

Systematic reviews to inform policy: institutional mechanisms and social interactions to support their production

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Declarations page

I, Kelly Dickson, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signed

22nd September 2017

Acknowledgments

I would like to express my appreciation and thanks to my supervisors Professor Dr. Sandy Oliver and Dr. Mukdarut Bangpan, for their mentorship, inspiration and faith in this research endeavour. This PhD would not have started or finished without their vision, perseverance, ongoing support and belief in my abilities. I would also like to thank my co-authors and colleagues for their insight and encouragement; Dr Ginny Brunton, Dr Rebecca Rees, Dr Katy Sutcliffe, Dr Meena Khatwa, and Kate Hinds. My appreciation and thanks to my PhD by publication companion, Dr Claire Stansfield, for her exceptional organisational skills; she kept me on track when I was lost in the administrative woods. Lastly, a special thank you and deepest gratitude to my beloved Georgina Burns, who took care of me with her gentle and unwavering strength, to my friends for keeping me sane, and my Grandparents, who are always with me.

SUPPORTING STATEMENTS

From PhD by Publication - Notes of Guidance 2015-2016

“10. where the submission includes work conducted in collaboration with others, to provide a written statement normally signed by at least one of the co-researchers on the extent of your individual contribution to the material and the conditions and circumstances under which the work was carried out.” p.7

CHAPTER 1

1. Primary study: *Policy-relevant systematic reviews to strengthen health systems*

As co-author with Prof Sandy Oliver, I shared responsibility for the design and analysis of the study. This included document collection and analysis, data collection via semi-structured interviews, transcribing and analysing findings, and contributing to the analysis and final write-up of findings for publication. In keeping with my previous experience of working in a local authority, I led the investigation of the policy-research interface as experienced by policymakers with decision-making responsibility at the local level.

Supporting publication

1a. Oliver, S **Dickson, K** (2015). Policy-relevant systematic reviews to strengthen health systems: models and mechanisms to support their production. *Evidence & Policy: A Journal of Research, Debate and Practice*.

2. Primary study: *Producing policy relevant systematic reviews: navigating the policy-research interface*

As co-author with Prof Sandy Oliver and Dr Mukdarut Bangpan, I shared responsibility for the design and analysis of the study. I contributed to the early conceptual discussions about working at the research policy interface, to expand on our ideas and insights from the first paper. These ideas focused on the social interactions supporting the production of policy relevant systematic reviews and how they might impact the shape of the final review. These discussions informed the data collection, analysis and final write-up of the paper. I also contributed to the choice of methodology and the importance of using our ‘insider knowledge’ and perspective to inform the analysis.

Supporting publication

2a. Oliver S, Bangpan M, **Dickson K** (2017) Producing policy-relevant systematic reviews: navigating the policy-research interface. *Evidence & Policy: A Journal of Research, Debate and Practice*.

CHAPTER 3

3. Systematic review: *Mental health and psychosocial programmes for people affected by humanitarian disasters*

As co-principal investigators, Mukdarut Bangpan and I collaborated to submit a successful research proposal and took joint responsibility in the day to day research work, for all stages of the review. I was responsible for contributing to research question formulation, qualitative and cross-study protocol methods development and the scoping exercise of reviews. I co-led in designing and conducting the systematic searches and inclusion screening of relevant citations; and coding, data extraction, critical appraisal and synthesis of included studies. I led the thematic synthesis of process evaluations; contributed to the meta-analysis of trials, and co-led the cross-study synthesis, which juxtaposed hypotheses generated from qualitative evidence synthesis of process evaluations with the findings from meta-regression of interventions evaluated in trials. I convened and liaised with the advisory group members and co-led on the delivery of reports of the research project required by funders. I contributed to the dissemination of findings by successfully submitting four conference abstracts (as first or second author), and the writing of two journal articles (currently under peer review), two blogs, and two plain language summaries

Supporting publication

3a. Bangpan, M., **Dickson**, K., Felix, L. and Chiumento, A. (2017). *The impact of mental health and psychosocial support interventions on people affected by humanitarian emergencies: A systematic review*. Humanitarian Evidence Programme. Oxford: Oxfam GB.

Linked publications

3b. Bangpan M, Felix L, Chiumento A, **Dickson**, K (2015), *The impact of Mental Health and Psychosocial Support interventions on people affected by humanitarian emergencies: a systematic review of the evidence*. Protocol

4. Systematic review: *Positive youth development*

I joined this project when funding was approved. I co-led the following review processes: designing and executing the search strategy and processes for screening and retrieval of relevant citations. I was also responsible the descriptive mapping of included studies and data extraction and critical appraisal of process evaluation and trials. In collaboration with Prof Bonell, I designed and reported the narrative for the review's thematic synthesis of process evaluations and contributed to the meta-analysis of trials. I was also responsible for communicating with stakeholders during the review, by liaising with advisory group members, disseminating findings for discussion, and conducting and writing-up feedback gathered from the stakeholder consultation interviews. I contributed to the dissemination of findings by writing briefs for policymakers and young people and by contributing to the successful submission of journal articles. Throughout the project, I was responsible for the day-to-day management of the review and ensured the technical report was submitted to funders.

Supporting publication

4a. Bonell C, **Dickson** K, Hinds K, Melendez-Torres GJ, Stansfield C, Fletcher A, et al. The effects of Positive Youth Development interventions on substance use, violence and inequalities: systematic review of theories of change, processes and outcomes. *Public Health Res* 2016; 4(5).

Linked publications

4b. **Dickson**, et al. 2016. How Do Contextual Factors Influence Implementation and Receipt of Positive Youth Development Programs Addressing Substance Use and Violence? A Qualitative Meta-Synthesis of Process Evaluations. *American Journal of Health Promotion*

4c. Melendez-Torres, G.J., **Dickson**, K., et al. 2016. Systematic review and meta-analysis of effects of community-delivered positive youth development interventions on violence outcomes. *Journal of epidemiology & community health*

4d. Melendez-Torres, G.J., **Dickson**, K., et al. 2016. Positive youth development programmes to reduce substance use in young people: Systematic review. *International Journal of Drug Policy*

4e. Bonell, C., Hinds, K., **Dickson**, K., et al. 2016. What is positive youth development and how might it reduce substance use and violence? A systematic review and synthesis of theoretical literature. *BMC public health*

CHAPTER 4

5. Meta-review: The adult social care outcomes framework

The supporting publication is a peer reviewed journal article providing a summary of the findings and reflections on the evidence base and gaps, produced at the end of the systematic review of reviews project on the same topic. As a co-author on the project, I was involved in all stages of the review. I contributed to protocol development and co-led the search, retrieval and inclusion screening of relevant citations. I collaborated with Katy Sutcliffe and Rebecca Rees on descriptive analysis of systematic reviews used to inform stakeholder consultations and narrowing down of the review scope. I was involved in the design and piloting of coding tools and data extraction of reviews. I was responsible for writing the meta-narrative of systematic review findings for one outcome domain and checking and revising other meta-synthesis of outcome domain write-ups. I contributed to ensuring the technical report was ready for submission to funders.

Supporting publication

5a. **Dickson**, K, Sutcliffe, K, Rees, R Thomas, J (2015). Gaps in the evidence on improving social care outcomes: findings from a meta-review of systematic reviews. *Health & social care in the community*.

Linked publication

5b. Sutcliffe K, Rees R, **Dickson** K, Hargreaves, K, Schucan-Bird K, Kwan I, Kavanagh J, Woodman J, Gibson K, Thomas J (2012) *The adult social care outcomes framework: a systematic review of systematic reviews to support its use and development*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London

6. Realist review: *No fault compensation schemes*

As the lead on this research project, I developed the research protocol and managed the day-to-day review process and multiple team members through all stages of the review. I co-led on the development, refinement and narrative summary supporting the context-mechanisms outcomes with the second author. I led on consultation and liaising with the Department of Health and policy leads, and on completing the writing of the final report to funders and coordinating team contributions. I contributed to dissemination by submitting a conference abstract on the findings and a journal article on developing realist methods with the second author.

Supporting publication

6a. **Dickson** K, Hinds K, Burchett H, Brunton G, Stansfield C, Thomas J (2016) *No-fault compensation schemes: A rapid realist review*. London: EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London. ISBN: 978-1-907345-96-8

As co-authors on these reports, we confirm that this information is correct and represents an original contribution to these research projects.

Mukdarut Bangpan

Date: 7th September 2017

Chris Bonell

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Kate Hinds

Date: 7th September 2017

Katy Sutcliffe

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ABSTRACT

Background: The last 35 years have seen a proliferation of systematic reviews seeking to synthesise the best available and most relevant evidence to inform policy. In response to a growing interest in the process of generating policy relevant evidence, I conducted further which investigated the perspective of policy makers and academics about producing systematic reviews to inform health systems policymaking. We found that models for producing reviews can be distinguished in terms of their starting point and their purpose. For example, reviews could start with or without a wide agreement about their key concepts and with the purpose of addressing common problems for multiple audience or to inform policy decisions within a specific jurisdiction and timescale (Oliver and Dickson, 2016). As the models were developed in a health systems policy context, the next step was to test their applicability with reviews commissioned in other fields.

Aims: This thesis aims to demonstrate, with an analysis of my publications, how my approach to conducting systematic reviews contributes to an understanding of the institutional mechanisms and social interactions required to produce policy-relevant evidence across broader policy areas.

Methods: Case example of four reviews were used to explore the utility of models for producing policy relevant reviews. This was achieving by taking an analytical framework of institutional mechanisms previously developed and operationalising the higher order themes into questions to interrogate our approach to producing systematic reviews. This 'analytical interrogation' was an iterative and interpretive process which required drawing on our 'use of self' to reflexively generate new insights and understanding of producing each review (Finlay and Gough 2008). The focus of our analysis was to explore institutional mechanisms informing review production. These were framed according to themes representing the overlapping social worlds of policy and research: harnessing motivations, engagement between policy and research, and the structures and procedures for producing policy-relevant reviews and their resulting impact.

Findings: My analysis in this thesis has contributed to an understanding of producing policy-relevant systematic reviews in several ways. By exploring the literature on this topic I have discovered that while there is research on the barriers to policy research use and mechanisms to increase uptake, an understanding of the process of producing reviews to address the range of policy needs is disparate, cutting across different fields of inquiry (e.g. methods, technology, stakeholder engagement) and is yet to be systematically drawn together. I have attempted to elucidate that producing policy-relevant reviews is both a technical and social enterprise requiring a range of institutional mechanisms and social competencies to navigate the policy-research interface. I have also shown that the production of reviews in broad policy areas has implications for the quality of reviews, which requires addressing the relationship between accountability and ensuring the coherence of the review, alongside the use of rigorous and explicit methods.

Impact Statement

This thesis contributes new understanding about the process of producing systematic reviews to inform policy decision making as a form of mode two applied knowledge production. By operationalising an analytical framework of the institutional mechanisms for producing reviews, developed in two of my publications and applying it to a further four of my publications as case examples, highlights that producing systematic reviews, in alignment with policy concerns, is both a technical and social enterprise. As policy relevant systematic reviews are commonly sought to address real-world problems, the questions posed are often broad and the methods utilised diverse. This thesis demonstrates the extent to which that breadth and diversity demand that reviewers pay closer attention to accountability and coherence in reviews, alongside their relevance and rigour. As reviews need to not only use transparent and replicable methods, but must consider the extent to which the overall scope of the review and conceptual framework has been designed to take into account policy problems and issues. Similarly, if reviews are to maintain their coherence, not only is there a need for institutional mechanisms and the technical capacity to undertake reviews, but also for the facilitation of social interactions, as part of a collaborative group effort to produce new knowledge. The implications drawn from the four reflexive case examples, of working at the research policy interface to produce evidence, continue to inform wider discussion on the science of science production and the development of innovative evidence synthesis methods internationally. The findings have also formed the basis of a systematic review checklist, for appraising the quality of policy-relevant systematic reviews, which prompts thinking about the relevance and coherence of the review, in addition to the rationale and systematic application of the chosen approach within the spectrum of evidence synthesis methods currently available.

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1 Introduction

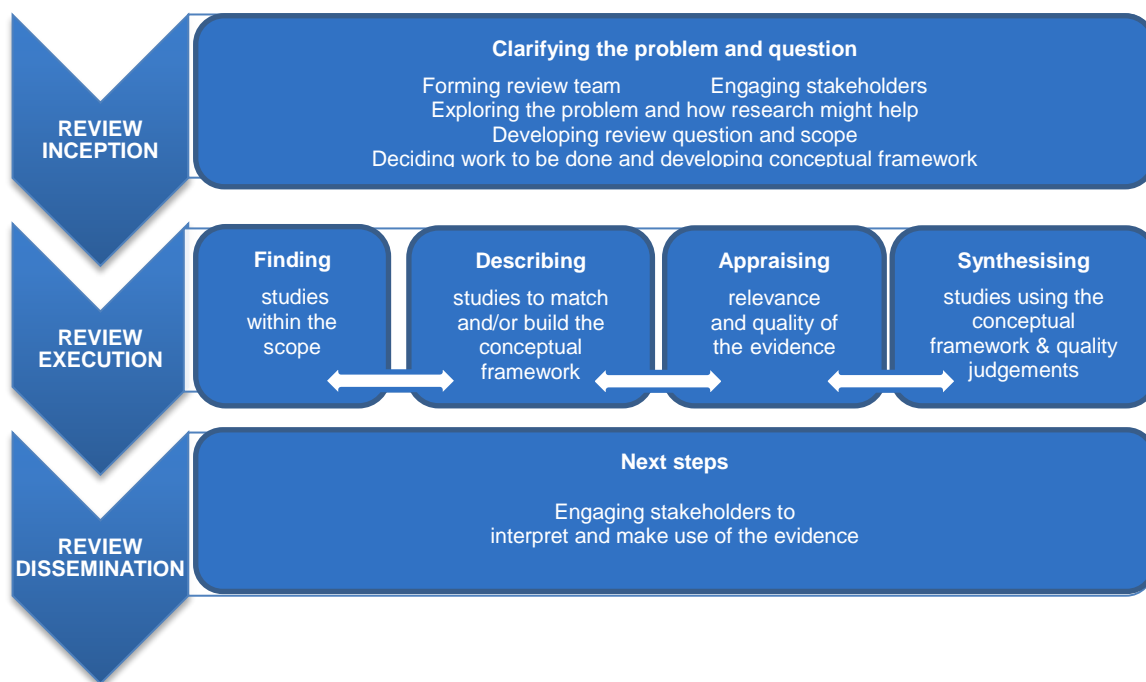
1.1 Systematic reviews for policy decision-making

The last 35 years have seen a proliferation of systematic reviews seeking to synthesise the best available and most relevant evidence to inform policy. Although the evidence-based policy movement originated from medical science's concern with reducing harm and improving patient health outcomes it has now expanded beyond clinical health to diverse public policy sectors (Cairney, 2016, Parkhurst, 2016). In the UK, this movement can be traced to the British Government's commitment to evidence-based programme service delivery in the 1980's which was further galvanised by the New Labour government in the 1990's. This has led to the establishment of organisations responsible for producing systematic reviews. Recent examples include the National Institute for Health and Care Excellence (NICE) which provides evidence-informed guidance on health and social care and the network of 'What Works' centres which produce evidence to inform policy decision-making (The Cabinet Office, 2014, Bristow et al., 2015).

Producing systematic reviews for evidence-informed decision making is a primary objective of the Evidence for Policy and Practice (EPPI)-Centre. In my 13-year tenure at the EPPI-Centre, my research activities have included producing different types of systematic reviews, for multiple policy audiences, and strengthening capacity to undertake systematic reviews in new policy areas (e.g. education, social care, and international development). There is no single methodological approach to systematic reviewing, but it can be understood as 'a review of existing research using explicit, accountable rigorous research methods' (Gough et al., 2017 p.2). The purpose of systematic reviews can range from instrumental to inform specific decisions: e.g. should a decision maker invest in programme A or B? to enlightening thinking, e.g. changing 'decision-making through changing perceptions and opinions' (Gough and Thomas, 2016 p.88).

This thesis begins by drawing on my work relating to policy-relevant systematic reviews. Systematic reviews commissioned for policy audiences aim to 'present findings clearly for policy audiences to illuminate policy problems; challenge or develop policy assumptions, or offer evidence about the impact or implementation of policy options; and take into account diversity of people and contexts' (Oliver and Dickson, 2016 p.235). Within this diversity, systematic reviews can be characterised as containing three distinct research stages (see figure 1.1). Each stage also provides an opportunity to engage with stakeholders and to make decisions which maximise and increase the policy relevance of a review.

Figure 1.1 Stages of the review process



(adapted from Gough et al., 2017 p.16)

1.2 Policy-relevant systematic reviews

This section provides a precis of my first two thesis publications on producing policy relevant systematic reviews (Oliver and Dickson, 2016, Oliver et al., 2017a) and informs the basis of this thesis.

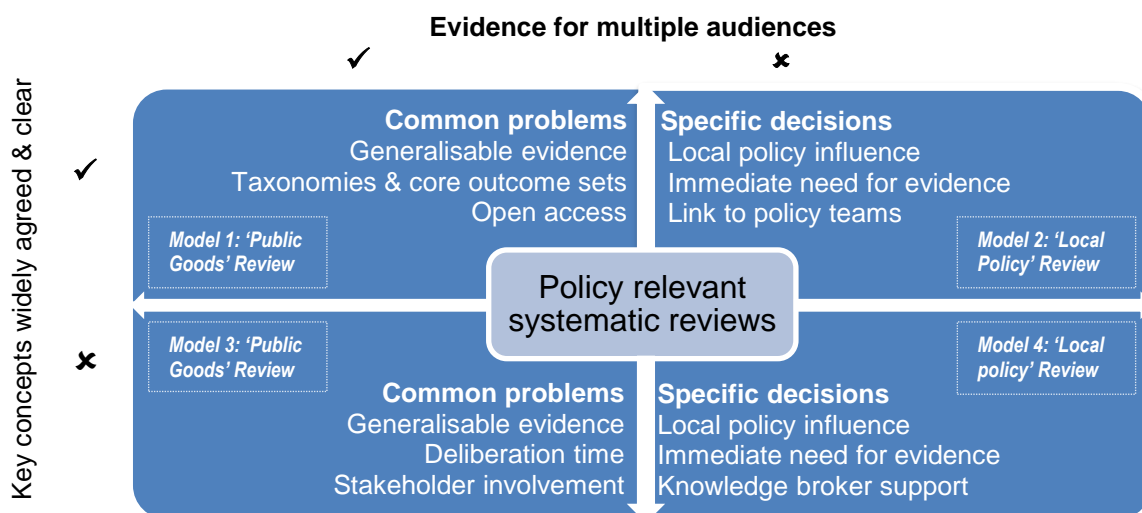
1.2.1 Models and mechanisms for producing systematic reviews

The policy context in which the need for synthesised evidence arises can be diverse as the worlds of policy and research 'meet'. Two overarching processes can be identified at the policy-research interface. Firstly, ascertaining what 'relevant' evidence might mean for a new review and why. Secondly, making research judgements and engaging with stakeholders to ensure the proposed review meets those needs. These processes often require a broad set of institutional mechanisms and methods (Oliver and Dickson, 2016). Identifying these processes and development of ideas around them came in response to a growing interest in strengthening the capacity to produce evidence synthesis. This thinking benefited from my and other people's experience of conducting systematic reviews and supporting systematic review teams to produce evidence for government departments in different country contexts (e.g. Europe, South Asia and Africa) and topic areas (e.g. Education, Social Care, Health Systems, Public Health). This experience provided useful insight on

which to build two primary research studies exploring the perspective of policymakers and academics about the production of systematic reviews to inform health systems policymaking.

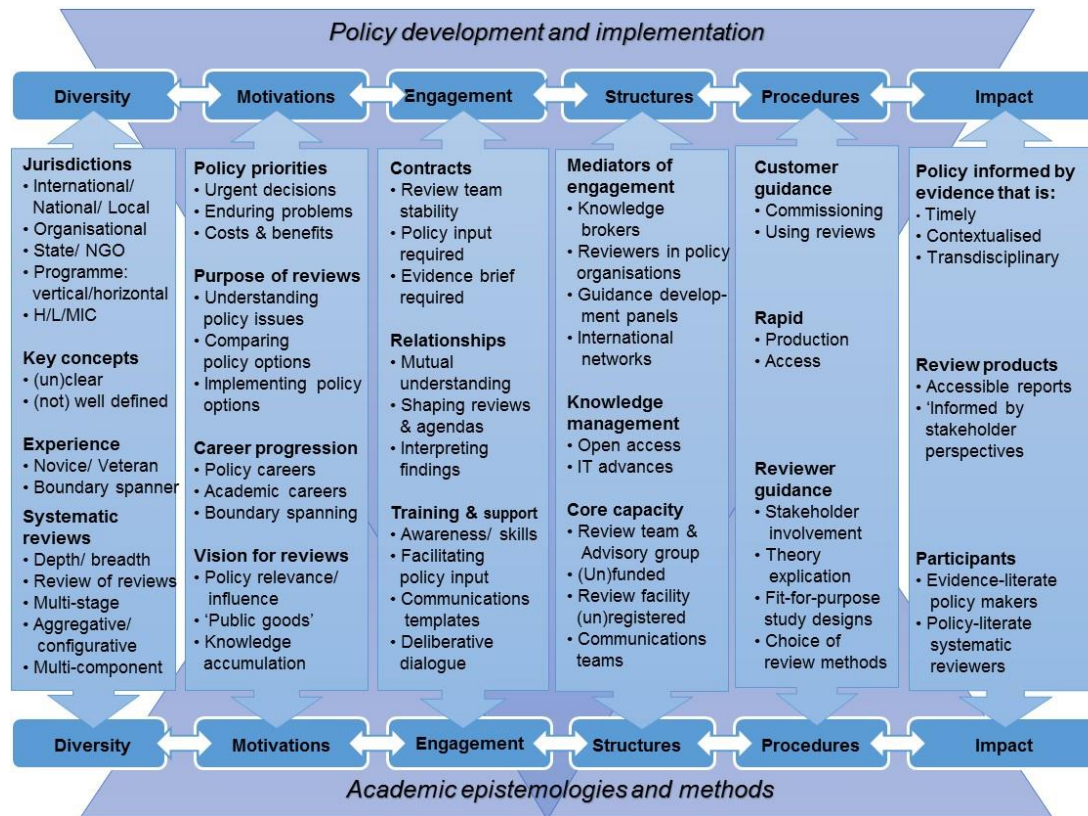
This first study (Oliver and Dickson, 2016) outlined four models for achieving policy-relevant systematic reviews (see figure 1.2) and institutional mechanisms for navigating the policy-research interface to produce them (see figure 1.3). The second study applied this framework to investigate examples of exchanges across research and policy worlds to understand in more detail the process of producing systematic reviews (Oliver et al. 2017). In the first study, we found that reviews may be commissioned for use as ‘public goods’ to address common problems (models 1 and 3) or to address specific decisions to inform immediate ‘local policy’ concerns (models 2 and 4). Within each of these broad review aims the conceptual clarity of a reviews scope may also vary with key concepts existing on a continuum from widely agreed and clear (model 1 and 2) to not very well defined (model 3 and 4).

Figure 1.2 Models for achieving policy-relevant systematic reviews (adapted from Oliver and Dickson, 2016)



Cutting across each of the four models, we conceptualised institutional mechanisms as falling within higher order themes, which we framed according to the overlapping social worlds of policy and research (see figure 1.3). These consisted of: harnessing and aligning motivations to produce policy relevant evidence, engagement between policy and research, the structures and procedures for producing evidence and the resulting impact. We found that each type of review model can utilise different types of institutional mechanisms to support the production of policy-relevant systematic reviews within those higher order themes. For example: the need for open access publishing to reach multiple audiences (model 1); to link with specific policy teams interested in the review findings (model 2); the need to make conceptual sense of evidence by consulting with stakeholders (model 3); or the need to draw on knowledge brokers to mediate policy input directly as part of responding to urgent need for evidence (model 4). Each higher order theme is outlined in more detail below.

Figure 1.3 Analytical framework for policy relevant systematic reviews



Diversity

Policy relevant systematic review teams and the reviews they produce are diverse. Review teams are based in high and low-income countries and reviews are commissioned to answer a range of questions to inform both international and national policy agendas. Review teams can include a mix of novice or experienced reviewers, or experienced reviewers learning a new systematic method.

Motivations to produce policy relevant systematic reviews

“Aligning the motivations of policymakers and systematic reviewers is an essential first step for a satisfactory project” (Oliver et al., 2015b p.5).

A critical stage in many applied research settings is to identify what type of knowledge is needed, by whom and when. In the context of evidence-informed decision making, systematic reviewers may be motivated to produce evidence synthesis for government departments (e.g. Department of Education, Health or International Development) to ensure reviews are aligned with their policy needs.

Alternatively, systematic reviews may be commissioned in response to formal priority setting exercises (e.g. National Institute of Health Research) or to form a body of evidence synthesis literature in a topic area (e.g. Cochrane and Campbell review libraries).

Engagement between policy and research

Making decisions about what type of systematic review is required and how to conduct it is not a purely technical exercise but can be understood as an interactive social process. Systematic reviews produced for policy use requires an institutional forum that is conducive to constructive communication and mutual understanding, to inform the design and shape of a review from its inception to the dissemination of findings.

Establishing structures

Engagement between researchers and policymakers benefits from organisational structures or the development of new structures to support collaborative working practices. These can include producing reviews as part of 'responsive' reviews programmes, or by directly linking evidence from systematic reviews into guidance development panels. It can also include the use of knowledge brokers, i.e. ensuring there is an intermediary between reviewers and policymakers to support greater communication.

Formalising procedures

Standardised procedures to produce systematic review products and guidelines for engaging with stakeholders can be found in different research and policy institutions, and are often the first choice when producing evidence for use as public goods. However, when reviewers are producing evidence to inform immediate or local policy decisions attention may need to be paid to certain aspects of reviewing. For example, some methodological and stakeholder engagement approaches may need to be prioritised over others, and standardised procedures may need to be adapted, to ensure timeliness and relevance of evidence.

Impact

The greater use of evidence may be supported by producing evidence relevant to more than one policy setting and/or timely access to clear policy messages based on critically appraised evidence synthesis findings. Greater applicability of evidence may also be enhanced by engaging with local stakeholders who help shape and contextualise the review findings and support the identification of gaps in the evidence-base to support future knowledge production.

1.2.2 Social interactions that shape systematic reviews

In the second primary research study, which took a closer look at the experience of navigating the research-policy interface to produce policy-relevant systematic reviews (Oliver et al. 2017), we attempted to articulate in procedural terms how systematic reviewers developed review questions, sometimes in discussion with policymakers. We found similarities with qualitative analytical skills and dialogic and rapport building skills, typically a feature of in non-directive counselling (see table 1.1). These insights emerged not only from reflecting on our experience of working collaboratively with stakeholders but also from my experience of training to be a psychotherapist alongside my career in

systematic reviewing, working in diverse review teams and with knowledge brokers. Further exploration of these skills, as part of the overall research process, in addition to review question formulation is now warranted and will inform this thesis.

Table 1.1 Social interactions to

Qualitative analysis <i>Analysing primary data or reports of qualitative research involves asking questions:</i>	Non-directive counselling: <i>questions focused on learning and implications for action involve:</i>
<ul style="list-style-type: none"> • that sensitise the researchers to the landscape of interest – what is going on here, who is involved, how do they define the situation, what does it mean to them, are their definitions and meanings the same or different, what are they all doing (the same or differently) and why? • that explore recurring themes as stakeholders talk • about processes, variation, connections (or assumptions) about key concepts, changes over time and pertinent structural influence • about exceptions or contradictions, and • about where to look for evidence and how to recognise it in different contexts 	<ul style="list-style-type: none"> • asking open-ended questions to encourage talk and reflection on specific examples • adopting the stakeholders' own language asking future-oriented questions about • how stakeholders would use the evidence • provoking thinking, demanding clarification and challenging assumptions • summarising responses to confirm understanding, invite correction and introduce language that links with wider understandings • interrupting repetition or vague assertions • moving the conversation on, and getting to the crux of the matter and articulating the main focus

1.3 Aims and approach

1.3.1 Aims

The models and mechanisms presented above were developed in a health systems policy context. Their applicability and transferability can now be 'tested' against reviews commissioned in other contexts and disciplines to explore each higher order theme in further detail. This thesis aims to demonstrate, with an analysis of my publications, how my approach to conducting systematic reviews contributes to an understanding of the institutional mechanisms and social interactions required to produce policy-relevant evidence across broader policy areas.

1.3.2 Research questions

To address these aims, this thesis will be guided by the following research questions:

- 1) Building on the models in figure 1.2 and the analytical framework in figure 1.3: *What existing review-level evidence exists on institutional mechanisms and social interactions to support the production of policy-relevant systematic reviews?* (chapter 2)
- 2) How do my publications advance understanding of the different models and mechanisms for producing policy-relevant reviews to inform decision-making?

Model 1: Facing ‘common problems’, drawing on agreed taxonomies, to produce ‘generalisable evidence for use as public goods’ in international development, illustrated in **Chapter 3** by a review of mental health and psychosocial programmes (Bangpan, Dickson, et al. 2017)

Model 2: Facing an ‘immediate’ UK policy concern to inform ‘specific’ policy decision-making with key concepts agreed in advance, illustrated in **Chapter 4** by a meta-review of adult social care outcomes framework (Dickson et al. 2015)

Model 3: Facing ‘common problems’ to produce ‘generalisable evidence for use as public goods’ where key concepts needed clarification, illustrated in **Chapter 3** by a review of positive youth development, Bonell C, Dickson et al. 2016)

Model 4: Facing an ‘immediate’ UK policy concern to inform specific policy development with many key concepts unknown in advance, illustrated in **Chapter 4** by a review of no-fault compensation schemes, (Dickson et al. at 2017)

- 3) To what extent has my approach to producing policy-relevant reviews developed understanding in this area?
- 4) What are the implications for future research in this area?

1.3.3 Methodological and epistemological approach

Supporting publications from four review projects were used as cases to explore the models and mechanisms outlined above. To achieve this, I operationalised the higher order themes and turned them into questions to interrogate each case (see table 1.2). This process was aided by revisiting the questions also posed to reviewers about producing policy-relevant systematic reviews in Oliver and Dickson (2016 p.255).

Table 1.2 Coding tool

QUESTIONS	ANSWERS
Section A: Review scope and context	
A1: How common were the phenomena of interest that the review aimed to address? - <i>Is the review being produced as a public good for multiple users</i> - <i>For a specific local policy decision?</i> - <i>How has the overall aim been determined?</i>	A1: Details
A2: How clear and widely agreed were the underlying key concepts? - <i>Can/should the review draw on pre-existing taxonomies and outcome sets?</i> - <i>Have the concepts been defined in previous systematic reviews or current policy?</i> - <i>Do the concepts need to be clarified by stakeholders at the beginning and/or as the review progresses?</i>	A2: Details
A3: What was the overall purpose of the review? E.g. - <i>To test a clear hypothesis (aggregate findings)</i> - <i>to clarify key concepts and generate theory (configure findings)</i> - <i>or explore existing theory? (configure findings)</i>	A3: Details

A4: How urgent was the problem? E.g. - Was the need for evidence required urgently? - To meet a policy window or timeframe?	A4: Details
SECTION B: REVIEW PRODUCTION: <i>Based on the answers to the above questions:</i>	
B1: What harnessed motivations to commission/produce the review?	B1: Details
B2: What types of engagement did the review draw on/benefit from?	B2: Details
B3: What types of structures did the review draw on/benefit from?	B3: Details
B4: What types of procedures did the review draw on/benefit from?	B4: Details
B5: What impact did the review have?	B5: Details

To write up each of the cases I revisited key documents (e.g. proposals, protocols, peer review comments, emails and draft reports) and discussed key decision making points in the review process with the co-authors from each project, to gain a more reflective and detailed picture of the review processes as they unfolded. This ‘analytical interrogation’ was an iterative and interpretive process which required me to draw on my ‘use of self’ to generate new insights and understanding about producing views, based on my experience working at the policy-research interface (Finlay and Gough, 2008).

Initial reflections led me back to my original reason for joining the EPPI-Centre, which was to conduct research that would be ‘useful’. It also led me to identify that, as a practitioner, I have sought to be evidence-informed and aware when delivering mental health and social care services (e.g. working with children in a domestic violence refuge and with adults as an integrative psychotherapist). As a practitioner, I have always valued building collaborative working practices and considered the quality of the relationship and mutual engagement between practitioner and client as the primary vehicle enabling a therapeutic process to elicit change (Teyber and Teyber, 2010). These ideas are reflected in my approach and thinking about working with people to produce reviews and inform the analysis in this thesis. My approach to producing evidence synthesis is also informed by a critical-realist epistemology (Bhaskar, 1998) originating from my background in applied psychology and sociology. In simple terms, a critical realist worldview is one in which reality is understood to exist independently of our perceptions, while simultaneously accepting that our understanding of reality is socially constructed (Maxwell, 2012). I also take a ‘pragmatic’ approach to producing evidence, which is neither wholly positivist nor interpretive, value-free or value-laden, but a combination. I find this assists in adopting a ‘fit for purpose’ approach to reviewing to address social, real-world issues, characteristics of policy-initiated reviews.

2 Background

2.1 Introduction

As outlined in Chapter 1, those who produce policy-relevant systematic reviews can draw on a range of institutional mechanisms to support their production. To further ground and develop the analytical framework presented in chapter one within existing research and to inform this background, I conducted a rapid systematic scoping review of systematic reviews. However, I failed to find any systematic reviews exploring this area (further details are reported in appendix 2). Instead, I draw on the wider literature to think about evidence synthesis as a form of knowledge production and the opportunities, challenges and approaches to producing evidence to inform policy decision making.

2.2 The production of policy-relevant systematic reviews

2.2.1 The evidence-informed policy movement

In simple terms, the production of synthesised evidence to inform policy can be characterised by the flow of research knowledge from its creation to its use by policymakers. Research knowledge in this context refers to knowledge generated via scientific research activity; usually identifiable by its observance of a pre-defined set of epistemological and ontological principles (Gilbert and Stoneman, 2015). As a form of research, knowledge generated from systematic reviews aims to bring together and summarise what is known from individual sources of evidence to provide 'research-based answers' to complex social problems policymakers are routinely asked to address (Lavis, 2009). Systematic reviews can also identify gaps in the evidence-base, informing decisions about the production of new primary research (Gough et al., 2012).

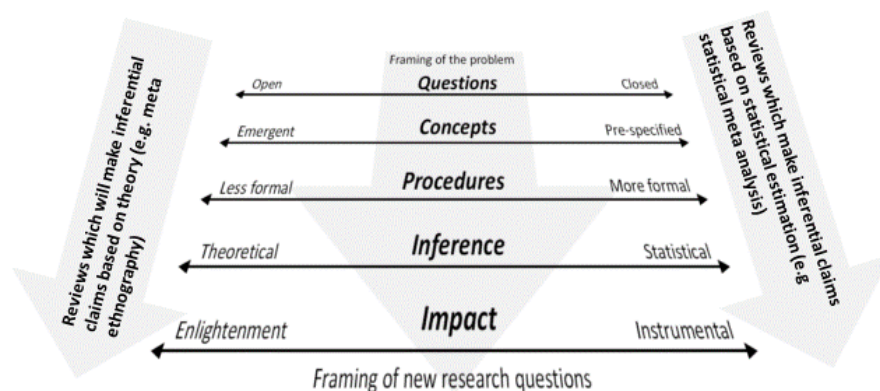
As the demand for research-based answers has grown, so have debates articulating the challenges for policy use (Fox, 2005) emerging alongside a greater understanding of the research-policy interface as a complex and dynamic phenomenon (Cairney, 2011, Hanney, 2004). These discussions have drawn attention to the political nature of policy making and evidence production, with many authors highlighting that neither the generation of nor using evidence is a value-neutral or a purely academic exercise (Cairney and Oliver, 2017, Liverani et al., 2013, Parkhurst, 2016). Weiss (1979), over 35 years ago, highlighted that generating evidence for policy does not follow a linear route; i.e. the flow of scientific evidence does not occur by simply generating and making it available to policymakers or practitioners. Although research *can* and *does* inform different stages of policy making (e.g. policy agenda setting, formulation and implementation) each of those stages and the extent to which scientific evidence informs them is shaped by socio-political dynamics specific to different policy contexts. In many cases, research evidence is competing alongside other sources of

knowledge and inputs, that influence policy decision-making, such as local and national data, values, beliefs, wider socio-economic factors and resources (Dobrow et al., 2004, Tseng, 2012).

Although it is often assumed policymakers want scientific evidence on effectiveness (e.g. “what works”), they may also seek evidence synthesis falling outside of traditional “what works” questions (Petticrew, 2015 such as the prevalence of health conditions, or people’s views and perspectives on programmes). Gough and Thomas (2017) present a diagram of the ‘dimensions of difference’ to provide an overview of the epistemological variation that can be found in systematic reviews (see Figure 2.2.). ‘What works’ review question often fall in the right-hand column and attempt to aggregate (add up) quantitative data using statistical analysis to test a hypothesis (e.g. does programme a produce outcome b). Effectiveness reviews are usually concerned with avoiding bias to produce reliable and generalisable evidence and document their methods in advance. They also seek to generate review outputs that can provide policymakers with some form of certainty; i.e. by identifying studies that evaluate the same type of programme, adding up their results and providing greater confidence in the final aggregated answer.

Policymakers may also ask questions, which fit into the left-hand column and configures (arranges) data to generate new concepts or theory. Configurative reviews allow for different levels of iteration (e.g. the extent to which concepts are developed or modified before or during the review process). This type of review can have greater explanatory power than aggregative reviews and can provide policymakers with more contextual understanding of a phenomenon; i.e. by placing and connecting study findings next to each other, the synthesis can build up a partial or full picture of the whole and explore how findings may relate to one another (Gough and Thomas, 2017). Generally speaking, producing policy-relevant evidence often requires conducting reviews which draw on both aggregative and configurative synthesis methods.

Figure 2.2 Dimensions of difference in approaches to synthesis (Gough and Thomas, 2017 p.69)



In addition, systematic reviews commissioned by policy often start with a wide-ranging policy concern that needs to be broken down into separate answerable review questions, requiring different types of review methods. For example, the review question may initially remain broad, to identify and describe what literature is available by 'mapping' the evidence base (Sutcliffe et al., 2017) before deciding if there are sufficient studies to answer a review question such as 'what works' or conduct a configurative review or both. In some cases, there may be a proliferation of existing reviews warranting a 'systematic review of systematic reviews' (meta-review) rather than a systematic review of primary studies.

2.2.2 Utilisation of research evidence

Whether a systematic review is for instrumental use or to enlighten understanding the underlying assumption remains: that the use of synthesised research *can* better inform policy and improve decision making remains (Littell and White, 2017, Cairney and Oliver, 2017). However, to be useful, research must also be relevant and designed with end users in mind. (De Leeuw and Skovgaard, 2005, Hanney et al., 2003, De Leeuw et al., 2008). In their discussion of the 'utilitarian evidence' model of evidence production, de Leeuw et al. (2008) found that ideas about how usefulness and relevance are achieved can be opaque. They found that while some argue that utility occurs via 'relatively autonomous processes and events' (e.g. Kingdon 2002 p.12) or via the 'percolation/limestone' method, others claim that evidence 'slowly seeps into the realities of politicians and practitioners' and then becomes used. A recent systematic review of reviews on strategies to increase evidence-informed decision making by Langer et al. (2016) however, suggests that the context in which research is produced contributes to a greater understanding of how evidence is judged as relevant, as it is specific to the needs of individual policymakers at any given time.

Further exploration of how to bridge the 'know-do' gap has led to stronger critiques of the autonomous production and passive transfer of research (Lavis et al., 2003, van der Arend, 2014). Conceptual development and application of knowledge translation and exchange models are being advanced to elucidate different approaches to interaction between researchers and policymakers to promote greater evidence use (Ward et al., 2009). This has led to describing a range of research utilisation frameworks seeking to describe the research-use process. Such as: 'rational' approaches, characterised by knowledge 'push' or 'pull' models; the 'dissemination explanation', which assumes that knowledge needs to be 'diffused'; and the 'two communities' explanation, which assumes that a cultural gap needs to be bridged (de Goede et al. 2010). However, de Goede et al. (2010 p.4) argue that each framework is weakened by continuing to 'assume a linear sequence from the supply of research to utilisation by policymakers', as it places responsibility for research use with either 'producers (researchers) or with users (policy makers), rather than emphasising that the production and utilisation of knowledge are based on 'a set of interactions *between* researchers and users' (p.5). In the context of systematic reviews, these sets of interactions occur at the research-policy interface, bringing their own challenges and opportunities. Other themes in knowledge transfer models concur

with findings from de Goede et al. (2010). They highlight the value of exposure and learning from the worlds of research and policy, the importance of building trusting relationships between researchers and policymakers, while maintaining acknowledgement of the socio-political context in which policy decision making occurs (Gibbons, 2008). Thus, it is becoming much more helpful to conceptualise working to produce evidence, at the research-policy interface, as a socially dynamic and non-linear process.

2.2.3 Transdisciplinary knowledge to inform policy

Over twenty years ago, Gibbons et al. (1994) suggested that there are two 'modes' of knowledge production. In mode one, the production of new knowledge is more likely to adhere to traditional paradigms of scientific discovery and is identifiable by the 'hegemony of theoretical or, at any rate, experimental science; by an internally-driven taxonomy of disciplines; and by the autonomy of scientists and their host institutions'. The authors contrast mode one with the emergence of mode two knowledge production, which is 'socially distributed, application-oriented, trans-disciplinary, and subject to multiple accountabilities' (Nowotny et al., 2003 p.179). In mode one, the problems scientific enquiry seeks to address are mostly determined by academic interests from a singular discipline. In comparison, mode two knowledge production is said to occur 'in a context of application' and is more likely to include a range of stakeholders 'collaborating on a problem defined in a specific and localised context' (Gibbons 1993, p.3) and is generating knowledge across disciplines. Quality, therefore, may also extend beyond notions of scientific rigour to include usefulness and relevance by those using the evidence, such as policymakers, practitioners, and the public.

Despite criticisms of oversimplification and the potential for generating a false dichotomy of knowledge production it is possible to see that systematic reviews can span both mode one and mode two knowledge production and that producing evidence to inform policy has much in common with mode two. Gibbons et al. (1994) also suggest that engaging in forms of mode two knowledge production can enable greater reflexivity, resulting from conducting research which seeks to identify 'resolution' to problems (Gibbons et al., 1994 p.7). Similarly, systematic reviews have moved from focusing on single issues to address 'real world social problems'. This has led to reviews which synthesise evidence and generate knowledge that goes beyond single methodological and academic disciplines. Like mode two transdisciplinary research, systematic reviews have emerged from a practical need to provide local and contextually relevant evidence (Regeer and Bunders, 2009) and requires diverse research teams with multiple stakeholders. Similarly, producing policy-relevant systematic reviews, like 'transdisciplinarity':

'is an integrative process in which researchers work jointly to develop and use a shared conceptual framework that synthesizes and extends discipline-specific theories, concepts, methods, or all three to create new models and language to address a common research problem' (Stokols et al., 2008 p.S79).

Synthesising evidence from different disciplines can also support the filling of critical gaps in knowledge and understanding that would have been 'missed' if addressed separately. However, the challenge for research, including systematic reviews, lies in bringing together different disciplines, methodological study designs, and multiple stakeholder views to address complementarity and diversity in a way that is useful to end users (Scholz and Steiner, 2015).

2.3 Bridging the research-policy divide

There are a number of barriers to building research relationships and collaborations to support research transfer and uptake. Research is usually undertaken in academic institutions, while policymakers are often based in other organisations, determining policy locally, nationally or internationally. Although policymakers are increasingly being asked to improve their policy development processes the extent to which this includes being evidence-informed varies (Bullock et al., 2001, Office, 1999). In contrast, academia has primarily valued the advance of knowledge via the publication of rigorous research outputs (Hallsworth, 2011). In most instances, policymakers are accountable to governments, political parties and the public, while researchers are held to account by their funding bodies and individual institutions. These differences and the extent to which policymakers and researchers have been exposed to each other's worlds, and their organisational expectations and responsibilities, can have implications for collaborative working practice between them to support the production of policy-relevant evidence (Nutley et al., 2002).

Two recent systematic reviews exploring the barriers and facilitators to uptake of evidence synthesis found that policymakers' lack of awareness and familiarity with systematic reviews limited their involvement with them (Oliver et al., 2014, Tricco et al., 2016). They also found that policymakers' attitudes about the utility of systematic reviews, lack of timeliness reducing the availability of evidence, and their knowledge and skills to interpret the findings of reviews were also barriers to evidence use. Conversely, the 'clarity and relevance' of reviews (Oliver et al., 2014 p.6), the availability and accessibility of evidence, and a 'belief in their relevance, and their applicability to policy' supported their greater use (Tricco et al., 2016 p.5). Oliver et al. (2014) also found 'contact, collaboration and relationships' and the importance of building 'trust and mutual respect' (p.4) between policymakers and researchers supported greater evidence use. While Tricco et al. (2016 p.5) report that 'participants perceived systematic reviews were useful if they had confidence in the review authors'. The findings in each of these reviews point to a need to have better engagement between researchers and policymakers during the review process, as 'such interactions have the potential to promote the generation of policy-relevant research' (Liverani et al., 2013 p.6).

A pivotal role for knowledge brokers has emerged to address this need for greater engagement. Such that, 'knowledge brokering' as a mechanism to bridge the gap between research and policymakers is becoming ubiquitous in the field (Lomas, 2007). They are increasingly being assigned a professionally defined role in collaborative research partnerships, to act as an intermediary between researchers

and policy decision makers (Bornbaum et al., 2015). Operating as a 'connector function', knowledge brokers can facilitate greater interaction so that reviewers and policy decision makers are 'better able to understand each other's goals and professional culture and influence each other's work' (Traynor et al., 2014 p.534). In addition to their role of 'linking and exchanging' ideas between different professional groups, some knowledge brokers also act as project 'knowledge' managers. This entails coordinating different aspects of the review (e.g. commissioning, protocol development, and peer review,) and building capacity to produce and use evidence in reviews. Their dual role in capacity building includes supporting reviewers to generate evidence that can be of use to policymakers and to develop capacity in policymakers to utilise research evidence.

Case examples of working more closely across the policy-research interface to produce evidence, are also beginning to emerge in the literature. For example, in their reflective account of "The Evidence Request Bank project", Morton and Seditas (2016) provide an example of working with policy and practice partners to ensure they devised an evidence synthesis research plan that was relevant to informing their current programme of work. They found that policy partners, who were thinking more in practical rather than research terms, needed a clear process that could facilitate the identification of reviewable research options. This was achieved by devising a series of questions to 'identify' and 'interrogate' partners, a process that appears similar to taking a non-directive counselling approach outlined in Oliver et al. (2017a). The authors report that this process supported stakeholders thinking and helped them move from larger policy and practice problems to a more specific focus both amenable to research and useful. It also helped retained an understanding that what constitutes meaningful evidence might differ between stakeholders and that useful evidence was more likely to be defined by its relevance and applicability to its current policy and practice context rather than necessarily adhering to strict scientific research principles.

2.4 Summary

This chapter has explored evidence synthesis as a form of transdisciplinary knowledge production generated in applied research settings, the role of systematic reviews in evidence-informed policymaking and the barriers to research evidence use. I find that while there is an ongoing interest about how to 'bridge' the research policy divide, to fulfil a demand for evidence-informed policymaking, much less is known about how researchers and policymakers work together to increase the relevance and utility of systematic reviews. This suggests that it would be useful to extend thinking beyond the characterisation of two communities (research and policy) to explore the different models of policy-relevant reviews in more detail. In the following chapter, I use my experience of producing policy relevant reviews to address this gap.

3 Producing evidence for use as ‘public goods’

3.1 Review context

3.1.1 Introduction

In this chapter I will consider the institutional mechanisms and social interactions supporting the production of evidence for use as ‘public goods’; where the key concepts were agreed and understood in advance (Model 1: e.g. MHPSS review) or where the conceptual issues are developed during the review (Model 3: e.g. PYD review). Both of my case reviews, commissioned through competitive systematic review funding programmes, were designed to answer more than one review question for multiple audiences (see table 3.1). The systematic review of mental health and psychosocial programmes for people affected by humanitarian emergencies was commissioned by “The Humanitarian Evidence and Communications Programme” (HEP); a partnership between Oxfam and the Feinstein International Centre (FIC); externally funded by Humanitarian Innovation and Evidence Programme (HEIP) at DFID. The National Institute for Health Research, Public Health Research programme (PHR), funded a systematic review of the effectiveness and delivery of Positive Youth Development on substance use, violence and inequalities, as part of their researcher-led funding stream.

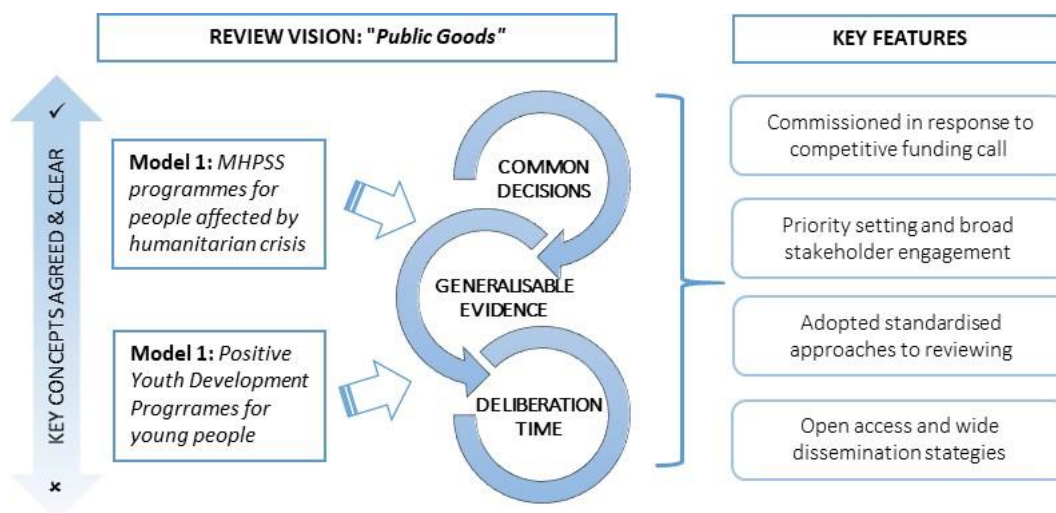
Table 3.1 Overview of reviews

Review context	Model 1: Mental health and psychosocial programmes (MHPSS)	Model 3: Positive youth development programmes (PYD)
Funder	DFID	NIHR
Review programme	Oxfam and Feinstein International Centre (FIC) Humanitarian review programme	Public Health Research (PHR) Programme
Jurisdiction	International	International
Type of review	Multi-component: Process, Effectiveness; Cross study synthesis	Multi-component: Theory, Process, Effectiveness synthesis
Review aims	<ol style="list-style-type: none"> 1. To synthesise the barriers to, and facilitators of, implementing and receiving MHPSS 2. To meta-analyse the effects of MHPSS interventions 3. Identify the key features of effective MHPSS interventions 4. Identify the gaps in research evidence for supporting delivery and achieving intended outcomes of MHPSS? 	<ol style="list-style-type: none"> 1. To synthesise theories of change informing PYD interventions 2. To synthesise the barriers to, and facilitators of, implementing and receiving MHPSS 3. To meta-analyse the effectiveness of PYD in reducing substance use and violence? 4. To identify what characteristics of participants and contexts appear to moderate, or are necessary and sufficient for, PYD effectiveness
Stakeholder involvement	Yes: Mental health humanitarian aid practitioners and policy advisors.	Yes: Public health specialists working in policy settings
Review team composition	Three experienced reviewers; One topic expert One Information specialist	Four experienced reviewers; Two topic experts One Information specialist

3.1.2 Vision: generalisable evidence to inform common problems

Each review was commissioned to provide evidence for policymakers facing similar decisions across a range of contexts, making the need for generalisable and widely disseminated evidence a priority. The demand for evidence was ascertained by engaging with a wide stakeholder base prior to receipt of research funding. To produce evidence that would meet internationally recognised markers of quality we drew on standardised approaches to reviewing evidence. We also disseminated widely on a range of open-access platforms to reach a broad set of stakeholders.

Figure 3.1: Key features of reviews for use as ‘public goods’



3.2 Motivations

Both funders of these review cases, the NIHR and DFID, are interested in the production of systematic reviews for use as public goods. They have set up review funding programmes to feed into substantive topic priority areas; such as the humanitarian evidence programme (MHPSS review) and the non-NHS programmes for impacting public health outcomes (PYD review). They seek to harness the motivations of academics who are substantively aligned with the topic, and who have the skills to produce reviews that are relevant and scientifically robust to meet a need for evidence that addresses widespread problems.

3.2.1 Policy priorities: widespread problems

The policy focus of each review was informed by stakeholder views on current research priorities. The driver for the MHPSS review is part of an ongoing policy agenda to ensure humanitarian responses are evidence-based. A priority setting exercise undertaken with humanitarian actors by the HEP team identified mental health as a key policy area. The HEP team's exploration of the wider literature found a similar call for evidence. For example, the results from two priority-setting exercises, which consulted with academics, policy and practitioner stakeholders, both identified questions on mental health and the effectiveness of MHPSS programmes.

Conducting a priority setting exercise before commissioning new research, is now a 'well recognised mechanism' supporting the production of relevant evidence (Cooke et al., 2015 p.2). The NIHR, funders of the PYD review, operate with a fixed set of resources and therefore need to set priorities to ensure research production is orientated with current demand for evidence in the UK (Noorani et al., 2007). Alongside 'themed' calls for research informed by priority-setting exercises, the Public Health Research (PHR) programme also gives researchers the opportunity to identify gaps in the evidence-base and to present a case for research currently in alignment with stakeholder priorities. The PYD review was commissioned under this 'researcher-led' funding stream.

At the time, the coalition government had produced its vision for children and young people in the 'positive for youth' policy agenda and had committed to funding PYD programmes in the UK. Although UK policy and PYD programmes were interested in reducing health inequalities in young people the evidence for PYD programmes was out-of-date. Dialogue with policy stakeholders, such as the Head of CYP's Health Improvement Team at the Department of Health, indicated an interest in evidence synthesis on the health impacts of PYD. Similar interest was also garnered from the Deputy Director of the national team for CYP and Families at Public Health England. This preparatory work, during the application funding process, harnessed policymakers' motivation to be involved in shaping and using the review. Two PHR programme panels assessed the research proposal. The first comprised of end users of the research who determined the research questions were a priority, and the second comprised of academics who determined the scientific quality of the proposal.

3.2.2 Purpose of reviews

The Oxfam/FIC funding call requested evidence on the effectiveness of MHPSS programmes for people affected by humanitarian emergencies. To inform the development of our proposal, and to consider any additional policy priorities, I conducted 'horizon scanning' of the literature. Although key writers talked about the importance of cultural adaption and programme acceptability the majority of existing reviews had limited engagement with contextual factors mediating impact, reducing their policy-relevance. I assessed that to be of benefit to the field solely undertaking an aggregative synthesis on the effectiveness of programmes was unlikely to be sufficient. To address this gap, I suggested we adopt a mixed methods approach which sought to aggregate and configure findings. Doing so meant expanding the scope to include data on contextual factors potentially acting as barriers or facilitators to programme implementation and to use the hypotheses generated from configurative synthesis as an analytical tool for observing any heterogeneity in outcome effects. The decision to broaden the review was met favourably by the peer review panel and DFID policy team who approved the proposal and agreed that it would increase its utility and policy relevance.

A rapid scoping exercise of the PYD literature was conducted to identify gaps in the evidence-base and strengthen the policy rationale for the PYD review; a NIHR requirement for researcher-led calls. As with the MHPSS review, systematic reviews had only addressed questions on effectiveness, and

so were limited use. Consultation with stakeholders also informed the view that the evidence-base would benefit from assessments of process alongside outcomes, to support greater consideration of the feasibility and acceptability of interventions and to explore the contextual factors that might affect transferability across settings. This initial consultation also informed the decision to prioritise evidence of effects on substance use (smoking, alcohol and drugs) and violence (perpetration and victimisation) and was identified as a concern of interest to policymakers and young people.

3.2.3 Career progression

My motivation to co-lead the MHPSS review was harnessed by and was in alignment with my academic interests and career progression. Firstly, it would build on my experience of conducting and strengthening capacity to produce systematic reviews in international development, expanding my portfolio in this area (e.g. Birdthistle et al., 2011, Dickson and Bangpan, 2012, Stewart et al., 2010). Secondly, the guidance note accompanying the MHPSS review funding call suggested there would be a 'good match' between my epistemological position on producing mixed-methods policy-relevant evidence and the funders need for accessible review findings, 'with the ultimate goal of improving humanitarian policy and practice' (Oxfam & FIC 2015). Thirdly, having recently graduated as an integrative psychotherapist it would provide an opportunity for me to apply practitioner topic knowledge to a field still new to evidence synthesis. I was similarly motivated to lead the day to day running of the PYD review, as the substantive focus aligned with my professional interests and presented an opportunity to draw on my research interests in youth work and asset building programmes for young people (e.g. Dickson, 2013, Dickson and Bangpan, 2012, Thomas et al., 2008). Both reviews also provided an opportunity to gain experience of producing a mixed method 'public goods' review, lead a qualitative evidence synthesis, building on previous experience (Dickson et al., 2009b, Hurley et al., 2013, Rees et al., 2014) and an opportunity to further develop my skills working with stakeholders.

3.3 Engagement between policy and research

As noted in section 1.2 the emergence of institutional mechanisms to facilitate engagement with those intending to use evidence is very much a feature of mode two knowledge production, which occurs in a 'context of application' (Jacob, 2000). In the context of producing evidence 'for' policy, engagement across the policy-research interface is essential to ensure reviews maintain their relevance. Policy-relevant reviews that are intended for use as 'public goods' may also engage with a wider set of stakeholders, gain their input and assess their applicability to multiple audiences. The contractual relationship formed with each funding organisation (DFID/NIHR) also set expectations about policy engagement. In addition to our assessment of the type and level of engagement that was needed to maintain coherence in the review.

Table 3.2 Engagement

Engagement	Model 1: MHPSS	Model 3: PYD
Nature of contract: Policy (stakeholder) input required	✓ Single 'one off' contract	✓ Single 'one off' contract
	✓ DFID policy team	✓ Advisory group
	✓ Advisory group	✓ Evidence briefs
	✓ Evidence briefs	
Nature of relationships: shaping reviews and agendas	✓ To translate findings	✓ To shape the review
		✓ To interpret findings
Nature of support: facilitating policy (stakeholder) input	✓ Collaborative meetings	✓ Review templates
	✓ Review templates	✓ Peer review
	✓ Peer review	

3.3.1 Contracts: policy input required

We were commissioned to produce a 'single' review as part of an existing programme of work. To facilitate policy input we were contracted by the NIHR to convene an advisory group that included policymakers in the UK. The contract with Oxfam/FIC stipulated that although we were to consult with stakeholders, via an advisory group, input would also be received from the humanitarian policy team at DFID, as the primary policy customer. To show how we intended to communicate the review findings to policy and wider stakeholders a research uptake plan was expected and reported in the protocol.

3.3.2 Relationships: shaping reviews and agendas

Deciding which stakeholders to involve was determined by the need to gain international (MHPSS) or national policy input (PYD). The nature and degree of stakeholder input were determined by the extent to which the key concepts were clearly defined and operationalised and the extent to which the findings needed translation (Oliver et al., 2017b).

Based on exploration of the MHPSS literature to inform the conceptual framework, I concluded that there was sufficient definitional clarity for us not to require focused input from policy stakeholders to test our understanding of these terms. We adopted a broad definition of MHPSS from the Inter-Agency Standing Committee (IASC, 2007), noted for its familiarity and ability to speak to practitioners and policymakers alike. We also drew on named MHPSS programmes (e.g. cognitive behavioural therapy, narrative exposure therapy) and known psychological outcomes established in the field (e.g. post-traumatic stress disorder, depression, anxiety). However, unsure of the scale of the evidence base we conducted a scoping exercise as part of protocol development to enable an opportunity for DFID to give feedback on the final shape of the review. I also anticipated that further engagement with policy and practitioner stakeholders was likely to be required after the completion of the project to support the translation and dissemination of review findings.

In comparison, the field of youth work, of which PYD is one approach, has been beset with methodological debate about the lack of conceptual clarity regarding what constitutes youth work and which outcomes can usefully demonstrate effectiveness (NYA, 2014). The analytical map of youth work I conducted in 2013 also identified difficulty in establishing a link between the theory underpinning youth work practice and outcomes but suggests beginning with the PYD literature (Dickson, 2013). While it was possible to draw on existing definitions of positive youth development, by authors such as Catalano et al. (2004) and Gavin et al. (2010), the mechanisms and processes by which programmes intend to outcomes, such as substance abuse and violence remained unclear. The review, therefore, proposed to address these issues in two ways. Firstly, we would include studies describing PYD intervention theory of change, to produce a theoretical synthesis, which would then inform the synthesis of process and outcome evaluations. Secondly, we would proceed in a highly configurative way, to identify which key concepts were most salient to youth work policy in the UK as the review evolved by eliciting stakeholder views at key points in the review process.

3.3.3 Support: facilitating policy input

The NIHR took a relatively 'hands off' approach to facilitating policy input. Instead, they delegated this responsibility to the review team and required evidence that policy perspectives had informed and shaped the review by expecting a detailed write-up of that process in the technical report. Their peer review process, which provided an opportunity for additional policy input, was communicated electronically. Responses to feedback were then submitted via their online management information system (MIS). Oxfam/FIC brokered input from the humanitarian policy team at DFID. The review programme managers at Oxfam/FIC, acting as knowledge brokers, took an interactive and collaborative approach to communicating feedback from DFID. Meetings to discuss peer review feedback also provided an opportunity to track that the review remained relevant to their policy interests. Templates for communicating findings to policy, in the form of briefs, were also funding specific. The NIHR also requested a 'plain language summary', while Oxfam/FIC provided feedback on the language and terminology in the evidence briefs. We also scheduled advisory group input to coincide with key review milestones, e.g., draft protocol, emerging findings, technical reports and policy briefs.

3.4 Structures supporting the production of 'public goods' reviews

Producing systematic reviews for use as public goods requires structures to support effective collaborative working practices in achieving a shared goal: the production of generalisable evidence to address common problems. The MHPSS and PYD review benefitted from institutional mechanisms which supported the flow of communication between the review team and funders, in addition to organisational structures supporting the technical and individual capacity to produce and publish multi-component transdisciplinary reviews.

Table 3.3 Structures

Structures	Model 1: MHPSS	Model 3: PYD
Mediators of engagement	✓ Knowledge brokers	✓ Research manager
Knowledge management	✓ Library facilities	✓ Library facilities
	✓ Review software	✓ Review software
	✓ Oxfam/FIC website	✓ NIHR library
		✓ Review management system
Core capacity	✓ Systematic review career path	✓ Systematic review career path
	✓ Valuing engagement	✓ Valuing engagement

3.4.1 Mediators of engagement: knowledge brokering

I quickly became familiar with the ‘at a distance’ knowledge management role adopted by the NIHR, which focused on providing administrative and research coordination support. I was introduced to the research manager via email and our communication focused on project management of the review, such as contractual issues, budgets, peer review and monitoring progress on their ‘Management Information System’ (MIS). This proved to be an efficient and structured way to navigate the flow of research outputs between the review team and the PHR programme (e.g. the protocol, review progress reports and the final technical report).

This was in contrast to the HEP programme leads at Oxfam/FIC, who acted as ‘credible intermediaries’, (Moore et al., 2009, Ogilvie et al., 2009) project managing the review and facilitating ‘knowledge exchange processes’ with DFID. Drawing on my experience as a reviewer and knowledge broker on DFID funded review capacity building programmes, I sought to facilitate an open and transparent dialogue with the HEP team to ensure we developed clear channels of communication between us and the policy team at DFID. I focused on building a good rapport during early contract negotiations to ensure we started off on good terms. This was aided by conveying our familiarity with DFID’s expectations, such as timeliness of delivering outputs, milestone payment procedures, and producing accessible policy briefs. Those early virtual meetings on skype laid the foundation for a mutually collaborative working relationship which enabled further decision making points in the review to go smoothly. This relationship has extended beyond the initial review contract, with the HEP team expanding their role to facilitate ‘linkage and exchange activities to support the dissemination of findings.

3.4.2 Knowledge management

Navigating the research-policy interface also includes navigating different knowledge management platforms. For example, systematic reviews intended for use as public goods often come with stipulations about how the review will be managed, to ensure it fits with recognisable brand templates (e.g. 'Archie' review manager for Cochrane reviews) or where the review will be accessed (e.g. Cochrane Library, Campbell Library). As a reviewer working with different policy organisations and funders, it has been essential to be flexible and 'adapt' to new review systems and work with a range of editorial templates, such as those expected of NIHR and Oxfam/FIC. Taking responsibility to navigate those management systems formed part of the project management and monitoring of the review. Both reviews required extensive library and database access to conduct broad searches. To manage search outputs the reviews were conducted using "EPPI-reviewer" review manager software (Thomas et al., 2010). This software supports the production of a range of synthesis (e.g. meta-analysis, thematic synthesis) in addition to review outputs to fit with common reporting requirements of public goods reviews (e.g. exporting search strings, the risk of bias tables, coding tools).

3.4.3 Core capacity

Building capacity to produce policy-relevant systematic reviews occurs at both an individual and organisational level. The EPPI-Centre provides an institutional setting to support evidence synthesis production, as a 'legitimate' academic activity, on par with primary research (Gough et al., 2017, Oliver et al., 2015a). As a long-standing member of the EPPI-Centre, I have contributed to its historical precedent in developing successful policy-research collaborations to produce useful evidence (Oakley et al., 2005). For each of the case reviews, I drew on two core capacities that have been nurtured and valued at the EPPI-Centre over the course of my career. Firstly, the technical capacity to span disciplinary boundaries and deploy specific research skills (e.g. qualitative evidence, and cross-study synthesis). Secondly, my project management and social skills, to span research-policy boundaries, engage with stakeholders who bring their own expertise and disparate agendas to work together in a transdisciplinary way to produce policy-relevant reviews.

3.5 Standardised procedures for producing 'public goods' reviews

To produce generalisable evidence to address common problems we drew on standardised and innovative methodological approaches to support the production of policy-relevant evidence.

Table 3.4 Procedures

PROCEDURES		MODEL 1: MHPSS	MODEL 3: PYD
Methodological guidance	Standard guidelines	✓ PRIMSA	✓ PRIMSA
	Standard and innovative methods	✓ Multi-component mixed method review	✓ Multi-component mixed method review
	Review question	✓ PICO	✓ PICO

PROCEDURES		MODEL 1: MHPSS	MODEL 3: PYD
Scope and conceptual framework	Conceptual framework	✓ Based on existing literature	✓ Emergent
Identifying the evidence base	Searching	✓ Exhaustive & Comprehensive	✓ Exhaustive & Comprehensive
	Screening	✓ A priori criteria	✓ A priori criteria
Critical Appraisal	Standard & review specific	✓ Rigour and relevance	✓
		✓ Cochrane Risk of bias	✓ Rigour and relevance
			✓ Cochrane Risk of bias
Evidence Synthesis	Transdisciplinary	✓ Thematic synthesis	✓ Theory synthesis
		✓ Meta-analysis	✓ Qualitative meta-synthesis
		✓ Cross study synthesis	✓ Meta-analysis
Stakeholder engagement		✓ DFID HEP Team	✓ Advisory group
		✓ Advisory group	
Peer review		✓ Policy	✓ Policy
		✓ Practitioners	✓ Practitioners
		✓ Academics	✓ Academics

3.5.1 Guidelines for synthesising evidence for reviews used as public goods

We drew on standardised methods for producing systematic reviews to generate credible evidence. This was achieved by undertaking comprehensive searches, quality appraising trials using the Cochrane risk of bias tool (Higgins and Green, 2012) and assessing the quality of qualitative studies using tools employed in previous reviews (Hurley et al., 2013, Brunton et al., 2016). Methods of synthesis followed similar established approaches: e.g. meta-analysis of trials and meta-ethnography and thematic synthesis of process evaluations. However, where reviews adopted more innovative approaches, e.g. theoretical synthesis in the PYD review and meta-regression in the MHPSS review, a clear rationale were made based on previous examples in the literature. Both reviews also ‘graded’ the evidence to enable readers to identify the strength of the review findings. This use of grading is common in NIHR reviews and was specifically requested by DFID to support policy use.

3.5.2 Scope and conceptual framework

As outlined in section 3.2 the policy relevance of the reviews was enhanced by involving policy perspectives in setting the question and scope during the commissioning phase. The conceptual framework for the MHPSS review was developed by drawing on existing definitions in the literature. While the PYD review aimed to explore on partially developed theories to inform policy and practice options. Initial definitions were also drawn from the PYD research literature, but the conceptual understanding was advanced through the review, and their coherence tested by consulting with stakeholders.

3.5.3 Identifying the evidence base

We conducted a bibliographic search of health and social science databases to identify a sufficient number of studies to enable an 'unbiased aggregation' of data to answer a review question on programme effectiveness (Brunton et al., 2017). The website searching identified the majority of process evaluations. Our choice of websites also reflected our policy audiences. The MHPSS review focused on international development, while, the PYD review reflected a high-income country bias.

3.5.4 Transdisciplinary evidence synthesis

Systematic reviews are not conducted in isolation but require collaborative work within transdisciplinary teams. Both reviews required team members equally proficient in their respective fields of synthesis to configure and aggregate data to answer the review questions. Navigating broad sets of literature was made possible by building in reflection and thinking time during the review. It was also important to take an analytical lens to the conceptual issues emerging from the literature to shape the synthesis. For example, both reviews identified studies which evaluated complex interventions with multiple components using standardised and non-standardised outcome measurement tools. To group studies meaningfully in an aggregative synthesis required team members to read and re-read the programme description and outcome sets and constructively challenge each other's interpretation before deciding on the final grouping.

In the PYD review, by drawing on the findings in the theory synthesis, we decided there was sufficient similarities in the studies' theoretical approach to combine them and lead the aggregative synthesis by outcomes. In the MHPSS review, although we identified 'named' programmes, this did not determine uniformity in their approach as programmes were adapted to settings (e.g. school-based group CBT) or stressed certain programme components over others. To support the configuration of a coherent set of studies before aggregating their findings, I suggested the Co-PI, use naïve 'questioning' to interrogate my thinking. Doing so, she was able to tap into my psychotherapy knowledge about trauma versus non-trauma approaches to support the grouping of studies. We also revisited the literature to sense check this understanding. This process supported the transparent reporting of how we defined and grouped programme and the subjective and iterative process it entailed in the technical report. It also supported our decision to group all MHPSS and explore by outcome type, before considering individual MHPSS programmes, to produce a coherent narrative synthesis of findings.

Further transdisciplinary approaches were applied in the MHPSS cross-study synthesis. In leading the qualitative synthesis (QES) of process evaluations, I generated six hypotheses on programme implementation that were used to 'interrogate' trial evidence to answer the synthesis questions on the key characteristics of effective MHPSS programmes. The identification of each hypothesis generated from the QES in trials was instrumental in informing which studies would be included in the meta-regression, the technical execution of which was led by my co-authors. This type of 'hybrid' synthesis

can draw criticism as each set of studies have different epistemological standpoints and philosophies, which some would argue are diametrically opposed and cannot be synthesised 'together'. However, working in applied research settings has led to creative ways of attempting to 'combine' data to answer real-world problems policy seek to address. Working collaboratively, in a transdisciplinary team, made it possible to draw on our range of skills and perspectives, respectfully discuss our contradictory interpretations and resolve any tensions, to produce such a synthesis.

3.5.5 Stakeholder engagement

Stakeholder engagement in the MHPSS occurred via two routes. The policy team at DFID, who provided the final 'sign-off' on the protocol, technical report, and evidence briefs in their role as funder, and the practitioner-focused advisory group. The review remained in alignment with DFID's needs and priorities by adhering closely to what had been agreed in the protocol. The advisory group provided feedback on the same review outputs in tandem with DFID providing similar feedback. These comments included remaining sensitive to context (e.g. not conflating post-conflict with post-natural settings) and population characteristics (e.g. age, gender, socio-economic differences). As expected, a strong focus was placed by both stakeholders on communicating accessible policy and practice messages. Like other reviews in international development, as advisory group members were in geographically diverse settings, we did not try to convene a group meeting but requested feedback in writing or verbally (e.g. via Skype). Although there were some concerns about capacity to comment on an unfamiliar and somewhat dense methodology, I provided tactful assurance that as methodological quality would be addressed in peer review, to focus on the substantive comment.

Stakeholder engagement on the PYD review required a different type of consultation process to ascertain substantive input on emerging conceptual issues. I undertook this process via bilateral telephone interviews to discuss the interim findings before finalising the discussion and conclusions in the review. Although the PYD review findings were not overtly controversial some degree of political sensitivity was required. Thus it was important to ensure there were sufficient trust and openness in the interviews to allow for candid and contradictory views to be expressed. To facilitate this, I drew on my counselling skills. The benefits of conducting 1:1 interviews were in being able to generate rapport in the dyad to encourage open and honest dialogue.

To build this rapport I drew on Rogers (1951) attributes of genuineness and unconditional positive regard and conveyed these through active listening, reflection, paraphrasing and the use of open questions; skills I have also drawn on when conducting primary qualitative research. I found that paraphrasing, i.e. rephrasing someone's core point, was a useful way to communicate and check understanding. I used this approach by relaying the end of the last point, to encourage further responses and show that I was tracking and listening to the conversation. Summarising (e.g. longer paraphrases) also helped to check meaning by reflecting back what had been said in a more 'coherent' way. This was useful to explore two separate points by linking them together. In some

instances, this led to further clarification of meaning. The use of these skills was underlined with other ways of building rapport to facilitate dialogue, such as using similar language and tracking internal dialogue and responses to feed into the discussion and provide any additional insight to prompt stakeholders own reflections. The insights garnered from taking this approach with stakeholders fed directly into finalising the synthesis and drawing together the discussion and conclusions.

3.6 Impact

Identifying effective strategies for increasing the impact of research findings and mobilising research-based knowledge continues to be explored and debated in the field (Langer et al., 2016). Our approach, in addition to producing a review that met DFID and NIHR requires, was to reach a broader audience by focusing on communicating the review findings through 'channels over time among members of a social system' (Farkas et al. 2003 cited Wilson et al., 2010 p.5).

Table 3.5 Overview of review outputs

Review outputs and engagement	Model 1: MHPSS	Model 3: PYD
Technical reports	✓ Protocol	✓ Protocol
	✓ Technical report	✓ Technical report
Evidence summaries	✓ Scientific summary	✓ Abstract
	✓ Evidence brief	✓ Plain language summary
		✓ Evidence briefs
Academic outputs	✓ Conferences	✓ Journal articles
	✓ Journal articles	
	✓ Blogs	
Stakeholder Dialogue	✓ WHO/ELHRA Meeting	✓ Review launch
	✓ Oxfam/DFID Webinar	
	✓ Evidence Aid Webinar	
Methodological reflections	✓ DFID Panel discussion	✓ Theory synthesis
	✓ Evidence Aid: Panel discussion	
	✓ Blog	

3.6.1 Policy informed by generalisable evidence to address common problems

The PYD and MHPSS review generated messages for policy on potential programme options and factors influencing implementation. The MHPSS review, one of very few mixed methods reviews in the humanitarian field, also contextualised findings by conducting sub-group analysis, and meta-regression to explore key features of programme effectiveness. Informal feedback on the review has suggested that the research to policy translation process resembles the 'enlightenment' model. Whereby the relevance and usefulness of each review has been judged in terms of its 'contribution to an overall body of work e.g. non-NHS interventions for addressing public health outcomes and DFID's humanitarian policy (currently under consultation).

3.6.2 Review products

The extent to which evidence summaries increase research uptake remains unclear, however, they are still considered a useful way to target key messages to 'busy' policymakers (Petkovic et al. 2016, Hughes et al. 2000). To produce the evidence briefs for the PYD and MHPSS review I focused on identifying the most salient findings and summarising them into meaningful and succinct messages. I sent the draft briefs to stakeholders, to act as a final 'translation' check before disseminating more widely. Further dissemination of the MHPSS review via blogs and other digital media are also planned, drawing on empirical work by Dobbins et al. (2017).

3.6.3 Stakeholder dialogue

Having generated collaborative interest in the PYD review, we invited policymakers and practitioners to a launch of the report. This provided a face-to-face and socially interactive platform to discuss the implications of the findings for the UK context. National and local policymakers responsible for community-based services supporting young people's health and well-being attended. Small group discussion facilitated greater discussion about the implications of the findings as they applied to the local level, particularly, contextual factors acting as a barrier to successful delivery of PYD. Similarly, to capitalise on growing interest garnered during the MHPSS review I successfully led an internal UCL 'seed funding' bid with the Co-PI, to disseminate the findings. I have found that interpersonal relationships and networks (Langer et al., 2016, Haynes et al., 2011) have been essential in our efforts to increase the visibility of the review findings. Having cultivated a positive relationship with the knowledge brokers at Oxfam/FIC, we have continued to discuss opportunities to maximise research impact and to consider how we can move beyond 'information sharing' to 'research use' (Gough et al. 2017). This has led to presenting the findings at a workshop on 'MHPSS research in humanitarian settings' at the WHO, in addition to policy-focused webinars. The main objective of these events is to enable MHPSS researchers and practitioners to come together as a 'community of practice' to discuss the current MHPSS evidence base and to engage in knowledge exchange around how to use evidence on MHPSS in humanitarian contexts

3.6.4 Methods development

Both reviews engaged with elements of programme complexity and methods development. The PYD review has drawn attention to the need for transparent and accountable methods for producing a theoretical evidence synthesis, as the need to explore 'how' programmes achieve their intended effects continues (Bonell et al., 2016). The MHPSS review adopted widely agreed concepts and definitions in the field. However, we have since discovered that further exploration of theoretical and conceptual issues informing the design and delivery of programmes could be the next useful step for the field. This thinking, and expanding on our conversations with Oxfam/FIC about producing policy-relevant evidence for the humanitarian sector is feeding into discussions with wider stakeholders (e.g. Evidence AID, DfID).

4 Producing evidence to influence local policy

4.1 Review context

4.1.1 Introduction

Since 1995, the EPPI-Centre has been funded by the UK Department of Health, Policy Research Programme, to produce evidence to support national health and social care policy development and implementation. This funding supports the provision of an 'on-call' reviews facility; an ongoing programme of work generating health policy research synthesis. As a senior member of the reviews facility, I have worked on a variety of evidence synthesis products; two of which are the focus of this chapter. The first is a 'meta-review' to inform the development of the 'adult social care outcomes framework' (ASCOF), a broad set of outcome measures intended for use by local councils to support the delivery of social care services; where the key concepts were operationalised and agreed in advanced. The second is a 'rapid realist review' to develop 'hypotheses' in the form of context mechanisms and outcome statements, to inform consideration of a compensation scheme for birth injury in England; where conceptual development was ongoing throughout the review. This chapter will explore the institutional mechanisms and social interactions used to support their production.

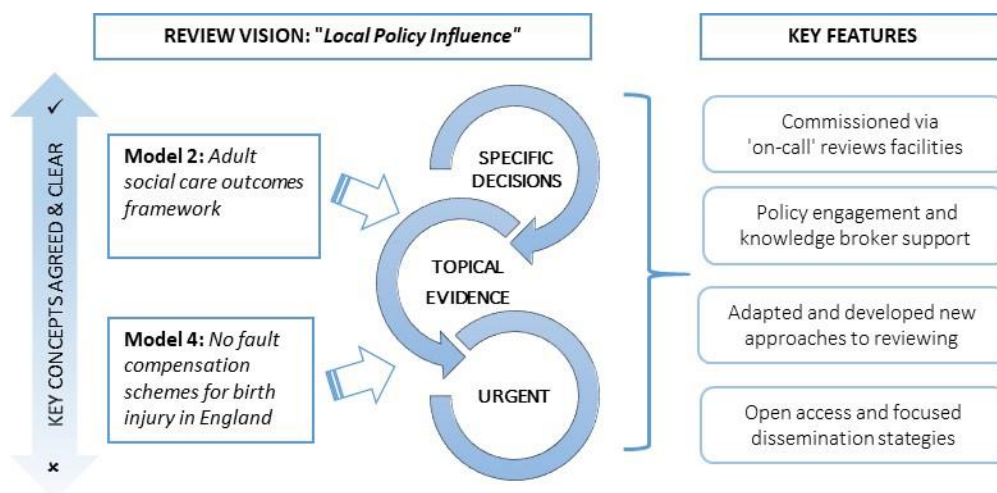
Table 4.1 Diversity of reviews

Review context	Model 2: Adult Social Care Outcomes Framework	Model 4: No-Fault Compensation Reviews
Funder	Department of Health, England	Department of Health, England
Review programme	EPPI-Centre 'on-calls' reviews facility	EPPI-Centre 'on-calls' reviews facility
Jurisdiction	National: HIC	National: HIC
Type of review	Multi-component: Systematic map and meta-review	Single component: Rapid realist review
Review aims	<p><u>Primary aim:</u> To identify which social care interventions can effectively improve outcomes for service users in the four domains set out in the ASCOF: quality of life, prevention, satisfaction and safeguarding?</p> <p><u>Secondary aims:</u> To identify</p> <ol style="list-style-type: none"> evidence on the cost-effectiveness of social care interventions gaps in the evidence base types of services or groups of service users for which there is currently little or no available review evidence Do reviews indicate other important outcomes that should be considered in future revisions of the ASCOF? 	<ol style="list-style-type: none"> To identify what individual or contextual factors contribute to people's reasons and motivations for engaging in no-fault type compensation schemes after medical injury? To consider how are no-fault compensation schemes thought to improve outcomes for people with medical injuries?
Stakeholder involvement	Yes: research and social care policy experts	Yes: Department of Health policy leads
Review team composition	Eight experienced reviewers One novice reviewer One information specialist	experienced reviewers One information specialist

4.1.2 Vision: timely evidence to inform specific decisions

The substantive topic focus and the type of evidence required by the department of health (DH) often reflect changes in government (e.g. from a focus on young people to older people or general health promotion to long-term physical conditions). However, irrespective of the political landscape the primary aim is the same; to produce evidence that meets the needs of local policymakers. These aims are achieved by funding an ‘on-calls’ reviews facility that can respond to urgent requests for evidence, to inform specific decisions on topical policy issues, within a specific policy timeframe. It is supported by experienced knowledge brokers facilitating engagement between policy and review teams. Methods of reviewing are often developed and adapted to fit the policy brief and dissemination activities are largely targeted to local policy audiences.

Figure 4.2 Key features of evidence produced to influence national policy



4.2 Motivations

The Department of Health has a long-standing commitment to using evidence to underpin public health policy and has shown an enthusiasm for harnessing the potential of research institutions to generate new knowledge to inform decision-making processes. As funders of the on-calls reviews facility evidence requests from policy departments are made in agreement with the DH policy research programme (PRP). The primary objective of the PRP is to assist colleagues in the DH who are formulating, developing or evaluating policy, with high quality evidence. Our responsibility is to assess the organisational capacity to undertake a new evidence request and to align methods and reviewer skills to meet that request in the policy time window available.

4.2.1 Policy priorities: urgent decisions

Both reviews discussed in this chapter were requested by policy teams at the DH and were aligned with existing UK policy process. In 2012, there was an initial request made to the PRP to understand what research evidence could tell them about quality and outcomes for the social care sector, to feed into the development of the Social Care White Paper. This inquiry led to a review, needed within ten

months, to inform the development of the Adult Social Care Outcomes Framework (ASCOF), a complimentary policy to support the vision for adult social care subsequently laid out in the 'Care and Support White Paper and 'the Care Bill'. The review of no-fault compensation schemes was initiated after a meeting with the maternity litigation policy team. The meeting aimed to discuss how and what type of evidence could support policy development on the possibility of an administrative compensation scheme in England, for parents who had a child injured at birth. This review was needed within in 5 months policy window.

4.2.2 Purpose of reviews

Understanding the wider policy context and political drivers motivating the need for evidence supported greater clarification of the purpose of the reviews. Each policy area had a historical precedent, in addition to a current impetus to push the policy agenda forward. In addition to producing a rigorous systematic review, acknowledgement of and familiarisation with the politics driving the direction of the science also informed decisions about what type of evidence might be most relevant to support that policy development. I have found that failure to engage with this wider context, can lead to producing a review, that while might be technically correct, is not useful to policymakers.

For example, before introducing the Adult Social Care Outcomes Framework (Department of Health 2012), there had been an ongoing policy drive in the UK to generate an evidence base to support the delivery of adult social care services (DH, 2001). This drive gained momentum under New Labour and continued under successive governments. The policy documents published at the time (DH 2010, DH 2010b) revealed a greater focus on accountability in social care by increasing transparency on how to achieve quality and improve outcomes in the sector. This provided greater contextualisation for ASCOF, a set of outcome indicators to support local policymakers decide what type of social care services to fund and a means for local councils to evaluate services. When asked to support the development of ASCOF it became clear that focus needed to be placed on identifying the evidence-base on the effectiveness of social care interventions in each of the ASCOF outcome domains. To be relevant to policy the scope needed to remain comprehensive ruling out the option of producing a 'simple' systematic review (e.g. single population group, outcome or type of intervention). However, neither could we conduct more than one review in the time-frame. This need for breadth and to generate evidence, 'comparing' policy options, informed our decision to make use of existing review-level evidence on the full range of social care interventions, populations and outcomes as set out in ASCOF by conducting a systematic review of reviews (meta-review).

In comparison to the ASCOF review, the policy landscape informing no-fault compensation schemes had been relatively uncertain. The political climate in the UK had gone in and out of favour of the idea of providing patients who have suffered a medical injury with an alternative to the tort system as a route to claiming compensation. Initial consideration of a scheme was first put forward but rejected in the 1970's, and a similar scheme was suggested again in the 'Making Amends' report in 2003 (DH,

2003) but failed to materialise. The current policy impetus for clinical negligence reform was reinvigorated amid criticism that the current system is too lengthy and legal costs too high. Policy focus was placed on maternity services, as it is one of the areas of 'highest clinical negligence claims' made to the NHS Litigation Authority (NHSLA, 2012 p.4). To address these criticisms, the government reintroduced the idea of a 'voluntary administrative compensation scheme for families affected by severe avoidable birth injury' in England which they wanted to be informed by evidence, before being going out for public consultation (Department of Health, 2017).

To support the development of this policy initiative we were asked to consider what individual or contextual factors might contribute to people's reasons for engaging in such a scheme, rather than choosing formal litigation. However, given the lack of a scheme in the UK, and the unlikelihood of any UK evidence we suggested taking a 'realist' approach. We suggested this approach as it would allow us to draw together knowledge on compensation schemes implemented in a range country contexts, and critically engage with factors influencing the design and implementation of schemes and the impact this might have on people's motivations to engage in them. Given the five-month policy window, we agreed with the policy team that we would take a 'rapid' approach to develop qualitatively grounded, context, mechanisms and outcomes (CMOs) configurations, but could not go as far as empirically testing them.

4.2.3 Career progression

Aligning a new policy evidence request and assembling the review team involved similar considerations to those when producing 'public good' reviews, such as reviewer substantive topic knowledge, systematic review skills and interests, current availability and project management experience. As the ASCOF review was likely to cover the breadth of social care and involve methodological development the review team need a mix of skills and topic knowledge. My interest and experience in conducting and strengthening capacity to undertake reviews in social care (Dickson and Gough, 2008, Dickson et al., 2009a, Dickson et al., 2009b) and my experience of working on two systematic review of reviews (Caird et al., 2010, Dickson et al., 2012) made me an appropriate candidate to join as a senior member of the team. Similarly, I was identified as a team member with sufficient seniority to lead a review requiring flexible engagement with a new methodology and with the experience to deliver a policy-relevant output in the short, five-month frame.

4.3 Engagement between policy and research

The on-calls reviews facility, not only enables the commissioning of research directly by policy makers but provides an institutional forum for engagement across the policy-research interface. This forum builds into the programme of work the opportunity for greater consultation at different points in the review process. This can help to make sure systematic reviews are more policy-relevant as both reviewers and policy teams are directly involved in the process of shaping the knowledge produced.

Table 4.2 Engagement

Engagement	Model 2: ASCOF	Model 4: NFCS
Nature of contract: Policy (stakeholder) input required	✓ Ongoing contract ✓ Policy team: <i>Health and social care</i>	✓ Ongoing contract ✓ Policy team: <i>Maternity litigation</i>
Nature of relationships: shaping reviews and agendas	✓ To shape the review ✓ To inform the scope ✓ Information exchange	✓ To shape the review ✓ To interpret findings ✓ Deliberate dialogue
Nature of support: facilitating policy (stakeholder) input	✓ Two key meetings ✓ Review templates ✓ Peer review	✓ Regular meetings ✓ Review templates ✓ Peer review

4.3.1 Contracts

As stated, the contractual agreement supports the bringing together of systematic reviewers with policy teams to shape and produce reviews in health and social care. The funding contract also allows for flexibility in deciding the structure and format of review deliverables, as they are tailored to each research project. The PRP is responsible for organising peer review, and the EPPI-Centre for publishing and dissemination the review outputs.

4.3.2 Relationships

To maximise the role of policy stakeholders in shaping the review we scheduled structured decision-making inputs via face-to-face meetings. The nature and extent of policy engagement were determined by the type of review being produced and whether the review would benefit from policy input to shape the scope, inform or develop the conceptual framework, focus of the synthesis or interpret the findings.

For example, although the scope had been determined by the parameters set out in the ASCOF, further discussion was required to agree an ‘operationalised’ version of the conceptual framework, particularly around how to define social care interventions to ensure we captured appropriate services. This needed to be agreed in advance to inform the design of the research, typical of an aggregative review. In addition, we anticipated, that because of the breadth of the scope we might find more systematic reviews than we could synthesise in the time available. Therefore, we agreed to consult with policy leads once we had descriptively ‘mapped’ the literature, to have an evidence-informed discussion on which to base our conversation about whether to narrow the scope prior to synthesis. The NFCS took a configurative hypothesis-building approach to illuminate policy options, with the majority of the conceptual work occurring during the review. To ensure the focus of the review remained closely aligned with policy needs, we agreed to meet regularly as the review progressed. This was also needed because the policy agenda was subject to change as it was being produced. Overall policy engagement was designed to: define and determine the scope of the review; identify relevant outcomes to focus on, and to support an understanding of the wider policy context.

4.3.3 Facilitating policy input

As stated, direct engagement at the policy-research interface is a key feature of producing evidence for local DH policy teams. Opportunities to engage in open and ‘deliberate’ dialogue’ occurred via face-to-face meetings. These meetings in addition to discussing methodological decisions, provided a forum to discuss review specific outputs. For both reviews we agreed to use the current EPPI-Centre reviews template which aims to ensure the findings accessible to policy audiences by having two parts. Whereby part one gives prominence to the review findings and part two reports detailed methods. Policy input was also facilitated by eliciting written feedback on draft reports both before and after external peer review.

4.4 Structures

Systematic reviews commissioned to inform urgent policy decisions have developed institutional structures at the EPPI-Centre to support their production. These included working with experienced knowledge brokers who facilitated engagement between researchers and policymakers at the DH, advances in technology, and a stable funding stream that has developed a team of reviewers familiar with working at the policy-research interface.

Table 3.4 Structures

Engagement		Model 2: ASCOF		Model 4: NFCS
Mediators of engagement	✓	Knowledge brokers: intermediary model	✓	Knowledge brokers: translation model
Knowledge management	✓	In-house publishing	✓	In-house publishing
	✓	Reviewer software	✓	Reviewer software
Core capacity	✓	Working with experienced reviewers	✓	Working with experienced reviewers

4.4.1 Mediators of engagement: knowledge brokers

Knowledge brokers at the DH have a knowledge management role and provide a ‘linkage and exchange’ function bringing together reviewers with policy teams (Ward et al., 2009). The ASCOF review adopted an information intermediary model which is ‘concerned with enabling access to information from multiple sources and engaged in informing, aggregating, compiling and signaling information’ (Fisher, 2011 p.10). This approach supported sharing information about what needed to be included in the scope of the review and the shape of the synthesis. This helped us to focus decision making about a large piece of work in a short amount of time. In comparison, the NFCS adopted a ‘knowledge translation’ model. In this approach, the knowledge broker played a key role in communicating what the review could achieve, i.e. ‘laying out the issues’ to inform different aspects of

policy (not provide a definite answer on outcomes) and assisted in 'making sense' of complex aspects of the findings by summarising key points when required.

4.4.2 Knowledge management

In-house publishing processes

The EPPI-Centre is responsible for the publication process of reviews funded by the DH programme of work. Having the capacity to lead the coordination of copy-editing and formatting of reports was crucial in being able to agree and meeting the two-week publication process deadline for the NFCS review. It also made it possible to provide 'interim' report on prevention findings in the ASCOF review when a rapid response was needed to feed into early policy formulation.

Bespoke systematic review technology

Recent advances in information technology have supported the acceleration of review procedures and the transparent reporting of methods. The ASCOF search generated a large volume of studies that needed to be screened and descriptively coded, before synthesis. To speed up the review process and deliver on time, EPPI-Reviewer software enabled a large number of reviewers to achieve these tasks simultaneously. The data tables generated from EPPI-Reviewer were also used to write each ASCOF synthesis and were included in the final technical report, reducing considerable time. The NFCS took advantage of EPPI-Reviewer by utilising its text mining technology. This technology uses term recognition in studies to generate automatic thematic clustering. The text mining grouped studies using terms such as 'birth' and medical compensation which aided us in quickly identifying studies to inform the initial CMOs for discussion with the DH.

4.4.3 Core capacity

Continued success in obtaining funding from the Department of Health, to act as an 'on-call' reviews facility, has generated a stable 'pool' of systematic reviewers experienced in producing evidence that meets policy-driven priorities. This stability has, in turn, supported organisational learning: namely the interpersonal skills required to work creatively in research teams alongside the technical capacity to develop methods to produce policy-relevant evidence. Organisational learning is supported by having sufficient psychological safety in review teams to take risks and contain any anxiety around 'fear of failure' or 'making mistakes', to be able to ask questions, experiment with reviewing, question thinking, and engage in constructive criticism (Edmondson, 1999). Such safety and trust are beneficial when working under time-bound pressure, to make important project management decisions, forge new methods, and produce high quality outputs.

Having previously worked with the first author of the ASCOF review (KS) on a rapid review to inform NICE guidelines and a meta-review to inform policy development in children's social care, we were

able to quickly draw on our insider knowledge of working at the research-policy interface to make decisions about the design and project management tasks needed in the review. These including, agreeing on the value of producing a map for the ASCOF review to support narrowing the focus, having found this useful when presenting findings at the NICE guideline development group and maintaining an ongoing dialogue about the ‘manageability’ of the review, as it would not be possible for one person to lead a synthesis on all four outcome domains. Just prior to the NFCS review I had worked with two of the team members on a mixed method review on workplace health promotion (Brunton et al. 2016) and had developed an understanding of team members research skills, such as the experience of producing contextually sensitive configurative reviews and working with stakeholders. This enabled to assess how skills could be best utilised to quickly and efficiently produce a rapid realist review. It was also important to harness the motivation and enthusiasm team members expressed about applying a new methodology to a new topic area. These dynamics were particularly salient when producing the synthesis and are discussed further in that section.

4.5 Tailoring procedures to produce locally relevant evidence

We engaged with policy teams and developed and adapted methods to produce timely evidence aligned with local policy teams’ immediate needs (see table 4.4).

Table 4.4. Tailoring procedures

PROCEDURES		MODEL 2: ASCOF	MODEL 4: NFCS
Methodological guidance	Adapted guidelines	✓ PRIMSA	✓ RAMESES
	Developed methods	✓ Meta-Review	✓ Rapid Realist
Stakeholder engagement	Local	✓ Department of Health Policy Team	✓ Department of Health Policy Team
Scope and conceptual framework	Review question	✓ PICO	✓ Emergent
	Conceptual framework	✓ Adopted ‘ASCOF’ Policy Framework	
Identifying the evidence base	Searching	✓ Exhaustive & Comprehensive	✓ Iterative
	Screening	✓ A priori	
Critical Appraisal	Review specific	✓ Part of the inclusion criteria and synthesis	✓ Focused on relevance
Evidence Synthesis		✓ Descriptive mapping & gap analysis	✓ Realist synthesis
		✓ Narrative synthesis of review-level evidence	
Peer review		✓ Practitioners	✓ Practitioners
		✓ Academics	✓ Academics

4.5.1 Methodological development and guidance

New to the field of systematic reviews, methods for conducting meta-reviews and realist reviews continue to be explicated (Pollock et al., 2017, Rycroft-Malone et al., 2012). In the absence of standardised guidance, we drew on existing examples of meta-reviews (Caird et al., 2010, Elliott et al., 2004) and methodological discussion on rapid realist reviews (Saul et al., 2013). We adapted guidelines for aggregative (PRISMA; preferred reporting standards) and realist reviews (e.g. RAMESES: Realist and Meta-Narrative Evidence Syntheses: Evolving Standards) to increase transparency and rigour in the review process.

4.5.2 Scope and conceptual framework

Translating policy issues into systematic review questions

Policy questions often require some degree of translation to ensure they are 'answerable'. Reaching agreement with policy teams on which question would be addressed was essential as the question directly informed the scope and findings of the review and determines its relevance. The primary question on effectiveness driving the ASCOF review fitted neatly within a PICO: population, intervention, comparison, outcomes framework and was agreed with the DH.

Initial conversations with policy team for the NFCS review indicated that there might be a lack of UK evidence on people's reasons and motivation for engaging in birth injury compensation schemes. We conducted a rapid scoping exercise which in fact revealed that there was also a lack of qualitative data from OECD countries to answer this question. This horizon scanning informed and focused our discussion with the team about how the scope could be extended and to consider what questions could be answered by the literature. In parallel, with our scoping exercise, the policy team had come to similar conclusions. There was a shared frustration with the difficulty of not finding studies that spoke directly to their policy issues. In re-exploring with the team how the evidence would be used, we suggested a second question asking: 'How are no-fault compensation schemes *thought* to improve outcomes for people with medical injuries?' and agreed to build a hypothetical-configurative picture of 'how' the composition of different compensation scheme could lead to different patient benefits, to inform their understanding of what might motivate engagement.

Conceptual framework

The aim of the ASCOF review was to synthesis review-level evidence on the effectiveness of social care interventions. Discussions with the policy team focused on clarifying definitions based on the scope, as laid out in the ASCOF. To reach mutual understanding and agreement about the frame and which reviews would be eligible for inclusion, we put together a document outlining the key conceptual issues. This supported a structured discussion, facilitated by knowledge brokers, whereby we could check our understanding against the policy teams understanding to reach consensus. Not until consensus was reached could begin reviewing.

Taking a more emergent approach, we began by developing conceptual thinking by identifying preliminary CMOs, before seeking evidence to explore and support these assumptions further. Discussion with the policy team was instrumental in supporting us to understand the types of CMOs we might start to look for and develop from the literature. For example, they were still unsure if the scheme they wished to propose would be voluntary (e.g. a choice between tort litigation or the option of an administrative scheme) or mandatory (e.g. foreclosing the option of going to court) and what difference this might have on patient outcomes. The style of discussion was exploratory, as we continued to ask open-ended questions to focus on learning about the issues we might encounter or need to look for in the literature and how the evidence would be used. This approach was similar to that outlined in section 1.2.2 on non-directive counselling and used to support productive conversations with PYD stakeholders. This approach also enabled us to discuss if it would be helpful to broaden the scope beyond birth injury if we still did not find relevant studies. The policy team provided important direction on this matter and suggested we could include evidence from compensation schemes which had at least two characteristics similar to a birth trauma context, e.g. high-value claims, which have high long-term costs or are highly emotive.

Two-stage and iterative review process to maintain policy relevance

Additional input into the scope also occurred during the review. We presented a 'descriptive map' of the ASCOF evidence base. The team reiterated that the breadth of the scope remained a priority for them, therefore we did not narrow down by outcomes or populations but agreed to focus on the most recent evidence moving the inclusion criteria from 2000 to 2007. To discuss the NFCS review, we circulated preliminary CMOs in advance of the meeting. From the CMOs, the team focused on outcomes most relevant to them, such as health and justice. They also requested that we identify outcomes relevant to doctors, which led to further searching and development of additional CMOs. We also circulated a draft synthesis to receive feedback on the structure and content of the evidence to check it was in line with their expectations.

4.5.3 Identifying the evidence base

The approach to identifying the evidence was appropriate to the epistemological position taken in each review. In the ASCOF review, we attempted to conduct an a priori, comprehensive search to find systematic reviews, and make inferential claims on the effectiveness of adult social care interventions. Whereas the NFCS review sought 'to identify sufficient concepts for coherent configuration' (Brunton et al., 2017 p.96) to generate hypotheses about how NFCS 'might' improve outcomes.

4.5.4 Critical Appraisal

It is important when adapting methods not to lose scientific rigour, i.e. to balance being 'quick' without being 'dirty'. In the NFCS review, we focused our efforts on the relevance of studies, based on the richness of the data to elucidate the CMOs rather than assessing bias according to the design and execution of the study. This is in line with a realist approach and also appropriate as we were only

generating not testing hypothesis. Relevance was also important in the ASCOF review as we wanted to ensure we only included reviews that had undertaken a comprehensive search and explicitly reported their inclusion criteria. We also focused our efforts on the trustworthiness of the synthetic statements in the review. We found that in some cases where reviews suggested there was evidence of effectiveness we disagreed and judged the evidence to be 'inconclusive' or 'inconsistent'.

4.5.5 Transdisciplinary synthesis

We have found that questions driven by policy interests are likely to require engagement with more than one academic discipline, require familiarity with a range of study methodologies, and need sufficient team psychological safety to be innovative. The integration of health and social care services was at the forefront of the ASCOF review and the decision to adopt a broad definition of social care; e.g. any service led or provided by someone other than a health professional that aimed to support outcomes in ASCOF. This led to concern from team members about the type and variation of programmes potentially includable, particularly when they were not easily recognisable as social care. However, we held the view that it was important to be inclusive as they 'may' be of interest to local councils responsible for improving quality of social care. The breadth of the review also meant we needed to draw on a 'pool' of experienced reviewers who could lead the writing of each of the four synthesis chapters in the time available. To address coherence and consistency in reporting across the chapters, we developed a structure to act as pro-forma for each synthesis chapter and 'swapped' each draft chapter to check the write-up of each other's work. This process was supported by trusting working relationships, but also helped to facilitate it, by exposing each other to our writing at an earlier stage in its development and receive constructive feedback.

The NFCS review evolved from its original medical-legal frame to one that encompassed a social welfare and medical education focus. There was some concern with the decision to draw on such a broad literature and different types of studies and data contained within those studies to support each CMO. It was important to remind and reassure team members, that as we were producing text to 'justify' not 'test' each hypothesis that including arguments drawn from policy documents or opinion pieces, alongside empirical studies from different disciplines was methodology sound. I found sharing my thoughts about entering 'unknown' methodological terrain and the need to embrace 'uncertainty', resonated with the team and enabled us to be more constructive in discussing how to approach a new way of reviewing to us. This included agreeing that it was important to ensure that even though we only had five months, that searching and screening need to be accelerated to ensure there was sufficient time allocated to 'thinking', generating and discussing the CMOs. Building sufficient trust and psychological safety in our working relationship were essential in supporting us to take analytical risks in producing each CMO hypothesis and pulling together the final review to produce a coherent narrative. It allowed us to come up with ideas that at first might not make sense, or 'work', but by interrogating and questioning each other's thinking, we developed and move closer to achieving greater analytical richness.

4.5.6 Peer review

Peer review provided the first opportunity for external stakeholder input into the review. The NFCS reviewers questioned our methodology, which prompted us to be more transparent in the reporting of the process. The ASCOF reviewers questioned the coherence of our conceptual framework as the framing of outcomes did not fit their perspectives. For social care practitioners, reduction in ‘activities of daily living’ is commonly linked with a need for services, so improvements in this outcome are understood as prevention rather than a sub-component of quality of life. Similarly, improvements in psychological outcomes (e.g. mood, depression and well-being) are often linked to quality of life rather than preventing the need for services. This prompted us to provide a clearer rationale for how we had grouped and defined our outcomes, but we could not change the overall structure of the framework.

4.6 Impact

I found that commissioning systematic reviews as part of an ‘on-calls’ reviews facility can help mitigate some of the barriers to research use; such as poor access to high quality research, and the lack of timely evidence, unaligned with policy priorities (Oliver et al., 2014). Each of my thesis reviews contributed a piece of the ‘evidential jigsaw’ to influence local policy and inform methods development.

Table 4.5 Overview of review outputs and activities

REVIEW OUTPUTS AND ACTIVITIES		Model 2: ASCOF	Model 4: NFCS
Stakeholder dialogue	DH Meetings	✓	✓
Technical reports	Protocol	✓	✓
	Technical report	✓	✓
Policy evidence summaries	Structured summary	✓	✓
	Executive summary	✓	✓
Academic and practitioner outputs	Online database	✓	
	Journal article	✓	✓
	Conference abstract		✓
Methods development	Journal article	✓	✓
	Teaching material	✓	

4.6.1 Policy informed by evidence that is timely and locally relevant

Many, systematic reviews, like the meta-review on adult social care, identify gaps in the evidence-base (Lang et al., 2007). Across the 43 reviews synthesised, we found a lack of evidence more typically recognisable as social care services or reviews focused on populations social care is likely to target. The review also identified a dearth of studies measuring ‘social care related quality of life’ (SCRQoL), satisfaction and safeguarding outcomes. Reference to these gaps in outcomes have been cited in recent methodological development work commissioned by the Health and Social Care Information Centre (HSCIC) on the feasibility of developing an adult safeguarding outcome measure,

to be considered for inclusion in ASCOF (Norrie et al., 2015, Norrie et al., 2016). Further work has also been conducted on developing social care quality of life measures since the ASCOF review was commissioned (Rand et al., 2016, Towers, 2016). In reflecting on our choice of methodology, I wondered if that the policy development cycle was 'ahead' of research commissioning, as a number of systematic reviews on UK social care initiatives relevant to ASCOF have since been published (Fleming et al., 2016, Webber et al., 2014). However, despite these limitations, we were still able to provide evidence on the impact of allied health and social care of potential relevance to local authorities.

The policy development cycle was also 'ahead' of the primary evidence research base in maternity litigation reform. This was ascertained early in the policy-review cycle, enabling us to re-direct the focus and methods of the review, to generate findings that could illuminate policy options. The policy teams used the findings of the review to inform a draft policy on 'rapid resolution and redress scheme' which went out for consultation in 2017 (<https://www.gov.uk/government/consultations/rapid-resolution-and-redress-scheme-for-severe-birth-injury>).

4.6.2 Review products

The primary audience for the ASCOF and NFCS reviews were the policy leads at the DH. The policy priority for the ASCOF review was to ensure the key messages were framed according to the direction and scale of effect. The NFCS policy leads wanted to ensure the key findings were accessible in a two-page evidence brief. To aid accessibility the ASCOF review was also turned into an online 'intervention' interactive database: <https://epi.ioe.ac.uk/webdatabases4/Intro.aspx?ID=7>. The PRP also encourages academic outputs. I judged that the ASCOF review would be of interest to multiple audiences crossing health and social care arenas and successfully submitted the journal to 'health and social care in the community'. The interim findings from the no-fault compensation scheme were presented at a realist focused conference to gauge their feedback on the findings.

4.6.3 Methods development

Tailoring methods to ensure reviews are policy relevance has acted as a driver for developing new synthesis methods. I have continued to expand the diverse uses of meta-reviews, e.g. as part of scoping exercises in protocols (Bangpan et al. 2016); and mixed methods reviews (Brunton et al., 2016). In addition to using the reviews to develop teaching materials and contribute to discussion on the value of meta-review for mediating policy-relevant evidence (Caird et al., 2015). The rapid realist review has also led to a seminar discussing whether current approaches to systematic reviews adopt a 'positivist' or 'critical realist' approach and a paper re-analysing the findings using critical realist feedback loops to ascertain what kind of findings would emerge taking this approach.

5 Discussion

5.1 Introduction

The purpose of this thesis has been to consider how my publications can advance an understanding of the different models for producing policy-relevant reviews to inform decision making. Using the analytical framework developed in Oliver and Dickson (2016), I have applied a retrospective analysis of my experience of producing four policy initiated reviews, to further explore the institutional mechanisms and social interactions operating at the research-policy interface. Reflecting on this process has led to my identifying the importance of accountability and coherence in reviews that are commissioned to address broad policy-relevant questions. I found that accountability, e.g. the extent to which the overall scope of the review and conceptual framework was designed to address policy problems/issues, meant different things for public goods reviews than for reviews tailored to the evidence needs of specific reviews. Similarly, as the reviews were conceptually and methodologically diverse achieving overall coherence of the review design, synthesis findings and conclusions also varied. This chapter explores these concepts, as they relate to each of my cases, and places them within the wider context of systematic review definitions and guidance on producing reviews.

5.2 Breadth and diversity in reviews

Systematic reviews are characterised by their use of a specific methodology for searching, appraising and synthesising existing literature, demarcating them from traditional literature reviews (Petticrew and Roberts, 2008). Definitions of systematic reviews vary across organisations in ways that indicate these organisations objectives and epistemological stance (see box 5.1). I found that emphasis is placed upon answering a clearly formulated question (Cochrane, NICE), using a priori methods and minimising bias (e.g. Cochrane, Campbell, NICE); and on finding 'all available' (JBI) or 'all relevant' literature (CRD) to inform decision making (Cochrane, CRD) and practice (JBI).

While some of my reviews explored in this thesis fit within these definitions, they were guided by a broader understanding of systematic reviews as 'reviews of existing research using explicit, accountable rigorous research methods'; commensurable to primary research (Gough et al., 2017 p.6). This definition is more suitable for producing reviews to address policy needs, as it allows for greater variation in the type of questions that can be asked and the types of primary studies you might include to answer those questions. It also enables reviewers to draw on the methodological paradigms related to each (Gough et al., 2012). This definition of systematic reviews also allows for iteration in the review process. As has been argued this is important when: there is less agreement on key concepts and definitions; when it is useful to gauge the extent and type of literature prior to deciding on the scope of synthesis; or when other modifications to the review are required because of greater immersion in the phenomenon of interest or emerging policy needs. Each set of

circumstances may, therefore, benefit from iterative consultation with policy or other stakeholders. However, taking such an inclusive approach to producing reviews is not without its challenges.

Box 5.1: Definitions of systematic reviews

Cochrane collaboration: A systematic review attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question. It uses explicit, systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings from which conclusions can be drawn and decisions made.

Campbell collaboration: A systematic review uses transparent procedures to find, evaluate and synthesize the results of relevant research. Procedures are explicitly defined in advance, in order to ensure that the exercise is transparent and can be replicated. This practice is also designed to minimize bias.

Centre for Reviews and Dissemination (CRD): Systematic reviews aim to identify, evaluate and summarise the findings of all relevant individual studies, thereby making the available evidence more accessible to decision makers

Joanna Briggs Institute (JBI): A systematic review involves the analysis of all of the available literature to determine the effectiveness (or otherwise) of a given practice

NICE: A review that summarises the evidence on a clearly formulated review question according to a predefined protocol, using systematic and explicit methods to identify, select and appraise relevant studies, and to extract, analyse, collate and report their findings. It may or may not use statistical techniques, such as meta-analysis.

Each of the reviews in this thesis was born from a need to address real-world problems. As such the questions posed were broad and the methods utilised diverse. This breadth and diversity demanded that closer attention be given to the coherence of the review, alongside relevance and rigour, to present logically and consistently broad literatures with different conventions, priorities and language. If reviews conducted in broad policy areas are to maintain their coherence, relevance and rigour, not only is there a need for institutional mechanisms and the technical capacity to undertake reviews, but also for the facilitation of social interactions, as part of a collaborative group effort to produce new knowledge. That effort may focus on executing the operational steps expected of a review (e.g. two reviewers applying eligibility criteria) or on the coherence and more interpretive aspects of reviewing (e.g. two reviewers discussing and agreeing their analysis). In either case, systematic reviews are rarely conducted in isolation by a single researcher, but in teams, engaged in ongoing dialogue, influencing and shaping the final review outputs (Uttley and Montgomery, 2017). In this thesis, I have described cases where review team dialogue extended across the policy-research interface, to include knowledge brokers and policy teams. This engagement was not always easy but helped to maximise the clarity and coherence in a review. These issues are explored in further detail in the following sections.

5.3 Accountability and coherence in systematic reviews

As stated systematic reviews use rigorous methods to produce trustworthy research findings. The methods are usually explicitly reported so that the findings can be interrogated and held accountable (Gough et al., 2017). I have argued that when systematic reviews are also produced in alignment with policy priorities, rather than conducted as a purely scientific/academically driven exercise, they have much in common with mode two knowledge production, which is more likely to be socially distributed, application-orientated, and transdisciplinary in nature. Such knowledge, like reviews, are also judged in terms of its wider social relevance, it is often subject to multiple accountabilities (Nowotny, 2003). Similarly, accountability in the review models explored in this thesis took on different meanings. Firstly, for public goods reviews, it meant being able to account for the review processes and products in widely agreed terms. It was achieved by ensuring the scope and conceptual framework adopted in the review took account of and/or built on key concepts that had been tested for their coherence, theoretically and empirically, either by prior research (particularly model 1) or during the review (particularly model 3). Secondly, for reviews informing local policy, it meant being accountable to the policy teams who had commissioned the review. It was achieved by ensuring the scope and conceptual framework adopted aligned with their interests and current policy directives, which were either agreed in advance (particularly model 2) or were emergent during the review (particularly model 4).

The first definition of accountability (accounting for the review processes and products in widely agreed terms) was used in the PYD review. As a researcher-led review, a coherent conceptual framework was developed based on prior theoretical and empirical work, drawn from US literature reflecting the origins of PYD programmes (e.g. Catalano et al., 2004, Gavin et al., 2010). The coherence and relevance of the framework to a UK audience were assessed first during the commissioning stage and second during the review by talking with UK policy and practitioner advisory group members. Positive asset building youth programmes delivered outside of school hours, which sought to reduce engagement in risky behaviour, were in line with advisory group members' understanding of the role of youth work in promoting young people's health in the UK. The scope and design were also judged as a priority by the NIHR topic-specialist panel who approved funding for the review. Both the advisory group and the NIHR proposal panel agreed that a review exploring the mechanisms, delivery and outcomes of PYD programmes was needed.

Further consultation with advisory group members contributed to greater coherence as we moved from the synthesis findings to the review conclusions. For example, although stakeholders agreed with how we had aggregated and configured the data, they were sensitive to differences between the implementation of PYD programmes in America (e.g. mandatory engagement) and the ethos of youth in the UK (voluntary engagement). Exploring these and other tensions in the evidence base supported both the relevance of findings to a wider UK audience and the overall coherence of the review. It was valuable to conduct individual consultation with policy stakeholders to draw on their substantive

expertise, particularly as PYD is a complex multi-component intervention implemented differently in different contexts. It was important to give sufficient time for this reflection, to allow diverse stakeholder views to be elicited confidentially, and for these to be shared and explored across the review team. Creating this space for reflection not only supported important 'sense' checking of each synthesis, but also developed our understanding of the findings as a 'whole' to draw out more nuanced conclusions and implications.

The no-fault compensation review used the second definition of accountability (being accountable to the policy teams who have commissioned the review). As the conceptual framework was developed as the review progressed, its coherence was tested theoretically and empirically in identifying the hypothetical context-mechanism-outcomes (CMO) statements. This review was directly relevant to policy interests, and its coherence was developed iteratively by critically engaging with the literature and utilising a qualitative line of inquiry to develop the CMOs and their supporting narrative. When engaging with the policy team, the key concepts were made explicit by generating preliminary CMOs and circulating them in advance of meetings for discussion, before revising and building on them based on that discussion and re-immersion in the literature. This process benefitted from the facilitation of open dialogue. Firstly, at the review initiation stage, which clarified expectations and established a mutual commitment to collaborate in the review process. Secondly, by acknowledging within the team that the CMOs would be generated and iteratively revised via dialogue. I aimed to support these processes by fostering a safe environment by developing psychological safety. This safety supported 'interpersonal risk-taking' by reducing the fear associated with making mistakes or asking for feedback, as we navigated new methodological (realist review) and substantive topic (medical-legal) ground (Edmondson, 2002). This encouraged discussion of multiple ways of framing the review when we were unsure how to proceed (e.g. expanding the scope when necessary) and multiple ways of forming CMOs, some of which were more coherent, and fitted better with the literature, than others.

The ASCOF review also used the second definition of accountability by adopting both the scope of the review and its framework from policy interests. However, neither had been tested theoretically or empirically, as this was an overarching meta-review of a broad review-level literature not previously scrutinised systematically as a whole. When sharing the findings more widely as part of the peer review process, we found the classification of outcomes in the framework did not resonate with social care stakeholders. Although the ASCOF review was designed to be directly relevant to policy, its coherence for social care practitioners was weakened by limited theoretical and empirical research informing the review. To ensure the scope remained aligned with policy stakeholders' expectations, we utilised an information intermediary model of knowledge brokering. This approach facilitated the exchange of information about the progress and shape of the review via face-to-face meetings. However, opportunities for critical engagement with the framework were not invited. The approach to team working was to quickly generate guidance on the operational definitions, to enable a large team

to work efficiently and independently in the time available, leaving less room for exploring wider conceptual issues. While taking this approach accelerated the review process, and sought to retain relevance, it did not maximise the coherence of the review.

The MHPSS review encompassed both definitions of accountability. The scope was the result of an Oxfam/FIC priority setting exercise, informed by humanitarian actors in NGOs and academics in the field and funded by DFID as part of their humanitarian evidence programme. This exercise informed the decision to explore MHPSS programmes for people 'affected by humanitarian emergencies' to ensure the review included both displaced and refugee populations. The conceptual framework was built on a mature literature of prior research, which itself has benefitted from stakeholder input. This provided a comprehensive definition of humanitarian emergencies (e.g. from typhoons to biological hazards) and outcomes (e.g. PTSD, depression, anxiety, social support). The review was also directly informed by 'The Inter-Agency Standing Committee Guidelines on Mental Health and Psychosocial Support in Emergency Settings' (IASC, 2007), which was developed with input from United Nations agencies, NGOs and academic institutions. These guidelines provided an intervention framework, in the form of a 'layered system of MHPSS support, which was used to map and signpost studies in the review and supported useful identification of gaps in the evidence-base

Adopting a widely agreed scope and framework that also reflects policy interests reduced the need in this review for funders or advisory group members to be deeply engaged in shaping the review process. The scope and framework were easily translated into the early operational steps of the review (e.g. searching and screening) without requiring much iterative dialogue from team members. However, further clarification was required to ensure coherent configuration and aggregation of the data during the synthesis, as the literature proved to be diverse and poorly reported in places. This process was supported by re-engaging with definitions in the existing literature and drawing on my substantive topic knowledge. It could have been aided by stakeholder input to draw on their expertise, as peer review feedback raised some queries on the grouping of studies. However, these were easily resolved with more transparent reporting to provide a clearer rationale for how we defined and group studies according to their programme aims. Overall, peer review feedback attested to the coherence of the review. This feedback praised the thoughtfulness and thoroughness of the review, particularly its "deft organisation of broad, mixed-methods data," and its "commanding engagement with both qualitative research and work published in the grey literature" (Oxfam/FIC internal communicate). The review identified a lack of substantive topic clarity in some areas (e.g. programme theory, standardisation of non-clinical outcome measures) but rather than undermining the coherence of the review this chimes with current discussions in the field.

In considering the dimensions of relevance and coherence in the systematic review literature, I also consulted with tools most widely used for reporting or appraising systematic reviews. E.g.: PRISMA,

AMSTAR, MECIR, ROBIS and RAMESES¹ (Higgins et al., 2016, Liberati et al., 2009, Shea et al., 2007, Welch et al., 2013, Whiting et al., 2016, Wong et al., 2013, Wong et al., 2016). However, as with definitions of systematic reviews, these tools are developed primarily for reviews that solely address questions of effectiveness, with a bias towards the inclusion of randomised controlled trials and meta-analytical approaches to synthesis. As such, they focus on the systematic application of a singular approach, rather than prompting thinking about the relevance and coherence of the focus of investigation and the choice of approach within the spectrum of systematic review methods available. Similar gaps were identified by Liabo et al. (2017) who also found a lack of tools to aid in making judgements about the suitability of review methods for different review questions.

Revisiting definitions and guidance on producing systematic reviews also indicated gaps regarding coherence. When coherence was referenced it was mentioned solely in relation to the synthesis. For example, CRD defines evidence synthesis as: 'the combination and evaluation of separate studies to provide a coherent overall understanding to a research question' and JBI states that synthesis involves: 'the combining of separate elements to form a coherent whole; reasoning from the general to the particular; logical deduction'. Aggregating and configuring study findings in ways that provides a coherent account of the substantive topic analysed in the synthesis is a key part of the coherence of a review. However, it does not address the overall coherence in the conceptual framework, scope and choice of review design. As the models for producing systematic reviews indicate, the starting points of reviews differ. Thus, when planning a review, consideration needs to be given to which methods are most suitable to address the questions posed by policy and what kind of stakeholder engagement may support this process (Oliver et al., 2017b). For example, review efforts may need to focus on finding as many relevant studies as possible to pool the findings of conceptually similar studies in an aggregate synthesis to answer questions on effectiveness (e.g. model 1 and 3) or on finding a sufficient set of studies for coherent configuration (e.g. model 3). Deciding to adopt standardised procedures to reviewing or to develop or adapt new methods (models 2 and 4) does not 'replace the need for coherent conceptual thinking in regards to the research (review) question, fit for purpose methods and analysis' (Liabo et al., 2017). Similarly, even when a review has agreed and defined concepts in advance, they may need to be revised if certain aspects of the conceptual framework are found to be limited in their coherence (Model 4).

5.4 Mixed and evolving models

The models for producing policy-relevant evidence are not mutually exclusive or static. They can be distinguished by their starting point and purpose but may evolve through the review process. For

¹ PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses; AMSTAR: A Measurement Tool to Assess Systematic Reviews; MECIR: The Methodological Expectations of Cochrane Intervention Reviews; ROBIS: Tool to assess risk of bias in systematic reviews; RAMESES

example, the ASCOF review followed model two to inform urgent UK policy discussions. This is appropriate, as we summarised existing 'public goods' reviews as an efficient way to generate evidence for urgent policy driven priorities. However, in retrospect, this review could have benefited from more time for iterative development of the key concepts to enhance coherence. The MHPSS review was also correctly allocated to model one. However, unlike typical public goods reviews which can have a relatively generous timeframe, the review timeframe was aligned with immediate DFID humanitarian policy priorities and needs, similar to requests for evidence in model two and four. Furthermore, an update of the MHPSS review could now benefit from greater stakeholder involvement and conceptual thinking around the mechanisms underpinning programmes similar to a model three review.

6 Conclusions

6.1 What has my work contributed to knowledge about producing policy-relevant evidence?

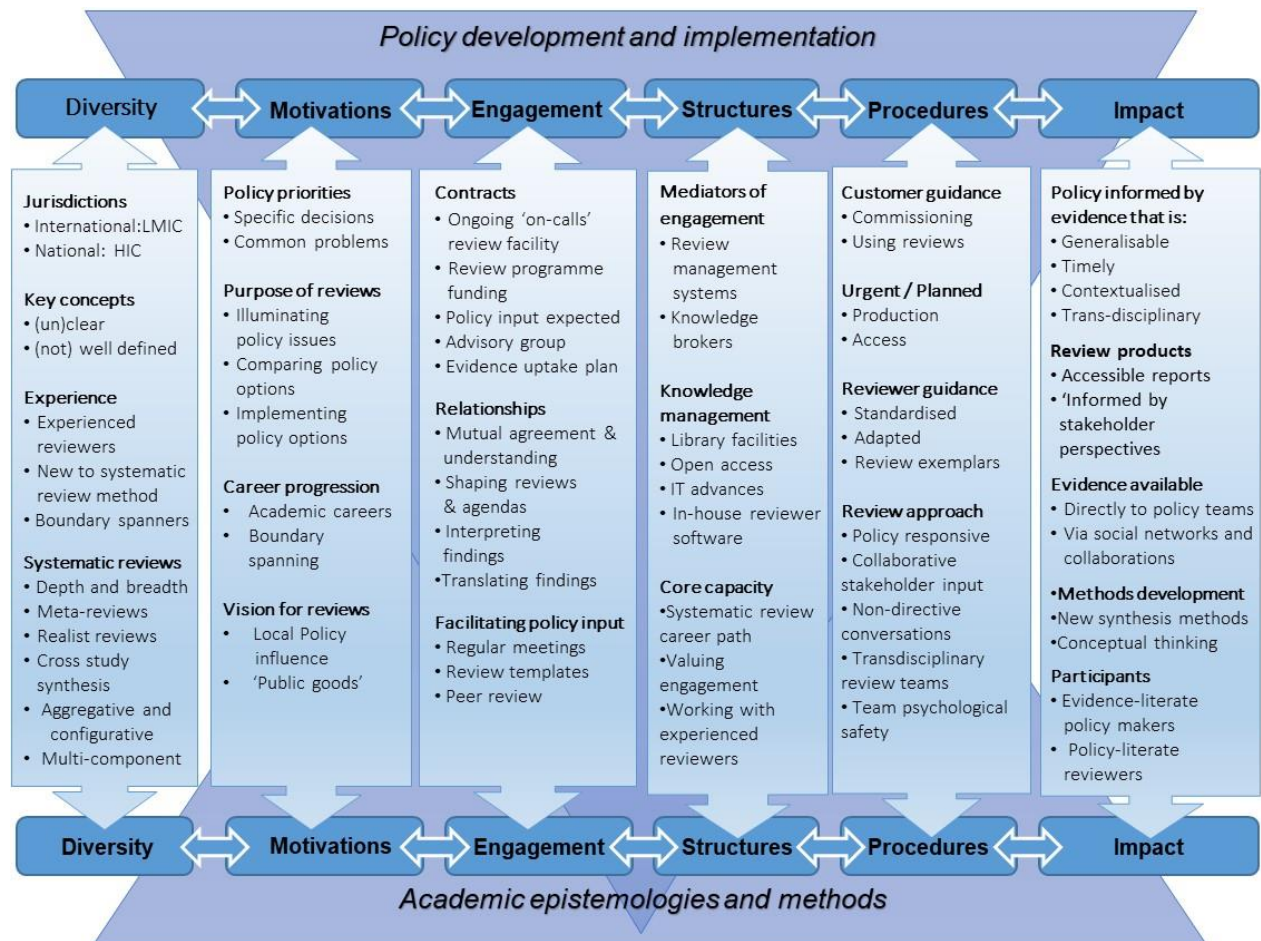
All the reviews presented as cases in this thesis applied state of the art synthesis methods in new substantive areas to produce evidence for policy decision making. The PYD review filled an important policy evidence gap taking a mixed methods approach and engaging with stakeholders to go beyond merely addressing effectiveness to produce new understanding about the theories of change underpinning PYD and the contextual factors influencing implementation and receipt of programmes. The ASCOF review was innovative in developing systematic review of reviews methodology to address an urgent policy agenda in social well-being. This produced new learning about gaps in the evidence base on the effectiveness of social care interventions and informed methodological advances on outcomes. It is one of the first meta-reviews to both descriptively map reviews against an existing policy framework and produces a meta-synthesis of findings that takes into consideration the scale and direction of effect to inform decision making, an approach still not commonly applied (Pollock et al., 2017).

The MHPSS review also filled a timely policy evidence gap. The review produced important findings of the effectiveness and delivery of MHPSS programmes in humanitarian emergencies, including the potential harm of psychosocial programmes delivered to children in war contexts. It is also the first review to conduct a qualitative evidence synthesis of providers' and recipients' views of MHPSS programmes (Bangpan et al., 2016) and to integrate those findings in a cross-study synthesis to produce new learning on the key features of effective MHPSS programmes. This was achieved by harnessing new methodology which explores the 'fit' between trials and process evaluations both thematically and by using statistical meta-regression to identify a relationship between those trials that 'match' with the hypothesis generated and key outcome measures. The new learning about possible mechanisms entailed in no-fault compensation and tort reform that could lead to patient and clinical practice outcomes was made possible by adapting realist methodology to fit the policy timeframe. The review is an innovative example of simultaneously producing evidence to feed into policy processes as they were being developed. This was also possible by having a team of experienced reviewers willing to chart new methodological terrain and take risks to produce evidence.

My analysis in this thesis has contributed to an understanding of producing policy relevant systematic reviews in several ways. By exploring the literature on this topic I have discovered that while there is research on the barriers to policy research use and mechanisms to increase uptake, an understanding of the process of producing reviews to address the range of policy needs is disparate, cutting across different fields of inquiry (e.g. methods, technology, stakeholder engagement) and is

yet to be systematically drawn together. I have attempted to elucidate that producing policy-relevant reviews is both a technical and social enterprise requiring a range of institutional mechanisms and social competencies to navigate the policy-research interface (see figure 6.1). I have also shown that the production of reviews in broad policy areas has implications for the quality of reviews, which requires addressing the relationship between accountability and ensuring the coherence of the review, alongside the use of rigorous and explicit methods.

Figure 6.1: analytical framework for policy-relevant systematic reviews



6.2 Implications for future research

This thesis benefitted from an in-depth exploration of the institutional mechanisms and social interactions supporting the production of four systematic reviews to inform policy decision making. However, in taking this approach, it also lacks variation in contexts and opposing or contrasting viewpoints. Further research would, therefore, benefit from a more formal and reflexive approach which incorporates the perspectives of the co-authors and/or external stakeholders involved in producing the reviews. Future investigations, which takes a political and possibly more critical view of the tensions and power dynamics operating at the policy-research interface would also provide an important lens to this area.

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APPENDIX 1: Candidate publications for consideration

Three of the six publications submitted for consideration in this thesis are lengthy technical reports. Rather than include them in their entirety here, I have instead provided a link to their electronic location. Although there are several linked publications from each review, I have provided information to the 'main' study.

CHAPTER 1:

Oliver, S **Dickson, K** (2015). Policy-relevant systematic reviews to strengthen health systems: models and mechanisms to support their production. *Evidence & Policy: A Journal of Research, Debate and Practice*.

URL: <http://www.ingentaconnect.com/content/tpp/ep/2016/00000012/00000002/art00006>

Oliver S, Bangpan M, **Dickson K** (2017) Producing policy relevant systematic reviews: navigating the policy-research interface. *Evidence & Policy: A Journal of Research, Debate and Practice*.

URL: <http://www.ingentaconnect.com/content/tpp/ep/pre-prints/content-ppevidpol1600048r2>

CHAPTER 3

Mental health and psychosocial programmes

Bangpan, M., **Dickson, K.**, Felix, L. and Chiumento, A. (2017). *The impact of mental health and psychosocial support interventions on people affected by humanitarian emergencies: A systematic review*. Humanitarian Evidence Programme. Oxford: Oxfam GB.

URL: <http://policy-practice.oxfam.org.uk/publications/the-impact-of-mental-health-and-psychosocial-support-interventions-on-people-af-620214>

Positive youth development

Bonell C, **Dickson K**, Hinds K, Melendez-Torres GJ, Stansfield C, Fletcher A, et al. The effects of Positive Youth Development interventions on substance use, violence and inequalities: systematic review of theories of change, processes and outcomes. *Public Health Res* 2016;4(5).

URL: <https://www.journalslibrary.nihr.ac.uk/phr/phr04050/#/full-report>

CHAPTER 4:

Adult social care outcomes framework

Dickson, K, Sutcliffe, K, Rees, R Thomas, J (2015). Gaps in the evidence on improving social care outcomes: findings from a meta-review of systematic reviews. *Health & social care in the community*.

URL: <http://onlinelibrary.wiley.com/doi/10.1111/hsc.12300/epdf>

No fault compensation schemes review:

Dickson K, Hinds K, Burchett H, Brunton G, Stansfield C, Thomas J (2016) *No-fault compensation schemes: A rapid realist review*. London: EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London. ISBN: 978-1-907345-96-8

URL: <https://eppi.ioe.ac.uk/cms/Publications/Systematicreviews/No-faultcompensationschemesArapidrealistreview/tabid/3687/Default.a>

APPENDIX 2: Rapid scoping exercise

Methods

6.2.1 Review question

The rapid scoping exercise aimed to address the following question: *What review-level evidence exists on institutional mechanisms and social interactions to support the production of policy relevant systematic reviews?*

6.2.2 Concepts and definitions

The scope of the review has three interrelated dimensions:

Systematic reviews and evidence synthesis production: any type of review generated from systematic research-based activities.

Policy relevant evidence: the relevance of the evidence to policymakers; including the usefulness of evidence to inform behaviour and the enlightened uses of evidence in shaping knowledge and understanding of, and attitudes toward social issues (Nutley et al., 2007, Weiss, 1979).

Institutional mechanisms and social interaction: any processes which mediate and supports evidence production to enable its relevance and potential use by policy.

6.2.3 Inclusion criteria

Systematic reviews published in English were included if they investigated any aspect of the *production* of systematic reviews to inform policy. Systematic reviews on processes and interventions supporting the uptake and use of evidence, a closely related field but not the direct subject matter of this thesis, were excluded. Types of evidence falling within the scope included evaluations of interventions supporting the production of systematic reviews, or qualitative or quantitative data seeking to understand the processes of producing systematic reviews to inform policy, such as people's views on the barriers and facilitators to engaging in evidence generation.

6.2.4 Searching and screening

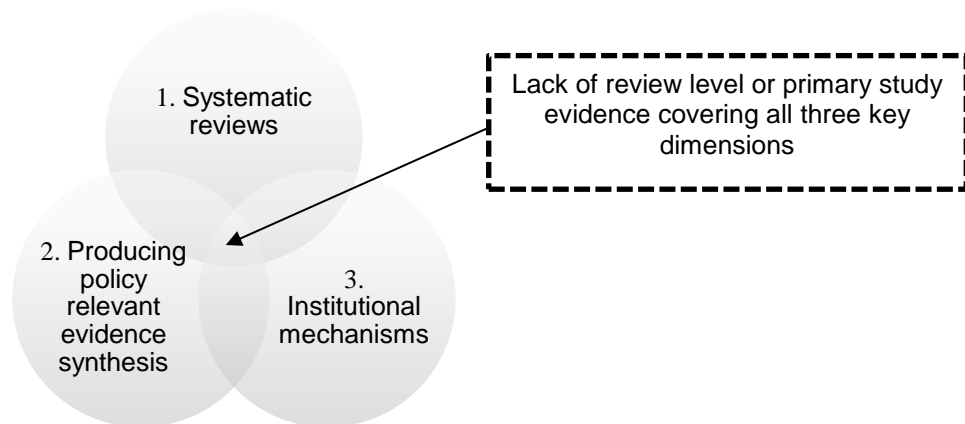
A systematic search of electronic databases, google scholar and citation checking was completed in October 2016. Key search terms were determined by the review question. These included a combination of concept one: 'systematic review' and 'policy' and 'mechanisms' Search results were imported into the systematic review software, EPPI-Reviewer 4 (Thomas et al. 2014) and screened on their title and abstract. Full reports were obtained for those references where title and abstract suggested the study was relevant or where there was insufficient information to judge. Systematic reviews and primary studies that were excluded because they focused on knowledge translation and

knowledge use, rather than evidence synthesis production were retrieved and marked as 'background.'

6.2.5 Results

After the removal of duplicates, 1,280 citations were identified from the search. A total of 126 full-text reports were retrieved and re-screened. However, none met the eligibility criteria for inclusion. Supplementary searching for primary studies also confirmed the paucity of research in this area. The findings from the screening process did reveal that while there is a body of literature on evidence-informed policy making, the concentration of systematic reviews is concerned with the processes and mechanisms contributing to the successful uptake of evidence. This focus concentrates on the final review stages; dissemination and communication of systematic review findings, with much less focus on the process and mechanisms involved in each stage leading to the completed evidence synthesis output. This lack of evidence on how reviews are produced from their initial inception to becoming synthesised knowledge available for policy translation and used in policy making is a significant gap in the field.

Figure 2.1 Gaps in the evidence base



In the absence of review-level evidence to answer the review questions, I drew on the wider primary review and non-empirical literature to inform the background for this thesis, based on the key concepts outlined in figure 2.1.