

Guide

How to produce a social investment evidence brief

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Resources, tools and guides

The SIU is developing a range of tools, products and guidance to enable agencies to develop their social investment approaches, and analyse and measure the impact and effectiveness of the services they're delivering.

Why evidence briefs?

This guide provides a step-by-step approach to producing a 'social investment evidence brief' quickly and to a high standard.

An evidence brief is a practical, usable way of ensuring we have the empirical evidence about *what works, for whom and at what cost* by summarising what we already know.

It provides a guide to where evaluative effort needs to be invested in pilots and impact evaluation, and also helps select and prioritise pilots for interventions that are as yet untried in New Zealand.

Traditionally, literature reviews have provided evidence on whether an intervention works, but have not included information on the costs, benefits and value for money. A 'social investment evidence brief' combines financial cost and benefit information with information on effectiveness.

The end goal of an evidence brief is to show which interventions, tried in the past, had the greatest positive impact on people's long-term life outcomes, for the money invested.

Often the need for a robust evidence base can conflict with the need to make decisions in tight timeframes. Preparing an evidence brief can reconcile these conflicting needs because it:

- Is quicker to produce than a literature review (4-6 weeks compared with six months plus)
- Has core conclusions similar¹ to those of a full literature review
- Makes explicit about what is known and unknown in a subject area and the quality of the available data or research
- Is clear in communicating probabilities and magnitude of effects
- Makes evidence more usable for decision-makers²
- Uses standards of evidence as a shorthand to signal quality and develop a shared understanding of what robust evidence means
- Focuses on long-term outcomes at the level of the individual.

In addition, an evidence brief can:

- Guide data analysis by providing data scientists with the **underlying causal logic** behind complex social interventions. This improves the quality of analysis by:
 - Identifying potential biases in the data
 - Identifying the scope and range of variables that are important to include in the analysis
 - Suggesting the type of statistical model that might be useful
- Provide decision-makers with information on **new evidence-based interventions** that could be piloted if analysis finds that we have scope to increase the impact of our social interventions
- Indicate where and how to **adapt an intervention** to make it better targeted or more effective
- Indicate interventions that have **minimal or negative impact**, i.e. what we should consider adapting/stopping

1 Watt A, Cameron A, Sturm L, Lathlean T, Babidge W, Blamey S: Rapid versus full systematic reviews: validity in clinical practice?. ANZ J Surg. 2008, 78: 1037-1040. 10.1111/j.1445-2197.2008.04730.x.

2 Evidence shows that paying attention to the usability of evidence can improve decision quality and cost-effectiveness. Watt A, Cameron A, Sturm L, Lathlean T, Babidge W, Blamey S: Rapid versus full systematic reviews: validity in clinical practice?. ANZ J Surg. 2008, 78: 1037-1040. 10.1111/j.1445-2197.2008.04730.x.

- Provide decision-makers with information on **key policy, equity or interpretive concerns** that frame discussions within the subject area.

STEP 1 Asking a social investment question

A social investment evidence brief informs decision-makers about what interventions are being made in an area of interest and their differing impacts, e.g. how much change did they deliver and for what cost?

The first step is to use research questions to gather information on the specifics, for example:

- What is the impact(s) of the intervention?
- What are the characteristics of the population group who experienced it?
- What is the cost of the intervention per individual?

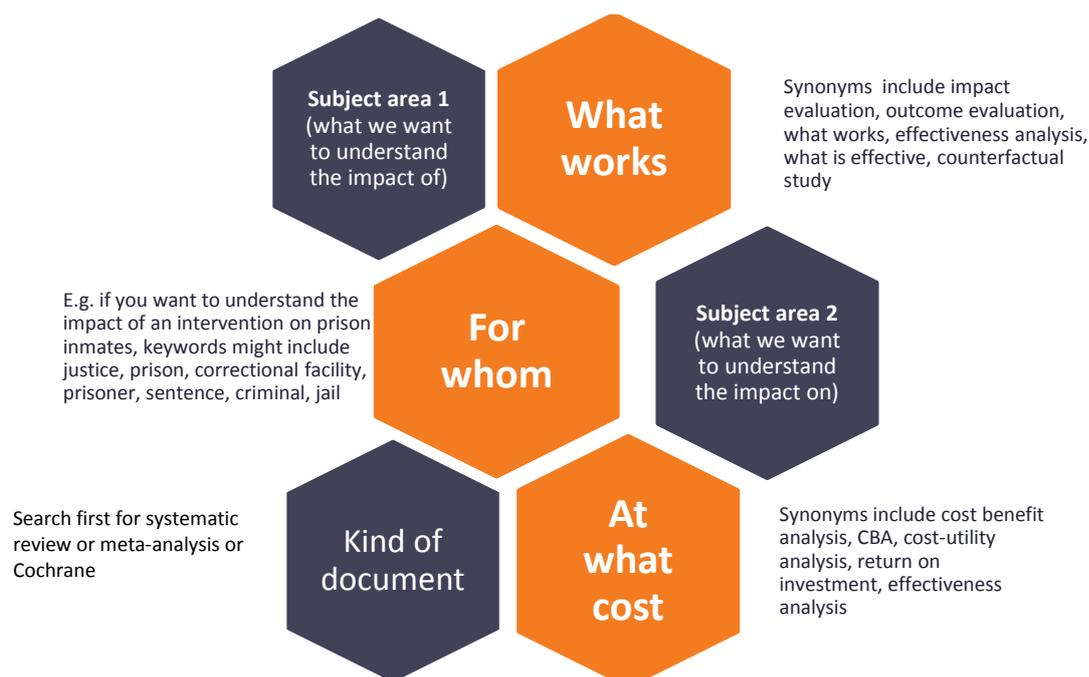
By asking these questions, an evidence brief indicates the most effective interventions so decision-makers know where to focus.

STEP 2 Using the right search keywords

To find all the relevant information on your topic, invest time into developing a ‘search string’ that will bring up **all** the relevant studies in your subject area. To do this, you need to:

- Break your topic down into concept groups
- Generate synonyms for each of the groups.

Because you know you’re looking for information on *what works for whom at what cost*, some of your most important concept groups and keywords are already identified:



STEP 3 Building on the work of others

An evidence brief uses systematic reviews and meta-analyses to make the evidence selection process quicker. Meta-analyses summarise systematic reviews.

Systematic reviews are an efficient way of gathering relevant evidence. Instead of gathering all evidence individually, look for one paper that gathers, rates and synthesises the research on the topic. Systematic reviews summarise primary-level evidence, minimising the potential bias and/or errors from reviewing primary evidence too quickly. They also reduce the risk of duplication.

STEP 4 Searching in the right places

For systematic reviews and meta-analyses

Start the search for systematic reviews at the [Cochrane Library](#) of Systematic Reviews and the [Campbell Collaboration](#). Academic databases are also a good source of systematic reviews that may be produced by sources other than Cochrane or Campbell.

A quality systematic review should demonstrate the evidence meets a certain standard. The Cochrane and Campbell systems have to meet rigorous standards before they are accepted into the library. Check the reviews you find from other sources against Cochrane's quality standards, or the simple AMSTEL standards, to understand the quality of the review.

If there isn't a systematic review available on a particular topic, or the systematic review needs updating, individual pieces of evidence can be used.

For individual pieces of evidence

Academic databases are your key source for individual pieces of research. The specific databases you need to search will differ by subject matter. If you're from a government agency, you may have a research/information team who can organise access to databases; otherwise public libraries often provide access to research databases.

Google Scholar should be one of your sources, but it misses a lot of high quality research from quality journals, so don't make it your only source.

STEP 5 Searching effectively

The search engines of academic databases aren't as sophisticated as Google. Rather than just typing text in, a database needs you to structure your query more actively to get a full set of relevant results.

Check the 'Help' section of your search database for details on how to structure your query so it picks up all the relevant information (e.g. using a star* at the end of a word may search for all words starting with those letters – impact* will bring up results with the words impact, impacts, impacting, impacted).

The Help section is also the place to go for information on how to build a search, e.g. the search string “(Cat* or kitten* or kitt*) and (Dog* or hound* or pupp*)” will find many more relevant results than just searching for ‘cats and dogs’.

STEP 6 Rating the evidence

Use a standard of evidence to rate individual pieces of research and prefer the highest rated

Ideally, there will be a high quality systematic review available on your chosen topic. However, if you are also using individual pieces of evidence, grade them on a standard of evidence to signal the level of confidence readers can have in each piece of evidence. For transparency, provide or reference the standards used.

There is no one agreed international scale to rate published research for quality and strength of evidence. We recommend using the Maryland Scientific Methods Scale (MSM). This is a five-point scale ranging from 1, for evaluations based on simple cross sectional correlations, to 5 for randomised control trials.

We recommend using only those impact evaluations that score 3 or above on the MSM. The benefit of using robust systematic reviews is that they score the individual studies for you, so you don't have to go through this step.

Quick summary of MSM five-point scale

1. Either (a) a cross-sectional comparison of treated groups with untreated groups, or (b) a before-and-after comparison of treated group, without an untreated comparison group.
No use of control variables in statistical analysis to adjust for differences between treated and untreated groups or periods.
2. Use of adequate control variables and either (a) a cross-sectional comparison of treated groups with untreated groups, or (b) a before-and-after comparison of treated group, without an untreated comparison group.

In (a), control variables or matching techniques used to account for cross-sectional differences between treated and controls groups. In (b), control variables are used to account for before-and-after changes in macro level factors.

3. Comparison of outcomes in treated group after an intervention, with outcomes in the treated group before the intervention, and a comparison group used to provide a counterfactual (e.g. difference in difference). Justification given to choice of comparator group that is argued to be similar to the treatment group. Evidence presented on comparability of treatment and control groups.

Techniques such as regression and propensity score matching may be used to adjust for difference between treated and untreated groups, but there are likely to be important unobserved differences remaining.

4. Quasi-randomness in treatment is exploited, so that it can be credibly held that treatment and control groups differ only in their exposure to the random allocation of treatment. This often entails the use of an instrument or discontinuity in treatment, the suitability of which should be adequately demonstrated and defended.
5. Reserved for research designs that involve explicit randomisation into treatment and control groups with Randomised Control Trials providing the definitive example. Extensive evidence provided on comparability of treatment and control groups, showing no significant differences in terms of levels or trends.

Control variables may be used to adjust for treatment and control group differences, but this adjustment should not have a large impact on the main results. Attention paid to problems of selective attrition from randomly assigned groups, which is shown to be of negligible importance. There should be limited or, ideally, no occurrence of ‘contamination’ of the control group with the treatment.

If there's not enough evidence

Evidence at MSM levels 1 and 2 is not sufficient for determining impact. It's worth noting that the results of a high-quality research project using the IDI will count as a single piece of evidence at level 3.

If there's not enough evidence to meet MSM levels 3-5, clearly signal this.

STEP 7 Writing up the evidence

The finished evidence brief will provide an overview of the evidence identified, in a logical order. The goal is to provide users with a sense of the volume and direction of the evidence that addresses the topic of interest.

See the **Appendix: Template** for a potential starting point for structuring the brief.

STEP 8 Peer review

Peer review, by subject matter experts in the topic area, is an important check on the quality of the draft evidence brief. It's also likely to improve your review.

Peer reviewers should provide detailed feedback of the draft along with recommendations to improve it. Consider the recommendations and criticisms and implement as appropriate.

STEP 9 Sharing your findings

Social investment evidence briefs provide a clear summary of effective past interventions in a particular social sector area. Once completed, the information needs to be shared with people who can use the knowledge to ask the right questions and take action.

One of the principles of social investment is to share knowledge widely. Publishing your brief online is a practical way of supporting this aim. In line with Open Government expectations, publish your evidence brief under a *Creative Commons* attribution BY licence so others can use, update and adapt it for their own purposes.

The published document should include the rating standard used and a list of references.

If you would like, please provide your completed evidence brief to the SIU – email info@siu.govt.nz.

After consultation with you, we may publish the brief on our website as an example of the social investment approach.

STEP 10 Next steps

Evidence briefs don't provide a solution in themselves. Gathering what's already known about *what works for whom at what cost* is just the beginning.

Once we know what does (and doesn't) work, the aim is for decision makers to use the knowledge to decide which new interventions to trial and evaluate, and which current interventions are priorities for review.

Further reading

- [Maryland Scientific Scale](#) (Ministry of Justice application)
- [Maryland Scientific Scale](#) (What Works Centre for Economic Growth UK application)
- [Creative Commons Licences for NZ Government](#)
- [Producing evidence of effectiveness: a guide to the main steps \(HACT UK\)](#)
- Ministry of Justice investment brief: [Correctional alcohol and drug treatment](#)
- Ministry of Justice investment brief: [Cognitive-behavioural therapy](#)

More information

This guide has been produced as part of a series available under the **Tools and guides** section of the SIU's website: www.siu.govt.nz e.g.

- The [Social Investment Measurement Map](#) (SIMM)
- The [Social Investment Analytical Layer](#) (SIAL) helps agencies understand the potential return on investment (ROI) before investing in a new service.

If you have any questions or feedback, email us at: info@siu.govt.nz

Appendix: Template – social investment evidence brief

Title

Give the brief a title that clearly states the topic area.

Introduction

Introduce the specific research question and the reason why it has been chosen.

Key findings

State the key findings of the brief. Give a clear, high level overview about what is known and unknown in the subject area and the overall quality of the available data. Make it clear where the strongest evidence of the strongest impact lies.

Context

Provide background information about the topic area. Give information about the causal logic chains underlying outcomes for individuals in the topic area.

Provide information about the process used to develop the evidence brief, including standards of evidence used and databases searched.

Outcomes

This section is the body of your evidence brief. Structuring by outcomes keeps the focus on what works.

Fiscal outcomes

Lead with the key message at the beginning of each paragraph.

Economic outcomes

Lead with the key message at the beginning of each paragraph.

Social outcomes

Lead with the key message at the beginning of each paragraph.

Conclusions

Summarise the overall availability and quality of evidence in your topic area.

Summarise findings, discuss their implications and give an overall summary of the main themes and issues.

Suggest areas for future impact evaluation/research to build the knowledge base.

Next steps

Explain how the brief will be used to support decisions. Look for opportunities to share your findings.

References

Reference all sources used in the development of the brief.