

## Evidence-based policy advice: using the evidence properly

### A topic of ongoing interest

We've written a couple of masterclasses on using data and evidence in policy advice.<sup>1, 2</sup> This topic is current again. When we wrote the original masterclass, President Trump was early in his first term, and we saw 'alternative facts' being discussed regularly.

In the 2024 reviews, we saw many excellent examples of using robust evidence from various agencies to underpin policy analysis. Done well, agencies have been delivering on Sir Peter Gluckman's demand<sup>3</sup> for evidence-based policy analysis for more than a decade.

But the most focus on this issue in more recent times (October 2024) has been in the controversy surrounding the Associate Minister of Health, Hon. Casey Costello's 'independent advice'<sup>4</sup> on smokefree policy, specifically the use of heated tobacco products in smoking cessation – and the identified flaws in that 'evidence'.<sup>5, 6</sup> We've just referenced a couple of the reported critiques of that evidence. But in summary:

- It was far from a full review of the evidence for and against, but a collection of five articles.

- There didn't seem to be an attempt to summarise the overall conclusions into a piece of advice – the selection of articles left to speak for themselves.
- Overall, the evidence was not conclusive.
- Two studies were of questionable applicability in the New Zealand setting due to different regulatory settings and product availability.
- One didn't discuss heated tobacco products at all.

Public health experts<sup>7</sup> seemed to agree that it was not the way to use evidence properly.

### Policy advisors do need some background in research methods

Epistemology is a complex conceptual field. However, policy advisors need to understand the basics of research methods, data reliability, and how to use evidence in the policy advice process.

<sup>1</sup> Introducing the concepts of data, information and knowledge and finding key data  
[https://www.nzier.org.nz/hubfs/Masterclasses/Central%20Government/Brief%2033%20Access%20to%20knowledge%20-%202022%20\(1\).pdf](https://www.nzier.org.nz/hubfs/Masterclasses/Central%20Government/Brief%2033%20Access%20to%20knowledge%20-%202022%20(1).pdf)

<sup>2</sup> On a framework for assessing the quality of evidence  
<https://www.nzier.org.nz/hubfs/Masterclasses/Central%20Government/Brief%2020%20Presenting%20Evidence%20-%202022.pdf>

<sup>3</sup> <https://www.dpmc.govt.nz/sites/default/files/2021-10/pmcса-The-role-of-evidence-in-policy-formation-and-implementation-report.pdf>

<sup>4</sup> <https://www.rnz.co.nz/news/political/529782/casey-costello-releases-independent-advice-on-heated-tobacco>

<sup>5</sup> <https://www.stuff.co.nz/politics/350445709/public-health-experts-reject-casey-costellos-tobacco-claims>

<sup>6</sup> <https://www.1news.co.nz/2024/11/04/ministry-official-criticises-advice-used-to-justify-htp-tax-cut/>

<sup>7</sup> <https://www.nzdoctor.co.nz/article/undocored/government-struggling-evidence-https-addiction-levels-and-smokefree-2025>

It's a key part of the Policy Quality Framework (PQF). It has its own standard within the Analysis standards:

**Is informed by relevant research and evidence**

The analysis:

- Is well informed (i.e. by up-to-date data, evidence, knowledge, experience, and research from New Zealand and overseas)
- is unbiased, and does not skew the data to make a particular course of action seem more or less attractive.

But it's also mentioned in standards associated with:

- Defining the problem/opportunity
- Assessing options
- Making the limitations of the advice clear
- Reflecting diverse views and perspectives
- Engagement approaches and the reporting of results
- Monitoring and evaluation.

It's also a core part of the Policy Skills Framework – Evidence and Insights.<sup>8</sup>

Typically, university policy programmes teach modules on research methods and how they are applied – often, it's a compulsory part of the programme.

But policy advisors don't need to be experts. Most agencies have experts who can advise, e.g. Chief Science Advisors, research/evaluation units, etc. However, policy advisors need enough knowledge to know whether what they are doing is right or not.

### Some key questions to ask when assessing evidence before using it

There is a need to draw from a range of evidence, and a robust literature search is important.<sup>9</sup> Of course, some of the conclusions from the various pieces of research may well be at odds. All of it needs to be taken into account – and considered appropriately. Our masterclass on presenting evidence mentioned above helps evaluate the robustness or otherwise of different types of evidence.

But there are some simple questions you could ask about each piece of evidence to help decide whether to use it and the weight to give to its conclusions in your advice:

- Is it from a reputable source?
- What is it saying, and, more importantly, what isn't it saying?
- Is it reasonably up to date?
- Understand the methodology used. Is it robust? What limitations, risks, and issues with the methodology might impact the results, or how can the conclusions be applied?
- Is it applicable to the situation you face? For example, if it is international, can it be applied in the New Zealand setting? Or are there differences that make it less relevant? The age of the evidence is also something to be considered.
- Do the findings apply to different population groups (or stakeholders)? You will also need to consider how to address any gaps. For example, in medical research, many traditional studies only applied to European males.<sup>10</sup>

<sup>8</sup> <https://www.dpmc.govt.nz/sites/default/files/2023-07/policy-skills-framework-2023.pdf> page 20.

<sup>9</sup> An experienced research librarian can help with this. Google only gets you so far. Things to use for literature review include research databases; examples include PubMed and the Cochrane Library, for health research literature, Scopus for inter-disciplinary literature, international organisations like the OECD and the World Bank for research and data related to various policy areas, e.g. education, transport. Search engines such as

Google Scholar and SSRN and subject matter repositories like RePEC can also be helpful. Then there are websites like the Campbell Collaboration that synthesise evidence from across the social sciences.

<sup>10</sup> <https://pmc.ncbi.nlm.nih.gov/articles/PMC8812498/> ; <https://www.medicalresearchfoundation.org.uk/news/closing-the-sex-and-gender-gap-in-medical-research> ; <https://www.nzcr.co.nz/the-importance-of-ethnic-diversity-in-clinical-trials-in-nz/>

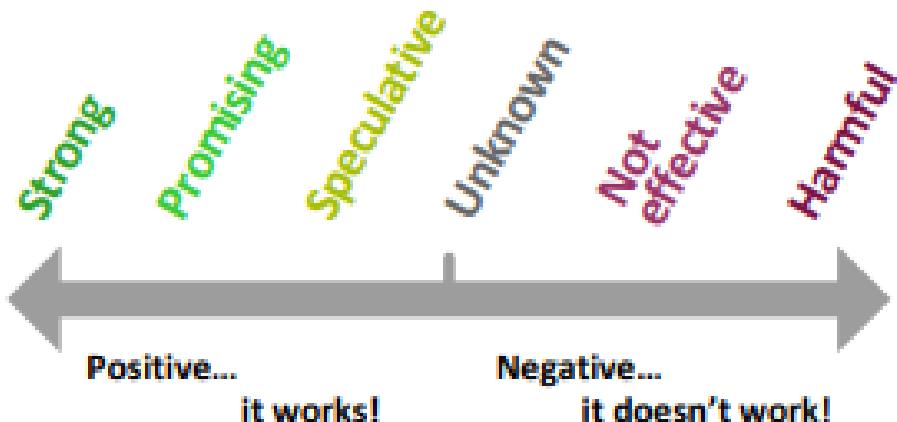
Perhaps the best-known example is the design of car seatbelts.<sup>11</sup> Similarly, what works for one age group or population cohort may not work for another. There is a lot of information about ethics and research design, covering these sorts of topics, on the National Ethics Advisory Committee website.<sup>12</sup>

The answers to these questions will help give you a sense of the utility of the research; if you are unsure, it is time to bring in some expertise.

### Putting it together

We've been outlining how to look at the quality and applicability of evidence. In our previous masterclass, we also defined whether the evidence supported the advice, was neutral, or did not support the advice/proposals. This is repeated below.

**Figure 1 Evidence continuum**



Source: NZIER, adapted from MSD and MoJ work (Superu 2016)<sup>13</sup>

These concepts can be put together in a simple two-by-two matrix.

Per the earlier masterclass, the x-axis goes from evidence that isn't effective or harmful through neutral findings to evidence that strongly supports the proposal.

The y-axis is the quality of the evidence from poor/weak to robust.

Any evidence beneath the horizontal line should be treated with caution, as the methodology isn't robust. But, above the line, the methodology is robust, and advisors should consider the range of evidence.

<sup>11</sup>

<https://www.theguardian.com/lifeandstyle/2019/fb/23/truth-world-built-for-men-car-crashes>

<sup>12</sup>

<https://neac.health.govt.nz/>

<sup>13</sup>

<https://thehub.sia.govt.nz/resources/in-focus-standards-of-evidence-for-understanding-what-works-international-experiences-and-prospects-for-aotearoa-new-zealand>

**Figure 2 Evidence**

Source: NZIER

### Free and frank advice – the need to fairly represent the evidence

The evidence that should have weight in your advice is in the two upper quadrants.

Of course, some of the evidence will be equivocal – it might suggest something will be effective only in certain circumstances, for example. This will need to be made clear in your advice.

Or there may well be differences in the conclusions of different research studies. That also needs to be outlined.

### Consider developing an evidence brief as part of the policy process

We've seen some agencies prepare a special briefing on the conclusions of the evidence they've reviewed on a certain policy issue.

This is usually done for complex issues, new developments, or particularly significant issues.

It can then be used as a basis for discussion with Ministers – say in the form of a slide pack or A3 (rather than the raw literature review, which can be hard to digest for busy Ministers).

However, a summary of the key evidence can be included in the advice paper for less complex issues. Appropriately referenced, of course. This could be supplemented, if needed, with an appendix summarising the literature review results. We've seen this done well using highly structured tables.

### For further reading

This is just an introduction to using evidence appropriately. We hope it will give you some key questions to ask – a sniff test, in essence.

There is plenty written on this topic.

The DPMC Policy Project has also gathered some more resources on evidence-based policy and made them available on its website.<sup>14</sup> It also offers training on it (Know your numbers).

No doubt, the Social Investment Agency will provide further guidance in its sphere of operation as it gets up and running.

Other useful introductions – along with references to more detailed reports – are from the Australian Productivity Commission<sup>15</sup> and the Australian Bureau of Statistics.<sup>16</sup>

It's also worth looking at some older publications from MSD.<sup>17</sup>

This paper was written by NZIER, April 2025. For further information, please contact anyone from our policy advice team:

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<sup>14</sup> <https://www.dpmc.govt.nz/our-programmes/policy-project/policy-advice-themes/evidence-and-evaluation>.

<sup>15</sup> <https://www.pc.gov.au/research/supporting/strengthening-evidence/25-chapter1-volume2.pdf>

<sup>16</sup> [https://www.abs.gov.au/ausstats/abs@.nsf/lookup/1500\\_Ochapter32010](https://www.abs.gov.au/ausstats/abs@.nsf/lookup/1500_Ochapter32010)

<sup>17</sup> <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/journals-and-magazines/social-policy-journal/spj20/evidence-based-policy-and-practice-20-pages29-48.html>