Using Cost-Benefit Analysis to Determine an Accurate Value for Research Biobanking

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Background

Human tissue biobanking is a common activity that supports biomedical research through the provision of biospecimens and associated data. Biobanks differ according to factors such as type of researcher access (restricted versus open) and networked status (stand-alone versus networked biobanks). Many biobanks report challenges in achieving financial sustainability, leading to a failure to capitalise on investments, and wasted resources. We propose that a lack of data concerning biobank outputs, and their value, represents a threat to sustainability.

Objectives

To determine an accurate 'value' for a NSW cancer biobank cohort, using economic techniques.

Method

A cohort of NSW cancer biobanks (n=18) was identified, and a face to face survey piloted and delivered including questions on biobank access, networking, Best Practice awareness, and accreditation. Allowing time for biobank outputs to accumulate, a second survey was designed four years later to seek information on monetary and non-monetary costs of biobank operations, funding received, cost recovery and biobank outputs (eg. research publications, clinical trial and personalised medicine support).

Results

Open access NSW cancer biobanks employed significantly more full-time equivalent staff, and were significantly more likely to feature a website, share staff between biobanks, access governance support, utilise quality control measures, be aware of Best Practice documents, and offer staff training. Restricted access biobanks were significantly more likely to seek advice from other biobanks. We will present preliminary data on operating costs, outputs and any associations with access policy and other biobank characteristics. Cost-benefit and cost-consequence analyses will be presented for the same cohort.