Incorporating Health Economics into Grant Proposals

Health Economics Short Course

For more information and course dates, please visit our website: http://go.unimelb.edu.au/i8ba
Or email us: health-economics@unimelb.edu.au

Economics of grants & ingredients for success

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Funding grant proposals for scientific research: retrospective analysis of scores by members of grant review panel

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- Scoring has a random element, but your grant needs to be competitive to have a chance;
- Grant are costly to prepare & write (Project grant take around 500 years of researcher time- take away peoples summers)
- Malthusian world – more money leads to more researchers (supervisors have ability to reproduce themselves)

Some evidence...

- BMJ study looked at the impact of scoring variation on GRP on chance of grant receiving funding
- We had access to the de-identified scores of all NHMRC GRP from one funding round (2009)
- Show considerable intra panel variation

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A reliability experiment

- On the back of the BMJ paper submitted a NHMRC grant proposal for a reliability experiment – involving duplicating grant applications and having two panels independently assess the same panel;
- Took a year of negotiation to have a "meeting of minds" with the NHMRC secretariat.
- Ended up with an experiment on Early Career Fellowships

Reliability results

- 60 duplicate applications assessed by 2 panels
- Double blind study – only NHMRC know allocation
- High reliability – 83% agreement

Why so reliable

- Track record maybe more easily assessed
- More homogeneous group?
- Process-independent rather than group assessment
- More research needed!

Randomise funding

- Have advocated randomly allocating funding after sorting applications maybe for the middle group
- Would stop any perceived bias/discrimination of marginal applicants
- Could save time
- Recognize that funding is random anyway
- Currently working with HRC in NZ on a scheme where funding is randomly allocated to see effect of grant funding on research productivity

Funding environment

- Need to recognize that level NHMRC funding is not likely to increase;
- Structural review may (MRFF) lead to some change in type of grants – need to quickly adapt to new rules when they are finalized
- Do a cost-benefit analysis on your time – what is the success rate – who got funded last time
- I don’t submit a grant as lead applicant unless I am convinced it makes a compelling case for funding
General tips:

- People support – need to think across full range of domains of track record (scope to improve is very limited closer you are to application time)
- Project funding – team is critical – cover all bases;
- Get feedback/mentorship
- Make the most of your existing funds
- Be very dispassionate when responding to reviewers comments

Reasons to Collaborate:

- Collaboration represents trade between researchers;
- Clear gains as it allows people to specialize, but there must be gains from trade;
- Only four reasons to collaborate and so each party must be exchanging:
  - Data
  - Money
  - Skills
  - Enjoyment of academic interaction

Collaboration: Ingredients for Success

1. In theory grant collaborations should work as both parties have a common goal – high quality publications
2. Clear understanding of roles and responsibilities on project
3. If you want people to do a hard days work – you need to pay them!
4. If things become difficult - try to think of it from the other researchers perspective

UKPDS: Case study

- United Kingdom Prospective Diabetes Study was one of the first large RCT to include economic evaluation
- Reported in September 1998
- Of the 40 publications since publications of main trial results, around 10 have a health economic focus
- Continued collaboration 15 years on

Initial outputs

Three economic evaluations alongside the RCT:
- Two in BMJ
- One in Diabetologia

Policy paper: Cost of implementation

- Cost of implementation of the program in the UK
- Published in the BMJ 2002
Effect of complications on costs & quality of life

- Two papers: 1 on costs (Diabetic Medicine) and 1 utility (Medical Decision Making)
- Trying to capture the degree to which complications contribute to the burden of the disease
- Widely used by other researchers as inputs into their own evaluations

Building a Simulation Model

UKPDS – describes a simulation model for projecting QALYs for people with diabetes

- Used over 150 research groups world-wide
- 200 citations