Do traditional research impact metrics miss some important contributions of rural research?

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Who are we?

THE SCHOOL OF RURAL HEALTH

Broken Hill
University Department of Rural Health

Lismore

Dubbo

Orange

Sydney
Background

What made us start to think about research impact?
– new RHMT framework research strategic plan for 3 institutions

Development of plan led us to think RCS/UDRHs:
– contribute something unique in terms of rural research
– do things differently than metropolitan clinical schools
– suspect this is not adequately captured in research impact metrics

Lead to exploring concepts of research impact:
– as discussed by others
– in-house discuss contributions of research by SRH, UCRH, UDRH
What did we find out about research impact?

1. it’s complicated!

- Many, many theories
  - business management
  - economics
  - social sciences

- When we think of impact are we concerned with outcomes or with processes / relationships?

- Often we only see impact after considerable time has passed … how can we envisage what an impact pathway might look like beforehand?

- We tend towards counting what is easily measured
What did we find out about research impact?

2. It’s a timely discussion

- increased dependence of researchers on funding

- funders seeking to determine “value” for their investments
  - particularly relevant in Aboriginal health
    (see Ramanathan et al. 2017; BMJ Open 7:e018572)

- Greater public expectation re: using tax payer $s well

- High on the Australian national research agenda
  - development of national impact metrics
  - ARCs engagement and impact assessment framework (El 2018)
  - NHMRC ‘in development’ impact assessment framework (will be a criterion in track records)
What did we find out about research impact?

3. it’s a global hot topic

- UK the only nation where measuring research impact is mandated
- 2014 UKs Research Excellence Framework and impact narratives or “REF Impact Case Studies”
- Attempt to assess impact of research outside of academia
- Defined as “an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”
- What does the narrative include:
  - describe the problem
  - how we solved it
  - significance
  - reach
World-renowned public health expert Professor Trisha Greenhalgh to deliver Sydney lecture on measuring the impact of research


World-renowned public health expert, and advocate for increasing the use of knowledge in healthcare policy and practice, Professor Trisha Greenhalgh OBE will return to Australia this March to deliver a public lecture in Sydney, hosted by the Sax Institute and the three National Health and Medical Research Council partnership centres.

Speaking ahead of her visit, Professor Greenhalgh said her lecture – Measuring the impact of research: tensions, paradoxes and lessons from the UK – would deal with increasing pressure for academics to achieve ‘impact’, even though this term means different things to different people.
Other definitions of research impact

1. Australian Research Council (ARC, 2017)

<table>
<thead>
<tr>
<th>Definition of impact</th>
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<tr>
<td>Refining the <strong>definition of impact</strong> as follows (to include explicit reference to culture):</td>
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<tr>
<td>The contribution that research makes to the economy, society, environment and culture beyond the contribution to academic research.</td>
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A **social contract** between science and society which entails that research must address pressing social issues which include social, cultural, environmental and economic returns.
Definitions of research impact continued:

3. Greenhalgh & Fahy (2015) and the UK Research Excellence Framework

Impact beyond academia …

“… benefits to one or more areas of the economy, society, culture, public policy and services, health, production, environment, international development or quality of life, whether locally, regionally, nationally or internationally” (paragraph 62) and as “…

Beneficiaries may be individuals, organisations, communities, regions and other entities.

4. Cruz Rivera et al. (2017):

- **Research impact**: ‘any identifiable benefit to, or positive influence on, the economy, society, public policy or services, health, the environment, quality of life, or academia’
What are the traditional research impact metrics?

– Bibliometrics
  • Individual level: H factor
  • Publication level: number of citations
  • Journal level: impact factors

– Economic indices
  • Grant income
  • Research commercialisation income (patents/devices/drugs)
  • Cash support from end users
Different approaches we discovered

– There are no universally agreed ways to measure research impact

– Milat et al. (2015) review identified 16 different assessment models
  • ‘payback’ model most frequent
  • Program logic models
  • Health economics / economic evaluations
  • Narratives

– Raftery et al. (2016) identified 20 conceptual frameworks and commented on increasing complexity and diversity in the field

– Cruz-Riviera et al. (2017) review identified 24 methodological frameworks, and five broad categories of impact
Original Article

‘Making evidence count’: A framework to monitor the impact of health services research

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Altmetrics

IT'S ALL VERY WELL "MAKING DISCOVERIES", "SAVING LIVES" AND "IMPROVING THE WORLD", ROGER. BUT YOUR RESEARCH IS MAKING BARELY ANY IMPACT ON SOCIAL MEDIA.
The array of potential metrics is expanding!

- Altmetric Attention Score
- Blog Mentions
- Citations, articles
- Downloads, articles
- Facebook: comments, likes, and shares
- Faculty of 1000 Prime: FFa, ratings, reviews
- Mendeley Readers
- News Mentions
- Policy Mentions
- Publons Score
- Pubpeer Comments
- Relative Citation Ratio
- Twitter Mentions
- Wikipedia Citations

Sourced from: http://www.metrics-toolkit.org/explore-metrics/#1628+type-of-research-object:outputs-journal-articles
How did we review different approaches to measuring research impact?

**Aim:** to review relevance and applicability of different approaches to monitoring and evaluating research impacts in the context of rural research conducted by the University of Sydney

**Method:** staff roundtable (world café) style session Dec 2017
Roundtable discussions

**Question 1:**
Consider the definitions of research impact and traditional research metrics. Are these relevant for rural research?

**Question 2:**
What research does a RCS/UDRH do that otherwise wouldn’t be funded or done by others. Are there other research benefits of a RCS/UDRH?

**Question 3:**
Think of ‘good’ examples of research impact (research which makes a contribution) relevant to you and relating to rural practice.
Q1. Traditional metrics: are they relevant?

– They are narrow, focus on economics and academia
– Less focus on social, environmental and cultural benefits to individuals, communities and regions
– Rural research struggles with generalisability (due to population size, specific outcomes which are place/locality based)
– Monetary motivators can limit interest in investment in rural specific studies

– Current metrics
  • are not equitable
  • lack consideration of social responsibility
  • do not allow time to determine if research output is efficacious
Q2. What research does a RCS/UHRD do that otherwise wouldn't be funded or done by others?

- Topics might be similar
- Scope is smaller and applied
- Philosophy ‘moral purpose’ and participatory approach are main differences
Q2 Research benefits of a RCS/UDRH

- Research is undertaken with shared goal of improving rural health underpinned by relational and social responsibilities between the community, services and researchers

- People and organisational partners have a voice in developing and undertaking research conducted in rural settings

- Research outcomes are trusted as a result of this involvement and this changes the way people think about daily problems within their industry, implementing change at a local level.

- Long term outcomes are valued, e.g. development of research skills in clinicians, opportunities for thorough evaluation and subsequent improvements in programs and services

- Reflecting community values, social and health outcomes are valued over traditional research metrics such as publications and economic gains
Q3. An example of research impact from a SRH study

Aboriginal people’s stories of diabetes care in Dubbo
Contribution to academia

Publications

• Conference papers
• Journal article
• Book chapter
Contribution to a better society

Clinician involvement in all stages of the research

- Workforce development
- Increased job satisfaction in ‘solving’ long term problems
- Skills learnt applied to evaluation of other projects in broader work team

Focus groups led to establishment of the Aboriginal Chronic Disease Support Group

- Community networks/overlapping interests
- Mechanism and safe place for ongoing relationship
- Reciprocal benefits for clinicians and community eg clinical consultation

Aboriginal Community Working Party initiating ongoing communication

- Advocacy, self-determination, focus on community benefit
- Yarning in healthcare settings requested by the community
- Better teacher
Discussion

– In summary, measuring impact is on the agenda, but it is very tricky
– RCS/UDRHS contributions reflect cultural differences (between metropolitan and rural patients / place)
– Institutions need to:
  • take a strategic approach to impact
  • identify their moral narrative. Is it:
    o academic or societal
    o short or long term
    o individual or institutional
    o about building capacity or bringing in $
  • identify which metrics are prioritised and which are rejected
Academic ‘gaming’ versus ‘the responsible turn’

“Different ways of defining research impact drive different activities in higher education …
If we define impact in terms of publishing in high-status academic journals, that’s all most academics will do.

But we could define impact more broadly – in terms of research that changes policy … or research that contributes to a better society – for example by promoting public debate, enabling better use of societal resources or contributing to sustainability of the planet.”

Professor Greenhalgh, 2018
Conclusions

– Until now, in Australia traditional research metrics have privileged research conducted in metropolitan settings

– Traditional metrics fail to adequately reflect the broad *societal impacts* delivered by research conducted by RCS/UDRHs

– We look forward to the ARC and NHMRC research impact frameworks which may confer a *rural advantage*
Discussion questions for the audience:

— Has your institution taken a strategic approach to the assessment of impact?

— How easy / hard will it be to develop evidence around impact?
Thank you.

https://quoteinvestigator.com/wpcontent/uploads/2013/04/muttjeff01.jpg

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