

Research Translation Projects

'Evidence for a Sustainable Health System'

Economic protocols

Advice contained in this document is provided to assist with the development of the plan for economic analysis for your Research Translation Project (RTP) proposal. In particular, to assist you to be able to demonstrate the extent of the 'return-on-investment' brought about by your research project at its completion.

This information sheet should be consulted when addressing Section 8 of the RTP Application Form.

1. Ensure that the economic aims are consistent with the target group and the time horizon.
 - If modelling is included, or if the economic results are projected beyond the length of the trial, this should be separately addressed in relation to the trial results. For example, short term outcomes measured within the trial period may provide a surrogate outcome such as prevention of heart attacks, but the longer term outcome of reduced mortality will require modelling based on a range of assumptions.
2. Identify the baseline comparator.
 - This is usually represented by the control group in a randomised controlled trial, or a 'no treatment' group for comparison in an observational study.
3. Identify the resource components that are required for the intervention.
 - Net costs reflect the difference between the intervention and control groups, so only resources that will be different between the intervention and the status quo need to be identified. Ensure all relevant resources are included including staff time, repeat testing etc.
4. Provide details on how resource units will be collected and measured
 - For example, how will units of staff time be measured? Is there a proportional allocation of time for diagnostic equipment? How will consumables be tracked?
5. Provide details on the source of cost data that will be applied to resource units.
 - A good cost source is the Manual of Resource Items that can be accessed through the PBAC site ([Manual of Resource Items and their Associated Costs](#)). Costs can be applied as 'bottom-up' or 'top-down'. The 'bottom-up' approach involves measuring each of the resources required (e.g. a nurse

coordinator, diagnostic equipment etc.) and applying a unit cost to this resource use. The 'top-down' approach takes a whole estimate and allocates down proportionately on the basis of the relative share of resource use. It is worth noting that this method won't necessarily be as accurate but may be more convenient.

- Beware if you are using *prices* (for example the cost of a hip prosthesis may vary according to choice). Use opportunity costs – that is, the value according to how the money would be used alternatively.
 - Recognise the difference between marginal and average costs. The purpose is to measure the additional cost incurred as a result of the intervention, so cost should reflect a marginal difference rather than an average unit overall.
 - If you cannot get local or specific costs, use state or national costs (preferably Australian ones!). These might be available in other reports from other institutions or even from published literature in your field. Be aware that international costs are difficult to compare across countries.
 - Costs from previous years should be *inflated* using a health price index (preferably) or an alternative price index such as the consumer price index (CPI) to reference all costs to the base year of your study. (Real costs rather than nominal costs).
 - If equipment is a significant cost item, then annuitisation may be required to calculate an attributable annual cost. Maintenance and associated consumables should also be included.
 - As a general rule costs and benefits are worth less in the future than they are in the present and they will need *discounting* to adjust for this. This is a separate concept from inflation. Standard methods for discounting the future costs are available using tables from economic or accounting text-books. If you need to discount any costs (because they fall in a vastly different period of time) and are a bit unsure how to do this, then seek advice from your economic advisor. Your liaison officer in the Research Development Unit may be able to assist you in locating this expertise.
6. Estimate the predicted benefits and cost-savings (dollar values) to WA Health that will result from this project and if applicable, from the wider implementation of research findings, e.g. from roll-out to other suitable areas (Based on expected findings and population data).

Further information can be obtained by contacting the Research Development Unit (RDU), Clinical Services and Research, Department of Health by [email](#) or telephone: (08) 9222 4053.

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