

Slide 1



This slideshow has been created to assist applicants and reviewers in their interpretation of HRC's Research Impact assessment criterion, which has been revised for the 2019 Annual Funding Round.

Why must HRC demonstrate impact?

- **NZ public:**
 - Responsible use of taxpayer money
 - Health problems solved
- **Government:**
 - Reduced health care costs
 - Economic returns from innovation
 - Increase in 'human capital'
- We must continue to show benefit to NZ to secure on-going support (or increase in support).
- Clear direction from NZ Health Research Strategy

New Zealand Government 

Firstly, why must the HRC demonstrate impact from the research that it funds?

The need to demonstrate return on investment has become a major policy issue for funders of research, both in New Zealand and internationally¹.

As the primary agency for publicly-funded health research in NZ, HRC has a responsibility to use taxpayers' money effectively, and to demonstrate to the public that health research can improve quality of life for New Zealanders and ultimately save lives.

In addition, it's critical to demonstrate to government that our research can also reduce health care costs, generate revenue from innovation, and upskill our workforce.

In 2016, the HRC received a 56% budget increase, the largest forward movement in a decade, largely due to our ability to demonstrate a diversity of research impacts, extending well beyond health outcomes to include economic, environmental, and broader social benefits.

We must continue to demonstrate the benefits of research to NZ to secure on-going support from the Government – and to make our case for increased investment.

Our work in this area is clearly aligned with New Zealand's first ever national Health Research Strategy², released in 2017, whose vision is to **increase the impact of government investment in health research**.

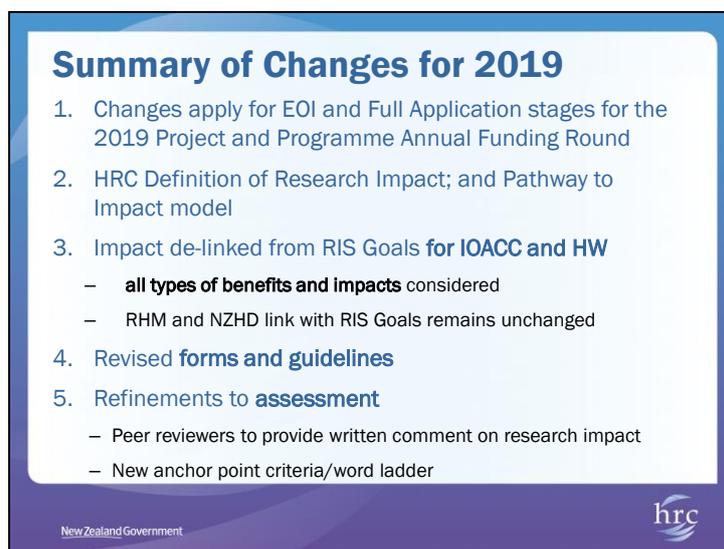
HRC works in partnership with our researchers to capture the results of completed research and ensure that our best examples of impact are appropriately conveyed to government, and the general public.

We also incorporate prospective assessment of research impact at an individual grant level, to encourage applicants to consider and realise all potential ways in which their proposal can add value for New Zealand, and ultimately, to increase the collective benefits and impacts from the portfolio of research that we fund.

¹ MBIE (2017). The Impact of Science: discussion paper, available at: <http://www.mbie.govt.nz/info-services/science-innovation/funding-info-opportunities/nssi/impact-of-science>.

HRC Research Impact Assessment Webinar – July 2018

²New Zealand Health Research Strategy, 2017-2027, available at: <https://www.health.govt.nz/publication/new-zealand-health-research-strategy-2017-2027>



The slide is titled "Summary of Changes for 2019" and is presented in a blue-bordered box. It contains a numbered list of five main changes, with sub-points for items 3 and 5. At the bottom of the slide, there is a logo for "hrc" and the text "New Zealand Government".

Summary of Changes for 2019

1. Changes apply for EOI and Full Application stages for the 2019 Project and Programme Annual Funding Round
2. HRC Definition of Research Impact; and Pathway to Impact model
3. Impact de-linked from RIS Goals for IOACC and HW
 - all types of benefits and impacts considered
 - RHM and NZHD link with RIS Goals remains unchanged
4. Revised forms and guidelines
5. Refinements to assessment
 - Peer reviewers to provide written comment on research impact
 - New anchor point criteria/word ladder

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HRC has assessed research impact since 2010; however, improvements were needed to provide clear, consistent guidance on interpretation for applicants, assessors and external reviewers, and to better address recommendations from the 2015 Refresh of the HRC¹. This Report recommended that we make changes to strengthen our prospective assessment of research impact, including greater emphasis on pathways to impact, benefit to New Zealand, and engagement with end-users.

The main changes for 2019 that will apply at the Expression of Interest (EOI) and Full Application stages for the 2019 Project and Programme rounds, are as follows:

- **We've provided a definition of research impact, and a pathway to impact model.**
- **We've discontinued our requirement for applicants to link impact with Goals specified in the Investment Signals, for applications to our two largest Research Investment Streams: Improving Outcomes for Acute and Chronic Conditions, and Health and Wellbeing in New Zealand.** This will allow applicants to consider all potential ways in which their proposed research can add value for NZ, without restriction.
 - The requirement to link impact with Investment Signal goals will remain the same for applications to Rangahau Hauora Māori, and New Zealand Health Delivery, because those goals are more specific to the aims of the RIS. For example: applicants submitting to NZHD will still need to consider the goal and requirements of the investment stream, and this information should be provided in response to the two components of the restructured impact section of the application form: 1) a description, and 2) an action plan (see further detail in the point below). Note that all applicants will still be required to select the most appropriate Research Investment Streams for their research.
- **Forms and Guidelines have been restructured around two components needed for the research impact section:** 1) a **description** of the anticipated benefits for NZ, and 2) an **action plan** to maximise the use and benefits of research.
- **Assessment criterion and process** have been refined:

- Peer reviewers will provide written assessment of prospective research impact, from either an international or national perspective, as relevant. Previously, peer reviewers assessed 'Health Significance' instead of impact.
- We have developed a new anchor point criterion with word ladder to guide research impact assessment (see Peer Review Manual).

¹Strategic Refresh of the Health Research Council. (2015). Report to the Ministry of Health and the Minister of Science and Innovation. Available at: <http://www.mbie.govt.nz/about/whats-happening/news/document-image-library/hrc-strategic-refresh-final-report.pdf>

Slide 4

The slide features a blue header with the title 'What is research impact?'. Below the title, there are two bullet points. The first bullet point is the 'HRC Definition' and the second is the 'Key message'. At the bottom of the slide, there is a purple footer containing the 'New Zealand Government' logo on the left and the 'hrc' logo on the right.

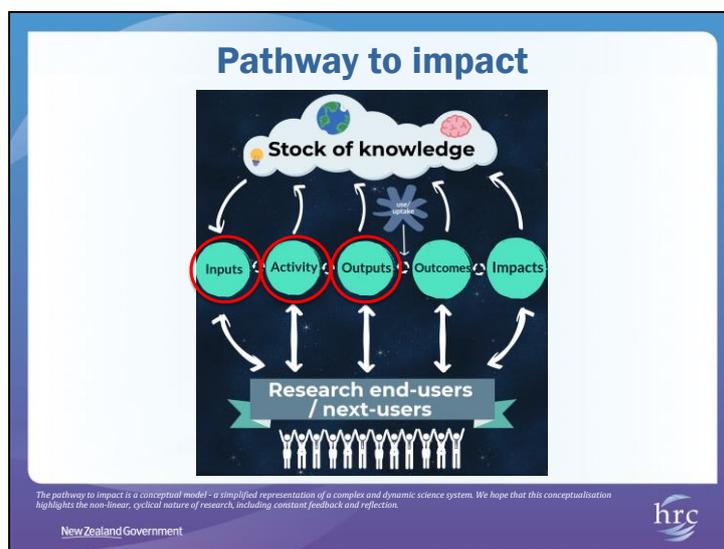
What is research impact?

- *HRC Definition:* The direct and indirect influence of excellent research on individuals, communities or society as a whole, including improvements to health and equity, and other social, economic, cultural or environmental benefits for New Zealand.
- *Key message:* Research impact is generated or enhanced by communication, relationships and actions that connect academic research to fields, people or organisations beyond academia.

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HRC’s definition of research impact (above) is focused on the creation of “real-world” benefits for non-academic end-users. It’s a modified version of the definition set out in MBIE’s National Statement of Science Investment 2015-2025¹. The inclusion of ‘excellence’ signals our ongoing commitment to fund high-quality research, which is a pre-requisite for research impact, but not sufficient to maximise the benefit derived from the research. Our key message is that research impact is not created by researchers alone; but rather, requires communication, relationship and actions that connect academic research to people from organisations beyond academia.

¹ MBIE (2015), National Statement of Science Investment: 2015-2025, available at: <http://www.mbie.govt.nz/info-services/science-innovation/national-statement-science-investment>



Our definition of research impact is to be adopted alongside a model of ‘**pathway to impact**’, which sets out a chain of linked steps to describe how impact can be generated from research inputs.

The Pathway recognises and acknowledges the creation of **interim benefits** for New Zealand, including development of human capital, and allows producers of research for use within academia to plot their course to impact, describe how they add value along the chain and how they can realistically plan to maximise the benefits of their research.

The first three green circles describe how research is resourced, conducted, and the resulting knowledge codified into specific outputs.

The outputs of research can also include tacit knowledge exchanged between collaborators, and students and postgraduate researchers trained, leading to increases in human capital (an intermediate mechanism for impact).

Each of these steps has feedback loops to the future users of research, indicating the importance of their involvement at the planning/scoping stages. **Early engagement** or **collaboration from the outset** with end-users or next-users of the research ensures future users’ needs are taken into account and shows **genuine consideration** for maximising the potential use and benefits of the research.

Feedback loops also indicate how results can feed back into wider research environment, building the existing stock of knowledge.

Research users

Research users or those who will benefit from the research are agents along the pathway to impact that utilise the research outputs (in conceptual or instrumental ways), including members of the community, the public sector, industry and other researchers. As such, this definition includes both interim and final users.

Inputs

Not limited to only the money/resources put in from funder(s) or institution(s). Inputs includes the existing knowledge base that has led to the research question being asked. This might include discipline-specific knowledge, government policies/priorities, public/community/iwi knowledge, or clinical need.

- + funding/financial resources
- + infrastructure, facilities & materials
- + people, skills, relationships & networks

Activity

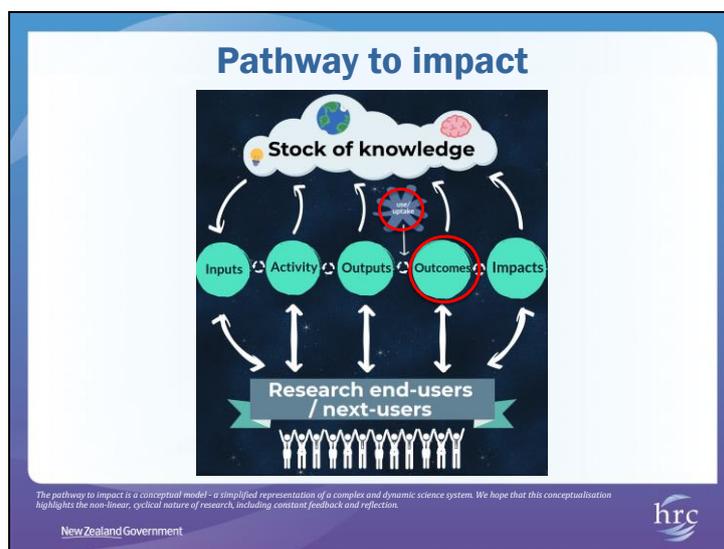
Generating new knowledge through conducting research usually involves collaboration between researchers and research end-users (or next-users) and training of post-graduate students, post-doctoral researchers and sometimes includes involvement and training of non-academics (e.g. clinical professionals or community co-producers of research).

Outputs

Any form of demonstrable output embodying the findings generated by the research. For example, outputs can include direct products and/or services such as journal articles, conference presentations, hui, media engagements, reports, manuals, guidelines, prototypes, patents, software, or datasets.

The outputs of research can also include tacit knowledge exchanged between collaborators, and students and postgraduate researchers trained.

The pathway to impact is a conceptual model - a simplified representation of a complex and dynamic science system. We hope that this conceptualisation highlights the non-linear, cyclical nature of research, including constant feedback and reflection.



HRC’s Research Impact Assessment is primarily focused on the next part of the chain - how outputs are transformed to outcomes – representing the utilisation / uptake / adoption / implementation of the research findings.

This is a key interim step between the generation of knowledge deliverables (outputs) and the generation of tangible benefits to New Zealanders (impacts).

While knowledge is often used to advance future research within academia, it can also be taken up by research users to influence decisions outside of academia, such as changing clinical practice or policy decision-making. Over time, these outcomes can progressively transform to impacts – tangible health, economic and other gains for New Zealand.

The uptake of ‘negative results’ is an important component of the model – ‘honourable dead-ends’ that lead to disinvestment in a field of research, or evidence to inform the discontinuation of a policy or practice.

However, research doesn’t “speak for itself”. Utilisation requires action on behalf of researchers to engage the next-users of the research (if not already involved through co-design and co-production of the research) – fostering relationships/networks through continued communication, engagement and feedback. We encourage you to explore, from the outset, throughout the life of your project and beyond who could potentially benefit from your research and what you can do to facilitate this.

Outcomes

Research outputs transform to research outcomes/interim impacts following utilisation by a research user along the pathway to final impact.

Impact

The direct and indirect influence of excellent research on individuals, communities or society as a whole, including improvements to health and equity, and other social, economic, cultural or environmental benefits for New Zealand.

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Principles for Research Impact Assessment

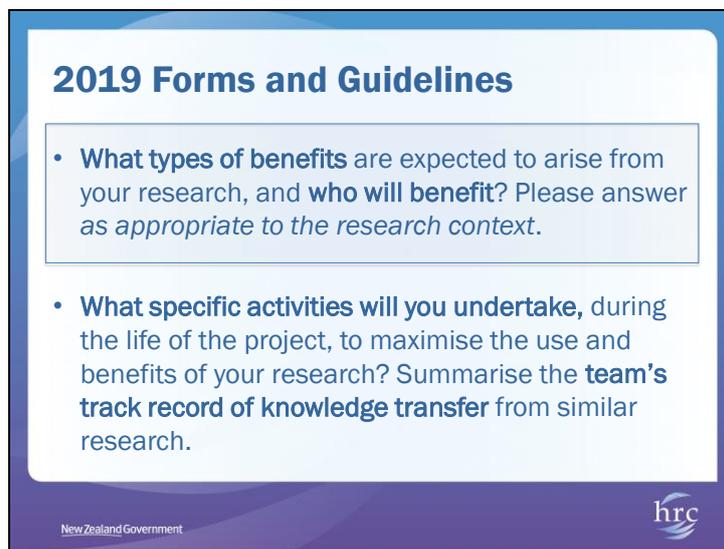
- All must have line-of-sight to health impact
- Many types of impacts and pathways
- Timeframe and pathway to impact usually uncertain
- Focus on benefits within direct influence
- Engagement with knowledge-users encouraged
- All should add value for NZ
- Descriptions should be realistic and credible

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The following principles underpin our Research Impact Assessment:

- All applications to HRC must have a ‘line of sight’ to eventual health-related impact
- There are many other types of impacts and benefits that can be generated from health research, and literally thousands of unique pathways to achieve impact identified¹.
- Future impact is inherently uncertain; the full extent of impact is often unknowable at time the research is conducted and may take decades to be fully realised.
- Generally speaking, impacts that take more time to be realised become increasingly moderated by external factors, beyond the research team’s direct influence. It’s important that we don’t incentivise over-promise and under-delivery with regard to impact, but focus on shorter-term benefits that are more within the research team’s direct influence.
- All health researchers in NZ should be encouraged (and supported) to consult with non-academic end-users (including Māori), at regular intervals during the course of developing their research programme, and throughout the research process. This is to help identify what research is needed, and increase the likelihood of its use and influence.
- The most important considerations for HRC’s assessment is that value is added for each proposal, appropriate to the context of research use.

¹The nature, scale and beneficiaries of research impact: An initial analysis of Research Excellence Framework (REF) 2014 impact case studies Research Report 2015/01 King’s College London and Digital Science March 2015. Available from: <https://www.kcl.ac.uk/sspp/policy-institute/publications/Analysis-of-REF-impact.pdf>

A presentation slide with a blue header and footer. The header contains the title "2019 Forms and Guidelines". The main content area has a light blue background and contains two bullet points. The footer contains the text "New Zealand Government" and the "hrc" logo.

2019 Forms and Guidelines

- **What types of benefits** are expected to arise from your research, and **who will benefit?** Please answer *as appropriate to the research context*.
- **What specific activities will you undertake**, during the life of the project, to maximise the use and benefits of your research? Summarise the **team's track record of knowledge transfer** from similar research.

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Forms and Guidelines have been restructured around two components needed for the research impact section: 1) a **description** of the anticipated benefits for NZ, and 2) an **action plan** to maximise the use and benefits of research.

- **What types of benefits** are expected to arise from your research, and **who will benefit?**

This section should provide a realistic description of how research findings could progressively transform to improved health or other societal benefits over time (a potential 'line of sight' or 'pathway' to impact), and the likely timeframe. It should identify potential end-users, but also more immediate users and those who will benefit from the research, who will form a focal point for your Action Plan (below).

The balance between describing short-term and longer-term considerations will be dependent on the context of your proposal, including the length and complexity of the pathway to impact and where the research sits along this pathway.

The next slides will discuss elements that should be covered in this section, including the **types of benefits, identifying who benefits, and the geographical distribution of benefits.**

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Applicants should give a broad social perspective of the potential value added for NZ by the proposed research. Include possible spill over effects to other sectors where relevant.

Examples below:

Health, health system and equity impacts

- Improvements in accessibility, safety, effectiveness, efficiency, cost-effectiveness, cost-containment, and responsiveness
- Achievement of health & social equity for priority populations with respect to life expectancy, burden of disease and quality of life measures.

Broader social, economic, cultural or environmental impacts

- Enhance New Zealand's reputation in global science leadership
- Improved wellbeing (interaction of natural, human, social, cultural and financial/physical capital)
- Economic gains from growing private sector investment in the Medtech and Biotech innovation sector.

Slide 10



Interim benefits

- Research-influenced changes in policy, decision-making, or agenda-setting
- Provision of improved public goods and services
 - E.g. equitable, cost-effective health and disability services, interventions
- Improved exercise of professional skill
 - E.g. research-based improvements in medical practice
- Industrial innovation
 - services, products and processes
- Human capital development

Based on list proposed by OECD, 2015

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While line of sight to impacts is important, in many cases applicants should maintain focus on how their research findings can realistically make a difference in the shorter-term.

This could be by influencing decision-makers, and/or contributing through these intermediate mechanisms for impact, proposed by the OECD¹.

Examples of Influence on, or contribution to, decision-making:

- Collaboration with DHB or PHO networks leads to development or updating of clinical/best practice guidelines
- New devices or techniques lead to changes in treatment or management protocols
- Involvement, consultation or representation in government policy-setting forums
- Development of partnerships and networks to offer co-ordinated approaches across multiple organisations or agencies (e.g. Councils, schools, marae, church) to introduce responsive and appropriate local policies to specific communities.

¹OECD (2015), *What is Impact Assessment? Mechanisms*, available at: <http://www.oecd.org/sti/inno/Mechanisms-OECDImpact.pdf>



Research-related benefits

- Building capacity and capability for a stronger research sector
- Improve research capacity of health sector
- Enduring benefits from international engagement
- Enduring benefits from collaboration (national or international)
- Generate resource of value for research community
- Potential for research findings to influence the research field

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More basic research proposals, where the pathway to health impact is typically longer and less certain, should also include consideration of research-related benefits that can be realistically achieved in the shorter term. This includes benefits related to the conduct of the research, as well as the knowledge deliverables.

- Will your research generate capacity and capability gains to enhance future research in NZ? (e.g. provide opportunity for academic career advancement and building the health research workforce)
- Will it improve the capacity of our health sector to generate and implement research findings, or contribute to the training or professional development of health professionals or social services staff?
- Will opportunities be created through international or national collaborations, such as access to overseas funding streams or markets, or research resources unavailable in NZ?
- Will it develop partnerships or strengthen networks between academia and industry, policy or community/marae organisations?
- Will your research generate tools, platforms, or other knowledge resources (e.g. datasets) that can be used by a wider group beyond your immediate field of research?
- How could research findings influence future research agendas or decision-making, and to what extent?
- Will there be opportunity for broader societal impacts (e.g. through public engagement)?



Who benefits?

- Identify the research next-users and end-users.
- It may be those in:
 - government policy/civil service
 - clinical practice/health service providers
 - industry/business
 - community/iwi/NGO/charity organisations
 - the public/patient representation or advocacy groups
 - research or academia

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Applicants should identify those who will use or benefit from their research in the immediate, interim or longer-term, as appropriate to the context.

These could include decision-makers in policy, healthcare, industry, or communities; patients or the general public; or for more basic research, other researchers who can benefit from removal of knowledge barriers or from improved capacity for research in NZ.

Where are the benefits going to be seen?

- What is the geographical distribution of the expected benefits?
- Local / regional / national / international?



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How will benefits be distributed in NZ? For example, will they be applicable locally, or can they be scaled up to have regional or national impact? If research findings will contribute to the international health research effort, describe how NZ will benefit from this in the short- and longer-term.

What existing networks will assist the spread of research findings?

2019 Forms and Guidelines

- **What types of benefits** are expected to arise from your research, and **who will benefit?** Please answer *as appropriate to the research context*.
- **What specific activities will you undertake**, during the life of the project, to maximise the use and benefits of your research? Summarise the **team's track record of knowledge transfer** from similar research.

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2. What specific activities will you undertake, during the life of the project, to maximise the use and benefits of your research? Summarise the **team's track record of knowledge transfer** from similar research.

Describe what targeted actions will be taken to improve the likelihood of research uptake and impact, and to ensure that the next users or those who will benefit (identified in the previous section) can meaningfully contribute to, and/or benefit from, the research. This could include meaningful, context-appropriate engagement with potential research-users at the beginning of the grant (co-design), throughout the grant (co-production) and at the end of the grant. Some activities and stakeholders need to be engaged from the start (e.g. if they have a stake in the research design or if they hold critical data), others will only be engaged later when you have something to show them. Describe other planned dissemination activities that are designed to reach broader audiences.

HRC acknowledges that impact isn't generated by researchers alone. Consider discussing organisational, institutional or systematic/structural factors that may either **enable or block** your team's ability to maximise the benefit and use of the research. If you've **identified uncertainties or anticipate barriers** to the uptake of your research, what mitigation strategies do you have planned (where relevant)?

What elements of the **team's track record of knowledge transfer** provide confidence in the likelihood of research uptake? For example: existing links, relationships, or networks with relevant research next-users or end-users; demonstrable examples of knowledge mobilisation or transfer; tangible occasions when their academic research has influenced other actors or organisations; or changes in health outcomes or societal impact generated from similar research. (This should compile and collate evidence from the team track record section; reiterate if necessary).

Researchers undertaking basic research are encouraged to conduct meaningful stakeholder engagement, and emphasise their track record for knowledge mobilisation.

Slide 15



HRC funding rules for KT activities

- “HRC encourages the inclusion of allowable costs associated with knowledge transfer activities”
- This includes dissemination of research results
 - Fair and reasonable charges associated with the approved publication of the results of HRC sponsored research in journals, reports, monographs or books may be paid from the contract funds.
 - Also, costs incurred from other forms of dissemination, such as meeting with community groups or health-professionals, can be claimed.

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While it may not end up going to plan, if you’ve considered the potential use and benefits of the research at this prospective planning stage, then you’ll be better placed to **create and respond to opportunities to generate impact** during the research process.

Consult HRC Guidelines and funding rules for information on support of knowledge transfer activities and include these activities in objectives/milestones where appropriate. Progress against implementing the action plan will form part of the milestones HRC monitors with respect to contractual compliance and delivery.



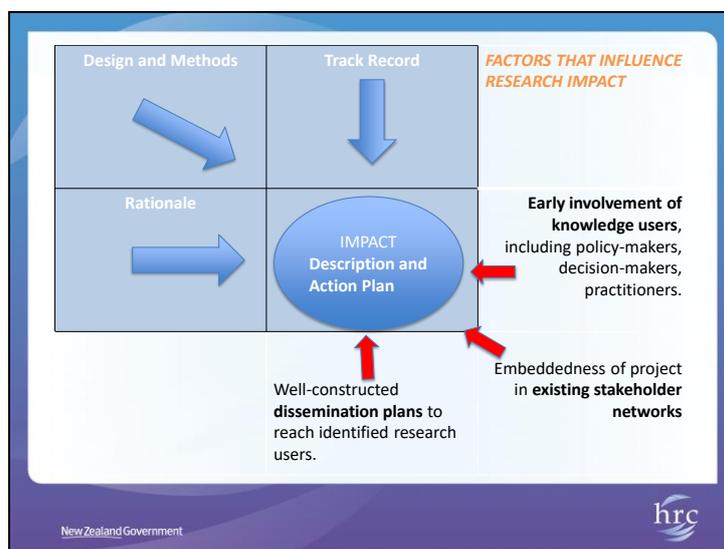
The slide features a table titled "Assessment of Research Impact" with three columns: Score, Category, and Statement. The table contains one row for a score of 7, categorized as "Exceptional". The statement describes the criteria for this score, including the requirement for exceptional value, a credible pathway, and sustained powerful influence. The slide also includes the New Zealand Government logo and the HRC logo at the bottom.

Score	Category	Statement
7	Exceptional	Research is likely to add exceptional value and benefit New Zealand because: applicants have described a credible pathway for how their research will result in exceptional benefits or opportunities for future research in NZ; or will have sustained powerful influence on policy, practice, health services or other technologies in NZ, leading to improved health or other social/economic impacts. Also, the research team are undertaking all possible steps to maximise the likelihood of impact beyond the production of knowledge (as appropriate to the context of the research) and have the necessary skills, networks and experience to achieve this.

The HRC is piloting the use of a more extended word ladder for assessment of research impact.

The Anchor Point Description for a score of 7 is shown on the slide – words or phrases in bold are modified for descriptions of scores 1 - 6.

See the Peer Review Manual for the full word ladder.



The HRC has prepared guidelines to improve the consistency of impact assessment; however, these are generic around consideration of factors that influence impact, rather than prescriptive around the weighing of different types and timescales to impact. SAC membership draws on a range of expertise and a fair and balanced in-committee discussion weighing the types and timescales to impact (and the appropriateness of the action plan) is essential to a robust assessment.

Research Impact is one of four assessment criteria used by HRC to assess research proposals, alongside Rationale, Design and Methods, and Track Record.

The likelihood of impact is influenced by multiple factors. Some factors are assessed within the other three criteria (blue arrows), while other factors are distinct to consideration of impact (red arrows).

Our assumption is that for research to have potential to generate high societal impact specific to NZ settings, scientific quality is paramount but not sufficient.

The impact criterion should be considered distinct from science quality, and potential impact should firstly be discussed on the assumption that the aims of the research will be met. (Scientific uncertainty is reflected in the scores against other criteria).

However, if the science quality is fundamentally flawed to the extent that impact will be unlikely, the impact score should reflect this.

Design and methods may not necessarily have the qualities of being novel or original to meet the aims of the research project and achieve impact.

The importance of research gaps/significance of knowledge barrier set out in the rationale, provides a good starting point for description of impact, but must be expanded upon to provide a broader societal perspective of value. Description of impact may focus not just on value of research findings, but also from conduct of research itself in terms of capacity building and networking.

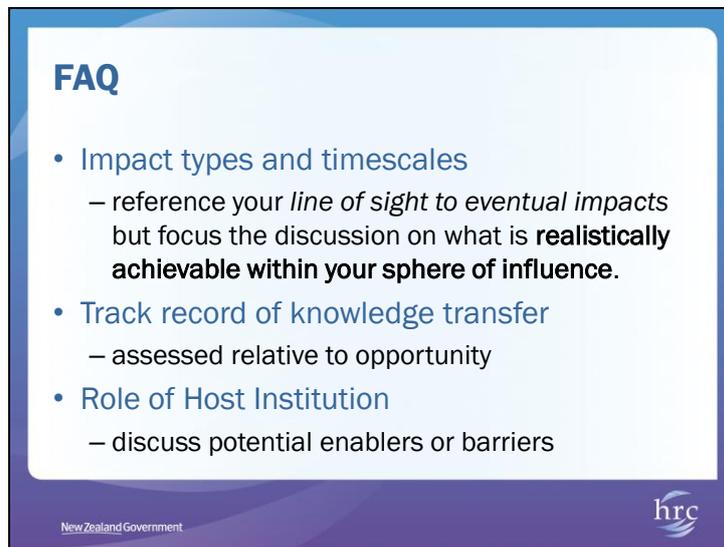
Engagement activities should be realistic, meaningful, appropriate to context of the research; yet all researchers are challenged to look for research users outside their immediate academic circle.

Assessment of the Action Plan should also consider the research team's track record and existing networks for mobilising the knowledge generated and increasing the likelihood and rate of impact.

Reviewers who represent next-users or future-users of research are encouraged to share their perspective on the potential value added by the research.

Overall: assessment of impact should focus on quality, credibility, value added and appropriateness of action plan in context of use.

Q for committees 2019 – what other guidelines would improve consistency of impact assessment?



FAQ

- **Impact types and timescales**
 - reference your *line of sight to eventual impacts* but focus the discussion on what is **realistically achievable within your sphere of influence**.
- **Track record of knowledge transfer**
 - assessed relative to opportunity
- **Role of Host Institution**
 - discuss potential enablers or barriers

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Context of research impact: Research findings should be placed in the context of what is already known/not known in the field. It is this context that will influence interim benefits or changes; and eventual transformation to health-related and broader social impacts.

The Host institution is targeted in the research contract to provide an appropriate research environment within which research material is assessed for any potential value beyond peer review publication. Specifically, the Fifth Schedule states in section 2.2.3 in relation to the Research Material, the Research Provider acknowledges that it is expected to generally, **maximise the impact of any new IP on health and economic outcomes, for the benefit of New Zealand**.

If you believe that specific research outcomes may be significantly enhanced or constrained by your Host organisation that should be discussed as part of your action plan.

Slide 19

Thank you



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