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"Evidence-based decision making"

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Every week Ministers in South Australia sit around the Cabinet table with a pile of documents, the volume and complexity of which would challenge anybody. Somewhere in there are smatterings of evidence, which might inform decisions. Decisions are also based on a whole host of other considerations.

Knowing what policies to pursue challenges governments continually, and it never seems to get any easier. Knowing what is the best course of action for practitioners is an equally important challenge. Linking it all together with evidence makes it plausible, but this is easier said than done.

In Cabinet Office we examine the full dynamics of the policy cycle and information and evidence requirements at each stage-

- Identifying issues
- Policy analysis
- Policy instruments
- Consultation
- Co-ordination
- Decision
- Implementation
- Evaluation

(from Bridgman & Davis, *Australian Policy Handbook*)

In the simplest of terms, policy aims to preserve and increase the things and processes we value, and exclude and reduce the things and processes we do not value or like. Sometimes it is just habit or custom or ritual or fashion that drives policy - sometimes it is science, which is evidence based.

I've never heard anyone say that we should not strive for the best evidence base upon which to build public policy. In Australia we spend tens of billions of dollars on health, justice, education, community services and other areas of public policy, and we always feel that we could have done better and achieved better outcomes. Sometimes we do pretty well, sometimes we get it wrong - hopelessly, monumentally and tragically wrong.

If a serious illness spread through a school affecting lots of kids, would we look to ideology for a treatment or to prevent a recurrence, or perhaps to folk remedies, or perhaps to religion? You can be sure we would look towards evidence based medicine for an appropriate response. Yet in the human services and justice areas we have a limited evidence base and rely often (but not always) on belief, supposition, exhortations to the good old days, and on a bit of hocus pokus.

The reduction of crime, for example, is a laudable objective embraced by all. Every MP will have constituents spelling out what should be done, every talkback radio host will have callers proposing solutions, and every citizen will have a view. The views will range from nurturing the un-nurtured and understanding the misunderstood, to strengthening families and communities, to building higher walls and getting stronger locks, to policing more aggressively, to imposing severe sentences and throwing away

the key, to inflicting cruel and unusual punishments - flogging, dismembering, boiling in oil and worse! Behind every simple solution there is a complex problem.

In very few areas of public policy does **everybody** consider themselves an expert - we leave defence policy to defence experts, health policy, transport policy, economic policy, communications policy, etc to appropriate experts, but in crime, and in the human services everybody has a “they oughta” story.

It's an easy exhortation to say always stick to the evidence. There is a fair bit of evidence - rigorously developed, and often replicable, if you look in the right places, though not a lot in justice and social policy is Australian. Of course, things that are shown to work in Pittsburgh or Pimlico may not necessarily work in Para Vista.

I am keenly aware that no single person or agency is the developer of all the evidence we need, but those of us who work in policy or projects have a great responsibility as assessors and communicators of evidence. Ministers rely on how we assemble evidence for their consideration.

Assembling evidence is complex, controversial, methodologically fraught and enormously expensive. But it can be done.

There are questions of how watertight the evidence might be, what counts as evidence, and how policy makers react - especially to things they don't want to hear.

Let me tell you about three interventions and the evidence behind them. The evidence for the three interventions, (and many others) can be found on the website of the Campbell Collaboration. www.aic.gov.au

1 Nurse-Family Partnership

This was a randomised controlled trial to establish the effectiveness of a nurse visitation program to pregnant women with no previous children, most of whom were young, poor and single.

During the visits the nurses promoted improvements in the mothers' and family members' behaviour – e.g.

- better nutrition and less use of cigarettes, alcohol and other drugs during pregnancy
- recognising signs of their children's illnesses
- playing with the children in ways that promote emotional and cognitive development, and
- helped the women to build supportive relationships with family members and friends.

What did the evidence show?

The programs not only resulted in higher birth weight babies but also reduced the risk that these babies will suffer abuse or neglect.

Moreover, at the 15 year follow-up, compared to children in the control group, children born to nurse visited women had:

- considerably fewer arrests, convictions and probation violations
- fewer lifetime sexual partners
- fewer cigarettes smoked per day and less alcohol consumption
- better educational outcomes

The evidence showed that the intervention worked - policies have since been modelled on this intervention.

2 Cambridge Sommerville Youth Study.

Initiated in the 1930s this was a program that provided services to low-income adolescent boys at risk of delinquency.

Lots of time and resources were put into the boys on the program who were:

- provided with mentors to assist, advise and befriend them,
- received individual counselling from trained professionals to address issues affecting them, and
- and were provided with group recreational activities, including summer camp – which not only meant they had fun but meant they got to spend their time usefully – not hanging around on street corners.

What did the evidence show?

The study followed the participants over 35yrs and found that program resulted in small but statistically significant *negative* outcomes including early death, conviction for serious crime and alcoholism and schizophrenia.

The magnitude of the negative outcomes was directly related to the time spent in summer camp with other boys in the program.

Other randomised trials have found that delinquency prevention programs involving group interventions have shown adverse effects – by contrast programs that separate at-risk adolescents have been highly successful in preventing subsequent delinquency. Putting at-risk kids with other at-risk kids can create problems down the line. Separating them gives better outcomes.

3 Mandatory Arrest for Domestic Violence

This project involved the mandatory arrest of men involved in domestic violence. It project adopted the ‘naming and shaming’ approach whereby recalcitrants are identified to their peers/ communities in order to shame them into conformity.

Apart from rebalancing the justice scales towards the victim, the stratagem was that the alleged perpetrator has to face the ordeal of arrest and the ensuing public shame,

represented by neighbourhood gossip and the red face under the blue lamp as the suspect is inserted into the patrol car.

What did the evidence show?

The evaluation of the scheme showed that it worked well in Minneapolis, but when replicated elsewhere a couple of years later had the opposite effect. Digging deeper, the effect depended on who you were, and where you lived. Being arrested in the public eye brings shame (and decreased domestic violence) in “respectable” communities, but provokes anger (and even increased domestic violence) in “marginal” communities”.

This is an example of the importance of understanding not only ‘what works’ but for whom and in what circumstances.

The evidence suggests that outwardly decent insiders fear shaming’s power, but antagonistic outsiders resent shaming by displaying more of the same.

This does not bode well for the Pt Augusta Council’s plan to shame young repeat offenders – such as graffiti artists or window breakers - displaying their photographs in public places and distributing them in letter boxes.

The message here is that you might not have the luxury of spending decades doing research but that it is important to know what evidence is around, and to take it into account as you work on policies and programs

These were all practice issues, but the outcomes are significant for policy development. The outcomes are also important for practice, because that is the manifestation of policy. They are part of building an evidence base.

I could take you through the systematic process involved in building an evidence base. (UK Cabinet Office Strategy Survival Guide p.108)

Collecting data

- Surveys
- Interviews & focus groups
- Data types & sources

Analysing data

- Modelling
- Market analysis
- Organisational analysis

Learning from others

- International comparisons
- Benchmarking
- Observing and recording

Looking forward

- Forecasting
- Scenario development
- Counterfactual analysis

There are two themes I want to focus on

- 1 How is evidence assembled,
- 2 How much does evidence impact on policy.

How is evidence assembled?

The evidence for the three interventions above, (and many others) can be found on the website of the Campbell Collaboration. www.aic.gov.au Campbell is an attempt to do for the social sciences and human services what the Cochrane Collaboration has done for health - assemble an evidence base for interventions - initially in 3 areas - justice, education and social welfare.

The Campbell Collaboration is a gathering place for systematic reviews of evidence and meta analyses

A *systematic review* is a study that addresses a focussed research question, uses explicit eligibility criteria to determine which studies will be included and conducts a comprehensive search of the literature to identify all eligible studies. A systematic review then assesses the validity of the studies identified for inclusion. In all cases, it is important that eligibility and quality criteria are explicit so the assessments can be scrutinised and even replicated.

Meta-analysis is the procedure of statistically combining results across studies in a systematic review.

I won't spend a lot of time on methodology, but we all know that just doing a research study is not the be-all and end-all. A lot of research studies are flawed by unclear objectives, poor research designs, methodological weaknesses, inadequate statistical analysis, selective use of data, conclusions that are not supported by the data. And that's just the beginning!

Traditionally we see evidence as derived from experiments

• *True experimental methods*

– Randomised controlled trials

or

• *Quasi-experimental designs* with

– Experimental group

– Control group

– Placebo group

But in addition to experimental and quasi experimental methods there is the plausibility approach - the non- rocket science approach. Observe systematically, and develop plausible explanations. This certainly would not be accepted by the gold standard people, but most policy people don't have the resources or ability to conduct large scale studies with control and experimental groups and monitor the results over years, if not decades.

There are different types of evidence and methods

- Systematic reviews
- Single studies
- Pilot studies
- Case studies
- Experts' evidence
- Internet evidence
- Impact evidence
- Implementation evidence
- Descriptive analytical evidence
- Public attitudes and understanding
- Statistical modelling
- Economic evidence
- Ethical evidence

There is certainly a vigorous debate about what counts as evidence.

However the important thing to remember is that there are many types of research evidence and different types are appropriate for different policy circumstances.

How much does evidence impact on policy

There are, of course things other than evidence that contribute to policy making, and there are competing types of evidence that are used by policy makers and those responsible for policy implementation and delivery.

(a sentence or two on each)

- Experience, expertise and judgement
- Resources
- Values
- Habit and tradition
- Lobbyists, pressure groups and consultants
- Pragmatics and contingencies.

When I used to run a research agency there were three principles we worked on

- We need research which provides clear evidence of what works, where and why.
- We need better to understand the political context within which policy is developed

- We need better to understand the culture of the practitioner

We were always keenly aware that policy was influenced by:

- Politics
- Budget
- Precedent
- Media
- Pressure groups
- Legislation
- *research*

We were always keenly aware that practice was influenced by

- Policy
- Local budget
- Manager/leader
- Performance regime
- Training
- Culture
- *Research*
- Legislation
- Local media
- Local expectations

We were aware that Ministers and Advisers didn't necessarily think of evidence first. They wanted

- Good news
- Confidence in results
- Costs included in evaluations
- Involvement in the agenda setting
- Timely results
- To know what works
- Willingness to make inferences

Practitioners, on the other hand wanted

- To know what works where and why
- Help in replicating what works
- Help in generating testable hypotheses
- Timely research
- Involvement in agenda setting
- Plain English
- To know of current good practice
- Feedback on the results of research

“We don’t need a bridge between research and policy, and policy and practice - we need a super highway”

Getting a good handle on evidence is essential for understanding the politics of programs, and the policy cycle. At present evidence based policy seems to have great currency in Tony Blair’s UK - although the underlying generic issue of how research and policy can better relate is debated in many other countries including Australia.

The mantra for ‘New Labour’ in the UK has become ‘what matters is what works’. Getting to know what works has been the rationale for vastly expanded research staffs and budgets – the evaluations of major programmes like Sure Start, the New Deals and Neighbourhood Renewal are massive enterprises undertaken by large research consortia, often drawn from both the commercial and the academic sectors.

In 1999 the White Paper on modernising government clearly adopted ‘evidence-based policy’ as part of its philosophy:

‘This Government expects more of policy makers. More new ideas, more willingness to question inherited ways of doing things, better use of evidence and research in policy making and better focus on policies that will deliver long term goals’.

This sounds like the sort of thing we have before us in Cabinet Office. We have a learning process which gets us to think strategically, think evidence, think implementation, and think outside the square. There is evidence of increasing interest in evidence based policy in the United States. The Coalition for Evidence-Based Policy has been launched under the sponsorship of the Council for Excellence in Government, a widely respected and influential good-government organization in Washington. Its mission is to promote government policy making based on rigorous evidence of program effectiveness.

In a way you are evidence brokers - not evidence developers, or researchers. Ministers, remember, are consumers of evidence, but also consumers of a whole lot of other inputs.

There is a lot more evidence to be gathered, and this is part of the task ahead. We would however, be extremely naive if we were to believe that political decisions are made on the basis of scientific evidence alone. Having the good sense to see where science is tempered by political realities is part of the package in public policy.

Recognising that we still have not, and probably never will, acquire the necessary methodological tools in most circumstances to produce unequivocal, non-trivial findings concerning policy problems, we need to ensure that our data sources are as good as possible, and our communication techniques are clear and simple.

We are skating on very thin ice given the quality of the data that underpins policy decisions. Furthermore, we must always be aware that researchers and decision makers have different resources. While researchers have a certain range of expertise and methodological skills, decision makers have a political knowledge of daily events, a time

frame, political orientation and access to funds at their disposal. Not all of these resources can always be shared and a trade-off situation develops. Communicating research findings to decision makers is also often fraught with difficulty. Decision makers seldom have the time or the inclination to read the researchers' most favoured output - the research report that consists of hundreds of typed pages replete with jargon, tables, statistics, and footnotes.

However, it is not feasible for you to be evidence gatherers conducting gold standard randomised control trials in your everyday work. This does not mean that you cannot contribute to the development of an evidence base.

COLLECTING THE INFORMATION

- Use existing data sources where they are available
- Incorporate data collection into normal project processes where possible
- Don't get too hung-up about dirty data
- Share your experiences with your colleagues - talk about what has worked, and what hasn't, and why or why not

The three take home messages:

- **Think evidence**
 - Build it into your work whether you are developing a policy, providing a briefing or writing a strategic plan – think does the evidence support this proposal, this argument, this strategy?
 - When considering the work of others, challenge it if the evidence doesn't support it.
- **Share evidence**
 - Find out where the sources of evidence are tell colleagues about them.
 - Encourage your colleagues to share information about evidence.
 - Collect and collate examples of evidence – contribute to a 'what works' website.
 - Develop guidelines in your agency for what constitutes evidence.
- **Promote evidence**
 - As well as promoting evidence amongst colleagues influence your managers, directors and minister to think evidence.
 - Talk evidence in meetings, put evidence into your papers, proposals and submissions.
 - Promote the cause of evidence based policy – which as we have seen comes down to - if we are going to spend money we might as well

spend it on something that has been shown to have a chance of working.

Opportunities to **think** evidence **share** evidence, and **promote** evidence exist and can be moulded. Human beings, who are almost unique in having the ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so, but I am sure that does not apply to those of us here today.