

Centre for Community Child Health



# The Melbourne Children's Knowledge Translation and Research Impact Project

**CONSULTATION REPORT:**  
PERCEPTIONS OF KNOWLEDGE  
TRANSLATION AND RESEARCH IMPACT

SEPTEMBER 2016



## Acknowledgement

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## Preface

This consultation report is one of four publications resulting from The Melbourne Children's Knowledge Translation and Research Impact Project.

*The Melbourne Children's Knowledge Translation and Research Impact Project. Final Report: A Framework for Action.* Leone, V., Modica, L., & West, S. (2017). The Melbourne Children's Knowledge Translation and Research Impact Framework, and the findings and recommendations in the Final Report are based on an analysis of the Discussion Paper, Environmental Scan and Consultation Report. This data was supplemented and informed by internal and external review throughout the Project. The Framework is applied to selected campus knowledge translation case studies, and key findings and recommendations propose action to enhance knowledge translation and research impact at Melbourne Children's.

*The Melbourne Children's Knowledge Translation and Research Impact Project. Consultation Report: Perceptions of Knowledge Translation and Research Impact.* Fong, M., Rushton, S., & West, S. (2016). The Consultation Report summarises data collected from:

- external experts via semi-structured interviews based on their expertise in research translation, research impact and knowledge of the policy and funding environments [n=8, approx. 60 minutes each]
- campus leaders via semi-structured interviews [n=14, approx. 40 minutes each]
- campus staff via an online survey [n=109 fully completed]. Survey respondents worked in the following areas of Melbourne Children's:
  - 78 respondents worked in research
  - 33 respondents worked in clinical care
  - 30 respondents worked in education and training
  - 12 respondents worked in other areas including administration, service provision, knowledge translation, evaluation, policy, public affairs and coordination.

The consultations captured a range of perspectives about the prevailing funding environment, knowledge translation, key considerations, and opportunities and challenges for advancing research impact.

*The Melbourne Children's Knowledge Translation and Research Impact Project. Discussion Paper: Considerations for Knowledge Translation and Research Impact at Melbourne Children's.* Moore, T. Heiden, T. Leone, V., & West, S. (2017). The Discussion Paper identifies evidence and best practice in health and medical knowledge translation. It seeks to align key concepts with the broader vision and strategy of the Melbourne Children's by addressing the following questions:

- How are research translation and knowledge translation defined?
- What are the core concepts of knowledge translation?
- What is the relationship between knowledge translation and research impact?
- Where does research impact fit within the context of Melbourne Children's?
- What impact measurement framework will help us understand and conceptualise knowledge translation and inform our approach to enhancing and measuring research impact?

*The Melbourne Children's Knowledge Translation and Research Impact Project. Environmental Scan: Implications of the External Environment for Knowledge Translation and Research Impact at Melbourne Children's.* Heiden, T., Leone, V., & West, S. (2017). The Environmental Scan captures the changing landscape of research policy and funding in Australia. It identifies four relevant consultation and review processes, and their potential implications for Melbourne Children's.

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## ABBREVIATIONS

ARC	Australian Research Council
CAHS	Canadian Academy of Health Sciences
CCCH	Centre for Community Child Health
MCRI	Murdoch Childrens Research Institute
NHMRC	National Health and Medical Research Council
RCH	The Royal Children’s Hospital, Melbourne
RCHF	The Royal Children’s Hospital Foundation
UMDP	University of Melbourne Department of Paediatrics

## Overview

Increasingly research institutions are required to demonstrate that they are not only efficient producers of new knowledge, but that they are also able to apply and transfer that knowledge to improve society. In a health context, knowledge translation transforms research into effective prevention, early intervention, better treatments and informed policy and practice, for improved health. For the Melbourne Children's it lies at the heart of our ability to make a difference for children.

Melbourne Children's is the collaboration between The Royal Children's Hospital (RCH), the Murdoch Children's Research Institute (MCRI), the University of Melbourne, Department of Paediatrics (UMDP) and The Royal Children's Hospital Foundation (RCHF). Based in Melbourne's Parkville precinct, the campus unites leaders to advance child and adolescent health through the integration of prevention and early intervention, clinical care, research, education and training, and academic leadership.

The Melbourne Children's Knowledge Translation and Research Impact Framework Project commenced in March 2016. Funded by The Royal Children's Hospital Foundation, the goal of the project was to establish a conceptual framework to advance knowledge translation and research impact on campus.

The Project comprised several key inputs: a review of literature and practice, external and campus consultation, an environmental scan and case studies. These components profile:

- the changing external policy affecting the environment in which research is undertaken [Environmental Scan]
- advice and input from experts and external stakeholders [Consultation Report: external interviews]
- advice and input from campus leads [Consultation Report: campus interviews]
- advice and input from staff [Consultation Report: campus survey]
- concepts of knowledge translation and research impact and their implications for Melbourne Children's [Discussion Paper]
- evidence and best practice in health and medical research translation [Discussion Paper]
- selected campus knowledge translation projects [case studies].

These were supplemented with expert advice from an internal reference group, external expert panel, and an expert advisor. This material provides the foundation for the conceptual framework developed as a part of this project: the Melbourne Children's Knowledge Translation and Research Impact Framework (the Framework).

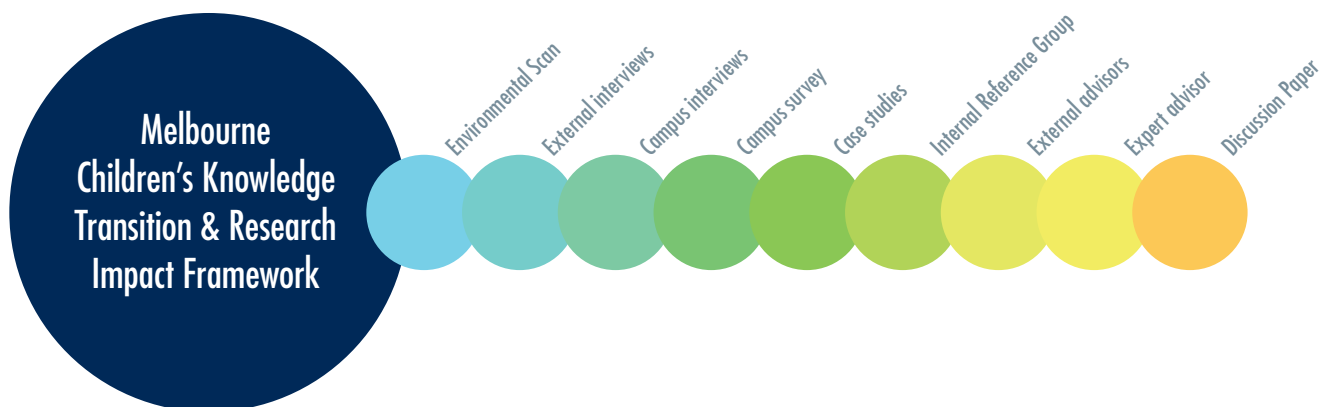


Figure 1: Components contributing to the Melbourne Children's Knowledge Translation and Research Impact Project.

The project was undertaken by a team from the Centre for Community Child Health under the direction of Sue West, Group Leader, Policy, Equity and Translation MCRI, and Associate Director of the Centre for Community Child Health, with support from Professors Katie Allen, Frank Oberklaid and Sharon Goldfeld. See Figure 2 for governance details.



Figure 2: Project Governance.

## Project objectives

The project objective was to develop a knowledge translation and research impact framework to support Melbourne Children’s to:

- identify and measure research translation impact
- build capacity for increased impact
- identify opportunities for furthering impact
- facilitate the translation of research into policy and practice
- align research and engagement activity with national initiatives (e.g. the National Science and Innovation Agenda) and international evidence that supports sustained engagement for impact between researchers and knowledge users.

This project supports the campus mission of improving the health and wellbeing of children through leadership in healthcare, research and education. It aligns with strategic priorities to increase the translation of research into practice, support multidisciplinary research excellence, develop a national and international reputation for leadership in health research, and grow our collaborative research efforts.

This report provides detail on the consultation stage of the project and presents the consultation findings. The consultation findings were analysed in conjunction with the literature evidence on knowledge translation and research impact to inform the development of the framework and provide recommendations for enhancing knowledge translation and research impact at Melbourne Children's.

This report outlines the consultation findings from:

- Eight interviews conducted with external stakeholders with expertise in health, policy and funding
- Fourteen interviews with campus leaders
- 104 staff survey responses.

## Definitions

The following definitions were applied for this project:

- **Knowledge translation** is the synthesis, exchange, and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health (WHO, 2006).
- **Research impact** is the demonstrable contribution that research makes to the economy, society, culture, national security, public policy or services, health, the environment, or quality of life, beyond contributions to academia (ARC, 2012).

## Methodology

The project consultation used a mixed methods approach to data collection consisting of semi-structured interviews, focus groups and an online survey. The Centre for Community Child Health at the Murdoch Childrens Research Institute conducted the consultations.

## Ethics

This project was approved by The Royal Children's Hospital Melbourne Human Research Ethics Committee and was carried out in line with the National Statement on Ethical Conduct in Human Research (2007) – including all updates.

## Recruitment

The project used a purposive sampling procedure to recruit external experts based on their expertise in knowledge translation, research impact and knowledge of the policy and funding environments. An initial list of stakeholders from a variety of health and medical research, and policy and funding environments was generated by the Internal Reference Group.

The project invited forty campus leaders from Melbourne Children's to take part in interviews, which included all MCRI theme leaders and nominated staff from RCH and the, University of Melbourne Department of Paediatrics. Email contact was made with all nominated participants to organise a time for a forty minute face-to-face interview.



The online survey for campus staff was hosted on the MCRI website using REDCap electronic data capture tools and was live between Monday 8 August and Friday 2 September, 2016. Participants were invited to take part in the survey through information posted on the RCH and MCRI intranet sites, and via electronic newsletters, bulletins and emails from relevant campus leads alerting staff to the survey.

### Information and consent processes

Prior to the interviews, participants were provided with an information form about the research detailing how their feedback would be used and how their privacy would be protected. Participants were informed that they could withdraw from the research at any point. Participants also had the opportunity to ask researchers questions about the research prior to the interviews. Verbal consent was sought from all external and campus stakeholders prior to their participation in interviews and documented on the record of verbal consent.

Participant information was provided at the beginning of the online survey and participants provided their consent by ticking the consent box before commencing the survey. The online survey for campus staff is included in Appendix A.

### Interview format

The external stakeholder interviews ran for between 40 and 60 minutes and followed the external stakeholder interview schedule (see Appendix B). These were a mixture of face-to-face and phone interviews (depending on the preference and location of participants, as some participants were from New South Wales, Western Australia and Canada).

The internal stakeholder interviews ran for approximately 40 minutes and followed the internal stakeholder interview and focus group schedule attached as Appendix C.

Interviews and focus groups were audio recorded and transcribed with permission from participants.

### Data analysis

A thematic analysis of the interviews was conducted with consideration to the commonalities and differences in perspectives. The process for thematic analysis involved an iterative approach of data immersion, coding, creating categories and identifying themes that provided a coherent and relevant explanation and interpretation of the data. All researchers who were involved in the interviews and focus groups assisted in developing the codes, and the meanings attributed to them, to minimise possible interpreter bias. Data from the online survey was analysed, stored and managed using Microsoft Excel software to produce a basic graphical analysis of findings.

### Limitations of the research

The recruitment procedure relied on stakeholders volunteering to take part, making the sample potentially biased towards stakeholders that already had an interest in knowledge translation and research impact. Due to the sampling strategy and qualitative nature of this research, these findings should not be considered representative of the broader population.

## Stakeholders consulted

A total of eight external stakeholders and 118 campus stakeholders took part in the consultation.

- Eight interviews were conducted with external stakeholders with expertise in research, health, policy and funding.
- Fourteen interviews were conducted with a range of staff at Melbourne Children's including executive, researchers and teaching and clinical staff.
- A total of 104 completed surveys were received. An additional 49 surveys were started but were excluded from analysis because they were incomplete. Connection issues with certain web browsers during the online survey period may have contributed to the high number of incomplete surveys.
- Survey respondents worked in the following areas of Melbourne Children's:
  - 78 respondents worked in research
  - 33 respondents worked in clinical care
  - 30 respondents worked in education and training
  - 12 respondents worked in other areas including administration, service provision, knowledge translation, evaluation, policy, public affairs and coordination
  - One third of survey respondents worked across either two or three of the areas listed above.

## External stakeholder findings

These findings are based on consultations with external stakeholders with expertise in research, health, policy and funding in July and August 2016. They capture a range of perspectives about research impact and the key considerations, opportunities and challenges for measuring research impact.

### Research impact and translation in Australia and internationally

External stakeholders were asked whether they had witnessed any change in how research translation and impact has been valued, measured or supported over recent years and how they thought this would change in the future.

There was consensus that there was growing interest in how to document and measure research translation and impact from research funders, areas of government, publicly-funded research agencies and other research organisations. All external stakeholders talked about the highly competitive funding environment for research in Australia and increased pressure to show impact from research funding. Uncertainty around future funding was also reported including what the focus of the Medical Research Future Fund would be and whether funding large-scale projects would be prioritised over smaller scale initiatives. A number of external stakeholders reported that although there was a bigger focus on ensuring that research had tangible benefits for society, researchers were still largely rewarded through metrics related to research publications.

Activity in the research translation and impact arena referred to in the interviews included:

- The Health Translation Advisory Committee, which advises the CEO and Council of National Health and Medical Research Council (NHMRC) on opportunities to improve health outcomes through effective translation of research into health care and clinical practice.
- A formal impact working group made up of nearly all the publicly funded research agencies (PFRA) including the CSIRO, the Australian Research Council (ARC), the NHMRC and Geosciences Australia, have been meeting for the past three years.
- The use of online systems such as Researchfish to collect and monitor research data related to impact over time are now heavily used by UK based funders. The NHMRC has also signed up to Researchfish, but it is not yet clear how they plan to use it.
- The NHMRC, Department of Industry and CSIRO are looking at how to tap into big data to try and extract information in regards to impact.

*The first part of the project is the NHMRC funding a component to see whether a data mining system can extract outcome and impact data from patent and license information. CSIRO will fund how to extract information from qualitative data such as policy documents, Senate documents and those types of things, to have a look at where is the influence of a particular organisation in regards to decision-making – which is a really huge black box.*

Some external stakeholders reported that whilst there was increased interest in translation and impact in the research community and amongst research funders, there was variable understanding and knowledge of these concepts and how to apply them. One stakeholder reported that training and support would be necessary to assist researchers to provide useful information about impact.

*Say the ARC, they're like, 'Really like that impact statement stuff. We'll now make it mandatory. If you put in for an ARC Linkage Grant, you have to provide an impact statement.' No training, no background.*

## Advice for creating a Melbourne Children's Knowledge Translation and Research Impact Framework

The external stakeholder interviews provided guidance on a number of issues that will inform the development of the knowledge translation and research impact framework. These included defining terms, the purpose of the framework, measuring impact, and processes for testing the draft framework.

### Definitions of research translation, knowledge translation and research impact

Whilst a number of the external stakeholders consulted were involved in committees or working groups that were investigating the translation and impact agenda, they reported that there was no consistent understanding or definitions relating to research translation, knowledge translation and research impact.

The importance of taking a broad view of knowledge translation was discussed to ensure that it was relevant to different areas of research. One external stakeholder talked about the idea of describing research translation rather than defining it, which came out of a committee they are involved in.

*You've got to look at it from a really broad perspective. What does translation mean for laboratory-based research or a medical research or public health research or implementation research, and you can really argue that translation extends across all those areas.*

Another stakeholder reported that their organisation was looking to broaden the definition of research impact to include the interim steps towards achieving impact instead of making it just about the final impact.

### Defining the objective of the framework

External stakeholders advised that it was important to be specific at the outset about the purpose of the knowledge translation and research impact framework. For example, the extent to which the framework is about accountability or advocacy. One external stakeholder commented that Melbourne Children's is in a good position to determine what we want from a research impact framework in terms of method and conceptual form given that Melbourne Children's has a specific child health focus. This contrasts with the ARC that may be more constrained in their impact approach given the breadth of their focus across all disciplines.

One external stakeholder said it was possible to use a knowledge translation and research impact framework to drive translational impact and influence researcher behaviour by incorporating mechanisms that will drive that down to a researcher level to make it useful and incentivise.

*What role can a research impact framework play in terms of shaping the incentives that generate this activity and demonstrates and acknowledges the activity?*

Another issue raised was whether the framework should be prospective or retrospective in that it either helps researchers to plan for impact or looks at what has already been accomplished.

## Building capacity for knowledge translation, impact planning and reporting

### The importance of planning for impact

A number of external stakeholders advised that to have an impact, researchers should engage with stakeholders, such as intended end users, to find a relevant problem to solve rather than doing a piece of research and then trying to measure its impact.

*In a sense when you say we're looking at how we measure impact, I kind of think that's starting in the wrong place...In terms of being a practising researcher, if you want engagement, have relationships with people in the industry that you're related to, where you hear from them what they're interested in... It starts with here's a problem. Can I be of use?*

### Program logic model for planning and mapping impact

Some external stakeholders reported that using a program logic model helped researchers to understand the logical path from output to outcome to impact and spread consistency of terminology and usage within organisations incorporating impact reporting and measurement.

*It's the whole logic model thing. The pathway to impact is to think about what's the need: what are you trying to achieve? What path are you on? And how do you make sure that those respective steps are made and what are the incentives along those respective points.*

*We're incredibly black and white (in our approach) as to what's seen as an output and what's defined as an output, versus then what is an outcome, which to us is uptake and adoption, to versus then what is an impact, which is the consequence of uptake and adoption, is then seen as the impact. We're quite definitive in our language as well as the way in which we capture, report, and assess across that program logic in order to just get consistency within the organisation and a level of understanding when it comes to then doing those calculations.*

### Policy impact

The use of evidence synthesis and co-design of research with end users were seen as effective methods of achieving impact from a policy perspective. One external stakeholder talked about the importance of working as an intermediary between policy and evidence. This approach involves engaging stakeholders in service delivery and policy to identify problems and connecting them with the best evidence through conducting evidence synthesis and working with academics to translate their work into a format useful for decision making. Another approach regarded as effective is having a research project commissioned as part of developing an evidence base for practice.

*It's interesting to think about impact from a policy perspective. Someone's done the research in the first place that's been synthesised into this thing that is now available to government. There's a long-term impact from research that might have been done in the past. Then there's the evidence synthesis, and then the co-design. I think all three of those from a policy perspective are important, but what you're talking about is the particular point of engagement when someone wants to know about what the evidence says, and how do we respond to this problem?*

## Encouraging collaboration between researchers and clinical practice

An external stakeholder reflected that an audit of research projects at their medical research institute found that a lot of excellent research had not been translated for intended (non-academic audiences). The audit found that researchers were working in isolation and were not familiar with other researchers or their work at the institute. It also found that research projects could be engaging the same community partners without knowing they were involved with other research at their institute.

External stakeholders working in health contexts discussed the need to build strong links between research and clinical practice including opportunities to interact, collaborate and learn from each other. These included shared seminars and rounds, and funding opportunities that promote collaboration between research and clinical practice. Encouraging practitioners to build research careers, individually or as part of a team was also seen as a way to bridge the research and clinical practice gap.

*There's a tangible contribution to bringing research and clinical practice together... The clinical practice enhances research and research enhances clinical practice. I'm very keen on the cyclic relationship not just a one way linear.*

## Consumer voice in knowledge translation

One external stakeholder talked about the importance of ensuring there were opportunities for consumers to be involved throughout the research process to make sure findings are appropriately translated. An example was provided of funding bodies in Western Australia that have consumers on the review panel of the research proposal, to inform consumer involvement and engagement in the development of the research process.

*Consumer input throughout process ensures that when research is translated into a different form of clinical practice, it can be done in a manner that's appropriate, acceptable and agreeable for different consumers, or for the broader community.*

## Framework implementation considerations

External stakeholders reported a number of issues that should be considered for successful implementation of a knowledge translation and research impact framework. These included the context of researchers, institutional context including support for researchers and time and resources available.

### Context of researchers

External stakeholders related a number of environmental factors that will influence how researchers respond to planning and measuring research impact. For example, researchers with university affiliations will be influenced by the culture and policies of the university environment. Researchers will also be motivated to align themselves with requirements from funding bodies and reward structures of the institutes they are employed by. External stakeholders cautioned that even though researchers might see the importance of planning and measuring research impact, the current reward structure in which they operate holds great influence.

*I'm 100% with the impact stuff... totally get it, but I'm not rewarded for that. I'm rewarded for writing papers. I don't get reclassified on that. I get reclassified because of papers.*

## Institutional context

External stakeholders that were interviewed represented institutions across the spectrum from organisations that had a moderate interest in research translation and impact, to organisations that had embedded articulating impact across the organisation. External stakeholders reported that institutional change takes time and leadership.

*It's heavily embedded in the way in which CSIRO does exist, because basically it's aligned to what the purpose of the organisation and the mission is for CSIRO, it has always been for 90 years to actually do science that benefits the nation. We define the benefits to be impact, and that's triple bottom line impact, so we have a look at environmental, social, as well as economic impacts and try and capture and report what they are.*

## Time and resources

External stakeholders who were applying knowledge translation and impact processes warned that time and planning were essential to successful implementation of their impact approach. One external stakeholder commented that although their one-page impact statements look simple, it takes considerable collaborative effort for researchers to articulate their impact strategy, understand their impact pathway and decide how to measure it:

*It's a good one to two days of working through with a research group in order to get that very succinct sentence. It's not just the sentence. Underneath the sentence, a lot of work has to go into it. They have to understand their pathway, how it's going to be measured...to be able to put it as a nice, simple, common, and easy to understand concise strategy on a page. The ability to extract that information and then embed it from a strategic perspective is phenomenal.*

A number of benefits from supporting researchers to develop their own impact strategies were articulated including encouraging ownership and accountability for measuring impact and increasing capacity among researchers to think about impact.

## Testing impact frameworks

Two external stakeholders with experience implementing processes to encourage knowledge translation and impact measurement in their organisations commented that researchers were generally positive about the process if they understood the purpose and had support to implement the process.

*It's been really successful in terms of taking even the basic science guys that you think may be more challenged by some of this stuff but once you lay it out in front of them and say this is what we're trying to achieve, why are you trying to do this, what are you trying to achieve and just assist them through the process, they have been very receptive to it.*

*The researchers aren't a problem, because it follows a very logical scientific method. Any ability to capture data and measure something, you usually don't have to talk a scientist into doing that. They fundamentally understand the value of tracking something over time in order to measure its ability to actually instigate or drive any change. That's usually not the problem. The problem you have with scientists is they'll complain how much extra time that takes.*

## Measuring impact

A number of observations were made about the complexity of measuring impact. These conversations included whether to use standardised or tailored metrics, and how to measure the long-term effects of knowledge translation.

One stakeholder commented about tailored metrics and standardised metrics: whilst standardised metrics can be compared, they may or may not be relevant. The benefit of using tailored metrics is that researchers formulate their own, which are relevant to their project. Formulating tailored metrics was also regarded as an important process to support researchers to think beyond output and think about users.

External stakeholders recognised that impacts occur at the point where research evidence is utilised e.g. in a clinical setting. This means that new metrics are needed beyond input (grants) and output (publications) measures. Examples of metrics were provided included clinical practice change measures such as stay and treatment modalities and effectiveness. Engagement metrics such as consumer engagement and allied health professional engagement were also suggested.

*It may be repetitive translation of basic research into a change in clinical practice or it may be measures in terms of new ways of taking outcomes from clinic research and using those to drive the outcomes from clinical practice and using those big questions to drive a new research agenda on your areas of research.*

Most external stakeholders recognised the challenges posed by the time lag between research and impact and the implications of this for measuring impact.

*You can't really measure, and sometimes impact will have a life of 20 ... 10 years, you can't see it at the end of five years. There's been a bit of discussion about getting much better data on that at the end of a grant.*



## Campus stakeholder findings

These findings are based on consultations with campus leaders between July and September 2016. To ensure that the consultation represented a broad range of views and expertise across Melbourne Children's, over forty senior campus stakeholders holding positions with one or more of the campus partners (MCRI, RCH, UMDP and RCHF) were invited to take part in an interview. As of 6 September 2016, fourteen interviews had taken place, with seven interviews still to be conducted. The findings capture a diverse range of perspectives about how knowledge translation and impact is currently understood and the barriers and enablers for achieving and measuring research impact at Melbourne Children's in the future.

### Research impact and translation in Australia and internationally

All campus stakeholders recognised the importance of capturing the impacts achieved through the translation of research and many noted the changing landscape in Australia and elsewhere.

A number of campus stakeholders described how knowledge translation and impact are being increasingly valued and measured in Australia, and, internationally.

Campus stakeholders noted a number of international directions in the knowledge translation and impact space. For example, the United States has had an increased focus on commercial impacts: taking products to market. Large overseas philanthropic organisations and international development agencies were also reported to have an emphasis on impact. The United Kingdom has developed impact measurement systems that span qualitative case studies (used in the UK Research Evaluation Framework) and large data sets to collect and monitor research data related to impact over time, which are now heavily used by UK funders. Large funders such as Horizon 2020, the biggest EU Research and Innovation programme, were also noted to have an impact focus.

Campus stakeholders reported that they experienced increasing requirements from research funders such as the NHMRC, ARC and RCHF to report impact, but these were fairly broad and open to interpretation.

*I don't think that it's a structured thing and that there are key things they're looking for or how this is being measured and so on and so forth. Any positive impact that you can think that you've had or you've published this, it went here or we presented to policy makers at this forum and so on and so forth...I think a lot of the reporting on impact that's required currently is that model where it's very rare that we have really hard measure of impact that we can write in our reports or give to people.*

A number of campus stakeholders recognised that the Medical Research Future Fund would have an emphasis on knowledge translation and impact.

A consistent theme was that the research funding environment was becoming more competitive, both in Australia and overseas. One effect has been that researchers are increasingly turning directly to government and philanthropy for funding: environments where there is greater focus on articulating the benefits of research and collaboration.

*Those groups [government and philanthropy] don't care about a good question. They don't care how good or bad a question is scientifically or how good or bad the design is. They want to know that's all good, but they care about impact and about the translation and about how it's going to affect what they're trying to achieve.*

It was also noted that there was no common definition of the term “impact” and that it was open to interpretation, particularly in the philanthropic arena where corporates, foundations, trusts and individual donors have different agendas for investing in research and different expectations about their engagement in the research process.

## Advice and recommendations for developing the framework

Campus stakeholders were enthusiastic about the concept of developing a framework to support and measure impact from campus activity. It was seen as a sensible approach to encourage people to articulate what they do and what impact it has, and important for informing strategy, encouraging knowledge translation and improving accountability.

*I don't know that one rule works for everyone, but I do agree that everyone should have to justify what they do in some broad health defined way.*

### Ensure relevance to diverse groups

Ensuring the framework was meaningful and relevant to diverse groups on campus was seen as essential. The framework should be broad enough to be widely applicable research processes in laboratories, clinical trials or population health studies.

### Prompt thinking about impact

The framework should prompt people to think about what impacts their research will have and how knowledge arising from their work will be used.

*...and your ultimate goal should be that your knowledge is used, not just created for the sake of it.*

### Align with key external funders

Some campus stakeholders also thought it would be important to ensure that the framework aligns with key external funders such as NHMRC and ARC.

### Understand different pathways to impact

Campus stakeholders provided a number of examples of how different disciplines follow different pathways and timelines to impact. For example, clinical trials and interventions show impact quickly whereas a basic discovery might not have an impact on outcomes for many years to come. The framework should also recognise that not all Melbourne Children's activities use a research approach and be broad enough to include advocacy, observation and quality improvement.

*Some translation shows direct benefits whereas with [others] it takes longer and the effects aren't as clear.*

### Ensure high-quality research

It was seen as important for the framework to acknowledge that whilst not all research will be successful or impactful that it should be well designed and executed.

*The research is an important step. If you don't have good research you can't, I don't think, effectively translate into policy.*

## Value discovery and serendipity

Campus stakeholders reported the need to recognise serendipity and discovery science in the framework and acknowledge that impactful research doesn't always start with the end in mind.

*If you look back at some of the really big impacts, translational impacts that have happened in Australian science over the last 20 years, a lot of them have come from chance observations that weren't set out as translational to start with. They were chance observations either in a clinic or in a lab, which became massive blockbuster things. I'm thinking about Helicobacter pylori for instance, understanding that, not just in ulcer disease but in cancer.*

*The checkpoint inhibitor work that Jim Allison, he's in Melbourne now, has done, that was the bi-product of that is we're going to be able to cure cancers which are not curable. We're starting to do it. I mean that sort of stuff. If you're going to set up a framework and you're going to measure stuff and you're going to have people compete with each other based on that, you need to be able to build in something that's not going to miss the serendipitous environment, and that's hard to do.*

## Encourage collaboration

It was seen as desirable for the framework to encourage and value collaboration, multidisciplinary teams (team science) and interdisciplinary research.

*If I'm a public health researcher then I should be realistically hopefully collaborating with people who work on any disease. For instance, I should be collaborating hopefully with people who are lab researchers in that disease area, clinicians in that disease area, and people who have a policy interest or service providers in the deal with those.*

## Opportunities to share

Some campus stakeholders recommended a forum such that annual review or tribunal where research groups had the opportunity to discuss the impact of their work.

*I think that each research group should be able to sit down and before some regular review, even an annual tribunal or something like that, explain the real value of their work to health. If they can explain it, even of its hypothetical or in the futuristic or something like that, fine. If they can explain it, there's no way that anybody can really say, this bit of [x] research is less valuable than this bit of [y] research. We don't know that. They're different things, they shouldn't be compared with each other, but each one should be able to demonstrate its own intrinsic value.*

## Incorporate co-design and feedback

Some campus stakeholders highlighted the importance of involving the community, constituents, patients or families in the knowledge translation process.

*I don't think we're very good at thinking about how we bring the community or our patients or participants into our research paradigms either.*

## Impact areas relevant to Melbourne Children’s

### Impact areas

Impact areas identified in The Canadian Academy of Health Sciences (CAHS) Impact Framework (see Table 1) was tested with campus stakeholders. We asked which impact areas were relevant to the campus and whether there were any gaps in the CAHS Framework or areas for improvement.

Table 1: Canadian Academy of Health Sciences Impact Framework impact areas.

<b>Advancing knowledge</b> , for example, publications, citations and other knowledge dissemination activities to generate awareness of your research
<b>Building research capacity</b> , for example, additional funding and infrastructure, researcher training
<b>Informing decision making</b> , for example, public health, policy, education, industry and general public
<b>Health impacts</b> , for example, health status, determinants of health, health system changes.
<b>Economic impacts</b> , for example, reducing the cost of care or treatment or commercialising products
<b>Social impacts</b> , for example, increasing wellbeing and socio-economic benefits.

The impact areas that campus stakeholders identified as most relevant to their work were advancing knowledge, building research capacity, health impacts and informing decision making. Economic and social impacts were also identified by a number of campus stakeholders as relevant to their work.

A number of campus stakeholders reported that they worked towards impacts in all six areas outlined in the framework.

*We aim to affect every single one of those categories. Every single one of them.*

*I think all of them are a key aspect. I think our challenge has always been around making sure that we bring them all to light because they're all important parts of the puzzle I suppose.*

### Other impact areas

Additional impact areas were identified by campus stakeholders that they felt were not covered by the CAHS Impact Framework. These included:

- **Accountability** including how to identify knowledge and how it fits into the process of change and ensuring constituents have a say in how money is spent.
- **Translational process** outlining the evidence of what works and how to effectively implement on the ground.
- **International influence** including global reach of research and activity on international networks and expert groups.
- **Global health** encompassing disadvantaged communities - international, indigenous and refugee health.

Some thought that it would be helpful to extend the scope of some of the existing categories. For example:

- **Building capacity to include capacity in services and policy.** Although the CAHS framework includes building research capacity one campus stakeholder noted that their projects included building capacity in other services and in policy.
- **Social impact** to include wellbeing and accomplishments of staff.

## Impact measurement

It was hoped by some campus stakeholders that the framework would provide a simple and robust way of assessing impacts and outcomes. The general view of impact measurement was that the assessment of impact can be very subjective and it is difficult to compare impact from different disciplines. Some campus stakeholders reported that even 'easy' metrics like publications and funding could still be difficult to compare across disciplines. A number of campus stakeholders saw the value of having a process in place for capturing data from projects to ensure that it is not lost or overlooked after project close which could assist with future impact measurement.

Campus stakeholders agreed that one of the key challenges with impact measurement was the time lag between the project and its resulting impact, which could take many years to occur. It was thought that whilst projects could articulate many of the impacts they were aiming for, it was difficult to anticipate if these would be achieved and that not all impacts arising from a project could be predicted. Attributing impact was also seen as difficult given that multiple factors often lead to a change of policy or practice.

Another reported challenge was the reliance on quantitative measures and outputs to measure impact because they are easy to count and compare. Some campus stakeholders highlighted the important contribution qualitative data makes to assessing end user impact. It was acknowledged that qualitative data can be difficult to collect, measure and compare.

*I think one of the challenges is going beyond the things that we can count. We can count grant dollars. We can count numbers of students and papers and impact factors, and that's clear-cut, but the issue that's always the grey zone is the impact that you're having. How do we get qualitative? If there are comments about your program saying, "It's fantastic. It's changed my practice." How does that get measured? How do you know you're reaching clinicians? We know that most people don't read a journal article. Even if there's a guideline, most people don't follow it.*

One question that was raised was whether all impacts should be valued equally or if there should be a weighting or hierarchy of impacts to drive research behaviour. One campus stakeholder reported that an equal weighting system might result in a more level playing field and suggested the MCRI performance evaluation system could be changed so that all impacts that are measured are of equal value.

*One way is you make everything equally important. That's not the case at the moment. It's very much grants, publications, not the impact of access to care or improving someone's health outcomes. I understand the lab people can't improve a health outcome in a patient when they're working on a mouse. It's really hard. Making it equal ... a more level playing field than how those areas are scored.*

Some campus stakeholders identified patient care as an important impact measurement.

*I still think the single most important measure that we have is: does every child who comes to this institution get the best quality care that would be available anywhere in the world? If the answer to that question every single time is yes, then we will go home happy.*

*If I do a piece of research, the way to measure the impact of that research would be to say, "Is that now contributing to the standard of care of patients here and around the world?"*

Most campus stakeholders agreed that it was important to have interim measurements of impact, which would include data that is already routinely collected such as publications, presentations, media and funding.

Other impact measurements that campus stakeholders reported that they currently used or thought would be useful included:

- collaboration
- change in practice
- change to policy
- change to clinical care
- evaluation of practice
- improved patient care
- measures of patient care
- workforce development
- generating new evidence
- uptake of training,
- multidisciplinary reach
- collaborations with national and international groups
- change in the way services are delivered or modelled
- repeating your audit cycle
- burden on families of contributing to research
- change to clinical guideline or procedure
- tracking page views of internet resources
- progress, systems, spend
- sales of training and material,
- outputs.

Some campus stakeholders noted it was important to look at how our research funders were measuring impact. It was reported that the ARC is looking to develop process metrics that demonstrate whether a project is on its way to impact. It was reported that NHMRC funding applications are judged on significance and innovation that could broadly be interpreted as impact and methodology. One campus stakeholder suggested that the project team look at the NHMRC seven point scale that is used to assess across different fields of research.

## Impact reporting

Campus stakeholders were asked about impact reporting requirements for their projects. A number of impact reporting requirements were mentioned including:

- NHMRC project grant reports include a section on translation and impact into policy and practice, although some campus stakeholders reported that it focused on activity-based metrics.
- Summarising impacts in annual reports to the RCHF.

Suggestions for reporting impact in the future included:

- Research applications could include a section on impacts.
- CV's could include a section in impacts.
- Acknowledging that publications and knowledge translation go hand-in-glove and often you need the authority of publication in addition to strategic engagement process to change policy.

Some suggestions were made relating to reporting to philanthropic funders:

- Given the increased focus on attracting funding from overseas it is important to ensure impact is reported on a broad scale that includes global impacts.
- Ensure information is simple and pitched to a non-medical audience.
- Patient impact stories were seen as a rich source of information for donors – helping take research out of the lab and placing it into practice within the hospital and its effect on patients.
- Philanthropic funders understand the risk that research won't always achieve what it sets out to. There is a tolerance for research not succeeding, as long as this is communicated along the path.
- It is important to show the money was used responsibly and the ensure accountability in the acquittal of funds.

Some campus stakeholders stated that they reported on impact, even if not required. This was more common where the type of project was designed with an outcomes or impact focus and/or where there was engagement with partners who valued this approach.

A few campus stakeholders indicated that they planned for impact at the outset of their projects. For example, some campus stakeholders were working on research that is linked to clinical questions generated by clinicians. Other campus stakeholders had developed program logic models and evaluation strategies to document the progress and impact of their projects. Planning for impact was highly dependent on the project focus and the knowledge and skills of the project team and project partners.

### Research into clinical practice

It was agreed that translating research is important for ensuring that clinical practice is evidence-based. It was also seen as important that Melbourne Children's was translating the best possible evidence, which meant putting the research conducted at Melbourne Children's in the context of a wider evidence base.

*We may do research here but that research may finish up being secondary to research that's done by others elsewhere. It's not a question about implementing our research. It's about putting our research in the context of the whole evidence base for the way we should manage things.*

A number of campus stakeholders reported effective knowledge translation strategies on campus that lead to quick clinical implementation. These included clinician-generated problems and research approaches that incorporated quality improvement methodologies. Education strategies were also seen as a vehicle to improve knowledge translation in a clinical setting.

*An education approach might start with the synthesis of evidence about best practice and the application of that or the teaching, learning, around that and then the measurement of that, whether that's actually impacted on what clinicians are doing and if they're actually carrying out best practices.*

Some campus stakeholders reported that there was considerable research happening on campus that might help future generations but has no immediate clinical application. It was also reported that some research can advance knowledge without having an impact on patients.

### Research into policy

Campus stakeholders reported examples of campus research translated and evidence synthesised for policy impact. They discussed the importance of the relationship with government agencies and knowledge of policy making processes. They also reported the use of an approach to research that starts with the policy problem or question and then works backwards to determine what evidence and new research is needed (sometimes clinical trials, sometimes phase 4 impact studies).

## Barriers and enablers for knowledge translation and research impact

Campus stakeholders identified a number of barriers and enablers for conducting knowledge translation and achieving and measuring research impact at Melbourne Children's.

### Collaboration for impact

Institutional barriers to collaboration that were reported included lack of communication and cross-pollination between groups and not knowing what synergistic things were happening on campus. Whilst many campus stakeholders thought there was an understanding on campus of the importance of collaboration, it was felt that separate systems for each entity impeded this. It was suggested that shared processes such as a single human resources system and a single front door would help unify the campus. It was also suggested that a more integrated, comprehensive narrative for Melbourne Children's should be developed which could include a focus on impact.

A cultural shift away from hierarchical structures to a team-centred approach was seen as important in aiding collaboration and encouraging all researchers and clinical staff to question current practices. Opportunities for clinicians to increase research skills and expertise through education and support were also highly regarded. Clinician researchers were seen as an effective translational tool for encouraging the application of research to clinical practice. The clinical research grants available within MCRI were reported as an enabler of effective research translation in a clinical setting. The grants supporting research responding to issues, questions or problems arising in a clinical context were identified as effective knowledge translation strategies. Conversely, clinical areas lacking a direct or strong relationship with campus researchers expressed this as a significant barrier to effective research translation in a clinical setting. Two additional challenges identified included the lack of a relevant evidence base on many clinical issues and clinicians interpreting evidence differently in their practice.

Factors that enabled collaboration included the opportunity to work in teams and have interconnectors between disciplines. Opportunities to network such as the Melbourne Children's Knowledge Translation Network and providing spaces for incidental conversations such as Café Synapse were also seen as important. Externally, the importance of national and international networks where everyone is working together around an issue to push knowledge and practice forward were seen as essential for achieving knowledge translation and research impact.

### Systems and processes

In terms of knowledge translation, some campus stakeholders reported the current focus was on publishing rather than translation for impact. It was conveyed that there was no overt benefit to pursuing implementation or knowledge translation as systems such as continuing medical education and the NHMRC don't reward these activities. External barriers to knowledge translation reported by campus stakeholders included the activity-based funding model for our health system and the competitive research funding system which makes it difficult to provide career paths and fellowships to keep people on projects long term. Internally, performance metrics for promotions are tied to traditional academic metrics. Knowledge translation or the achievement of research impact is less well documented and rewarded.

Some campus stakeholders reported that support was needed to ensure the seamless facilitation of research into clinical practice. Whilst MCRI leads research in terms of oversight, consistency and ethics, it was noted that RCH plays an important role in supporting, facilitating and enabling research at Melbourne Children's. It was acknowledged that a number of RCH clinical units are actively supporting research, although research is often seen as a separate system to clinical care and in some cases as a liability on RCH time and resources. It was reported that RCH time is dedicated to clinical work or patient-related activities leaving little time to conduct research or support research activities. A number of campus stakeholders reported that it was necessary to look at how MCRI and RCH can better achieve effective collaboration and valuing of research and its role in improving clinical care. Suggestions included systems and leadership at RCH to support the role of research in providing quality care and ensure that evidence-based practice guides departments and leads to consistent practice between clinicians. Some campus



stakeholders reported that feedback loops to clinicians and to families and patients could be improved to reduce variability, promote a partnership approach and target education.

## Measuring and reporting impact

The most common barriers to measuring and reporting impact were the lack of readily available tools and frameworks for determining impact areas coupled with the time to impact and the challenge of attributing impact to individual projects. The time lag to impact varied for different disciplines: some disciplines show impact quickly or had a fast turnaround into clinical practice whereas basic discovery research might not have an impact for many years. It was also seen as important to understand that a single study might not have a big impact or provide enough evidence to change policy, and attributing impact can be difficult.

Developing campus mechanisms and automated systems to capture impact so that it's not reliant on individual researchers to continue to collect and report this information was identified as a potential enabler of measuring and reporting on impact.

## Online survey findings

This section outlines findings from the online survey of campus stakeholders that ran from Monday 8 August 2016 until Friday 2 September 2016. Participants were invited to take part in the survey through information posted on the RCH, and MCRI intranet sites, and via electronic newsletters, bulletins and emails from campus leads alerting staff to the survey. A total of 104 completed surveys were received. An additional 49 surveys were excluded because they were incomplete. The online survey experienced connection issues in certain web browsers during the survey period that might have contributed to the high number of incomplete surveys.

## Melbourne Children's areas represented by survey respondents

The majority of survey respondents worked in research, although there was also good representation from clinical care and education and training (see Figure 3). One-third of survey respondents worked across either two or three areas of Melbourne Children's. Twelve respondents worked in other areas including administration, service provision, knowledge translation, evaluation, policy, public affairs and coordination.

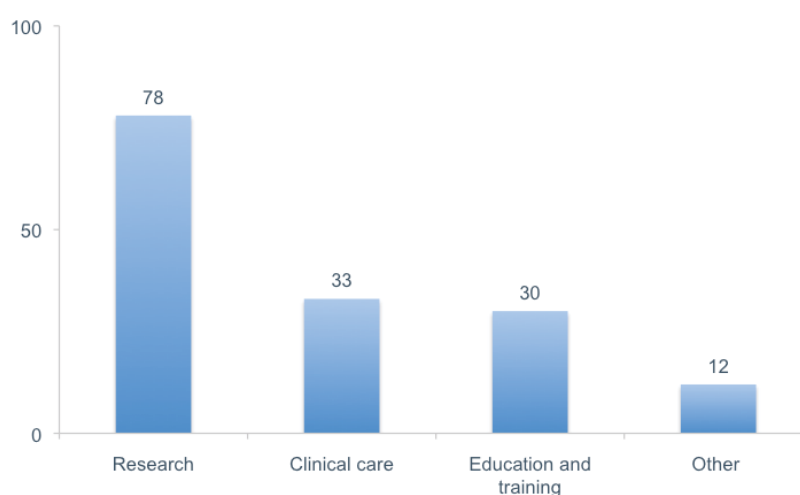


Figure 3: Which area/s do you work in? (n=104).

All MCRI themes were represented in the survey (see Figure 4), with the majority of survey respondents working in population health and clinical science themes. Seven survey respondents reported they worked in other areas including health services, nursing, international health, imaging and across all MCRI themes.

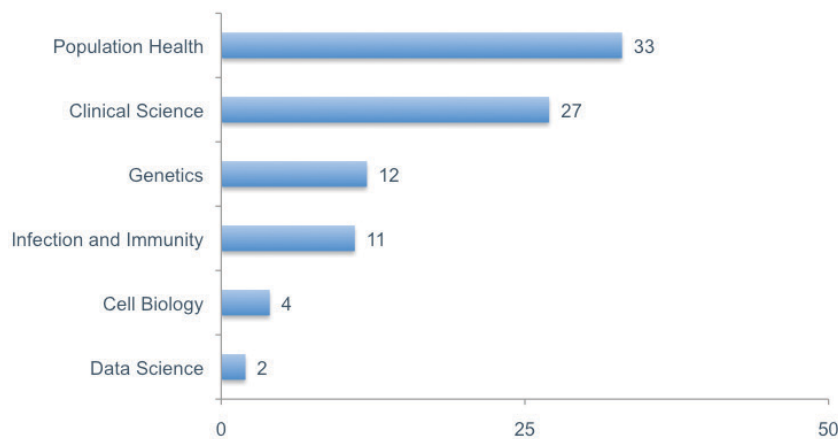


Figure 4: What type of research most closely aligns with your work? (n=100).

Survey respondents were working across all of the MCRI priority areas as outlined in Figure 3.

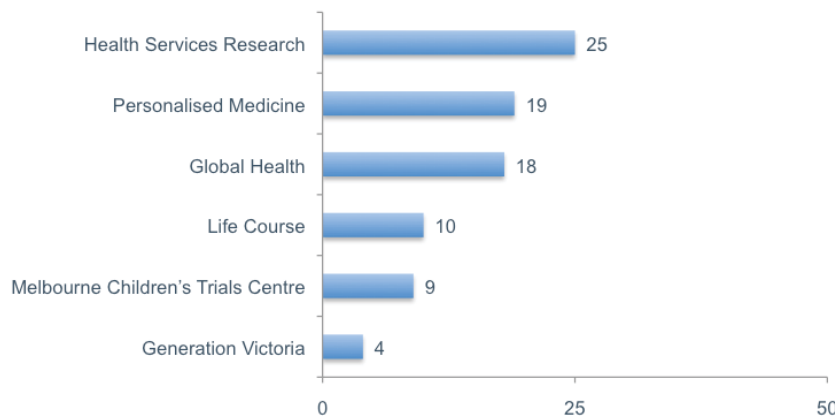


Figure 5: Are you working in any of the following areas? (n=100).

All the Centres of Research Excellence (CRE) at Melbourne Children’s were represented by survey respondents (see Figure 6). Nine respondents reported they were working with other CRE’s including the Children’s Epilepsy Program, Adolescent Health, WHO Child Health Collaborating Centre, Centre of International Child Health and the NHMRC Program in Disorders of Sex Development.

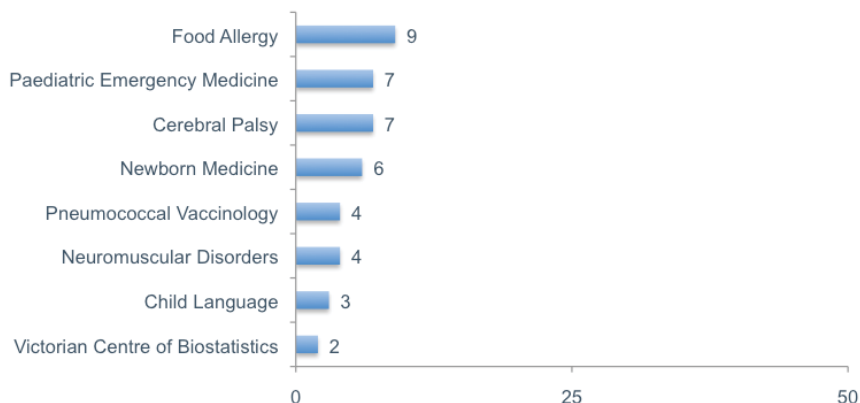


Figure 6: Are you working in any of the following areas? (n=100).

Survey respondents (n=33) who worked in clinical care represented areas and departments from throughout RCH including:

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>• General Medicine</li> <li>• Adolescent Medicine</li> <li>• Occupational Therapy</li> <li>• Medical Imaging</li> <li>• Orthopaedics</li> <li>• Mental Health</li> <li>• Centre for Community Child Health</li> <li>• Clinical Haematology</li> </ul> | <ul style="list-style-type: none"> <li>• Nursing Research</li> <li>• Emergency Department</li> <li>• Child Neuropsychology</li> <li>• Infectious Diseases</li> <li>• RCH@Home</li> <li>• Cord Blood Bank</li> <li>• Monash Children's Hospital</li> <li>• Allergy and Immunology</li> <li>• Developmental Medicine</li> <li>• VCGS</li> </ul> | <ul style="list-style-type: none"> <li>• Neurology</li> <li>• Physiotherapy</li> <li>• Rehabilitation</li> <li>• Respiratory Medicine</li> <li>• Centre for Adolescent Health</li> <li>• Department of Adolescent Medicine</li> <li>• Kookaburra Ward</li> <li>• Neurosurgery.</li> </ul> |
|--|---|---|

## Research funding sources and requirements

Survey respondents were asked to specify which organisations fund or support their research. MCRI and NHMRC were the main sources of funding followed by other sources (including international funders, charities and industry), philanthropy (foundations, corporates, private trusts and donors) and the RCHF (see Figure 7).

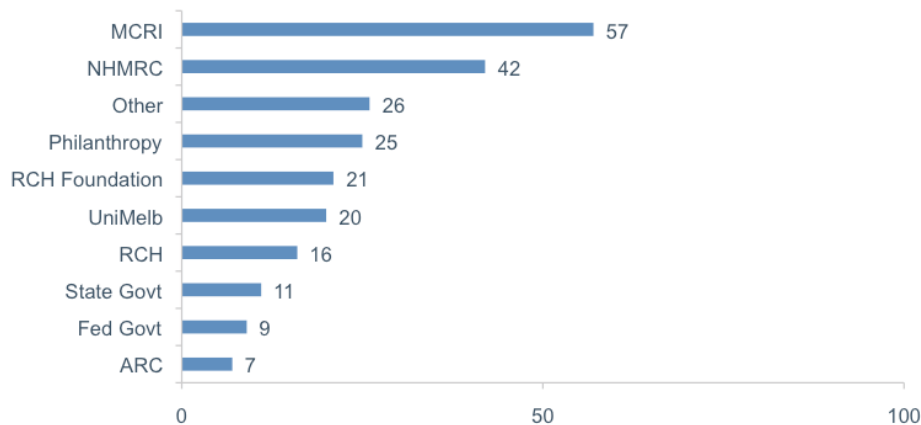


Figure 7: Which of the following organisations fund or support your research? (n=85).

Some survey respondents reported they were required to report on knowledge translation activities or research impact to MCRI, NHMRC, RCH, UMDP, RCHF, philanthropy, ARC and government. A similar proportion of survey respondents reported that they did not know whether they were required to report on knowledge translation activities or research impact to these organisations.

## Impact areas

Survey respondents were asked to rate the relevance of impact areas used by the Canadian Academy of Health Sciences Impact Framework to their work on a four-point scale (not relevant, somewhat relevant, relevant, and highly relevant). Figure 8 shows the percentage of survey respondents who reported the impact areas as either 'relevant' or 'highly relevant'.

Three-quarters of respondents reported that advancing knowledge and informing decision making were highly relevant to their work. Half of the respondents reported that health impacts, social impacts and building research capacity were highly relevant to their work. One-quarter of respondents reported that economic impacts were highly relevant to their work. Other impacts that were reported as relevant to respondents work included contributing to the international recognition, increasing returns back to the institute, genetic diagnoses to patients, networking impacts, providing resources and advocacy.

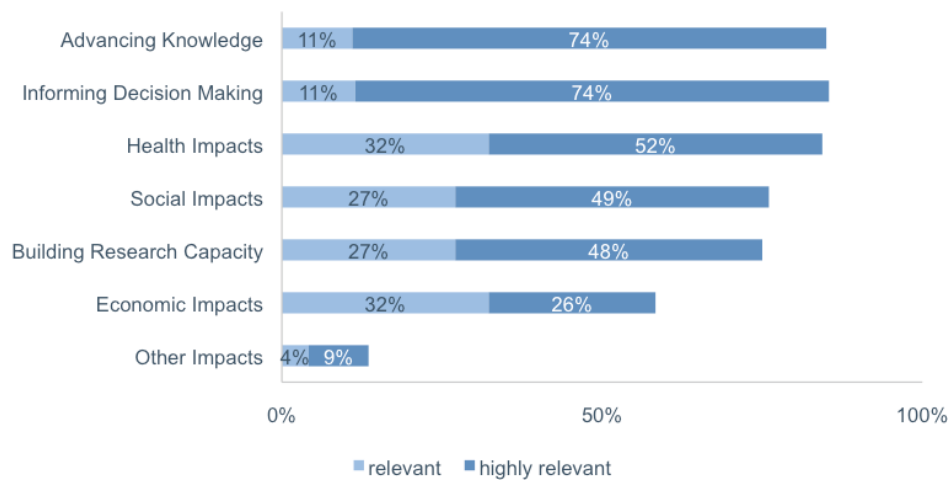


Figure 8: Which of the following impact areas are relevant to your work? (n=96).

## Strategies to measure impact

Survey respondents were asked about the strategies they currently used to measure impact (see Figure 9).

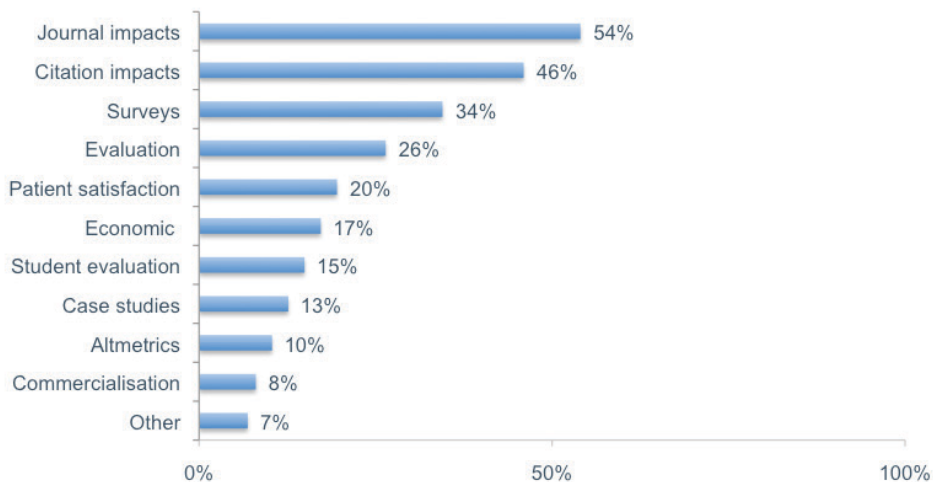


Figure 9: Do you use any of the following strategies to measure impact? (n=96).

Nearly half of survey respondents used journal impacts (54 per cent) and citation impacts (46 per cent), surveys (34 per cent), evaluation (26 per cent) and patient satisfaction (20 per cent) were also commonly used measures followed by economic analysis or evaluation, student evaluation, case studies, altmetrics and commercialisation. Other impacts used by survey respondents were service and policy review, hospital audit, metrics of educational activity attendance, focus groups with health professionals, recommendations implemented by governments or incorporated into national policy or regional or clinical guidelines, presentations to global or regional forums and publication downloads, online traffic and open/click rates.

## Engagement activities

Survey respondents were asked about the range of activities they undertook to engage others with their work. At least seven in ten respondents reported they engaged others in their work through conferences and seminars, academic presentations, engagement with researchers, journal articles and reports (see Figure 10). One in two survey respondents engaged people through education and training and mass media. One in three survey respondents reported that they used social media to engage others and one in five survey respondents reported commercialisation activities.

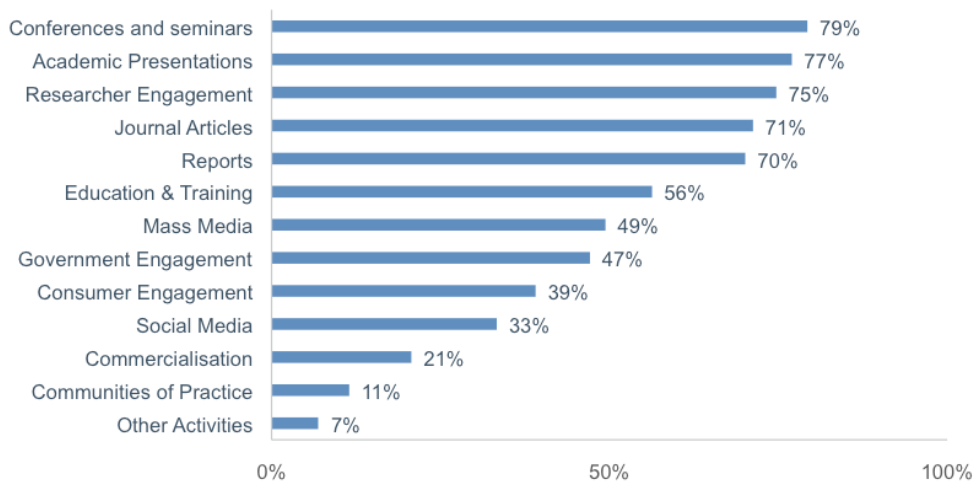


Figure 10: Which of the following activities do you undertake to engage others with your work? (n=87).

## Challenges in planning for, achieving, measuring and reporting impact

Challenges reported by survey respondents that hindered their knowledge translation and research impact measurement efforts included limited funding and resources, time constraints, a lack of standard ways to measure and report impact, and not having the skills and knowledge in these areas. Other challenges reported by survey respondents that were specific to projects included methodological challenges requiring novel approaches, limited expertise and validated measures to assist with impact measurement, and the slow pace of getting infrastructure and engagement in place in developing countries to engage constituents in the research process.

## Help with planning for, achieving, measuring and reporting impact

Survey respondents reported a number of factors that would help them with their knowledge translation and research impact efforts. These included greater clarity about expectations for measuring and reporting impact, evidence that using such an approach is beneficial, funding and resources to support research translation efforts, increasing the knowledge and skills of project teams, and improved planning and collaboration practices.

Suggestions for supporting impact measurement included: providing standard metrics which help to define and measure impact in a variety of areas; building a consensus around how impact is defined; and developing a scoring matrix that assesses impact across a broad range of areas. Training in the best ways to measure impacts relevant to the different research undertaken was also seen as useful. Development of specific metrics such as a standard set of patient/participant satisfaction measures and statistics on reuse and collaboration were also mentioned. Automating data collection where possible was suggested for updating citations and quarterly reports of media mentions in a CV/NHMRC-friendly format. Coordination by funding agencies as to how impact is measured was also seen as beneficial.

Suggestions for supporting knowledge translation and impact included: dedicated funding and resources to undertake knowledge translation; developing templates for grant rationale and guidelines for grant budgets; supporting the development of clear translation pathways; and assistance with identifying and engaging key stakeholders. Some project specific factors that would help knowledge translation and research impact included expanding research training from developed to developing countries (mentoring and coaching) in all research aspects and improving the ability to recognise what expertise is required and then finding appropriate collaborators.

## Other comments and suggestions about research translation and research impact

Ten survey respondents provided additional comments related to the project or knowledge translation and impact. Some of these comments reiterated the need for support such as resources and training. One survey respondent suggested it would be useful to have forums for discussing research translation. Some survey respondents voiced reservations about the push to research translation such as the time and resources that would be required to support this approach without a clear goal or funding stream and the clash with the current funding environment which creates pressure for people to maintain their focus on academic outputs. Some survey respondents raised concerns about the difficulty of establishing research partnerships or relationships if they did not fit within the current MCRI themes.

## Support for researchers

Survey respondents showed interest in having knowledge translation training and support on a number of topics (see Table 2). More than fifty survey respondents reported they would like training in developing key measures, identifying measures of impact, and developing, implementing and evaluating a research plan. More than thirty survey respondents showed interest in all other topics. One respondent suggested that they would also like training and support in developing strategies and opportunities for working with other project teams.

Table 2: Would you be interested in having research translation support or training in any of the following topics? (n=72).

TOPIC	NO OF SURVEY RESPONDENTS INTERESTED IN TRAINING OR SUPPORT
<b>Research translation</b>	
Developing a research translation plan	55
Implementing a research translation plan	52
Evaluating a research translation plan	55
<b>Dissemination</b>	
Developing a dissemination plan	47
Developing key messages	57
Communicating using plain language (written or verbal)	39
Targeting communications to specific audiences	47
Working with the media	38
<b>Synthesis</b>	
Conducting evidence synthesis	31
Communicating evidence synthesis (summaries, policy briefs, practice briefs)	44
<b>Knowledge exchange/research engagement</b>	
Building relationships, identifying key stakeholders, working with decision-makers	45
Using social media or web-based tools for knowledge exchange	42
<b>Application</b>	
Developing evidence-informed practices and programs	39
Research translation related to the commercialisation of products or services	30
<b>Metrics</b>	
Identifying measures of impact	56
Other training/support	1

Survey respondents were interested in receiving training and support in a range of ways including: a toolkit/how to guides, seminars; face-to-face support; templates; and webinars and online training resources. Email and phone support were less popular options (see Figure 11).



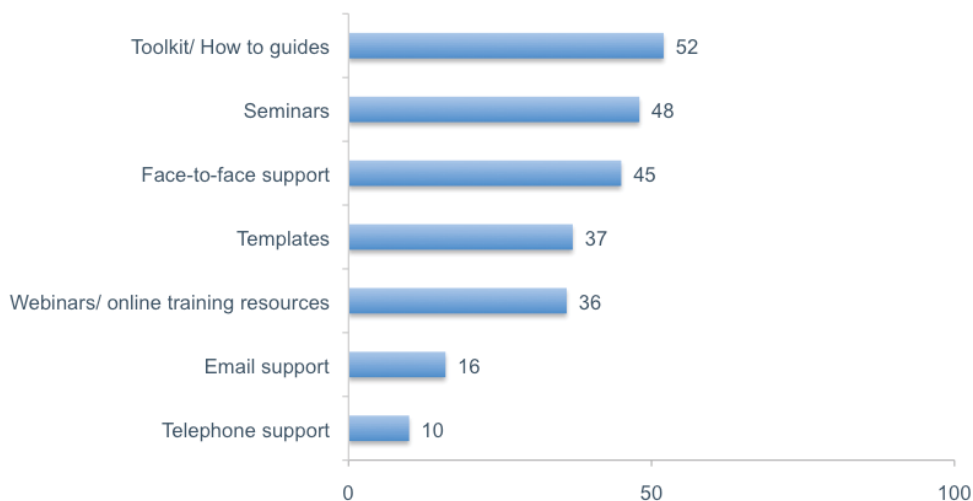


Figure 11: What types of research translation training/support would you find most useful? (n=70).

## Informing the Melbourne Children’s Knowledge Translation and Research Impact Framework

The findings from the consultations were used in conjunction with the Discussion Paper and the Environmental Scan and supplemented with expert advice from internal and external experts to inform the development of the Melbourne Children’s Knowledge Translation and Research Impact Framework.

For details on the Framework, please refer to the final report from this project: *The Melbourne Children’s Knowledge Translation and Research Impact Framework. Final Report: A Framework for Action.*

# Appendices

## Appendix A: Campus online survey

### Information about your work

1. What area/s do you work in? (Tick all that apply)

Research	<input type="checkbox"/>
Clinical Care	<input type="checkbox"/>
Training and education	<input type="checkbox"/>
Other <i>(please specify)</i>	<input type="checkbox"/>

*[You indicated at [Q1] you work in Research]*

1. (a) What type of research most closely aligns with your work? (Tick all that apply)

Cell Biology	<input type="checkbox"/>
Clinical sciences	<input type="checkbox"/>
Genetics	<input type="checkbox"/>
Infection and Immunity	<input type="checkbox"/>
Data Science	<input type="checkbox"/>
Population Health	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>

*[You indicated at [Q1] you work in Research]*

- 1 (b) Are you working in any of the following areas? (Tick all that apply)

Genomics and personalised medicine	<input type="checkbox"/>
Global Health	<input type="checkbox"/>
Health Services Research	<input type="checkbox"/>
Melbourne Children's Trials Centre	<input type="checkbox"/>
Generation Victoria	<input type="checkbox"/>
LifeCourse	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>

*[You indicated at [Q1] you work in Research]*

1 (c) Are you working with any of the Centres of Research Excellence? (Tick all that apply)

Food and Allergy Research	<input type="checkbox"/>
Child Language	<input type="checkbox"/>
Cerebral Palsy	<input type="checkbox"/>
Neuromuscular Disorders	<input type="checkbox"/>
Newborn medicine	<input type="checkbox"/>
Pneumococcal Vaccinology	<input type="checkbox"/>
Paediatric Emergency Medicine Centre	<input type="checkbox"/>
The Victorian Centre for Biostatistics	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>

*[You indicated at [Q1] you work in Clinical Care]*

2. Which Department and/or Service at RCH do you work for?

*[You indicated at [Q1] you work in Research]*

3. Which of the following organisations fund or support your research? (Tick all that apply)

MCRI	<input type="checkbox"/>
RCH	<input type="checkbox"/>
University of Melbourne	<input type="checkbox"/>
National Health Medical Research Council	<input type="checkbox"/>
Australian Research Council	<input type="checkbox"/>
Philanthropy (please specify)	<input type="checkbox"/>
Royal Children's Hospital Foundation	<input type="checkbox"/>
State Government (please specify Department)	<input type="checkbox"/>
Federal Government (please specify Department)	<input type="checkbox"/>
Other funding (please specify)	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>

*[You indicated at Q3 that you are funded and/or supported by [organisation name]]*

**3 (a)** Are you required to report on research translation activities or research impact to this organisation?

Yes - during proposal/grant application phase	<input type="checkbox"/>
Yes - at project start	<input type="checkbox"/>
Yes - when reporting project progress	<input type="checkbox"/>
Yes - at project close/final report phase	<input type="checkbox"/>
Yes – at other time (please specify)	<input type="checkbox"/>
No	<input type="checkbox"/>
Don't know	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>

**Questions about the impact of your work:**

4. Research impact is the demonstrable contribution that research makes to the economy, society, culture, national security, public policy or services, health, the environment, or quality of life, beyond contributions to academia. (ARC, 2012)

**Which of the following impact areas (used by the Canadian Academy of Health Science Impact Framework) are relevant to your work?**

	Not relevant	Somewhat relevant	Relevant	Highly relevant	Don't know
<b>Advancing knowledge</b> , for example, publications, citations and other knowledge dissemination activities to generate awareness of your research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Building research capacity</b> , for example, additional funding and infrastructure, researcher training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Informing decision making</b> , for example, public health, policy, education, industry and general public	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Health impacts</b> , for example clinical practice and guidelines, health status, determinants of health, health system changes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Economic impacts</b> , for example, reducing the cost of care or treatment or commercialising products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Social impacts</b> , for example, increasing wellbeing and socio-economic benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other impacts</b> (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Which of the following activities do you undertake to engage others with your work? (Tick all that apply)

Reports	<input type="checkbox"/>
Academic presentations or seminars	<input type="checkbox"/>
Journal articles	<input type="checkbox"/>
Mass Media (i.e. media release, TV, radio, newspaper)	<input type="checkbox"/>
Social media (i.e. Blogs, Twitter, YouTube)	<input type="checkbox"/>
Seminars, forums, conferences, roundtables	<input type="checkbox"/>
Engagement with consumers including public forums	<input type="checkbox"/>
Engagement with government, services, peak bodies	<input type="checkbox"/>
Engagement with researchers	<input type="checkbox"/>
Education and training (i.e. webinars, online training, podcasts)	<input type="checkbox"/>
Communities of practice	<input type="checkbox"/>
Commercialisation	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>

## Questions about the current and future use of research translation to increase the impact of your work:

6. Do you use any of the following strategies to measure impact? (Tick all that apply)

Citation impacts	<input type="checkbox"/>
Journal impact factors	<input type="checkbox"/>
Altmetrics	<input type="checkbox"/>
Case studies	<input type="checkbox"/>
Economic analysis or evaluation	<input type="checkbox"/>
Evaluation of research	<input type="checkbox"/>
Questionnaires or Surveys	<input type="checkbox"/>
Patient satisfaction measures	<input type="checkbox"/>
Student evaluation	<input type="checkbox"/>
Commercialisation measures	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>

7. What challenges do you face in planning for, achieving, measuring and reporting impacts?

8. What would help you to plan for, achieve, measure and report impacts?

9. Would you be interested in having research translation support or training in any of the following topics?

	Interested (beginner)	Interested (intermediate)	Interested (advanced)	Not interested	Don't know
<b>Research translation</b>					
Developing a research translation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implementing a research translation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evaluating a research translation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Dissemination</b>					
Developing a dissemination plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing key messages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicating using plain language (written or verbal)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Targeting communications to specific audiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with the media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Synthesis</b>					
Conducting evidence synthesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicating evidence synthesis (summaries, policy briefs, practice briefs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Knowledge exchange/research engagement</b>					
Building relationships, identifying key stakeholders, working with decision-makers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Interested (beginner)	Interested (intermediate)	Interested (advanced)	Not interested	Don't know
Using social media or web-based tools for knowledge exchange	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Application</b>					
Developing evidence-informed practices and programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research translation related to the commercialisation of products or services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Metrics</b>					
Identifying measures of impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other training/ support</b> (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. What types of research translation training/support would you find most useful?

	Not useful	Somewhat useful	Useful	Very useful	Don't know
Toolkit/ How to guides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Templates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Webinars/ online training resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Face-to-face support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telephone support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Email support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other training/support</b> (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Do you have any other comments or suggestions related to research translation or research impact?

THANK YOU FOR YOUR FEEDBACK

## Appendix B: External stakeholder interview schedule

1. From your perspective, have you witnessed any change in how research translation and impact has been valued, measured, reported or supported over recent years?
2. What are your reflections on how research translation and impact may be valued, measured or reported in the future? [Prompt: How significant is research impact in your field?]
3. In thinking about our task of creating a framework and supports for measuring impact from campus research and translation activity (from your perspective as a funder of research/from your perspective as a user of research) what is your advice for:
  - (a) How we define impact areas in our framework – with relevance to your goals [Prompt: have you seen any good examples? Impact areas (used by the Canadian Academy of Health Science Impact Framework) include Advancing knowledge, Building research capacity, Informing decision making, Health impacts, Economic impacts, Social impacts]
  - (b) How we measure and report impacts to you, to others?
  - (c) How we build capacity within MCRI for research translation, impact planning and reporting?
  - (d) How we reward researchers who are successful in achieving impact?
4. What do you see as the main barriers and enablers to research achieving impact? [Prompt: Are you aware of/ do you recommend any strategies to address these?]
5. What key considerations should we have in mind when developing an impact framework? [Prompt: measurement considerations, implementation considerations]



## Appendix C: Campus stakeholder interview

### CURRENT

1. Can you tell me about your role across the campus? *[Prompt: theme leader, research group leader, dept. head, clinician]*
2. How relevant are the following impact areas (used by the Canadian Academy of Health Science Impact Framework) to your work? (i.e. not relevant, somewhat relevant, relevant, highly relevant)
  - (a) **Advancing knowledge**, for example, publications, citations and other knowledge dissemination activities to generate awareness of your research
  - (b) **Building research capacity**, for example, additional funding and infrastructure, researcher training
  - (c) **Informing decision making**, for example, public health, policy, education, industry and general public
  - (d) **Health impacts**, for example, health status, determinants of health, health system changes.
  - (e) **Economic impacts**, for example, reducing the cost of care or treatment or commercialising products
  - (f) **Social impacts**, for example, increasing well-being and socio-economic benefits
3. Are there any other impact areas (not captured above) that are important to your work?
4. Can you describe how you would typically plan, measure and report on impacts in a project?  
*[Prompt: Can you describe the process? What are the strengths and challenges of this approach?]*
  - Application phase: e.g. to identify impact at the outset or translation strategies that link research to impact
  - Reporting progress phase: e.g. reporting on strategies for achieving impact or actual impact?
  - Final report phase: e.g. reporting on the strategies applied for impact or actual impacts?
5. How do you measure the impact of your research?
  - (a) What are some of the challenges that you face in measuring impact?
6. Do you have any impact measurement and reporting requirements for your projects?
  - (a) Funders *[Prompt: process (application, progress report, final report), reflections, suggested improvements?]*
  - (b) Campus requirements *[Prompt: process (application, progress report, final report), reflections, suggested improvements?]*
  - (c) Do you currently report on impact if you are not required to? *[Prompt: process]*

### FUTURE

7. What are your thoughts on the future directions – in Australia and internationally – for how research translation and impact may be valued, measured, or required? *[Prompt: recent changes]*
8. In thinking about our task of creating a framework and providing support for measuring impact from campus research and translation activity, do you have any advice or recommendations for us?  
*[Prompt: e.g. How we define impact areas or goals; how we measure and report impacts?; How we build capacity within MCRI for research translation, impact planning and reporting; How researchers are rewarded for being successful in achieving impact?]*
9. What do you see as the main barriers and enablers to research achieving impact?
  - (a) What do you suggest MCRI/RCH/UniMelb paediatrics campus partners do to address these?

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## **Centre for Community Child Health**

The Royal Children's Hospital Melbourne  
50 Flemington Road Parkville Victoria 3052 Australia  
[www.rch.org.au/ccch](http://www.rch.org.au/ccch)

The Centre for Community Child Health is a department of The Royal Children's Hospital  
and a research group of Murdoch Childrens Research Institute.