

Health Impact Assessment: A triumph *over* common sense?



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1. Background

There is a well-recognised need to evaluate health impact assessments (HIAs) for their effectiveness (Elliott & Francis 2005, Harris-Roxas et al. 2012b, Quigley & Taylor 2004, Parry & Kemm 2005). We work in increasingly resource-constrained systems that are facing ever-greater demands and all interventions are increasingly expected to demonstrate their utility (Weinstein & Skinner 2010, WHO 2008). At one level the use of HIA seems like “common sense”; its use already informs decision-making and it serves a seemingly self-evident purpose in identifying potential health issues. As this paper will highlight however, many of the things we consider to be common sense about HIA are anything but obvious. We need to recognise the importance of developing an evidence base that convincingly demonstrates the effectiveness of HIA in bringing about change, both narrowly defined in terms of changes to decisions and implementation, and more broadly in terms of collaboration, understanding and learning (Harris-Roxas & Harris 2012).

2. The purpose of this paper

This paper examines some of fundamental challenges to evaluating the effectiveness of HIA, in particular because of (i) the necessity to examine perceptions of effectiveness and (ii) the retrospective nature of evaluations that have been conducted to date. It identifies two significant conceptual challenges to evaluating HIA and illustrates these with findings from a prospective multiple case study (Bitektine 2008). This study involved interviews and document analysis before, during and after two HIA, which the author believes to be the first of its type internationally. This issues identified will be relevant to evaluations of HIAs more broadly and to practitioners and commissioners of HIAs.

This paper does not go into exhaustive detail about the study or the HIAs, and the findings are only presented insofar as they illustrate conceptual challenges. The full findings will be published in a forthcoming paper. As an overview however, the study sought to address the following research questions:

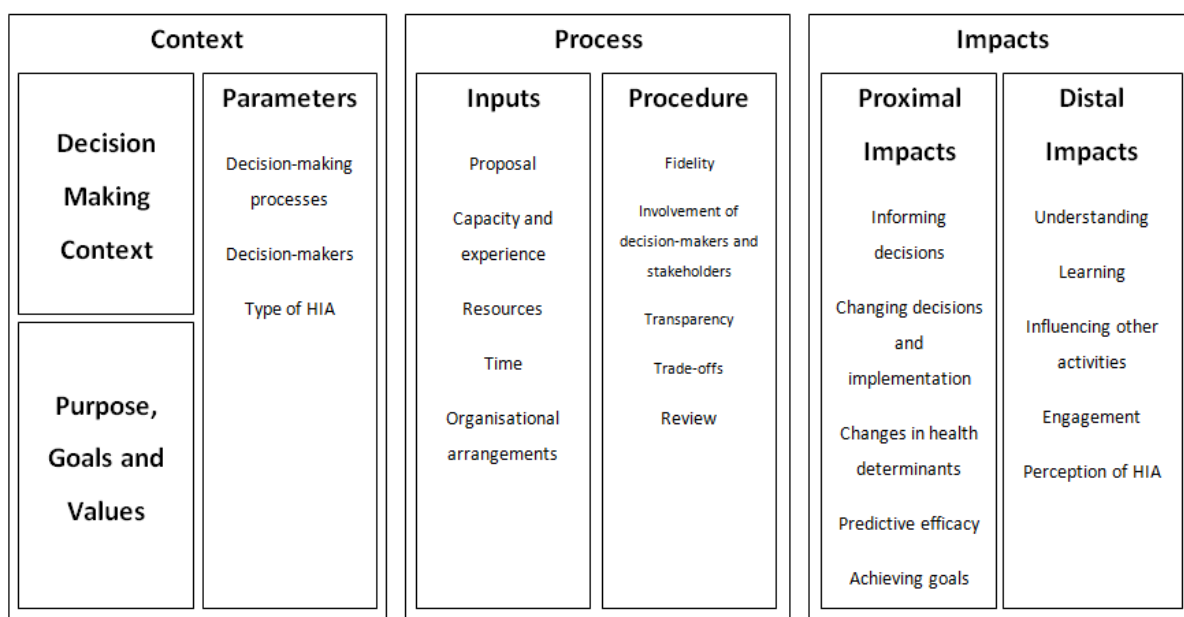
- Does equity focused HIA improve the consideration of equity in the development and implementation compared to usual planning practices within the health system?
- How does equity focused HIA improve the consideration of equity in the development and implementation of plans within the health system?

The study involved two prospective case studies of equity focused health impact assessments (EFHIAs, see Harris-Roxas et al. 2011a, Harris-Roxas et al. 2004, Mahoney et al. 2004, Simpson et al. 2005) conducted on similar health service plans. These were decision-support (i.e. voluntary, see Harris-Roxas & Harris 2011) rapid EFHIAs of similar health sector proposals (local health service obesity prevention and treatment service plans). Twenty three (23) semi-structured interviews were conducted with key stakeholders before, during and after the HIAs, and document reviews. One of the HIAs was completed while the other one was screened and determined to be unnecessary (for a discussion of screening out HIAs see Harris et al. 2007, Quigley et al. 2006). This study is unique in relation to HIA to the author's knowledge, because it looks at expectations and perceptions of effectiveness before and after the EFHIAs were completed. It also compares two similar planning situations, one in which an HIA was conducted and one in which the HIA was screened out.

3. The effectiveness of HIA

What we mean by effectiveness in relation to HIA, and impact assessment in general, is complicated. At one level it's about whether an HIA's recommendations are accepted, adopted and implemented. At another level it requires much broader conceptualisation of effectiveness that encompasses direct and indirect, immediate and longer term impacts (Harris-Roxas & Harris 2012). This led the author and colleagues to develop a conceptual framework that encompasses a broad range of contextual, process and potential impacts factors (see Figure 1).

Figure 1: Conceptual framework for evaluating the impact and effectiveness of health impact assessment



Source: (Harris-Roxas & Harris 2012)

The process for developing this framework (Harris-Roxas & Harris 2012) highlighted that merely focusing on the extent to which an HIA's recommendations are implemented misses many of the most important and valued impacts stemming from an HIA, such as changes to ways of working, learning, and engagement and collaboration. This is consistent with the discussion and conclusions of other research on the effectiveness of HIA (Dannenberg et al. 2008, Bekker 2007, Blau et al. 2007, Wismar et al. 2006).

3.1 The need to look at perceptions of effectiveness

Previous research undertaken by the author and colleagues highlighted that some tensions can arise through the HIA process (Harris-Roxas et al. 2011a). In the EFHIA examined these tensions appeared to be linked to two issues.

The first of these are that there may be disagreements between stakeholders about the perceived purpose of the HIA and what form it should take (Harris-Roxas & Harris 2011). This was illustrated in the evaluation of the EFHIA of the Australian Better Health Initiative implementation plan (Harris-Roxas et al. 2011a):

“I think people felt when recommendations came in, that they saw as a critique, or not that they were a critique, because different... They were like ‘Oh, but it wasn’t a proper plan anyway, it was just, you know, we were just trying to get the money, and that was our goal at that time, just get the money, and we said we’d do this, but not sure if we really will’.”

Interviewee 1

“We didn’t have a shared understanding of why we were undertaking it. Our purposes were probably different[...], and maybe that’s where they don’t work, but if you have two differing purposes, unless you can fully appreciate what those two different purposes are, maybe it doesn’t work out as well as it could... I think there was a feeling that, well, we could get something out of [the EFHIA]. There were probably two rationales for why it would be useful. One is that we could get some, a critique if you like, or some feedback about, through an equity lens, on the strategies that we had proposed. And the second one was that it would perhaps serve a process of helping people who are more engaged in the consultation process.”

Interviewee 3

“In a way, it was about improving the quality of the document, it was actually quite important to be able to debate some of the issues.”

Interviewee 2

The second issue was the perception that an HIA’s recommendations could have been identified through normal planning and implementation processes and that the HIA didn’t necessarily have to be conducted to identify these (Harris-Roxas et al. 2011a). In other words, that an HIA’s recommendations are “common sense”. There were also examples of

this in the evaluation of the EFHIA of the Australian Better Health Initiative implementation plan:

There were also some things in [the EFHIA report] that, I guess, implied, that we wouldn't consider, some issues that I think can be dealt with in careful planning, and careful implementation, and the intention, as I said before, if the [ABHI implementation plan] was really about 'this is the flavour of where we're going with this' we're going to have to obviously have greater implementation plans around each of these strategies, we've only got sixty pages to do it in.

Interviewee 3

"There are quite dichotomous views about what people believe about HIAs. Some people believe there is a place [for HIAs], blah, blah, blah and they're fantastic. Other people believe [these issues are addressed as] part of a good planning process, and there's some there are in between those two.

Interviewee 1

These two issues, about the perceived purpose of HIA and the "common sense" nature of HIAs' recommendations, lie at the heart of any appraisal of an HIA's effectiveness. They are also intrinsically linked to individual perceptions. Checking off an HIA's recommendations against a final implementation plan can usefully indicate some of its proximal impacts (see Mathias & Harris-Roxas 2009 for an example of this), though this will only ever tell part of the story of an HIA's effectiveness. This highlights the need to collection information on perceptions of effectiveness as a part of any HIA evaluation, an issue that has been under-explored in the literature to date.

4. Are common sense and HIA synonymous?

While many of the recommendations and distal impacts of an HIA (Harris-Roxas & Harris 2012, see Figure 1) could notionally be anticipated through "common sense" analysis, in practice they are rarely foreseen. A similar phenomenon has been demonstrated in other fields such as organisational psychology and management (Orrell 2007, Watts 2011). This suggests that "common sense" may be anything but common in the real world of planning and decision-making, and for good reasons. What seems obvious in hindsight is rarely apparent in advance. This was highlighted in this study in the case where the EFHIA was

conducted. The obesity prevention and management strategy was regarded as credible, with an existing emphasis on equity though it had necessarily relied on common sense analyses as part of planning process:

“And then it’s sometimes, if there’s no evidence, is the clinical, what do they call it? I can’t even remember. If you sometimes don’t have the evidence but the clinicians... they know the evidence isn’t there. I suppose [the development of the plan involves] a bit of common sense about what’s reasonable... I think it got a little bit tricky around child treatment.”

Health service planner,
Health Service A (site where EFHIA was conducted),
after the plan was developed but before the EFHIA was conducted

There were differing expectations about what the desired outcomes of the EFHIA were, though all interviewees expressed a desire that the EFHIA focus on relatively minor changes to implementation rather than radical changes to the strategy:

“My expectations are really simple, I think, insofar as I’ve got this stewardship [of the plan]. I sort of shared it, and now I’m implementing. But whilst [obesity is] an issue that’s really important to me, and I’ve got this sort of good overview, I understand that in society, I’m not an expert on any of the strategies. The health promotion strategies, the medical treatment, the surgical treatment – none of them. So I’m just this sort of facilitator, midwife, whatever, but that feels strongly about the issue at many levels. And I sort of feel that the plan we’ve developed is really, really good...”

... my simple aim at this stage [is to] identify those problems and some strategies to tackle the problem, then it’s then up to me... to see about how we can actually then operationalise that.”

Health service manager,
Health Service A (site where EFHIA was conducted),
after the plan was developed but before the EFHIA was conducted

The EFHIA was subsequently described by interviewees as useful rather than revelatory. There was some dissatisfaction expressed that the nature of the analysis was not more far-reaching and ambitious, even though the EFHIA’s process and recommendations appeared to be consistent with the interviewees’ expectations before the EFHIA.

“So it’s not as though people ... suddenly a light went on and it’s like, “Oh my God, we developed this plan, and we never thought about equity.” Well, that’s not the case. We did, and people embraced it to a certain extent. Maybe if we hadn’t actually ... I don’t know, but maybe it was simply because it was a way of ... it was a pool that allowed us to put equity centre stage rather than cost, or workforce, or individual patients, or whatever. Maybe it was that, that it just allowed them to put it centre stage for a while and to say, ‘Well, if we looked at it with this lens in the language we use, how might we see things a little bit differently?’”

Health service manager,
Health Service A (site where EFHIA was conducted),
After the EFHIA was conducted

“It was a small workshop. I was expecting something... a bit larger, because of the breadth of things that needed to be covered, I thought. So we did focus down on a number of specific points, I will give [the EFHIA] that. And it did bring out for many of us some issues that we needed to emphasise more. I think we had most of the stuff that we were expecting there, but the emphases needed to be changed, and we needed to look at the implementation more. And that’s where it became useful.”

Health service manager,
Health Service A (site where EFHIA was conducted),
After the EFHIA was conducted

This suggests, similar to findings in our previous study (Harris-Roxas et al. 2011a), that expectations from an HIA may change significantly over the course of the HIA itself. If a judgement about the effectiveness of a particular HIA is going to be made there is a need for a clear and unambiguous statement from the various stakeholders involved before the HIA is conducted about (i) the purpose for doing it, and (ii) the desired and expected outcomes of the HIA as these may change markedly over the course of conducting the HIA.

5. Two conceptual challenges in evaluating HIAs

All HIA evaluations that the authors are aware of to date have involved retrospective case studies (Harris-Roxas et al. 2011a, Mathias & Harris-Roxas 2009), with some of these being multiple case studies (Dannenberg et al. 2008, Wismar et al. 2007, Ward 2006). Almost all of these rely in part or wholly on interviews and other retrospective accounts relating to perceived effectiveness, though perceptions are clearly important in any evaluation of an

HIA's effectiveness (see Section 3.1). One multiple case study of HIAs included detailed observation, though the cases were still presented retrospectively and several were simulated rather than "real world" HIAs (Bekker 2007). A unique study at Otago University on the use of evidence in environmental impact assessment was conducted concurrent with use, i.e. not relying on historical accounts (Schijf 2003). This has yet to be replicated however, and in general almost all evaluations of the effectiveness of impact assessments have adopted a retrospective approach.

This retrospective approach gives rise to a number of conceptual challenges, principally "narrative fallacy" and "creeping determinism". Both are described in greater detail below.

5.1 Narrative fallacy

We tell stories to make sense of past events; as Joan Didion famously wrote "we tell ourselves stories so we can live" (Didion 1979). But narratives are also necessarily co-created, i.e. they are recounted by a narrator for an audience and for a purpose (Labov 1997, Patterson 2008). The way we describe events gives insights into not only what we believe to be important but what we also want others to understand from the events described (Bruner 1991, Williams 2004). If an HIA is successful in implementing decision-making and implementation it is usually described in terms of the factors that are perceived to have led to that success, rather than the things that didn't work or the role that uncontrollable factors, or even luck, may have played (Taleb 2010). Factors such as skill, experience and the personalities of those involved appear to be important in determining HIAs' effectiveness but so do other factors such as timeliness, responsiveness and "windows of opportunity" (Nilunger Mannheim et al. 2007).

There is a natural tendency for those involved in an HIA to develop explanatory schemas to explain why it was effective in influencing decisions or not; hypotheses in a sense (Taleb 2010). We look for evidence that confirms these hypotheses, leading to a form of confirmation bias that often discounts the role that other factors may play. The conceptual categories that make up these schemas limit the factors that we regard as important, in a phenomenon has been referred to as "tunnelling" (Watts 2011). These schemas are important because they guide not only our perceptions about an HIA but also how we develop narratives about it. Our schemas determine the orienting details for our narrative

(Patterson 2008); the way in which we want an HIA to be understood. For example, in an interview that begins “I was involved in an HIA that failed terribly” the person clearly wants the HIA to be understood as ineffective. These schemas may be shared within groups but are also constructed at an individual level. As such interviews with people about the same HIA may result in narratives that bear little resemblance to each other; so much so that one would almost assume they were describing wholly different processes.

This reinforces the need for a broad conceptual framework when considering the factors that influence the effectiveness of HIAs and other decision-making interventions (Harris-Roxas & Harris 2012). It also highlights the inherent problems in relying solely on retrospective or historical accounts of an HIA to determine its effectiveness. Explanatory schemas and narratives have already been developed, and these may not reflect any changes to perceptions before, during or after the HIA process.

This phenomenon could be observed in this study in the case where the EFHIA was not conducted. Prior to screening the EFHIA, a major motivation for undertaking the EFHIA was to ensure policy continuity through a period of health system reform:

It'd be really nice to know whether your plan nailed it. Whether what you wrote, what you conceived, what you got out of consultation actually was pretty close to providing what the clinicians and the patients needed... “Am I superfluous?” Which in light of national health reforms, etcetera, could be a good question. I wonder how we're going to deliver complex health; but I mean, it sounds like everybody's being ... trying to grapple together. Which is I think better than grappling from the other side of the fence from each other... They're saying, you know, something like 25 networks in NSW, how will they be able to deal with that, you know, the complexity of the need?

Health service planner,
Health Service B (site where the EFHIA was screened out),
after the plan was developed but before the EFHIA was conducted

After the EFHIA was screened and the decision was made not to proceed however, the health system reforms were cited as the major justification for *not* undertaking the EFHIA:

[The EFHIA] was a lovely idea but there were no managers to check on the performance of implementation, of recommendations or, you know, no Area executive team member responsible for making sure things

happened. It was sort of a nice idea... If we took on the HIA, that we'd be, yeah, finding a lot of people who just sort of shrug their shoulders and said oh well, you know...

... The other problem we've got too with health reform is that half the people, we, we don't know ... I keep trying to see it as a learning opportunity so that we can take people with us and build up their skills and the disruption here to the role of who's going to be in the cluster and who's going to be within the Local Health Network and, you know, what are we all going to end up doing in sort of six months time, it's really quite unknown.

The same health service planner,
Health Service B (site where the EFHIA was screened out),
after the EFHIA was screened out

If we were to rely only on the interviews conducted after the EFHIA was screened out we would have a substantially different sense of what the HIA's intended purpose was and what its expected outcomes were. Narrative fallacy is then an issue that needs to be addressed in the design of any evaluations of HIAs that rely on interview data.

5.2 Creeping determinism

Creeping determinism is a kind of hindsight bias that has been described in the experimental psychology literature since the 1970s. It refers to the tendency for people to imagine "we knew it all along" or "it was always going to happen that way" and was first described by Fischhoff (1975):

An apt name for this hypothesized tendency to perceive reported outcomes as having been relatively inevitable might be "creeping determinism" - in contrast with philosophical determinism, which is the conscious belief that whatever happens has to happen.

(Fischhoff 1975:288)

General hindsight bias may be partially overcome by recording what was predicted before the event (Watts 2011). Creeping determinism is somewhat more insidious, however, because even if our predictions or uncertainty are recorded they may form part of our subsequent explanation (Nestler & Blank 2010). For example, "we may not have known back then that the HIA was going to change the proposal but it did, so it was always bound to do so". This deterministic thinking makes it very difficult to evaluate how perceptions about the

purpose of HIAs may change throughout the process, which the author and colleagues have previously suggested is an important aspect of evaluating any HIA (Harris-Roxas & Harris 2011, Harris-Roxas & Harris 2012).

Experimental psychology research has shown that causal determinism is “effortful”, i.e. it requires conscious thought and attribution of effects (Nestler et al. 2008) and as such can be regarded as both individually and socially constructed. This is a challenge within the context of evaluating HIA because it means that people often revise their perception of the purpose, process and impacts of HIA in a way that may justify or explain subsequent events:

The other thing that’s really important is the information you bring to the table. Like in this case, we were lacking a bit of information that I think could have really helped us to get to those recommendations

Health service policy officer,
Health Service A (site where EFHIA was conducted),
After the EFHIA was conducted

From my personal point of view, it was a successful workshop but raised awareness of some issues, and not so much attitudes but some ... not managerial, but some things that we needed to do in a different way... Under-considered... and rearranging some of the priorities, where this was there, and mentioned really, it should have been ratcheted up a few positions.

Health service manager,
Health Service A (site where EFHIA was conducted),
After the EFHIA was conducted

Creeping determinism is difficult to account for solely through evaluation design, though clearly comparing descriptions about the purpose and desired outcomes of the HIA from before and after it was conducted can be useful.

6. What’s required

6.1 Prospective evaluation

We usually lack counterfactual examples for most of the things we do, and this certainly applies to evaluating HIAs. These are the “what if” examples – what if we hadn’t done the

HIA? What if we hadn't made that recommendation? What if that person had been directly involved in the HIA process?

Both natural experiments and prospective case studies have been proposed as methodologies to partially overcome some of these limitations (Bitektine 2008, Ramanathan et al. 2008). Whilst natural experiments and multiple case studies do not always provide perfect comparisons they do enable *some* comparisons. Additionally studies that take a longitudinal approach, or at the very least a before and after approach to data collection, are required to partly account for the issues of narrative fallacy and creeping determinism that are outlined in Section 5.

6.2 The need to conduct and rigorously evaluate HIAs on health sector proposals

Firstly, while we often assume the health sector is good at addressing population health needs, health service planning is rarely done solely to meet population health objectives rather than to respond to pressing health service needs and historical patterns of resource allocation (Rittel & Webber 1973, Thomas 2003). HIA can play a meaningful role in prompting health sector planning to consider its population-level objectives.

Secondly, HIAs with a focus on equity and differential impacts have been useful in identifying the under-considered effects of health sector planning and decision-making (Barnes & Scott-Samuel 2002, Harris-Roxas et al. 2011a, Gunther 2011, Gunning et al. 2011, Povall et al. 2010). Some have suggested that HIAs should not have an equity focus per se, and that all HIAs should consider equity (Kemmm et al. 2004, Parry & Scully 2003, Gunther 2011). The author doesn't dispute this view as an ideal, however framing the HIAs around equity, differential impacts and vulnerability has proven to be useful in the context of working with health and other sectors (Wells et al. 2007, Gunning et al. 2011). Additionally it an equity focus has helped to ensure that potential health impacts are differentiated between and within population sub-groups rather than treated as homogenous in nature (Harris-Roxas et al. 2004).

Thirdly, a comparative prospective case study of the type described in this paper was only viable because of strong relationships and credibility that had been developed with both organisations over a decade or more of work on HIA and health equity (Harris-Roxas et al.

2012a, Harris-Roxas et al. 2011b). It would have been very difficult to get agreement from two agencies in other sectors for a similar study, though that may be worth exploring in future if there are strong enough relationships and trust.

Fourthly, in many ways health system reform is “the new normal” (Edward 2011, Dwyer 2004, Braithwaite et al. 2005). Most health systems have been through significant structural changes over the past two decades and will continue to undergo significant change and flux as they attempt to tackle spiralling system costs, the increasingly chronic nature of common health conditions, and workforce crises (Christensen et al. 2009). HIAs of health sector proposals may not only be more readily evaluable as discussed above, they may have considerable scope to maximise positive health impacts and their distribution for populations.

Finally, the ability of the health sector to promote an intersectoral action for health or Health in All Policies approach (WHO 1997, Ståhl et al. 2006, Wismar & Ernst 2010, WHO & SA Government 2010, Ståhl 2010, Puska & Ståhl 2010, Koivusalo 2010) will be limited if the need to consider population health impacts is seen to only apply to other sectors and not health itself. Health sectors need to adopt a Health in *Health* Policies approach as well if they are to be successful in working intersectorally.

7. Conclusions

It is worth revisiting the research questions that we aimed to address with this study, though these haven't been the specific focus of this paper. They were:

- Does equity focused HIA improve the consideration of equity in the development and implementation compared to usual planning practices within the health system?
- How does equity focused HIA improve the consideration of equity in the development and implementation of plans within the health system?

The answer to the first question appears to be yes, though we haven't provided enough evidence from the study in this paper to demonstrate this systematically. The mechanism for improving consideration of equity through EFHIA appears to be linked to (i) promoting a clearer articulation of values that inform both the EFHIA and the broader decision-making process, (ii) promoting a clearer articulation of the purpose of the EFHIA and the proposal

being assessed, and (iii) negotiating the nature of the learning desired from an HIA (technical, conceptual and/or social learning, see Glasbergen 1999, Fiorino 2001, Muro & Jeffrey 2008, Harris & Harris-Roxas 2010, Harris-Roxas & Harris 2011). A forthcoming paper provides more detail on both these specific questions.

Perhaps more importantly though, this study has demonstrated the ability of HIAs to alter perceptions and understandings across a range of issues, often in ways that are poorly understood or accounted for by participants in retrospect. This highlights the need to

Impact assessment's great strength is its ability to provide recommendations that can usefully inform decision-making and implementation. When it is done well, these can appear to be common sense or obvious. The reason for this is that narrative fallacy and creeping determinism make us think we always knew what we, in fact, did not. Everything can seem common sense in retrospect but HIA may be a way to triumph over this.

This paper is available from <http://www.harrisroxashealth.com/2012/10/korea2012/>

The slides from this talk are available from <http://www.slideshare.net/benharrisroxas/health-impact-assessment-a-triumph-over-common-sense>

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