# HOW TO INSTITUTIONALISE EVIDENCE-INFORMED PRIORITY SETTING

## Rapid Literature Review for the International Decision Support Initiative (iDSI)

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Submitted by Itad

Results in development

The views expressed in this report are those of the reviewers. They do not represent those of iDSI or of any of the individuals and organisations referred to in the report.

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## Acronyms

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| ARC | Annual Report Card |
| BCURE | Building Capacity to Use Research Evidence Programme |
| BMGF | Bill and Melinda Gates Foundation |
| CAT | Critical Appraisal Training |
| CRP | Collaborative Research Partnership |
| DDM | Data For Decision Making Programme |
| DFID | Department for International Development (UK) |
| DEA | Department for Environmental Affairs |
| DHMT | District Health Management Team |
| EIPS | Evidence-informed Priority Setting |
| EIPM | Evidence-informed Policy Making |
| EIDM | Evidence-informed Decision Making |
| HTA | Health Technology Assessment |
| IDRC | International Development Research Centre |
| iDSI | International Decision Support Initiative |
| INNE | Individuals, Nodes, Networks and Environment framework |
| LIC | Low-income country |
| LMIC | Low- and middle-income country |
| MCCIP | Marine Climate Change Impacts Partnership |
| M&E | Monitoring and Evaluation |
| MEL | Monitoring, evaluation and learning |
| NEHSI | Nigeria Evidence-based Health System Initiative |
| NGO | Non Governmental Organisation |
| NHS | National Health Service |
| NICE | National Institute for Health and Care Excellence |
| NIHR | National Institute for Health Research |
| QA | Quality Assessment |
| RCT | Randomised Control Trial |
| ToC | Theory of Change |
| UCL | University College London |
| SANBI | South African National Biodiversity Institute |
| SDGs | Sustainable Development Goals |
| UHC | Universal Health Coverage |
| WHO | World Health Organization |

# 1. Introduction

## 1.1. Background

The International Decision Support Initiative (iDSI) is a partnership-based initiative working towards achieving Universal Health Coverage (UHC)[1] and the health Sustainable Development Goal 3 (SDG 3)[2]. The partnership focuses on supporting low- and middle-income countries (LMICs) to make *"better decisions for better health"* (iDSI, n.d.) with a focus on bringing together and sharing expertise for enhanced health priority-setting from both the academic and practitioner fields, across a wide range of decision-making organisations or authorities.

iDSI has been funded by the Bill and Melinda Gates Foundation (BMGF), the UK Department for International Development (DFID), and the Rockefeller Foundation. It was established in 2013 and entered its second funding phase in 2016. A detailed, 'unpacked' iDSI Theory of Change (ToC), outlined in Figure 1 below, was developed through a consultative process between Itad and iDSI in early 2016, at the start of iDSI's second phase of funding. Drawing on the high-level ToC that iDSI had already developed, the 'unpacked' ToC provided more detail on the different components that underpin each pillar of iDSI's work and formed the basis for the Monitoring, Evaluation and Learning (MEL) framework.

**Figure 1: Unpacked ToC for iDSI's work in evidence informed priority setting**
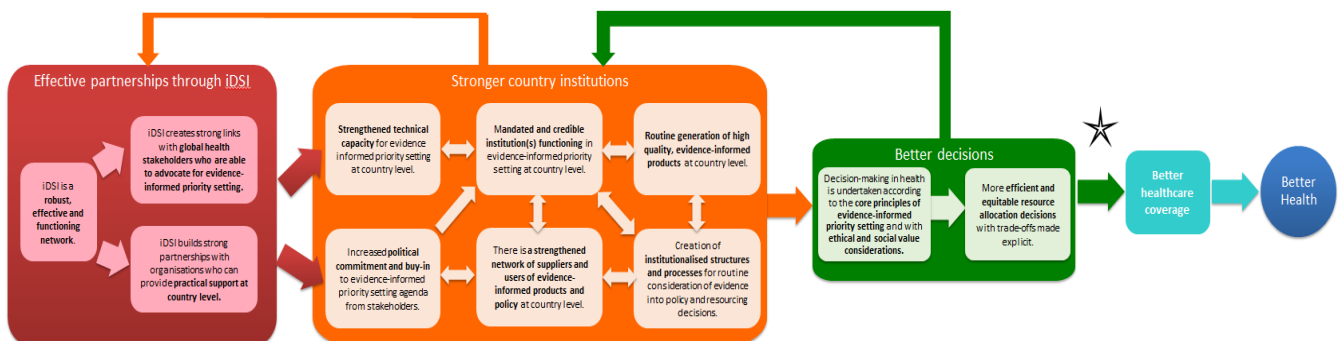


At this point in time, as a more established network and with around 18 months remaining on its current grant from the BMGF and DfID, there is interest within iDSI in revisiting the ToC to ensure that it is fit for purpose, with a specific focus on the *Stronger Country Institutions* pillar (the large orange box in the above ToC diagram) and its six components (the smaller orange boxes), i.e.:

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[1] iDSI website, http://www.idsihealth.org/

[2] Goal 3: Ensure healthy lives and promote well-being for all at all ages http://www.un.org/sustainabledevelopment/health/

1. Strengthened technical capacity for evidence informed priority setting (EIPS) at country level.

2. Mandated and credible institution(s) functioning in EIPS at country level.

3. Routine generation of high quality, Evidence-informed products at country level

4. Increased political commitment and buy-in to EIPS agenda from stakeholders.

5. There is a strengthened network of suppliers and users of evidence informed products and policy at country level.

6. Creation of institutionalised structures and processes for routine consideration of evidence into policy and resourcing decisions.

This paper reports on the findings of a rapid literature review conducted by Itad, to inform discussions with iDSI about refinements to this pillar of the Theory of Change.

## 1.2. Methodology

**The aim of the literature review**

This literature review has sought to explore the evidence base around the *Stronger country institutions* pillar of the ToC and its six components. The key objective of the literature review is to identify any suggest potential changes that might be required to the ToC, as a basis for consultation with iDSI. Changes to the ToC will then inform refinements to the MEL framework and approach for the remainder of the grant.

**Research questions**

In line with the aims of this review, this report is structured around the following three research questions:

1. ***What needs to be in place in order for evidence informed priority setting (EIPS) to be institutionalised?*** This review question aims to explore the evidence base around the building blocks for institutionalising EIPS.

2. ***How can capacity-building efforts support the institutionalisation of EIPS?*** This review question specifically looks at approaches to capacity building and the evidence of what works in relation to institutionalising EIPS.

3. ***What is the evidence relating to the relationship between institutionalising EIPS and better evidence informed priority-setting decisions?*** This review question focuses on examples of better evidence informed decisions in health and discusses how institutionalising EIPS has contributed – i.e. it seeks to examine evidence of the link between the 'stronger country institutions' and 'better decisions' elements of the ToC.

**Search strategy**

This has been a light touch literature review, primarily focused on examining evidence from existing literature reviews within the field of evidence informed priority setting/decision making. A number of key source materials (substantively literature reviews) were identified by Itad and iDSI as a starting point for the review.

To supplement this, in particular for Research Question 3, structured and snowball searches were carried out. Searches included:

- Searches of the iDSI knowledge gateway and the websites for the National Institute of Health and Care Excellence (NICE) and National Institute for Health Research (NIHR).

- Boolean searches using Google[3].

- Bibliographical searches of the papers cited in this document and other papers.

The full list of papers consulted is included in Annex A along with details of the study design of each paper in Annex B.

### Study inclusion and exclusion criteria

For the structured and snowball searches, we focused largely on published papers and reports, and we applied the following **inclusion criteria:**

1. Papers written in English;

2. Papers in electronic format; and

3. Literature relating to all or at least two of the following:

    - Capacity building / technical support / organisational development interventions (ideally those with interventions similar to those of iDSI such as training, mentoring, networking, technical support, study tours, embedding structures to support EIPS in government institutions).
    - Interventions promoting evidence informed priority setting for health.
    - Interventions that are based within government institutions.
    - Focused upon, or based within, low- and middle-income contexts.
    - Where there is evidence of subsequent improvements in EIPS decision-making.

The primary reason for **exclusion** of papers was on the basis of quality. For the purposes of this light-touch review, publications were deemed to be of an insufficient quality where the data source was unclear, or where a transparent methodology was lacking and/or prevented judgements regarding a study's rigour. Publications were also excluded on the basis of appropriateness to the study, in accordance with the inclusion criteria above.

We also applied more specific exclusion criteria in the identification of literature relating to Research Question 3, reflecting the need to identify evidence specific to the relationship between institutionalising EIPS and better evidence informed priority-setting decisions. Papers were excluded if:

- They did not provide evidence of any decision making outcomes;

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[3] Structured searches, including Boolean search terms, for Research Question 3 included:

1. "impact of" AND "EIDM" OR "Evidence use in decision making"
2. "Better" AND "evidence" AND "priority setting" AND "capacity building" AND "impact" AND "Health" AND "LMIC
3. "what works" AND "Capacity building for" "EIPM" OR "Evidence use in policy making"
4. "what works" AND "Capacity building" "EIPM" OR "Evidence use in policy making"
5. "What works" AND "EIPM"
6. "what works" AND "EIDM" or evidence informed decision making
7. evidence of institutionalised EIPS and better evidence informed priority-setting decisions
8. institutionalised EIDM and better evidence informed decisions

- In the case of the structured and targeted searches, for the purposes of feasibility, studies prior to 2015 were excluded.

**Classifications**

Throughout the review process, any relevant literature identified via the snowball and structured searches were inputted into an excel spreadsheet in accordance with the following classifications:

- General information including the citation, year of publication and URL.

- How the additional literature was identified, i.e. through a structured or snowball search.

- Quality: All literature that was deemed relevant to the research questions were assessed for quality, as detailed below.

## 1.3.  Limitations

**The main limitation of this review relates to the constraints of resources and time.** The review was designed as a rapid review, taking as its starting point existing literature reviews. Therefore, this review has depended upon the quality of the literature reviews identified and is constrained by their limitations. However, to mitigate this, the quality of the reviews was taken into account in their selection, and structured searches were carried out as a means of identifying additional relevant literature and to reduce bias. Snowballing allowed for follow-up and fact checking as necessary.

**There is a lack of empirical evidence and impact evaluations available that have assessed the effect of EIPS, or similar interventions, on evidence use.** This meant that the scope of relevant evidence, particularly for Research Question 3, was somewhat limited. As a result it is challenging to draw strong conclusions on the basis of this evidence or to understand the mechanisms by which institutionalised EIPS leads to better evidence informed priority setting decisions. The alternative would have been to expand the review far beyond the specific evidence on decision making in health; however, this was beyond the scope of what was considered feasible or useful.

## 1.4.  Definitions

Key concepts that have been used widely in this review and/or underpin the research questions are defined as follows:

- **Institution**: As per the context and focus of iDSI's technical assistance and capacity building, the term "institution" is understood to be explicit and formalised rules and norms.

- **Institutionalisation**: We use the definition adopted by Li *et al.* (2017), in which 'institutionalising' priority-setting is focused upon *"…developing accepted norms and rules, and sustaining effective working relationships between relevant policymakers and research institutions"* (Hawkins & Parkhurst, 2016; March & Olsen, 2008; Li *et al.*, 2017: 8).

- **Capacity building**: As defined by the BCURE literature review, building capacity in the use of evidence *"…should involve much more than individual skill development, as it requires change at individual, interpersonal, organisational and institutional levels in relation to evidence access, appraisal, interpretation and use"* (Punton, 2016: 17).

- **Priority-setting:** This is defined as *"allocating finite health resources between competing purposes against infinite demand for health care"* (Glassman and Chalkidou, 2012; Li *et al.*, 2016: 71-72).

- **Evidence informed priority setting:** This draws on a definition by Li *et al.* (2016): *"…in rational priority setting the decision makers and the process are made explicit and transparent, and priority setting is done in a deliberative manner involving relevant stakeholders, in consideration of best available [or most context relevant] evidence about clinical and cost-effectiveness and social values…".*

- **Better priority-setting decisions**: 'Better' is a nuanced and subjective term and, as such, a 'better decision' can be hard to define. However, for the purposes of this review, we define it as one that is *more informed* (in line with the definition of EIPS definition above) and one that is *more rational*, i.e. a well-justified or reasoned decision (for example, selection of the most cost effective or the most equitable choice).

## 2. What needs to be in place in order for evidence informed priority setting to be institutionalised?

This section explores the different aspects of institutionalising EIPS. As described in Section 1.4, our definition of institutionalisation is: "…developing accepted norms and rules, and sustaining effective working relationships between relevant policymakers and research institutions" (Hawkins & Parkhurst, 2016; March & Olsen, 2008; Li *et al.*, 2017: 8).

While our focus in this paper is on EIPS, we have cast our net wider to also encompass the broader evidence informed policy-making (EIPM) literature. We felt this broader scope would be useful to iDSI, as it would help identify and bring together a wider range of evidence and learning on how to institutionalise evidence informed policy making.

While the literature is by no mean conclusive about what needs to be in place in order for EIPM to be a regular and consistent part of policy making, a number of common building blocks emerge:

- Policy makers have the necessary capabilities and motivation to use evidence

- Relationships exist between policy makers, and researchers and research groups

- Champions and leaders promote evidence use

- Organisational structures, systems and processes support evidence use

- An enabling environment exists for evidence use.

Each of these building blocks is discussed in turn.

### 2.1. Policy makers have the necessary capabilities and motivation to use evidence

**Decision makers having the necessary capabilities and motivation to access and use evidence is a building block to institutionalising evidence use in policy.** As discussed above, institutionalisation is about norms, values, structures and processes. But it also is about people and how they behave. Institutionalisation means 'locking in' certain behaviours so that they become the norm. While changing the incentives and structures within which people work is one way of doing this, it also involves building their skills and knowledge (capabilities) around evidence and how to use it in policy (Punton and Vogel 2018, Newman et al., 2012).

Breckon and Dodson (2017) emphasise that "for evidence to be used, you need to understand what you are dealing with. Even if you package up your evidence in easy-to-use summaries, your policymaker or professional is still going to need to understand what is behind it" (p22). Punton and Vogel (2018) came to a similar conclusion in their five-year evaluation of the Department for International Development's (DFID) Building Capacity for Research (BCURE) programme. They found that having policy makers that had appropriate knowledge and skills to access, appraise and use evidence, was central to supporting evidence use in government and provided the foundations on which other organisational and systems wide interventions could be built that institutionalised EIPM.

An important nuance to Punton and Vogel's findings, and one that is supported in the wider literature, is the need for the right policy makers to have the right skills. Not all policy makers need the same level or type of capabilities with regards to evidence use. In the context of BCURE, technical policy and research staff who were responsible for designing policy documents and developing research products that feed into policy formulation, in particular, were the key targets for skills development and were the stakeholders that needed the deepest knowledge and understanding of evidence. Senior managers required a different set of capabilities and were targeted with a different types of intervention.

A particular set of skills which are sometimes forgotten in supporting policy makers in using evidence is advocacy skills. Supporting the use of evidence in policy requires persuasion and influencing. These are particularly important for those playing an evidence/knowledge broker role in organisations. (Isabel and Vogel 2018.)

Importantly, Langer et al., (2016) cautions against conflating EIPM skills and motivation to use them. They found in their systematic review of capacity building for EIPM that building capabilities only led to evidence use when efforts to develop technical skills were combined with addressing attitudes towards evidence. Interventions needed to both build individual's skills in analysing and appraising data and show them how the use of evidence can add value to their jobs and policy processes in order for it to lead to changes in behaviour (see section 4 for more details on this). This same point is also echoed by Punton and Vogel (2018) in their evaluation of BCURE.

## 2.2. Relationships exist between policy makers, and researchers and research groups

Another component of institutionalising EIPM is creating relationships and networks between policy makers and researchers. The literature indicates two main ways of doing this: through **building networks** between individual researchers and policy makers, and through the use of formalised **knowledge brokers**. We discuss what the literature says about both.

*Network building*

**Improving the relationships between policy makers and researchers is important to improving access and use of evidence.** A lack of engagement between researchers and policymakers is one of the most frequently cited barriers to evidence use by policy makers. (Oliver *et al*., 2013).[4] Therefore, efforts to bridge this divide, and bring both sides together and build relationships between them, are an important part of institutionalising EIPM.

A number of studies indicate the importance of policy maker-researcher relationships and point to how is can result in policy makers engaging more with evidence and being more motivated to use it (Bunn, 2012 and Dobbins *et al*., 2004; CHSRF, 2005; Innvaer *et al*., 2002; Jessani *et al*., 2017, Faustino and Booth, 2014, Mackenzie and Cassidy, 2016). A study by Wills *et al*. (2016) for example, demonstrates how a strong relationships between the South African Department for Environmental Affairs (DEA) and the South African National Biodiversity Institute (SANBI) enabled consensus to be reached on what the evidence was saying on a particular policy issue and what the new policy direction should be. Similarly, a

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[4] https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-14-2

study by Oliver *et al*. (2014) showed how formal and informal linkages between policy makers and researchers enabled meaningful discussion and negotiation of research findings, which helped to contextualise the findings more to the specific policy context and improve their relevance to policy makers.

**Trust is central to both building these relationships and in enabling information sharing between policy makers and researchers.** For example, a study by Ritter (2009) found that the main criteria used by policy makers in Australia working on drugs policy to select which experts they sought advice from, was who they trusted and had existing personal relationships. While expert knowledge was also important, it was not the determining factor. A report on the Indonesian Knowledge Sector indicates a related point: it shows how a previously difficult relationship between a group of researchers and policy makers evolved, through relationship building and growing levels of personal trust. This created an environment that allowed for more productive and meaningful sharing and discussion of research between the two groups, which laid the ground for better use of evidence in policy processes (Karetji 2010; Nugroho *et al*., 2016; Shaxson *et al*., 2016). A review by Doherty *et al*. (2017) identified similar issues with regards to health technology assessment (HTA) research groups. They found that the ability of HTA groups to effectively engage with policy makers hinges largely on their perceived trustworthiness. This was built through regular face-to-face engagement with policy makers, the relevance of the HTA groups' work to current policy issues, the quality of their research, and their objectivity. Conversely, Holdsworth *et al*. (2016) reviewed EIPM initiatives in a range of countries in Africa and highlighted how mistrust between scientists and policy makers can create challenging barriers to evidence use in policy.

*Knowledge brokers*

**Knowledge brokers play an important role in facilitating the flow of evidence between the research community and policy makers.** Knowledge brokers and knowledge brokering agencies are intermediaries between the worlds of research and action (Li *et al*., 2016). They can be individuals, teams or institutions. In the context of EIPS, for example, priority setting institutions such as HITAP play an important function in brokering evidence between researchers and policy makers. Knowledge Brokers facilitate evidence use through presenting information to decision-makers in a more digestible format (Lavis, 2016; Li *et al*., 2017) and by making it relatable and relevant. Knowledge brokers can also help generate the demand for evidence by providing capacity building support to policy makers through activities such as mentoring and training. These types of capacity building activities have been shown to build the confidence of decision-making staff to use evidence, as well as providing direction and guidance; all of which facilitate the use of evidence by staff (Dobbins, Robeson, *et al*., 2009 and Traynor *et al*., 2014; Punton, 2016).

The literature indicates a number of factors which influence the ability of knowledge brokers to have impact. These include:

- The knowledge broker understands the political and policy context in which the evidence is being applied (Liverani *et al*., 2013).

- The knowledge broker understands the culture of both the research and decision-making environments and is able to identify the right stakeholders from both sides (Li *et al*., 2017).

- The perceived neutrality of the knowledge broker in the policy outcome and its credibility with both researcher and policy makers (Kammer *et al.*, 2006).

- The degree of trust and the strength of relationships between the knowledge broker and policy makers (Traynor *et al.*, 2014; Wills *et al.*, 2016; Jackson, 2017; McCormack *et al.*, 2013; Punton, 2016).

- The extent to which the knowledge broker is operating in a wider environment that provides the space for them to promote evidence use (Traynor *et al.*, 2014; Punton, 2016).

## 2.3. Champions and leaders promote evidence use

A key component of institutionalising evidence use is having champions that can advocate for and influence organisational systems, mobilise support and create opportunities for others to push forward reform. While there is a rich literature on the role of champions and leadership in leading organisational change, this is outside the scope of this rapid literature review. Our focus is specifically on the literature on the roles of champions in promoting EIPM.

**Influential individuals, or leaders, can play an important role in institutionalising evidence use.** Punton (2016) and Jackson (2017) refer to these individuals as 'champions'. Champions can exist at all levels of an organisation and may hold both informal and informal positions of leadership (Shaxson *et al.*, 2016; Faustino and Booth, 2014; Jackson, 2017; Stetler *et al.*, 2009).

Two theories are highlighted by Punton (2016) to explain how champions can change behaviour for enhanced evidence use (Jackson, 2017). The first is *transformational leadership*. This is where champions exert powerful influence for change at the organisational level. The second is through *network facilitation.* This is where individuals generate momentum for change by bringing people together and building shared understanding (Greenhalgh *et al.*, 2004; Punton, 2016).

In two studies, Punton (2016) demonstrates how champions can drive forward evidence use in policy making. In the first, a study of an EIPM intervention within a Canadian public health organization, a senior staff member was identified as instrumental in acquiring the funding for, and raising the profile of, EIPM within this organisation (Peirson *et al.*, 2012; Punton, 2016: 71). In the second, a senior health official in the Data For Decision Making Programme (DDM) in Bolivia, Cameroon, Mexico and the Philippines, pushed for awareness of EIPM concepts and set country-level objectives in regards to evidence use (Pappaioanou *et al.*, 2003). Punton and Vogel (2018) also noted the importance of identifying champions for evidence use in government agencies and nurturing these. In a number of the BCURE projects that they evaluated, they found that BCURE would not have been able to gain a foothold in national institutions without the enthusiasm and commitment of specific individuals who championed the programme, helping to bring other senior stakeholders on board and identify further opportunities for partnership.

Whilst these are all examples of senior-level officials championing evidence use, Shaxson *et al.* (2016) emphasise that champions can work at any level and from within or outside an organisation (Jackson, 2017). Breckon and Dobson, for example, cite a review that looked at how 'local opinion leaders' single-handedly championed evidence-based medicine in over 600 hospitals and care practices. The research found these leaders made a clear difference

after examining 18 different randomised control trials. They help to persuade other healthcare providers to use evidence when treating and managing patients.  Knowledge brokers are also a specific type of evidence champion which are discussed above in section 2.2 (Traynor *et al.*, 2014; Punton, 2016).

While there is a strong evidence indicating the importance of champions, there are also risks in relying too heavily on them: chief among them is that champions move on. A champion alone is not sufficient to institutionalise evidence use; their enthusiasm and influence need to be used as a catalyst for activating wider reforms which lock in evidence use (Punton and Vogel 2018)

**Champions for EIPM demonstrate a number of common characteristics and behaviours.** In the case of BCURE, Punton and Vogel found that effective champions had significant seniority and influence within government and were personally committed to (often described as passionate about) the use of evidence in policy. In the case of Stetler *et al.'s* (2014) work on institutionalising evidence based practice in two hospitals they found that evidence-based practice (EBP) leaders always demonstrated the following three behaviours: a thoughtful and deliberate approach to putting their vision for EBP into practice; continuous and clear communication either in documents or verbally, on their intent and practices around EBP; and routine and deliberate demonstration, or role modelling of EBP in their day-to-day work.

## 2.4.  Organisational structures, systems and process support evidence use

In order to institutionalise the use of evidence, i.e. to make it routine, as well as having technical capacities and strengthening relationships between policy makers and researchers, there also needs be changes in the way that public sector institutions function. As Breckon and Dobson (2017) argue: "we need to hardwire evidence into every day decisions. Otherwise it's always going to be a struggle, constantly working against the grain." Below we discuss some of the organisational changes that the literature suggests aid the institutionalisation of evidence use.

**Establishing new units tasked with moving evidence use forward is a model for institutionalising evidence use.** Particularly in the area of EIPS, one way of supporting the institutionalisation of evidence use in policy processes is through building organisational capacity within the public sector for HTA. In their review of the international literature on strengthening expertise for HTA and priority setting in Africa, Doherty *et al.* (2017) stress the importance of developing a core HTA team or unit to oversee and manage the HTA process. This unit may conduct the research itself, or commission external agencies. The unit requires considerable technical expertise to manage the technical aspects of the work and also the skills to engage in complex stakeholder management. Punton and Vogel (2018) came to a similar conclusion in their evaluation of BCURE: that working with a dedicated unit tasked with evidence promotion, which is staffed with individuals with the right types of skills, was important to moving forward the institutionalisation of evidence use in a number of government settings. Although they stress an important caveat: that such a unit needs high level support within government (a senior champion) to be effective, and ideally, an influential unit head that is well networked.

**Changes to organisational systems and processes also contribute to institutionalising the use of evidence by decision-makers.** In a study of DFID, Waldman (2014) for example, found that the introduction of the business case process, that required a clear articulation of the evidence base underpinning new programmes, was a major factor driving staff to consider and use of evidence in their work (Punton, 2016). Similarly, Shaxson (2014) found in her work with the UK Department of Farming and Rural Affairs, that changes to planning and budgetary process in the Ministry helped provide a structure for how evidence should be considered in policy decisions, which helped embed evidence use in the organisation.

In the field of EIPS, the introduction of HTA informed priority setting process are another example of how changes to organisational processes can embed the use of evidence in decision making. Doherty *et al.* (2017) stress a number of components that need to be part of such a process to ensure it is effective and fair. This includes: a systematic process that involves a wide range of stakeholders, an appeals process, a mechanism to adjust recommendations based on new information, and a deliberative process that combines the findings of the economic analysis with more subjective criteria that conform to health and social objectives. For Hawkins and Parkhurst (2016) and Li *et al*. (2017), these changes in process are central to institutionalising priority setting and HTA.

**Evidence also needs to be prioritised and incentivised in organisations in order for evidence use to become routine**. Waldman (2014) for instance reflects on the organisational culture within DFID where evidence and showing the evidence base for decisions is strongly valued. She argues that this prioritisation at the highest levels within the organisation has created a culture and incentives where it is seen as vital for an individual's reputation and professional standing to remain up to date on research findings (Punton, 2016). This is also supported by Breckon and Dodson (2016) who note the powerful incentive to use evidence where it is bound up in an individual's professional reputation and linked to professional and career development (Jackson, 2017). Similarly, Pierson *et al.* (2012) found in their study of EIPM in a Canadian health organization, that including EIPM expectations in performance, accountability and incentives structures such as individual performance objectives was important. Conversely, a systematic review by Orton *et al*. (2011) found two cases in health-related organisations where a lack of prioritisation of evidence use across the organisation led to staff not giving time to evidence gathering and review. Similar findings were identified in a study of evidence use in local government in Australia (Armstrong *et al.*, 2013).

## 2.5. An enabling environment exists for evidence use

The enabling environment relates to the wide range of factors which shape the context for EIPM. Based on the literature, we have divided these up into **external actors** and **external events**.

*External actors*

**The media can have a mixed role in the promotion of evidence use.** There is sometimes an assumption in the literature on EIPM that a free media is an important promoter of EIPM through offering a platform for scientific results to be discussed and debated (Hufen & Koppenjan, 2014). However, the reality is much more complex. Punton (2016) reviewed two studies, for example, that highlighted how the media promoted an issue in the face of evidence. The first was in the UK and related to the pressure that was applied to the government by the media, calling for a change in the level of openness about sex offenders'

identities and locations after leaving prison. This flew in the face of research which stated this policy change would not affect re-offending rates (Jung & Nutley, 2008; Punton, 2016). The second, related to discriminatory attitudes and views towards sex workers in Uganda and Ghana promoted in the media that ran counter to evidence suggesting the need for more inclusive policies (Broadbent, 2012). Li *et al*. (2017) also stress the importance of engaging with the media in the promotion of EIPS, stating that it wields significant influence over the national debate on finite health resources and priority setting, and plays an important role in raising awareness and facilitating exchange and debate. As such, they argue there needs to be more effort put into encouraging greater understanding within the media of the complexity of the priority setting process.

**Donor pressure can drive the effective use of evidence in decision-making. As such, it can play an important role in institutionalising evidence use in LMICs.** As discussed by Li *et al.* (2017) donors, funders and other global organisations play a pivotal role in setting the focus at the global level, upon which many other organisations base their priorities. They also play an important role in shaping health priorities at the country level in LMICs. They exert influence through their purchasing or provision of specific health care interventions, delivery platforms, and investment in research and technical assistance. A number of other studies show how donors can be a positive catalyst for evidence use in recipient countries, mainly through the promotion of interventions with strong evidence bases (Broadbent, 2012; du Toit, 2012 and Liverani *et al.,* 2013; Punton, 2017). Li *et al*. (2017) emphasize the need for funders, in the context of EIPS specifically, to have the capacity to commission, receive, interpret and use HTA and priority setting research to inform their own choices in global health, and the global standards and norms which client countries look to.

**Private sector actors can exert pressure which 'blocks' evidence-informed decisions**. While a limited number of studies covered the issue of private sector involvement in promoting evidence use, the two that were reviewed pointed towards the private sector largely hindering evidence use. A systematic review conducted by Walter *et al*. (2005) found that financial and corporate interest groups exerting pressure to either take up or ignore research findings based on commercial interests. Another study found that 'the lack of pressure from organised lobbies in Laos facilitated the use of evidence for health policy on essential medicines' (Liverani *et al.*, 2013).

*External factors*

**Major shifts in the political environment, such as crises, regime changes and democratisation can create new opportunities for or new barriers to EIPM.** One study argues that crises can create windows of opportunity, engendering a new willingness among policy makers to break stalemates or take painful but necessary steps. The bigger the crisis, the stronger the opportunity for research to shape underlying discourses and values. For example, during regime change in Singapore, ideas associated with the old regime were discredited and disorganised, opening space for new attitudes towards knowledge and creating a more conducive environment for research use (Jones *et al*., 2009). Similarly, three studies discussed in a systematic review (relating to South Africa and Uruguay) found that the process of democratisation created a new model which was more open to the uptake of research findings, including new appointments of researchers and the establishment of research institutes (Liverani *et al*., 2013). While these factors are obviously outside of the control of any actor promoting EIPM, the implications are that an organisation such as iDSI should be flexible enough to respond to these events when they emerge and to capitalise on windows of opportunity for promoting EIPM when they present themselves.

**Levels of organisational and political decentralisation can affect use of evidence in decision making.** A systematic review found evidence that a concentration of power in centralised systems (e.g. the UK National Health Service prior to 1990 reforms) can prevent pluralistic debate, and therefore the need for evidence to support competing views. Conversely, in decentralised political systems, there may be more need for research as legitimation or ammunition to justify political decisions (Liverani *et al.*, 2013). One study of the BSE ('mad cow disease') public health crisis in the UK found that, in a centralised system in which government agencies controlled expert advice with little public oversight, pressure and expert interest groups were able to shape policy decisions and undermine the credible assessment of public health risks (Beck *et al.*, 2005). However, a study of evidence use in the Philippines described how a culture of evidence use did not emerge upon decentralisation, despite legislation being in place to strengthen local government capacity as part of the decentralisation process. This was in part due to limited budgets for Local Government Units to conduct research, few links between academic institutions and local decision-making bodies, and the persistence of nationally provided policies – reflecting a history of reliance among local government actors on central government data (Pellini *et al.*, 2013).

**Political support is also important.** Doherty *et al.* (2017) found political will is one element of a supportive context and is especially important for effective HTA systems. They stress how the current international focus on UHC is likely to create a conducive political environment for public popular support for fair and efficient priority setting. As such, they say that cultivating and nurturing this support should be part of any efforts to promote and institutionalise HTA. Li *et al.* (2017) make a similar argument, stating that there needs to be a political commitment to UHC and the use of evidence and tools such as HTA to achieve that aim.  Punton and Vogel (2018) also stress how efforts to institutionalise EIPM have more chance of success if they link to the broader political platforms and agenda of the government in power.

## 3. How can capacity-building efforts support the institutionalisation of EIPS?

This section explores the different capacity building activities that can be used to support the institutionalisation of evidence use in policy. As described in Section 1.4, our definition of capacity building: "…involves much more than individual skill development; it requires change at individual, interpersonal, organisational and institutional levels in relation to evidence access, appraisal, interpretation and use" (Punton, 2016: 17).

Similar to Section 2, while our focus in this paper is on EIPS, we have cast our net wider than this in the literature review, to also encompass the broader EIPM literature. We felt this broader scope would be useful to iDSI, as it would help identify and bring together a wider range of evidence and learning on how capacity building activities can support the institutionalisation of EIPM.

The discussion in this section is largely based on theoretical thinking and/or anecdotal evidence, with proven empirical evidence of an intervention's effectiveness only detailed in a limited number of cases. This reflects a research gap in the wider literature in regards to EIPS impact evaluations and is explored in greater depth in Section 4 below.

Through the literature review we have identified six different types of capacity support that are used to institutionalise EIPM and for which we have evidence of their effectiveness:

- Skills building

- Awareness raising

- Network building

- Institutional partnerships

- Supporting change to organizational structures and processes.

Each of these types of capacity support are discussed in turn.

## 3.1.   Skills building

A great deal of capacity building comes in the form of training, with a focus often on knowledge and skills development (Punton, 2016 and Langer *et al*., 2016). This section reviews the evidence around how, and in what form, training might contribute to EIPM.

**EIPM training, when designed appropriately, can increase EIPM skills and confidence and lead to behaviour change.** In a number of studies, training is shown to enhance EIPM through building the skills and confidence of its attendees to use and access evidence (e.g. Jacobs *et al*., 2014; Pappaioanou *et al.,* 2003; Rolle *et al*., 2011; Punton, 2016). For example, attendees from a training course implemented in Bolivia, Cameroon, Mexico and the Philippines reported feeling a greater sense of empowerment following the training course and were better able to use evidence in the resolution of community-level health problems (Pappaioanou *et al*., 2003). Likewise, the evaluation of BCURE found that in all six government contexts, training or workshops were used to build individual's knowledge and skills for EIPM and, across most of these settings, these activities increased participants' technical knowledge and skills of EIPM. Importantly, however, in many of the BCURE projects, participants' improved knowledge did not lead to changes in their behaviour and the use of evidence.

**A range of factors need to be considered in the design and delivery of training to enhance the chances that it will lead to skills being put into practice.** Punton and Vogel (2018) identified six factors which explain why EIPM training led to behaviour change in certain BCURE projects and not others.

1. **Managers encourage and support those that attended the EIPM training to apply their new learning.** In the absence of a conducive organisation environment, trainees can struggle to put their new skills into practice. Punton and Vogel found that when this support was forthcoming, trainees were encouraged and supported to apply their new skills. This finding resonates with wider literature on training effectiveness, which stresses that organisational barriers can often prevent improved learning outcomes leading to behaviour change (Kirkpatrick 1996).

2. **The EIPM training was targeted towards those that could apply the skills.** In the BCURE projects in Kenya and Zimbabwe, the training targeted policy analysts and research officers who are required to search, appraise and promote evidence as part of their role. In Pakistan, the EIPM training was integrated into a broad mandatory civil service training programme and therefore targeted many people for which evidence use was not part of their job. Doherty *et al.,* (2017) make a similar point in relation to HTA stressing the need

to ground training in a thorough needs analysis so as to ensure it is well tailored to the needs of the participants.

3. **The EIPM training targeted clusters of trainees working in the same unit.** Training a number of individuals from the same team or same organization had greater results and a wider impact for embedding EIPM than if one individual from one organisation was trained on their own (Jacobs *et al.*, 2014; Punton, 2016; Punton and Vogel 2018).

4. **The support that was provided to participants extended beyond a one-off EIPM training.** The BCURE projects that had the most success in catalysing behaviour change, provided follow up support to participants through on-the-job support and mentorship. For example, in Kenya, following the training, trainees were helped to develop policy briefs. In Bangladesh participants were supported in policy development using the EIPM tools that were introduced in the training. This finding is supported by the wider literature. For example, the Langer *et al*. (2016a) systematic review indicates that EIPM training is more effective when supplemented with additional modes of support such as mentoring. Similarly, in other studies, 'post-training support visits' (Matovu *et al.*, 2013) and mentoring support following training (Pappaioanou *et al.*, 2003), were shown to extend the longevity of the programme outcomes by helping sustain the momentum generated by the training and helping participants navigate the challenges and barriers to putting their skills into practice.

5. **The EIPM training was practical and used live policy examples.** Punton and Vogel found that where EIPM trainings were highly participatory and focused on helping participants solve real problems, they were most effective in shifting behaviour. This point is also raised by Rolle *et al.* (2011) who emphasize the importance of combining both classroom and practical based training and showed that it resulted in more sustained changes in behaviour that simply theory-based training.

6. **The EIPM training focused on soft as well as technical skills.** EIPM is not a purely technical endeavour; those that are supporting EIPM not only need to have highly refined technical skills associated with data analysis and modelling, but they also need to be good communicators and persuasive influencers. Punton and Vogel found, that EIPM training that combined a focus on technical skills, and softer influencing and communication skills were most effective in changing behaviours.

An interesting point raised by Doherty *et al*. (2017) that speaks to the design of interventions to build EIPM skills, is the intensity of the training. In the context of HTA, because of the advanced skills that are required, PhD courses were identified as being necessary as a precursor to HTA development. In Thailand, for example, the government provided opportunities for its staff to undergo PhD training at the London School of Hygiene and Tropical Medicine, through the provision of bursaries, in its efforts to develop the necessary skills base to institutionalise HTA (Doherty *et al*., 2017).

**As well as direct skills building, training can also have wider effects.** While training is primarily focused on building the skills of participants, a number of studies have shown how its impact can be reach further than participants. For example, Jacobs *et al.* (2014) found that training helped raise the awareness of EIPM among leadership and led to them becoming more supportive of efforts to integrate EIPM into organisational processes (Punton, 2016). In a programme carried out in Canada, Peirson *et al.* (2012) found that training, undertaken in conjunction with mentoring and knowledge brokering, resulted in greater organisational familiarity and understanding with EIPM concepts and the creation of a common language to discuss and practice EIPM (Punton, 2016). Peirson *et al.* (2012)

demonstrated that training helped build connections between staff involved in EIPM which helped create a network of individuals interested and involved in promoting EIPM. This helped in the sharing of knowledge to enhance the use of evidence and creating momentum behind EIPM reforms (Punton, 2016).

A final reflection from Punton and Vogel (2018) relates to how training can be used by external actors promoting EIPM as a 'foot in the door' to longer-term engagements and support to policy makers. In the context of BCURE's work in Zimbabwe, ZeipNet, a local research agency promoting EIPM, found that delivering training to policy makers helped raise its profile within government. As a result of offering follow on support to those who participated in the training, ZiepNet was then invited to provide ad hoc technical assistance, which in turn led to more in-depth engagement around specific policy processes.

## 3.2.  Awareness raising

Another way in which capacity building efforts can support EIPM is through awareness-raising activities. These might include workshops and conferences where presenters discuss the need for evidence or policy forums and knowledge cafés that bring together policy makers to discuss evidence on specific topics. The following section discusses what the literature says on their effectiveness in supporting the institutionalisation of EIPM.

**Awareness raising by itself does not lead to evidence being used; it needs to be combined with other activities.** The systematic review by Langer *et al*. (2016) found a lack of evidence on the impact of general awareness raising interventions on the use of evidence. They found that when delivered in isolation, interventions for raising awareness of EIPM do not lead to evidence being used in policy. However, when such interventions are combined with other activities, such as training, or network building, these packages of interventions were effective. The evidence seems to suggest that awareness raising needs to be linked with other interventions. This was also the finding of the BCURE evaluation which found that policy dialogues, knowledge cafes, and profession forums which were one off, and simply brought stakeholders together, seemed to have limited direct impact on evidence use. However, when these activities were combined with training, focused on very specific policy issues, or linked to follow up support, they play an important contribution in supporting the use of evidence in policy (Punton and Vogel, 2018).

Reflecting on this absence of evidence on the effectiveness of awareness raising activities, Langer *et al*. (2016) also reviewed the wider social science literature on awareness raising (e.g. norm setting, social marketing etc.). Based on this, they identified three possible practices which could be applied to help build awareness and positive engagement with EIPM:

1. **Promoting the value of evidence and how it will make a difference to people's day-to day-work.** This requires very tailored communication to different audiences to ensure the message resonates with them.

2. **Creating evidence use as a new professional norm through communications that indicate how others use evidence and benefit from it.** Once these norms have been created, they need to be embedded through cues, such as, reminding people that their professional identify involves understanding and using evidence.

3. **Rewarding and providing professional recognition to those that practice EIPM.** This can further boost the evidence norm. This could be in the form of prizes for good practices and public peer-recognition.

## 3.3. Network building

The types of activities and techniques that can be used to build networks to support EIPM are varied, but generally involve creating opportunities and spaces (virtual and face-to-face) for researchers and policy makers to come together, discuss evidence, build relationships and learn about EIPM. The following section discusses the relative effectiveness of these activities.

**Formal opportunities for interaction, such as workshops or training sessions, can increase the strength of connections between groups, improve the exchange of information and generate learning outcomes.** Punton (2016) discusses four studies that showed the importance of network building in facilitating the exchange of knowledge between researchers and policy makers. In one of the studies, Pappaioanou *et al*. (2003) found that bringing together researchers and policy makers through a number of workshops in four LMICs, led to improved understanding and communication between the two groups and stronger relationships. An interaction between researchers through various face-to-face engagements organised by the AFREPERN network led to improved levels of trust between the two groups. Punton and Vogel (2018) found that the value of activities that bring researchers and policy makers together is greatest in contexts where there is a recognised gap between research and policy. In Zimbabwe, for example, they found that facilitated dialogues were highly valued because they brought together different groups to share alternative perspectives, in a highly politicised context where spaces for this type of dialogue are limited and often constrained.

Dobbins *et al.* (2009) found that the use of regional webinars for public health officials provided opportunities for participants to discuss issues and identify implications of evidence for policy and practice and develop ideas for promoting EIPM in their organisations. Likewise, in studies by Harris (2011), Mairs (2013) and Menon (2009), journal clubs were shown to achieve positive results by building motivation, capability and opportunities to use evidence. In the context of HTA, Doherty *et al.* (2017) suggest using concrete projects as a way of cementing relationships between HTA researchers, and also building the capacity to undertaken HTA.

In other studies, networking activities have also been shown to help building consensus around evidence. For instance, journal clubs and Delphi panels have been effective in helping groups better understand the evidence and then in turn "…converge on an agreed decision…" (Breckon and Dodson, 2016: 11).

**In terms of increasing the use of evidence, there is not much evidence on the effectiveness of networking activities when applied in isolation.** Langer *et al*. (2016) in their systematic review of ways of strengthening evidence use, found that there was very little evidence indicating that networking activities, when implemented by themselves, affected evidence use. However, when applied in the context of a wider package of activities, the package was found to have an impact on evidence use. The BCURE evaluation came to a similar finding. As discussed above, policy forums and knowledge cafés were common activities for building dialogue and collaboration between researchers and policy makers across BCURE projects.

Punton and Vogel (2018) found that they had limited effect by themselves, because they were generally one-off events, each involving different participants, with different aims. They were more about raising awareness and building momentum, than specific instrumental changes such as participants changing their behaviours or evidence use being institutionalised. However, when these events linked to specific windows of opportunity that emerged in a country, and other capacity support that was being provided through the BCURE project, such as technical assistance, they did contribute to the use of evidence in policy. In Zimbabwe, for example, the BCURE project contributed to the revision of the industrial development and trade policies through identifying a window of opportunity (the Ministry of Industry's policy was about to expire) and convened high level economists and senior policy makers to discuss the relevant evidence and provide recommendation for revisions to the policy. This was then followed up with additional meetings with the Ministry to discuss the practicalities of the recommendations and how they could best be implemented. The recommendations were subsequently taken up in the policy review process.

## 3.4. Institutional partnerships

**International and regional partnerships are another mechanism with potential for building capacity**. Li *et al*. (2017) indicate that international collaboration can provide support that is key for capacity building around HTA and in the longer-term can also pave the way for sustained communication and knowledge sharing. For example, based on the experiences of developing HTAs in Asia, Chootipongchaivat *et al*. (2016) stress the importance of international partnerships, especially in the formative stages HTA development. They argue that international partnerships can provide much needed financial and technical capacity building support, and lay the foundations for sustained knowledge exchange and support. Li *et al*. (2017) make a similar point with reference to regional partnership. Citing the example of the collaboration between PRICELESS-SA at the University of Witwatersrand and KwaZulu Natal to support the refinement of the Essential Medicines List in Tanzania, they argue that as well as providing services to the Tanzanian government, the partnership also helps build each partner's capacity and build the relationships needed to support HTA in South Africa and the region. Doherty *et al*. (2016) also recommend developing more formal regional partnerships to build better networks and relationships between HTA experts, however, also caution, that to be effective they require active management and careful negotiation.

Institutional partnerships can also be used to build the capacity of research agencies. Doherty *et al*. (2017), for example, point to a number of examples of international partnerships supporting capacity of research organisations involved in HTA. However, they note that there are notable challenges to operationalising such partnerships to be able to deliver on capacity development objectives. These include: finding a compromise between different research and methodological interests, imbalances in power and a lack of trust. Many of these are challenges are also discussed in the Frazen *et al.* (2017) systematic review of health research capacity development in LMICs.

## 3.5. Supporting changes to organisational structures and processes

As stated in Section 2, we need to hardwire evidence into the every-day decisions of organisations in order for it to become institutionalised. A key part of this is changing organisational systems and process. This section discusses some of ways in which actors such as iDSI can support such organisational changes.

**The introduction of new tools and guides have been shown to help change organisational practices around the use of evidence.** In the BCURE evaluation, Punton and Vogel (2018) found that developing tools such EIPM guidelines and Evidence Maps, that enabled policy makers to engage with evidence more easily was one of the most successful types of interventions across the different government contexts and helped facilitate the consideration of evidence in policy processes. Key to the success of such tools, however, was how they were developed: they needed to be co-developed in partnership with government. This helped ensure ownership, which in-turn made adoption of the tools more likely. The evaluation also found that the evidence tools were most successful when they were combined with other interventions such as policy pilots where the BCURE projects provided close support to policy makers in the practical application of the tools. This point is echoed by Nutley et al (2013) who found that capacity development was an important intervention to enable the use of evidence tools (Punton, 2016).

Other examples of where tools have been successfully applied include:

- In three Canadian Public Health Organisations, EIPM interventions in the form of guidelines, criteria, checklists and evidence extraction templates assisted in evidence use by staff through guiding and directing them through the process of evidence gathering and use (Yost et al. 2014; Punton, 2016).

- A decision-management tool was also utilized to support district health decision-making in Kenya. This tool aided the decision-makers at the district level to understand and analyse data and, in turn, improved their capacity to use data to problem-solve and thereby improve health services (Nutley et al. 2013; Punton, 2016).

- The Annual Report Cards (ARCs) developed by the Marine Climate Change Impacts Partnership (MCCIP) provided marine policymakers with evidence that was concise, easy to understand and presented in a visually appealing manner, with confidence ratings attached to offer an indication of the quality of such findings. This facilitated evidence use and was shown to result in changes to policy (Shaxson and Tsui, 2016; Jackson, 2017).

- The UK Department of Farming and Rural Affairs established a guide for the handling and utilization of evidence, which helped to embed evidence use within the Department (Shaxson 2014; Punton, 2016).

**Supporting the development of new EIPM organisational processes and systems requires a flexible approach that works alongside public officials.** One of the key findings of the BCURE evaluation was the importance of working collaboratively and flexibly with government. Projects had the most success in supporting organisational change when they accompanied government partners in flexible and collaborative ways that promoted ownership and strengthened partners' capacity through learning by doing. Successful projects tended to co-produce a new evidence tool or process with government, and then pilot it in a live policy context. During the piloting, the project would work closely with policy makers to help them apply the tool and, in so doing, build their capacity. The outcome of the pilot was used to showcase the value of an evidence informed approach, which was then used to influence senior stakeholders and raise their awareness of the importance of EIPM. In some cases, this in turn led to the tools and process being 'locked in' to how the ministry functioned.

This way of working is very similar to what Doherty et al (2017) recommends in supporting the development of HTA capacity in public agencies. As stated in Section 2.4, in the field of

HTA, introducing HTA informed priority setting process is considered a key way of embedding evidence use in policy. In supporting the development of such process, Doherty et al (2017) suggest a number of ways of improving the HTA capacity in government agencies, including: identifying a few concrete and immediate interventions that can be used as test examples for HTA and then working alongside officials to support them in the process of conducting or commissioning a HTA; and conducting demonstration research projects in order to provide the Ministry of Health with a 'small win' and, in the process, provide opportunities for capacity strengthening. Similar to BCURE, a focus on learning by doing, and using small demonstration projects to showcase the value of EIPM, are at the heart of this approach.

## 4. What is the evidence relating to the relationship between institutionalising EIPS and better evidence informed priority-setting decisions?

This section seeks to understand the evidence of a causal link between institutionalising EIPS and better evidence informed priority setting decisions. It focuses exclusively on research that identifies examples of better decisions and unpacks what aspects of the institutionalisation of EIPM (as unpacked and discussed in earlier sections of this review) contributed to this.

As introduced in Section 1.4, "*better"* is a nuanced and subjective term and, as such, makes it difficult to define a "*better priority setting decision"*. However, for the purposes of this rapid literature review, it is defined as:

- **More informed:** linked to the definition of evidence informed priority setting – i.e. that "the decision makers and the process are made explicit and transparent, and priority setting is done in a deliberative manner involving relevant stakeholders, in consideration of best available [or most context relevant] evidence" (Li et al., 2016).

- **More rational:** the most well-justified or reasoned decision, for instance, whether this is in the selection of the most cost effective or the most equitable outcome.

Overall, the availability of research that assesses the specific impacts of institutionalised EIPS on better decisions seems, within the confines of the scope of this review, to be very limited. There is somewhat more evidence on the contribution of the *'building blocks'* of institutionalising EIPS (as discussed in earlier sections of the report). However, overall, the majority of literature identified through our searches was found to focus on the intermediary outcomes, for instance, in terms of engagement of decision makers with evidence, rather than evaluating whether this then leads to better evidence informed decisions. Furthermore, where claims are made regarding decision-makers' use of evidence, these are often theory based or anecdotal, rather than backed-up by sound empirical evaluation evidence (Punton, 2016). This does not necessarily suggest institutionalising EIPS is not effective to enhance decision making, but rather indicates that further research is required (supported by the findings of Breckon and Dodson, 2016).

The remainder of this section reflects on the evidence identified within this review, detailing the findings of studies that cited examples of better decisions and exploring how institutionalisation of evidence informed priority setting (or one of its building blocks) was shown to have contributed.

**There is some evidence which makes the link between strengthened <u>technical capacity</u> for critical appraisal, and better evidence use; however, the number of studies is very limited and focuses on individual behaviours.** A systematic review by Hyde *et al*. (2000) considered the impact of critical appraisal training (CAT). The number of studies measuring a relevant outcome was limited; however, in one study from the USA, the use of medical literature in patient write-ups was greater by clinical clerks who had attended a CAT training course than by those who had not (Landry, 1994; Hyde *et al.*, 2000). A number of studies also indicated that health decision-makers increased the amount of time that they spent reading research after receiving CAT (Hyde *et al.*, 2000). Similarly, research by Ilic *et al*. (2014) also showed that CAT resulted in greater evidence use, as self-reported by the decision-makers who received the training, as well as an increase in the number of Medline searches carried out by this group (Langer *et al.*, 2016b).

Overall, the extent to which strengthened technical capacity actually results in more evidence informed decisions being made is unclear from the literature – with Hyde *et al*. (2016) finding no empirical evidence to show how CAT actually translates into changes in terms of the decisions that are made. The studies generally focus on a more proximal outcome (such as citation of evidence), which are not themselves directly a measure of evidence informed decision making, albeit they could be a suggestive indicator. On the other hand, one study in the USA did indicate, on the basis of reports of attendees, that 45% of participants felt the training was responsible for an increase in EBDM such as greater evidence use in the selection of programmes (Jacob *et al.*, 2016; Punton, 2016).

**We identified one trial that indicated that providing tailored <u>support through knowledge brokers</u> was effective in increasing the use of evidence in decision-making, but only where an organisation had a weak evidence-use culture** (Dobbins, Hanna *et al*., 2009; Punton, 2016). A randomised control trial (RCT) of a knowledge brokering intervention in Canadian public health agencies found positive impacts on policy makers' reported behaviour (as well as reported confidence to use evidence). The intervention comprised knowledge brokers (in the form of external experts) working within Canadian health departments to provide tailored support to health department staff, including group training, one-on-one consultation and virtual support. The RCT found a statistically significant increase in evidence-informed decision making at follow-up – but only among organisations that had a low initial 'culture of evidence use' (measured through a staff questionnaire) at baseline. The case study also found a statistically significant increase in individual and organisational EIPM skills and capacities and a large and statistically significant increase in EIPM behaviours (Traynor *et al*., 2014), as indicated by:

- The extent to which evidence was considered in a recent planning decision, as reported by staff members.

- The number of evidence-based policies and health interventions that were being implemented pre- and post-intervention, out of a list of 11 interventions selected by the evaluation team based on systematic review evidence (Punton 2016).

The mechanisms for knowledge brokers contributing to behaviour change were through increases in knowledge, skills and confidence (as discussed in Section 3 above). (Dobbins, Robeson, et al., 2009; Traynor et al., 2014).

**Ensuring <u>access to evidence</u> (for example, through communication) where this is combined with interventions that increase the motivation of decision-makers to use evidence, has**

**also been shown to lead to better evidence-based decisions.** This was demonstrated through increased evidence usage and a subsequent policy decision that followed the targeted communication of evidence to decision-makers who had previously shown an interest in it and increased evidence access via an online evidence portal and the provision of systematic review summaries (Bunn, 2012 and Gray, 2013). In studies looking at communication and access to evidence as a mechanism for promoting evidence informed decision making, Langer *et al.* (2016) also found that the combination of providing opportunity and access, combined with motivation, encouraged use of evidence as measured by the number of actual evidence-based strategies, policies and interventions being implemented as well as the reported use of systematic reviews to inform a policy decision in a two-year period*.*

Of note here, and referenced in Section 3 of this review, is the role of individual level desire to use evidence in conjunction with the increased access to and communication of evidence for enhanced EIPS (Langer *et al.*, 2016). This implies the need for institutionalisation to consider how to trigger this mechanism for the individuals operating within institutions.

**There is evidence, although limited, to suggest that the creation of <u>institutionalised structures and processes for routine evidence use</u> contributes to better evidence informed decisions.** However, this is often in the context of a package of interventions, making it challenging to assess the causal link. A rapid review by Chambers *et al.* (2011) demonstrated some evidence of positive decision-making outcomes as a result of organisational processes for evidence use, albeit these are specific and individual examples:

- Decision sheets (bringing together findings from systematic reviews and guidelines), were provided to the UK's East Riding and Hull Health Authority Maternity Strategy Group, and these were shown to have informed decisions about the early alignment of services for Downs Syndrome (Thornton-Jones, Hampshaw, and Soltani 2002; Chambers *et al.*, 2011: 148).

- Provision and use of a routine, on-demand evidence service by NHS decision-makers in the West Midlands in England was shown to have contributed to the decision made by health decision-makers to create a new service, and by primary care purchasers to decline the acquisition of another (Packer and Hyde, 2000; Chambers *et al.*, 2011).

The evidence outlined above has been useful in highlighting instances where changes in organisational processes and structures have impacted on how evidence is used in a decision process. However, in their review, Breckon and Dodson (2016) noted that much of the broader evidence on creation of structures and processes is within the context of a wider intervention; therefore, it is often not possible to make more generalisable conclusions on their specific contributions, given the current lack of evidence.

**There was no evidence to show a direct link between <u>strengthened networks and partnerships,</u> and more evidence informed decisions.** Langer *et al.* (2016) found evidence on the impact of strengthening interpersonal connections as part of a wider intervention, but these interventions were not shown to be effective in shaping decision-making outcomes. This was shown in four studies in Langer *et al.* (2016b), including a study by La Rocca (2012), in which communities of practice (CoP) were being used as a means of bringing decision makers and evidence providers together. CoP, in this case, proved to be inadequate in influencing decision-making outcomes. A study by Gabbay *et al.* (2003) looking at CoP in the UK's National Health Service also found that the modes of interaction

supported through the CoP held less weight than other factors such as previous experience, or trust. The result was what were considered poorer decisions, with groups making recommendations that did not make full use of research evidence. (Punton, 2016: 82).

The breadth of multi-mechanism interactions-based approaches explored by Langer *et al*. (2016), and the clear lack of evidence of impact, leads Langer *et al*. (2016) to suggest that strengthening interactions may do little to enhance the use of evidence by decision-makers. However, they also note that this is a function of the ambiguity around the notion of an interaction and the multiple forms it can take.

**A review by Guthrie *et al*. (2015) found numerous contributions of the UK HTA programme towards more rational decision making and suggests that the <u>organisational linkages</u> between the HTA programme and its users – NICE and the National Screening Committee – has been a key mechanism through which it has had an impact.** Guthrie *et al*. (2015) document how the HTA Programme, as part of the NIHR[5], has led to more rational decision making in the UK. They discuss a number of mechanisms through which the HTA Programme influences decision making:

- **Impact on policy through funding high quality research:** The HTA Programme has measures in place (for example, peer review) to ensure production of robust evidence on both clinical and cost effectiveness. We discuss below some examples where these have had a direct influence on decision making.

- **Linkages with the clinical guidelines programme of NICE and the National Screening Committee:** This was found to be the primary route through which the HTA Programme is contributing to better decision making about patient care in the NHS, for example through referencing of HTA guidance in NICE clinical guidelines or through decisions taken by the National Screening Committee in terms of piloting screening programmes.[6] These linkages are facilitated through the use of structures that ensure the HTA Programme is addressing questions of relevance to those organisations.

- **Direct impact of HTA Programme-funded research on clinicians' decision making:** There was some evidence to suggest that clinicians may change their practice and make better decisions as a result of HTA research if the studies are sufficiently large and clinicians are aware of them.

Out of 12 case studies considered, 10 studies indicated some evidence of an impact on UK NHS policy as a result of HTA Programme findings on clinical and/or cost effectiveness. For example:
- **Increasing available treatment options on the basis of clinical and cost effectiveness evidence:** Reports commissioned by the HTA Programme for NICE were shown to influence the decisions made by NICE – broadening the treatment options for Rheumatoid Arthritis on the NHS (Guthrie *et al*., 2015). This was linked to their synthesis

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[5] The HTA programme "… produces high-quality research information on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS. 'Health technologies' are broadly defined as all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care." (Guthrie et al, 2015)

[i] It is also important to flag examples where, despite evidence, decisions are not made on the most rational basis. For example, this was demonstrated through a study in which Avastin drug was shown to be as effective but more cost effective in the treatment of wet age-related macular degeneration (AMD), when compared with Lucentis, the drug currently approved for use in UK. Despite evidence, the commercial interests of the company that owns both drugs has prevented an application being made to bring this drug to market and as such, it cannot be reviewed by NICE.

of evidence, and demonstration of the cost-effectiveness and effectiveness of single or multiple health technologies.

- **Changing treatment recommendations:** NICE changed its treatment recommendations following the dissemination of an RCT that showed no benefits of newer atypical drugs when compared with older typical drugs in the treatment of psychosis (CUtLASS study51; Guthrie *et al*., 2015). This is highlighted by Guthrie *et al*. (2015) as of particular interest due to such recommendations running counter to, and largely failing to, challenge the wider perception that prevailed regarding the benefits of atypical drugs by clinicians.

- **Proof of concept, supporting an existing policy:** In another example, an RCT demonstrated that water softeners have no effect on eczema in children and have associated cost-savings for patients where this technology is not adopted. This indicated the appropriateness of the existing policy and informed the subsequent decision by NICE to make no changes to this policy.

- **Piloting new approaches:** Following the findings of HTA Programme funded studies (for example, ARTISTIC41 and Newborn CHD42), the National Screening Committee has chosen to pilot new approaches.

- **Decisions about targets for new interventions, based on cost effectiveness data:** In an example by Morgan *et al*. (2015), research from one of the NIHR's Health Protection Research Unit (HPRU) programmes looking into immunisation, was responsible for informing the decision by the UK's Joint Committee on Vaccination and Immunisation (JCVI) regarding the PCV-13 pneumonia vaccination. On the basis of this research, the JCVI was better able to determine the limited cost-effectiveness of this vaccination, allowing NHS funds to be directed to other approaches to tackle this disease.

In the cases outlined above, production and dissemination of evidence by, and through, the HTA Programme funded studies have enabled rational judgements to be made regarding the most appropriate health technologies, largely in terms of cost effectiveness and effectiveness. These are intended to be indicative only - there are, of course, likely to be numerous other examples from countries such as the UK, among others, where the presence of a NICE-type body mediates EIPS within health. For example, Jirawattanapisal *et al*. (2009) demonstrate the use of HTA in Thailand to inform decisions by the drug regulatory authorities regarding reimbursement.[7]

**Various studies discuss the importance of <u>accountability and patient involvement</u> processes in informing decision-making and cite examples where this has occurred.** As introduced at the start of this section, consultation with relevant stakeholders is part of the definition of better, more evidence informed decisions, and patients and the public are a key stakeholder group. There are various mechanisms through which to do this,[8] and Guthrie *et al*. (2015) cite a number of examples in which the involvement of patients and the public has informed policy-level decisions. For instance, patients and their families were engaged in the CUtLASS51 case study as a result of the role of their clinicians as study researchers. The study directly informed decisions by NICE about the best treatment approach. It is standard

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[7] Pharmacoeconomic evidence (PE) assessments were provided by the Health Intervention Technology Assessment Program (HITAP), and enabled cost-effectiveness considerations to be applied by The Subcommittee for Development of the Thai National List of Essential Drugs (NLED), alongside assessments on the basis of safety and efficacy.

[8] NHS uses citizen juries and public consultations, as well as patient involvement in fora such as guideline development groups (as discussed by Hawkins and Parkhurst, 2016). In Brazil, marginalised communities are engaged through local health councils (Coelho, 2013), whilst in Mexico accountability is through legal mechanisms mandating evaluations of key social interventions. (Castro et al,2009).

practice to have patient representatives on committees involved in decision making in the UK NHS, thus it seems likely that there are numerous other examples of direct effects on decisions which have not been documented explicitly in the studies reviewed.

Parkhurst (2017) also indicates the role of public consultation by NICE, which has resulted in more informed decision-making through representing broader social values. For example, he demonstrated that through this stakeholder engagement, the decision was made by NICE to apply an end of life 'premium', allowing higher treatment costs for those with less than two years to live (Cookson, 2013; Parkhurst, 2017).

There is also a broader theoretical mechanism through which institutional processes for transparency might feasibly lead to greater accountability and better decisions; however, there was no specific evidence in the studies reviewed as to a tangible contribution of transparency on decision making.

## 5. Implications of the literature review findings for the iDSI theory of change

The aim of this rapid literature review was to explore the evidence base relating to the *stronger country institutions* pillar of the iDSI ToC. In this final section, we step back and reflect on if, based on the evidence, we would suggest any changes to the TOC. These will be discussed with the iDSI partners at the theory of change workshop in London on Feb 14th 2018.

We have grouped the proposed changes into two sections. The first section is additions to the ToC, the second is proposed amendments to the six current components of the *stronger country institutions* pillar of the ToC. We then finish with a broader reflection of the role of the ToC moving forward.

An important preface to these conclusions is that the evidence base that we were able to identify from the literature review is not extensive. This is partly a product of the rapid nature of the literature review, but also that there isn't an abundance of robust evidence on how you institutionalise EIPM and EIPS specifically. IDSI itself is an important generator of such evidence. This is not to undermine the following conclusions, but rather to provide an important caveat to how they are interpreted.

**Proposed additions to the ToC**

- The literature review has shown that institutionalisation is not the same as institutions. Reflecting this, we would suggestion changing the name of the pillar from 'stronger country institutions' to 'institutionalisation of EIPS at the country level'

- The ToC is largely silent on the enabling environment that needs to be in place in a country to support the institutionalisation of EIPS. While the ToC recognises the importance of political support for EIPS as an enabling factor, the literature review has also pointed to the role of the media and donors in creating a conducive context for EIPS. At present, donors are included in the ToC, but only under the 'effective partnership through iDSI' pillar. IDSI may want to consider including a new component in the country pillar which is along the lines of: 'donors promote and support EIPS through their funding and influencing.' Similarly, it may also want to consider including a component related to

the media, for example: 'the national media are engaged with EIPS and present a balanced perspective of priority setting'.

- There is nothing in the ToC on how iDSI needs to operate at the country level as a partner with government, to support the institutionalisation of EIPS. The literature review has presented evidence on how successful efforts to institutionalise EIPM, with the support of partners such as iDSI, are characterised by certain ways of working: the importance of accompanying change processes; co-producing tools with policy makers; being flexible; building capacity through learning by doing; and running small pilot projects and then using these to showcase the value of EIPM. Similarly, the literature review also presents evidence on the need for promoters of EIPM to be agile and flexible in reacting to windows of opportunity, such as a new government being elected, or an economic crisis. All provide opportunities for actors such as iDSI and its partners to push forward reform efforts. IDSI may want to consider introducing a component into the ToC which relates to how it needs to operate at a country level to support reform efforts.

**Proposed changes to the components of stronger country institutions**

| Components of stronger country institutions pillar | What the evidence indicates | Possible revision to discuss with iDSI |
|---|---|---|
| **Strengthened technical capacity for evidence informed priority setting at country level**. | • Section 2.1 presents evidence that building the technical capacity of individuals involved in EIPM is foundational to institutionalisation of evidence use.<br><br>• Sections 2.1 and 3.1 presents evidence that emphasises the importance of different individuals needing different technical skills and that understanding this is key to effective skills building interventions.<br><br>• Section 2.1 presents evidence that indicates that individuals not only need technical skills, but also the motivation and opportunity to put their skills into practice.<br><br>• Section 4 presents evidence demonstrating a causal link between technical capacity building efforts, specifically for critical appraisal, and better evidence use. | • Distinguish more clearly which stakeholders at a country level should have which technical capacities.<br><br>• In addition to 'technical capacity' being strengthened, include strengthening of 'motivation' and creation of 'opportunity'. |
| **Mandated and credible institution(s)** | • Sections 2.2 and 2.4 present evidence that supports having credible EIPS institutions | • Distinguish between different types of EIPS |

| | | |
|---|---|---|
| **functioning in EIPS at country level**. | functioning at the country level, specifically HTA units and priority setting institutions<br><br>• Sections 2.2 and 2.4 present evidence that to function effectively, EIPS institutions need to be credible, but they also need to be: objective, trusted, and have good relationships with policy makers and researchers | institutions that are being referred to.<br><br>• In addition to 'credible' and 'mandated', consider including 'trusted'. |
| **Routine generation of high quality, Evidence-informed products at country level** | • The literature review did not cover this issue in depth, but Section 4 presents evidence of the importance of combining improved generation and access to evidence, with interventions that also improved motivations to use evidence. | • No suggested change |
| **Increased political commitment and buy-in to EIPS agenda from stakeholders**. | • Section 2.3 presents evidence on the importance of influential leaders in institutionalising EIPM, and emphasises that they can exist at all levels within an organisation.<br><br>• Section 2.5 presents evidence on the importance of political will in creating a supportive context / enabling environment for HTA. | • Distinguish between high level political commitment which creates an enabling environment for reform, and champions which can help drive EIPS reforms forward on a day to day basis. |
| **There is a strengthened network of suppliers and users of evidence informed products and policy at country level**. | • Section 2.2 presents evidence that emphasises the importance of building good relationships between policy makers and researchers and the role this plays in supporting evidence use. Particular emphasis is put on the need for trust between both groups.<br><br>• Section 4 presented evidence indicating that to result in evidence use, network building interventions need to be part of a wider set of interventions (such as improving the motivation of policy makers to use evidence.) | • No suggested change |
| **Creation of institutionalised** | • Sections 2.4 and 3.5 present evidence on the importance of | • No suggested change |

| | | |
|---|---|---|
| **structures and processes for routine consideration of evidence into policy and resourcing decisions**. | organisational systems and process for embedding evidence in policy making and making evidence use routine.<br><br>• Section 4 presents evidence of how institutionalised structures and processes for routine evidence contribute to better evidence informed decisions.<br><br>• Sections 2.4 and 3.5 present evidence on the role of HTA informed priority setting processes in institutionalising evidence use. | |

Having conducted the literature review, a question that we are left with is: What is the purpose of the iDSI ToC? The literature reviews has revealed the richness of what institutionalizing EIPM means in practice and the different pathways to achieving it. The current ToC does not necessarily reflect this richness. At present it is a device that presents, at a general level, the different components that are needed for EIPS to be institutionalized. It communicates *what* needs to be in place, but not *how* this can be achieved, and what iDSI's contribution is to institutionalizing EIPS. In order to do this, much more detail needs to be teased out around the process of change and how the different packages of interventions that iDSI uses at a country level link to the different components of stronger country institutions. It is our suggestion that this level of detail should be articulated at the country level. The plan for the MEL work in 2018 is to conduct a series of deep dive learning reviews. Developing a ToC for each country should be a part of these.

# Annex A. References

- Barnes, A., & Parkhurst, J. (2014). Can Global Health Policy be Depoliticized? A Critique of Global Calls for Evidence-Based Policy. The handbook of global health policy, 157-173.

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- Breckon, J., & Dodson, J. (2016). Using evidence: what works. London: Alliance for Useful Evidence.

- Bunn, F., & Sworn, K. (2011). Strategies to promote the impact of systematic reviews on healthcare policy: a systematic review of the literature. Evidence & Policy: A Journal of Research, Debate and Practice, 7(4), 403-428.

- Chambers D, Wilson P, Thompson C, Hanbury A, Farley K, Light K (2011) Maximizing the Impact of Systematic Reviews in Health Care Decision Making: A Systematic Review of Knowledge-Translation Resources. The Milbank Quarterly, 89(1): 131-156. 5.

- Covic, N. and S. L. Hendriks (Eds). 2016. Achieving a Nutrition Revolution for Africa: The Road to Healthier Diets and Optimal Nutrition. ReSAKSS Annual Trends and Outlook Report 2015. International Food Policy Research Institute (IFPRI)

- Davies, H. T., Powell, A. E., & Nutley, S. M. (2015). Mobilising knowledge to improve UK health care: learning from other countries and other sectors–a multimethod mapping study.

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- Flodgren et al. (2011) 'Local opinion leaders: effects on professional practice and health care outcomes.', The Cochrane database of systematic reviews. Europe PMC Funders, (8), p. CD000125. doi: 10.1002/14651858.CD000125.pub4.

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- Jackson, A. (2017). HOW CAN CAPACITY DEVELOPMENT PROMOTE EVIDENCE-INFORMED POLICY MAKING? Update on the Literature Review For the Building Capacity To Use Research Evidence (BCURE) Programme [UNPUBLISHED]

- Jirawattanapisal, T., Kingkaew, P., Lee, T. J., & Yang, M. C. (2009). Evidence-Based Decision-Making in Asia-Pacific with Rapidly Changing Health-Care Systems: Thailand, South Korea, and Taiwan. Value in Health, 12(s3).

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- LaRocca, R., Yost, J., Dobbins, M., Ciliska, D., and Butt, M. 2012 The effectiveness of knowledge translation strategies used in public health: a systematic review. BMC Public Health, 12:751

- Li, R., Ruiz, F., Culyer, A. J., Chalkidou, K., & Hofman, K. J. (2017). Evidence-informed capacity building for setting health priorities in low-and middle-income countries: A framework and recommendations for further research. F1000Research, 6.

- Li, R., Hernandez-Villafuerte, K., Towse, A., Vlad, I. & Chalkidou, K. (2016) Mapping Priority Setting in Health in 17 Countries Across Asia, Latin America, and sub-Saharan Africa, Health Systems & Reform, 2:1, 71-83, DOI: 10.1080/23288604.2015.1123338

- Liverani, M., Hawkins, B., & Parkhurst, J. O. (2013). Political and institutional influences on the use of evidence in public health policy. A systematic review. PLoS One, 8(10), e77404.

- Mairs, K., McNeil, H., McLeod, J., Prorok, J. C., & Stolee, P. (2013). Online strategies to facilitate health-related knowledge transfer: a systematic search and review. Health Information & Libraries Journal, 30(4), 261-277.

- Menon A, Korner-Bitensky N, Kastner M, McKibbon KA, Straus S (2009) Strategies for rehabilitation professionals to move evidence-based knowledge into practice: a systematic review. Journal Of Rehabilitation Medicine, 41(13): 1024-1032

- Moore, G., Redman, S., Haines, M. and Todd, A. (2011) What works to increase the use of research in population health policy and programmes: a review. 'Evidence & Policy.' 7(3): 277–305 Error in reference on page 31 – should state Moore et al (2011)

- Morgan Jones, M., Kamenetzky, A., Manville, C., Ghiga, I., MacLure, C., Harte, E., ... & Grant, J. (2016). The National Institute for Health Research at 10 Years: An Impact Synthesis: 100 Impact Case Studies. Rand health quarterly, 6(2).

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# Annex B. Overview of included studies

| Included studies | Source of evidence | Domain | Publication Status | Type of evidence | Research design | Research methods |
|---|---|---|---|---|---|---|
| Barnes, A., & Parkhurst, J. (2014). Can Global Health Policy be Depoliticized? A Critique of Global Calls for Evidence-Based Policy. The handbook of global health policy, 157-173. | Snowball | Health | Peer reviewed | Theoretical/conceptual | N/A | N/A |
| Boaz et al. (2011) 'Effective implementation of research into practice: an overview of systematic reviews of the health literature', BMC Research Notes. BioMed Central, 4(1), p. 212. doi: 10.1186/1756-0500-4-212. | Snowball | Health | Peer reviewed | Secondary review | Other review | Review of systematic reviews |
| Breckon, J., & Dodson, J. (2016). Using evidence: what works. London: Alliance for Useful Evidence. | Snowball | Evidence use | Peer reviewed | Secondary review | Other review | Systematic and scoping reviews |
| Bunn, F., & Sworn, K. (2011). Strategies to promote the impact of systematic reviews on healthcare policy: a systematic review of the literature. Evidence & Policy: A Journal of Research, Debate and Practice, 7(4), 403-428. | Snowball | Health | Peer reviewed | Secondary review | Other review | Systematic Review |
| Chambers D, Wilson P, Thompson C, Hanbury A, Farley K, Light K (2011) Maximizing the Impact of Systematic Reviews in Health Care Decision Making: A Systematic Review of Knowledge-Translation Resources. The Milbank Quarterly, 89(1): 131-156. 5. | Snowball | Health | Peer reviewed | Secondary review | Other review | Systematic Review |
| Covic, N. and S. L. Hendriks (Eds). 2016. Achieving a Nutrition Revolution for Africa: The Road to Healthier Diets and Optimal Nutrition. ReSAKSS Annual Trends and Outlook Report 2015. International Food Policy Research Institute (IFPRI) | Snowball | Health | Organisational Report | Secondary review | Other review | Review by focus area of nutrition with case studies |
| Davies, H. T., Powell, A. E., & Nutley, S. M. (2015). Mobilising knowledge to improve UK health care: learning from other countries and other sectors–a multimethod mapping study. | Snowball | Knowledge Mobilisation | Peer reviewed | Secondary review & primary data | Other review | Review of 71 published reviews on knowledge mobilisation; website review of the knowledge mobilisation activities of 186 |

| | | | | | | agencies; in-depth interviews (n=52) with key individuals in agencies; a web survey (response rate 57%; n=106); and two stakeholder workshops (at months 6 and 16). |
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| **Doherty, J. E., Wilkinson, T., Edoka, I., & Hofman, K. (2017). Strengthening expertise for health technology assessment and priority-setting in Africa. Global health action, 10(1), 1370194.** | Snowball: Expert recommendation | Health | Peer reviewed | Secondary review | Other review | Lessons from literature & workshops |
| **Flodgren et al. (2011) 'Local opinion leaders: effects on professional practice and health care outcomes.', The Cochrane database of systematic reviews. Europe PMC Funders, (8), p. CD000125. doi: 10.1002/14651858.CD000125.pub4.** | Snowball | | Peer reviewed | Secondary review | Other review | included 18 studies involving more than 296 hospitals and 318 PCPs |
| **Gray, M., Joy, E., Plath, D., & Webb, S. A. (2013). Implementing evidence-based practice: A review of the empirical research literature. Research on Social Work Practice, 23(2), 157-166.** | Snowball | Evidence use | Peer reviewed | Secondary review | Observational | Findings from 11 studies |
| **Guthrie, S., Bienkowska-Gibbs, T., Manville, C., Pollitt, A., Kirtley, A., & Wooding, S. (2015). The impact of the National Institute for Health Research Health Technology Assessment programme, 2003–13: a multimethod evaluation.** | Snowball: Expert recommendation | Health/policy making | Organisational Report | Primary study | Primary study | 20 interviews, Bibliometric analysis, Researchfish survey and 12 Payback case studies |
| **Harris, J., Kearley, K., Heneghan, C., Meats, E., Roberts, N., Perera, R. and Kearley-Shiers, K., 2011. Are journal clubs effective in supporting evidence-based decision making? A systematic review. BEME Guide No. 16. Medical teacher, 33(1), pp.9-23.** | Snowball | Evidence use | Peer reviewed | Secondary review | Systematic Review | Review of 18 evaluation studies |
| **Hawkins, B, Parkhurst, J (2016) The 'good governance' of evidence in health policy, Evidence & Policy, vol 12 no 4, 575–92, DOI:10.1332/174426415X14430058455412** | Snowball: Expert recommendation | Health | Peer reviewed | Theoretical/conceptual | N/A | N/A |
| **Hyde, C., Deeks, J. J., Milne, R., Parkes, J., Pujol-Ribera, E., & Foz, G. (2001). Teaching critical appraisal skills in health care settings. Cochrane Database Syst Rev, 3(3).** | Snowball | Health | Peer reviewed | Seondary Review | Systematic Review | Systematic Review |

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| Jackson, A. (2017). How can capacity development promote evidence-informed policy making? Update on the Literature Review For the Building Capacity To Use Research Evidence (BCURE) Programme [UNPUBLISHED] | Snowball | Evidence use | Unpublished | Seondary Review | Other review | Literature Review |
| Jirawattanapisal, T., Kingkaew, P., Lee, T. J., & Yang, M. C. (2009). Evidence-Based Decision-Making in Asia-Pacific with Rapidly Changing Health-Care Systems: Thailand, South Korea, and Taiwan. Value in Health, 12(s3). | Snowball | Health | Peer reviewed | Primary Study | Observational | |
| Langer, L., Tripney, J., & Gough, D. (2016). The science of using science: researching the use of Research evidence in decision-making. UCL Institute of Education, EPPI-Centre. | Snowball: Expert recommendation | Evidence use | Peer reviewed | Secondary review | Systematic and other review | Review 1) systematic map and synthesis of existing research. Review 2) exploratory synthesis of relevant research. |
| LaRocca, R., Yost, J., Dobbins, M., Ciliska, D., and Butt, M. 2012 The effectiveness of knowledge translation strategies used in public health: a systematic review. BMC Public Health, 12:751 | Snowball | Health | Peer reviewed | Secondary review | Other review | Review of 5 publications (four randomized controlled trials and one interrupted time series analysis). |
| Li, R., Hernandez-Villafuerte, K., Towse, A., Vlad, I. & Chalkidou, K. (2016) Mapping Priority Setting in Health in 17 Countries Across Asia, Latin America, and sub-Saharan Africa, Health Systems & Reform, 2:1, 71-83, DOI: 10.1080/23288604.2015.1123338 | Snowball: Expert recommendation | Health | Peer reviewed | Primary study | Primary | Questionnaire and semi-structured interviews |
| Li, R., Ruiz, F., Culyer, A. J., Chalkidou, K., & Hofman, K. J. (2017). Evidence-informed capacity building for setting health priorities in low-and middle-income countries: A framework and recommendations for further research. F1000Research, 6. | Snowball: Expert recommendation | Evidence use | Peer reviewed | Secondary review | Other review | Draws on in-depth review of priority-setting capacity in Sub- Saharan Africa and other literature. |
| Liverani, M., Hawkins, B., & Parkhurst, J. O. (2013). Political and institutional influences on the use of evidence in public health policy. A systematic review. PLoS One, 8(10), e77404. | Snowball | Evidence use | Peer reviewed | Secondary review | Systematic review | Systematic review of 56 studies |
| Mairs, K., McNeil, H., McLeod, J., Prorok, J. C., & Stolee, P. (2013). Online strategies to facilitate health-related knowledge transfer: a systematic search and review. Health Information & Libraries Journal, 30(4), 261-277. | Snowball | Health | Peer reviewed | Secondary review | Systematic review | published literature in the English language since January 2003 and used the MEDLINE, CINAHL, EMBASE and Inspec databases. |

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| **Menon A, Korner-Bitensky N, Kastner M, McKibbon KA, Straus S (2009) Strategies for rehabilitation professionals to move evidence-based knowledge into practice: a systematic review. Journal Of Rehabilitation Medicine, 41(13): 1024-1032** | Snowball | Evidence use | Peer reviewed | Secondary review | Systematic review | Systematic review of 7 databases. 12 publications met eligibility criteria |
| **Moore, G., Redman, S., Haines, M. and Todd, A. (2011) What works to increase the use of research in population health policy and programmes: a review. 'Evidence & Policy.' 7(3): 277–305** | Snowball | Evidence use | Organisational Report | Secondary review | Other review | Search of health, social sciences, education, transport, housing and justice databases, of which 64 publications were ultimately reviewed. |
| **Morgan Jones, M., Kamenetzky, A., Manville, C., Ghiga, I., MacLure, C., Harte, E., ... & Grant, J. (2016). The National Institute for Health Research at 10 Years: An Impact Synthesis: 100 Impact Case Studies. Rand health quarterly, 6(2).** | Targeted search RQ3b | Health | Organisational Report | Primary study | Observational | Synthesis of 100 case studies |
| **Parkhurst, Justin (2017) The politics of evidence: from evidence-based policy to the good governance of evidence. Routledge Studies in Governance and Public Policy. Routledge, Abingdon, Oxon, UK. ISBN 9781138939400** | Snowball: Expert recommendation | Evidence use | Book | Theoretical/conceptual | N/A | N/A |
| **Punton, M. (2016). HOW CAN CAPACITY DEVELOPMENT PROMOTE EVIDENCE-INFORMED POLICY MAKING?. Literature review for the Building Capacity to Use Research Evidence (BCURE) programme.** | Snowball: Expert recommendation | Evidence use | Organisational Report | Secondary review | Other review | Literature Review |
| **Wills, A., Tshangela, M., Bohler-Muller, N., Datta, A., Funke, N., Godfrey, L., ... & Strydom, W. (2016). Evidence and policy in South Africa's Department of Environmental Affairs.** | Snowball | Evidence use | Organisational Report | Primary study | Observational | Summary of findings of five case studies |
| **Wolf, J. B. (2007). Is breast really best? Risk and total motherhood in the national breastfeeding awareness campaign. Journal of health politics, policy and law, 32(4), 595-636.** | Snowball | Health | Peer reviewed | Theoretical/conceptual | Discussion paper | N/A |