester Levy, CNZM
Chair**

Chief Executive's Summary

One of the most interesting aspects of my role is meeting with researchers and communities throughout New Zealand, and a broad range of dedicated people and organisations that work together to further the global health research effort.

In early June 2018, I met with the Heads of International Research Organisations at our annual meeting – with the HRC representing New Zealand. I was struck by how leading funders internationally, including NIH, Wellcome Trust, MRC (UK), the Gates Foundation, the Chan Zuckerberg Trust and more, are really interested in and impressed by New Zealand health research and researchers. It is extremely encouraging that countries with literally billions to invest in research, such as the UK and the US, are taking notice of what we are doing here and are keen to collaborate.

This international interest is further evidenced by the international citations of the HRC's Explorer Grant model, including both Nature and the Times Education Supplement in the past year. Indeed, just how to ensure we are funding cutting edge and risky research was a topic of the HIRO meeting and the Explorer Grants were again referred to as being of interest. The *science of science investment* is a topic of enormous relevance to all of us, and it is a topic that has been underinvested in for years. Extraordinary when you think about it. We are evaluating all new investment initiatives for impact – it is not only researchers that need to focus on impact, funders need to too.

This year has been a major one for New Zealand in starting the implementation of the *Health Research Strategy 2017–2027*. We think New Zealand is the only country that has put in place a strategy to unite all of its major funding agencies supporting health research through a national strategy and involved the whole country in setting the health research agenda.

The Strategy gives us a lot of very important work to do, and we are undertaking it with enthusiasm and care. As a member of the Steering Committee charged with implementing the Strategy, I am very aware of the importance of the actions that the HRC is charged with leading and working with our Ministries (for both science and health) to deliver on. We are currently in the process of setting health research priorities to serve the health and knowledge needs of New Zealand, and that will guide investment for every government health research funder.

It's important to note that the prioritisation consultation is not just about HRC, although we are leading the work. Lifting our gaze beyond business as usual for the HRC has been a valuable exercise in showing us how the sector can better connect and work together to realise a collective vision for New Zealand. The strategy heralds a new era of cross-government collaboration to support health research to benefit New Zealanders, and New Zealand.

Whilst policy drivers for health research are rightly local (what do we need to do in, and for, New Zealand) – science is a global business (international standards of quality are essential for credibility). We are currently developing our own international investment strategy which will be influenced by the prioritisation exercise and our existing partnerships, but New Zealand health researchers are already incredibly well connected internationally. We have increased opportunities to connect through New Zealand's collaboration with the Global Alliance for Chronic Diseases (GACD). The GACD's global call for implementation science research on mental health was answered through a partnership between the HRC and the Ministry of Health to better support Māori and Pacific youth with mental health problems and links our researchers with others funded by different countries.

The GACD global board meeting in Delhi in November 2017 noted the international review panel as very welcoming of the New Zealand submissions, which focused on indigenous knowledge and included some highly innovative ideas. The meeting in Delhi also highlighted for me personally, the importance of healthy air – looking out the meeting room window was more like looking at a white board than a city. I came back briefly thinking that perhaps all we should fund was climate/environmental health research – our Ministers' certainly have an expectation that HRC focus on the health impact of climate change, but we have a big job to do that goes wider than any one topic of importance. Health research is a vital component of a strong health system (health outcomes are better in centres where research is being done) and to ensure we produce knowledge to build a healthy future both now – and for future generations. We aim to serve New Zealand in the best way we can.

It's been another exciting year for the HRC with much to achieve, but as I hope this report shows, we have achieved a great deal and supported many to contribute extraordinary things for New Zealand's benefit.

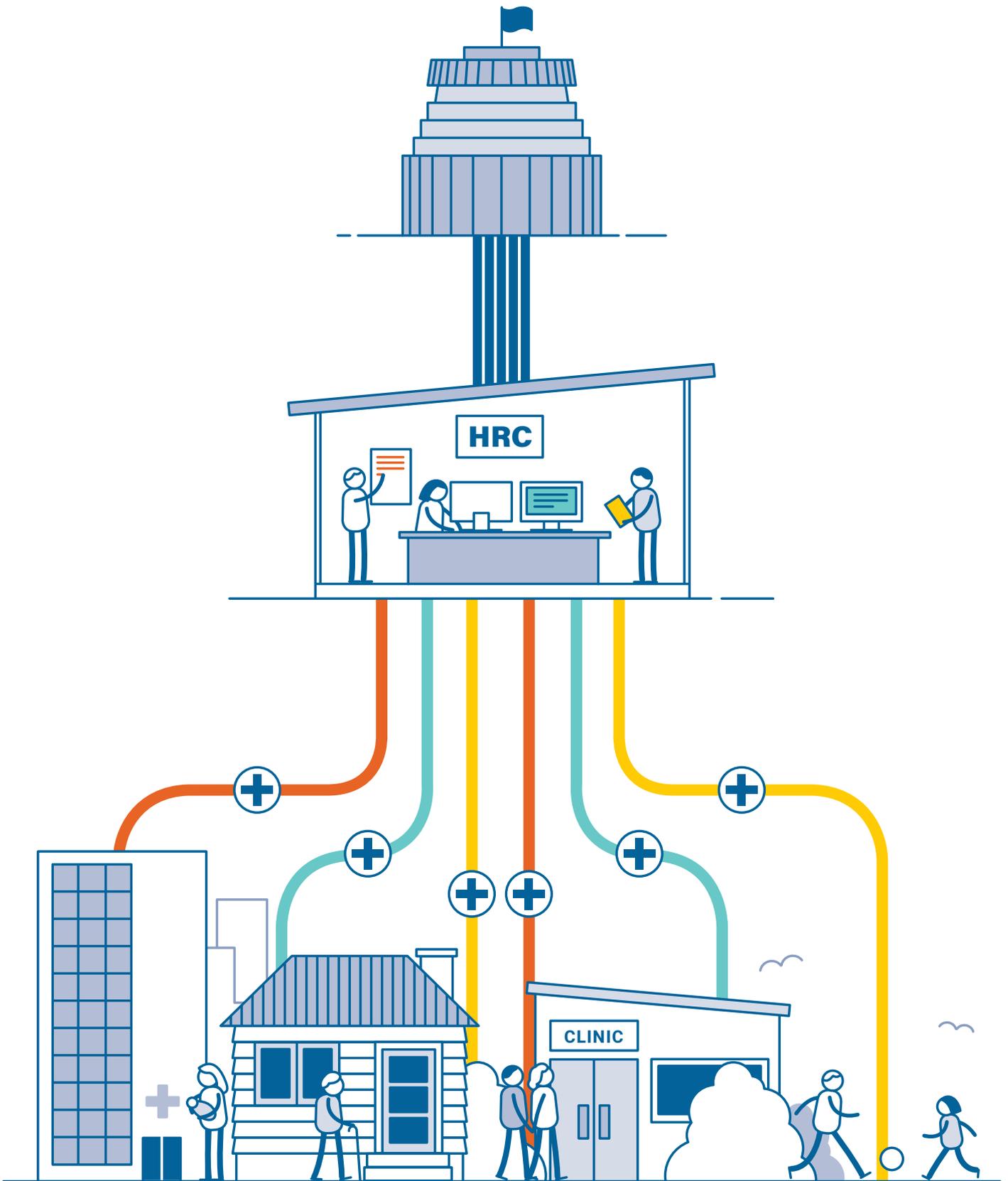


Professor Kathryn McPherson
Chief Executive



Part 1: 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 **Minister of Health, as our ownership minister**, and the **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 3 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 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 27 years in 2017. 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 institutional knowledge, capability building and strong governance as our foundation**. We have built rigorous, robust, and equitable investment processes over this time that ensure 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 100 more targeted on career development**. Our investment provides research opportunities and training for approximately 2000 individuals every year. Our contracts are mostly with universities, but also with polytechnics, non-government organisations, Māori and Pacific research organisations and communities, and private research institutes.

We also contribute to 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.

We generate the knowledge and discoveries needed to bring a healthier future for New Zealanders. We need better evidence 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/whānau – 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 anticipate the knowledge needs of our stakeholders and work with them, so that we can provide the evidence to underpin sound policy development and strategic planning in both the government and non-government sectors. **Implementing *New Zealand's Health Research Strategy 2017-2027* over the next decade will be a key part of how we achieve this**.

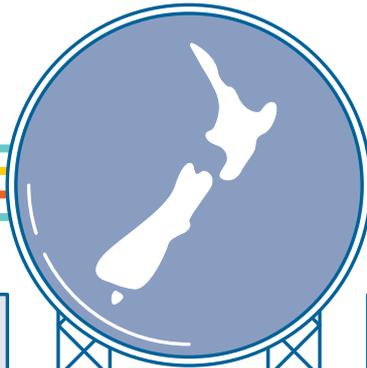
We support our researchers to explore exciting innovations, even if this involves some degree of investment risk (see our Explorer Grants, p50), so that our population can be the first to benefit and our economy boosted by access to the global health market.

We improve the quality of our healthcare system through working with the Ministry of Health and District Health Boards to embed a research ethos in everyday practice and drawing 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 to New Zealanders, 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 train, maintain, and retain a research workforce with the skills and capability to address our current and future health challenges. To do this we offer the range of research opportunities required to allow promising health researchers and clinicians to advance their careers in New Zealand.

The HRC at a glance



OUR VISION

For New Zealand to be a world-leader in high impact, high value health research.

OUR MISSION

To ensure our health research system is a great place for researchers to do work that tangibly improves health and wellbeing for the people who need it most, both now and in the future.

HRC

The home of health research in New Zealand



Investing \$100M per year in New Zealand health research and researchers



Prioritising research that makes a real difference to New Zealanders



Promoting research excellence and impact



Powering innovation



Recruiting, retaining and training the best health researchers



Connecting researchers across institutional and national boundaries



Partnering for greater impact and greater equity



Whilst short to medium-term impacts matter, we must build a system that 'plays the long game,' because it often takes 20 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

Most of the 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:

- Investing in excellent research that meets the health needs of all New Zealanders: Output 1 – Health Research contracts
- Developing and sustaining a strong health research workforce: Output 2 – Career Development
- Partnering for impact and connecting with global health research efforts: Output 3 – Co-funding relationships
- Keeping NZ health research ethical and safe: Output 4 – Policy, Regulatory, and Ethical Frameworks and Relationships

These Outputs provide the framework for reporting in Part 3 of this report – What we have delivered in 2017/18 (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.

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.

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 goals, priorities and recommendations

The overarching outcome that the HRC seeks to achieve is that New Zealand is a world-leader in high-value, high-impact health research. Our efforts to meet this outcome ultimately contribute to New Zealand's goal where **all New Zealanders live well, stay well and get well.**

Key priorities for the Minister of Health are to achieve health equity, to better meet unmet health need, to improve primary care and health service delivery, and to combat the health issues that most affect our people – mental health, cancer, obesity and diabetes.

The Minister of Health has signalled the intent to review the New Zealand Health Strategy. The ways in which the HRC is responding to the existing strategy are detailed in Appendix 2.

The HRC's contribution is to **ensure health research tangibly improves opportunities for health and wellbeing for the people who need it most, now and in the future.**

The Government's *National Statement of Science Investment* is currently being refreshed. The ways in which the HRC delivered on the original strategy are illustrated in Appendix 3. Key priorities for the Minister of Research, Science and Innovation that directly influence the HRC's strategic focus and intent include fostering innovation, collaboration and multidisciplinary, ecosystem-wide approaches; supporting diversity in all its facets; improving equity; and strengthening the intersection between environment, animals and human health. This includes issues such as ensuring warm, dry homes and resilience to the environmental impacts of climate change.

Meeting our Ministers' expectations

In the 2017/18 Letter of Expectations from the Minister of Health and the Minister of Research, Science and Innovation, particular emphasis was placed on:

- Strengthening our **strategic leadership role** in the health research sector; funding **excellent research** with the potential for **high impact**; and fostering a strong and diverse **workforce**;
- Working constructively with the Ministry of Health and the Ministry of Business, Innovation and Employment, and the wider health sector;
- Continuing to improve efficiency and effectiveness by maintaining a team approach and **working with other agencies** where that is needed to deliver results;
- Promoting and **implementing the *New Zealand Health Research Strategy***, collaborating with the Ministry of Health and the Ministry of Business, Innovation and Employment, and leading those actions the HRC is responsible for;
- Demonstrating commitment to the *New Zealand Health Research Strategy* by reflecting the strategy's priorities, supporting actions and outcomes in strategic documents;
- **Undertaking an inclusive priority-setting process**, prioritising research in areas that **address inequities** and **improve the health of Māori and Pacific peoples**, and working in partnership to achieve this;
- Initiating and strengthening collaborations that **leverage international science and innovation** that will benefit New Zealand, and
- Working collaboratively to ensure existing infrastructure, information platforms and systems meet this government's priorities, including continued support for the development and operation of the **National Research Information System**.

We have worked very closely with MBIE and the Ministry of Health this year, as we collaborate to implement the *New Zealand Health Research Strategy*; partner to co-fund vital research in priority areas; and **prepare for our data to be incorporated into the National Research Information System**.

We have worked to strengthen our leadership and co-ordination role in the sector by engaging the health and science sectors and the public in identifying national priorities for health research. We have worked with **the Australia New Zealand Clinical Trials Register (ANZCTR) and the Australian Clinical Trials Alliance (ACTA)** to improve the ecosystem for clinical trials in New Zealand (see Driver 3, p34). Through our relationships with international funding agencies, we have provided opportunities for our health researchers to work with world-class teams focusing on issues of importance to New Zealanders, so we can apply the latest knowledge and evidence here.

The **HRC has continued to strengthen our investment on health equity and unmet health need**. We provide significant research funding and career development opportunities for Māori and Pacific people, along with those involved in healthcare delivery, to improve services; to invest in solutions that will improve our mental health, and to reduce obesity, diabetes and cancer.

Our concept of health and wellbeing is broad, and we continue to work across sectors to address complex societal issues, including health; housing and employment; the impact of the Christchurch earthquakes; water quality and health, and effective models for primary care.

Excellence and innovation are the foundations for everything we do. The HRC continues to support the best ideas by our world-leading researchers, so New Zealand can continue to be at the forefront of, and benefit from, global advances in health and innovation.

The HRC is part of a cross-government effort to achieve the **UN Sustainable Development Goals** in line with a universal agenda to achieve sustainable development globally by 2030. These goals focus on the three dimensions of sustainable development: economic, social and environmental.

Continuous improvement in investment processes

Ensuring that research proposal assessment and contracting is equitable, free from conflict of interest, and addresses the areas of greatest need are critical to maintaining the trust and support of the health research community and forms a major part of our work.

Assessment through the Annual Funding Round takes about nine months in total, involves approximately 240 expert committee 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 (see Driver 1 work on impact in 2017/18, p20), as well as 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.

Addressing our Ministers' Priorities in 2017/18 – some highlights

Key priorities for the Minister of Health include **health equity** and **unmet health need**.



Unmet health need

Improving antenatal services for young Māori mothers

We have funded a series of studies led by Professor Beverley Lawton (Victoria University of Wellington) addressing stark disparities between Māori and non-Māori mothers and their newborn children's health outcomes, access to health services, and mortality. This includes **a study of severe maternal health events – 'near misses' – which found that almost 40 per cent of cases were potentially preventable** and most of these were due to clinical error. Professor Lawton's work has informed reviews of Ministry of Health and DHB pregnancy and antenatal services and helped target increased investment in areas of need.



Health equity

The New Zealand Indices of Multiple Deprivation (IMD) was developed through an HRC 2013 project grant awarded to Dr Daniel Exeter (University of Auckland). It is a new tool used to assess deprivation, based on which resources can be distributed to areas of need. **Data to develop the IMD came from agencies including the police, Ministry of Health, Ministry of Social Development and the Inland Revenue.**

Since its launch in 2017, the IMD has been used to explore the association between deprivation and childhood asthma, childhood obesity and childhood oral health, life expectancy, at-risk children, antibiotic dispensing, general wellbeing and rheumatic fever, as well as in the setting of property rates and as evidence of a housing crisis in Northland.

Key priorities for the Minister of Research, Science and Innovation, specific to health, include the intersection between the environment and health¹



Canterbury earthquakes

In 2011, the HRC and the Canterbury Medical Research Foundation made joint investment in five research projects exploring the health implications of the Canterbury Earthquakes. These included the establishment of a **database detailing the total burden of injury and illness as a consequence of earthquakes** in Christchurch, Seddon, Kaikoura and Wellington. The insights provided have led to changes in disaster management planning to account for people arriving at emergency departments by unusual means and without pre-treatment, being reluctant to enter hospital buildings and the need for manual registration and tracking of patients (in the event of full loss of power).



Environment

Havelock North Campylobacter Outbreak. In August 2016, more than 5000 people became infected with Campylobacter in Havelock North as a result of water supply contamination. Due to the significance of this event, in 2017 **the HRC awarded a special funding allocation to a two-year programme of research** to assess the public health sector response, investigate the longer-term health impacts, and explore non-traditional data tools that could potentially have helped public-health professionals identify the outbreak sooner, and may therefore be useful to aid detection or spread warnings in the event of future outbreaks (e.g. social media feeds). The research is led by Dr Nicholas Jones (Hawkes Bay District Health Board).

¹ Priorities for the Minister of Research, Science and innovation also include Raising R&D high-tech innovation in firms; innovation; fostering multidisciplinary and multi-stakeholder research collaborations, blue skies/fundamental research; platforms for knowledge translation and commercialisation; strengthening strategic international relationships; science infrastructure, and diversity in all its facets, including science panels. These are reflected throughout the report.

Organisational structure and accountability

The HRC has a ten-member Board appointed by the Minister of Health, in consultation with the Minister of Research, Science and Innovation, with a range of expertise defined by the HRC Act 1990. Members of the Council chair three of the HRC's four Statutory Committees (the Biomedical, Public Health and Māori Health Research Committees). The fourth, the HRC Ethics Committee, is chaired by an independent expert on health ethics.

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. Membership of the Council and the HRC's Statutory Committees is provided on p69.

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 Council.

The HRC team works closely with both the Council and the HRC's statutory and standing committees. Relationships between the HRC team, Ministry of Health, Ministry of Business, Innovation and Employment (MBIE), and other

funding agents are important. The Chief Executive and members of the management team participate in regular and productive meetings with Ministry of Health and MBIE where matters important to the health research environment are discussed.

Accountability to our Ministries

The HRC is delivering on the policies of its Ministries and demonstrating a high degree of accountability. In addition to this, we have a 'no surprises approach' to ensure transparency and information exchange at the very highest levels – not just to limit risk, but because we think it is essential to ensure that we are maintaining effective communication and making the best use of government funds.

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

Six-monthly reports against the Statement of Performance Expectations and Output and Crown Funding Agreements with the Ministry of Health (MoH), and MBIE.

Other reports

Investment Impact Report – provided to MBIE and Ministry of Health every 3 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.

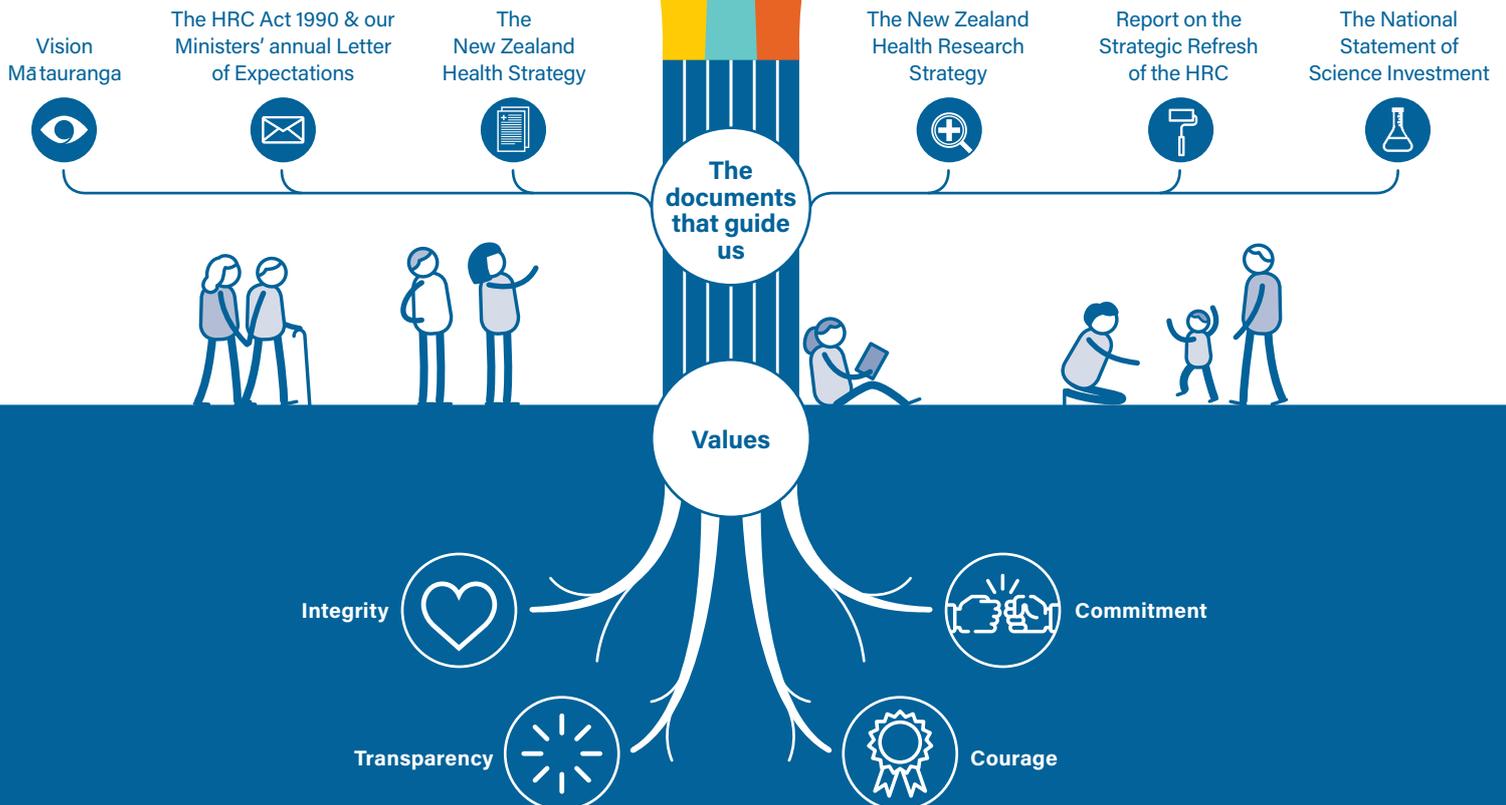
The key elements of the HRC's performance framework

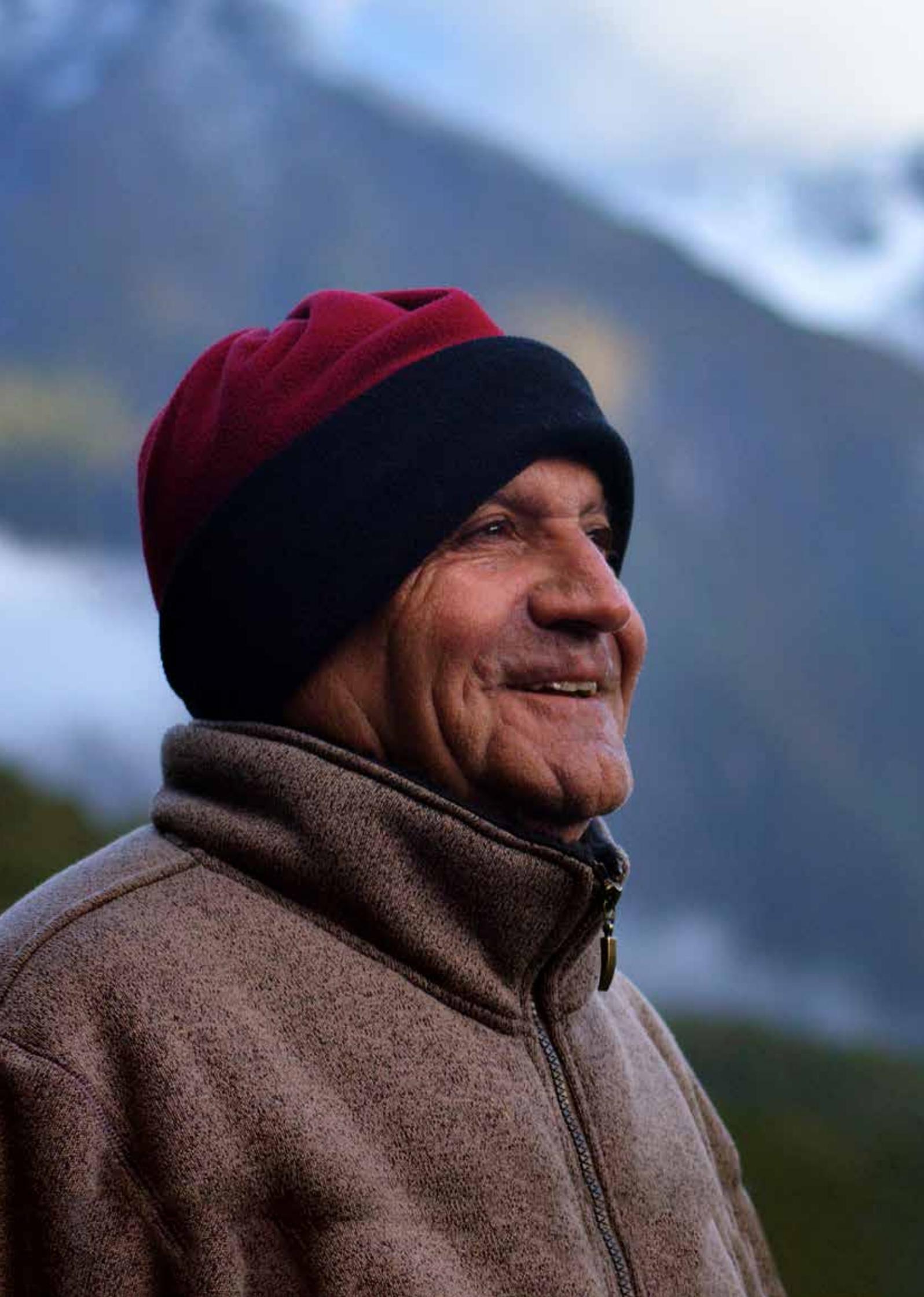
New Zealand is a leader in high-impact, high-value health research

Driver 2
Stimulating
growth

Driver 1
Making a
difference

Driver 3
Increasing
engagement
& connection





Part 2:

What drives us and our progress against our goals

We named our goals 'Key Decision Drivers' because they drive everything that we do. In Part 2, we report great progress in 'making a difference,' 'stimulating growth' and 'increasing engagement and connection' – the three drivers of our strategic vision

How we tell our performance story

This is the first year that we are reporting on our three Key Decision Drivers from our new performance framework published in the HRC's Statement of Intent 2017–2021, making it easier to measure our performance with clear goals and specific actions to achieve under each. This part of the report details how we have delivered against this new framework and our progress against meeting our goals.

The Key Decision Drivers that we measure our performance against are:



Driver 1: Making a difference: **new knowledge with clear pathways to impact** for health and economic gain



Driver 2: Stimulating growth: building a healthy research ecosystem, with **the people, capacity, skills and opportunities that we need** for a healthier, more prosperous future



Driver 3: Increasing engagement and connection: **adding value to realise our collective potential**

Our four **Research Investment Streams (RIS)** are the mechanism through which we communicate New Zealand's health research needs to the 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 stream – the key points of difference and the links between the RIS and our outcome framework are summarised in Appendix 4, p96.

New Zealanders highly value health research for its contribution to the health of our people and our nation.¹ 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.

In reporting our performance, we have tried to provide a mix of surrogate measures for impact that allow us to track our progress against the actions that we have set for ourselves in the Statement of Intent. Each key performance indicator is linked to these actions, and our Drivers and key areas of focus.

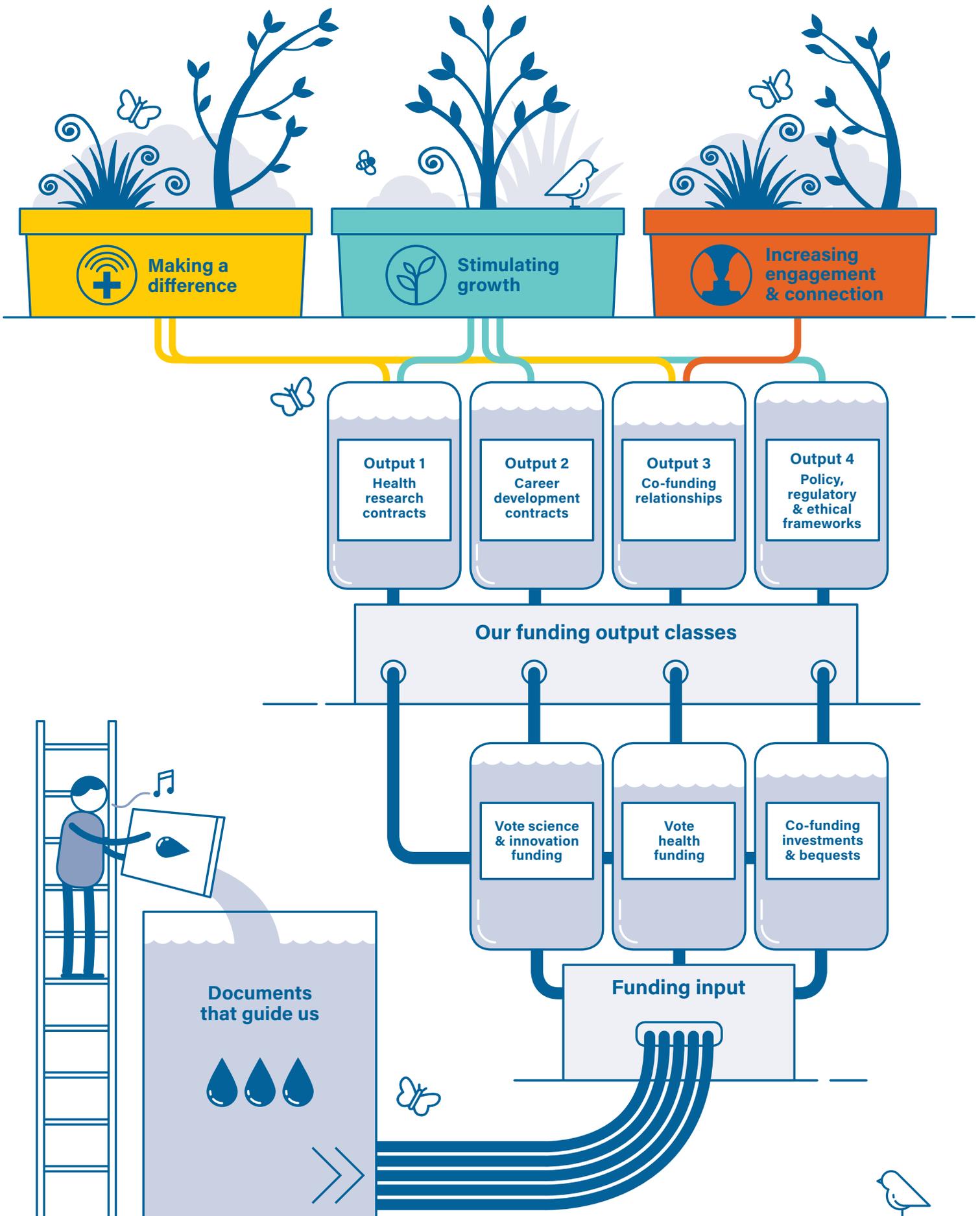
The outcomes that we report are only a fraction of the total, and more good news about the health research investment is regularly posted on the HRC website: www.hrc.govt.nz, and regularly disseminated in our *Update* on-line newsletter.

The graphic on the following page provides a light-hearted look at how it all fits together – our inputs, outputs and strategic decision drivers.

¹ New Zealand speaks! New Zealanders for Health Research Opinion Poll 2017.

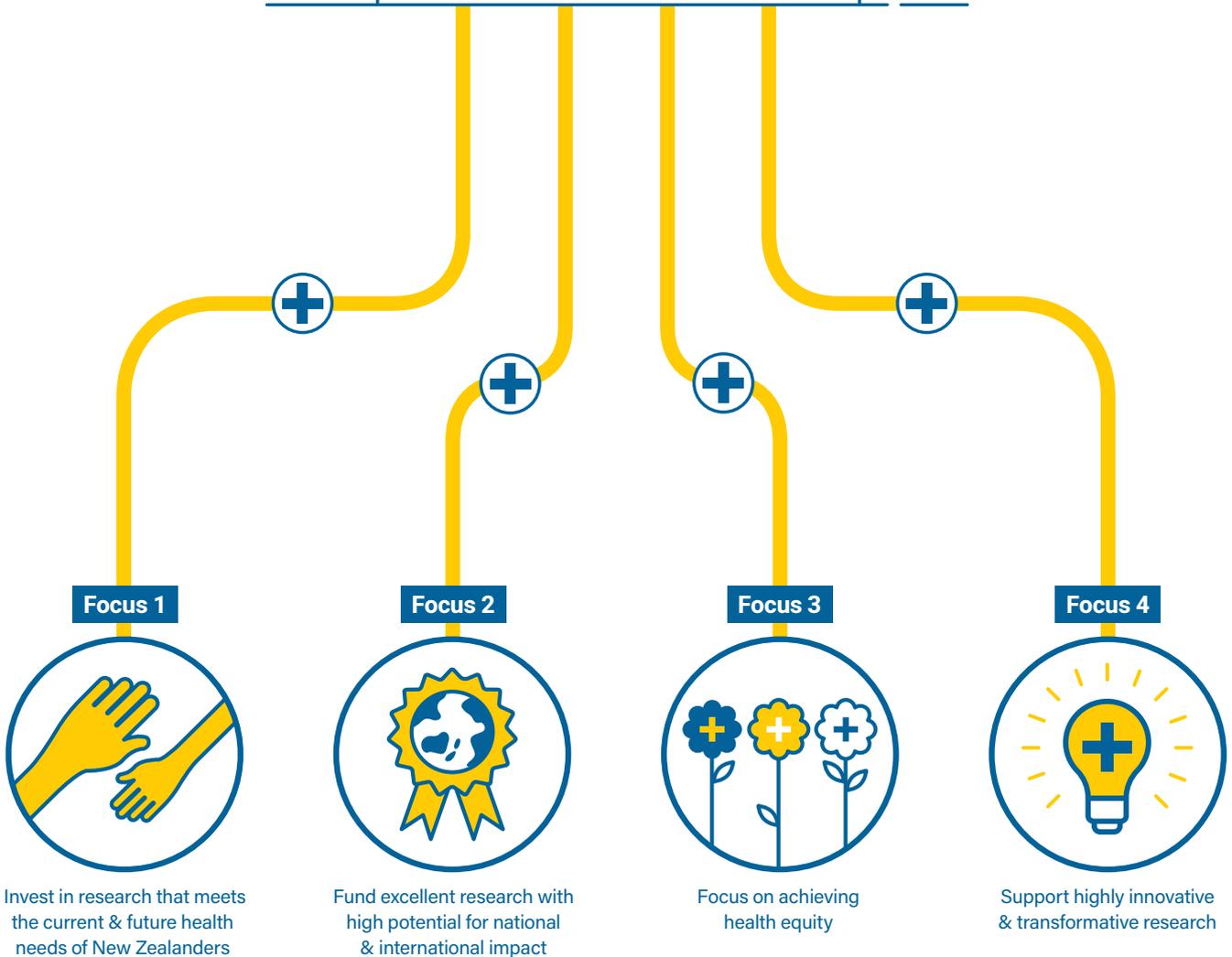
Key decision drivers

New Zealand is a leader in high-impact, high-value health research





Driver 1: Making a difference



We now deliver to a refreshed agenda that sees us taking a greater leadership role in setting national research priorities, ensuring that investment is targeted to the areas of greatest national need, and driving key findings of the research we support to the people and organisations that need them

The need to demonstrate return on investment has become a major policy issue for funders of research, both in New Zealand and internationally. As the primary agency for publicly-funded health research in New Zealand, the HRC has a responsibility to **use taxpayers' money effectively, and to demonstrate to the public that health research improves quality of life for New Zealanders, and ultimately saves lives.** It's crucial that we demonstrate to government and taxpayers that health research can also reduce healthcare costs, generate revenue from innovation, and upskill our workforce.

In 2016, **the HRC received a 56 per cent budget increase**, the first in a decade, in recognition that health research has been underfunded. Our ability to demonstrate a diversity of research impacts, extending well beyond health outcomes to include economic, environmental, and broader social benefits, also played a role in the decision. This year, we have continued to demonstrate the benefits of research to New Zealand and are **fully aligning our investment processes with the *New Zealand Health Research Strategy 2017-2027*.**



Focus 1: Invest in research that meets the current and future health needs of New Zealanders

Establishing national health research priorities

This year **we have made substantial progress in establishing national research priorities** to guide the government investment in health research. This has never been done before and so the first step has been to set up a truly robust and trusted process that everyone involved in the health research sector can participate in. By June, we had worked in partnership with MBIE and Ministry of Health to develop this process, consulted on it to gain a mandate to proceed, and established a high-profile Development Group of highly-regarded individuals to take the process forward.

Strategic investment areas are being announced in early 2019 and specific research priorities will be finalised by the end of that year. Planning for a nationwide consultation process is now underway and **we will ensure that we hear from all New Zealanders that want to contribute** to setting the priority agenda for health research – including those who have not traditionally been listened to in processes such as these. When we agree on what needs to be done as a nation, and unite behind a common set of priorities, we can make greater, more timely progress in meeting our knowledge and innovation needs.

Develop three-year Investment Plans to signal longer-term directions to the research community

One of the outcomes of the 2015 The Strategic Refresh of the HRC, was that the HRC should produce three-year investment plans to send longer-term signals to the health research community.

This work is closely tied to the development of national health research priorities, so that the HRC can immediately align with the outcome of that process. When Strategic Investment Areas are announced, the HRC will immediately publish an interim Investment Plan to signal directions over the coming year, and then a three-year investment plan will be published in early 2020 – following announcement of the research priorities at the end of 2019.

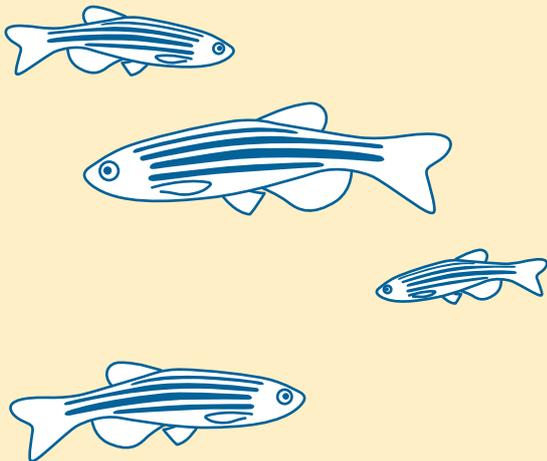
How a tiny fish can bring big relief to gout sufferers

Some tiny fish have provided hope for better treatment for gout sufferers. Gout is an extremely painful arthritis that develops when urate levels in the blood rise, allowing crystals to be deposited in and around joints. These trigger an inflammatory process, which drives the pain.

Using zebra fish at the transparent phase of their life-cycle and funding from HRC, Chris Hall (University of Auckland) and his team were able to watch the immune system respond to the crystals and discovered an unknown way in which they trigger inflammation.

Blocking this mechanism promises an alternative treatment to current anti-inflammatories – which can have serious side-effects. This is particularly good news for Māori and Pacific peoples, who have the highest prevalence of gout in the world.

Also using HRC funds to make a major difference for people with gout is Professor Lisa Stamp (University of Otago), who won the Medicines New Zealand 2017 Value of Medicine Award for demonstrating that patients could take their gout medication differently to manage their gout without risk of the side-effects that were common and debilitating under the old regimen.



Key performance indicator for Focus 1: Invest in research that meets the current and future needs of New Zealanders

Establishment of national health research priorities



Baseline/trend

Currently: No national health research priorities.



Target 2017/18

Consult with stakeholders on national health research needs, threats, capacity and capability and draft a set of national health research priorities.



Actual 2017/18

We have achieved our target on a revised timeline approved by our Ministers.

We have worked with MBIE and the Ministry of Health to develop a national priority-setting process based on international best-practice and customised for our unique New Zealand environment. We **established an independent committee** (appointed in April 2018) to take the work forward. Their first meeting was scheduled for 4 July 2018.



Target for 2021

We are **on track** to meet our target.

We will have established national health research priorities, communicated these priorities to the wider health research sector and aligned our investment signals to clearly reflect them.



What does meeting our targets tell us?

That we have appropriately responded to the recommendations in the Report on the Strategic Refresh of the Health Research Council and the related action allocated to the HRC in the *New Zealand Health Research Strategy*.



Focus 2: Fund excellent research with high potential for national & international impact

Refining our research criteria to more clearly consider impact and impact pathways

Our biggest challenge in making sure that the research we fund makes a difference will be to assess excellence and *potential* impact well, and for this we have looked hard at our processes over the last year. We know that **there can be no positive impact without excellence, and so this must always be the foundation of our system.**

Building on the wealth of expertise embodied by our Research Committees, the HRC has completely changed the way that we assess the potential impact of the research we fund. **Applicants are now asked to account for all potential ways that their research can add value for New Zealand.** They are required to do this in their application, but also to provide an **action plan to maximise the use and benefits of the research.** A narrated presentation on the HRC's website helps researchers design research to maximise impact and communicate that impact when applying for funding. The response from the research community has been very positive.

Consider makeup of assessment panels to ensure appropriate expertise to better assess impact

The HRC has been looking at options as to how the makeup of assessment panels might be enhanced to better assess potential research impact. Our thinking has been informed by some experts in the field, including Dr David Phipps, Executive Director of Research and Innovation Services at York University, Canada and leader of their award-winning Knowledge Mobilization Unit. The Unit is instrumental in advising researchers, community organisations and government agencies on maximising the impacts of research. Dr Phipps was named the most influential knowledge mobiliser in Canada in both 2011 and 2012. He has now given two workshops at the HRC, whilst in New Zealand to advise MBIE and the Ministry of Health on the implementation of the *New Zealand Health Research Strategy*. The HRC has established a cross-group team to operationalise the new ideas.



Focus 3: Focus on achieving health equity

A key focus for the HRC is to invest in research that will aid health providers and policy-makers in **improving health outcomes for those whose needs are not currently being met** due to poverty, lack of access to services, or services that do not meet their cultural or disability needs.

Increase investment and provide new opportunities for Māori and Pacific health research and researchers

With the support of the MBIE and the Ministry of Health, the HRC is leading the following actions under the *New Zealand Health Research Strategy 2017–2027*:

- Action 2 – Invest in **healthy futures for Māori**, and
- Action 3 – Invest in research that results in **equitable outcomes for Pacific peoples** and helps them to lead independent lives.

Each of these actions involves a major programme of work to produce **a strong evidence base for health, community and policy interventions.**

Our work under Focus 1, setting national health research priorities, is the first step in implementing these work programmes and we have put a lot of effort into ensuring that **Māori and Pacific people will be extensively and appropriately engaged in the priority-setting process** to ensure that we understand where resources should best be targeted to meet the goals of the Strategy and of our Council.

Alongside working to establish priorities for investment, we have made considerable progress in **developing a criterion for ensuring that research is responsive to Māori.** Our on-going work on the development of a Māori advancement criterion will be applied to all research that the HRC considers for funding and will contribute to the following directives from the *New Zealand Health Research Strategy*:

- Action 2, part 2: **Develop guidance** on how to ensure that research is responsive to Māori and appropriately conducted.
- Action 2, part 3: **Develop and refine criteria for funding mechanisms** so that they give appropriate weighting to the principles of Vision Mātauranga and He Korowai Oranga.

The criterion is being developed in a collaborative process involving members of the HRC's Māori Health, Public Health, Biomedical and Pacific Health Research Committees.

The beauty of this approach is that **all disciplines are coming together to consider what Māori advancement means in the context of their work**, guided by the HRC's Māori Health Research Committee, and how the criterion can be applied to ensure the best outcomes.

When this work is complete, the guidance and the assessment criterion will be published so that **all health research funders can reference them in their own efforts to implement the *New Zealand Health Research Strategy***.

In 2018, we have also funded **our first Māori Health Research Emerging Leader Fellowship**, see Developing and Sustaining a Strong Health Research Workforce, p53.

Partner across government to address the negative health consequences of poverty and social disadvantage

Inequity in health outcomes continues to rise and the HRC has an important role in co-ordinating efforts across government sectors, because no one sector can address the complex issues behind poverty and inequity in isolation. As our 2021 key performance indicator for this action shows (right), we have already made a start through creating a partnership with the Ministry of Social Development that focuses on employment outcomes.

We have also created a partnership with the Ministry of Health to support Māori and Pacific youth with mental health problems (see Output 3, p57).

HRC investment has been saving babies for decades

In addition to supporting work that shows babies can be saved simply by **pregnant women sleeping on their back** (Research that makes a difference, right), **the HRC supported the work of Professor Ed Mitchell, who was made an Officer of the New Zealand Order of Merit in 2018 for services to children's health**. He found that laying babies on their stomachs was a major risk factor for sudden infant death syndrome. The finding that **babies should be put on their 'back to sleep'** led to a nationwide intervention of that name and **a halving in the number of babies dying from SIDS within 2 years**.



Key performance indicator for Focus 3: Achieving health equity

Number of HRC contracts with a focus on understanding and reducing inequity in health outcomes

Actual 2017/18: 98

Target 2017/18: 45–65

Baseline 2016/17: 52



We have **achieved** our target ✓

This is a measure of whether we are making progress towards achieving health equity through our research investments, and therefore the body of knowledge that service-providers and policy-makers can draw on to reduce the health-related consequences.



Target 2017/18

By 2021 we will have formed a cross-sectoral government partnership aimed at gaining the evidence required to effectively tackle inequity and its adverse health consequences.

We are **on track** to meet our target. ✓

In 2018, the **HRC has formed a partnership with the Ministry of Social Development** to invest in research that will **improve employment outcomes** for people with a health condition or a disability. This partnership recognises that achieving health equity will require taking a broad view of the determinants of health and the factors that affect the physical and mental wellbeing of New Zealand people. We have also partnered with the Ministry of Health to support Māori and Pacific mental health research through the Global Alliance for Chronic Diseases. See Output 3 for other partnerships that contribute.

Research that makes a difference*



3.7x

greater risk of late stillbirth if mother sleeps on her back



100

babies in 5 years can be saved through simple intervention

*HRC-funded research led by Professor Lesley McCowan (University of Auckland)

Communicate the importance of focusing research on improving equity in health outcomes to the research community

The development of national health research priorities under the *New Zealand Health Research Strategy* is an excellent way to convey the importance of achieving health equity to the research community, and to all health research stakeholders.

There is a strong commitment across government to achieve this goal, and consequently equity is at the forefront of the draft framework for prioritisation (the Strategic Investment Areas) that the HRC is currently leading a national consultation on. This framework has been developed with MBIE and the Ministry of Health, through the work of an independent Development Group of experts. A high-level Expert Advisory Group of national and international experts, chaired by Sir Peter Gluckman, is advising the Ministries on the implementation of the entire Strategy, including the priority-setting process. The Council will await the outcome of the prioritisation process to see if it is necessary to do more than **strongly align HRC investments with the resulting national health research priorities.**

Poverty is bad for your teeth

The Dunedin Multidisciplinary Health and Development Study has shown that people born into disadvantaged families lose many more teeth. The study was led by Associate Professor Jonathan Broadbent (University of Otago).



6x more teeth lost by age 38



Focus 4: Support highly innovative and transformative research

Increase investment in cutting-edge, higher risk research

The HRC's Explorer Grant model is receiving international recognition as a novel way to support high-risk health research that helps the global community to better understand and improve the peer-review process. **In an article appearing in *Nature*, one of the world's top science journals, Professor Thomas Sinkjaer referred to the model as an example of one that contributes to improving investment processes.**

"What interests me...is the prospect of better understanding peer review to improve the process...New Zealand's Health Research Council uses a random-number generator to prioritize 'Explorer' grant proposals that have fulfilled certain criteria."

Professor Thomas Sinkjaer
Writing in Nature, 555, 143 (2018)

The **Times Higher Education** reported that the new head of Science Europe, Marc Schiltz, hopes for radical ideas on giving out money to academics, as concerns grow over the amount of time researchers waste applying unsuccessfully for grants.

Dr Schiltz referenced the HRC's process of funding Explorer Grants as one example of organisations thinking outside the square:

"Applications for explorer grants – aimed at supporting 'revolutionary' research – are designed to be short and anonymous and are distributed randomly – although only among the roughly 20 per cent of applicants who fulfil the necessary criteria."

He also quoted HRC CEO Professor Kath McPherson as saying random allocation is a fair and transparent way to choose between equally qualified applicants.

This year, we have increased our investment, supporting 11 grants, which are described in Part 3 of the report under Explorer Grants, p51. This is an increase of two from the previous year.

Impact of HRC-funded cardiovascular research – two case studies



PREDICT Equations – Better tools to predict heart attacks & stroke in New Zealand

2003

Project grant – initial cohort study

2007

Feasibility study – potential clinical trial

2008

Project grant – double the original cohort

2011

Programme grant – New Zealand databases linked to develop better prediction tools

Development of PREDICT software places **New Zealand at the forefront of the new field of computer-based clinical decision-making**

2015

PREDICT system used by 80 per cent of Auckland and Northland PHOs



Improving Care processes for patients with suspected Acute Coronary Syndrome (ICare-ACS)

2010

Project grant – randomised trial testing a fast-track diagnostic pathway

2013

Clinical Practitioner Research Fellowship – incorporates the help of a broad international expert network

Trial results in nearly **doubling the proportion of patients who could be discharged** to outpatient care within 6 hours of arriving in the ED

2012

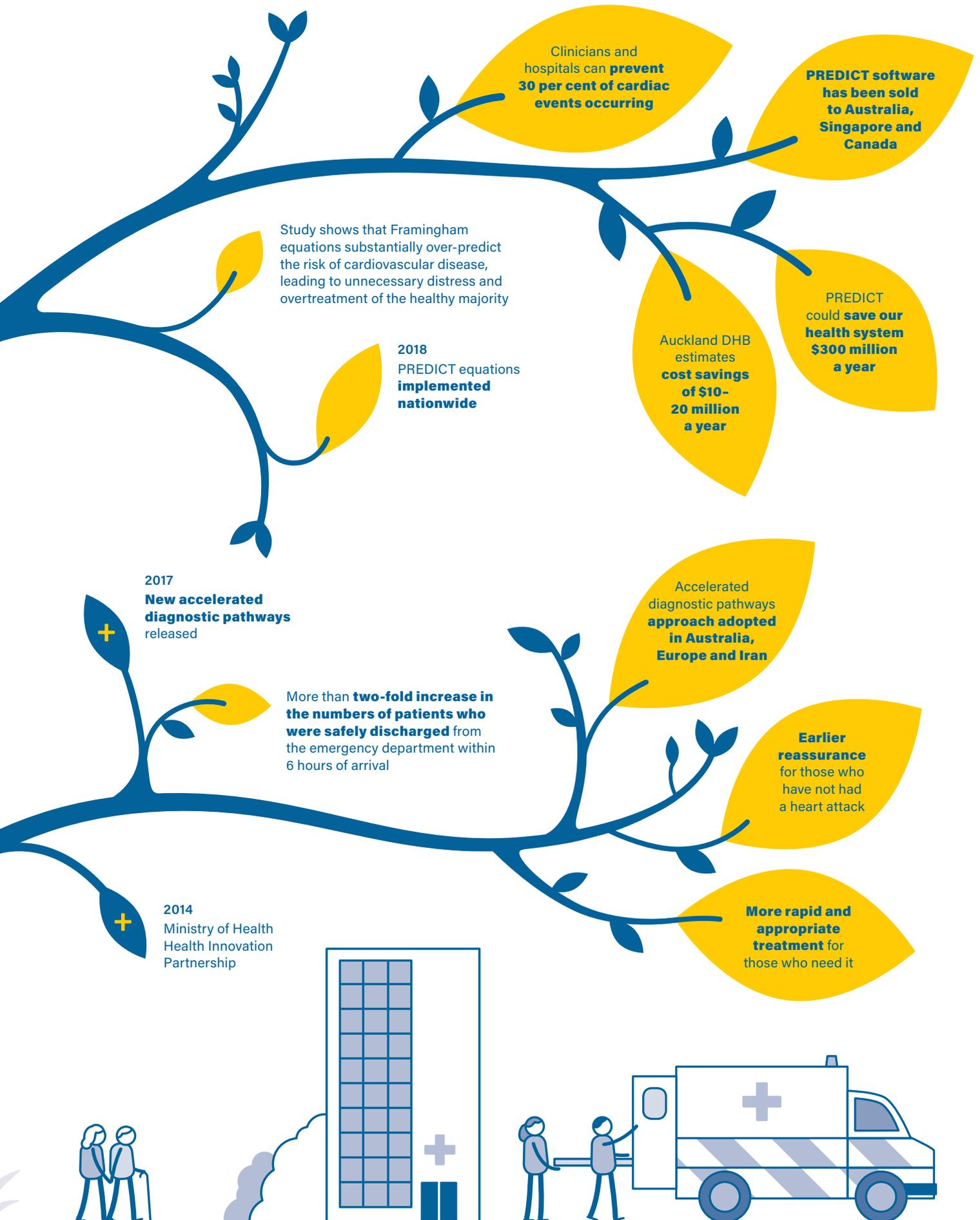
Project grant – testing with a more refined risk assessment



HRC funding opportunities

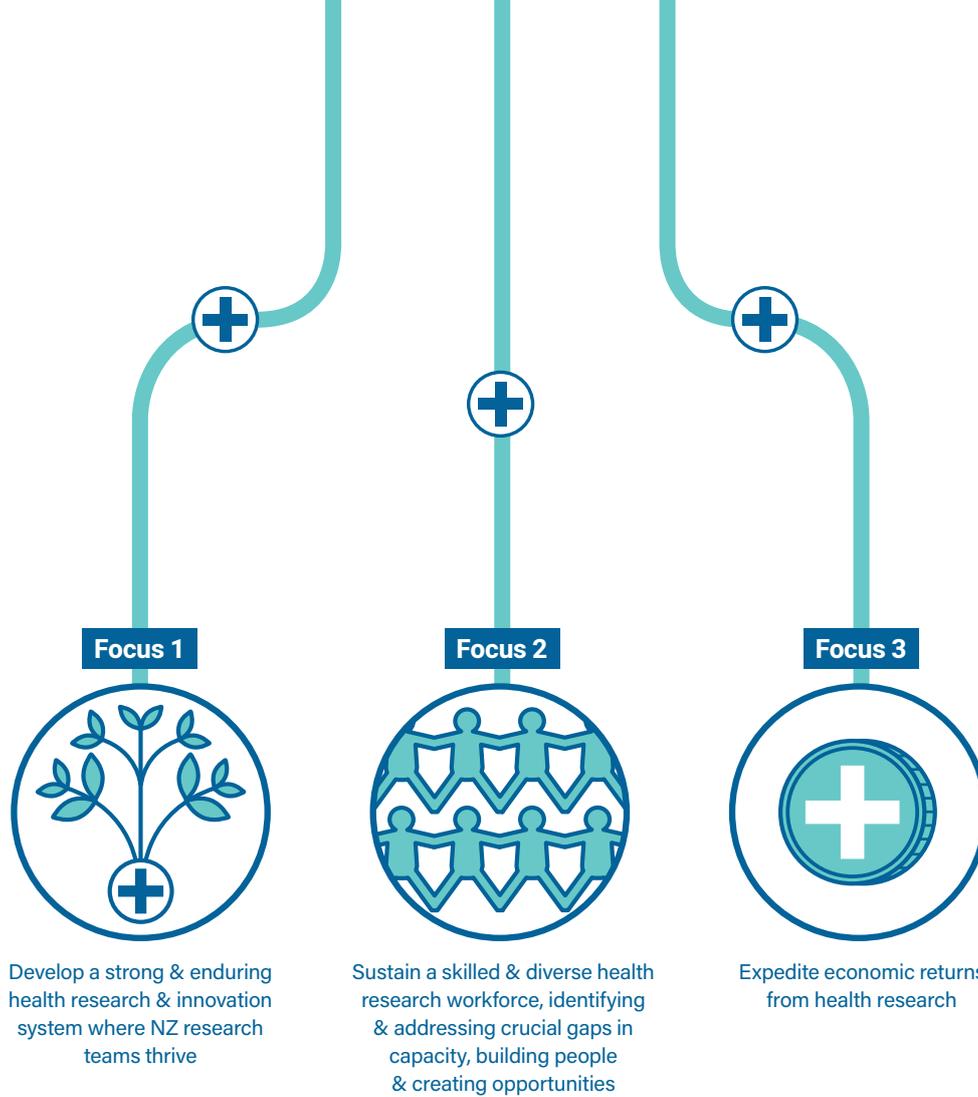


Case study impacts





Driver 2: Stimulating growth



Focus 1



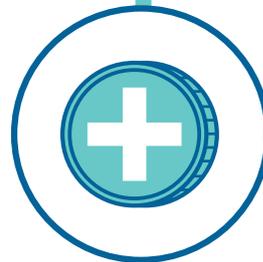
Develop a strong & enduring health research & innovation system where NZ research teams thrive

Focus 2



Sustain a skilled & diverse health research workforce, identifying & addressing crucial gaps in capacity, building people & creating opportunities

Focus 3



Expedite economic returns from health research

We work to stimulate growth for New Zealand through creating a stable environment in which our researchers can flourish, providing the advances needed to make each generation of New Zealanders healthier than the last, generating innovations that reduce healthcare costs and directly grow our economy through access to global health markets



Focus 1: Develop a strong and enduring health research and innovation system where NZ research teams thrive

The HRC is aware that **this is a focus that we can't achieve in isolation** and that we need the help and support of our Ministries to make this a reality. **A significant part of our workplan over the next three years will be dedicated to working with our Ministries and other government and non-government funders around New Zealand, to implement the New Zealand Health Research Strategy (NZHRS)** and provide support for Ministry of Health in leading its Actions to 'Create a vibrant research environment in the health sector.' We are also working closely with MBIE to support the three Actions that it is leading under 'Advance innovative ideas and commercial opportunities.'

This year we have been busy developing ideas to strengthen the innovation pathway for health research, working on models to create more stable funding pathways for research that has delivered promising results with HRC funding.

We have been working closely with the Ministry of Health on ways that we can support their actions to embed health research in the health delivery sector. This is key to the mobilisation of the knowledge that we generate and driving it to those who can use it to improve health outcomes.

Finding an effective model will take time and effort and involve strong buy-in from District Health Boards, but we have taken the first steps in a programme of work that should greatly increase the utility, uptake and return of New Zealand's health research investment.



Focus 1: Actions and progress – summary

1a) Increase opportunities to access expertise, high-end equipment, facilities and technologies that are not available in New Zealand through international collaborations and partnerships.

International connectivity is vital to NZ health research. As a small, but high-performing sector, health researchers gain much from, and contribute much to, international research. **On average, 60 percent of HRC supported projects and programmes involve an international collaborator.** See Output 3 for all the work that the HRC is doing to forge international connections for the New Zealand health research community.

1b) Continue to underpin a fast, efficient, responsive and sound regulatory system by providing high-level advice and support on ethics and regulatory issues.

New Zealand has one of the most robust, responsive and efficient ethical review processes. The HRC and the HRC Ethics Committee have participated in consultation on the draft National Ethics Standards for Health and Disability Research, and our Standing Committee on Therapeutic Trials (SCOTT) will soon have the opportunity to contribute to the development of the Therapeutic Products and Medicines Bill.

The HRC has accredited four Health and Disability Ethics Committees in 2018 and provided advice to researchers on the ethical use of 'big data' and a thought-provoking paper on wastewater epidemiology (see Output 4).

1c) Develop a new mechanism to support longitudinal studies, ensuring continuity of funding and stability for teams building datasets that are a national and international resource.

A model has been developed that will introduce a more strategic approach to investment (see text on following page).

Another focus that arose from the Strategic Refresh is the need to develop a better funding model for longitudinal research. A potential funding model has been developed, which will introduce a more strategic, long-term approach to investment. The proposed funding model will involve the establishment of a Steering Committee, made up of cross-sector members, to set the strategic direction for longitudinal research. The model will accommodate investigator-initiated research applications through the Annual Funding Round, as well as Requests for Proposals to address identified evidence needs.

In alignment with the implementation of the NZHRS, consultation will occur on the priority areas for longitudinal research, a steering committee of end-users and partners across sectors will be formed, and criteria for eligibility, application and assessment processes, and performance monitoring will be established.



Focus 2: Sustain a skilled and diverse health research workforce, identifying and addressing crucial gaps in capacity, building people and creating opportunities

Our success in funding excellent research that meets the needs of all New Zealanders is highly dependent on having a skilled health research workforce with the expertise required to generate a knowledge base specific to New Zealand's needs – both now and in the future. The HRC has a crucial role to play in developing and sustaining this workforce. We do this through our career development programmes (p53), Emerging Researcher First Grants and through forging international linkages to provide opportunities for New Zealand researchers.

We support over 2000 research positions annually and monitor the composition of our workforce through an annual analysis of the CV's of everyone on a current HRC contract. This allows us to monitor skills that we have previously identified to be important or a workforce gap – such as health economists. We also monitor the number of clinicians and allied health professionals, their clinical training, and whether they are engaged in clinical practice whilst undertaking the research. With all the detail that we collect about training and postgraduate qualifications, we can provide a very clear picture of our workforce and their level of experience. When we put this together with the extensive analysis we do on each funded research contract, we can then show a picture of the HRC health research workforce according to health issue or research discipline. We can see where most of our clinicians or emerging researchers are focusing their efforts. This is a very powerful dataset and we use it to inform decisions about gaps in

capacity. However, it is based solely on what the HRC is funding and does not include researchers supported by other New Zealand institutions.

A great example of how our systems build research careers is provided in the profile of the emerging Māori researcher, Jason Gurney, provided at the end of this section.

The HRC is leading Action 4 under the New Zealand Health Research Strategy (NZHRS) "Develop and sustain a strong research workforce". In total, we are responsible for leading four Actions and supporting MBIE and the Ministry of Health in implementing the other six. We have chosen to start with Action 1 (Prioritise investments through an inclusive priority-setting process) because this action underpins all of the others. **Once we know what the key research needs are for the country, we can align our funding opportunities and career development programme to ensure that we have all the skills and competencies to tackle current and future health challenges.** International best-practice in priority-setting dictates that **research priorities should be set concurrently with infrastructure and workforce priorities.** Consequently, the national consultation process that we launched on 4 September 2018 asks respondents to consider all priorities related to health research. We hope to gather many valuable insights to assist the Ministry of Health and MBIE in implementing the strategic priorities that they are leading around strengthening translation of research in the health sector and advancing innovative ideas and opportunities.



Focus 2: Actions and progress – summary

Our work under Action 1 of the NZHRS – Prioritise investments through an inclusive priority-setting process – is providing the evidence base for our initiatives under the following actions from our Statement of Intent 2017 (see text), additional information on activities is provided where relevant.

2a) Improve support for our emerging researchers by providing wrap-around services that enhance their skills and networks

A model has been produced and will be implemented, pending the results of consultation.

2b) Offer a broad range of Career Development Awards for Māori and Pacific health researchers and look at additional ways to build and maintain capacity, particularly innovative models for increasing capacity to deliver Pacific health research knowledge and solutions

The HRC launched the Māori Health Emerging Leader Fellowship in 2018 – in partnership with the Ministry of Health. See Investments under Output 2. We have also developed a new model recognising leadership in Māori health research.

2c) Work closely with the Ministry of Health to support their work on strengthening the clinical research environment, through offering career development and research opportunities for allied health professionals

We offered 8 clinical Career Development Awards in 2017/18 and provided research and training opportunities for 522 practising clinicians. See Output 2 for details of our career development programme.

2d) Develop mechanisms to increase capacity where we identify critical gaps.

(This work is scheduled for 2019.)

2e) Boost funding opportunities for mid-career researchers (see Action 2b)

We have undertaken a review of our Sir Charles Hercus Fellowship Programme and, as a result of the recommendations, have introduced a new mid-career funding opportunity. HRC is leading Action 4 of the *New Zealand Health Research Strategy* – develop and retain a strong health research workforce. As part of this action HRC will work with the sector to identify critical gaps in career paths and opportunities and act to address them.

The graphic in Output 2 illustrates our career development programme and shows that we are offering awards at every stage **in the career development pathway**.

The main thrust of our work under Actions 2 and 3 will begin when the prioritisation process ends in late 2019 – at that stage, we will have a much better idea of where to target our resources to make the greatest impact.

While we have always monitored the HRC-supported workforce to identify capacity issues or the potential need for proactive succession planning, we expect to have a wealth of views on what the true national issues are in relation to workforce needs from the consultation process, that we can build on to recraft our career development activities.

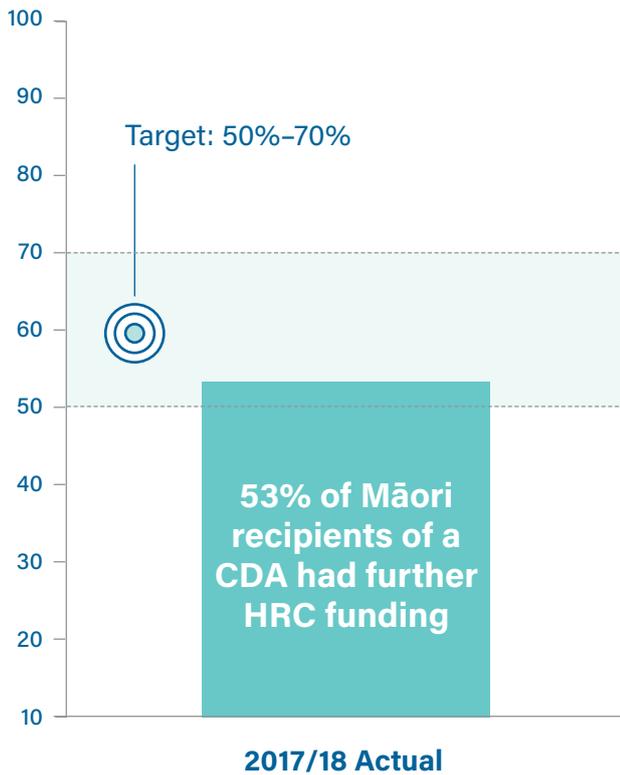
Great research arising from our Career Development Awards

Dr Sharon Leitch was awarded an HRC Clinical Training Fellowship to develop and trial a **New Zealand General Practice Trigger Tool (NZGPTT)**. The audit tool will alert clinicians when patients are at increased risk of harm, based on their age, sex, ethnicity, social deprivation level, pre-existing medical conditions, medications and type of practice providing their care. The aim of the NZGPTT is to **improve safety and achieve equitable health outcomes by identifying those at greatest risk of harm**.

HRC Foxley Fellowship award winner Dr Carol Atmore undertook research exploring and **improving hospital care quality for New Zealand rural communities** and found that there was no difference in the likelihood of people who live in rural areas experiencing harm relating to hospital admissions compared to those who live in urban centres, however **some concerns for rural communities around aspects of transfer to and support from larger hospitals were identified**. The research found that working across networks of small and large health care teams was likely to improve health care quality and that **information technology was a key enabler** of this. **Community involvement** in service design and delivery was also important. Dr Atmore presented her recommendations for policy makers, health planners and providers to the Ministry of Health in May 2018.

The calibre of the people we fund

Two researchers with a long history of support from the HRC were named on the New Year Honours list. **Dr Debbie Ryan, from Pacific Perspective Limited, was made a member of the New Zealand Order of Merit** for services to the Pacific community and health. **Professor Ed Mitchell, from the University of Auckland, was made an Officer of the New Zealand Order of Merit** for his services to children's health, see 'HRC investment has been saving babies for decades', p21.



CDA = Career Development Award

Health Researchers Earn Queen's Birthday Honours

Associate Professor Bronwen Connor of the University of Auckland was made a Member of the New Zealand Order of Merit (MNZM) in the 2018 Queen's Birthday Honours for her services to the treatment of neurological disorders. Professor Connor is Head of the Neural Reprogramming and Repair Lab and Director of the Centre for Brain Research Educational Outreach and is currently leading a project that uses novel reprogramming technology to turn skin cells from patients with Huntington's disease (HD) into immature brain cells (neural precursor cells). This process removes the risks of immune rejection as it harvests the patient's own skin cells. Professor Connor's research will also use a human cell model of HD to screen for novel drug-like compounds to prevent cell loss associated with HD pathology, with this potentially leading to the identification of novel compounds for the treatment of HD.

Rheumatologist, Professor Lisa Stamp, of the University of Otago was presented in February with the Medicines New Zealand 2017 Value of Medicines Award for her breakthrough research into gout (p19). The research study was published in the top international rheumatology journal, *The Annals of Rheumatic Diseases*². Professor Stamp leads two HRC-funded projects and an HRC feasibility study.



Key performance indicator for Focus 2: Sustain a skilled and diverse health research workforce, identifying and addressing crucial gaps in capacity- building, and creating opportunities

Percentage of recipients of an HRC Māori Career Development Award who have made a career progression through an HRC-funded opportunity in the past five years



We have **achieved** our target. ✓
(see graph)



What does meeting our target tell us?

That we are providing a pathway along which our Māori researchers can travel to build a career, rather than satellite opportunities that do not lead to a career in research.



Target for 2021

By 2021 we will have completed an in-depth survey of all recipients of an HRC Māori health career development opportunity since 1990, published our findings, and have used what we have learned to improve and refine our Māori health career development programme.

We are **monitoring our progress** towards meeting our target.

We will incorporate this work with that needed to lead Action 2 of the NZHRS: Invest in research for healthy futures for Māori, which is scheduled to begin when priorities for Māori health research and capacity building have been established in late 2019.

² Gosling AL, Boocock J, Dalbeth N, et al Mitochondrial genetic variation and gout in Māori and Pacific people living in Aotearoa New Zealand *Annals of the Rheumatic Diseases* 2018;77:571-578.



Focus 3: Identify and expedite economic returns from health research investment

The HRC's critical contribution to commercialisation of research is generating the continual well-spring of exciting discoveries for other, experienced government agencies to take to the next stage. This is why it is important that we ensure that connections between the agencies are strong enough that no development with commercial potential slips between us, and the pathway to innovation is clearly sign-posted for those engaged in research.

A great example of an innovation that can lead to more efficient and safer health services

In the last year, we have announced a lot of discoveries related to improving the safety and efficacy of healthcare – with the resultant large economic returns for our health system.

Innovative management of diabetes with BetaMe a digital health programme delivered via web and mobile-based platforms. BetaMe integrates with primary care providers, utilises peer support, health coaches, health tracking, and tools with **engaging content to drive behaviour change**. The funded project includes a randomised controlled trial to assess the clinical and cost-effectiveness of the comprehensive self-management intervention for people with diabetes and pre-diabetes (trial registered on the Australia and New Zealand Clinical Trial Registry). As well as the clinical trial, **a process evaluation** will provide health service planners and policy makers with information about contextual factors that may impact on the implementation and success of the BetaMe intervention.



Focus 3: Actions and progress

3a) Review the investment framework to ensure that it is geared to take advantage of all promising opportunities to build a healthier, more prosperous future for New Zealand.

This work is underway and will dovetail with the work being undertaken by MBIE over the coming financial year.



Key performance indicator for Focus 3: Identify and expedite economic returns from health research

Number of HRC contracts with commercial potential referred to secondary agencies



Baseline/trend

New measure



Target 2017/18

Not measured



Actual 2017/18

Not measured



Target for 2021

We will have devised a system for alerting commercialisation entities to discoveries with potential, and have referred 5-10 HRC contracts through this system

Not measured in 2017/18, but we have no reason to suspect that we will not meet our longer-term target.

What does meeting our target tell us?

That we are funding truly original ideas with commercial potential through our assessment processes and managing to create a pathway to innovation for HRC-funded researchers to follow.



Some of our young and emerging researchers. Clockwise from top: Dr Moana Theodore, Dr Kirsty Danielson, Howard Maxwell.





The pathway of a career committed to health equity

Dr Jason Gurney (Ngāpuhi, Ngāti Hine) wants to improve the quantity and quality of life for Māori with cancer, and he's been awarded nearly \$500,000 to identify strategies to do so.

Three major career goals have driven Dr Gurney throughout his career.

- 1 I must answer research questions which are important to Māori whānau**
- 2 I must answer these questions with solid scientific methodology**
- 3 I must partner with academics, clinicians, and community stakeholders who are similarly motivated to improve the health of Māori whānau.**

Having consistent funding opportunities made available through the Health Research Council and the financial support that HRC grants offered has been essential for Dr Gurney to build his portfolio of research aimed at achieving health equity for Māori and to develop his academic research career in New Zealand. Here, he takes us back through the history of his research journey with the Health Research Council. It all started with a \$4,000 summer studentship...

Dr Jason Gurney

Department of Public Health: University of Otago, Wellington

Elected member of the Board of Hei Āhuru Mōwai (the National Māori Cancer Leadership Group)

Ministry of Health Urological Cancers Working Group

Ministry of Health Tumour Standards Working Group

Member of the Science Policy Exchange (Office of the Prime Minister's Chief Science Advisor)



2004

Māori Health Summer Studentship

This grant was a huge pivot point in my life. It opened up a whole new world. It proved to me that it was possible to do this thing that I loved as a viable job option.



2008

Māori PhD Scholarship Award

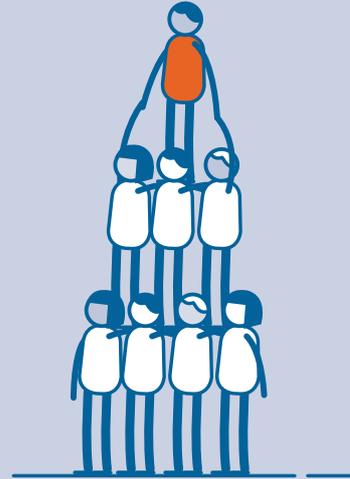
It was never about doing a PhD as a "nice to have", this was me choosing this career and choosing this research. The Māori PhD scholarship was an all-in package which meant I didn't have to worry about university fees. It also came with research expense money which enabled me to run a small clinical trial.

2011

2014

Research Fellow or Named Investigator on four HRC-funded projects

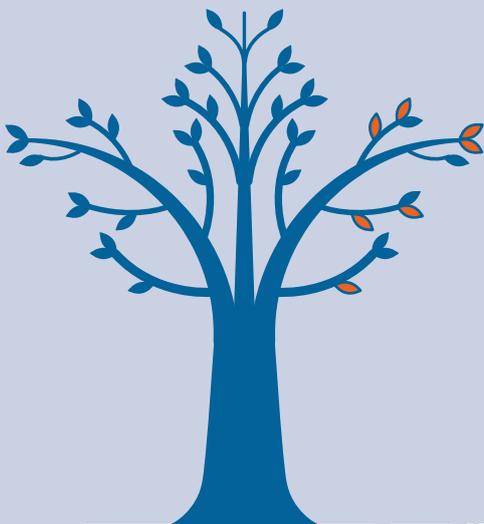
The other critical aspect is the importance of people and relationships. It's crucial to be surrounded by people that are really good at what they do. Who can mentor you and nurture you and are prepared to give you their time. I'm standing on the shoulders of giants that have come before me.



2014

Eru Pōmare (Māori Health) Postdoctoral Fellow Award

I know there are stark inequalities in terms of outcomes for Māori in NZ and knowing that makes me motivated to do something about it. I'm in the envious position of being able to do something about it, so for me it's a responsibility. It's an absolute privilege to be doing work that ultimately matters to my community.



2018

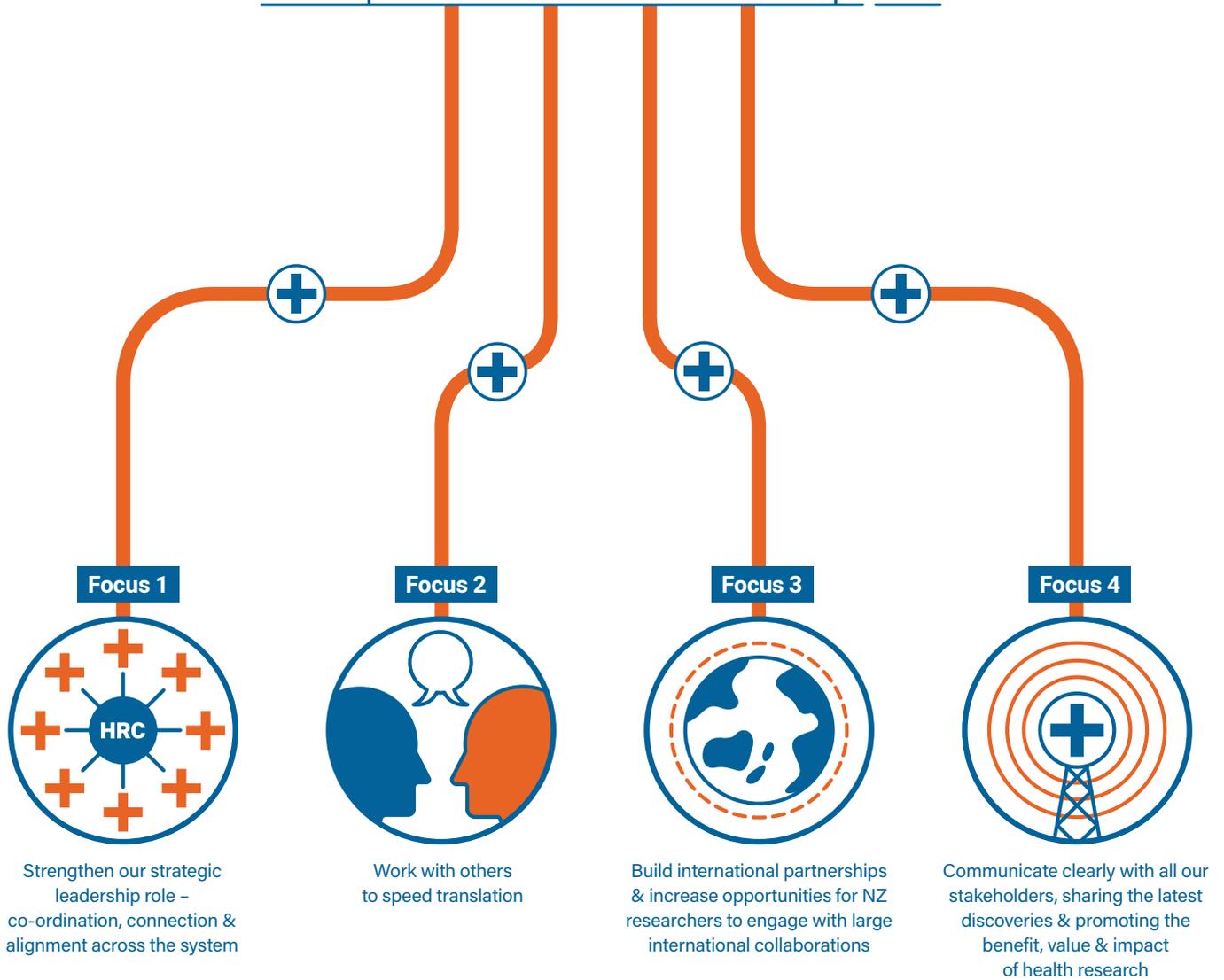
Māori Health Emerging Leader Fellowship and Lead Investigator on a 2018 HRC-funded Project, both aimed at confronting disparities in health outcomes between Māori and non-Māori.

Doing important work and doing it well is crucial to getting the recognition that leads to opportunities for involvement at the pointy end of research – using the evidence we've collected to make an impact.

As researchers whose voices are given a platform it's our job to stand up and wave the flag for equity. We're good at collecting evidence, we're good at writing up reports, but what we need to improve on is translation of evidence into things that are useful at a community level or at the clinical coalface.



Driver 3: Increasing engagement & connection



We work to make the many and varied organisations delivering to New Zealand's health research needs a united force, with a shared vision.



Focus 1: Strengthen our strategic leadership role – co-ordination, connection and alignment across the system

We achieve better co-ordination, alignment and connection in the health research sector through maintaining close relationships with other research funding organisations, discussing science policy, funding models and processes on a regular basis.

We forge connections with other government and non-government agencies through our Partnership Programme – which will be a major vehicle for our initiatives to work across sectors to promote health equity. Our Partnerships with the Ministry of Health, PHARMAC and the Ministry of Social Development in 2017/18 are valuable vehicles for delivering evidence directly to decision-makers.

We take leadership and respond to emerging public health risks where evidence is urgently required. The HRC has developed a rapid-response approach which enables

research to be commissioned quickly. Recent public health issues which the HRC has acted to address include the H1N1 virus, the Canterbury earthquakes, and the campylobacter outbreak in Hawkes Bay.

The HRC is proud to be the chief contact for the Australian New Zealand Clinical Trials Registry (ANZCTR) in New Zealand. We contribute to the cost of this valuable initiative, alongside the primary funder – the Australian Government. Since its establishment in 2005, it has collected a wealth of data, resulting in a report providing ten years of data on the New Zealand clinical trials sector. **The report shows that New Zealand has a high level of clinical trials per capita**, and that the number of registered trials has steadily increased. This is now the preferred registry for clinical trials in New Zealand. This is good news for New Zealanders and our healthcare system.

Clinical trials are a vital component of the health research system, they produce robust evidence on the effectiveness of interventions across all aspects of healthcare. They provide opportunities to enhance the careers of health professionals and strengthen the culture of research and pathways to translation in the health sector. It is now broadly recognised that standards of care are higher in hospitals that host clinical trials.



Focus 1: Actions and progress

1a) Work with others in the sector to establish what is needed and develop a mechanism for health research funders to better share information and align processes

The HRC holds quarterly workshops with the two other primary research funding agencies, MBIE and Royal Society Te Apārangi, to identify best practice, achieve greater alignment and improve co-ordination across the science sector in New Zealand. MBIE, Ministry of Health, HRC and Callaghan Innovation staff meet fortnightly to operationalise the NZHRS – and every two months at the senior management level for strategic decision making on implementation.

1b) Partner with national stakeholders to increase the impact, utility and reach of research – including industry partners

The HRC partners with many national stakeholders and is currently working with PHARMAC to secure the best health outcomes from pharmaceuticals, and a Precision Driven Health initiative which includes Orion Health, University of Auckland, Waitemata District Health Board and MBIE as partners, to improve health outcomes through data science.

We will be the first organisation to contribute data to MBIE's National Research Information System (NRIS), working closely with the implementation team over the last year.

1c) Re-design the Partnership Programme to align it with the *New Zealand Health Research Strategy* and the national health research priorities – once developed

This work is underway – see the Key performance indicator for focus 3 (p38).

1d) Launch a cross-government research initiative to address poverty and its health consequences

The HRC has begun to tackle this issue in partnership with the Ministry of Social Development through a jointly funded research initiative to enhance employment outcomes for clients who have a health condition or disability.

1e) Continue working closely with the Ministry of Health's Senior Leadership Team and Chief Science Advisor on determining the most valuable areas for joint investment

The HRC and Ministry of Health have made incredible progress in jointly working on and investing in areas of high priority, including partnering to fund vital research on Māori and Pacific youth mental health; developing emerging leaders in Māori health with a focus on equity and social investment; primary care; and long-term conditions.



Focus 2: Work with others to speed translation and the uptake of research evidence into policy and practice

This has been a big focus for the HRC in 2017/18 and will continue to be going forward. We have been fortunate to benefit from the experience of international experts in the last year, through our work with the Expert Advisory Group of the *New Zealand Health Research Strategy*. Much input has been received from public consultation in 2016/17 which has informed our thinking about barriers to research uptake in District Health Boards and Primary Healthcare Organisations. This will be considered when we develop our first three-year Investment Plan.

Our partnership with PHARMAC through the Partnership Programme (see Output 3, p57) resulted in the support of two very valuable projects, one of which is described

in the media release under Focus 4. Both of these projects offer a fresh look into how people can most effectively use the treatments available to them, to optimise the potential benefit.

Professor Carlo Marra from the University of Otago has been funded to develop a decision aid to help rheumatoid arthritis patients make choices about treatment. Biologics are drugs that specifically target the inflammatory pathways that cause joint inflammation, the critical clinical factor in rheumatoid arthritis. They have revolutionised management of the condition, but they do come with adverse effects and a hefty price tag, says Professor Marra.

Recent data suggests that some people who have a good response to these agents can actually stop using them and still keep their rheumatoid arthritis in check. However, some will relapse and have their arthritis symptoms return when stopping the treatment.

Helping patients choose whether to taper off their treatment (or continue with it) once remission has been achieved, is the point of the decision tool, says Professor Marra.



Key performance indicator for Focus 2: Work with others to speed translation

Number of positions for practising health practitioners on current contracts



522 Actual 2017/18: Practising clinicians



300 Target 2017/18: 300–400 Practising clinicians



348 Baseline 2016/17: Practising clinicians



1,846 Total workforce 2017/18



We have achieved our target ✓

We want to involve as many clinicians as we can in the research process because this greatly aids in increasing the utility of the research and the uptake of findings. We are very satisfied with this result, which shows that 28 per cent of our workforce are actively engaged in clinical practice whilst involved in HRC-funded research.



What does meeting our target tell us?

That we are engaging DHB and PHO staff in the research process, and that the Clinical Research Training Fellowships that we provide are translating to more health practitioners being involved in research. Our longer-term target is designed to show us whether this engagement is making an impact.



Target for 2021

By 2021 we will provide details of at least five research contracts that have led to a change in practice as the result of involvement of a health practitioner in the research.

We are **on track** to meet our target.

This year, there have been a number of innovative projects supported or completed that build knowledge mobilisation into the fabric of the research. One example is **Mana Tū: a programme co-designed with whānau, clinicians, health service planners and whānau ora providers**, which utilises skilled and supported Kaimanaaki-whānau (indigenous health workers) to improve the impact of clinical and lifestyle interventions for people with prediabetes or poorly controlled type 2 diabetes. This project was supported through our Partnership Programme investments (see Output 3, p57).

Poorly controlled diabetes and its consequences constitute one of the greatest ongoing costs to our health system – and this is projected to rise over the next decade.

The research is successfully underway with community engagement on programme logic and methods through a **hui with patients and their whānau, local DHBs, ProCare, social services, GP clinics, YMCA, University of Auckland and the National Hauora Coalition**. The project's Principal Investigator, Dr Matire Harwood, was recently awarded the prestigious international honour of L'Oreal UNESCO For Women in Science Fellowship in recognition of her research addressing the inequities of health-related outcomes between indigenous and non-indigenous people.

Heilala Malu – the Tongan Framework for Suicide

Prevention was launched in May last year in a ceremony with The Ministry of Pacific Peoples, the Ministry of Health, and Tongan community and church leaders.

The idea for the Framework came from participants in Auckland University researcher Jemaima Tiatia-Seath's work on suicide prevention for Tongan youth in New Zealand, funded by a joint **HRC and Ministry of Health Pacific Research Partnership** grant. Dr Tiatia-Seath concluded the project with recommendations for the development of practical guidelines/protocols for suicide prevention to equip Tongan families, communities and services to appropriately respond to Tongan community youth suicide prevention needs. With the help of a follow-on **HRC knowledge translation grant**, Dr Tiatia-Seath translated these recommendations into the Heilala Malu framework. The **evidence-based bilingual resource is now available at health service providers, community centres and churches across the country**. Dr Tiatia-Seath currently sits on the panel for the **Government Inquiry into Mental Health and Addiction**.



Focus 2: Actions and progress – summary

2a) Engage research users in the research process – including consumers and communities

The prioritisation to set national health priorities is designed to engage very broadly with New Zealanders. We see it as crucial that we hear the voices of the people that are often not listened to in national consultation processes. In planning the process in early 2018, the HRC consulted with Māori, Pacific and disability groups on the best way to get broad input. Hui/fono will be held for these groups in the four major centres and we have engaged with New Zealanders for Health Research to ensure that we hear the public voice. We have invited stakeholders from health NGOs, charities, and social service organisations, as well as members of the health research community and the innovation sector.

2b) Work with the Ministry of Health to support their initiatives to ensure that translation is embedded across the health sector

The HRC is working closely with the Ministry of Health, with support from MBIE as members of the Steering Group overseeing implementation of the *New Zealand Health Research Strategy*. This includes work to create a vibrant research environment in the health sector and to build and strengthen pathways for translating research into policy and practice.

2c) Develop vehicles specifically designed to promote the speedy translation of applied research into policy and practice

Our *NZ Health Delivery and Research Partnerships* for *NZ Health Delivery* investment opportunities target support for research that involves health providers and decision-makers and will be taken-up to improve the quality and efficiency of healthcare for New Zealanders.

2d) Effectively progress ideas with commercial potential, by creating specific mechanisms to establish pathways to funding and uptake

We have begun tagging research projects with commercial potential and will monitor progress to ensure timely linkage opportunities with those agencies who have the expertise to take research to the next stage, such as Kiwinet and Callaghan Innovation.

2e) Ensure that Investment Plans reflect the importance of translational research

The HRC is leading Action 4 of the *New Zealand Health Research Strategy* – develop and retain a strong health research workforce. As part of this action, we will work with the sector to identify critical gaps in career paths and opportunities and act to address them.



Focus 3: Build international partnerships and increase opportunities for New Zealand researchers to engage with large international collaborations

The HRC works hard to create opportunities for New Zealand researchers in the global research community. The breadth of initiatives that we support and developments over the last year are provided under Output 3.

New Zealand joined E-Asia in 2014. In 2018, we will support another collaborative project to the value of \$450K over 3 years. Existing research has already generated significant outcomes and benefits for what amounts to a very small financial commitment – including **access for**

one of the research teams to a NZ\$19M grant from the UK Department for International Development; and the **discovery that most of the drugs used to treat multi-drug resistant TB in Myanmar are ineffective**. It is important to note that approximately 30 percent of total reported TB cases in New Zealand are in people born in the South-East Asian region.



Focus 3: Actions and progress – summary

3a) Continue to grow the international programme of research opportunities, working closely with MBIE to ensure that our efforts are aligned

We are working with MBIE to ensure Catalyst Funds leverage the greatest benefit for New Zealand and continue to work to support MBIE's international strategy beyond this through support for the *Australia-New Zealand Science, Research and Innovation Co-operation Agreement*, and in our work to link the National Science Challenges with the *European Joint Programming Initiative – Healthy Diet Healthy Life*.

3b) Develop an *International Investment Strategy* to guide our activities in this area

We are currently developing an international strategy and investment framework to help guide investment decisions and choices which will derive the greatest benefit for the health of New Zealanders and create opportunities for our scientists.



Key performance indicator for Focus 3: Build international partnerships and increase opportunities for NZ researchers to engage with large international collaborations

Negotiate a long-term research funding partnership between the Ministry of Health and the HRC

Target 2017/18

Create a Steering Group for the initiative and invest in the first strategic priority area – with the Global Alliance for Chronic Disease. The first call for proposals will be for research on mental health and Māori and Pacific youth.

We have **achieved** our target. The HRC partnered with the Ministry of Health to provide up to \$2m in funding for research to better support Māori and Pacific youth with mental health problems, including depression, anxiety, schizophrenia and bipolar-affective disorder.

Target for 2021

By 2021 we will have established a joint research programme with the Ministry of Health in areas of strategic priority.

We are **on track** to meet our target and have already established a joint funding programme of research with the Ministry of Health.

What does meeting our target tell us?

That we are meeting our obligations with regard to the NZHRS and the Strategic Refresh of the HRC, aligning and co-ordinating government investment and working together to achieve joint goals.



Focus 4: Communicate clearly with all our stakeholders, sharing the latest discoveries and promoting the benefit, value and impact of health research

We have made a big effort to communicate more clearly with our stakeholders in 2018/19. Feedback from the Strategic Refresh of the HRC in 2015 suggested that we were only getting our messages across to the research community and other funders and missing the opportunity to engage other important stakeholders, including the New Zealand public, health providers and industry. This year the HRC team has been thinking about how best to engage the public and our community with the exciting work that we are doing. Our first initiative was to organise an **'Our Amazing Brain' event at Ronald McDonald House**, with siblings of children in Starship Hospital. Dr Thomas Park of the University of Auckland Centre for Brain Research, and a member of an HRC neuroscience programme team, wowed the children with a presentation on the amazing things that our brains can do. The children got to touch a real human brain, donated to the University for research purposes, and compare it with real monkey, cat and rat brains. Colourful art created by the children on the day has been framed and presented to Ronald McDonald house to decorate their walls.

Following on from the success of that project, the HRC team has engaged with the **University of the Third Age** in Auckland to give presentations to members on the exciting discoveries that their tax dollars have supported.

Increasing our efforts to engage more broadly has meant rethinking the way that we frame what we do – including our performance framework. This report is based on our new performance framework, designed to make it clearer what we are trying to achieve and how our key performance indicators relate to our goals.

We are completely redeveloping the HRC website so that it better serves the needs of everyone we want to engage. Work has been ongoing throughout 2017/18 and we are aiming for launch before the end of 2018, heralding a completely new approach to how we communicate with our stakeholders.

Over 2017–18 we've continued to build our profile and visibility in the public domain with strong media announcements following each of our funding rounds. We have focused on newsworthy research topics of strong relevance to New Zealanders, and actively promoted the outcomes of high-impact fields of research.

Opposite is a media release announcing newly-funded research into the pertussis (whooping cough) vaccine, supported jointly by the HRC and PHARMAC. It's an example of the sort of research that new parents should be kept abreast of, yet like much of the research we alert the public to – which is of a sensitive nature – the topic had to be communicated with care.



Focus 4: Actions and progress

4a) Work with wider communities to engage them in the benefits and value of research

The HRC is undertaking a series of public consultation meetings to engage communities in identifying what is important to them, to inform the national priority setting process we are leading.

Presentations about the research we fund have also been given to U3A (University of the Third Age), the most recent focusing on the breakthroughs that have been made in neurodegenerative disease.

4b) Introduce improved systems for determining and communicating the impact and value of what we do – including creating a new HRC website that focuses on our public stakeholders and communicating simply and clearly what we have achieved

HRC's website has been redeveloped to engage all of our stakeholders with relevant, topical and accessible information.

4c) Actively disseminate locally developed research activities and knowledge into both professional (local and global) and public communities

Critical advances in health knowledge have been actively released to major news, print media and radio channels so New Zealanders directly benefit through timely access to the latest evidence.

Research aims to find ‘sweet spot’ for pertussis vaccination in babies

The pertussis (whooping cough) vaccine given to infants at six weeks of age will be tested for its effectiveness in babies whose mums were vaccinated during pregnancy.

A University of Auckland researcher suspects that antibodies passed on from mother to baby might interfere with an infant's primary immune response when receiving their first pertussis vaccine, which in New Zealand happens at six weeks old.

Dr Helen Petousis-Harris has just been awarded a \$210,000 grant from PHARMAC and the Health Research Council of New Zealand (HRC) to test the protective effect that maternal vaccination offers against whooping cough, taking into account the additive overall effect of baby's own first vaccine.

In most other high-income countries, the vaccine is given at eight weeks of age and there is evidence to show that at that age, combined with maternal vaccination, it offers additional protection in infants. But a major question remains around the additive benefit or risk posed by immunisation at an *earlier* age, says Dr Petousis-Harris.

“Giving vaccines to pregnant women is a very effective way to protect babies in their first weeks of life and many countries have adopted this strategy. But we might be able to improve the effectiveness even more by looking at how we time things,” she says.

“Somewhere there is a sweet spot where the benefits of both maternal and infant immunisation can be maximised.”

Her findings will inform the National Immunisation Schedule and could affect when infants are first given their pertussis vaccine.

PHARMAC Medical Director, Dr John Wyeth, says that PHARMAC is pleased to support this research.

“The aim of our partnership with the Health Research Council is to support research that helps people get the best out of medicines that are funded. There are significant benefits to New Zealand from making the best use of pertussis vaccine and understanding the optimal timing of vaccination. This research could ultimately inform how this vaccine is funded for babies in future, and help healthcare professionals and patients make well-informed decisions.”



We also communicate our contribution to keeping the New Zealand health research environment ethical and safe through our investments through Output 4. *Ethics Notes* is produced once a year and focuses on ethics issues for members of ethics committees, research offices, community health education managers, policy makers, consumers, bioethicists, health advocates, and health researchers.

We have been working hard on our communications in the last year, producing a new *HRC Communication Strategy*. Our media monitoring tells us that the messages about HRC research are being broadly disseminated.

With strong funding announcements and a focus on highlighting the outcomes and impact of the research we've funded, the Health Research Council continues to capture media attention and to lift its visibility amongst key stakeholders.

Our media monitoring shows that in the year ended 30 June 2018, the Health Research Council had the following levels of mentions:

- **574 in NZ news** media;
- **2,667 in global media**; and
- **1,107 in social media**.
- Based on our potential reach, the HRC had **media coverage worth around \$2.31 million in New Zealand, and \$4.58 million internationally** (sums based on the 'advertising value equivalence').

Stakeholder Surveys

In late 2017, the HRC commissioned an online survey and interviews with our stakeholders designed to understand how they use our website, access our grant information and how they find health research information in general on the worldwide web. The total sample was 735 people, and the survey generated a wealth of information that we could use to refine the way that we communicate with stakeholders and redesign our website to address some of the issues and the key frustrations that they experienced when seeking information relating to health research in general – not just on the HRC website.

Through the survey we heard from researchers (half of respondents), healthcare professionals, policy and decision-makers, teachers and students. Most (70%) of our respondents were based in the tertiary sector, but we also heard from health providers (including Māori health organisations), NGOs, government and private companies.

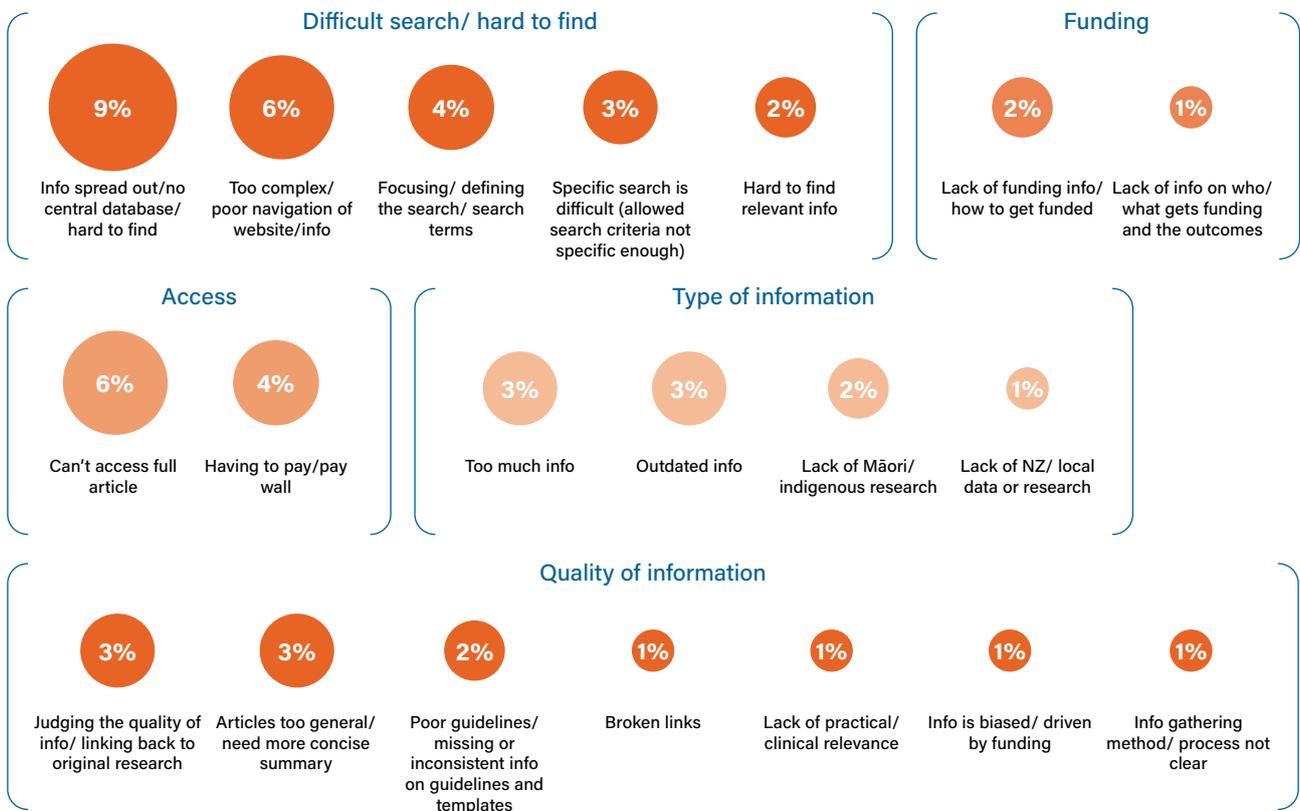
The graphic shown below was particularly useful in helping us understand our stakeholders needs and whether these are being met nationally, not just by the HRC.

The 2015 Refresh of the HRC provided a wealth of stakeholder feedback for the HRC to consider, supplied in the recommendations to the HRC by the Ministry of Health and MBIE. We are still in the process of making changes

based on that feedback, which was largely positive but did identify key areas for improvement. *The New Zealand Health Research Strategy* national consultation process also provided valuable stakeholder feedback for the HRC. This negated the need for a stakeholder survey in 2015 and 2016. Likewise, our website survey in 2017 and the national consultation process to establish national health research priorities in 2018 have provided valuable insights into stakeholder views of how the HRC is engaging and operating. In 2019, we will consult again on national health research priorities, and we anticipate that we will also receive a lot of feedback on the HRC, and how we are meeting the needs of our stakeholders during that process. As a result, we have scheduled our next formal stakeholder survey for 2020, assessing how we are performing generally and our users' experiences of the new HRC website. By this time, we will also have published our first three-year Investment Plan and will want to know how our stakeholders are responding to this, and the way that we are aligning with the priorities identified in implementing the *New Zealand Health Research Strategy*.

Key frustrations that New Zealand Health Researchers experience when searching for health research information on the worldwide web

(Results from a stakeholder survey commissioned by the HRC in 2017.)



Base: Total sample n=735



Part 3:

What we have delivered in 2017/18



Statement of Responsibility for the year ended 30 June 2018

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 2018.



Dr Lester Levy, CNZM
Chair

Date: 29 October 2018



Professor Andrew Mercer
Deputy Chair

Date: 29 October 2018

Statement of Service Performance

The HRC is required to report against certain performance measures in the Estimates of Appropriations as follows.

Vote: Business, Science and Innovation Non-departmental Output: Health Research Fund

1. Number of public health intervention contracts tracked by the Health Research Council.

Actual 2017/18



Target 2017/18



Baseline 2016/17:



What does meeting our target tell us?

The HRC tracks public health interventions as a means of evaluating the impact that the research we fund has on the health of New Zealanders. This impact is unlikely to be captured by end-of-contract reporting, because it takes time for interventions to be evaluated, taken up and used. Through tracking this progress for up to a decade, we get a much better idea of the impact and utility of this important research.

2. Percentage of new Health Research Council contracts focused on discovery/development for improved detection, screening, diagnosis and treatment.

Actual 2017/18



Target 2017/18



Baseline 2016/17:



What does meeting our target tell us?

Most of the research that the HRC invests in contributes to improved detection, screening, diagnosis and treatment in some way, but this measure is specifically focused on the discovery and development process – tracking the proportion of our investment each year that has the potential to develop new products. Essentially, this is the investment that feeds the innovation pipeline.

Output Class Reporting

The funding the HRC receives from the Government to achieve against our Key Decision Drivers, 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 the HRC has in health research regulation and ethics. In the following section, we describe the four Outputs, what the HRC has delivered, and measure our performance in reaching our targets.

Investing in excellent research that addresses the health needs of all New Zealanders

Investments through Output 1: Health research contracts

What we fund through 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, of which we have one large round, closing in November and a separate round for Explorer Grants. In 2018, **we supported research with both long and short horizons**, to build pathways to better health and wellbeing.

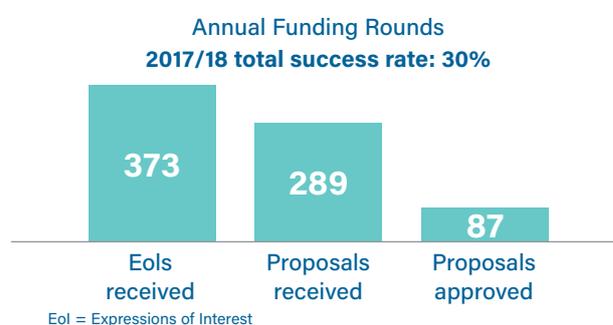
Our main annual funding round

The main annual funding round is our major opportunity to **support the best ideas from 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.

We publish Investment Signals annually, and these reflect the importance the Council places on **meeting the needs of the health sector** to support evidence-based practice, **improving health outcomes for those experiencing the greatest burden from poor health and wellbeing**, and acting early to prevent disease.

In 2018, we have been looking at our investment processes to **improve the way that we assess the potential impact of research** (see Driver 1, p20), and how research delivers to Māori advancement, He Korowai Oranga and Vision Mātauranga (see Increase investment and provide new opportunities for Māori and Pacific health research and researchers, p20).

This year we supported three different contract types through the main annual funding round (see the diagram opposite) and Explorer Grants (see breakdown below).³



The total investment in Project and Programme contracts in the 2018 main round was \$80.2m (54 contracts, of which 5 were Programmes).

The process of assessment, – leading to funding decisions, consisted of a two-stage process for most grants, **approximately 240 expert committee members**, and a further 450–500 specialist reviewers.

All new contracts were selected using our international best-practice method of peer review and are subject to ongoing monitoring to ensure delivery of contracted outcomes.

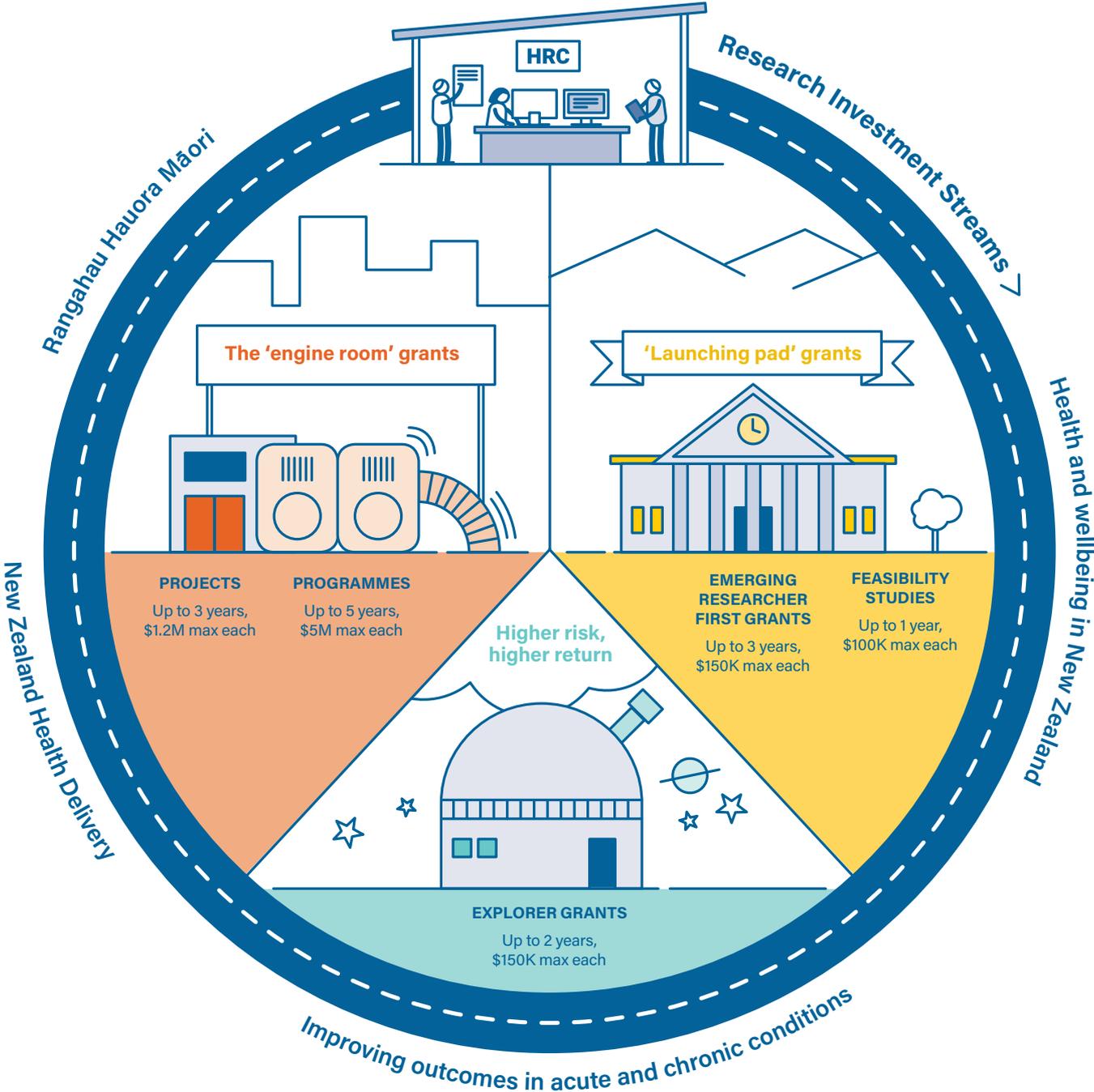
Funding research to improve Māori and Pacific peoples' health outcomes

We have **specific processes for funding research relevant to Māori and Pacific peoples**. The HRC's statutory Māori Health Research Committee and standing Pacific Health Research Committee advise on the strategic direction. As far as possible, we make sure that there is appropriate expertise available to review culturally specific research paradigms and methods and to understand the context and drivers of research.

³ The success rate for Project applications is much lower – 13% of Project applications that were submitted as Expressions of Interest were funded (see table overleaf).

HRC contract types

The HRC's investments through Output 1



Grant Type	Expression of Interest	Full Applications	Contracts Offered	% Successful*
Projects	373	150 invited 148 assessed	49	32.7 (of invited) 33.1 (of assessed)
Programmes	n/a	14	5	35.7
Emerging Researcher First Grants	n/a	36	13	36.1
Feasibility Studies	n/a	31	10	32.3
Explorer Grants	n/a	60	10	16.7

(Note: the HRC is not obligated to pay the full value of the contract, as payment is made in accordance with satisfactory progress.)

Our Research Investment Streams – supporting high-quality, high-impact research

Applicants applied to one of four different Research Investment Streams (RIS). These represent broad priority areas for HRC’s research investment and reflect our drive to deliver 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 detailed below.

New Zealand Health Delivery (approximately 20% of funds)



Better care



Better outcomes



Optimal costs

This is our portfolio for research that will have an immediate impact on our health system, driving findings to where they can be used to deliver better care, develop better systems, and reduce costs. **Research teams include health professionals and stakeholders to increase the utility and uptake of the research.**

In 2017/18, we supported **7 contracts under New Zealand Health Delivery with a total investment of \$7.71m**. Among the innovative projects looking at sustainable and equitable improvements in our health system are the following examples under ‘Watch this Space’:

Watch this space...

Everyone should have access to effective pain control

We supported development of an on-line pain management system that improves **access to effective pain relief strategies for disadvantaged communities** and those living in rural areas.

Have regional DHB Groupings worked?

We’ll soon find out with a study looking at the four **regional District Health Board (DHB) groupings** to see if they do, in fact, provide better integration of health care – as they were intended to do – and if there are success factors that we can learn from.

Will removing prescription charges improve health outcomes in deprived communities?

As part of our drive to promote health equity, we’ve invested in a study investigating whether providing **free prescriptions for people suffering from diabetes or mental illness in deprived communities** will improve health outcomes and reduce hospital admissions.



Improving Outcomes for Acute and Chronic Conditions in NZ (approximately 35–40% of funds)

Research supported in this stream will contribute to the understanding, prevention, diagnosis and management of non-communicable conditions. This investment drives the **fundamental discoveries that fuel the innovation pipeline**, and **advances that can save lives** and make a real difference to the quality of living for New Zealanders, and worldwide.

In 2017/18, we supported **26 contracts with a total investment of \$46.4m**. Among the innovative projects this year is the one described below.

Watch this space...

Antimicrobial resistance – Sapping the energy of the tuberculosis bug

We’ve funded a major **new programme to tackle antimicrobial resistance** in tuberculosis (TB). **TB is a particularly dangerous organism**, being easily passed on through human contact, causing serious and possibly fatal infections, and having developed strains that are resistance to all known treatments.

If we are not to return to the days when TB sanatoriums were packed with people in the prime of life, new treatments are badly needed. The multidisciplinary research team will focus on attacking the energy-producing apparatus of the microbe with a **new class of drugs**.



Rangahau Hauora Māori (approximately 10% of funds)

The stream supports Māori health research improving Māori health outcomes, health equity and quality of life. In 2017/18, we partnered with Māori to invest in research that aimed to **advance Māori health and wellbeing, achieve health equity, and make New Zealand a world-leader in indigenous health research**.

In the last year, we supported **5 Project contracts with a total investment of \$5.21m**. An example of the crucial research supported is provided below.

Watch this space...

Why are Māori more likely to die after surgery?

In keeping with our strong focus on achieving health equity, we supported a project responding to the finding of a national committee that **Māori patients are 62 per cent more likely to die within 30 days of having surgery than non-Māori** – even after factors like age, deprivation and physical status were taken into account. The study will use large datasets to identify what drives this disparity, at the system and the patient level, and identify modifiable risks to effect change.



Health and Wellbeing in NZ (approximately 30–35% of funds)

Research funded through this stream in 2017/18 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**.

In the last year, we supported **14 Project and Programme contracts with a total investment of \$15.1m**. This year our investment is targeting adolescent health, falls in the elderly, gambling and some more fundamental research into how the body functions.

An example of some unique research focusing on lessons and challenges in the way that New Zealand Pacific communities care for their elders is provided below.

Watch this space...

Caring for the Wisdom Bearers

Part of implementing the *New Zealand Health Research Strategy* is 'investing in **research that leads to equitable outcomes for Pacific peoples and helps them to lead independent lives**'. We have supported a Project that seeks to understand the elder-care practices of Pacific families, drawing on the disciplines of psychology, nursing and social work. Pacific Matua (elders) are the most respected individuals within the aiga (family), given their valuable roles as advisors, holders of wisdom and traditional knowledge, protectors of family genealogy and healers of social issues. **Migration, new housing, work and living arrangements have created many challenges in maintaining elder-care. This study will fill an important gap in knowledge** about the health and wellbeing implications borne by carers.

Explorer grants

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. We assess these grants blind to **allow the ideas to dominate considerations about the experience of the team** putting them forward. These are considered to be 'higher-risk, higher-return' contracts and the innovative **funding process continues to draw international attention in 2018** (see p22).

In 2017/18, we funded **11 Explorer Grants, totalling \$1.65m**. These will explore some truly transformative ideas including those describe below.

Watch this space...

- New materials that make it possible to **regenerate damaged tooth tissue** as an alternative to fillings and a prevention strategy for dental caries.
- An intervention to by-pass healthy eating programmes and **deliver nutritious food directly to the door of those that can't afford to purchase it** to answer the crucial question: 'will they eat it'?
- An **innovative performance measurement framework that relates to New Zealand public hospitals and their full range of systems**. The Ministry of Health mandated existing performance framework for District Health Boards is based on a globally accepted model for hospitals designed to monitor businesses. A new model, customised for our own hospital system, could give a much better account of how DHBs are performing.

Ngā Kanohi Kitea

In keeping with the focus set by the *New Zealand Health Research Strategy* on **strong and enduring engagement with communities**, the HRC supports iwi, hapū, and Māori community groups to address community-identified health needs through a specific funding opportunity, with support from the **Vision Mātauranga Capability Fund**. An important component of the scheme is the development of capacity to engage in research.

Mid-term Review of the Independent Research Organisations (IROs)

The mid-term review of the IROs was undertaken as part of the seven-year funding agreement between the HRC and the four New Zealand IROs: Malaghan Institute of Medical Research (Wellington), Medical Research Institute of New Zealand (Wellington), Te Atawhai o te Ao: Independent Māori Institute for Environment & Health (Whanganui), and Whakauae Research Services (Whanganui). The agreement began in 2014 when \$27m in total was granted across the four organisations. As a result of the 2018 review, the HRC has just released another tranche of funding – \$17m across the four organisations. The review involved four external review panels who conducted site visits in March, reviewing research and organisational performance of the IROs as well as their future strategic plans. **The new funding recognises not only the IROs achievements to date, but also their plans for the next three years which will uniquely contribute to the strategic priorities of the New Zealand Health Research Strategy.**

How our investments under Output 1 contribute to our Key Decision Drivers

Health research contracted through this Output delivers to the following Drivers.



Driver 1: Making a difference



Focus 1: Invest in research that meets the current and future health needs of New Zealanders



Focus 2: Fund excellent research with high potential for national and international impact



Focus 3: Focus on achieving health equity



Focus 4: Support highly innovative and transformative research



Driver 2: Stimulating growth



Focus 3: Identify and expedite economic returns from research

Income and expenditure in 2017/18 under Output 1: Health research contracts

	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Funding from Crown	89,572	89,512	81,891
Interest Received	348	235	218
Other	-	-	-
Total Revenue	89,919	89,747	82,110
Cost of Output	93,965	91,416	83,604
Surplus (Deficit)	(4,046)	(1,669)	(1,494)

Our key performance indicators for Output 1: Health research contracts

Number of contracts funded in the previous financial year⁴ that meet the HRC's definition of 'transformative' research



Baseline

8 in 2016/17 (new measure)

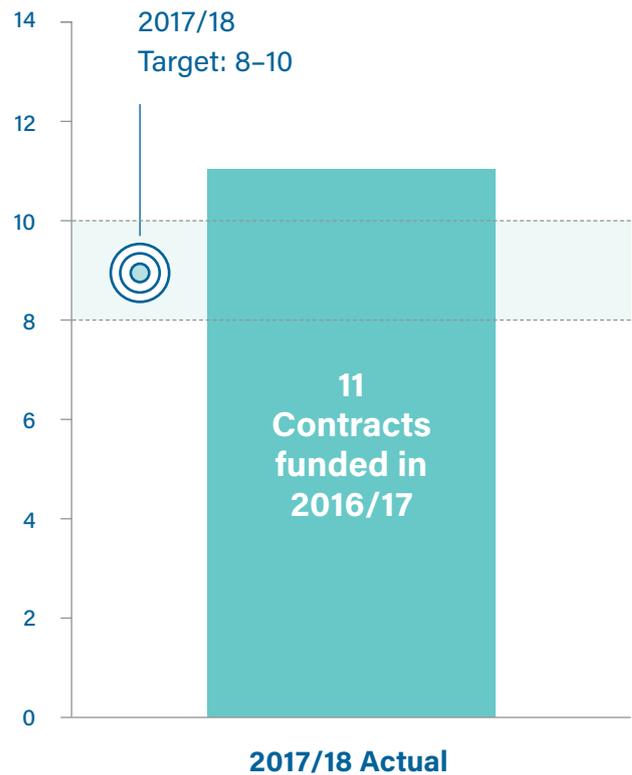


We have achieved our target ✓
(see graph)



What does meeting our target tell us?

By supporting more transformative, and often higher-risk research, we increase the chances of a major positive impact and possible economic returns for New Zealand.



The average Science Assessing Committee score for funded Project and Programme proposals is at least 70% of the available score.⁵



Baseline

2016/17: 72% for Projects; 77% for Programmes (new measure)

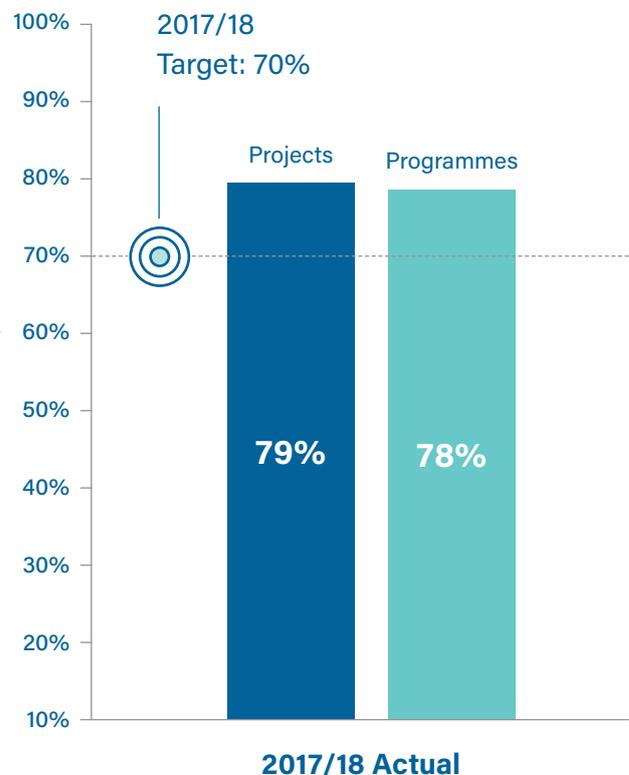


We have achieved our target ✓
(see graph)



What does meeting our target tell us?

This measure shows us that we are funding excellent research – and upholding the two fundamental principles of our performance framework: excellence and innovation. We want to maintain our target at 70% to ensure that public funds only go to well-designed, robust research proposals that will produce novel, reliable and relevant findings.



⁴ The previous financial year relates to the February/March 2017 funding round for Explorer Grants and does not include any proposals that were approved for funding in the current financial year (from the February/March 2018 funding round for Explorer Grants).

⁵ This measure is based on the score that an assessing committee gives each research proposal and involves calculating the average score for all proposals funded and then expressing this as percentage of the total points available. Projects and Programmes are calculated separately because the assessment process differs. It is a measure of the quality of the research that is funded.

Developing and sustaining a strong health research workforce

Investments through Output 2: Career-development contracts

What we fund under this Output

We offer a programme of Career Development Awards, each aimed at **addressing a gap in the health research workforce and building vital capacity**. The figure on the next page shows how the programme is designed to build the Māori, Pacific and clinical workforce (which includes all allied health professionals) and foster the next generation of emerging leaders. It is important to note that funding for PhD and Masters scholarships that are not targeted to Māori and Pacific health was transferred to the tertiary sector over a decade ago. Consequently, the HRC's career development programme is aimed at addressing specific capacity gaps.

All Career Development Awards are made after **expert review of the potential and record of the applicants and their proposed research**.

In 2017/18, 47 Career Development Awards were approved, including Clinical Research Training Fellowships, Māori and Pacific Health Research Career Awards, Foxley and Girdlers Fellowships, and Practitioner Research Fellowships. The HRC recognised 11 researchers with the first HRC Established Researcher Awards, for outstanding contributions to health research excellence, leadership, and impact.

In 2017/18, the Council also approved a further \$1.0m to support two fellowships for leaders in Māori health research, which will be actioned in August 2017. We have evaluated our success in creating career pathways for Māori in 2017 (see our key performance indicator on p29).

Supporting future leaders

In 2017/18, six Sir Charles Hercus Postdoctoral Fellowships (SCHPF) were awarded, maintaining the record high number of the previous year. **The SCHPF are among the HRC's most prestigious fellowships** and are available to outstanding emerging researchers (4–8 years post PhD) who wish to establish careers in health research in New Zealand. The aim of this scheme, established in 2003, is to **support future leaders in health research, and to build capacity for world-class research** that contributes to health and economic gains for New Zealanders.

This year we held our first ever 'meeting of minds' for SCHPF recipients. This was one of the recommendations from a recent evaluation of the scheme. We jointly planned the meeting with one of our most recent Fellows, Ghader Bashiri. Over 20 Fellows attended a day of research presentations and discussions about how to better support our emerging research leaders in New Zealand. Feedback from the fellows was very positive.

Precision Driven Health and HRC Postdoctoral Fellowships

Precision Driven Health and the HRC have formed a joint funding initiative to help foster the health research workforce of New Zealand and support innovative research through the provision of Postdoctoral Fellowships. An objective of the Fellowship is to identify and develop the best people to conduct high-quality research, enhancing the links between research and practice, and encouraging collaboration across the health and commercial sectors. The Fellowship will provide funding of up to \$240,000 for a duration of up to two years.

Problem gambling research grants available for Masters students and Postdoctoral Fellows

This year the HRC offered, on the behalf of the Ministry of Health, a Masters scholarship and a postdoctoral fellowship for research into preventing and minimising gambling harm in New Zealand. The research grants were offered as part of the 2019 Career Development Awards, and both Māori and Pacific health researchers were invited to apply. Once all applications were assessed, one Masters scholarship and one postdoctoral fellowship were awarded to either a Māori or Pacific-focused project. The Preventing and Minimising Gambling Harm Masters Scholarship, valued at \$21,600, will go towards personal support, tuition fees and working expenses for a student completing the research component of a Masters degree. The Postdoctoral Fellowship of \$410,000 will cover the researcher's salary and working expenses.

Partnering with Māori to increase capacity to address Māori health issues and achieve Māori advancement

This year we launched the first Māori health research Emerging Leader Fellowship. This new award is funded in partnership with the Ministry of Health and is focused on building Māori health knowledge – specifically around equity and the social investment that supports improved Māori health outcomes. Introduction of this new Career Development Award aligns with the recently launched *New Zealand Health Research Strategy* priority to ensure the growth and ongoing development of our Māori health research workforce.

The HRC received 9 applications, with two Fellowships awarded in 2018. The \$500,000 Fellowship was awarded to Dr Jason Gurney, an epidemiologist and senior research fellow at the University of Otago, Wellington, and Dr Reremoana (Moana) Theodore, co-director of the National Centre for Lifecourse Research and Senior Research Fellow with the Department of Psychology, University of Otago. With his funding, Dr Gurney wants to improve the quantity and quality of life for Māori with cancer, while Dr Theodore plans to examine the link between educational exposures and health outcomes for Māori.

Developing health research leaders and champions

Training health professionals to conduct & interpret research

Māori

Building the skills and capacity to address Māori health issues & use indigenous knowledge to improve health

Pacific

Building the skills and capacity to address Pacific health issues

All New Zealanders

Building the skills and capacity to address our current and future health issues

STARTING OUT

Taking research to the community



Opportunities for researchers outside academia

- Rangahau Hauora Award
- Ngā Kanohi Kitea

Launching research careers



Māori and Pacific postgraduates gain a qualification

- PhD scholarship
- Masters scholarship
- Summer studentships

- PhD scholarship
- Masters scholarship
- Summer studentships

- Summer studentships (Ethics only)

Establishing research careers



Postdoctoral fellowships for emerging researchers

- Hohua Tutengaehe Research Fellowship

- Pacific Health Postdoctoral Fellowship

- Girdlers New Zealand HRC Fellowship

Engaging health professionals



Research training & opportunities for our health workforce

- Pacific Clinical Research Training Fellowship

- Foxley Fellowship
- Clinical Research Training Fellowship
- Clinical Practitioner Research Fellowship

Fostering fledgling leaders



Opportunities for mid-career researchers

- Irihapeti Ramsden Research Scholarship
- Ngā Pou Senior Fellowship
- Eru Pōmare Research Fellowship
- Māori Emerging Leaders Fellowship

- Sir Thomas Davis Te Patu Kitiē Rangī Ariki Research Fellowship

- Sir Charles Hercus Fellowship

MID-CAREER

See the profile under Driver 2 for a synopsis of how the HRC has supported Dr Gurney’s research career up to this point (p31).

In addition, we supported nine Māori researchers with a Career Development Award in 2018/19, adding them to the tracking of Māori research careers that we undertake as a KPI for this Output.

How our investments under Output 2 contribute to our Key Decision Drivers

Career development contracts supported through this Output, deliver to the following Drivers.



Driver 2: Stimulating growth



Focus 2: Sustain a skilled and diverse health research workforce

Income and expenditure in 2017/18 under Output 2: Career Development Contracts

	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Funding from Crown	7,051	7,032	7,073
Interest Received	134	159	147
Other	-	-	-
Total Revenue	7,186	7,191	7,220
Cost of Output	8,510	7,877	7,431
Surplus (Deficit)	(1,325)	(686)	(210)

Number of current Career Development contracts awarded to practising clinicians



Baseline

30 in 2016/17



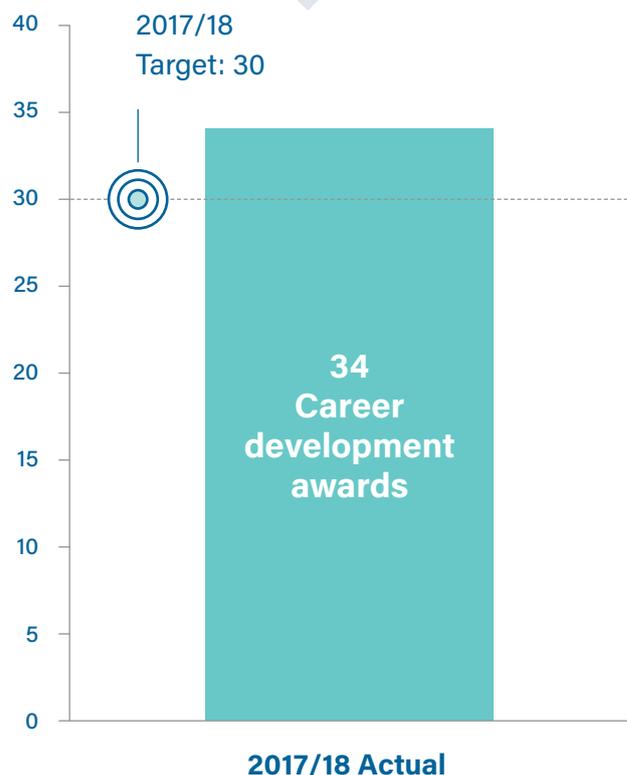
We have achieved our target ✓
(see graph)



What does meeting our target tell us?

We are meeting our obligations under the *New Zealand Health Research Strategy* to support the work of the Ministry of Health in strengthening the clinical research environment. We do this partly by offering career development and research opportunities to clinicians. This indicator allows us to track the number of practising clinicians we are training each year to conduct, interpret and use health research.

It is reassuring to see that so many training awards are being taken up by allied health professionals, such as doctors, dentists, nurses, clinical psychologists, dieticians, physiotherapists or speech therapists and occupational therapists. Any health professional that treats patients on a regular basis as part of their job is classified as a clinician.



Number of Pacific Health Research Scholarships awarded (including, Masters, PhD and postdoctoral awards)



2014/15: 6
2016/17: 7

★ We have achieved our target ✓
(see graph)

? What does meeting our target tell us?

Pacific peoples in New Zealand are faced with the greatest disparities in health in comparison with the rest of the population. If these are 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 communities. 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. We have made our target a range to signal that we have a commitment to develop capacity, but the funding is contingent on our receiving quality applications.

Number of Māori Health Research Scholarships awarded (including, Masters, PhD and postdoctoral awards)

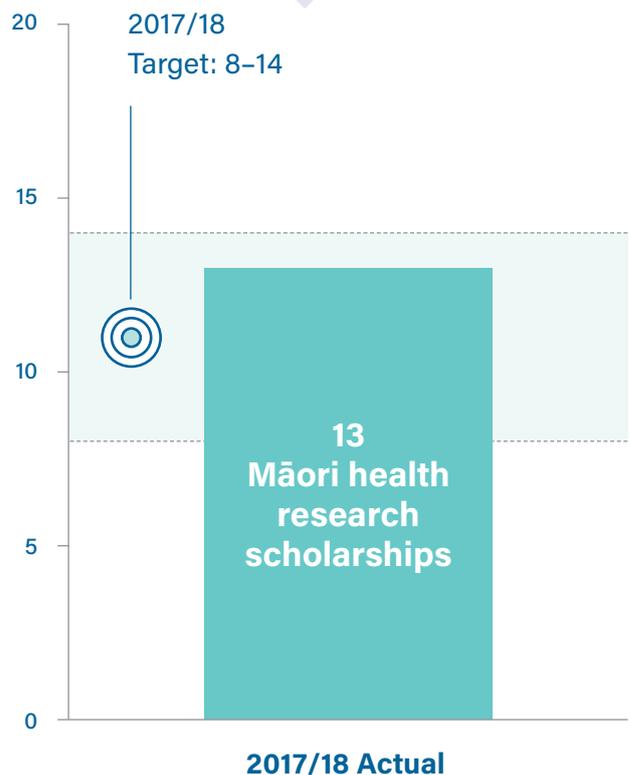


13 in 2016/17

★ We have achieved our target ✓
(see graph)

? What does meeting our target tell us?

Ensuring that we have the capacity and capability to generate the knowledge that Māori need to provide appropriate interventions and solutions to indigenous health issues is a key priority for the HRC. The HRC has ring-fenced funding for Māori health research for over two decades, 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. We have set targets for Career Development Awards to reflect the importance we place on providing training and opportunities for Māori health researchers. We have made our target a range to signal that we have a commitment to develop capacity, but the funding is contingent on our receiving quality applications.



Partnering for impact and connecting with global health research efforts

Investment through Output 3: Co-funding relationships

Scope of the Output

We co-fund research through our Partnership Programme – which delivers research that meets the needs of policy-makers and those involved in healthcare delivery.

Our partnership model allows us to pool our resources with those of our funding partners so that the research we're able to support is more substantive than each agency could afford to commission alone. Having multiple agencies involved increases the utility and uptake of the resulting research. **The HRC can offer expertise and processes that are not available to many of our partners**, meaning that the projects commissioned are more likely to be robustly designed and deliver value for the investment.

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 partnership approach to funding is ideal for addressing complex issues that require action from multiple agencies, and across sectors.

In 2017/18, the HRC and the Ministry of Social Development (MSD) formed a new partnership to fund high-quality research into innovative approaches for case management services which facilitate enhanced employment outcomes for clients with a health condition or disability. The funding partners are also seeking proposals to conduct a literature review (such as a systematic review or meta-analysis) of approaches that are effective in achieving employment outcomes for people who have a health condition or disability. A total funding pool of approximately \$1.43m is available for allocation. The Ministry of Social Development and the HRC are now discussing a new partnership venture.

The partnership with MSD produced one of **five new requests for proposals the HRC launched in 2017/18**. A further two were released through the **Breast Cancer Research New Zealand** partnership (with the Breast Cancer Foundation), one through the partnership between the **HRC and PHARMAC**, and one through the partnership between **the HRC and the Ministry of Health** on primary care.

The breast cancer research sought was on targeted treatments, aspects of early detection, prognostic and predictive diagnoses, and preventative therapies. High-quality research delivering a positive health outcome for women with breast cancer in New Zealand, using data from the NZ Breast Cancer Registry, was also a focus.

Our partnership with PHARMAC focused on the **key challenges facing PHARMAC and the New Zealand health sector**, improving adherence to pharmaceuticals, optimal use of current pharmaceuticals and improving value for money, and measuring the impact of the decisions that PHARMAC makes on health outcomes.

The HRC and the Ministry of Health have formed a partnership to fund evaluation research into general practice models of care provided by Primary Health Organisations (PHOs) in New Zealand. This new research initiative presents an opportunity to evaluate the effectiveness of the current general practice models of care, the elements that currently exist in the New Zealand primary care sector for managing system demand and improving patient experience of care, and how they align with the *New Zealand Health Strategy* and *Primary Health Care Strategy* themes and objectives.

Global Alliance for Chronic Diseases

The Global Alliance for Chronic Diseases (GACD) funds joint programmes that target lifestyle-related or chronic problems such as heart disease, diabetes, certain cancers, lung diseases, and mental health. The HRC joined the Alliance in 2017, with the support of MBIE. The GACD includes public funding agencies from three of New Zealand's major research partners: Australia, Canada, and China.

The GACD has committed to making mental health a global development priority, and the **HRC's first initiative as part of GACD is to fund research worth up to \$2 million into mental health for Māori and Pacific youth in partnership with the Ministry of Health.** Researchers will develop innovative strategies to support at-risk young people who have mental health problems, such as depression, anxiety, schizophrenia, or bipolar affective disorders.

Three successful recipients were announced, including **Professor Felicity Goodyear-Smith** from The University of Auckland, who was awarded \$624,349 to explore the feasibility and acceptability of an e-screening tool – YouthCHAT – across primary care settings with large Māori populations, **Dr Cameron Lacey** (University of Otago) awarded \$535,880 to investigate health inequities for Māori diagnosed with a psychotic disorder, and **Dr Kahu McClintock** (University of Auckland) who was awarded \$789,771 to test the use of indigenous approaches for helping at-risk Māori and Pacific youth.

The Catalyst Fund

The Catalyst has been created by MBIE to foster international collaboration for science and technology-linked activities which advance New Zealand's national interests.

The HRC administers several Catalyst Fund programmes, which are detailed below.

The New Zealand-China Strategic Research Alliance

The NZ-China Strategic Research Alliance was formed to develop collaboration opportunities through the creation and sharing of knowledge, insights, networks, and research and commercial partnerships.

A new request for proposals was released for non-communicable diseases (NCD) collaborative research in June, with applications sought from New Zealand-based researchers (individuals or teams) with demonstrated collaborations and linkages with China-based researchers. The investment is designed to support a research project focusing on NCDs, as agreed by the New Zealand and Chinese Governments. The HRC will fund one project up to a total of \$405,000 over three years.

The HRC and the Natural Science Foundation of China (NSFC) hosted a two-day symposium and welcomed 23 scientists from China and 26 from New Zealand to discuss biomedical health research and collaboration opportunities. The discussions were held to help inform the structure of a future bilateral fund.

The HRC and NSFC have now signed an MOU that paves the way for establishing new scientific collaborations in biomedical research in the five agreed priority areas of cancer; metabolic diseases; brain health; respiratory diseases, and antimicrobial resistance. The arrangement aims to:

- establish new and/or strengthen existing collaborations in biomedical sciences between Chinese and New Zealand researchers from universities and research institutions;
- foster breakthroughs in biomedical research that will advance the global development of science and technology, and
- promote mobility and career development of researchers.

The Human Frontier Science Program

The Human Frontier Science Program aims to support innovative and interdisciplinary research in the life sciences. It offers research grants for novel collaborations among teams of scientists working in different countries and in different disciplines.

The current members of the International Human Frontier Science Program Organization (HFSPO) are New Zealand, Australia, Canada, France, Germany, India, Italy, Japan, Republic of Korea, Norway, 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. The HRC's current Crown Funding Agreement for the 2017/18 financial year provided funding support for another year. The HRC is continuing to support New Zealand researchers to apply to HFSP rounds, which are very competitive.

The HRC conducted Human Frontier Science Program (HFSP) workshops in Auckland, Wellington, Christchurch and Dunedin in 2018. The HRC Chief Executive, Professor Kath McPherson, spent a week on the road with Professors Vickery Arcus and Warwick Anderson spreading the word about the HFSP funding and showing New Zealanders how they can apply.

E-Asia

The **E-ASIA Joint Research Programme** is a multilateral funding scheme designed to support joint research projects among the ASEAN +8 countries. Members have prioritised funding in scientific or technological fields, or solutions to environmental and societal challenges. The Programme also aims to raise research capacity in the East and South East Asian regions by promoting collaborations through workshops and other means. The HRC represents New Zealand as a Member Organisation, and in 2016 hosted a meeting of the E-ASIA network and administered a funding round for research on infectious disease.

New Zealand joined E-Asia in 2014 and the HRC is currently supporting three research projects. In 2018, we will support another collaborative project to the value of \$450K over three years. Existing research has already generated significant outcomes and benefits for what amounts to a very small financial commitment (see Driver 3, p37).

International collaborations

Other new developments in 2017/18 include:

- **The HRC ran an Australian pilot with the European Joint Programming Initiative – Healthy Diet Healthy Life (JPI HDHL).** The Joint Programming Initiative 'A Healthy Diet for a Healthy Life' was established to co-ordinate research in the areas of food, diet, physical activity, and health to achieve tangible societal and health impact and to strengthen European leadership and competitiveness in this field. Across five days in September, the HRC ran promotional meetings and workshops in Melbourne, Canberra and Sydney to facilitate collaborative opportunities with the JPI HDHL. We will be running another in December in Singapore.
- **Staff represented the HRC, and supported HRC-funded researchers at a Pacific Health research gathering in Noumea and at a symposium focused on indigenous health research in Brisbane.** Pacific Research Investment Manager, Tolotea Lanumata, presented on developing the Pacific health research workforce in New Zealand at the 20th Annual Pacific Health Conference in New Caledonia. The agenda also featured presentations from three HRC-funded

researchers around the conference theme 'Pacific health realities: The way forward'. Members of the HRC attended the 6th Annual National Health and Medical Research Council (NHMRC) Symposium on Research Translation in Australia, co-hosted with the Lowitja Institute. **The symposium provided the perfect opportunity for the HRC, NHMRC and Canadian Institutes of Health Research (CIHR) to renew their commitment under the tripartite agreement to continue working together to improve the health of Indigenous peoples through research and capacity-building.**

- Following the NHMRC Symposium on Research Translation in Australia, **the HRC hosted keynote speaker Dr Carrie Bourassa, Scientific Director of the Institute of Aboriginal Peoples Health, Canadian Institutes for Health Research.** Dr Bourassa met with HRC Chief Executive Professor Kath McPherson and the Māori Health Committee to discuss further opportunities for collaboration between NZ and Canada with regards to indigenous health.

How our investments under Output 3 contribute to our Key Decision Drivers

Health research contracted through this Output deliver to the following Drivers:



Driver 1: Making a difference



Focus 1: Invest in research that meets the current and future health needs of New Zealanders



Focus 2: Fund excellent research with high potential for national and international impact



Focus 3: Focus on achieving health equity



Driver 3: Increasing engagement and connection



Focus 1: Strengthen our strategic leadership role – co-ordination, connection and alignment across the system



Focus 3: Build international partnerships and increase opportunities for NZ researchers to engage with the international research community

Income and expenditure in 2017/18 under Output 3: Co-funding relationships

	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Funding from Crown	4,492	4,454	4,155
Interest Received	126	419	389
Other	490	430	362
Total Revenue	5,109	5,303	4,906
Cost of Output	3,314	6,332	4,421
Surplus (Deficit)	1,795	(1,029)	485

Our annual KPIs for Output 3: Co-funding relationships

Redesign the HRC's Partnership Programme to better align with the actions identified for the HRC in the New Zealand Health Research Strategy (NZHRS) and the national health research priorities identified through consultation in 2017/18.

Actual 2017/18



Ongoing

Target 2017/18



Achieve

Baseline 2016/17:



New measure

We have experienced significant delays in launching the process to establish national health research priorities under Action 1 of the NZHRS, meaning that final priorities will not now be set until late 2019 (see Driver 1: Key performance indicator for Focus 1: Invest in research that meets the current and future needs of New Zealanders, p19). However, we have still made significant progress in streamlining our Partnership Programme process and improving the speed with which joint funds are allocated to research. A new funding model is being considered by the Council and will be implemented in 2018/19, with partnerships that address government priorities and the Strategic Investment Areas for Action 1. The Strategic Investment Areas will be set by early 2019, as a framework for the priorities announced later in that year. Full alignment with the research priorities of the NZHRS will be achieved by 2019/20, according to a revised timeline approved by our Ministers.

Number of health researchers involved in current contracts⁶ with international collaborations supported through the Catalyst Fund

Actual 2017/18



24 ✓

Target 2017/18



18–30

Baseline 2016/17:



24⁷

What does meeting our target tell us?

This is an important measure of the number of opportunities we create for New Zealand researchers through our international partnership activities. Our aim is to maintain the number of opportunities.

⁶ 'Current contracts' are defined as those contracts for which the HRC Finance Team has made payments during the 2017/18 financial year.

⁷ Improved accuracy of the data extraction and analysis process, which the reported actual result for 2017/18 now captures, identified more 'International Relationship Fund' contracts that had payments made during the financial year. Using this improved method, the baseline result for 2016/17 would be 27. However, for consistency with our Statement of Performance Expectations 2017/18, we have not updated the baseline measure to reflect this.

Keeping New Zealand health research ethical and safe

Investments through Output 4: Contribution to policy, regulatory and ethical frameworks

Scope of the Output

The services that the HRC provides with funding from 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: the HRC Ethics Committee, the Gene Technology Advisory Committee (GTAC), the Standing Committee on Therapeutic Trials (SCOTT), and the Data Monitoring Core Committee (DMCC). Our impacts for this output are detailed below.

The HRC Ethics Committee

The HRC Ethics Committee (HRCEC) provides advice on urgent or emerging ethical issues to provide value to partners, to champion the integrity of health research, and to manage its potential risks and benefits. These might include issues arising from genetic research, inequities or disparities in health, or from strategies on health and/or health research. The HRCEC also reviews the annual reports of approved Institutional Ethics Committees and advises on any issues raised. **HRCEC is responsible for accrediting all the Health and Disability Ethics Committees (HDECs) and Institutional Ethics Committees (IECs) in New Zealand and providing second opinions where a decision is appealed.**

Health Research Ethics Landscape

The Ethics Committee has had a strong focus on strategy this year and identifying where the Committee can best add value for the sector given their statutory role and expertise. Based on a number of discussions, which included representation from the Ministry of Health and the National Ethics Advisory Committee (NEAC), the HRCEC identified an opportunity to provide timely commentary on topical issues in the health research landscape, and to provide greater levels of advice and guidance on ethical issues associated with data use. Below is a summary of two areas where the Committee has contributed to ethical discussion: the first an article around wastewater, and the second, ethical guidance for researchers utilising information that is part of the Integrated Data Infrastructure.

Wastewater based epidemiology (WBE)

Analysis of wastewater is a rapidly moving and potentially controversial area of research. An editorial in *Nature* noted that *"The toilet bowl and its contents, once extremely private, are becoming very public indeed ... although people may tell lies, the urine they send down the drain rarely does ... You can flush but you can't hide"* (Editorial 2016). Wastewater can be used to estimate rates of consumption of illicit drugs,

alcohol, tobacco, illicit pharmaceuticals, and foodstuffs and has been widely used to map population drug consumption in large catchment areas, although some studies have focused on small catchments such as prisons, hospitals, schools and workplaces.

Since the focus of attention is on communities, rather than individuals, there has been a tendency to downplay any ethical implications of WBE. While it is impossible to identify individuals there is a remote possibility of *indirect* harm, such as stigmatisation of residents in the catchment area, especially in smaller towns. Where there is increased likelihood that individuals or certain cohorts will be recognisable, and consent has not been gained, proposed studies on such populations should be thoroughly scrutinised by a human research ethics committee who is aware of the ethical concerns before being allowed to proceed. In the absence of such scrutiny, the chances of the study being unethical are high.

Big data

While information held in the Integrated Data Infrastructure (IDI) is de-identified and therefore typically out of scope for ethics approval, there are important ethical issues for health researchers to consider. The first relates to the potential harms and benefits to which research can give rise. Some research questions or analytic approaches may be prejudicial to groups, or used to advance policies or systems that have adverse impacts on segments of the population. It is not always easy to identify and assess less direct potential impacts of research; balance possible adverse consequences against benefits, or identify strategies for maximising benefit and minimising harm. One of the services that ethics committees perform for research is to assist in this assessment.

The second reason to seek and obtain ethics approval relates to the need for research to both deserve and secure public support for access to this collective taonga. Research commissioned by Stats NZ demonstrates that people have reservations about data-linking, and that support for it is contingent upon considerations that ethics committees review, including:

- that the research is in the public interest;
- that data-linking is necessary;
- that researchers are trustworthy, skilled and professional, and
- that strict access and confidentiality protocols are adhered to.

Transparency has been identified as relevant to public willingness to accept data-linking. Ethics committee review can reassure the public that research meets high ethical standards and provide a measure of transparency.

How our investments under Output 4 contribute to our Key Decision Drivers

Activities supported through this Output deliver to the following Driver:



Driver 2: Stimulating growth



Focus 1: Develop a strong and enduring health research & innovation system where NZ research teams thrive

Income and expenditure in 2017/18 under Output 4: Contribution to policy, regulatory and ethical frameworks

	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Funding from Crown	285	285	285
Interest Received	-	-	-
Other	-	-	-
Total Revenue	285	285	285
Cost of Output	303	249	240
Surplus (Deficit)	(18)	36	45

Our annual KPIs for Output 4: Contribution to policy, regulatory and ethical frameworks

Number of *Ethics Notes* published to inform researchers of issues on ethics in health research

Actual 2017/18



Target 2017/18



Baseline 2016/17:

2013/14: **3**
2014/15: **2**
2015/16: **2**
2016/17: **2**

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 have reduced the number of publications to one per year, for greater efficiency and cost-effectiveness.

Number of Health and Disability Ethics Committees (HDECs) reviewed and approved by the HRC annually

Actual 2017/18



Target 2017/18



Baseline 2016/17:

2013/14: **4**
2014/15: **4**
2015/16: **4**
2016/17: **4**

This is an invaluable service for the national health research ethics system, and the HRC has a key role to play in ensuring that all HDEC's meet the same high standard.



Part 4: The HRC team and organisation



Our key strength is our people, our staff is diverse in every way and know and live our company values. Many were formerly health researchers and bring that understanding and expertise to their current role. The HRC values its people and aims to provide a safe, flexible and fair working environment

The Health Research Council of New Zealand aims to be an equal opportunities employer and Employer of Choice.

To that end, a range of strategic and operational procedures are in place – which we describe in this section.

Our leadership team and Council regularly review our performance according to the key elements recognised as required for being a good employer and offering equal employment opportunities to both new, and existing staff. Employee numbers at the Health Research Council have stayed relatively steady with **30.53 full-time equivalent staff** at the end June of 2018.

The infographic (right) outlines the make-up of our staff, which is diverse across all domains, and we put in place mechanisms (structures and processes) to ensure our workplace is accessible for diversity across these domains. For example, 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 two staff members who play a key role and who have disclosed their disability to the Council and we work to ensure the worksite is accessible to them. However, we also wish to ensure our workplace is accessible to potential disabled employees and contributors to our work (for example contractors). **We have engaged with an independent organisation (Be Accessible) as well as disabled academics who provide feedback on how to facilitate the accessibility of our organisation as an employer of choice for disabled people.** We have ensured 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 high proportion of staff with doctoral degrees and/or degree-level and professional qualifications.** We also have a number of staff without formal academic qualifications.

Leadership, accountability, and culture

Following a change in the structure of the leadership team and associated accountabilities in 2016, the HRC has enjoyed a period of stability in the senior leadership team.

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 (face to face and written) to ensure clarity and transparency. Staff have opportunities to give feedback directly to the Chief Executive via a monthly meeting (or one-to-one meetings) and through surveys of staff opinion regarding ideas for development, and feedback about the Council as a place to work.

We undertake a regular 'Ask Your Team' survey and 2018 again yielded extremely high engagement with a 97% response rate and the survey identified a number of areas that staff feel are working extremely well. One area where staff indicated improvement could be made was in better understanding how to access development and training opportunities. This has led to an overhaul of our processes and investment in this regard. In 2018 we initiated a 'staff quality improvement programme' where all staff were invited to submit ideas to make the HRC a better place to work. **Two new initiatives for 2018 are: a new approach to celebrating staff success; and a programme of work to enhance our environmental responsiveness and reduce negative environmental impact.**

We have a very active Council who monitor performance, challenge the leadership team, and provide a key role in ensuring accountability within the organisation.

Representation on our Council is diverse in relation to gender, background, and ethnicity.

We adopt a constant quality-improvement approach to facilitating development of the organisation – ensuring we proactively engage with and respond to our many stakeholders and facilitate our 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 ensure employment processes that guarantee there is no barrier to employing the best people for the job.

About our people



The Council has a comprehensive induction and onboarding process, which provides operational and support information. In order to encourage all staff to perform at their optimum, the organisation has identified core values for the first time and these are embedded into position descriptions and decision making.

Recruitment, selection and induction

The HRC follows Equal Employment Opportunities guidelines (EEO). 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 an approved external agency. 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. All staff are invited to comment on and regularly review the Council's EEO policy (and other policies) with the senior leadership team and through our 'Ask Your Team' survey, which is anonymous.

Employee development, promotion and exit

This year, in response to feedback from staff, the process for identifying and supporting training and development opportunities was identified as a priority and updated. All staff members are now actively encouraged to identify their particular needs and interests and develop their skills 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 allocating each staff member a defined training and development budget, and through developing a culture of constant learning.

Employees are encouraged to initiate and take part in development and social opportunities in team building. In the past 12 months, employees have taken part in a range of activities to celebrate both Māori language week and Pacific cultural awareness activities as well as a series of **workshops on enhancing communication to strengthen collaborative working.**

There is a formalised annual performance review system, which is also intended to enable staff to reach the goals and objectives identified for them, whilst finding opportunities for their development within the organisation. **A twice annual formal appraisal session has been introduced along with all managers engaging informally with their staff** around any concerns arising between these formal sessions to ensure performance is acknowledged and difficulties addressed.

As we are a comparatively small, and very stable workplace, opportunities for promotion are somewhat limited. In view of this, opportunities are being provided for a small number of experienced team members to take on more senior roles within their teams. For those in the organisation where opportunities for promotion are not currently available, 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 2016, we initiated a review of all positions to inform development of a remuneration strategy to guide changes in remuneration.** This process was completed in June 2016 and as roles change or new roles are created, advice on market remuneration guides remuneration offered.

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. Over the past two years, we have undertaken a full review and update of a number of policies in light of change in legislation or heightened awareness in the sector, to protect and support staff. Key examples are our health and safety policy and fraud-prevention policies, where **we have instituted access to an anonymous whistleblowing hotline for staff.**

We have also investigated any differential in salary according to gender. As shown in the infographic, the majority of our workforce is women (74%). **We analysed pay according to gender for the first time this year using the approach advised by Stats NZ and found a 15.86% difference overall (with men higher). Analysis within job type / level shows no gender gap and we have women at all levels of the organisation.** However, all our administrative positions (7 in total) are held by women and this clearly contributes to the gender pay gap. Remuneration for staff is informed by independent analysis for all job types (by Strategic Pay) and we will continue to monitor organisational data to ensure gender equity is visible and addressed within the organisation.

Harassment and bullying prevention

Clear policies concerning harassment and bullying prevention are in place and are regularly discussed and reviewed within the organisation at both the HRC team and Council levels. **Our primary prevention strategies are to have a very clear principle of 'zero tolerance' for harassment or bullying,** to have an agreed set of values and principles by which staff work and 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. This is done by their line manager or the 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 Council members are reminded of the policy and the organisation's zero tolerance approach.

The Council recently reviewed its harassment and bullying policy, following the 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 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 Subcommittee of the Council 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 <i>submitting an application for funding</i>	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 <i>the subject of an application for funding</i>	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 <i>the subject of an application for funding</i> 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 2018

Council

Dr Lester Levy, CNZM (Chair)	Professor (Adjunct) of Leadership, University of Auckland Business School
Dr Will Barker	Managing Director, Mint Innovation, Auckland
Professor Jeroen Douwes	Director, Centre for Public Health Research, Massey University, Wellington
Dr Monique Faleafa	Chief Executive, Le Va, Wise Trust, Auckland
Professor Parry Guilford	Director, Cancer Genetics Laboratory and the Centre for Translational Cancer Research, University of Otago, Dunedin
Professor Lesley McCowan, CNZM	Head of Department, Department of Obstetrics & Gynaecology, University of Auckland, Auckland
Professor Andrew Mercer	Director, Virus Research Unit, Department of Microbiology and Immunology, University of Otago, Dunedin
Mr Tony Norman, ONZM	Governance and finance advisor, Whangaparaoa
Associate Professor Suzanne Pitama	Associate Dean Māori, MIHI (Māori/Indigenous Health Institute), University of Otago, Christchurch
Ms Suzanne Snively, ONZM	Economic and business entrepreneurialism strategist, Wellington

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 Julia Horsfield	Department of Pathology, Dunedin School of Medicine, Division of Health Sciences, University of Otago
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
Dr Hinemoa Elder	Māori health, Auckland
Professor Merryn Gott	School of Nursing, The University of Auckland, Auckland
Professor Jane Koziol-McLain	School of Nursing, Auckland University of Technology
Associate Professor Patricia Priest	Department of Preventive & Social Medicine, Dunedin School of Medicine, University of Otago, Dunedin
Professor Robert Scragg	Section of Epidemiology and Biostatistics, School of Population Health, The University of Auckland, Auckland
Dr Jemaima Tiatia-Seath	School of Māori Studies and Pacific Studies – Te Wananga o Waipapa, Faculty of Arts, The University of Auckland, Auckland
Professor Mark Weatherall	Department of Medicine, University of Otago, Wellington

Māori Health Committee

Ms Suzanne Pitama (Chair)	Chair (<i>Ngāti Kahungunu</i>) Associate Dean Māori and Director of the Māori Indigenous Health Institute at the University of Otago, Christchurch
Dr Meihana Durie	(<i>Ngāti Kauwhata, Rangitāne, Ngāti Porou, Rongo Whakaata, Ngāi Tahu</i>) Head of School, Te Pūtahi-a-Toi, Massey University
Dr Shiloh Groot (co-opted)	(<i>Ngāti Pikiao</i>) School of Psychology, The University of Auckland (co-opted)
Dr Ricci Harris	(<i>Ngāti Kahungunu, Ngāi Tahu</i>) Senior Research Fellow/Public health physician, University of Otago, Wellington
Professor Helen Moewaka Barnes	(<i>Ngāpuhi, Ngāti Hine</i>) Associate Director, SHORE; and Director, Whariki Research Group, Massey University, Albany
Dr Sarah-Jane Paine	(<i>Tuhoe</i>) Research Fellow, Te Kupenga Hauora Māori, University of Auckland
Mr Paul White	(<i>Te Rarawa/Ngāi Tupoto</i>) Director: Torea Tai Consultants Ltd, Treaty negotiator: Te Runanga o Te Rarawa
Dr Emma Wyeth	(<i>Ngāi Tahu</i>) Lecturer – Māori Health, Director – Ngāi Tahu Māori Health Research Unit, Preventive and Social Medicine, Dunedin School of Medicine, University of Otago, Dunedin

Ethics Committee

Associate Professor Lynley Anderson (Chair, ethicist)	Bioethics Centre, Medical and Surgical Sciences, Dunedin School of Medicine, University of Otago, Dunedin
Professor Parry Guilford (health researcher)	Director, Cancer Genetics Laboratory and the Centre for Translational Cancer Research, University of Otago, Dunedin
Dr Monique Jonas (ethicist)	Senior Lecturer, Health Systems, School of Population Health, Faculty of Medical and Health Sciences, The University of Auckland, Auckland
Professor David Gareth Jones CNZM (health researcher)	Department of Anatomy, Otago School of Medical Sciences, University of Otago, Dunedin
Professor Tahu Kukutai (Māori and indigenous demography)	Population Studies and Demography, University of Waikato, Hamilton
Professor Lesley McCowan, ONZM (clinician)	Head of Department, Department of Obstetrics & Gynaecology, The University of Auckland, Auckland
Ms Catherine Ryan (lawyer)	Lawyer, Auckland
Associate Professor Huia Tomlins Jahnke (Māori research)	Māori Education, Te Uru Maraurau, School of Māori and Multicultural Education, Massey University, Palmerston North





Part 5: Financial Statements

Statement of Comprehensive Revenue and Expense for the year ended 30 June 2018		Note	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Revenue					
Funding from the Crown	2		101,400	101,287	93,404
Interest Revenue			609	783	755
Other Revenue			490	456	363
Total Income			102,499	102,526	84,848
Expense					
Research Grant costs	3		100,958	99,585	90,770
Operational costs					
Assessment and Council Committee costs			1,069	1,146	963
Personnel costs			3,245	3,727	2,965
Depreciation and amortisation expense			123	205	155
Fees to Audit New Zealand for the audit of the financial statements			62	65	62
Other costs			637	1,236	835
Total operational costs			5,136	6,379	4,980
Total Expenses			106,094	105,964	95,750
Surplus/(Deficit)			(3,595)	(3,438)	(1,228)
Other Comprehensive Revenue and Expense			0	0	0
Total comprehensive revenue and expense			(3,595)	(3,438)	(1,228)

Statement of Changes in Equity for the year ended 30 June 2018		Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Equity at the beginning of the year		14,617	14,681	15,845
Total comprehensive revenue and expense for the year		(3,595)	(3,438)	(1,228)
Equity at the end of the year	5	11,022	11,243	14,617
Represented by				
Public Equity		9,439	9,713	12,988
Foxley Estate Reserve Fund		1,583	1,530	1,629
Total Equity at 30 June	5	11,022	11,243	14,617

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

Statement of Financial Position as at 30 June 2018		Note	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Current Assets					
Cash at Bank			1,136	152	1,542
Short-Term Deposits	4		10,942	12,226	10,566
Short-Term Investments	4		0	0	4,800
Funds held on behalf of – Other Agencies	4		19,618	20,274	18,387
Funds held on behalf of – Foxley Estate	4		1,683	1,530	1,629
Receivables			1,632	397	2,612
Total Current Assets			35,011	34,580	39,536
Non-Current Assets					
Property Plant & Equipment			217	305	261
Intangible Assets			45	676	78
Total Non- Current Assets			262	981	339
Total Assets			35,273	35,561	39,875
Current Liabilities					
Payables			681	360	774
Contract Retentions	3		2,151	2,703	3,307
Employee Entitlements			189	185	190
Rental Benefit in Advance			21	21	21
Unearned Management Fees			454	636	422
Funds held on behalf of other agencies	4		4,799	2,500	3,115
Total Current Liabilities			8,295	6,405	7,829
Non-Current Liabilities					
Funds held on behalf of other agencies	4		15,818	17,775	17,270
Rental Benefit in Advance			138	138	159
Total Non-Current Liabilities			15,956	17,913	17,429
Total Liabilities			24,251	24,317	25,258
Net Assets			11,022	11,243	14,617
Equity					
Public Equity			9,439	9,713	12,988
Foxley Estate Reserve Fund			1,583	1,530	1,629
Total Equity	5		11,022	11,243	14,617

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

Statement of Cash Flow for the year ended 30 June 2018	Note	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Cash flows from operating activities				
<i>Cash was provided from</i>				
Receipts from the Crown		101,400	101,288	93,404
Interest received		638	783	736
Other Revenue		653	892	844
		102,691	102,963	94,984
<i>Cash was applied to</i>				
Payments to suppliers		(103,280)	(102,231)	(93,475)
Payments to employees		(3,218)	(3,660)	(2,869)
GST		93	156	(348)
		(107,405)	(105,735)	(96,692)
<i>Net cash flow from operating activities</i>	11	(4,714)	(2,772)	(1,708)
Cash flows from Investing activities				
<i>Cash was provided from</i>				
Funds held on behalf of other agencies		5,866	8,772	4,635
Maturing Term Deposits		96,488	74,912	102,212
		102,354	83,684	106,847
<i>Cash was applied to</i>				
Funds paid on behalf of other agencies		(4,659)	(4,822)	(3,250)
Reinvestment of Term Deposits		(93,341)	(75,525)	(101,117)
Purchase of Property Plant & Equipment		(46)	(617)	(43)
		(98,046)	(80,964)	(104,410)
<i>Net cash flow from investing activities</i>		4,308	2,720	2,437
<i>Net increase (decrease) in cash held</i>		(406)	(53)	729
Cash at Bank beginning of year		1,542	204	812
Cash at Bank end of year		1,136	152	1,542

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

Notes to the Financial Statements

For the year ended 30 June 2018

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 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 2018 and were approved by the Board on 29 October 2018.

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.

Standards issued and not yet effective and not early adopted

Timing for the adoption of PBE IFRS 9 by HRC will be guided by the Treasury's decision on when PBE IFRS 9 is adopted in the Crown Financial Statements. The HRC has not yet assessed the effects of the new standard.

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) Property Plant & Equipment (PP&E) and Intangible Assets (IA)

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%

B) 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.

C) 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.

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.

D) 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.

E) Payables

Short-term payables are recorded at the amount payable.

F) 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.

G) 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.

H) 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.

I) 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 based on asset utilisation. Personnel costs are charged based on actual time incurred. Property and other premises costs, such as maintenance, are charged based on floor area occupied to produce each output. Other indirect costs are assigned to outputs based on the proportion of direct staff costs for each output.

J) 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.

K) 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.

Note 2 – Revenue from the Crown

Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
-------------------------	-------------------------	-------------------------

Non-exchange revenue

Ministry of Business, Innovation and Employment (MBIE)	101,115	101,002	93,119
Ministry of Health (MoH)	285	285	285
	101,400	101,287	93,404

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.

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.

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 Ministry of Health. 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 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Vote Health & Society Research	97,307	96,135	87,677
Vote Vision Mātauranga	2,447	2,550	2,352
Vote International Relationships	1,204	900	741
	100,958	99,585	90,770

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.

Contract Retentions

Contract retentions relate to amounts withheld equivalent to 1 month's funding for each year of the term of the health research contract until 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 the funding withheld is paid when the final research report is completed and provided to HRC.

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.

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

Accounting policy

Cash and cash equivalents include cash on hand, and deposits held on call with banks. The carrying value of short-term deposits which are invested with maturity dates of 4 months or less approximates their fair value.

Interest Rates

In FY2018 the effective interest rates on deposited funds ranged from 3.0% pa to 3.5% pa.

Funds held on behalf of other agencies

Funds held on behalf of other agencies are the balance of funds held which have been contributed by the HRC and other partners to joint venture projects. These funds 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.

Short term funds held on behalf of other agencies are the contract payments to be made in the next 12 months. The balance of funds held on behalf of other agencies are treated as long term liabilities

Funds held on behalf of – Foxley Estate

Funds held on behalf of the Foxley Estate are pursuant to an HRC resolution to hold the bequeathed funds to support the Foxley Fellowship from the interest earned by the fund.

Note 5 – Equity	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Movements in Equity			
Public Equity			
Balance 1 July	12,988	13,053	14,159
Surplus/(deficit) for the year	(3,595)	(3,438)	(1,228)
Transfer of Net Income from/(to) Foxley Reserve Fund	46	98	57
Balance 30 June	9,439	9,713	12,988
Foxley Reserve Fund			
Balance 1 July	1,629	1,628	1,686
Transfer (to)/from Accumulated Surplus/(deficit)	(46)	(98)	(57)
Balance 30 June	1,583	1,530	1,629
Total Equity at 30 June	11,022	11,243	14,617

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 1998. 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.

Note 6 – Operating Lease Commitments	Actual 2018 \$000	Actual 2017 \$000
<i>Operating Leases as lessee</i>		
Not later than 1 year	277	248
Later than 1 year and not later than 5 years	415	621
Later than 5 years	-	-
Total non-cancellable operating leases	692	869
<i>Operating Leases as lessor</i>		
Not later than 1 year	93	83
Later than 1 year and not later than 5 years	139	208
Later than 5 years	-	-
Total non-cancellable operating leases	232	291

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

Operating Leases as lessee

The HRC currently leases office premises. The lease payments recognised as an expense in the period totalled \$262,530 (2017: \$248,349). No restrictions are placed on HRC by any of its leasing arrangements. As per the lease arrangement, reinstatement costs upon termination of the lease are at the discretion of the landlord. Reinstatement costs are the costs to reinstate the premises as they were at the commencement date.

Operating Leases as lessor

Part of the office premises are sub-let to a tenant in the same building which HRC occupies.

Note 7 – Categories of financial assets and liabilities	Actual 2018 \$000	Actual 2017 \$000
<i>Loans and Receivables</i>		
Cash and cash equivalents	1,136	1,542
Short-Term Deposits	10,942	10,566
Short-Term Investments	0	4,800
Funds held on behalf of – Other Agencies	19,618	18,387
Funds held on behalf of –Foxley Estate	1,683	1,629
Receivables	1,632	2,612
Total loans and receivables	35,011	39,536
<i>Other Financial Liabilities measured at amortised cost</i>		
Payables	681	774
Contract Retentions	2,151	3,307
Funds held on behalf of other agencies	20,617	20,387
Total other financial liabilities	23,449	24,468

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 HRC 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 settle 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. After initial recognition, they are measured at amortised costs using the effective interest method

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 denominated 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 rating 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 of each financial year. Commitments are controlled and limited to this known level and timing of revenue and available cash reserves. In the event that

Government funding is not continued, or the progress and/or quality of research expected is not achieved then HRC may discontinue contracts at its discretion.

The table below analyses payables (not including employee entitlements) 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
2018					
Payables	681	681	681	0	0
Contract Retentions	2,151	2,151	2,151	0	0
Funds held on behalf of other agencies	20,617	20,617	2,468	2,331	15,818
Total	23,449	23,449	5,300	2,331	15,818
2017					
Payables	774	774	774	0	0
Contract Retentions	3,307	3,307	3,307	0	0
Funds held on behalf of other agencies	20,387	20,387	1,717	1,398	17,272
Total	24,468	24,468	5,798	1,398	17,272

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.

Note 10 – Employee Remuneration

Employees receiving over \$100,000	Actual 2018 No. of Staff	Actual 2017 No. of Staff
100,000 to 109,999	2	1
110,000 to 119,999	1	
120,000 to 129,999		1
130,000 to 139,999		1
140,000 to 149,999		
150,000 to 159,999		
160,000 to 169,999		
170,000 to 179,999	1	1
180,000 to 189,999	2	2
290,000 to 299,999		
320,000 to 329,999		1
330,000 to 339,999	1	

Councillors' Fees	Appointed	Retired	Actual 2018 \$	Actual 2017 \$
Dr L Levy, CNZM	Jan 16		24,000	24,000
Professor R Beasley, CNZM	Sept 09	Jul 16		1,250
Dr M Harwood	Sept 09	Jun 17		12,000
Ms E Ludemann	Sept 09	Jun 17		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	15,000
Dr C Powell	Sept 09	Jun 17		11,000
Ms S Snively, ONZM	Dec 10		12,000	12,000
Professor J Douwes	Sep 15		15,000	15,000
Professor P Guilford	Oct 16		12,000	9,000
Dr W Barker	Jun 17		13,000	
Dr M Faleafa	Jun 17		13,000	
Mr T Norman	Jun 17		13,000	
			144,000	138,250

Note 11 – Reconciliation of Operating surplus (deficit) to net cash flow from operating activities	Actual 2018 \$000	Budget 2018 \$000	Actual 2017 \$000
Surplus/(deficit) for year	(3,594)	(3,438)	(1,228)
Add non-cash items			
Depreciation and Amortisation expense	123	205	155
Rent recovered	(21)	0	(21)
Add/(deduct) movements in working capital items			
Receivable (increase)/decrease	(3)	0	465
Payables increase/(decrease)	(1,219)	461	(1,079)
Net cash flow from operating activities	(4,714)	(2,772)	(1,708)

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 be 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

	2018	2017
Board Members		
Remuneration – \$000	144	138
Full-time equivalent members	0.81	0.72
Leadership Team		
Remuneration – \$000	889	1,003
Full-time equivalent members	4.00	4.42
Total Key Management Personnel Remuneration	1,033	1,141
Total Full-Time Equivalent Personnel	4.81	5.14

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

Cessation, termination payments or compensation paid to those who ceased employment during the year totalled \$Nil, Staff Nil (2017: \$62,031, Staff 2)

Note 13 – Contingencies

As at 30 June 2018 the HRC has no contingent assets or contingent liabilities (2017: 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 2018 (2017: Nil).

Note 15 – Explanation of major variances against budget \$000

Statement of comprehensive revenue and expense

Revenue

Revenue was below budget driven by lower interest received from short-term deposits \$(175)K offset by higher Joint Venture management fees \$44K and additional International Relationship funding provided by MBIE \$86K.

Expenditure

Research Grant Expenditure was higher than budget \$(1,373)K or 1.4% driven by higher contestable research round and Vision Mātauranga expenditure \$(4,051)K offset by lower contributions and refunds from partnerships \$2,900K. Lower operational costs \$1,243K were driven by the slower than expected implementation of Information Technology improvements.

Statement of financial position

No Material Variances

Statement of Cash Flow

Operating cash outflows were higher than budget by \$(1,670)K driven by the reduction in Contract Retentions \$(640)K and higher research grant expenditure \$(1,204)K.

Statement of Resources as at 30 June 2018

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 3 years. The annual rental cost is \$0.27m including operating costs. The Research Staff occupy space at the University of Otago in Dunedin.

Staff Resources

	FTEs 2018	FTEs 2017
Operational staff		
Chief Executive	1.0	1.0
Senior Managers	3.0	3.0
Manager Pacific Health Research	1.0	1.0
Manager Māori Health Research	1.0	1.0
Support staff	24.5	19.1
	30.5	25.1
Research staff		
Senior research staff	1	1
Other research staff	1	1
	2	2

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

Insurance Cover in respect of Board Members and Employees

The HRC has following Insurance Policies in place in respect of Board Members and Employees:

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, and
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.

Audit New Zealand report

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 2018

The Auditor-General is the auditor of the Health Research Council of New Zealand (the Health Research Council). The Auditor-General has appointed me, JR Smail, 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 his behalf.

Opinion

We have audited:

- the financial statements of the Health Research Council on pages 75 to 86 that comprise the statement of financial position as at 30 June 2018, 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 including a summary of significant accounting policies and other explanatory information; and
- the performance information of the Health Research Council on pages 19, 21, 29, 30, 36, 38 and 46 to 62.

In our opinion:

- the financial statements of the Health Research Council on pages 75 to 86:
 - present fairly, in all material respects:
 - its financial position as at 30 June 2018; and
 - its financial performance and cash flows for the year then ended; and
 - comply with generally accepted accounting practice in New Zealand in accordance with Public Benefit Entity accounting standards; and
- the performance information on pages 19, 21, 29, 30, 36, 38 and 46 to 62:
 - presents fairly, in all material respects, the Health Research Council's performance for the year ended 30 June 2018, including:
 - for each class of reportable outputs:
 - its standards of delivery 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;
 - what has been achieved with the appropriations; and
 - the actual expenses or capital expenditure incurred compared with the appropriated or forecast expenses or capital expenditure; and
- complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 29 October 2018. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Board and our responsibilities relating to the financial statements and the performance information, we comment on other information, and we explain our independence.

Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

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

Responsibilities of the Board for the financial statements and the performance information

The Board is responsible on behalf of the Health Research Council for preparing financial statements and performance information that are fairly presented and comply with generally accepted accounting practice in New Zealand. The Board is responsible for such internal control as it determines is necessary to enable it to prepare financial statements and performance information that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the performance information, the Board is responsible on behalf of the Health Research Council for assessing the Health Research Council's ability to continue as a going concern. The Board is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless there is an intention to merge or to terminate the activities of the Health Research Council, or there is no realistic alternative but to do so.

The Board's responsibilities arise from the Crown Entities Act 2004, Health Research Council Act 1990 and the Public Finance Act 1989.

Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the performance information, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures, and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers, taken on the basis of these financial statements and the performance information.

For the budget information reported in the financial statements and the performance information, our procedures were limited to checking that the information agreed to the Health Research Council's statement of performance expectations.

We did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements and the performance information, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit 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.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board.
- We evaluate the appropriateness of the reported performance information within the Health Research Council's framework for reporting its performance.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Board and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Health Research Council's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the performance information or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence

obtained up to the date of our auditor's report. However, future events or conditions may cause the Health Research Council to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the financial statements and the performance information, including the disclosures, and whether the financial statements and the performance information represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

Other information

The Board is responsible for the other information. The other information comprises the information included on pages 1 to 18, 20, 22 to 28, 31 to 35, 37, 39 to 45, 63 to 74, 91 to 128, but does not include the financial statements and the performance information, and our auditor's report thereon.

Our opinion on the financial statements and the performance information does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the performance information, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the performance information or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Independence

We are independent of the Health Research Council in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1 (Revised): *Code of Ethics for Assurance Practitioners* issued by the New Zealand Auditing and Assurance Standards Board.

Other than in our capacity as auditor, we have no relationship with, or interests, in the Health Research Council.



JR Smail
Audit New Zealand
On behalf of the Auditor-General
Auckland, New Zealand



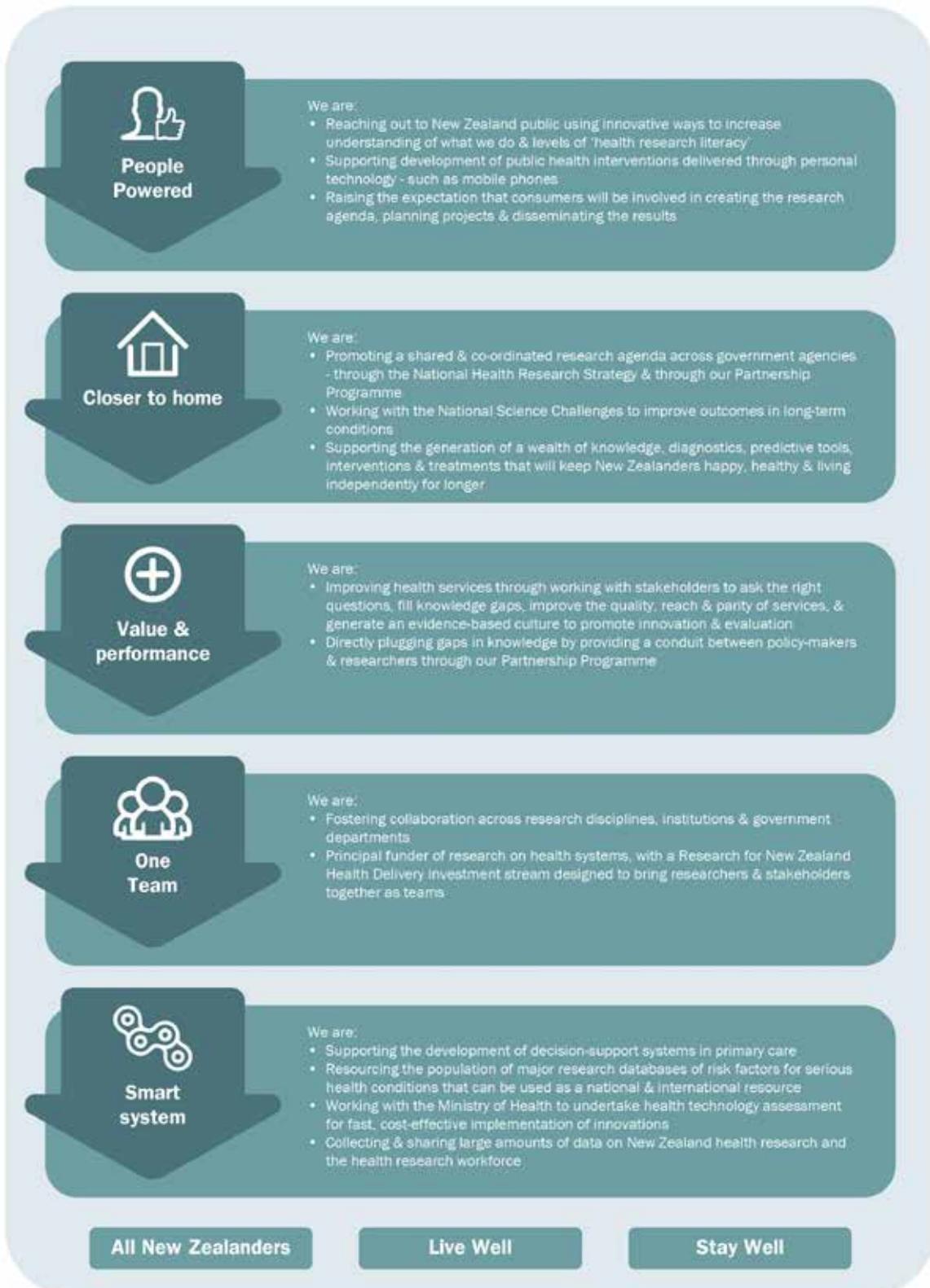
Appendices



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 3 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 healthcare 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.

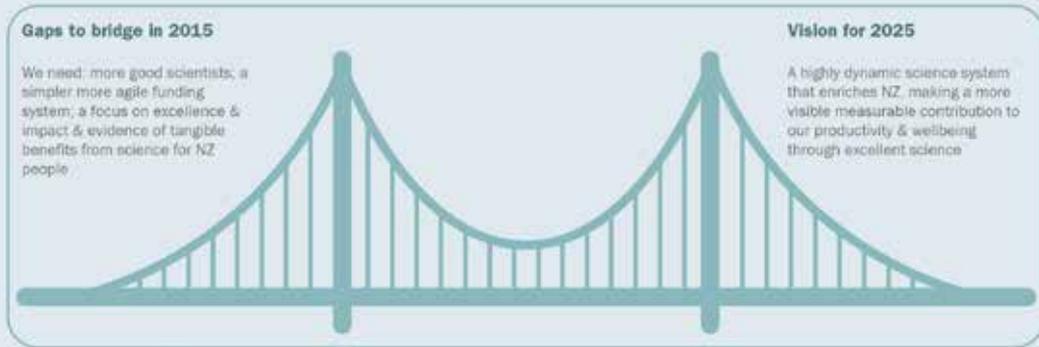
Appendix 2: How the HRC is delivering to the New Zealand Health Strategy



Appendix 3: MBIE's National Statement of Science Investment 2015–2025

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 (green 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).



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.**

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**
- Optimal results** 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 saving worth millions of dollars for our health system. 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 advance for direct applications in health.** We work with health decision-makers on vital **health technology**

Appendix 4: Key focus of the HRC's Research Investment Streams and their relationship to the key decision drivers

The four Research Investment Streams

 <p>Health and Wellbeing Understanding the human body and preventing disease</p>	 <p>Improving Outcomes for Acute and Chronic Conditions Better diagnosis, treatment and end-of-life care</p>
 <p>New Zealand Health Delivery Building a better, more efficient and cost-effective health system through research evidence</p>	 <p>Rangahau Hauora Māori Addressing Māori health issues and building the capacity and capability of the Māori workforce</p>

Driver 1: Making a difference

Focus 1: Research that meets the current and future health needs of New Zealanders

Focus 2: Fund excellent research with high potential for national and international impact

Focus 3: Focus on achieving health equity

Focus 4: Support highly innovative and transformative research

Driver 2: Stimulating growth

Focus 1: Identify and expedite economic returns from research

Appendix 5: HRC contracts current as of

Health and Wellbeing in New Zealand

HRC Ref	Focus Area	Proposal Title
18/738	Alcohol/drugs of dependence	Towards personalised digital health services for preventable health conditions
18/709	Infectious disease	A universal scaffold for multivalent vaccine development
18/621	CNS/Neurological Disorders	The Role of Sleep in Healthy Ageing and Living well with Dementia
18/570	Public health – risk factors	The health literacy of Samoan mothers and managing their children's health
18/566	Biomedical – pharmaceuticals/ treatments	Pasifika Medicinal Plants: Elucidating the Science Behind the Tradition
18/434	Alcohol/drugs of dependence	Social impacts of heavy kava use
18/352	Vision/hearing/speech	Hearing Health in Samoan and Tokelauan Populations
18/338	Diabetes	CHOCs and TOFU Projects: Ophthalmic Changes in Diabetes
18/291	Health services – knowledge resources	Supporting Cook Islands Communities to Access Scientific Evidence
18/280	Ageing	Fractures and Falls Among Older Adults in New Zealand.
18/258	Cardio/cerebrovascular disease	Evaluation of a new screening tool for atrial fibrillation in Pacific people
18/179	Physical activity/exercise	The Effectiveness of Circuit Based Exercise in Cook Islands Communities
18/023	Mental Health	Assessing mental health and wellbeing among high risk Pasifika youth in Aotearoa
18/003	Health services – clinical	Pacific Women Navigating Colposcopy Services
17/911	Environmental Health	Havelock North Campylobacter Outbreak Study
17/655	Alcohol/drugs of dependence	Changing our view of tobacco dependence: the monoamine oxidase inhibitor story
17/652	Gastrointestinal disease	Maternal bacteria to correct abnormal gut microbiota in babies born by C-section
17/611	Occupational Health	Interventions to Reduce Occupational Disease (iROD)
17/590	Reproduction/fertility/sexual health	Omega-3 fats during obese pregnancy, for metabolic protection of the offspring
17/587	Mental Health	The New Zealand Transgender Health Survey: Stigma and Protective Factors
17/568	Alcohol/drugs of dependence	Extending brief alcohol interventions using mobile technology
17/566	Nutrition	Optimising cognitive function: the role of dietary and lifestyle patterns
17/548	Mental Health	Improving the effectiveness of lifestyle change strategies
17/515	Child development	Attitudes, knowledge, behaviours and health in Rarotongan Adolescents
17/495	Wellness	Indigenous approaches to family restoration and wellbeing
17/494	Health services – delivery	Pacific patient's perspectives of treatment of chronic conditions
17/481	Physical activity/exercise	'Run it Straight!' – Pasifika Men, Mental Wellbeing and Elite Sports
17/479	Child development	Non-Communicable Disease Risk in Rarotongan Adolescents
17/478	Diabetes	Differences in Fructose Uptake in Pacific Adolescents
17/472	Obesity	Pacific Island Peoples Experiences of Bariatric Surgery Health Care Engagement
17/461	Physical activity/exercise	Curriculum based high-intensity interval training for young adolescents
17/458	Child development	To investigate health-related behaviours of Rarotongan adolescents
17/417	Oncology/Cancer	Reducing delay and increasing access to early diagnosis for colorectal cancer
17/405	Gastrointestinal disease	Integration of inflammatory signalling by TNF receptor associated factors

30 June, or expired in the financial year

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.15	Explorer Grant	Dr Melanie Tomintz	University of Canterbury
\$0.15	Explorer Grant	Dr Paul Young	The University of Auckland
\$0.25	Emerging Researcher First Grant	Dr Rosemary Gibson	Massey University
\$0.01	Award Pacific Knowledge Translation	Miss Fofoa Pio	The University of Auckland
\$0.35	Pacific Health Postdoc Fellowship	Dr Victoria Woolner	Victoria University of Wellington
\$0.01	Award Pacific Knowledge Translation	Ms Afu Taufua	The University of Auckland
\$0.03	Pacific Health Masters	Miss Latasi Koro	The University of Auckland
\$0.17	Pacific Health Clinical Training Fellow	Dr James Slater	The University of Auckland
\$0.01	Award Pacific Knowledge Translation	Miss Siobhan Tu'akoi	The University of Auckland
\$0.13	Pacific Health PhD	Mr Samuela Ofanoa	The University of Auckland
\$0.29	Pacific Health Davis Award	Dr John Sluyter	The University of Auckland
\$0.13	Pacific Health PhD	Mr Troy Ruhe	University of Otago
\$0.25	Emerging Researcher First Grant	Dr Julia Ioane	Auckland University of Technology
\$0.05	Pacific Health PhD	Mrs Georgina McPherson	Auckland University of Technology
\$0.44	Project	Dr Nicholas Jones	Hawke's Bay District Health Board
\$0.15	Explorer Grant	Dr Penelope Truman	Massey University
\$0.15	Explorer Grant	Professor Wayne Cutfield	The University of Auckland
\$5.00	Programme	Professor Jeroen Douwes	Massey University
\$0.25	Emerging Researcher First Grant	Dr Benjamin Albert	The University of Auckland
\$0.24	Emerging Researcher First Grant	Dr Jaimie Veale	University of Waikato
\$0.23	Emerging Researcher First Grant	Dr Damian Scarf	University of Otago
\$0.25	Emerging Researcher First Grant	Dr Kathryn Beck	Massey University
\$0.25	Emerging Researcher First Grant	Dr Simone Rodda	The University of Auckland
\$0.02	Pacific Health Masters	Mrs Mayor Pokino	The University of Auckland
\$0.06	Pacific Health PhD	Mrs Sesimani Havea	Massey University
\$0.40	Project	Dr Debbie Ryan	Pacific Perspectives
\$0.11	Pacific Health PhD	Mr Caleb Marsters	The University of Auckland
\$0.11	Pacific Health PhD	Miss Siobhan Tu'akoi	The University of Auckland
\$0.60	Project	Dr Ofa Dewes	The University of Auckland
\$0.42	Pacific Health Postdoc Fellowship	Dr Tamasin Taylor	Auckland University of Technology
\$0.19	Feasibility Study	Dr Nigel Harris	Auckland University of Technology
\$0.02	Pacific Health Masters	Miss Heimata Herman	The University of Auckland
\$1.20	Project	Professor Ross Lawrenson	University of Waikato
\$1.19	Project	Professor Catherine Day	University of Otago

HRC Ref	Focus Area	Proposal Title
17/367	Wellness	Integrated services to improve the health of Pacific peoples
17/364	Infectious disease	Evolution of an epidemic: emergence and adaptation of group B meningococci in NZ
17/333	Alcohol/drugs of dependence	Assessing and comparing national policy to reduce harmful use of alcohol
17/285	Reproduction/fertility/sexual health	GnRH neuron Control of Ovulation
17/282	Vision/hearing/speech	Pacific Islands Families Study: Impact of hearing loss on Pacific youth
17/265	Respiratory disease/asthma	The Epidemiology of Respiratory Syncytial Virus (RSV) in New Zealand Children
17/250	Respiratory disease/asthma	Child poverty: health consequences, costs, and policy interventions
17/240	Endocrine disease	Mid-childhood outcomes of children born at risk of neonatal hypoglycaemia
17/236	Reproduction/fertility/sexual health	Deciphering the Dendron for Fertility Control
17/189	Injury – intentional and unintentional	Curbing the tide of violence! Exploring a Pacific psychological faith-quotient
17/187	Wellness	Sleep and well-being among Pacific children and adolescents
17/155	Respiratory disease/asthma	Respiratory Health of Pacific Youth: Risk and Resilience Throughout Childhood
17/154	Mental Health	Pacific Islands Families: Cultural Resiliency and Vulnerability in Mental Health
17/135	Birth defects/congenital conditions	Environmental and genetic risk factors for cleft lip and palate
17/114	Mental Health	Depression in young Samoan females: The views of mental health service providers
17/113	Oncology/Cancer	Genetic modifiers of risk of familial breast and ovarian cancer
17/066	Mental Health	The impact of racism on the future health of adults: a prospective cohort study
16/682	Physical activity/exercise	Designing Diagnostic and Rehabilitation Landscapes for the Disabled
16/679	Wellness	Intelligent Digital Environment for Wellbeing and Healthcare
16/656	Obesity	Nutrition 2.0: Toward a food systems approach for public health nutrition
16/642	Obesity	Using principles of the 'Slow Movement' to prevent obesity from birth
16/605	Child development	Feeding preterm babies for life-long health
16/604	Ageing	A lifecourse study on aging processes to inform early intervention strategies
16/600	Alcohol/drugs of dependence	The Christchurch Health and Development Study – Birth to 40 Years
16/551	Health services – delivery	Utilizing a prognostic indicator to guide deprescribing in Aged Residential Care
16/546	Biomedical – diagnostics	Validation of a dietary intake biomarker for free sugars intake
16/529	Biomedical – pharmaceuticals/ treatments	New biomaterials from lens crystallin proteins for corneal tissue engineering
16/510	Cardio/cerebrovascular disease	Disturbed energetics in heart failure: its association with t-tubule disruption
16/489	Alcohol/drugs of dependence	Feasibility Assessment of a Smart E-cigarette
16/481	Diabetes	Probiotics for prediabetes: Dose-ranging and MRI feasibility study
16/475	Infectious disease	Zoonotic disease transmission in New Zealand rural communities
16/443	Cardio/cerebrovascular disease	BODE3: Modelling preventive interventions to improve health and social outcomes
16/402	Obesity	Role of hypothalamic beta-catenin in body weight regulation
16/351	Occupational health	Work-related risk factors for cardiovascular disease
16/329	Obesity	Communities Fighting Sugar in Soft-drinks
16/294	Child development	The Next Generation Studies
16/289	Ageing	Towards streetscapes promoting inclusive mobility, health and wellbeing for all

\$Million	Contract Type	Lead Researcher	Host Organisation
\$1.19	Project	Professor Jacqueline Cumming	Victoria University of Wellington
\$1.19	Project	Dr Philip Carter	ESR Institute of Environmental Science & Research
\$0.87	Project	Professor Sally Casswell	Massey University
\$1.17	Project	Professor Allan Herbison	University of Otago
\$1.20	Project	Professor Janis Paterson	Auckland University of Technology
\$0.10	Pacific Health PhD	Ms Namrata Prasad	The University of Auckland
\$1.18	Project	Dr Barry Milne	The University of Auckland
\$1.20	Project	Professor Jane Harding	The University of Auckland
\$1.09	Project	Professor Allan Herbison	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Siautu Alefaio	Massey University
\$0.58	Project	Dr Rosalina Richards	University of Otago
\$1.18	Project	Dr El-Shadan Tautolo	Auckland University of Technology
\$1.19	Project	Dr El-Shadan Tautolo	Auckland University of Technology
\$1.20	Project	Associate Professor John Thompson	The University of Auckland
\$0.02	Pacific Health Masters	Miss Sarah McLean	The University of Auckland
\$1.14	Project	Dr Logan Walker	University of Otago
\$0.82	Project	Dr James Stanley	University of Otago
\$0.15	Explorer Grant	Mr Bruno Marques	Research Trust of Victoria University of Wellington
\$0.15	Explorer Grant	Dr Richard Whiddett	Massey University
\$0.15	Explorer Grant	Professor Boyd Swinburn	The University of Auckland
\$0.15	Explorer Grant	Dr Samantha Marsh	The University of Auckland
\$5.00	Programme	Professor Frank Bloomfield	The University of Auckland
\$4.99	Programme	Professor Richie Graham Poulton CNZM	University of Otago
\$4.36	Programme	Professor John Horwood	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Claire Heppenstall	University of Otago
\$0.15	Feasibility Study	Dr Lisa Te Morenga	University of Otago
\$0.07	Emerging Researcher First Grant	Dr Laura Domigan	The University of Auckland
\$0.11	Emerging Researcher First Grant	Dr June-Chiew Han	The University of Auckland
\$0.15	Feasibility Study	Professor Janet Hoek	University of Otago
\$0.15	Feasibility Study	Associate Professor Rinki Murphy	The University of Auckland
\$0.15	Emerging Researcher First Grant	Dr Pippa Scott	University of Otago
\$4.95	Programme	Professor Tony Blakely	University of Otago
\$1.20	Project	Professor David Grattan	University of Otago
\$0.72	Project	Professor Jeroen Douwes	Massey University
\$1.18	Project	Dr Gerhard Sundborn	The University of Auckland
\$1.20	Project	Professor Bob Hancox	University of Otago
\$1.19	Project	Professor Shanthi Ameratunga	The University of Auckland

HRC Ref	Focus Area	Proposal Title
16/267	Respiratory disease/asthma	Smoking relapse prevention in COPD patients
16/206	Environmental Health	Community water supplies: ensuring microbial safety for disease prevention
16/185	Health services – delivery	Exploring the development and impact of changes in community pharmacy services
16/173	Injury – intentional and unintentional	Creating safer workplaces: understanding our work related fatalities
16/149	Alcohol/drugs of dependence	Supporting informed e-cigarette use: A mixed methods study
16/148	Reproduction/fertility/sexual health	Generating pulses with KNDy neurons
16/096	CNS/Neurological Disorders	Targeting the RFRP neuronal system to control stress and anxiety
16/078	Bone disease	Zoledronic acid and fracture prevention in early postmenopausal women
16/076	Alcohol/drugs of dependence	A head-to-head trial of cytisine and varenicline for smoking cessation
16/066	Alcohol/drugs of dependence	No smokers left behind: A trial of adaptive smoking cessation treatment
16/027	Reproduction/fertility/sexual health	Timekeeping in the neural network controlling fertility
16/017	Dental/oral health	Preventing Upper Respiratory Tract Infections in Infancy
16/010	Infectious disease	New Generation Lipopeptide Antimicrobial Agents Using Patented CLipPA Technology
16/005	Infectious disease	Understanding GAS pharyngitis and skin infections as causes of rheumatic fever
15/599	Wellness	Citizen empowerment for creating healthy community environments in New Zealand
15/540	Public health – risk factors	Systematic review and meta-analyses on health effects of dietary carbohydrates
15/527	Occupational health	The effectiveness of a monitor & feedback device for changing postural behaviour
15/513	Diabetes	Diabetes in Pregnancy effects on subsequent generations
15/510	Ageing	IL-1 signalling and developmental programming of offspring metabolic health
15/429	Environmental Health	He Kainga Oranga: translating housing research to practice for children's health
15/410	Ageing	Premature celebration? The late effects of early birth.
15/397	Wellness	Pacific students' health, wellbeing & success in higher education
15/273	Obesity	The gut microbiome: a new pathway to obesity prevention and metabolic health
15/265	Dental/oral health	Oral health from childhood to mid-life
15/261	Injury – intentional and unintentional	Older drivers, families and GPs: Navigating the path between mobility and safety
15/260	Disability	Enabling participation for children and young people with disabilities
15/216	Child development	Does preventing neonatal hypoglycaemia improve outcome at two years of age?
15/202	Alcohol/drugs of dependence	The combined use of nicotine replacement therapy and e-cigarettes
15/172	Infectious disease	TeeVax – a novel vaccine against group A streptococcus?
15/165	Cardio/cerebrovascular disease	Aspirin harm benefit calculator to guide cardiovascular primary prevention
15/125	Injury – intentional and unintentional	Safety on steps: a randomised controlled trial
15/097	Reproduction/fertility/sexual health	Probing novel pathways mediating Polycystic Ovarian Syndrome
15/072	Alcohol/drugs of dependence	The New Zealand International Tobacco Control Project

\$Million	Contract Type	Lead Researcher	Host Organisation
\$1.20	Project	Associate Professor Natalie Walker	The University of Auckland
\$1.06	Project	Dr Liping Pang	ESR Institute of Environmental Science & Research
\$1.19	Project	Professor Jacqueline Cumming	Research Trust of Victoria University of Wellington
\$1.19	Project	Dr Rebecca Lilley	University of Otago
\$1.20	Project	Professor Janet Hoek	University of Otago
\$1.12	Project	Professor Allan Herbison	University of Otago
\$1.19	Project	Professor Greg Anderson	University of Otago
\$0.96	Project	Associate Professor Mark Bolland	The University of Auckland
\$1.60	Project	Associate Professor Natalie Walker	The University of Auckland
\$1.20	Project	Professor Christopher Bullen	The University of Auckland
\$1.07	Project	Dr Richard Piet	University of Otago
\$1.20	Project	Professor Julian Crane	University of Otago
\$1.20	Project	Professor Margaret Brimble CNZM FRSNZ	The University of Auckland
\$1.20	Project	Professor Michael Baker	University of Otago
\$0.15	Explorer Grant	Dr Stefanie Vandevijvere	The University of Auckland
\$0.15	Emerging Researcher First Grant	Dr Lisa Te Morenga	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Daniel Ribeiro	University of Otago
\$0.10	Feasibility Study	Dr Rosemary Hall	University of Otago
\$0.29	Emerging Researcher First Grant	Dr Clare Reynolds	The University of Auckland
\$4.94	Programme	Professor Dr Philippa Howden-Chapman	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Max Berry	University of Otago
\$0.10	Pacific Health PhD	Associate Professor Faafetai Sopoaga	University of Otago
\$1.20	Project	Professor Bernhard Breier	Massey University
\$1.19	Project	Associate Professor Jonathan Broadbent	University of Otago
\$1.19	Project	Dr Rebecca Brookland	University of Otago
\$0.78	Project	Professor Karen Witten	Massey University
\$1.60	Project	Professor Jane Harding	The University of Auckland
\$1.20	Project	Associate Professor Natalie Walker	The University of Auckland
\$1.12	Project	Associate Professor Thomas Proft	The University of Auckland
\$0.63	Project	Dr Vanessa Selak	The University of Auckland
\$1.20	Project	Associate Professor Michael Keall	University of Otago
\$0.91	Project	Associate Professor Rebecca Campbell	University of Otago
\$1.20	Project	Professor Peter Edwards	University of Otago

Improving Outcomes for Acute and Chronic Conditions

HRC Ref	Focus Area	Proposal Title
18/735	Biomedical – physiology	Is there a 'fourth axis' of vesicular communication?
18/714	Immune system/allergy	Using smallpox proteins to treat human inflammation
18/693	Cardio/cerebrovascular disease	A unique cellular mechanism for diabetic heart disease?
18/691	Vision/hearing/speech	Ocular laser bio-meter, fast and cheap early diagnosis of vision impairment
18/156	Biomedical – pharmaceuticals/ treatments	Towards a New Penicillin for Rheumatic Fever – the BPG Pharmacokinetic Study
17/661	Dental/oral health	'No Drill, No Fill' – a novel substitute to regrow teeth
17/649	Chemical sciences	Developing the holy grail of bioprinting: vascularization
17/632	Reproduction/fertility/sexual health	Linking viruses that call uterus home and unexplained female infertility
17/625	Bioengineering	Towards bone regeneration by developing electroactive hybrid materials
17/624	Obstetric complications/perinatal care	Transforming women's pelvic floor health.
17/622	Oncology/Cancer	A proton switch for T cell migration and activation
17/616	Infectious disease	Real time in situ antibiotic sensitivity testing
17/614	Respiratory disease/asthma	Prevention of Asthma
17/610	Oncology/Cancer	Reducing the burden of gastric cancer in New Zealand
17/608	Cardio/cerebrovascular disease	Biomechanics in Heart Disease
17/601	Obstetric complications/perinatal care	Pathogenesis, detection and treatment of perinatal brain injury
17/586	Oncology/Cancer	IMPACT-ful resistance mechanism of cancer cells
17/582	Child development	Functional Behavioural Sandman: Treating Sleep Disturbance in Children with ASD
17/571	Diabetes	Deciphering the metabolic function of igf2 derived peptide hormones.
17/562	Cardio/cerebrovascular disease	Improving risk assessment for worsening kidney function in heart failure
17/561	Gastrointestinal disease	Activation to recovery mapping to predict gastric dysrhythmias
17/558	Gastrointestinal disease	Development of targeted gastric ablation as a novel gastrointestinal therapy
17/542	Diabetes	Preventing progression from pre-diabetes to Type 2 Diabetes in New Zealanders
17/538	Alcohol/drugs of dependence	Feasibility of a smartphone-based support system for hazardous drinkers
17/536	Physical activity/exercise	The effectiveness of tailored rehabilitation versus standard exercise programme
17/533	Diabetes	Feasibility of a mobile game to improve diabetes self-management in young people
17/531	Mental Health	Sensory modulation for anxiety in primary health care: A feasibility study
17/529	Diabetes	Effects of Helicobacter pylori in pre-diabetes and type 2 diabetes
17/522	Cardio/cerebrovascular disease	Mindfulness training for people after stroke: A feasibility study
17/521	Respiratory disease/asthma	Taking charge of COPD: A low-cost self-management intervention
17/425	Renal disease/urology	Kidney organoids: Modelling kidney injury and preclinical drug testing
17/414	Renal disease/urology	The BEST-Fluids study: Better Evidence for Selecting Transplant Fluids
17/402	Cardio/cerebrovascular disease	An epigenome-wide study for coronary artery disease
17/372	Infectious disease	Unmasking genes for antibiotic resistance in a superbug
17/298	Obesity	Targeting the ERp44-adiponectin interaction for diabetes treatment
17/294	Rheumatology/arthritis	Targeting crystal-driven macrophage activation to suppress gouty inflammation
17/290	Oncology/Cancer	Development of a novel and specific inhibitor of CSF1R for cancer therapy

Million	Contract Type	Lead Researcher	Host Organisation
\$0.15	Explorer Grant	Associate Professor Anthony Phillips	The University of Auckland
\$0.15	Explorer Grant	Professor Kurt Krause	University of Otago
\$0.15	Explorer Grant	Dr Chris Baldi	University of Otago
\$0.15	Explorer Grant	Dr Ehsan Vaghefi	The University of Auckland
\$0.25	Emerging Researcher First Grant	Dr Dianne Sika-Paotonu	University of Otago
\$0.15	Explorer Grant	Dr Azam Ali	University of Otago
\$0.15	Explorer Grant	Dr Jaydee Cabral	University of Otago
\$0.15	Explorer Grant	Dr Anna Ponnampalam	The University of Auckland
\$0.15	Explorer Grant	Dr Leandro Bolzoni	University of Waikato
\$0.15	Explorer Grant	Dr Jennifer Kruger	The University of Auckland
\$0.15	Explorer Grant	Associate Professor Alexander McLellan	University of Otago
\$0.15	Explorer Grant	Professor Sarah Hook	University of Otago
\$4.99	Programme	Professor Stuart Dalziel	Auckland DHB Charitable Trust
\$4.97	Programme	Professor Parry Guilford	University of Otago
\$4.96	Programme	Professor Martyn Nash	The University of Auckland
\$4.92	Programme	Professor Alistair Gunn	The University of Auckland
\$0.25	Emerging Researcher First Grant	Dr Petr Tomek	The University of Auckland
\$0.16	Emerging Researcher First Grant	Dr Laurie McLay	University of Canterbury
\$0.23	Emerging Researcher First Grant	Dr Kate Lee	The University of Auckland
\$0.17	Emerging Researcher First Grant	Dr Moritz Lassé	University of Otago
\$0.25	Emerging Researcher First Grant	Dr Niranchan Paskaranandavivel	The University of Auckland
\$0.25	Emerging Researcher First Grant	Dr Timothy Angeli	The University of Auckland
\$0.25	Feasibility Study	Associate Professor Jeremy Krebs	University of Otago
\$0.19	Feasibility Study	Associate Professor Natalie Walker	The University of Auckland
\$0.21	Feasibility Study	Dr Daniel Ribeiro	University of Otago
\$0.25	Feasibility Study	Professor Ralph Maddison	The University of Auckland
\$0.16	Feasibility Study	Dr Daniel Sutton	Auckland University of Technology
\$0.25	Feasibility Study	Dr Stephen Inns	University of Otago
\$0.25	Feasibility Study	Professor Richard Siebert	Auckland University of Technology
\$0.25	Feasibility Study	Associate Professor William Levack	University of Otago
\$1.18	Project	Associate Professor Alan Davidson	The University of Auckland
\$0.55	Project	Dr Michael Collins	Auckland DHB Charitable Trust
\$1.14	Project	Professor Greg Jones	University of Otago
\$1.15	Project	Professor Iain Lamont	University of Otago
\$1.19	Project	Associate Professor Alok Mitra	The University of Auckland
\$1.19	Project	Dr Christopher Hall	The University of Auckland
\$1.20	Project	Professor William Denny	The University of Auckland

HRC Ref	Focus Area	Proposal Title
17/288	Birth defects/congenital conditions	Defining human specific genetic variants in brain developmental disorders
17/284	CNS/Neurological Disorders	Implantable light stimulator to treat Parkinson's disease.
17/271	Cardio/cerebrovascular disease	Reducing Heart Failure Readmission: The IMPERATIVE-HF Study
17/255	Oncology/Cancer	Development of an optimal hypoxia-selective cytotoxin for clinical use
17/234	Cardio/cerebrovascular disease	Left Ventricular Remodelling in the Multi-Ethnic Study of Atherosclerosis
17/232	Infectious disease	A vaccine to limit the severity of staphylococcal infections
17/230	Oncology/Cancer	Can pre-screening reduce the risk of life-threatening fluoropyrimidine toxicity?
17/226	Cardio/cerebrovascular disease	Are treatments for COPD increasing the risk of acute coronary syndrome?
17/222	Oncology/Cancer	The molecular pathological epidemiology of NHL
17/204	Renal disease/urology	Timing of initiation of renal support in acute kidney injury (STARrr-AKI)
17/194	Mental Health	Effectiveness of Ûloa model
17/100	Mental Health	Understanding the role of insulin in promoting fatty liver disease
17/099	Ageing	Targeting PI3K to promote healthy ageing
17/082	Infectious disease	Role of host exocytosis in infection of human cells by <i>Listeria monocytogenes</i>
17/076	Obstetric complications/perinatal care	Targeting IGF-1 Signalling For Repair of Preterm Brain Dysmaturation
17/052	CNS/Neurological Disorders	Targetting a zinc link in the treatment of Autism Spectrum Disorders
16/680	Cardio/cerebrovascular disease	A Novel Nanosensor array for Heart Failure diagnosis
16/670	CNS/Neurological Disorders	Can we rehabilitate a reflex? A treatment protocol for the cough reflex
16/654	Vision/hearing/speech	One cell, two phenotypes: capturing pluripotency for tissue repair
16/646	Biomedical – pharmaceuticals/ treatments	Preclinical development of non-addictive pain medications
16/631	Infectious disease	Platform Trial Optimising Interventions in Severe Community Acquired Pneumonia
16/617	Oncology/Cancer	Chromatin Nanofibre As A Therapeutic Cancer Vaccine
16/609	Cardio/cerebrovascular disease	Vascular risk Informatics using Epidemiology & the Web 2020 (VIEW2020)
16/608	CNS/Neurological Disorders	Vascular and inflammatory mediators of neurodegeneration
16/597	CNS/Neurological Disorders	Harnessing brain mechanisms to tackle Alzheimer's Disease
16/595	Gastrointestinal disease	Improving gut microbiota in IBD patients using enteral nutrition and curcumin
16/559	CNS/Neurological Disorders	Lost in Translation: Translation Dysregulation and Parkinson's Disease
16/537	Diabetes	The Consequences of Type 2 Diabetes on the Cardiovascular Effects of Aging
16/534	Respiratory disease/asthma	Beta-blockers in COPD: Feasibility of an RCT in Stable patients
16/511	Diabetes	Corneal nerve microstructural changes in diabetes
16/505	Vision/hearing/speech	The transition zone as corneal endothelial transplants
16/488	Biomedical – pharmaceuticals/ treatments	Paracetamol therapy in critical illness
16/434	Oncology/Cancer	Oral Cavity Squamous Cell Carcinomas: Cancer Stem Cells and the Role of the RAS
16/430	CNS/neurological disorders	The epigenome is compromised in Huntington's disease

\$Million	Contract Type	Lead Researcher	Host Organisation
\$1.20	Project	Professor Stephen Robertson	University of Otago
\$1.19	Project	Dr Louise Parr-Brownlie	University of Otago
\$0.71	Project	Professor Richard Troughton	University of Otago
\$1.19	Project	Associate Professor Adam Patterson	The University of Auckland
\$1.19	Project	Professor Alistair Young	The University of Auckland
\$1.05	Project	Professor John Fraser	The University of Auckland
\$1.19	Project	Associate Professor Nuala Helsby	The University of Auckland
\$0.84	Project	Dr Lianne Parkin	University of Otago
\$0.49	Project	Associate Professor Brian Cox	University of Otago
\$1.19	Project	Dr Shay McGuinness	Medical Research Institute of New Zealand
\$0.15	Emerging Researcher First Grant	Dr Sione Vaka	Massey University
\$1.18	Project	Dr Troy Merry	The University of Auckland
\$1.19	Project	Dr Troy Merry	The University of Auckland
\$0.93	Project	Associate Professor Keith Ireton	University of Otago
\$1.16	Project	Dr Justin Dean	The University of Auckland
\$1.17	Project	Associate Professor Johanna Montgomery	The University of Auckland
\$0.15	Explorer Grant	Dr Patrick Gladding	Waitemata District Health Board
\$0.15	Explorer Grant	Dr Phoebe Macrae	University of Canterbury
\$0.15	Explorer Grant	Professor Trevor Sherwin	The University of Auckland
\$0.15	Explorer Grant	Dr Bronwyn Kivell	Research Trust of Victoria University of Wellington
\$4.81	Programme	Dr Colin McArthur	Medical Research Institute of New Zealand
\$0.15	Explorer Grant	Dr Jeong Park	Massey University
\$4.98	Programme	Professor Rodney Jackson	The University of Auckland
\$5.00	Programme	Professor Michael Dragunow	The University of Auckland
\$4.93	Programme	Professor Cliff Abraham	University of Otago
\$0.24	Emerging Researcher First Grant	Dr Paul Blatchford	The New Zealand Institute for Plant & Food Research
\$0.12	Emerging Researcher First Grant	Dr Ivanhoe Leung	The University of Auckland
\$0.15	Emerging Researcher First Grant	Dr Graeme Carrick-Ranson	The University of Auckland
\$0.15	Feasibility Study	Professor Bob Hancox	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Stuti Misra	The University of Auckland
\$0.15	Emerging Researcher First Grant	Dr Jie Zhang	The University of Auckland
\$0.15	Feasibility Study	Dr Paul Young	Medical Research Institute of New Zealand
\$0.15	Emerging Researcher First Grant	Dr Tinte Itinteang	Gillies McIndoe Research Institute
\$0.15	Emerging Researcher First Grant	Dr Pritika Narayan	The University of Auckland

HRC Ref	Focus Area	Proposal Title
16/391	Oncology/cancer	Intercellular mitochondrial transfer in glioblastoma
16/385	Cardio/cerebrovascular disease	Targeting human atrial microstructure: The key to resolving atrial fibrillation
16/361	Infectious disease	Repurposing Amiloride Derivatives as New Agents for Drug-Resistant Tuberculosis
16/341	Oncology/cancer	Potential of targeted cancer therapies by statins
16/331	Oncology/cancer	Proliferating Tumour-Associated Macrophages in human cancers
16/314	Oncology/cancer	Targeting cancer vaccines to human dendritic cells via CD301
16/300	Diabetes	Fructose & the heart: targeting novel mechanisms of diabetic cardiomyopathy
16/279	Gastrointestinal disease	Translational Advances in Faecal Incontinence and Anterior Resection Syndrome
16/242	Cardio/cerebrovascular disease	Reducing the Burden of Atrial Fibrillation
16/236	Gastrointestinal disease	Targeting toxic gut lymph to treat acute disease
16/232	Infectious disease	Structure-directed discovery of next-generation antifungals
16/231	Gastrointestinal disease	Establishing drainage of thoracic duct lymph for longitudinal clinical studies
16/226	Biomedical – pharmaceuticals/ treatments	Genomic analysis of adverse drug reactions
16/172	Infectious disease	Biodiscovery and biosynthesis of new drug candidates
16/165	Child development	Effect of early childhood ear infections on language, cognition and behaviour
16/155	Cardio/cerebrovascular disease	Physiological pacing to improve cardiac output in heart failure
16/135	Cardio/cerebrovascular disease	Keramatrix4VLU: a trial of wool-derived keratin dressings for venous ulcers
16/120	Oncology/cancer	Novel radiosensitisers for head and neck cancer
16/011	Cardio/cerebrovascular disease	Novel biomarker for Acute Coronary Syndromes
16/009	Intensive care	The PLUS trial: PLAsmalyte versUs Saline for intravenous fluid therapy in ICU
15/623	Rheumatology/arthritis	Discovering novel pathways for gout via functional genetics
15/607	Health services – clinical	Cyclic voltammetry of the critically ill: a new window on disease status
15/576	Bone disease	Mechanisms and Management of Musculoskeletal Disease
15/573	Respiratory disease/asthma	RCT of an ICS/LABA reliever therapy regimen in mild asthma
15/517	Infectious disease	Mucosal associated invariant T cells: mechanisms of bacterial control in humans
15/500	Oncology/cancer	p53 and variants in inflammatory disease and cancer
15/494	Oncology/Cancer	Magnesium for Endocrine Related Cognitive Problems in Breast Cancer
15/491	Ageing	Developing a diagnostic tool for myelodysplastic syndrome
15/485	CNS/neurological disorders	The Nose Knows the Way: An Intranasal Approach to Treat Drug-resistant Epilepsy
15/483	Ageing	Growth Factors Delivery System for Bone Regeneration and Vascularisation
15/479	Infectious disease	Neutrophil oxidants in infection and inflammation
15/477	Infectious disease	Formulation of anti-tuberculosis drugs for high dose pulmonary delivery
15/402	Rheumatology/arthritis	Effects of tart cherry concentrate on gout flares and serum urate
15/400	Respiratory disease/asthma	Anti-inflammatory effects of oral and transdermal clonidine in bronchiectasis
15/347	Oncology/cancer	Role of the Trib1 pseudokinase in breast cancer pathology

\$Million	Contract Type	Lead Researcher	Host Organisation
\$1.10	Project	Professor Michael Berridge	Malaghan Institute of Medical Research
\$1.18	Project	Dr Jichao Zhao	The University of Auckland
\$1.19	Project	Professor Gregory Cook	University of Otago
\$1.17	Project	Professor Peter Shepherd	The University of Auckland
\$1.17	Project	Professor Rod Dunbar	The University of Auckland
\$1.19	Project	Professor Rod Dunbar	The University of Auckland
\$1.17	Project	Dr Kimberley Mellor	The University of Auckland
\$1.19	Project	Associate Professor Gregory O'Grady	The University of Auckland
\$1.09	Project	Professor Richard Troughton	University of Otago
\$1.18	Project	Professor John Windsor	The University of Auckland
\$1.20	Project	Associate Professor Brian Monk	University of Otago
\$1.16	Project	Professor John Windsor	The University of Auckland
\$1.19	Project	Professor Martin Kennedy	University of Otago
\$1.20	Project	Professor David Ackerley	Research Trust of Victoria University of Wellington
\$1.19	Project	Professor Cameron Grant	The University of Auckland
\$1.12	Project	Dr Rohit Ramchandra	The University of Auckland
\$1.20	Project	Professor Andrew Jull	The University of Auckland
\$1.20	Project	Associate Professor Michael Hay	The University of Auckland
\$1.16	Project	Associate Professor Chris Pemberton	University of Otago
\$1.39	Project	Dr Paul Young	Medical Research Institute of New Zealand
\$0.15	Explorer Grant	Associate Professor Julia Horsfield	University of Otago
\$0.15	Explorer Grant	Associate Professor Anthony Phillips	The University of Auckland
\$5.00	Programme	Ian Reid	The University of Auckland
\$4.98	Programme	Professor Richard Beasley	Medical Research Institute of New Zealand
\$0.30	Emerging Researcher First Grant	Dr James Ussher	University of Otago
\$4.90	Programme	Professor Antony Braithwaite	University of Otago
\$0.15	Feasibility Study	Professor Michael Findlay	The University of Auckland
\$0.14	Emerging Researcher First Grant	Dr Euan Rodger	University of Otago
\$0.14	Emerging Researcher First Grant	Dr Shakila Rizwan	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Khoon Lim	University of Otago
\$4.83	Programme	Professor Anthony Kettle	University of Otago
\$0.14	Emerging Researcher First Grant	Dr Shyamal Das	University of Otago
\$0.14	Feasibility Study	Professor Lisa Stamp	University of Otago
\$0.15	Feasibility Study	Associate Professor Conroy Wong	Middlemore Clinical Trials
\$1.13	Project	Dr Peter Mace	University of Otago

HRC Ref	Focus Area	Proposal Title
15/333	Respiratory disease/asthma	Oxidative Stress in Cystic Fibrosis
15/331	Diabetes	CaMKII inhibition as a novel therapy for diabetic cardiomyopathy
15/311	Respiratory disease/asthma	Persistent airflow limitation and the airway microbiome in childhood asthma
15/299	Oncology/cancer	Mitochondrial injury and inter-cellular mitochondrial transfer
15/263	Rheumatology/arthritis	The impact and management of rising osteoarthritis burden
15/247	Oncology/cancer	The chemoprevention and treatment of diffuse gastric cancer
15/244	Respiratory disease/asthma	Carrageenan for the reduction of asthma exacerbations in adults
15/229	Oncology/cancer	Investigating a Novel Drug Target in Acute Myeloid Leukaemia
15/209	Obstetric complications/perinatal care	A healthy life starts with a bio-energetically healthy placenta
15/186	Injury - intentional and unintentional	Prehospital injury deaths: preventability, service accessibility and equity
15/141	Nutrition	TARGET (The Augmented versus Routine approach to Giving Energy Trial)
15/103	CNS/Neurological Disorders	Cellular Reprogramming: A Unique Approach to Understanding Huntington's Disease.
15/091	Injury - intentional and unintentional	Subsequent Injury Study (SInS): Improving outcomes for injured New Zealanders
15/086	Cardio/cerebrovascular disease	Hypertension after stroke - therapeutic or pathological?
15/070	CNS/Neurological Disorders	Gene discovery in epilepsy: the building block of precision medicine
15/057	Renal disease/urology	The role of the Pax-Notch pathway in kidney disease
12/529	Oncology/cancer	Molecular and hypoxia biomarkers of sensitivity to new nitroCBI anticancer drugs
12/308	Surgery	The Influence of Anaesthetic Depth on Patient Outcome after Major Surgery

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.80	Project	Professor Anthony Kettle	University of Otago
\$1.05	Project	Dr Jeffrey Erickson	University of Otago
\$1.20	Project	Professor Jeroen Douwes	Massey University
\$1.04	Project	Dr Melanie-Jane McConnell	Victoria University of Wellington
\$1.20	Project	Professor J. Abbott	University of Otago
\$1.19	Project	Professor Parry Guilford	University of Otago
\$1.20	Project	Professor Julian Crane	University of Otago
\$1.15	Project	Associate Professor Julia Horsfield	University of Otago
\$1.19	Project	Professor Larry Chamley	The University of Auckland
\$0.60	Project	Associate Professor Bridget Kool	The University of Auckland
\$1.20	Project	Dr Paul Young	Medical Research Institute of New Zealand
\$1.19	Project	Associate Professor Bronwen Connor	The University of Auckland
\$0.59	Project	Professor Sarah Derrett	University of Otago
\$1.06	Project	Dr Fiona McBryde	The University of Auckland
\$1.20	Project	Associate Professor Lynette Sadleir	University of Otago
\$1.07	Project	Associate Professor Alan Davidson	The University of Auckland
\$1.19	Project	Dr Frederik Pruijn	The University of Auckland
\$1.20	Project	Associate Professor Timothy Short	Auckland DHB Charitable Trust

Research for New Zealand Health Delivery

HRC Ref	Focus Area	Proposal Title
18/739	Health services – delivery	EngageBOT: exploring chatbots for supporting patient engagement
17/657	Health services – delivery	Developing an innovative performance measurement framework for health care
17/585	Vision/hearing/speech	Aniseikonia as a potential barrier to neural plasticity: Does Image Size Matter
17/438	Oncology/Cancer	Improving early access to lung cancer diagnosis for Maori and Rural Communities
17/391	Birth defects/congenital conditions	Reducing inequity through timely detection of critical congenital heart disease
17/363	Ageing	Using the InterRAI to improve identification and management of frailty
17/330	Surgery	Development and application of a risk prediction tool for emergency laparotomy
17/323	Infectious disease	Bacteraemia Antibiotic Length Actually Needed for Clinical Effectiveness-BALANCE
17/233	Diabetes	Community Exercise for long-term management of diabetes and multimorbidity
17/164	Vision/hearing/speech	Randomized controlled trial of hearing aids to improve cognition in older NZers
17/037	Cardio/cerebrovascular disease	Geographic and Ethnic inequities in stroke outcomes
16/815	Reproduction/fertility/sexual health	Funding pharmacist-delivered vaccination of pregnant women: effect on uptake
16/813	Ageing	Supportive Hospice Aged Residential Care Exchange: An Evaluation
16/811	Biomedical – diagnostics	Translating ultrasound imaging of swallowing to clinical dysphagia diagnosis
16/807	Obstetric complications/perinatal care	Outpatient balloon induction of labour versus inpatient prostaglandins; an RCT
16/524	Health services – delivery	Randomised controlled trial of prescription charges: Feasibility study
16/521	Vision/hearing/speech	Improving children's vision screening: Are Lea symbols a better option?
16/425	Cardio/cerebrovascular disease	Pragmatic Clinical Trial of Sodium Lowering in Dialysate
16/405	Mortality	Self-sampling for HPV screening: a community trial
16/387	Injury – intentional and unintentional	Pre-hospital Anti-fibrinolytics for Traumatic Coagulopathy and Haemorrhage
16/353	Cardio/cerebrovascular disease	Transfusion Requirements in patients for Cardiac Surgery – TRICS III
16/344	Diabetes	What predicts regression from prediabetes to normal glucose regulation?
16/330	Cardio/cerebrovascular disease	Improving outcomes of patients with atrial fibrillation in primary care
16/229	Alcohol/drugs of dependence	Me Mutu Kai Paipa – Improving the Provision of Cessation to NZ Smokers
16/133	Occupational health	Implementing a science-based approach for fatigue risk management in nursing
16/014	Intensive care	ICU-ROX: An ICU RCT of conservative vs. standard OXYgen therapy
15/667	Cardio/cerebrovascular disease	Text4Heart: Improving adherence in people with heart disease
15/649	Gastrointestinal disease	Stress ulcer prophylaxis in the Intensive Care Unit
15/352	Liver disease	Molecular predictors of liver cancer in Maori with chronic hepatitis B
15/297	Cardio/cerebrovascular disease	Self-directed rehabilitation RCT after stroke: a practical, low cost programme
15/087	Oncology/cancer	Lung cancer genetic testing in New Zealand

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.15	Explorer Grant	Gayl Humphrey	The University of Auckland
\$0.15	Explorer Grant	Professor Nigel Grigg	Massey University
\$0.25	Emerging Researcher First Grant	Dr Joanna Black	The University of Auckland
\$1.19	Project	Professor Ross Lawrenson	University of Waikato
\$1.18	Project	Professor Frank Bloomfield	The University of Auckland
\$1.17	Project	Dr Hamish Jamieson	University of Otago
\$1.18	Project	Professor Andrew Hill	The University of Auckland
\$1.19	Project	Dr Colin McArthur	Medical Research Institute of New Zealand
\$1.18	Project	Professor Leigh Hale	University of Otago
\$1.15	Project	Associate Professor Grant Searchfield	The University of Auckland
\$1.20	Project	Associate Professor Annemarei Ranta	University of Otago
\$0.11	Project JRP	Dr Natalie Gauld	The University of Auckland
\$0.08	Project JRP	Dr Rosemary Frey	Auckland UniServices
\$0.20	Project JRP	Professor Maggie-Lee Huckabee	University of Canterbury
\$0.20	Project JRP	Dr Michelle Wise	Auckland DHB Charitable Trust
\$0.15	Feasibility Study	Professor Pauline Norris	University of Otago
\$0.14	Emerging Researcher First Grant	Associate Professor Nicola Anstice	The University of Auckland
\$1.20	Project	Associate Professor Mark Marshall	Middlemore Clinical Trials
\$1.20	Project	Professor John Potter	Massey University
\$0.94	Project	Dr Colin McArthur	Medical Research Institute of New Zealand
\$1.20	Project	Dr Shay McGuinness	Medical Research Institute of New Zealand
\$1.11	Project	Dr Kirsten Coppel	University of Otago
\$1.20	Project	Professor Dr Ralph Stewart	Auckland District Health Board
\$0.58	Project	Professor Christopher Cunningham	Massey University
\$0.89	Project	Professor Philippa Gander ONZM	Massey University
\$1.40	Project	Dr Paul Young	Medical Research Institute of New Zealand
\$0.20	Project JRP	Professor Ralph Maddison	Auckland UniServices
\$0.20	Project JRP	Dr Paul Young	Medical Research Institute of New Zealand
\$0.53	Project	Professor Edward Gane	Auckland District Health Board
\$1.20	Project	Dr Harry McNaughton	Medical Research Institute of New Zealand
\$1.18	Project	Professor Mark McKeage	The University of Auckland

Rangahau Hauora Māori

HRC Ref	Focus Area	Proposal Title
17/659	Nutrition	Transforming nutrition and food security in New Zealand: enabling communities
17/441	Family/whanau	Does a Whanau Ora approach improve outcomes for hospitalised tamariki?
17/315	Wellness	Harnessing the spark of life: Maximising whānau contributors to rangatahi wellbeing
17/309	Mortality	Pae Herenga: An investigation of Māori whānau end of life cultural care customs
17/251	Health services – delivery	Examining Emergency Department Inequities (EEDI): do they exist?
17/193A	Oncology/Cancer	He Tapu te whare tangata
17/060	Health services – delivery	D3: Data, Decision-making & Development: Using Data to Improve Health Outcomes
16/586	Wellness	Whakarauora Hapori
16/550	Disability	Development of a Neural Interface for Prosthetics
16/541	Injury – intentional and unintentional	Kia Maanu, Kia Ora: Examining Māori Water Safety
16/518	Reproduction/fertility/sexual health	Māori experiences of antenatal care in Tamaki Makaurau
16/498	Reproduction/fertility/sexual health	Tika tonu – young Maori mothers' experiences of wellbeing following birth
16/491	Reproduction/fertility/sexual health	Investigating customary Māori philosophies regarding the whare tangata (womb)
16/477	Alcohol/drugs of dependence	Maraea – supportive solutions for indigenous children who misuse substances
16/450	Ageing	A Qualitative Investigation of Experiences of Aged Residential Care by Māori
16/449	Health services – clinical	Optimising Post-Operative Pain Relief Following Abdominal Surgery
16/444A	Child development	Whānau Manaaki
16/415	Oncology/cancer	Cancer support programmes for Māori whānau
16/346	Mental health	He Oranga Ngākau: Māori and Trauma Informed Care
16/338	Mental health	Māori and Bipolar Disorder
16/268	Wellness	Honour Project Aotearoa
16/089	Ageing	A Māori approach to the assessment and management of dementia
16/088	Alcohol/drugs of dependence	Te Ara Auahi Kore
15/688	Wellness	Kokiritia te Ora: Promoting Vitality, Enhancing Belonging for Ngatiwai Tamariki.
15/426	Health services – delivery	Maori participation in traditional Maori health practices
15/315	Respiratory disease/asthma	Whakapai e te Ara HĀ: A health literacy approach to Tamariki Asthma
15/153	Wellness	Te whakahawe tangata: decoding discrimination
14/608	Injury – intentional and unintentional	Maori Disability Outcomes: Pathways and experiences after injury
14/373	CNS/Neurological Disorders	Augmenting neuroplasticity in the Huntington's disease brain
13/394a	Mortality	Preventable Maori Mortality

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.15	Explorer Grant	Dr Geoffrey Kira	Massey University
\$0.93	Project	Dr Nina Scott	Waikato District Health Board
\$1.20	Project	Dr Terryann Clark	The University of Auckland
\$1.20	Project	Dr Tess Moeke-Maxwell	The University of Auckland
\$0.90	Project	Dr Elana Curtis	The University of Auckland
\$1.13	Project	Professor Beverley Lawton	Research Trust of Victoria University of Wellington
\$1.20	Project	Dr Amohia Boulton	Whakauae Research Services
\$0.59	Award Maori Health Postdoc Fellow	Dr Ruakere Hond	Te Pou Tiringa Incorporated
\$0.11	Award Maori PhD Scholarship	Mr Mahonri Owen	University of Waikato
\$0.08	Award Maori PhD Scholarship	Miss Chanel Phillips	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Anneka Anderson	The University of Auckland
\$0.06	Award Maori PhD Scholarship	Mrs Aria Graham	Victoria University of Wellington
\$0.11	Award Maori PhD Scholarship	Ms Ngahuia Murphy	University of Waikato
\$0.64	Award Maori Health Postdoc Fellow	Dr Lisa Chant	Auckland University of Technology
\$0.10	Award Maori PhD Scholarship	Ms Karen Keelan	University of Otago
\$0.11	Award Maori PhD Scholarship	Dr Jamie-Lee Rahiri	The University of Auckland
\$3.60	Programme	Professor Beverley Lawton	Research Trust of Victoria University of Wellington
\$1.04	Project	Dr Lis Ellison-Loschmann	Massey University
\$1.19	Project	Dr Leonie Pihama	University of Waikato
\$1.18	Project	Dr Cameron Lacey	University of Otago
\$1.19	Project	Dr Leonie Pihama	University of Waikato
\$1.06	Project	Dr Margaret Dudley	The University of Auckland
\$1.19	Project	Mr Andrew Waa	University of Otago
\$0.20	NKK Project	Mr Wi Pirihi	Ngatiwai Education
\$0.11	Award Maori PhD Scholarship	Ms Erena Wikaire	The University of Auckland
\$1.20	Project	Dr Tristram Ingham	University of Otago
\$0.33	Project	Dr Donna Cormack	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Emma Wyeth	University of Otago
\$1.19	Project	Dr Melanie Cheung	The University of Auckland
\$0.09	Project	Mr Andrew Sporle	McDonald Sporle Ltd

Research Contracts Not Classified by Research Investment Stream

HRC Ref	Focus Area	Proposal Title
18/571	Wellness	Privilege and Health Inequity, the role for Mātauranga Māori
18/491	Mental Health	Whakapiki wairua: Study of a Maori mindfulness intervention in a Wharekura
18/373	Vision/hearing/speech	Using pluripotent stem cells to determine the cellular basis of hearing loss
18/293	Family/whanau	The foster care-giving relationship with new-borns who have feeding difficulties
18/262	Health ethics	Whānau consent: an expression of indigenous rights
18/209	Nutrition	Effects of artificial sweetener in the maternal diet on offspring fertility
18/201	Infectious disease	Does inhibition of quorum sensing increase antibiotic resistance spread?
18/114	Immune system/allergy	Impact of Microenvironment on Dendritic Cell Function
18/113	Respiratory disease/asthma	The role of a sublingual bacterial vaccine in adult bronchiectasis patients.
18/111	Health services – delivery	Process evaluation of trials: maximising the potential for implementation
18/086	Child development	Optimising Parent-Child Interaction Therapy for childhood conduct problems
18/073	Gastrointestinal disease	Developing a Gut Dysfunction Scoring Tool in Critical Illness
18/056	Obstetric complications/perinatal care	Long term outcomes of children born at risk of neonatal hypoglycaemia
18/048	CNS/Neurological Disorders	Genetic characterisation of the epileptic encephalopathies
18/046	Mental Health	Management of psychological factors after mild traumatic brain injury
18/041	Surgery – emergency	Development and application of a risk prediction tool for emergency laparotomy
18/031	Health services – delivery	Improving Patient Safety in New Zealand General Practice
18/027	Reproduction/fertility/sexual health	Bi-modal anti-Müllerian hormone signalling in the ovary.
18/026	Orthopaedics	Designing and using animal models to improve tendon healing
18/024	Infectious disease	Combatting Tuberculosis at Local and International Frontlines
18/013	Surgery	Perioperative Local Anaesthetic
18/006	Cardio/cerebrovascular disease	Big Data – Creating New Insights into Heart Failure
17/678	Infectious disease	Genetic and Molecular Basis of Drug Resistance and Drug Action in Vivax Malaria
17/596	Vision/hearing/speech	Using Chinese medicine to treat tinnitus: targeting metabolic networks
17/496	Child development	Key influences for bed sharing and the relationship with SUDI
17/492	Reproduction/fertility/sexual health	Becoming sexual beings: Māori recommendations for sexual violence prevention
17/487	Diabetes	Te reo tipu – a bittersweet quest for new anti-diabetic agents in rongoā rākau
17/466	Mental Health	Health implications from education for Pasifika people and their families.
17/465	Diabetes	Text Messaging Support for Tongan people with prediabetes
17/453	Health ethics	Genetics in iwi health: A journey to understanding.
17/342	Family/whanau	Tūhono Māori: Promoting secure whānau relationships for traumatised mokopuna
17/210	Alcohol/drugs of dependence	Taiohe and whānau entering acute mental health with alcohol and drug issues
17/161	Intensive care	Knowledge Translation in the management of oxygen therapy in Intensive Care
17/148	Intensive care	To Suction or Not to Suction – that is the question
17/141	Cardio/cerebrovascular disease	Improving Outcomes after Cardiothoracic Surgery
17/134	Health services – delivery	Medicine Optimisation in Older Adults in Primary Care-Multidisciplinary Approach

Million	Contract Type	Lead Researcher	Host Organisation
\$0.35	Award Hohua Tutengaehe Fellowship	Dr Belinda Borell	Massey University
\$0.49	Award Maori Health Postdoc Fellow	Dr Marama McDonald	University of Waikato
\$0.08	Award Maori PhD Scholarship	Miss Blaise Forrester-Gauntlett	University of Waikato
\$0.03	Award Maori Master Scholarship	Mrs Nari Hann	Massey University
\$0.13	Award Maori PhD Scholarship	Ms Hannah Burgess	The University of Auckland
\$0.12	Award Maori PhD Scholarship	Pania Bridge-Comer	The University of Auckland
\$0.13	Award Maori PhD Scholarship	Mr Howard Maxwell	University of Otago
\$0.50	Award Sir Charles Hercus Fellowship	Dr Lisa Connor	Victoria University of Wellington
\$0.32	Award Clinical Research Training Fellow	Dr William Good	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Daniel Ribeiro	University of Otago
\$0.14	Award Foxley	Dr Melanie Woodfield	Auckland DHB Charitable Trust
\$0.32	Award Clinical Research Training Fellow	Ms Varsha Asrani	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Rebecca Griffith	The University of Auckland
\$0.32	Award Clinical Research Training Fellow	Dr Gemma Poke	University of Otago
\$0.41	Award Practitioner Research Fellowship	Dr Deborah Snell	Canterbury District Health Board
\$0.20	Award Clinical Research Training Fellow	Dr Ahmed Barazanchi	The University of Auckland
\$0.32	Award Clinical Research Training Fellow	Dr Sharon Leitch	University of Otago
\$0.50	Award Sir Charles Hercus Fellowship	Dr Michael Pankhurst	University of Otago
\$0.31	Award Clinical Research Training Fellow	Dr Mark Zhu	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Htin Lin Aung	University of Otago
\$0.21	Award Clinical Research Training Fellow	Dr Wiremu MacFater	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Hamish Jamieson	University of Otago
\$0.45	Project JRP	Dr Bruce Russell	University of Otago
\$0.40	International Relationship Fund	Dr Yiwen Zheng	University of Otago
\$0.11	Award Maori PhD Scholarship	Mrs Melanie MacFarlane	The University of Auckland
\$0.45	Award Maori Health Postdoc Fellow	Dr Jade Le Grice	The University of Auckland
\$0.50	Award Maori Health Postdoc Fellow	Dr Jonni Koia	University of Waikato
\$0.38	Pacific Health Postdoc Fellowship	Dr Jesse Kokaua	University of Otago
\$0.11	Pacific Health PhD	Miss Julienne Faletau	The University of Auckland
\$0.47	Award Maori Health Postdoc Fellow	Dr Julia Wilson	University of Otago
\$0.49	Award Maori Health Postdoc Fellow	Dr Alayne Mikahere-Hall	Auckland University of Technology
\$0.11	Award Maori PhD Scholarship	Ms Debra Gerrard	Auckland University of Technology
\$0.25	Award Clinical Research Training Fellow	Mrs Diane Mackle	Medical Research Institute of New Zealand
\$0.24	Award Clinical Research Training Fellow	Ms Eileen Gilder	Auckland DHB Charitable Trust
\$0.85	Award Practitioner Research Fellowship	Dr Shay McGuinness	Auckland DHB Charitable Trust
\$0.24	Award Clinical Research Training Fellow	Ms Joanna Hikaka	The University of Auckland

HRC Ref	Focus Area	Proposal Title
17/103	CNS/Neurological Disorders	Naturally biased? Exploring neuropeptide signal pathway bias in pain.
17/086	Child development	Korero mai: taitamariki Maori development of healthy relationships
17/058	Infectious disease	Novel metabolic processes to target persistent tuberculosis
17/050	Bone disease	Novel osteoprogenitor cell populations involved in bone healing
17/039	CNS/Neurological Disorders	Dementia and Parkinson's disease: Tau pathology and cerebrovascular health
17/035	Gastrointestinal disease	The rectosigmoid brake and its utility as a neuromodulation target
17/018	Ageing	Improving outcomes for support workers in aged care
17/016	Oncology/Cancer	The effects of comorbidity on breast cancer care and outcomes
17/013	Environmental Health	Impact of built environment interventions on children's physical activity
17/011	Intensive care	Prevention and treatment of fever in the ICU
17/009	Obesity	Deciphering gender and ethnic disparity in obesity and cardiometabolic disease.
17/007	Nutrition	Impact of sugar-sweetened beverage taxation in the Pacific
17/001	Health services – delivery	Mahi Ngātahi – Culturally responsive ways of working together
16/697	Infectious disease	Collaborative fever etiology research in South East Asia
16/623	Gastrointestinal disease	Reducing gut dysfunction and organ dysfunction in severe acute pancreatitis
16/555	Health services – delivery	Ambulatory sensitive hospitalisations of Pacific children in New Zealand; the parents' perspectives
16/508	Ageing	Improving the uptake of hearing health services in older Pasifika people
16/468	Mental health	Pacific peoples experience of mental disorder and mental health services
16/452	Infectious disease	Inflammation or infection? The role of biomarkers after colon surgery
16/125	Respiratory disease/asthma	High flow nasal cannulae therapy in COPD and Heart Failure
16/083	Child development	IL-1 signalling and developmental programming of offspring metabolic health
16/072	Reproduction/fertility/sexual health	Prescription Medicine Use in Pregnancy
16/065	Respiratory disease/asthma	A model of care for Māori and Pacific People with chronic airways disease
16/058	Health services – knowledge resources	Ethnic differences in energy metabolism among New Zealanders
16/054	Oncology/Cancer	Predicting brain tumour prognosis from cell immortality pathways.
16/045	Health services – clinical	Serotonin agonists to prevent post-operative ileus after abdominal surgery
16/043	Child development	Can placental stem cells be used to improve fetal outcomes?
16/037	Infectious disease	Vitamin C requirement and mechanisms of action in severe infection
16/034	CNS/neurological disorders	Taking Charge After Stroke (TACAS)
16/022	Rheumatology/arthritis	Osteoarthritis: a case of cellular mismanagement?
16/003	Child development	Extending the window of opportunity for saving babies brains
15/476	Health services – delivery	Towards medical education that addresses Indigenous rights to health
15/471	Reproduction/fertility/sexual health	Iho – a cord between two worlds. Traditional Maori Birthing Practices.
15/454	Rheumatology/arthritis	Lipid profiles as a risk factor for metabolic disease in Polynesians
15/447	Child development	Developing a Pacific Youth Health Model
15/446	Oncology/Cancer	Teaching immune cells old tricks: an innovative strategy for treating Cancer

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.50	Award Sir Charles Hercus Fellowship	Dr Christopher Walker	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Ms Terry Dobbs	Auckland University of Technology
\$0.50	Award Sir Charles Hercus Fellowship	Dr Ghader Bashiri	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Brya Matthews	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Tracy Melzer	University of Otago
\$0.25	Award Clinical Research Training Fellow	Dr Anthony Lin	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Mr Karol Czuba	Auckland University of Technology
\$0.17	Award Clinical Research Training Fellow	Dr Melissa Edwards	The University of Auckland
\$0.44	Award Sir Charles Hercus Fellowship	Associate Professor Melody Smith	The University of Auckland
\$0.72	Award Practitioner Research Fellowship	Dr Paul Young	Capital and Coast District Health Board
\$0.50	Award Sir Charles Hercus Fellowship	Dr Jennifer Miles-Chan	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Andrea Teng	University of Otago
\$0.11	Award Maori PhD Scholarship	Ms Zoe Tipa	Auckland University of Technology
\$0.45	Project JRP	Professor John Crump	University of Otago
\$0.40	International Relationship Fund	Professor John Windsor	The University of Auckland
\$0.11	Pacific Health PhD	Mrs Ellaine Ete Rasch	Victoria University of Wellington
\$0.29	Pacific Health Postdoc Fellowship	Dr Ravi Reddy	The University of Auckland
\$0.02	Pacific Health Masters	Mrs Acelini Hakopa	University of Otago
\$0.17	Pacific Health Clinical Training Fellow	Dr Bruce Su'a	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Steven McKinstry	Medical Research Institute of New Zealand
\$0.41	Award Sir Charles Hercus Fellowship	Dr Clare Reynolds	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Sarah Donald	University of Otago
\$0.24	Award Clinical Research Training Fellow	Dr Sandra Hotu	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Patricia Whitfield	University of Otago
\$0.50	Award Sir Charles Hercus Fellowship	Dr Tania Slatter	University of Otago
\$0.25	Award Clinical Research Training Fellow	Dr Tony Milne	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Joanna James	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Associate Professor Anitra Carr	University of Otago
\$0.25	Award Clinical Research Training Fellow	Dr Vivian Fu	Medical Research Institute of New Zealand
\$0.50	Award Sir Charles Hercus Fellowship	Dr Raewyn Poulsen	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Joanne Davidson	The University of Auckland
\$0.06	Award Maori PhD Scholarship	Ms Anna Fay	The University of Auckland
\$0.08	Award Maori PhD Scholarship	Ms Kelly Tikao	University of Canterbury
\$0.11	Pacific Health PhD	Miss Jaye Moors	University of Otago
\$0.11	Pacific Health PhD	Ms Hana Tuisano	Massey University
\$0.39	Award Maori Health Postdoc Fellow	Dr Kimiora Henare	The University of Auckland

HRC Ref	Focus Area	Proposal Title
15/428	Diabetes	A kaupapa Maori feasibility study to improve type 2 diabetes in Whangaroa
15/413	Health services – delivery	'Created Equal': Investigating health system perspectives of disparities
15/403	Wellness	Food availability for Maori children – A rights based approach
15/081	Respiratory disease/asthma	Registry based clinical trials
15/035	Diabetes	New insights into pancreatogenic diabetes
15/030	Health services – clinical	Towards the treatment of toxic thoracic lymph in critical illness
15/019	Biomedical – physiology	Chronic stress induced adaptations in hypothalamic brain circuits
14/810	Infectious disease	Evolution in Action: a novel model for studying pathogen adaptation in vivo
14/613	Child development	Growing better placentas for healthy babies
14/584	Child development	Neurodevelopmental Outcomes of Children Exposed to Methadone during Pregnancy
14/568	Obstetric complications/perinatal care	Healthy pregnancy, healthy babies
14/565	Wellness	Built Environment and Active Transport to School: BEATS Parental Survey
14/547	Mental health	Characterising Cannabinoid Receptor 2 Polymorphisms Implicated in Mental Illness
14/538	Oncology/cancer	Biomarker-guided drug targeting of the tumour microenvironment in radiotherapy
14/527	Rheumatology/arthritis	Urate and gout: genetic control, environmental and drug interactions
14/521	Cardio/cerebrovascular disease	HEART FAILURE: markers and management
14/499	Obstetric complications/perinatal care	Optimal glycaemic targets for gestational diabetes: the randomised trial TARGET
14/474	Respiratory disease/asthma	Non-inflammatory mechanisms in asthma
14/441	Reproduction/fertility/sexual health	AMH regulation of female reproduction
14/440	CNS/Neurological Disorders	Genetics, brain imaging, and cognitive decline in Parkinson's disease
14/429	CNS/Neurological Disorders	Incidence Study of Status Epilepticus in the Greater Auckland Region
14/412	Alcohol/drugs of dependence	Evaluation of New Zealand's alcohol reform legislation
14/368	Cardio/cerebrovascular disease	Restoring HDL levels
14/331	Infectious disease	Is the family pet a risk factor for multidrug resistant bacterial infections?
14/281	Vision/hearing/speech	Delivering lens anti-oxidants: a strategy to develop anti-cataract therapies
14/276	Birth defects/congenital conditions	Degradable metallic mini-plate and screw system for craniofacial osteosynthesis
14/219	Immune system/allergy	A role for p53 isoforms in inflammatory disease
14/174	Obstetric complications/perinatal care	ProViDe RCT: does better early nutrition in preterm babies improve development?
14/168	Birth defects/congenital conditions	Improving hydrocephalus management through an implantable device
14/160	Birth defects/congenital conditions	Quality of care and outcomes in children with cleft lip and/or palate
14/153	Obstetric complications/perinatal care	Antenatal magnesium sulphate: mechanisms of fetal neuroprotection
14/136	Cardio/cerebrovascular disease	Individualised neuromodulation for motor recovery after stroke
14/129	Mental health	Clinical translation of an anxiety process biomarker
14/117	Renal disease/urology	CKD-FIX: trial of xanthine oxidase inhibition to slow kidney disease progression
14/115	Intensive care	Early goal-directed sedation in mechanically ventilated intensive care patients
14/104	Obstetric complications/perinatal care	Gestational Diabetes Trial of Detection Thresholds: Impact on health and costs
14/081	CNS/neurological disorders	A kaupapa Maori intervention for stroke-related communication disorders
14/064	Mental health	Cook Island youth views toward positive mental wellbeing and suicide prevention.

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.34	Award Maori Health Postdoc Fellow	Dr Jennifer Reid	The University of Auckland
\$0.07	Award Maori PhD Scholarship	Mrs Tania Huria	University of Otago
\$0.12	Award Maori PhD Scholarship	Ms Christina McKerchar	University of Otago
\$0.80	Award Practitioner Research Fellowship	Professor Dr Ralph Stewart	Auckland District Health Board
\$0.50	Award Sir Charles Hercus Fellowship	Associate Professor Max Petrov	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Alistair Escott	The University of Auckland
\$0.49	Award Sir Charles Hercus Fellowship	Dr Karl Iremonger	University of Otago
\$0.15	Explorer Grant	Dr Siouxsie Wiles	The University of Auckland
\$0.14	Emerging Researcher First Grant	Dr Joanna James	The University of Auckland
\$0.15	Emerging Researcher First Grant	Dr Jacqueline Henderson	University of Canterbury
\$4.99	Programme	Professor David Grattan	University of Otago
\$0.15	Emerging Researcher First Grant	Associate Professor Sandra Mandic	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Natasha Grimsey	The University of Auckland
\$4.92	Programme	Professor William Wilson	The University of Auckland
\$5.00	Programme	Professor Tony Merriman	University of Otago
\$4.98	Programme	Professor Mark Richards	University of Otago
\$1.20	Project	Professor Caroline Crowther	The University of Auckland
\$1.20	Project	Professor Jeroen Douwes	Massey University
\$1.17	Project	Associate Professor Christine Jasoni	University of Otago
\$1.18	Project	Professor Tim Anderson	University of Otago
\$0.67	Project	Dr Peter Bergin	Auckland DHB Charitable Trust
\$1.19	Project	Dr Brett MacLennan	University of Otago
\$1.04	Project	Professor Sally McCormick	University of Otago
\$1.13	Project	Professor Nigel French	Massey University
\$1.20	Project	Professor Paul Donaldson	The University of Auckland
\$0.69	Project	Dr Mark Staiger	University of Canterbury
\$1.18	Project	Professor Antony Braithwaite	University of Otago
\$1.19	Project	Professor Frank Bloomfield	The University of Auckland
\$1.19	Project	Professor Simon Malpas	The University of Auckland
\$1.01	Project	Associate Professor John Thompson	The University of Auckland
\$1.20	Project	Professor Caroline Crowther	The University of Auckland
\$1.18	Project	Professor Winston Byblow	The University of Auckland
\$1.04	Project	Professor Dr Neil McNaughton	University of Otago
\$0.99	Project	Dr Janak de Zoysa	Waitemata District Health Board
\$1.12	Project	Dr Colin McArthur	Auckland DHB Charitable Trust
\$1.20	Project	Professor Caroline Crowther	The University of Auckland
\$0.37	Award Maori Health Postdoc Fellow	Dr Karen Brewer	The University of Auckland
\$0.11	Pacific Health PhD	Miss Eliza Puna	The University of Auckland

HRC Ref	Focus Area	Proposal Title
14/052	Oncology/Cancer	Testicular cancer in Maori men: what is driving the disparity?
14/047	CNS/neurological disorders	Use of EpiNet platform for clinical trials & epidemiological studies in epilepsy
14/031A	Oncology/Cancer	Diet and risk of colorectal cancer in UK Biobank
14/016	Child development	Pathways to healthy development in New Zealand preschool children
14/015	Vision/hearing/speech	Spatially-resolved metabolomics of cataractogenesis
14/010	Cardio/cerebrovascular disease	Can we predict CVD risk population-wide using only routinely collected data?
14/002	Vision/hearing/speech	A novel biosynthetic tissue substitute for transplantation
13/779	Cardio/cerebrovascular disease	Mapping determinants of arrhythmia in structural heart disease
13/774	Immune system/allergy	Exploiting the therapeutic potential of viruses
13/763	Oncology/cancer	Rational design of kinase inhibitors to target cancer
13/724	Nutrition	Effective interventions and policies to improve population nutrition and health
13/285	CNS/Neurological Disorders	Living well with a long term neurological condition
13/242	Obstetric complications/perinatal care	STRIDER (NZAus): RCT of Sildenafil Therapy In Dismal Prognosis Early-Onset IUGR
13/213	Intensive care	PulMoDS: Pulmonary Model-based Decision Support to Optimise ARDS/ALI Care
13/177	Respiratory disease/asthma	Can Azithromycin Prevent Bronchiectasis in Infants with Cystic Fibrosis?
13/143	Oncology/cancer	The conservative management of young women with CIN2
13/131	Obstetric complications/perinatal care	Preventing Neonatal Hypoglycaemia with Oral Dextrose Gel
13/049	Oncology/Cancer	Switching off tumour-promoting immune cells to develop novel cancer therapies
13/014	Cardio/cerebrovascular disease	Brainstem Hypoperfusion as a Causative Mechanism for Neurogenic Hypertension
18/578	Reproduction/fertility/sexual health	FASD and the media: an analysis of health promotion messages
18/577	Environmental Health	Improving Papakainga: Linking Health, Homes and Toiora
18/576	Mental Health	Maori mental health in New Zealand prisons
18/573	Mental Health	Maori mental health
18/565	Health services – delivery	Maximising Māori Participation for Measuring Unmet Need in Secondary Healthcare
18/564	Mental Health	Deliberate Self Harm among Pacific
18/546	Biomedical – pharmaceuticals/ treatments	Rheumatic Fever
18/536	Health services – delivery	The effect of discrimination on health outcomes for Pacific people
18/518	Mortality	Literature review for Pae Herenga study
18/343	Physical activity/exercise	Tongan Children's Physical activity- Native vs. NZ migrant
18/337	Pain	Evidence for pain assessment tools sensitive for Māori – a systematic review
18/329	Family/whanau	The role of Pacific fathers in a contemporary setting
18/328	Poverty	Persistent poverty in Pasifika families
18/302	Environmental Health	Hinemoana: Our Ocean Narratives
18/294	Physical activity/exercise	Acceptability of the treadmill six-minute walk test in Pacific peoples
18/282	Environmental Health	Effects of housing quality and stability on the health of Pacific children in NZ
18/238	Environmental Health	The Home Environment of Tongan Children
18/235	Surgery – paediatric	Development of a 3-D printed thoracoscopic oesophageal atresia simulator

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.36	Award Maori Health Postdoc Fellow	Dr Jason Gurney	University of Otago
\$0.91	Award Practitioner Research Fellowship	Dr Peter Bergin	Auckland DHB Charitable Trust
\$0.08	Award Girdler's	Dr Kathryn Bradbury	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Cordelia Russell	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Dr Angus Grey	The University of Auckland
\$0.17	Award Clinical Research Training Fellow	Dr Suneela Mehta	The University of Auckland
\$0.50	Award Practitioner Research Fellowship	Professor Dipika Patel	The University of Auckland
\$4.99	Programme	Professor Peter Hunter	The University of Auckland
\$4.94	Programme	Professor Andrew Mercer	University of Otago
\$4.92	Programme	Professor William Denny	The University of Auckland
\$4.99	Programme	Professor Cliona Ni Mhurchu	The University of Auckland
\$1.20	Project	Dr Suzie Mudge	Auckland University of Technology
\$1.15	Project	Associate Professor Katie Groom	The University of Auckland
\$0.66	Project	Professor Geoff Chase	University of Canterbury
\$0.71	Project	Associate Professor Catherine Byrnes	The University of Auckland
\$1.20	Project	Associate Professor Peter Sykes	University of Otago
\$1.20	Project	Professor Jane Harding	The University of Auckland
\$0.50	Award Sir Charles Hercus Fellowship	Associate Professor Bridget Stocker	Research Trust of Victoria University of Wellington
\$0.50	Award Sir Charles Hercus Fellowship	Dr Fiona McBryde	The University of Auckland
\$0.01	Award Maori Health Summer Studentship	Mrs Emma Espiner	Independent Researcher (HRC to administer)
\$0.01	Award Rangahau Hauora Training	Ms Denise Riini	Toi Ohomai Institute of Technology
\$0.01	Award Maori Development Grant	Dr Armon Tamatea	University of Waikato
\$0.01	Award Maori Health Summer Studentship	Shania Dudson-Cooney	Te Whare Wananga O Awanuiarangi
\$0.01	Award Maori Health Summer Studentship	Mr Jordan Tewhaiti-Smith	University of Otago
\$0.01	Award Pacific Knowledge Translation	Ms Synthia Dash	The University of Auckland
\$0.01	Award Pacific Knowledge Translation	Dr Dianne Sika-Paotonu	University of Otago
\$0.03	Pacific Health Masters	Ms Sarah Kapeli	The University of Auckland
\$0.01	Award Maori Health Summer Studentship	Miss Frances Toohey	The University of Auckland
\$0.01	Pacific Health Summer Studentship	Ms Sophia Dean	University of Otago
\$0.01	Award Maori Health Summer Studentship	Mr Tobias Hoeta	University of Otago
\$0.01	Pacific Health Summer Studentship	Miss Jadan Hekau	The University of Auckland
\$0.01	Pacific Health Summer Studentship	Miss Kotalo Leau	The University of Auckland
\$0.01	Award Maori Development Grant	Dr Mera Lee-Penehira	The University of Auckland
\$0.01	Pacific Health Summer Studentship	Miss Louise Jansen	University of Otago
\$0.01	Pacific Health Summer Studentship	Miss Megan Haines	The University of Auckland
\$0.01	Pacific Health Summer Studentship	Ms 'Eseta Vaipuna	University of Otago
\$0.01	Pacific Health Summer Studentship	Mr David Nair	University of Otago

HRC Ref	Focus Area	Proposal Title
18/136	Mental Health	Co-design of a pilot mental wellbeing initiative for Pacific tertiary students
18/132	Nutrition	Tongan Children's Nutrition – Native vs. NZ Migrants
18/068	Child development	Ethnic Discrimination Prevalence and Health Associations in NZ Youth
18/033	Cardio/cerebrovascular disease	Heart samples collected by Heart Otago- the link to pacific populations.
17/689	Physical activity/exercise	Taurite Tū: Development of Falls Prevention Exercise Programme for Māori.
17/685	Environmental Health	Ahi Kā and expressions of manaakitanga
17/641	Obesity	Prevention of Childhood Obesity through sugar reduction
17/640	Obesity	Technology enabled behaviour change to reduce childhood obesity
17/638	Obesity	Indigenous approaches to reducing childhood obesity
17/630	Obesity	An international collaboration to reduce infant obesity in high risk groups
17/497	Health services – delivery	Senior nurses understanding of health equity.
16/705	Child development	Improving child and whanau health outcomes – intervention in early life settings
16/704	Child development	He Puna Reo He Puna Oranga Whānau: Impact of urban Puna Reo on health & wellbeing
16/703	Environmental Health	Te Ohu Mo Papatuanuku: Contaminated Site Toolkit for Community Use
16/702	Mental Health	Kimihia te Hauora Hinengaro: Pathways for Maori Mental Health
16/464	Mortality	Pacific meets West in Advancing Palliative Care for Pacific populations
16/462	Injury – intentional and unintentional	Kava drink-driving: Driver safety and injury minimisation to improve health
16/453	Injury – intentional and unintentional	Koi Te Mata Punenga
16/440	Wellness	Taiora Taimau
16/059	Oncology/Cancer	Thermal properties of the liver: improving outcome from ablation of liver cancer
16/056	Health services – delivery	Exploring and improving hospital care quality for New Zealand rural communities
16/001	Gastrointestinal disease	Gut Peptides Post Bariatric Surgery: Mechanisms of Adaptive Metabolism
15/685	Child development	Improving Māori child health outcomes through Māori father involvement
15/681	Mental health	Te Ara Ririki
15/648	Infectious disease	Whole-genome sequencing of drug-resistant Mycobacterium tuberculosis strains for diagnostics and outbreak detection
15/646	Wellness	The health benefits of karanga
15/643	Ageing	Haunui, haurua, hauora!
15/460	Obesity	Pasifika solutions to reduce sugary drink consumption
15/444	Disability	The health and disability experiences of Whanau haua
15/441	Cardio/cerebrovascular disease	Paramedic Systems of Care for ST-Elevation Myocardial Infarction Patients
15/408	Reproduction/fertility/sexual health	Hookin' Up – Mental health and Pasifika students intimate relationships
15/048	Vision/hearing/speech	Oxaliplatin induced corneal nerve microstructural changes
14/724	Diabetes	SMS4BG: self-management support for people with diabetes
14/603	Oncology/Cancer	Bioorthogonal Prodrug Activation for Targeted Chemotherapy
14/581	Cardio/cerebrovascular disease	Which Diet? Dietary interventions and blood pressure
14/564	Oncology/Cancer	Primary Rectal Cancer Management in Advanced disease with Chemotherapy

Million	Contract Type	Lead Researcher	Host Organisation
\$0.01	Pacific Health Summer Studentship	Miss Leina Tucker-Masters	The University of Auckland
\$0.01	Pacific Health Summer Studentship	Mr Tevita Vaipuna	University of Otago
\$0.01	Award Maori Health Summer Studentship	Ms Tiana Mihaere	University of Otago
\$0.01	Pacific Health Summer Studentship	Miss Theresa Fitzpatrick	University of Otago
\$0.01	NKK Development	Ms Katrina Bryant	Te Runanga o Otakou
\$0.01	NKK Development	Ms Kiri Parata	Atiawa ki Whakarongotai Charitable Trust Board
\$0.04	International Relationship Fund	Dr Gerhard Sundborn	The University of Auckland
\$0.05	International Relationship Fund	Associate Professor Robyn Whittaker	The University of Auckland
\$0.04	International Relationship Fund	Professor Boyd Swinburn	The University of Auckland
\$0.06	International Relationship Fund	Professor Rachael Taylor	University of Otago
\$0.02	Award Maori Master Scholarship	Mrs Sonia Hawkins	The University of Auckland
\$0.20	NKK Project	Ms Erana Hond-Flavell	Te Pou Tiringa Incorporated
\$0.19	NKK Project	Ms Toni Roberts	Te Puna Reo o Nga Kakano Charitable Trust
\$0.20	NKK Project	Ms Tracey Godfery	Te Runanga o Ngati Awa
\$0.06	NKK Project	Dr Tanya Allport	Te Whanau o Waipareira Trust
\$0.30	Pacific Health Davis Award	Dr Sunia Foliaki	Massey University
\$0.23	Pacific Health Postdoc Fellowship	Dr Apo Aporosa	University of Waikato
\$0.30	Award Nga Pou Senior Fellowship	Dr Leonie Pihama	University of Waikato
\$0.30	Award Nga Pou Senior Fellowship	Dr Mihi Ratima	Te Pou Tiringa Incorporated
\$0.17	Award Clinical Research Training Fellow	Mr Peter Swan	The University of Auckland
\$0.22	Award Foxley	Dr Carol Atmore	University of Otago
\$0.17	Award Clinical Research Training Fellow	Dr Brian Corley	University of Otago
\$0.20	NKK Project	Dr Will Edwards	Te Kaahui Mana Ririki Charitable Trust
\$0.17	NKK Project	Ms Ngaropi Cameron	Tu Tama Wahine o Taranaki
\$0.45	Project JRP	Professor Gregory Cook	University of Otago
\$0.20	NKK Project	Ms Naida Glavish	Te Runanga O Ngati Whatua
\$0.20	NKK Project	Mr Jonathan Kilgour	Waikato-Tainui College for Research and Development
\$0.30	Pacific Health Davis Award	Dr Gerhard Sundborn	The University of Auckland
\$0.38	Award Maori Health Postdoc Fellow	Dr Huhana Hickey	Auckland University of Technology
\$0.11	Award Maori PhD Scholarship	Mr Paul Davis	Auckland University of Technology
\$0.34	Pacific Health Postdoc Fellowship	Dr Byron Seiuli	University of Waikato
\$0.25	Award Clinical Research Training Fellow	Dr Ellen Wang	The University of Auckland
\$0.20	Project JRP	Associate Professor Robyn Whittaker	Auckland UniServices
\$0.14	Emerging Researcher First Grant	Dr Allan Gamble	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Katherine Black	University of Otago
\$0.15	Emerging Researcher First Grant	Dr Christopher Jackson	University of Otago

HRC Ref	Focus Area	Proposal Title
14/557	Vision/hearing/speech	Digital design of therapies to combat age related nuclear cataracts
14/494	Alcohol/drugs of dependence	Alcohol Policy Interventions in NZ (APINZ) – effects of change in sale & supply
14/484A	Oncology/Cancer	How to improve outcomes for women with breast cancer in New Zealand
14/475	Diabetes	Regulating hormone secretion via dynamic modulation of beta-catenin levels
14/436a	Physical activity/exercise	Neighbourhoods for active kids
14/399	CNS/Neurological Disorders	Prevalence and impact of inherited myopathies in New Zealand
14/371	Obstetric complications/perinatal care	Addressing avoidable harm suffered by Maori babies
14/290	Oncology/cancer	Silencing oncogenic signalling in hypoxic tumour cells with the prodrug PR610
14/289	Oncology/cancer	Colonising tumour necrosis with Clostridium sporogenes for precision therapy
14/285	Oncology/cancer	Monocyte-derived dendritic cells for tumour immunotherapy
14/269	Cardio/cerebrovascular disease	Low dose aspirin for venous leg ulcers: a randomised trial
14/262	Wellness	Understanding the impact of racial discrimination on adult health and wellbeing
14/260	Infectious disease	Legionnaires' disease in New Zealand: improving diagnostics and treatment
14/222	Surgery	Restrictive vs. Liberal Fluid Therapy in Major Abdominal Surgery – The RELIEF study
14/216	Obstetric complications/perinatal care	Protecting brain development after clinically silent infection before birth
14/203	Nutrition	Food environments in New Zealand: Policies and impacts on health and equity
14/200	CNS/Neurological Disorders	Defining genetic regulators of neurogenesis in humans
14/191	Diabetes	Seeking New Insights and New Routes to Diabetes Prevention: PREVIEW NZ
14/185	Health services – clinical	Patient Harms in New Zealand General Practices: Records Review Study
14/173	Multiple conditions	Multimorbidity: the most common chronic condition of all.
14/167	Mortality	Life-course predictors of mortality inequalities
14/158	Gastrointestinal disease	Mechanisms of Gastric Dysmotility: Advances from Cell to Clinic
14/156	Child development	Pacific Islands Families: Understanding growth from birth to fourteen years
14/155	Cardio/cerebrovascular disease	An epigenome-wide study for abdominal aortic aneurysm
14/152	Rheumatology/arthritis	A randomised controlled trial of nortriptyline in knee osteoarthritis
14/146	Health services – delivery	Preventing Chronic Conditions: Learnings from participatory research with Maori
14/105	Oncology/cancer	Uncovering mechanisms and inhibitors of tumour-induced lymphangiogenesis
14/1005	Multiple conditions	Independent Research Organisation Funding
14/1004	Multiple conditions	Independent Research Organisation Funding
14/1003	Multiple conditions	Independent Research Organisation Funding
14/1002	Multiple conditions	Independent Research Organisation Funding
14/060	Injury – intentional and unintentional	Te Waka Oranga; bringing the recovery destination to whanau
14/018	Vision/hearing/speech	Stimuli-responsive ocular implants – More than meets the eye?
14/004	Wellness	Transforming research into child health equity: a 21st century approach
13/556	Health services – delivery	Paediatric Emergency Research

\$Million	Contract Type	Lead Researcher	Host Organisation
\$0.14	Emerging Researcher First Grant	Dr Ehsan Vaghefi	The University of Auckland
\$1.19	Project	Professor Sally Casswell	Massey University
\$0.78	Project	Professor Ross Lawrenson	University of Waikato
\$1.19	Project	Professor Peter Shepherd	The University of Auckland
\$0.52	Project	Associate Professor Melody Smith	The University of Auckland
\$1.20	Project	Associate Professor Alice Theadom	Auckland University of Technology
\$1.20	Project	Professor Beverley Lawton	University of Otago
\$1.19	Project	Associate Professor Adam Patterson	The University of Auckland
\$1.19	Project	Associate Professor Adam Patterson	The University of Auckland
\$1.20	Project	Professor Franca Ronchese	Malaghan Institute of Medical Research
\$1.20	Project	Professor Andrew Jull	The University of Auckland
\$0.45	Project	Dr Ricci Harris	University of Otago
\$1.00	Project	Professor David Murdoch	University of Otago
\$0.77	Project	Dr Shay McGuinness	Medical Research Institute of New Zealand
\$1.15	Project	Professor Alistair Gunn	The University of Auckland
\$1.16	Project	Professor Boyd Swinburn	The University of Auckland
\$1.19	Project	Professor Stephen Robertson	University of Otago
\$1.12	Project	Professor Sally Poppitt	The University of Auckland
\$1.17	Project	Professor Susan Dovey	University of Otago
\$1.20	Project	Professor Diana Sarfati	University of Otago
\$1.09	Project	Professor Peter Davis	The University of Auckland
\$1.19	Project	Associate Professor Leo Cheng	The University of Auckland
\$1.17	Project	Professor Elaine Rush	Auckland University of Technology
\$1.14	Project	Professor Greg Jones	University of Otago
\$1.19	Project	Dr Ben Hudson	University of Otago
\$1.20	Project	Dr Heather Gifford	Whakauae Research Services
\$1.20	Project	Dr Jonathan Astin	The University of Auckland
\$3.78	Independent Research Organisation Fund	Dr Cheryl Smith	Te Atawhai o te Ao: Independent Maori Institute for Environment & Health
\$2.80	Independent Research Organisation Fund	Dr Heather Gifford	Whakauae Research Services
\$14.24	Independent Research Organisation Fund	Professor Graham Le Gros CNZM	Malaghan Institute of Medical Research
\$6.80	Independent Research Organisation Fund	Professor Richard Beasley	Medical Research Institute of New Zealand
\$0.46	Award Maori Health Postdoc Fellow	Dr Hinemoa Elder	Te Whare Wananga O Awanuiarangi
\$0.50	Award Sir Charles Hercus Fellowship	Dr Ilva Rupenthal	The University of Auckland
\$0.25	Award Clinical Research Training Fellow	Dr Paula King	University of Otago
\$0.77	Award Practitioner Research Fellowship	Professor Stuart Dalziel	Auckland DHB Charitable Trust

HRC Ref	Focus Area	Proposal Title
13/317	Cardio/cerebrovascular disease	Characterising Heart Failure With Clinical Imaging and Structure-Based Modelling
13/279	Occupational health	Pesticide exposure and early biomarkers of NHL risk in farmers
13/238	Reproduction/fertility/sexual health	Role of kisspeptin in hyperprolactinemia-induced infertility
13/235	Environmental Health	Pesticide Exposure and Neuropsychological Effects in Children
13/152	Vision/hearing/speech	Imaging the Labyrinthine-Blood Barrier in Meniere's disease
13/099	Respiratory disease/asthma	He Kura: Asthma Support for Maori Tamariki at School
13/065	Rheumatology/arthritis	Predicting response to anti-TNF therapy based on serum cytokine and gene profile
13/044	Cardio/cerebrovascular disease	Investigation of Cardiovascular Pathology in the Emergency Department
12/670	Reproduction/fertility/sexual health	Neural Control of Fertility
12/629	Wellbeing	Pacific Mens Health and Well Being: The case of Niue and the Cook Islands
12/613	CNS/Neurological Disorders	Pathogenesis, detection and treatment of perinatal brain injury
12/525	CNS/Neurological Disorders	RCT of levetiracetam vs. phenytoin for status epilepticus in children
12/306	Biomedical – pharmaceuticals/ treatments	Randomised trial of hydrocortisone in critically ill patients with septic shock
12/305	Respiratory disease/asthma	Permissive Hypercapnia, Alveolar Recruitment and Limited Airway Pressure in ARDS

\$Million	Contract Type	Lead Researcher	Host Organisation
\$1.18	Project	Professor Martyn Nash	The University of Auckland
\$1.20	Project	Associate Professor Andrea 't Mannetje	Massey University
\$1.16	Project	Professor David Grattan	University of Otago
\$1.20	Project	Professor Jeroen Douwes	Massey University
\$0.97	Project	Professor Peter Thorne	The University of Auckland
\$1.20	Project	Mrs Bernadette Jones	University of Otago
\$1.20	Project	Professor Lisa Stamp	University of Otago
\$0.71	Award Practitioner Research Fellowship	Dr Martin Than	Canterbury District Health Board
\$4.84	Programme	Professor Allan Herbison	University of Otago
\$0.15	Emerging Researcher First Grant	Associate Professor Vili Nosa	The University of Auckland
\$4.84	Programme	Professor Alistair Gunn	The University of Auckland
\$1.20	Project	Professor Stuart Dalziel	Auckland DHB Charitable Trust
\$0.77	Project	Dr Colin McArthur	Auckland DHB Charitable Trust
\$0.32	Project	Dr Shay McGuinness	Auckland DHB Charitable Trust

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PO Box 5541, Wellesley Street, Auckland 1141, New Zealand
Telephone 09 303 5200, Fax 09 377 9988, Email info@hrc.govt.nz

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<http://www.hrc.govt.nz>