What happens to NICE public health guidelines after publication in terms of how they are viewed and used by local government officers? – A realist inquiry

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A note on type face

The font used within this thesis is The University of Sheffield Blake font which is a modification of a design by Sheffield steel producers Stephenson and Blake Co.

"Sir Henry Stephenson, co-owner was one of the University's founders. In 1895, he became part of a hugely important movement that saw the wealthy and the powerful join forces with the ordinary working people of the city to create a university for the good of everyone. Stephenson and its sans serif companion Blake, were chosen with the assistance of the National Type Museum in London and redrawn for us by renowned type experts House Style Graphics. In their modernised, digitised form, they are the copyright property of the University of Sheffield - our unique signature, our hallmark, our stamp" (source: https://www.sheffield.ac.uk/marketing/visual-identity/fonts/download-stephenson-blake).

I decided to use this because it symbolises the importance of Place. Place, as I have discovered, is crucial for local government as place maker and shaper and is central to this thesis. More personally because this Place, Sheffield and its University are important to me.

Abstract

Background: In 2013, many public health responsibilities were returned to local government control. The structures, inherent customs and practices, differed to those in the NHS where the specialism had previously been hosted. At the same time, the remit of a repurposed National Institute for Health and Care Excellence was extended to impact upon local authorities. Post 2013, NICE public health guidance lands in a shifting world of local democracy and accountability.

Methods: This realist inquiry identified, tested and refined theories to explain how NICE guidance was received in local government, following its release, and why this reception occurred. The initial theories were surfaced using: mind maps as access points to several literature forays and a Delphi consensus panel to check for explanatory relevance. Three hypotheses were targeted; two on the nature of decision-making and one on the uniqueness of individual authorities. These hypotheses were tested by methodically reviewing the literature using theory-guided searches, data extraction and synthesis, and by primary data collection during fieldwork located within public health practice in 3 local councils.

Findings: The inquiry identified patterns of visibility of NICE guidelines within decision-making processes which were explained by identifying how knowledge is exchanged between officers and politicians. Mechanisms operating within these exchanges such as mutual respect, trust, and evidence weaving begin to point to the emergence of the 'craft' of public health practice in local government.

Conclusions: Findings confirmed the usefulness of three key transferable knowledge explanations: mutual exchange of resources by local bureaucratic elites; the trick to balancing knowledges (nature of decision-making) and the pre-eminence of place. When presented to local government officers these explanations resonate and illustrate the strength of realist inquiry in adding to our understanding of contemporary public health craft practices and how these might be developed.

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Guide to chapters

Chapter 1 establishes the background to this inquiry, sets out the research question i.e. what happens to NICE public health guidelines after publication in terms of how they are viewed and used by local government officers. It then sets the research question within its scientific context (Golding, 2017). The literature underpinning this thesis is presented in two inter-related parts. The first part sets out key tenets of realism as a philosophy of science and scientific method; identifying epistemological implications for the inquiry. The second part, gives an overview of pertinent background literature on the use of evidence by local government and the new public health decision-making landscape.

Chapter 2 builds on the preceding chapter by framing the empirical problem and setting out how realist inquiry will be operationalised. The chapter employs a Generate, Explore and Test structure which is later mirrored within the findings chapter (Gough et al., 2012). It outlines the stages within the inquiry beginning with an overview of the study design and how the logic underpinning realist review differs from other meta-analytical approaches or conventional systematic reviews. Chapter 2 also introduces Pawson's (2006) Time and Task template and outlines how this has been used within the inquiry. The chapter begins by setting out the methods used to surface and articulate theory; the procedure to prioritise these theories for explanatory relevance using a Delphi Panel. It then outlines how the three programme theories (two on the nature of decision-making and one on the uniqueness of local government) were explored and tested and consisted of: methodically reviewing the literature using theory-guided searches, data extraction and synthesis, and by primary

data collection during fieldwork in three councils. The process of synthesising these data is then described. Finally, the ethics of undertaking this inquiry is discussed.

Chapter 3 introduces the study findings and its structure mirrors the methods chapter above. The chapter begins by setting out theories identified during the theory elicitation activities. It then sets out the findings of the Delphi panel. It ends by discussing the selection of theories to pursue and their organisation for exploring and testing.

Chapter 4 moves on to the exploring and testing phase. It opens by setting out the findings from the review of empirical studies. It specifically reports on the theoretically guided searches of the literature, data synthesis and resulting theoretical refinements. This part ends by outlining the implications of this stage for data collection within the 3 case sites.

Chapter 5 outlines findings from each of the three case sites ends with summary theory from cross case analysis.

Chapter 6 has four parts. It begins by setting out summary context, mechanism and outcome configurations which aim to explain what happens to NICE public health guideline post publication in terms of how they are viewed and used by local government officers. It also sets out the implications of this refined theory in terms of transferable knowledge. The chapter then goes on to identify study strengths and limitations. The final part of the thesis is a reflection on the inquiry from the perspective of an embedded doctoral student leading to consideration of future study within this sphere.

Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not been previously been presented for an award at this, or any other, university.

Chapter 1: Introduction

The Health and Social Care Act (2012) resulted in a reorganisation of the English public health decision-making infra-structure (Kneale et al., 2017). In April 2013, many public health responsibilities were returned to local government (Local Government Association, 2014) having left in 1974 (Great Britain. Department of Health, 2011; Kingsnorth, 2013). At the same time, Public Health England was established as an executive agency of the Department of Health and Social Care (Public Health England, 2018b). Under the Act, public health specialists were transferred to be either Local Government Officers (hereafter officers or LGO) or Civil Servants; required to transform to embrace the traditions of either Town or County Hall or Whitehall. The wielding of the legislative pen sent public health intervention to either local or national decision-making contexts. In either case, the structures, inherent customs and practices, differed to those in the NHS where the specialism had been for the previous 39 years. For example, local government decision-making favours options appraisal (Hunter et al., 2016) and is concerned with the allocation of resources within local democratic accountabilities and follows the Treasury's Green book guidance (Great Britain. HM Treasury, 2018; Hunter et al., 2016; Marks et al., 2015). Whereas, public health practice in the NHS tended to favour systematically identifying unmet health and health care needs of a population and seeking evidence on addressing this need (for example guidelines) as its starting point[1].

[1] See here for more detail on health needs assessment: https://www.healthknowledge.org.uk/public-health-textbook/research-methods/1c-health-care-evaluation-health-care-assessment/uses-epidemiology-health-service-needs

As well as transferring public health specialists to local government the Act requires Local Authorities to form, with partners, Health and Well Being Boards (HWBB) with a duty to promote integration in the commissioning of health care, social care and health improvement (Great Britain. Department of Health, 2010; Great Britain, 2012). It also enshrined joint strategic needs assessments (JSNA) by amending the Local Government and Public Involvement Act (2007) and established instruments such as joint health and well-being strategies (HWBS) (Great Britain, 2012). At the time, there was much debate in the academic public health literature on the likely impact of these structural changes (Perkins and Hunter, 2014; Humphries, 2013; Tomlinson et al., 2013; Kingsnorth, 2013). Despite this new context and regardless of these structural changes public health's remit was still concerned with making informed and evidence-based choices to improve the health of the local population.

The legislative pen also abolished the Special Health Authority known as the National Institute for Health and Clinical Excellence (NICE) and established it as a non-departmental public body becoming the National Institute for Health and Care Excellence. Analysis of NICE publications[2] identifies that in total, NICE has published 310 separate guidelines on: antimicrobial prescribing, cancer service, safe staffing, medical practice, social care, public health as well as 204 clinical guidelines (see Annexe 1).

NICE had been issuing public health guidance since 2006 aiming to facilitate informed and evidence-based choices within public health decision making. Post 2013, this guidance would now land in a shifting world of local democracy and accountability. Production of public health guidance by NICE pushes the boundaries of evidence-

[2] Data source: interrogation of NICE publications: https://www.nice.org.uk/guidance/published

based medicine.[3] Action in public health tends to be multi-sector and multi-level (South et al., 2014). Public health inhabits a wider field than clinical medicine and operates at multiple levels such as population and community as well as at the individual level both in terms of biological mechanisms and the psychology of behaviour change (Blue et al., 2016). Seeking evidence for inclusion in the syntheses that support guideline production, may therefore require accessing data from disciplines beyond medicine. These disciplines may differ in terms of epistemology and consequently produce different types of evidence using different methods. In their review of NICE's experience of developing public health guidelines Kelly et al explain that synthesising these different types of evidence and analysing across the multiple levels outlined above was not found to be straightforward or amenable to conventional review methods (Kelly et al., 2010). NICE's methodology to produce public health guidelines was necessarily experimental and emerging; it pushed at the boundaries of evidence based approaches (Baxter and Killoran, 2010) which makes it inherently open to question; post 2013 it lands in the questioning world of local democracy and politics. The production of NICE public health guidelines (hereafter guidelines) is therefore both complex and methodologically challenging.

Guideline recommendations then are necessarily couched in the circumspect language of *'ensure'* arguably a choice which recognises that action in public health is likely to fall in the realm of multi-stakeholder and multi-sectoral strategising and policy making. This can be contrasted with terms used in clinical guidelines which tend to be directive of an individual clinician, for example, '*health professionals should…'* (NICE,

[3] See here for an oral history of evidence based medicine (Smith and Rennie, 2014) https://www.bmj.com/content/348/bmj.g371

2007). Carlsen et al's (2007) metanalysis of GP attitudes to guidelines identified that there were barriers to implementation beyond organisational or professional attitudes arising from the perceived purpose of a guideline i.e. was it an attempt to ration a service for example. This perceived purpose of the NICE guidelines on the part of local government officers might be relevant and explanatory.

NICE has published 67 public health guidelines which represent 22% of the total output; 41 of these have been published or updated since the 1st April 2013 the date the Health and Social Care Act, 2012 was enacted in law Post 2013, these guidelines are issued towards local government. This setting is more than just the backdrop in which NICE guidelines land but is integral to the reception of guidelines. Local government has been characterised as ambiguous, complex and messy (Needham et al., 2014). There is also disagreement about what constitutes evidence and an acknowledgement/culture that knowledge extends beyond that which is research derived (Pawson et al., 2003). Moreover, it is a sector subject to a plethora of guidance and advice analogous to the 'New Tower of Babel' identified by Hibble et al (1998). There is also a mixed and complex picture, across England on how research and evidence is received and used within local government decision-making (Allen et al., 2014). This thesis explores the implementation context within which guidelines land and, in particular, the decision-making culture within which local government officers operate. This study aims to identify how (and in what respects) NICE public health guidelines are acted upon – if at all. The timeline of this investigation largely mirrors the timeline for establishment of the new public health infrastructure.

The inquiry used a realist approach because, given the recency of the legislation, there was little research on the use of NICE guidelines in local government. What little

research there has been had tended to focus on binary outcomes, such as are guidelines implemented or not? or are guidelines visible or not in local HWBS (Beenstock et al., 2015) rather than the actions, reasoning, and role of officers in bridging the knowledge into action gap inherent in the implementation of guidelines. Some commentators have focused attention on evidence use (including guidelines) and its mobilisation within differing policy spheres (Tyner et al., 2013; Oliver and de Vocht, 2017). However, there is less attention on the reasoning of the actors within the culture of local government decision-making. Even local governance literatures tend to focus on structural and cultural changes arising from political reforms since the 1980s (Gains et al., 2009) and the resulting political-bureaucratic relationships rather than the agency (actions and reasoning) of officers as an explanation for the observed outcomes. Consequently, it has been necessary to approach the inquiry by utilising research approaches which recognise complexity and are concerned with explanation. This thesis examines this new implementation setting and, in particular, focuses on the culture of decision-making and the role of political-bureaucratic relationships within this culture.

Research question

What happens to NICE public heath guidelines after publication in terms of how they are viewed and used by local government officers?

The study objectives were as follows:

1. To generate potential candidate programme theories which offer explanation as to whether Local Government Officers (LGOs) are able to use NICE guidance within their decision making;
2. To prioritise the numerous (researcher articulated) candidate programme theories or causal explanations for relevance to local government decision making by stakeholders. This will result in stakeholder agreed (prioritised for explanatory relevance using Delphi technique) candidate programme theories to be refined using realist synthesis methodologies;
3. To check the sense of the refined and tested theory to support its mobilisation and use by both guideline developers and stakeholders within local government.

What attention has this topic received?

At this point, it is important to set the research question within its scientific context (Golding, 2017). The literature underpinning this thesis is presented in two inter-related parts. The first part sets out key tenets of realism as a philosophy of science and scientific method; identifying epistemological implications for the inquiry. How these were operationalised is set out in Chapter 2. The second part, gives an overview of pertinent background literature. There has been some limited exploration of the experience of NICE guidelines within local government which has tended to focus on the visibility of NICE guidelines within their new setting. This inquiry had a different focus. It sought to explain patterns of NICE public health guidelines use in the context of local government by theorising why guidelines are seen to be used, or not and then tested, refined, and re-articulated these candidate theories (Greenhalgh, 2016) to explain this - using both empirical data from published sources and primary data from fieldwork in local authorities.

In other words, this whole inquiry is a configuring review (Gough et al., 2012) following the method of generate, explore, and test. It follows then, that the background literature presented here acts not only as a backdrop to the study but contributes to the process of theory elicitation or generation within realist inquiry (Greenhalgh et al., 2014). The actual process of theory elicitation is presented within Chapter 2.

Key tenets of realism

This is a realist inquiry specifically drawing on Pawson and Tilley's (1997) advocacy of scientific realism. It is acknowledged that there are on-going philosophical debates over realism (see, for example, Maxwell, 2012). These debates are out with the

parameters of this thesis as the focus here is not on realism as a philosophy of science but rather on realism as a method for scientific inquiry as fostered by Pawson and Tilley. This section outlines key tenets of realism and highlights the implications of realist thinking for the study.

Realism is a school of philosophy that sits between positivism and constructivism. '*Realism asserts that both the material and the social worlds are 'real', at least in the sense that anything that can have an effect is itself real'* (Westhorp, 2014, p.4). Moreover, realism argues that it is possible to work towards understanding these effects (Mukumbang et al., 2016). Westhorp (2014) argues that this has implications for studies in that interventions are therefore 'real' and can have real effects on people, these can be positive or negative, intended or unintended. In the case of this study, the simple release of NICE guidelines does not constitute an intervention in conventional terms. However, the guideline does have the potential to be used as knowledge to be applied to a problem within the policy-making process. This potential exists, it can have an effect, whether it is triggered or not. In this sense NICE guidelines are *real*; the decision-making culture or mental reasoning on the part of officers is *real* and the societal structure, the bureaucracy within which officers' work, is also *real*. There are few empirical published studies on the day-to-day reasoning of officers within this political-bureaucratic decision-making structure.

A further tenet of realism is that it acknowledges that *'all enquiry and observation are shaped and filtered through the human brain and that there is, therefore, no such thing as 'final' truth or knowledge'* (Westhorp, 2014, p.14). For this study, this means that the theories examined will rest as partial knowledge – in other words, remaining sensitive to changes in context and over time. This tenet is

fundamental to realist inquiry, however recognition of the sifting within the human brain is acutely relevant for this study as the researcher is both a transferred public health specialist and an embedded doctoral candidate within local government. To build on the metaphor of sieving: data inputs are potentially filtered through differing sieve mesh sizes at different times. In other words, the enquiry is filtered through relative positions: academic, policy maker, commissioner, former NHS manager, transferred public health specialist, local government officer and so on. These differing mesh sizes determine the filtering process. The implications of these relative positions for this study are discussed within Chapter 4. It is highlighted here as these differing mesh sizes have shaped and filtered the literature set out below.

Realists do not understand causation as *'on the model of the regular success of events'* (Sayer cited in Pawson, 2006, p.21) and thus do not design studies to look for these regularities. Instead, realists offer a generative causal explanation. Westhorp (2014) unpacks this idea by arguing that things we observe or experience are caused by deeper processes and these may operate at a different level than is observable. As Jagosh (2019) contends, we need to begin with the assumption that causation involves *'generative forces (mechanisms) which are typically hidden and need to be unearthed'.* If there is more going on than is immediately observable then this has epistemological implications in terms of how a phenomenon can be studied.

Pawson and Tilley (1997) use the basic components of context, mechanism and outcome, constructed as C+M=O to offer a realist explanation of generative causation and this is expanded and refined in Pawson's (2006) later work on evidence based policy. In their seminal work, Pawson and Tilley (1997) postulate that social science inquiry largely follows successive causation logic, in contrast to the generative logic in

the natural sciences, and advocate the use of generative logic in the social sciences i.e. embracing scientific realism. It is useful at this point to follow Pawson's (2013) argument on generative logic in terms of outcome patterns, generative mechanisms and contextual conditions. Pawson and Tilley (1997) argue that an action is only causal if it is triggered by a mechanism acting in context. In terms of outcome, Pawson (2013) suggests that to recognise causality it is necessary to understand outcome patterns. Within this study it is possible to describe the outcome in binary terms i.e. guidelines are implemented yes or no or guidelines are referenced within policy documentation yes or no. However, a realist lens will uncover a variety of outcomes in terms of, for example, the use of guidelines within decision-making processes. There will be selectivity in the use of NICE guidelines. Guidance from the RAMESES project (2013b) explains that outcomes are unlikely to be haphazard and can be anticipated or predicted i.e. semi-predictable or 'demi-regularities'. This is the beginnings of causal explanation (Pawson, 2013). This patterning allows the development of broad lessons on, in this case, how NICE guidelines are received and used (or not) within decision-making processes.

The next stage for Pawson (2013) in understanding causality is the concept of causal forces or mechanisms. He argues that identifying demi-regularity helps the researcher to derive some sense of the world. However, possible explanation comes through mechanisms and that the *'mechanism explains what it is about the system that makes it work*' (Pawson, 2013, p.23). In realist philosophy mechanisms are causal forces or powers and this has been labelled generative causation (The RAMESES Project, 2013b). Astbury and Leeuw (2010) define mechanisms as *'... underlying entities, processes, or [social] structures which operate in particular contexts to*

generate outcomes of interest.' As outlined earlier, understanding the culture of decision-making within local government is fundamental to this study; has explanatory power and consists of both a mental realm i.e. reasoning on the part of the officers and physical features i.e. of the society within which they operate, for example, legal frameworks or HWBB (established as a result of the Health and Social Care Act (Great Britain, 2012). Other features were established, as far back as the 19th Century, arising out of the Royal Commission into local councils which resulted in key Acts such as the Municipal Reform Act of 1832 and the Municipal Corporations Act of 1835. Further, these features are real and integrated (Maxwell, 2012).

Dalkin et al's (2015) work to develop mechanism as a concept within realist inquiry is particularly helpful within this study. Dalkin et al (2015) operationalise the classic C+M=O formulation by disaggregating resources and reasoning within mechanism. Her revised formula thus becomes: M (resources) + C → M (reasoning) = O. It becomes possible to use this formula to disaggregate resources in the system (such as guidelines as a knowledge resource) from reasoning on the part of the officer (such as fear or disinterest). This revised formula was used to support data extraction, collection and synthesis throughout the inquiry.

Pawson argues that *'context is mechanism's partner concept'* (2013, p.24) in realist causation logic. Post 2013, NICE guidelines land in a complex, open system – the realist argues that all social systems are open (Westhorp, 2014) - and that both the resources inherent in the system (such as the legal frameworks) and the reasoning or agency of the recipient (in this case, the officer) will determine whether the mechanism is able to fire. Mechanisms, defined as the reactions of recipients to resources offered, exist whether they fire or not (Sayer, 2000). The key then is to

understand the contextual conditions to trigger optimal responses. As stated earlier, whether a mechanism fires is contingent on context. The idea of a mechanism firing was used as an explanatory metaphor in Pawson and Tilley's (1997) seminal publication. However, an additional question is how much of the mechanism fires. For this reason Dalkin et al (2015) argue that a more useful metaphor is that of a dimmer switch. Within this inquiry, mechanisms that support the implementation of NICE guidance in a local authority setting may arise over time become brighter or dimmer rather than firing. There is a temporal nature to this; for example, transferred officers are likely to reason differently over time as they become more accustomed to their new setting. Furthermore, different officers will respond in different ways (by whom, in what circumstances). Key to context is that it goes beyond describing the setting in requiring an understanding of what influences the mechanism and which mechanism(s) operate. To gain such an understanding it was necessary to explore the nature of decision-making in local authorities and develop, test, and refine Context-Mechanism-Outcome configurations.

Finally, realist ontology (what the nature of reality is) contends that the features that form the world are not visible; are independent of people's cognition and as Bhaskar postulated exist at different levels: the empirical, the actual and the real (Bhaskar cited in Williams et al., 2016). Houston's description of these levels helps to clarify: the empirical level is about experienced events; the actual, consists of every event (whether it is experienced or not); and the real is the level where 'mechanisms' exist, which may, or may not, be activated (Houston cited in Williams et al., 2016). Additionally, local government officers are operating in an open, complex and dynamic

system where social structures and mechanisms have emergent properties (Emmel, 2015).

These realist beliefs such as generative causation, a stratified and emergent ontology, the importance of theoretical explanation and levels of abstraction can be difficult to grasp (Williams et al., 2016) but have implications for what we can know about reality and how we are able to know it. These epistemological insights were important in shaping the study design.

Given the acknowledged relative stances within this inquiry, it is worth outlining the approach taken to addressing the literature. Like other realist inquiries the personal libraries of the investigator acted as an entry point to the work (Greenhalgh et al., 2017). Emmel identifies, in his work on sampling within realist inquiry, that researchers bring their *'ideas, preconceptions, concepts, meanings and intentions to their research';* going on to call it *'real intellectual work theory'*(2013, p.71). It is worth identifying the real intellectual work theory within this inquiry because it underpins the selection of background literature presented here.

First, prior to commencing this doctorate, the candidate had a long standing interest in the use of guidelines to bridge the now well recognised knowledge into action gap (Graham et al., 2006; Rycroft-Malone et al., 2015) and this influenced the initial focus of the literature. Guidelines are considered to be a third generation knowledge tool or a product that contain tailored knowledge (Graham et al., 2006; Graham and Tetroe, 2007); guidelines have also been conceived of as a boundary object (Fox, 2011) i.e. have the potential to bridge the gap between evidence and practice. The researcher's interest predates these ideas or conceptualisations but did examine how guidelines were being used (Hardern and Hampshaw, 1997; Hughes et al.,

1998; Renvoize et al., 1997, 1996). These studies deployed a survey methodology to measure awareness and /or attitudes on either the part of health care organisations or individual clinicians.

The Renvoize et al (1997) study found that most senior hospital staff held a favourable attitude towards clinical guidelines and that most hospitals were undertaking guideline activity. However, few hospitals seemed to do so within a locally agreed hospital wide strategy. The authors recommended that *'evidence-based clinical guidelines should be developed nationally, leaving hospitals to focus their energies on the local adaptation, dissemination, implementation, and evaluation of such guidelines'* (Renvoize et al., 1997). The Hardern and Hampshaw (1997) study focused on the views of accident and emergency consultants and trainees towards practice guidelines and their experiences using guidelines. It concluded that unless rigorously developed, clear, and easy to use, guidelines are unlikely to be implemented in accident and emergency departments in the UK. Finally, the Hughes et al (1998) study used semi-structured interviews to find out if accident and emergency services were following the Royal College of Psychiatrists' national guidelines for those who deliberately self-harm. The authors discovered that services were not adhering to the guidelines and declared that '*the production of guidelines without an adequate implementation strategy is ineffective. The Department of Health should endorse the College guidelines, and produce an implementation strategy to secure the involvement of purchasers and providers'* (Hughes et al., 1998). These studies were undertaken prior to the establishment of NICE in 1999. Throughout the early 2000s, the interest in guidelines continued (Thornton-Jones and Hampshaw, 2002,2003). This work acknowledged barriers to evidence-based policy exist, but showed that having an

ongoing relationship between the academic and service elements of public health could be a key factor in overcoming some of these (Thornton-Jones et al., 2002). None of the studies were realist in that they adopted methodologies that sought to observe compliance or test attitude rather than provide explanations on the use or non-use of guidelines. Adopting positivist epistemology and ontology. Nevertheless, the ideas and concepts observed and experiential knowledge gleaned contribute to the intellectual work theory within this thesis.

Second, an exercise was conducted to map the post-2013 contexts within which guidelines land. This produced two maps (see below) which provided an access point to the literature and resulted in what was termed forays into the literature. Given the research question the second map was centred on the officers themselves.

Diagram 1: map portraying journey of guidelines into policy or practice

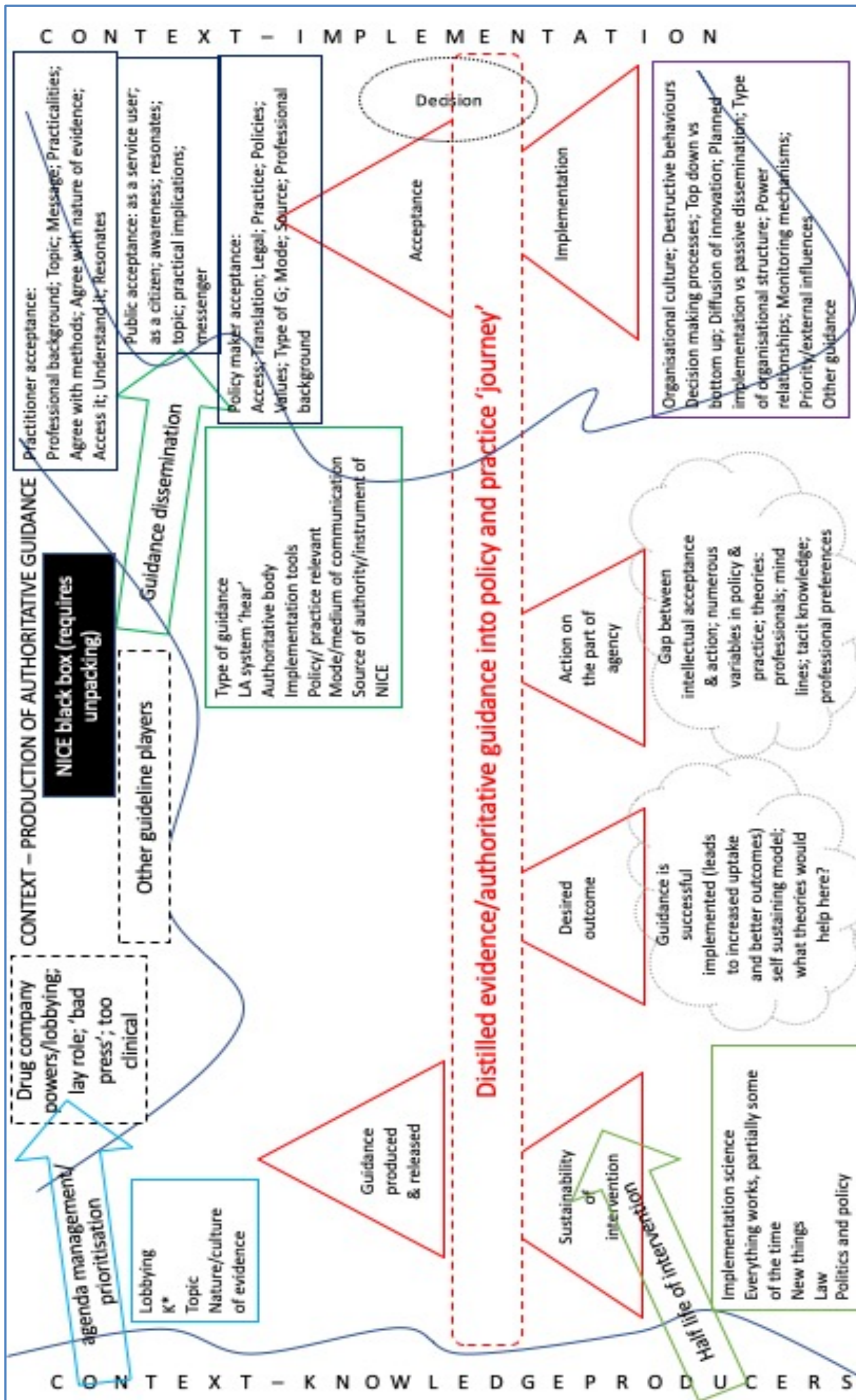
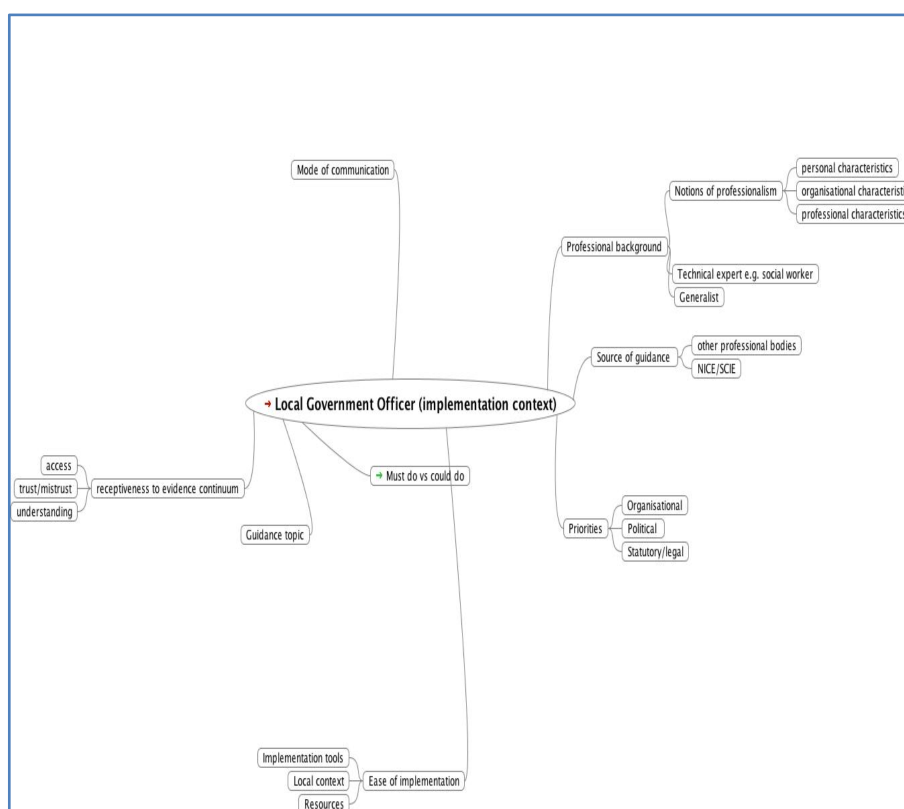


Diagram 2: map of the implementation context from local government officer viewpoint



Insights on the use of evidence by local government

Local government is responsible for, and delivers, a diverse range of services - ranging from school crossing patrols to street lighting, crematoriums to adult social services. To support the delivery of these varied services, local government employs staff with a variety of professional backgrounds, expertise, technical competence and qualifications. What counts as evidence to support decision-making is potentially just as varied. Officers based in, for example, planning departments do not naturally privilege the type of evidence advocated by their newly arrived public health colleagues. Local government is, therefore, a setting with considerable variety of expertise, experience and charged with numerous statutory responsibilities. Decision-making in local government is complex and subject to several stages and processes. Above all, local government is political. It operates across financial and legal

domains and, of course, the policy context in terms of both national and local policy, statutory responsibilities and, the sometimes parochial, interests of elected members. Local policy makers are tasked with deciding on the best policy within a complex world and bounded by constraints; presently, the acute constraint of perma-austerity (Needham et al., 2014). In summary, constraints on whether evidence is used is not used predicated on both what is valued as evidence in local government but also how evidence is used within decision-making processes. As Weiss (1979) argues evidence (and in particular evidence from research) can be deployed within a number of models: knowledge driven, problem-solving; interactive; political; tactical and research as part of the intellectual enterprise of society. Rarely is evidence used in a linear knowledge driven model and the focus of this thesis is likely to offer further explanatory insight on the use of evidence within local government.

Decision-making within local government tends to favour options appraisal (Hunter et al., 2016) and this may well dictate the use of evidence and what counts as evidence in this context. It is argued that this may fit Lindblom's (1959) argument that the administrator utilises the process of successive limited comparison or 'muddling through' in their decision or policy making - terms he uses interchangeably. Lindblom's public administrators, theoretical model and empirical examples were not drawn from local government administration. Nevertheless, his central thesis resonates with the experience of 21st century policy making in local government and as such are relevant to this study (Costandroipoulos et al., 2009). Moreover, Lindblom's ideas continue to have traction with scholars interested in evidence based policy making in health (see for example Costandroipoulos et al., 2009; Greenhalgh and Russel, 2009; Howlett and Migone, 2011) or scholars interested more broadly in evidence and policy (see for

example Cairney, 2019). Indeed, Howlett and Migone (2011) argue that policy models developed in recent times have attempted to build on Lindblom's model addressing its weaknesses rather than proposing wholly new approaches, titling their paper *'Charles Lindblom is alive and well'*. Lindblom's writings were seminal in that they clarified and formalised *'The science of "Muddling Through"'* or bounded rationality. His writings set out a process which mirrored the reality of decision-making for administrators but also postulated the necessity and appropriateness of successive limited comparison. Indeed, Cairney identifies bounded rationality as a key concept in public policy, rationality and policy cycles and suggests that *'policy makers will always need to make value judgements and use cognitive short cuts to understand and use evidence'* (2019, p.23). This inquiry was not a policy analysis study, it aimed to surface and test theories on the reception of NICE guidelines in local government, nevertheless, theories about how policy makers understand and use evidence are likely to be helpful.

Two elements of Lindblom's writing are particularly pertinent here. First, Lindblom argued that the reality of policy making is focussed on building out from the current situation, step by step and by small degrees – working at the margins and gathering (importantly for this study) knowledge at the margins. NICE guidelines could constitute this knowledge to be gathered. Graham et al's (2006, p.19) action cycle, is useful here, it depicts a box which contains an interchange between identifying a problem and identifying, reviewing and selecting knowledge. The knowledge to be 'gathered' is termed third-generation knowledge[4] as it is a tool or product and NICE guidelines are an example. The action cycle suggests a planned action approach

[4] Within Graham's model first generation knowledge is scientific inquiry, second generation is the synthesis of these inquiries and third the production of products from these syntheses. At each stage the knowledge is further tailored to the needs of the user.

whereby a problem is identified that deserves attention and relevant knowledge is sought, appraised and locally adapted (Graham et al., 2006).

Graham et al also postulates an alternate means of knowledge entering the cycle suggesting a group or individual becoming aware of a guideline and then *'determining whether there is a knowledge-practice gap that needs filling with the identified knowledge'* (2006, p.20). Lindblom's (1959) thesis does not reference knowledge synthesised from research; he does, however, discuss how administrators use theory to develop their policy and argues that theories are of *'extremely limited helpfulness'*. Lindblom gives the example of what might be termed a grand theory i.e. economic theory and argues that it is insufficiently specific to be of use to the administrator. Moreover, Lindblom also argues that administrators can often view advice from what he terms 'outsiders' as not relevant as they lack the intimate knowledge of past successive comparisons held by the administrator. In other words, decision-making is a series of related chains with each new step requiring marginal review of the previous step; choosing between policy objectives and seeking helpful knowledge. This process may entirely exclude third generation knowledge such as NICE guidelines because it may not be specific enough to the policy objective / decision under examination or it may not add to what is already known as a result of earlier cycles. Additionally, within these policy chains, policy objectives have relative values, for example, an objective might be prized in one circumstance and another objective in another circumstance (Lindblom, 1959).

Second, it is important to acknowledge that although Lindblom's extensive writings can be conceived as formalising a process for decision-making his narrative focuses on the capacity, capability and reasoning of the administrators and as such his

explanations are helpful for this study (Lindblom, 1979, 1959; Dahl and Lindblom, 1953). His focus was public administration in the USA. Turning to local government despite both political and economic pressures, local government in England has been described as the '*great survivor*' (John, 2014). John used this term to title his paper examining the resilience of local government which identifies both structural and relationship issues that have enabled it to survive and which may provide insight into the culture of decision-making. John argues that successive reforms to local government have simply reinforced a system '*based on the institutionalisation of party politics in a well-organised management structure, whereby power is concentrated in the hands of senior officers and leading councillors who are in partnership with each other*' (2014, p.688). Lindblom focussed on the administrator, John's analysis identifies the importance of the relationship between officers and councillors.

It is worth briefly examining the current role of the local government officer. The ESRC funded project on the Future of Local Public Services is helpful here (Needham and Mangan, 2014; Needham et al., 2014). The project initially consisted of an extensive literature review, 40 interviews, and also utilised blogs and a Twitter feed. Of note is this review utilised grey literature, arguing that it contained a more current perspective (Needham et al., 2014). The review focussed on local public servants, rather than national public servants, and only uses evidence from England. The definition of public servant used is wide and the focus is on local public service workers who deliver public services. Public servants can thus include those who work for not for profit organisations (Needham and Mangan, 2014). However, their findings largely focus on local government officers. Their literature review identified eight characteristics of public servants developed, as a result of the interview phases, into

ten descriptors of the characteristics of the 21st century public servant. The descriptors contribute to understanding around the agency of officers within local government decision-making. Needham and Mangham describe the 21st century public servant as a 'municipal entrepreneur' flourishing in a messy, complex system. They argue that role labels determined by technical competence, such as planner or social worker, will disappear. The future officer will be a '*story teller, resource weaver, systems architect and navigator*' (Needham and Mangan, 2014, p.8). Generic skills will be important, alongside technical skills. However, more relational working may not be readily supported by existing structure, policies and processes (Needham and Mangan, 2014, p.11).

The review creates an emerging 21st century public servant narrative springing forth from perma-austerity and the impact of a 'savvy' citizen. The authors themselves acknowledge that this pushes against a different narrative namely that on some levels the role of officers will not change: '*the roads will still need to be swept, the leaves will still fall off the trees so for some parts of the workforce it will be business as usual*' (Needham and Mangan, 2014, p.8). Despite these competing narratives, the image of the resource weaving, storytelling public servant brought to life in products from the research such the Walk Tall e book is compelling and the idea is gaining traction within local government particularly with regard to workforce development (Local Government Association, 2016)[5]. Indeed, Day et al (2014) envisaging the transfer of

5 For example, wide promotion via the Local Government Association (https://www.local.gov.uk/our-support/workforce-and-hr-support/workforce-podcasts/21st-century-public-servant) and The 21st Century Public Servant Leadership Programme for Aspiring Directors (https://www.birmingham.ac.uk/schools/social-policy/departments/health-services-management-centre/courses/aspiring-public- health-leaders-programme.aspx) developed jointly by the University of Birmingham and Public Health England.

many public health staff to local government proposed five talents for public health leadership: mentoring-nurturing, shaping-organizing, networking-connecting, knowing-interpreting and advocating-impacting. However, as useful as these works are they do not explore the nuances of decision-making and the reasoning of officers within this process nor do they explore the resources or structures within the system.

Needham and Mangham (2014) do identify synthesising amongst 21st century literacies, by this they mean, public servants require skills to sort and analyse evidence, make judgements and be creative. The extent to which these synthesis skills are evident in local government offers potential explanatory insight as to whether NICE guidance can land in a friendly context. The culture of evidence use and decision-making is crucial to this discussion and work undertaken by the NIHR School for Public Health Research who systematically reviewed cultures of evidence in non-health sectors is helpful (Tyner et al., 2013; Lorenc et al., 2014). Lorenc and Tyner's (2014) review included 16 studies, which were judged to illuminate decision-making in non-health sectors. The review found *'considerable latitude'* (Lorenc et al., 2014) as to what was defined as evidence and that academic research is only one information source. Pawson et al's (2003) review on the types and quality of knowledge in social care identifies several categories of knowledge: organisational, practitioner, user, research and policy community and no hierarchy is implied. Further, in planning and transport teams, academic research was viewed as least useful whereas evidence which illuminated *local context* was valued (Lorenc et al., 2014). Informal practice-based expertise was also valued more than academic research. This reflects Lindblom's (1959) contention that outsider views lack value within decision making. Lorenc et al's (2014) findings identify issues around the message and messenger and these are

reflected in Lavis' work to develop a Framework for Knowledge Transfer (Lavis et al., 2003; National Collaborating Centre for Methods and Tools, 2012). The review identifies practical barriers such as time and skills to access evidence (Lorenc et al., 2014) and also issues around the usability of the evidence product. This supports work undertaken on guideline implementation and the importance of clear, actionable messages (Michie and Lester, 2005). Oliver et al (2014) updated a systematic review on barriers to use of evidence by policy makers and included studies from a wider range of policy topics to support these findings. The most frequently reported barriers to evidence uptake were linked to infrastructure, poor access to good quality relevant research, and the nature of the research production process itself.

In terms of human volition, and therefore possible reasoning, the Lorenc et al (2014) review proffers the idea of an authoritative messenger, for example, if the source of the research is perceived as senior and a national expert then the officer is more likely to view the research as credible. Interestingly, respondents within the research studies included in the review, also privilege practitioner knowledge (Pawson et al., 2003) and query the addition of evidence from research (Lorenc et al., 2014). Other constraints on decision-making are political acceptability or feasibility and legal restrictions (Lorenc et al., 2014).

The review by Lorenc et al examined how decision makers use evidence. In the studies synthesised it was often not possible to determine how, or even if, the evidence base was used; there was rhetoric around evidence informed decisions but little to suggest how evidence was actually used. Moreover, evidence was sometimes used to defend or justify decisions (Lorenc et al., 2014) in other words *'policy based evidence'* (Marmot, 2004). Lorenc et al's review participants viewed this quite positively arguing

that the use of evidence in this way added legitimacy to their decisions. This was particularly the case if the evidence sought to support the decisions originated from an organisation with institutional credibility such as NICE (Lorenc et al., 2014). There was an additional tension expressed between the priority of implementing Government policy, the production of which was seen as driven by politics rather than evidence, and the need to be familiar with the research evidence base. This offers a potential explanation for why evidence from governmental sources was often cited by respondents to Oliver and de Vocht's survey (2017). Finally, the review authors identify that there is a different *'culture of evidence'* for non-health decision makers compared to health decision makers and that this culture is not yet well understood (Lorenc et al., 2014). This study will contribute to addressing this gap.

This leads to a granular discussion about what constitutes evidence and evidence use within local government. The Local Government Association (LGA), together with the Society of Local Authority Chief Executives and funded by the Economic Social Research Council, established a Local Government Knowledge Navigator project designed to support local government to make better use of research evidence. Publications resulting from this work provide useful insight as to how research evidence is received and used in local government (Mortimer, 2014; Allen et al., 2014; South et al., 2014). Mortimer et al (2014) provide numerous examples of relationships between academia and local government designed to support knowledge exchange but identifies generally low levels of awareness of knowledge exchange initiatives. Allen et al (2014) identified that local government tend to produce evidence internally or commission it externally and that the capacity to do either of these activities was a challenge. Allen et al also identified that a significant challenge

for local government was identifying relevant and applicable research. NICE guidelines offer tailored third generation knowledge which should, at least in theory, be well placed to meet this gap.

Shortly after public health moved into local government, the Social Services Research Group[6] surveyed local government with the aim of examining the state of social care research activity, the extent of research governance in local authority settings, and the use of evidence made by practitioners and managers (Rainey et al., 2015). This survey can be considered to be a snapshot of research activity and use in local government; the response rate was 46% and they received returns from 70% of English local authorities. It is important to note that the authors adopted a broad definition of what constituted research specifically: *'The systematic collection, analysis and interpretation of data of relevance to policy and/or practice to increase understanding about future trends, local needs and good practice'* (Rainey et al., 2015, p.9). This use of a broad definition may mean that respondents include activities such as local evaluation, performance management, and consultations within their responses. Moreover, the study sample deliberately excluded officers who might be considered end users of evidence i.e. policy makers. Rainey et al's (2015) survey was largely completed by a community of evidence producers such as staff involved with corporate performance management or customer insight and the reported research activities were linked to performance management and local information systems and not public health officers. This broader definition includes activities such as needs assessment that would not fulfil, for example, the Health Research Authority (2013) definition of research. It does however, better reflect the differing conceptualisation

[6] See here for further information http://ssrg.org.uk/about-ssrg/

of what is meant by evidence or knowledge to be found in local government (Pawson et al., 2003). Notwithstanding these limitations the survey offers insight into the use of research within local government.

The team found that despite encouragement within local authorities to use research derived evidence to inform policy; one-third of respondents felt their capacity to use and access research findings was reduced in the light of austerity (Rainey et al., 2015). Additionally, the authors found that the most frequently cited sources used to access research findings were the Office for National Statistics (ONS) and the Personal Social Services Research Unit (PSSRU)[7]; NICE were ranked 3rd with 21 per cent of respondents citing them as a source of evidence (Rainey et al., 2015, p.34). What is telling about this analysis is the number of competing sources of evidence to be found in local government. In this one example, of adult social care, some 17 different authoritative sources were cited. NICE is visible within these sources and ranked highly amongst adult social care teams. Nevertheless, it can be contended that NICE is competing to be heard within this environment. Oliver and de Vocht's (2017) survey of policy makers (including those in local government) to ascertain the types and sources of evidence sought in public health policy making supports this idea. The main source of evidence cited by respondents were government websites i.e. Departments of State (84%) followed by NICE guidelines (70%) (Oliver and de Vocht, 2017). This reflects, Pawson et al's (2003) assessment of the importance of policy knowledge within local government. Rainey et al (2015) also found that few respondents had access to research databases; only 13 per cent of respondents had access to an Athens account. Instead, *'research was accessed via the internet (39%)*

[7] See https://www.pssru.ac.uk/

and bulletins from non-academic organisation (39%) and followed by bulletins from academic organisations (36%)' (Rainey et al., 2015, p.34).

The transfer of public health: back to the frying pan?

As outlined earlier, public health was moved from local government to the NHS in 1974 and operated as a speciality of Community Medicine. Public Inquiries in 1986, following outbreaks of salmonella food poisoning and Legionnaire's disease, reported issues with the availability of medical expertise in the investigation and control of communicable disease (Kisely and Jones, 1997). The committee of inquiry (Great Britain. Department of Health and Social Security, 1988) into the public health function identified that the speciality struggled within health authorities as the speciality's long-term view often conflicted with short-term pressures. The resulting Acheson Report emphasised public health medicine's role in communicable disease control, and the broader role of the specialty within the health service (Kisely and Jones, 1997). The introduction of the purchaser-provider split (Great Britain. Department of Health, 1989) focussed the speciality's wider role on advice to commissioners and the development of evidence-based health care in the NHS (Great Britain. House of Commons Health Committee, 2001). Debate about the role and dilemmas faced by the public health speciality continued (Kisely and Jones, 1997). These arguments on the function and location of the profession, its influence, and its role to ensure focus on improving population health were replayed in the commentary associated with the release of the White Paper Equity and Excellence: Liberating the NHS (Great Britain. Department of Health, 2010) and during the passage of the Health and Social Care Bill (2012). Substantial changes to the public health infrastructure were not foreshadowed within the 2010 election campaign. The proposed reforms were highly

controversial with public health doctors organising open letters and arguing in The Lancet that moving public health to local government risked *'fragmentation, budget cuts and political inference'* (Timmins, 2012).

Some of this debate is empirical in nature and draws on study of shadow HWBB and early experiences of Directors of Public Health (DsPH) with returning to local government. Some is theoretical in terms of articulating the likely impact of new structures (Hunter, 2016; Tomlinson et al., 2013). There were also numerous non-peer reviewed musings or preparatory articles commenting on the new landscape either from the perspective of local government or from the perspective of public health professionals (Buck and Gregory, 2013; South et al., 2014). These debates on the function and location of public health form an important part of the backdrop and may contribute to greater understanding of both public health's reception back in local government and its use or not of NICE guidelines. Rainey et al (2015) also analysed the transfer of public health teams to local government in terms of its impact on the use of evidence. The authors argue that this transfer produced clear areas of impact in terms of encouraging discourse on the definition of research and the quality of evidence required for policy making. Rainey et al do question the extent to which public health will: *'adjust to the epistemologies of the social sciences more favoured in social care research, and vice versa'*(2015, p.3). Rainey et al found there was largely a positive view, from adult and social care officers, on public health re-joining local government; however, data from Association of Directors of Public Health suggests that Councillors are more supportive than some officers (ADPH, 2014). This perhaps reflects Elson's view *'that many people in local government believe it is their*

organisations, rather than health organisations that are public health authorities' (Elson, 1999, page 163 cited in Hunter, 2008).

The Department of Health and the LGA framed the debate on the potential of the reforms to produce genuine partnerships between public health, local government departments and the proposed clinical commissioning groups (Kingsnorth, 2013). Over the years, there have been examples of area-based initiatives such as Health Action Zones (see National Evaluation Team, 1999) which required working in partnership to address health inequalities and there was a shared history of partnership working. Moreover, despite the need for guidance on the transfer of the Director of Public Health (DPH) to local government (Great Britain. Department of Health, 2013) there was a history of joint NHS – English local government DPH appointments (Gorsky et al., 2014).

In Hunter's (2008) review on joint appointments, commissioned by the Improvement and Development Agency, he sets out arguments on local government's place shaping role and its responsibility for *'many of the services that play a role in determining the population's health*' (LGA, 2008 cited in Hunter, 2008). He argues that although the NHS has a role in secondary prevention *'there are limits into how far it can or should stray into the wider determinants of health'* (Hunter, 2008, p.12). Wider determinants, sometimes known as social determinants, are the range of social, economic and environmental factors which impact on people's health.[8] This confusion on the role or absence of agreement on the public health's function resulted in a sense of weakness in its influence on the NHS and an inability to avoid public health resources being allocated to address deficits in acute budgets. Hunter quotes the Chief Medical

[8] See here for further detail https://fingertips.phe.org.uk/profile/wider-determinants

Officer for England: *'this situation has not been created by any person or group of people. It is the result of disparate factors, but at its heart is a set of attitudes that emphasises short-term thinking, holds too dear the idea of the hospital bed and regard the prevention of premature death, disease and disability as an option and not a duty'* (Department of Health, 2006 cited in Hunter, 2008). The idea of short-term thinking echoes Acheson's identification of short-term pressures nearly 20 years earlier.

There is a sense then in much of the literature that local government is perhaps a better home for public health albeit one where there is the prospect of increased political involvement. There was a recent history of joint appointments, partnership working and calls for greater integration of health and social care. Perkins and Hunter's (2014) paper uses their systematic review of public health partnerships and their empirical research to consider whether Health and Wellbeing Boards (HWBs) created by the 2012 Health and Social Care Act will enhance partnership working. They found that such partnership had previously had limited impact on improving population health. This finding echoes Kingsnorth's interview study (2013). This interview study focussed in the preparedness for transfer to local government within one London borough. She found that there was a limited history of successful partnership between health and social care; local partnerships had focussed on structures. Kingsnorth interviewed senior council officers, senior public health and Primary Care Trust[9] staff as well as joint health and social care post holders. The transfer of public health responsibilities was seen as an opportunity to address the wider determinants of

[9] Primary Care Trusts were abolished in 2013, as a result of the Health and Social Care Act, 2012 and replaced with clinical commissioning groups.

health, but Kingsnorth found that there was not a shared vision for health and wellbeing. This study identified several aspects to this lack of shared vision which are discussed below. These aspects and findings within the Perkins and Hunter (2014) study are helpful in illuminating the setting in which public health lands in 2013 and as has been set out earlier contributed to early theorising on what happens (and why) to NICE guidelines in this new landscape.

First, Kingsnorth (2013) identified challenges related to different political landscapes. This was illustrated by drawing on previous partnership work which identified differing political landscapes for local government and the PCT. For example, planning departments were looking to the longer term and were able to set out strategic plans. Kingsnorth found that political uncertainty meant the strategic direction was unclear for the NHS and local NHS bodies had little influence on national policy whereas although local government officers have political masters there was more scope to make local decisions. The opportunities within spatial planning for longer term thinking and therefore a space for public health interventions was also identified by Tomlinson et al (2013). Tomlinson et al welcomed the *'joining up of rhetoric around health, the environment and land use or spatial planning in both the English public health white paper and the National Planning Policy Framework'* but cautioned on the lack of practical guidance for local authorities to make this happen. Tomlinson, does however emphases the opportunities within the new instruments Health and Wellbeing Strategies (HWSs) to address the wider determinants of health.

Second, Kingsnorth (2013) identifies, within the interviews, differences in the use of language for example in relation to commissioning, understanding of the public health function and relevant data sets (local government focused on local data sets

and public health focussed on national datasets). Interestingly, some of the study respondent from local government articulated the view that *'public health teams were fundamentally dependent on the LA to achieve greater "reach" to promote population health through the planning team, environmental health officers, children's services and libraries'* (Kingsnorth, 2013, p.69). The danger of missing the opportunity of moving beyond health and ending up invisible within the local government bureaucracy was also identified.

Third, the study identified that public health would need to recognise the importance of the views of local politicians within local government. This has implications in terms of being able to advocate for evidence-based interventions and the type of knowledge that was relevant i.e. more locally and community focussed. Respondents feared that politicians "quick wins" may prevent investment in interventions with longer time horizons (Kingsnorth, 2013, p.70). This fear of public health struggling to make a case in light of short-term political expediency not dissimilar to the short-term pressures they faced in the health authorities. It could be argued that there is more transparency and democracy in the new situation: a move from the fire back into the frying pan. Kingsnorth found the skills identified to thrive within this more politicised setting and build public health partnership resonated with descriptions of network management: *"act as mediator, process manager and network builder, guiding interaction between parties and using persuasion and motivation to develop opportunities for joint work"* (Kickert et al, 1997; Ferlie et al, 2010 cited in Kingsnorth, 2013).

As stated earlier the literature presented above acts as a backdrop to the study and was also part of the early theorising. The literature focuses on the type, and nature

of evidence use within decision-making in English local government. It begins to identify some of the dilemmas faced by transferred public health staff within this culture; it identifies that there is a different *'culture of evidence'* for non-health decision makers compared to health decision makers and that this culture is not yet well understood (Lorenc et al., 2014). There is also little study on the agency of officers within these processes and in particular public health officers. This study will contribute to addressing these gaps. There is a limited literature on the use of NICE guidelines by non-health decision makers. It is argued there is a specific gap in our understanding of the new implementation context i.e. examination of political-bureaucratic relationships and how this context might offer generative explanation in terms of outcome patterns in the use of guidelines. Moreover, explanations arising from the examination of political-bureaucratic relationships, will offer insight as to officers navigate decision-making processes and use evidence within these processes. For example, is evidence deployed within a tactical model which as prove of responsiveness to citizens or to deflect criticism (Weiss, 1979).

Chapter 2 builds on this chapter by framing the empirical problem and setting out how the realist inquiry was operationalised. It outlines the stages within this configuring review and explains the logic underpinning realist review.

Chapter 2: Methods – operationalising scientific realism

This thesis examines how NICE public health guidelines are viewed and used by local government officers after publication. As stated earlier its objective were: to generate potential candidate theories, to prioritise these candidate programme theories, and to refine and test these theories. The key tenets of realism (and in particular scientific realism) are set out in the introduction. This study is not an interventional study. Rather it aims to be scholarship of integration (Golding, 2017) utilising a realist review design (Pawson, 2006).

A realist stance holds clear implications for what we can know about reality and how we are able to know it. This chapter focuses on the design implications of realist ideas such as generative causation, a stratified and emergent ontology, the importance of theoretical explanation and levels of abstraction. In particular the chapter sets out how the various aspects of the study design together enabled exploration of the culture of decision-making in English local government and unearthing of hidden mechanisms. The whole study aimed to detect causal mechanisms and explanations of the observed outcome patterns of NICE guideline use within local government. The strengths and limitations of the study design are set out in the final chapter. Additionally, the study was conducted by an embedded doctoral student and therefore filtered through several relative positions: academic, policy maker, commissioner, former NHS manager, transferred public health specialist and local government officer. The implications of these differing filters are identified throughout this chapter and further examined within the discussion chapter. This methods chapter focuses on the knotty issue of operationalising scientific realism and deploys a Generate, Explore and Test structure (Gough et al., 2012):

- Section 1: Generation of Theory
- Section 2: Exploring and Testing Theory

This structure is used to aid clarity. Activities undertaken within each section are presented as though they were chronologically linear and separate activities. However, in reality the boundaries between activities are semi-permeable and realist research is an iterative process perhaps best characterised by a 'to-ing and fro-ing' between evidence sources (Hampshaw, 2016). In this inquiry, the 'to and fro' was between the formal settings of professional libraries, the committee rooms and corridors of the local authority, and informal sources of evidence via the local government/ public health commentariat. It is important to note, that section 1 includes activities to both surface and articulate theory and to prioritise theories for inclusion in the review. Section 2 includes activity and methods undertaken to explore and test theory by reviewing empirical studies and using case site data from three councils within Yorkshire and the Humber. This methods chapter begins with an overview of the study design; goes on to describe the technical sequence utilised and finally sets out the ethical implications of operating the study from an axiological and practical perspective.

As stated earlier, there is a gap in the understanding of the reasoning of local government officers in their use, or not of NICE guidelines within local government. Five years have passed since the Health and Social Care Act which transformed public health decision-making infra-structures (Great Britain, 2012). NICE issued its first public health guideline in 2006 and have published 67 public health guidelines, 41 of these have been published or updated since 1st April 2013, the date the Health and

Social Care Act was enacted in law. NICE itself has little data on their impact within this new decision-making setting (NICE Implementation Consultant, 2019).

Realist inquiry is theory driven and seeks causal explanation, in this case, causal understanding of how local government officers respond to NICE Public Health guidelines within the culture of local authority decision-making. Within realist inquiry, and specifically within a realist review, candidate initial theories need to be surfaced, hypothesised, tested and refined to produce causal explanations of the mid-range. Emmel (2013) describes these initial insights as '*feeble*' in that preliminary ideas derive from the researcher's sense of the area of study, creativity and scholarly enterprise. Through realist study these feeble theories are 'confronted with evidence' (Greenhalgh, 2016) and become fragile theories recognising that all knowledge is partial.

The logic underpinning realist review differs from other meta-analytical approaches or conventional systematic reviews in that the unit of analysis is programme theory and so evidence is sought to test, refute and refine such theories. To develop such ideas requires that a researcher employs a reductive approach, by dipping in the literature to seek clues and, above all, to focus on conceptual thickness of the reviewed literature and avoid excluding items on the grounds of methodological quality (Pawson, 2006). This approach is iterative and less protocol-driven than for a systematic review, nevertheless, within this study clear stages (albeit semi-permeable in nature), and activities within these stages, were undertaken. Evidence in realist syntheses also differs in that it can be included from omnifarious sources (both secondary and primary). A realist synthesis cannot, by its nature, be comprehensive

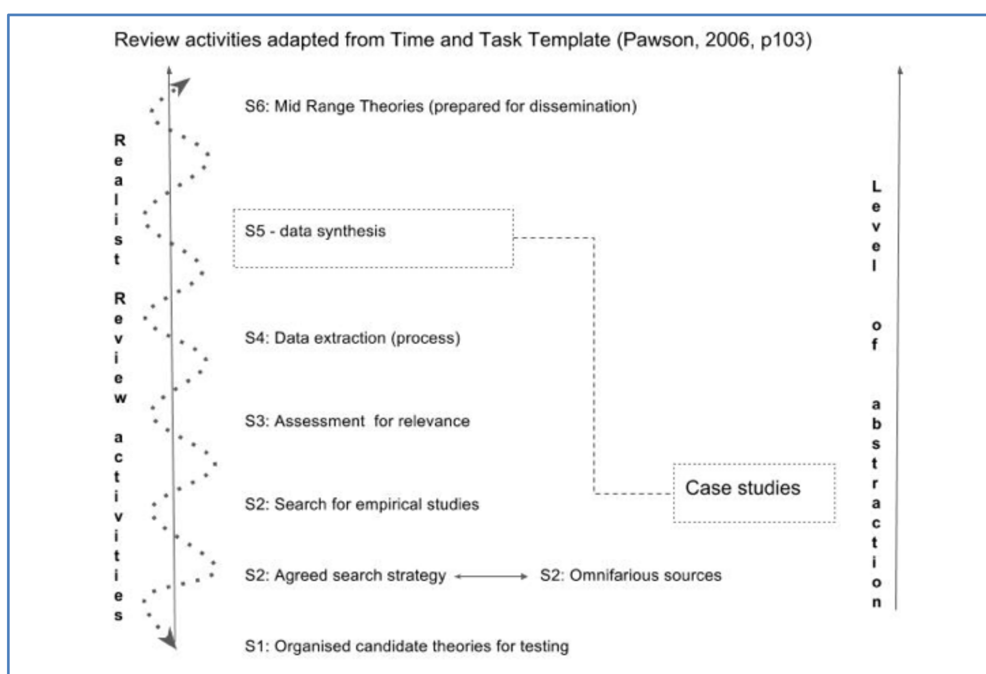
and uses *'a more creative, intuitive and iterative process'* (Booth et al., 2013) to identify rich evidence.

Pawson (2006) argues that a conventional systematic review attempts to accumulate scientific research, to take stock. It also reproduces the standard steps of rigorous primary analysis and adheres to review protocols. This process inevitably means that conceptually thick information is filtered out in the pursuit of statistical averages; complex programmes are rendered as simple interventions. The theories and ideas underpinning programme design; how participants reason is of little interest to the review team and as a result the findings are of limited use (Pawson, 2006). Conventional review methods are limited in terms of synthesising evidence available in the social policy arena. Data on 'what has worked, and why' tends to be found in the grey literature or take the form of process evaluations. Such evidence would not meet quality inclusion criteria within a conventional systematic review. In addition, policy interventions operate in an open and complex system that cannot be controlled for and so the gold standard trial becomes largely irrelevant in this context. Nevertheless, available evidence from diverse sources can provide rich insight into how a policy may or may not have worked, and for whom, and in what circumstances. Within a realist review *'all manner of evidence is synthesised without methodological melodrama using the simple device of using the data to interrogate a carefully articulated theory'* (Pawson, 2006, p.17). A realist review then, can surface and articulate (Pawson, 2002) an understanding of how NICE guidance is received by officers and identify the context, mechanisms and outcomes at play. Testing the configurations of these context, mechanisms and outcomes can provide insight that is useful to policy makers. The

programme theory is inevitably shaped and constructed by the researchers - an acknowledged study limitation (see page 206).

As stated earlier, a realist review need not follow a rigid protocol. Instead, the synthesis is iterative and creative. It is, however, helpful to follow a technical sequence and to utilise guidance (see for example The RAMESES Project, 2013b; Booth et al., 2018). This study specifically followed the stages outlined in Diagram 3 below which was itself adapted from Pawson's (2006) Time and Task template. The adaption attempts to show the iterative process of the review activities and highlights the increasingly abstract products of the review. It also captures the intended use of collecting 'authentic', primary data from stakeholders alongside the published literature (Booth et al., 2018, p.149). An attempt has been made to match the ontological stance of this study to its epistemology. Specifically, the collection of primary data used a realist sampling strategy and utilised 'teaching-learning cycles' to keep theory central to data collection (Emmel, 2013; Mukumbang et al., 2019). Pawson also argues that a realist synthesis involves more than following the tasks against time outlined in his template i.e. simply following the logic, but that it is also a question of '*fashioning the very text of the review in terms of that logic*'(2006, p.104). The extent to which this review has embraced this idea will be judged by the reader and discussed in the final chapter.

Diagram 3: review activities



The detail of how this technical sequence was operationalised can be found below. As stated earlier, this is separated into two parts: activity to generate theory and activity to explore and test theory. Pawson's time and task template sets out issues to be addressed at each stage of the process. The stages within the diagram have been used as sub-headings throughout this thesis. Stage 1 for Pawson is identifying the review question, this has been slightly adapted on Diagram 3 which starts with organised theories for testing. Pawson identifies this as a final task within Stage 1. In this study, organising candidate theories was viewed as the beginning of the technical sequence necessary to undertake a methodical realist review. Within this inquiry activities to surface initial rough theory or hunches followed an iterative, creative, zig zagging path and was effectively a precursor to the technical sequence illustrated above. These theory elicitation activities are outlined immediately below.

Generation of Theory

The development of the study's initial rough theories or as used throughout this study 'hunches' followed advice from the RAMESES training materials (The RAMESES Project, 2013b). The term hunch was preferred as it neatly sums up the idea of an initial theory emerging from thinking about a subject and also, it is argued, works well as a communication device avoiding the potentially off-putting term theory. There may well be as Lewin (1943) asserts *'nothing as practical as a good theory'* but in the policy world Lindblom(1959) identified that policy makers are less enamoured with theory. This study has consistently sought to convey ideas around theory using accessible language such as hunches. The use of, and usefulness of, such terms as foray or hunch also emerged through time as they were tested in different contexts. The success or otherwise of this approach is discussed in the final chapter.

A key concept within both realist synthesis and realist evaluation is the importance of theorising and specifically the *'surfacing and articulation'* of programme theory. Pawson (2006) postulates that programmes are theories about how to change behaviour. This study began by considering how, and indeed if, the publication of NICE guidance directed at local government would result in a behaviour change i.e. the transfer of research knowledge into policy and practice. This useful starting point led to numerous questions and required additional conceptualisations. As Sayer (2000) argues, asking realist questions requires us to *'sharpen conceptualisations'* and this is fundamental to theorising within social science. This inquiry then began to articulate possible hunches i.e. *'whatever it is that the question is investigating and how it is expected to work"* (The RAMESES Project, 2013b, p.12).

This process was underpinned by the intellectual theory work outlined in the background section of the introduction.

Activity to elicit theory consisted of several elements:

1. the mapping exercises which acted as launch points for forays into the literature;
2. documentary analysis of NICE Medicines Management guidelines;
3. design and delivery of two workshops;
4. and finally, reflection and on-going discussion within supervision.

The last 3 activities are summarised in Table 1. Key observations - recorded using both diagramming and reflective notes - were used to inform programme theories. Each of these elements contributed to the initial hunches or rough theories and were the product of intuition and creativity. This creativity, it is argued, contributes to the definition of retroduction; a concept from critical realism defined as reasoning why things happen (Olsen, 2007) and which speaks to the idea of *'going back from, below or behind observed patterns or regularities to discover what produces them'* (Sayer, 2000). Jagosh (2013) uses the idea of theory inspired by evidence. The crux is that these hunches were developed as a result of the process of retroduction; required thought and knowledge of the concepts as well as, to put it plainly, an investigative curiosity akin to detection. Specifically, they made explicit the experiential and tacit knowledge acquired over time working in public health practice and the increased exposure to realist methods via reading, attending and presenting preliminary ideas at realist conferences (Hampshaw, 2015, 2016a, 2016b; Hampshaw et al., 2016).

Table 1: theory elicitation activities

	Activity	Learning from this activity	Contribution to programme theory
Medicines management guidance	To develop hunches preliminary work was carried out using the NICE guidance on medicines management (NICE, 2014). This guidance holds recommendations for various organisations within health and social care and was thus selected for the exercise. In addition, this guidance was under consideration by the researcher's organisation offering an opportunity to observe and reflect upon this process. Time spent reviewing this guidance was aimed at understanding what features of the guidance itself might have caused the officer to reason that the guidance should be considered. (see Annexe 2: Toward hunches on page 230 for the resulting list of possible hunches).	It was helpful to think of the guidance as a piece of knowledge or resource which has the potential to be used by local government officers within their policy work. Therefore, in this preliminary work, the guidance itself is a resource; the outcome is *'put into policy'* and the possible reasoning (for example, officer perceives the guidance as authoritative), elicited via the exercise, become possible mechanisms which may trigger in the context of local government decision-making. This exercise also confirmed that the disaggregation of possible mechanisms into reasoning and resource as advocated by Dalkin et al was relevant and helpful within this inquiry (2015).	This exercise involved initial annotating the NICE guidance on medicines management e.g. legal, formal language of compliance. From this a list of possible hunches was developed and specifically this activity contributed towards programme theory on the guidance itself (its authority (source, legal basis, epistemology), voice, language, content (detail, practical, recommendations etc). This was examined within the Delphi utilising Lavis' (2003, 2012) framework on transferring knowledge.
What Works workshops	Development and delivery of a series of 'What Works' workshops to officers within her local authority. The aim of the workshops was to introduce the What Works Network (Great Britain. Cabinet Office., 2014) and some of the underpinning ideas (Breckon and Dodson, 2016); support participants to access one or more of the evidences centres and test out its usefulness for decision makers.	Observation of these sessions reinforced the need to briefly access literature around the use of evidence in local government (see page 17). For example, participants expressed concerns that the Knowledge published by the networks was not relevant to local practice, ways of doing things. Others expressed concerns around the time needed to access the Knowledge. All possible causal mechanisms.	These sessions contributed to programme theory in terms of an emerging hunch /set of hunches related to how evidence is valued in local government. Specifically, insight on the importance of local knowledge and practice and the beginnings of a recognition of the importance of the uniqueness of a place.

	Activity	Learning from this activity	Contribution to programme theory
Brief literature review and supervisory workshop	Three brief areas of literature were accessed as they appeared pertinent and likely to uncover or suggest possible theory. These three areas were programme architecture to possibly uncover programme theory around the What Works Network (Puttick, 2012; Alliance for Useful Evidence, 2014; Great Britain. Cabinet Office., 2014); literature on the nature of evidence in a local authority setting (Mortimer, 2014; Allen et al., 2014; Pawson et al., 2003); and finally papers on the evaluation of the implementation of NICE guidance in a social care setting (Barrett, 2009; Long et al., 2006).	Each member of the supervisory team read the papers and was asked to identify possible programme theories for discussion. The possible theories and brief discussion were collated (see Annexe 3: Hunches arising from supervisory workshop) It should be noted that the majority of these papers were not reports of high-quality evaluations rather they are reports of surveys, descriptive evaluations or theoretical papers. However, they are considered conceptually rich and therefore useful in directing decisions in terms of focussing the study. For example, papers on a NICE for social care offered useful background or sensitisation to the issues but proved less relevant to the future focus.	This activity supported programme theory development by collectively identifying possible hunches in terms of how evidence is valued beyond the NHS.
Process of reflection.	The final step was a series of formal reflections: as part of peer review processes, within local authority public health senior team, as part of completed Leadership programme, within supervision, correspondence within NICE (Kelly, 2015), as a result of preparing slides sets for example Cooke and Hampshaw (2015) and personal reflections on the transition and metamorphosis from NHS public health specialist to local government officer.	See Reflecting on the inquiry beginning on page 218.	This reflection was on-going and contributed to theory building by unearthing e.g. possible mechanisms on the reasoning and agency of local government officers.

Stage 1: organised theories for testing

Within his time and task template Pawson (2006) labels stage 1 as 'identifying the review question' and suggests three key aspects to the stage: map key programme theories, prioritise key theories for investigation and formalise mode of subset of hypotheses to be tested. It is argued that the key programme theories were mapped within the work outlined above and were then prioritised and formally hypothesised as described below. This section aims to aid transparency within this inquiry (The RAMESES Project, 2013a) by describing the process of moving from feeble to fragile theory (Emmel, 2013). The findings from this stage in the form of the selected theories to pursue are set on page 90.

The hunches identified were then organised into one of three explanatory categories:

1. The culture of decision-making
2. How evidence is valued, sought and deployed by local government
3. The guidance itself

Within these three key areas there were numerous sub-hunches, or lines of inquiry, it was clearly not possible to examine each sub-hunch within the resources of this study. Pineualt et al (2010) highlight the importance of incorporating expert opinion and decision makers' viewpoints. Within this inquiry, stakeholder views were incorporated using a Delphi panel to check the theoretical relevance of the hunches. This meets the key ethical consideration of implementation research of involving stakeholders in determining whether an area for investigation is indeed a 'real world' priority before undertaking such research(Gopichandran et al., 2016).

The Delphi method was developed by the RAND Corporation in the 1950s to synthesise expert opinion. Since this time, modified versions of the method have been widely used in the health sector (Murphy et al., 1998). The technique itself has been described as an *'iterative multistage process designed to combine opinion into group consensus'* (Hasson et al., 2000, p.1008). In practice, the Delphi technique is a structured process that uses a series of questionnaires or 'rounds' to gather information. After each questionnaire round the results are analysed, a new questionnaire developed and this, together with summary data from the previous round, is sent back to the panel. The rounds are continued until 'group' consensus is reached. Level of consensus has been agreed at the start of the study. One of the main reasons Delphi techniques have proved useful is the ability to anonymously include informed individuals (Hasson et al., 2000) across diverse locations and from diverse professional, or other relevant, backgrounds. Other participative methods which involve multiple stakeholders in face-to-face interactions risk producing consensus that perhaps reflects either positional power within the group or an individual's ability to make a good case for their stance on an item (Van Urk et al., 2015; McVeigh et al., 2016). It is argued that the potential influence of positional power is particularly acute within this study and therefore face-to-face interaction was rejected.

Delphi methods have been used in realist research for stakeholder engagement on, for example, programme theory specification (Van Urk et al., 2015) or to seek opinions of expert stakeholders on the findings of a realist synthesis (McVeigh et al., 2016). Van Urk et al (2015) identify two particular advantages of Delphi methods within their programme theory specification. These are, first, the process of feedback from the first round allows careful reconsideration of the previously outlined view. Second,

the aggregated responses produce an auditable trail which aids transparency within the process of theorizing. This is important within this inquiry because the Delphi will identify whether the initial hunches couched as If Then statements are viewed by stakeholders as potentially explanatory. In other words, the researcher-articulated hunches arising, from the activities described above, can, if supported, be converted into a realist programme theory as required within the RAMESES realist quality standards (The RAMESES Project, 2013a). The reporting of the method and findings of this Delphi study follow, where relevant, reporting standards developed by Jünger et al (2017). In terms of methods Jünger advocate reporting within the following structure: justification of the Delphi technique and any modifications; definition of consensus; study conduct and description of methods.

Justification of Delphi technique

A modified Delphi exercise was used because it allows consensus to be sought on whether the researcher-articulated hunches (and related explanations) were relevant to the stakeholder, within their context, and therefore merit further exploration. It would help clarify whether the hunches were theoretically relevant and, in the free text responses to questions or where there was a lack of consensus, help to modify hunches, or hint at where other hunches may lie. Jünger et al (2017) argue that (non) consensus can provide informative insights and highlight differences in perspectives concerning the topic in question. This can be particularly helpful within a realist inquiry which seeks to test whether a programme theory holds. In summary, the Delphi method was implemented because it first verified whether the hunches were relevant and second signposted possible scenarios within which theories may collapse. This proved helpful during the fieldwork.

Definition of Consensus

It is considered good practice in Delphi to use a priori criterion for consensus (Jünger et al., 2017; Hasson et al., 2000; Keeney et al., 2006). There is no standard as to what constitutes percentage consensus: the literature suggests 75% agreement amongst respondents (Hasson et al., 2000). This Delphi aimed to reach a consensus on which hunches or explanatory categories would be pursued in the next phase of research. It was decided that a survey item reached consensus when the aggregated score for extremely relevant and very relevant reached 75% and over, with a median of 1-2. This definition of consensus would apply to each round of the Delphi study.

Study conduct

The survey materials (see Annexes 4 and 5) were piloted, with local government officers, for ease of use, accessibility (as it would be administered on-line) and clarity of task description. The potential for bias was minimised by checking during piloting that each hunch was explained clearly, thus avoiding indirectly influencing respondents (Jünger et al., 2017). As a result of the pilot, the decision was made to avoid the use of the terms 'theory' and 'theory set'. Panel members could thus participate without needing to be steeped in realist idiom. Ethical approval for the Delphi was sought and gained from the University of Sheffield (Reference number: 008676).

Given the importance of the Delphi to theorising it was essential to recruit experts who understand both the purpose of guidelines and the new implementation context. Consensus was sought from stakeholders from a variety of disciplines and organisational seniority (Hasson et al., 2000). Individuals were included for their

specific knowledge, expertise or experience on the subject, in this case, use or non-use of NICE guidelines within English local government. No universally agreed criteria exist for the selection of experts (Keeney et al., 2006). Panel members were drawn from the 'two communities' (Caplan, 1979) of knowledge producers, i.e. involved in the development of NICE guidance in some way, and knowledge users, i.e. decision makers in local government. In terms of sample size, Delphi studies do not depend on statistical power rather they the use group dynamics to achieve a consensus and so the literature suggests 18-20 experts is appropriate (Okoli and Pawloswski, 2004). See Table 2 below.

Table 2: experts completing the Delphi panel

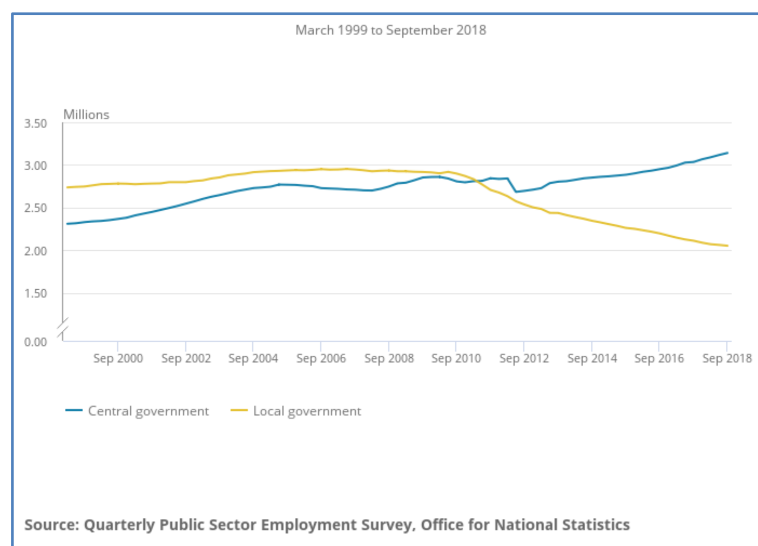
	Round 1	Round 2
Local government	17	9
NICE	8	4
Unknown[10]		4
Total	25	17

Between rounds 1 and 2, eight individuals dropped out of the study: some simply moved out of local government or out of their roles. This was disappointing but is not dissimilar to other Delphi studies (Hampshaw et al., 2018). This reflects the ONS public sector employment data which suggests a decline in local government employment (Office of National Statistics, 2018) (see Diagram 4 below). The recent King's Fund assessment of the public health reforms identifies significant loss of staff following the transfer (2020). The dropout rate also reflects the issue of attrition found within Delphi studies (Hasson et al., 2000). Nevertheless, consensus opinion across 17

[10] Respondent did not include their email address in the second consensus.

experts was considered sufficient. When respondents were initially recruited, it was intended that there would be a further Delphi round at the end of the review to validate the refined theories. This dropout rate, although not problematic in terms of achieving consensus on theoretical relevance, did mean that it was unlikely that the panel would be intact at the end of the review (some 2 years later). Details of how the review was validated are outlined in Stage 6: preparation of theories for dissemination of the adapted Pawson's (2006, p.103) Time and Task template (see page 84).

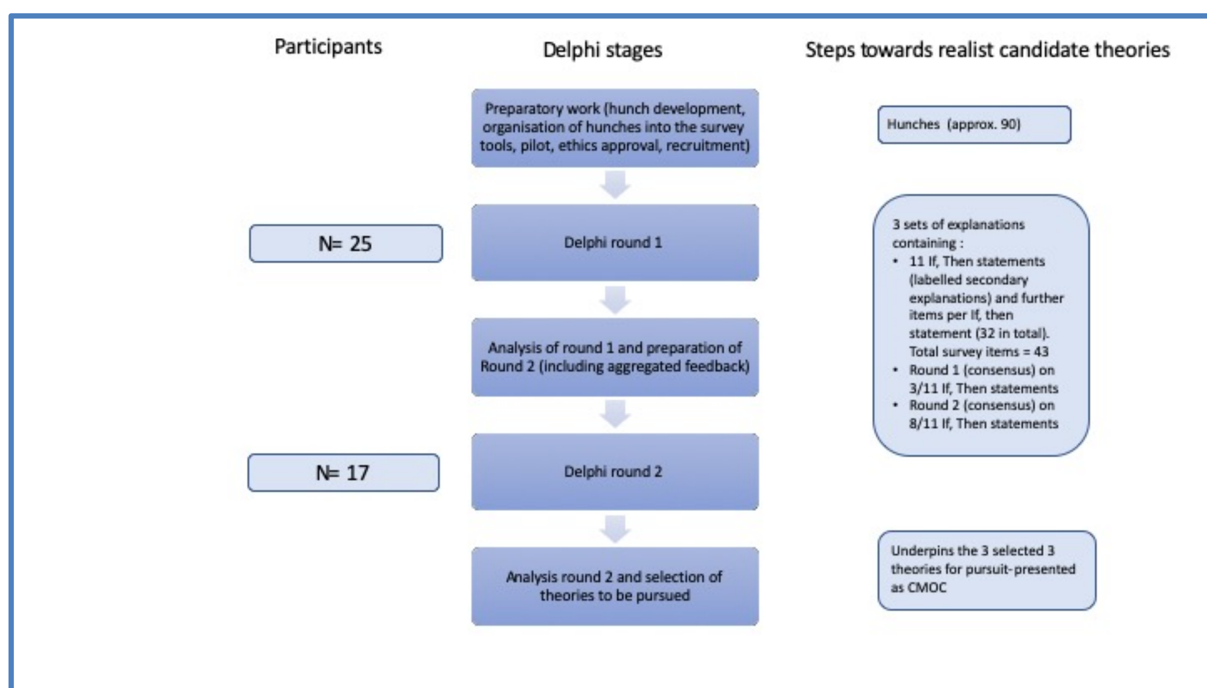
Diagram 4: UK public sector employment in local and central government



Methods

Developing consensus studies requires decisions about number of rounds; enhancing the response rate; expertise criteria; time frame; approach to analysis and what constitutes consensus (Hasson et al., 2000; Keeney et al., 2006). Some of these decisions are described above. Diagram 5 below illustrates the different stages of the Delphi; it set out the number of participants and also outlines the contribution of the Delphi findings towards converting the hunches into realist programme theory (The RAMESES Project, 2013a).

Diagram 5: flow of participants and theory steps within the study



In terms of number of rounds, it was recognised that the administration and return of a Delphi survey can be time consuming and turnaround for each round can take up to 9 weeks (Keeney et al., 2006; Van Urk et al., 2015). For practical reasons, two rounds of questionnaire administration were employed. The panel of experts was dominated by busy professionals with an interest in the area but nevertheless fewer rounds (alongside efficient administration and the nurturing of relationships) aimed to ensure against survey fatigue (Keeney et al., 2006). In a classic Delphi study, round one is often qualitative in nature; to generate ideas and allows more freedom of response. Van Urk et al used a qualitative first round in their demonstration of Delphi as a technique to uncover programme theory in their evaluation of Study Schools (Van Urk et al., 2015). This was not considered necessary in this study as the work to uncover initial hunches along with the piloting of the questionnaire was deemed to replace the qualitative round (preparatory stage on Diagram 5 above).

Panel members were presented with a series of 'hunches' which may explain what happens to NICE guidance in local government. It was explained that these hunches had been developed by the researcher as a result of initial literature forays and her embedded role within local government. Although the essence of scientific realism is to use the *'ugly circumlocution'* of the CMO configuration (Pawson, 2013, p.21),within the Delphi, the hunches were presented in an *'ordinary language version'* (Pawson, 2019b) i.e. in a sentence format using the heuristic If, Then employed by Pearson et al (2015). Tilley used full sentences to identify the numerous, diverse mechanisms and variety of contexts whereby CCTV may impact on car crime (Tilley, 1993). This approach is further endorsed by Robson who argues that the research effort can be focussed by using intimate knowledge of a situation to produce a *'set of proposals for the mechanisms and contexts likely to be relevant'* (2002, p.37). The If, Then heuristic was particularly helpful in the early stages as it allowed description of what might be happening without the need to definitively label elements as outcome, context or mechanism. The intent of the Delphi was to ensure theoretical relevance as opposed to uncovering mechanisms. Deciding whether something is context, mechanism or outcome produces much debate in the realist literature and so such decisions were initially avoided (Westhorp, 2013; Salter and Kothari, 2014).

The If, Then formulation was deemed readily accessible to members of the Delphi Panel and this was confirmed during piloting of the survey instrument. The use of If, Then statements needed to be explained to panel members and Diagram 6 outlines how this happened.

Diagram 6: extract from Delphi 1 explaining the purpose of the If, Then statement

Extract from example of an IF, THEN statement

'IF, the weather forecast suggests that the sun will shine tomorrow THEN, I will put sunscreen on before leaving the house'

Each statement represents a scenario and your task is simply to judge whether your feel that the statement offers a likely explanation. For the purposes of this study, we ask you to reflect on why you reasoned in that way. In the example above, you would need to reason that the weather forecast is a possible relevant explanation for people putting on sunscreen. You will be given an opportunity to explain your thinking or reasoning, for example, you may reason that the weather forecast has some relevance but other reasons are likely to apply such as the availability of sunscreen etc.

The IF, THEN statements are designed to help you to identify what may be happening and to reflect upon your "hidden reasoning". Collectively, your responses will help us to determine which of the hunches need to be pursued.

Each section followed a similar structure beginning with a brief overview of the explanatory category, for example, culture of decision making followed by If, Then statements (or secondary explanations) to be assessed. Panel members could explain their reasoning in a free text box. Finally, factors that may influence the If, Then statement were listed. Each of these hunches was also rated for explanatory relevance. The structure is outlined in Diagram 7.

Diagram 7: extract from Delphi 1 illustrating the structure

12) IF NICE guidance is released into a 'more political' context than the NHS THEN local government will need to see the value of the guidance in terms of making a political decision.
Mark only one oval.

	1	2	3	4	5	
Extremely relevant	◯	◯	◯	◯	◯	Irrelevant

13) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

14) Several factors may influence whether the NICE guidance has value in a 'politicised context': *
Mark only one oval per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
guidance sets out politically palatable actions	◯	◯	◯	◯	◯	◯
guidance is applicable in the local policy scenario	◯	◯	◯	◯	◯	◯
guidance reflects local governments Powers and Duties	◯	◯	◯	◯	◯	◯
guidance includes an economic case	◯	◯	◯	◯	◯	◯

Data from Round 1 was analysed using the agreed consensus criteria. The answers to the open questions were analysed and categorised. The round 2 Delphi survey contained a brief summary of the findings from the first, together with an opportunity to comment further. The remainder of the second survey revisited the secondary explanations where consensus had been lacking in the first round. Panel members were sent copies of their own response together with extensive summaries of the panel responses (see Diagram 8 for example text). This followed the approach used by Van Urk et al (2015). Panellists were then asked to score these items again in

terms of explanatory relevance and this resulted in consensus in several additional areas.

Diagram 8: extract from Delphi 2

Decision making is characterised by the 'art of muddling through'

Studies of decision making in local government suggest that it is complex and subject to financial, legal and political constraints. One way of looking at this was first described by Lindblom in the 1950s as 'muddling through.' The 'muddling through' idea is that, in reality, decision making is focussed on building out from the current situation , step by step by small degrees - and seeks/uses 'evidence' which supports this incremental approach.

The panel were asked 'IF NICE guidance is released into a 'muddling through' context THEN local government will need to see the value of the guidance to support decision making'.

RESULTS:
72% of the panel said this was 'extremely relevant' or 'very relevant.' Comments from panel members are listed below:

"NICE guidance may not be as specific as it needs to be if decision makers are focussed on their own current situation. This is often because of the lack of specificity in the evidence base and the need to make recommendations in a national context"

"If guidance is released into a muddling through context it has to be seen as valuable or it will be ignored. However, other political factors and monetary factors also will impact whether the guidance is used, also people often are looking for something to support the decision already made."

These comments illustrate responses where the hunch was seen as 'somewhat relevant' or 'irrelevant':

"I don't think that guidance needs to be released in any way that that even acknowledges the local authority processes. NICE guidance is evidence for best practice and specifying good quality services.' Commissioners in the local authority will, or should, seek to use the evidence as it is, and will fit it into their 'muddling through' processes rather seek the expectation that the guidance should reflect the processes of the council"

"Often NICE guidance may not be influencing the decision making process in terms of 'policy' - the what, but may be used to influence the implementation - i.e. the how, - which may not be a political issue at all, more an interpretation issue - which may affect structural issues like staffing and delivery"

3. **We would like you to consider the aggregated scores and score the 'muddling through' hunch for a second time.**
   Mark only one oval.

	1	2	3	4	5	
Extremely relevant	○	○	○	○	○	Irrelevant

Exploring and testing theories

The Delphi exercise was used to support the organisation of theories to be explored and tested. Fuller details are of course within the findings. Three hypotheses were targeted; two on the nature of decision-making and one on the uniqueness of individual authorities. These hypotheses were tested by methodically reviewing the literature using theory-guided searches, data extraction and synthesis, and by primary data collection during fieldwork in 3 councils. The overall process of synthesising data is illustrated on page 70.

Stage 2: searching for primary studies

This review of empirical studies was not an intervention review, in the conventional sense, as publication of NICE guidelines is best described as passive dissemination. Rather this review explored contexts within which NICE public health guidelines have been released post 2013. This required integration of theory from stakeholders and formal theory from identified empirical studies (Astbury, 2018). The searching process within realist inquiry is theoretical and what constitutes searching and inclusion differs from a conventional review (Wong et al., 2012).

It is also important to distinguish between initial or background searching (Booth et al., 2018) and searching for empirical evidence. The initial searching is concerned with theory building and naturally follows an iterative approach which chases data across disciplines. Booth et al describe the purpose of this search as *'to get a 'feel' for the literature, to explore quantity and quality of literature and to define boundaries to scope; 'sizing up' subsequent review'* (2018, p.154). Within this inquiry, the 'preliminary range finding exercise' (Pawson, 2006 cited in Booth et al., 2018, p.155) was concerned with developing hunches and consisted of forays into the literature

(using earlier mapping activity see Diagram 1 for example) as the entry point alongside the intellectual work theory described earlier and the research team's personal libraries (Greenhalgh et al., 2014). This included team discussion as advocated by Booth el al (2018). These searches contributed to the construction of programme theories or explanatory hypotheses outlined in the findings section. As stated earlier, within this study this element of searching is reported out with the technical sequence of Pawson's time and task template. It was also characterised by the creative and iterative process described earlier. As Pawson contends there was a recognition that '*the final scope for your synthesis may move over time or that your efforts may focus on a particularly fruitful target*' (Pawson, 2006 cited in Booth et al., 2018, p.155).

The second type of searching targets empirical studies to test and refine theories i.e. to identify research literature to test initial programme theory (Booth et al., 2018). It is recognised that this process is more methodical and transparent (Wong et al., 2012) than other search processes. For this study, this meant letting go of the investigative forays and replacing them with theoretically driven targeted searches. There is guidance on how to document and report the realist search (Wong, et al., 2013) and quality standards for conducting realist syntheses (The RAMESES Project, 2013a). This review adheres to these quality standards and the reporting of this review has aimed to be transparent. The aim of transparency is to facilitate judgements on the quality and reproducibility of a review. Several approaches were used to support methodical searching and reporting. The strengths and limitations of these approaches are outlined within the discussion on page 211. First, came early recognition of the need to undertake separate theoretically guided searches to find relevant studies in several areas (see Diagram 9) and that each would require detailed

search strategies using search terms which represented key concepts identified in the development of the programme theories (Booth et al., 2018). Target areas of literature to be scoped were based on the background literature described earlier, which indicated where evidence might lie. They were also related to the identified hypotheses to be tested, developed as a result of this scoping of the literature, the Delphi and the perspective of an embedded researcher.

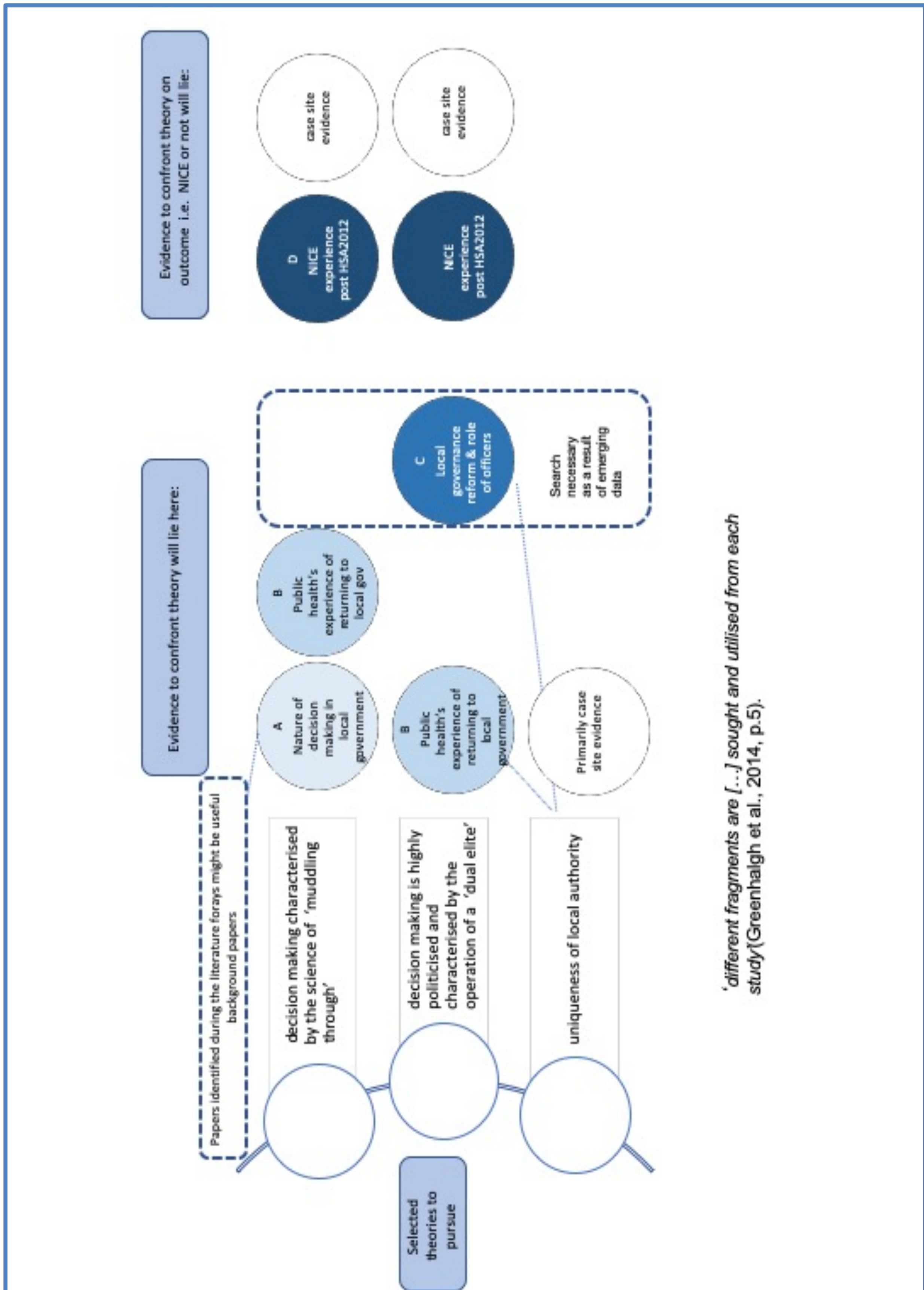
Such searches would not consist of a single multipurpose search but would instead be responsive to emerging findings (Booth et al., 2020). For example, the necessity to access policy analysis literature on the role and function of Overview and Scrutiny emerged.[11] Theory guided searching adopted here, although methodical, is inevitably iterative i.e. occurs throughout the review (in this case, throughout the time span of the PhD). For example, the need to access a database of UK parliamentary papers containing working documents of the UK governments from the 1800s to 2004 was identified from inspection of reference lists from identified papers. Recognition that accessing Acts and Command papers would hold explanatory value arose out of documents that were identified during time within the case sites. For example, a key select committee reports on the functioning of Scrutiny (Great Britain. Communities and Local Government Committee., 2017) was referred to by multiple interviewees in case site 3 and accessed via the Parliament UK website. A subsequent search of www.gov.uk sought the Government's response (Great Britain. Minstry of Housing and Local Communities, 2018). A known item search was conducted for the title of the

[11] Overview and Scrutiny committees were established as result of the Local Government Act 2000 and further provisions were made under the Localism Act, 2011. Their role as part of new executive governance arrangements was to ensure that members of an authority who were not part of the executive could hold the executive to account for the decisions and actions that affect their community (Great Britain. Minstry of Housing and Local Communities, 2019b).

report. In this example, the decision to access these reports on scrutiny arose from review of papers (Gains et al., 2005; Gains, 2009; Gains et al., 2009; John, 2014), primary data collection and the embedded lens of the researcher, in other words, this additional, iterative search arose from emerging findings (i.e. the logic of the search was realist). The nature of iterative searching may make documentation difficult and indeed may *'defy documentation completely'* (Finfgeld and Johnson, 2013 cited in Booth et al., 2018, p.163).

Second, records of search strategies have been kept throughout and set out in Table 3 below. This table includes details of the databases and grey literature sources, search strategies including search terms and limits. The findings of the separate searches are illustrated in Diagram 21 on page 106. Finally, a balance was struck between theoretical and comprehensive searching and notes were kept of decisions around sufficiency and saturation. As outlined above searching occurred throughout the study and was driven by emerging data (The RAMESES Project, 2013a).

Diagram 9: theories to be tested and identified evidence source



Overview of the search strategy

This section outlines key steps within the search strategy and expands on Diagram 9 above. At the left of the diagram, the three selected theories are listed; each of the circles indicates where evidence may lie within the academic literature i.e. the starting point for the theoretically guided searches. Presented within the diagram the search appears neat and tidy. In order to convey the iterative and temporal nature of searching it is important to note that one set of searches labelled C above emerged as the review progressed. Moreover, at the beginning of the reviewing process it was recognised that evidence for the uniqueness of an individual local authority lay within the proposed case sites rather than within databases of studies. As a result, no specific searches were undertaken focussing on the uniqueness of local government and the data extraction sheet did not include this candidate theory. However, the review of the empirical studies did reinforce and refine the concept of the uniqueness of individual authorities specifically within searches B and C (marked on the diagram using a dotted line). Additional searches focussed on the key outcome of this inquiry i.e. use of NICE guidelines or not in English local government. It was also recognised that papers identified during initial or background searching (Booth et al., 2018) on the use of evidence in local government might provide useful background in relation to guided search A. This is indicated by a line on diagram 9. In keeping with the realist method separate searches within relevant databases, including grey literature and personal libraries were conducted. Each of these individual searches could be said to meet realist quality standards in that they were driven by the objective and focus of the review and used a wide range of sources. Additionally, the searching deliberately undertook further searches as the inquiry progressed *'in light of greater*

understanding of the topic area' (The RAMESES Project, 2013a, p.5). The search strategies are set in Table 3 below which aims to give a sense of both iteration and timings of searches within the review.

A note on databases and grey sources

The search began with broad initial searches using comprehensive databases such as Web of Science and Scopus. Additionally, both Web of Science and Scopus enable cited reference searching and the ability to cross-search across diverse relevant citation indexed databases. For example, the Social Sciences Citation Index, Conference Proceeding Citation Index and Social Science and Humanities Index in the case of Web of Science. This supported both citation tracking and reference tracking to identify potentially useful articles as advocated within realist synthesis (The RAMESES Project, 2013b). All searches were supplemented by searches of the additional databases such as UK Parliament outlined above and by searches of grey sources and relevant websites. Importantly, strategies to interrogate these sources followed the organisation of the source itself, the Local Government Association's website has three relevant sections: publications, topics (public health) and case studies. In this case, each section was searched using selected search terms found in Table 3 below.

In addition to these sources, publications from research centres with an interest in local government, evidence-use or the transfer of the public health function were accessed. For example, outcomes of the work undertaken at Birmingham University on the 21st Century Public Servant. The study was informed by an awareness of relevant empirical work: for example, the Public Health in Local Authorities (PHiLA) study (Atkins et al., 2017; Kelly et al., 2017; Atkins et al., 2019) was initiated to examine

the new implementation context for NICE. Personal correspondence with Atkins (2014) and Kelly (2014, 2015) led to the sharing of additional grey documents such as slides sets arising from this study (Michie, 2014). Personal correspondence with Kneale following identification of work from the Eppi-Centre on evidence and public health (Kneale et al., 2017, 2018) led to accessing reports on the implementation landscape such as Kneale et al (2016).

List of grey sources and websites

- Parliamentary papers post 2004 http:/www.parliament.uk and http://www.legislation.gov.uk/
- Government department papers or reports www.gov.uk
- National Institute for Care Excellence (NICE) https://www.nice.org.uk/
- Local Government Association https://www.local.gov.uk/
- Kings Fund https://www.kingsfund.org.uk/
- Local Government Information Unit https://lgiu.org/
- Institute of Local Government Studies (INLOGOV), University of Birmingham https://www.birmingham.ac.uk/schools/government/departments/local-government-studies/index.aspx
- Collaboration's for Leadership in Applied Research and Care (CLAHRCs) with an interest in public health or local government
    - CLAHRC Yorkshire and Humber
    - CLAHRC North West Coast
    - CLAHRC South London
- National Institute Health Research School of Public Health Research https://sphr.nihr.ac.uk/
- Faculty of Public Health https://www.fph.org.uk/
- Association of Directors of Public Health https://www.adph.org.uk/

Table 3: theoretically guided searches

	Focus of theoretically guided search[12]	Timing within the review	Limits[13]	Search terms [14]	Databases
A	Nature of decision making in English local government	Early searches post agreement of theories to pursue (initial broad search)	title, abstract and key word searches, date limit >2012, English Language; UK affiliated country; exclude bio-clinical or agricultural categories	"decision making" AND "local government"	Scopus
				Scopus functionality citation tracking on above	
			title, limit >2012, English Language; UK affiliated country; Limit to subject areas: SOCI, BUSI, ECON, MEDI, ARTS, DECI, HEAL; exclude bio clinical, maths or agriculture.	"local admin*" OR "local govern*" OR "local government authority" OR "local authority" OR "local democracy" AND "decision making" OR "policy making" OR "policy analysis" OR "decision maker" OR "administrator" OR "policy maker" OR "local government officer" OR "commissioner" OR "planner" OR "politician" OR "councillor"	
			title, limit >2012, English Language; UK affiliated country; Limit to subject areas: SOCI, BUSI, ECON, MEDI, ARTS, DECI, HEAL; exclude bio clinical, maths or agriculture.	"local admin*" OR "local govern*" OR "local government authority" OR "local authority" OR "local democracy" AND "culture" AND "decision making"	
			title, abstract and key word searches, date limit >2012,	Phrase: "culture of decision making"	
			title, abstract and key word searches, date limit >2012,	"local admin*" OR "local govern*" OR "local government authority" OR "local authority" OR "local democracy" AND phrase "policy mak*"	

[12] Identified as likely source of evidence within Diagram 9

[13] Please note terms and limits were amended to meet the operation of individual databases where necessary. All searches included abstracts and titles. No limits were set for publication type and exclusion were not based on a hierarchy of evidence. Searches were limited to the English language. Exclusions were database specific such as excluding bio-clinical studies within Web of Science.

[14] The search terms used represented key concepts identified in the development of the programme theories (Booth et al., 2018) and were developed using synonym and antonym searches within https://www.powerthesaurus.org/ and Query strings were developed and combined using Boolean operators and the resulting hits were limited using fields available within the database.

	Focus of theoretically guided search[12]	Timing within the review	Limits[13]	Search terms [14]	Databases
		Early searches post agreement of theories to pursue and post Scopus search	Title search, abstract, key word; Timespan: 2012-2018. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.	Broad search on local government decision making using terms identified above	Web of Science
B	Public health's experience of returning to English local government	Early searches post agreement of theories to pursue	title, abstract and key word searches, date limit >2012, English Language; UK affiliated country; exclude bio-clinical or agricultural categories	"public health" AND "local government"	Scopus
				Scopus functionality citation tracking on above	
				"local admin*" OR "local government" OR "local govern*" OR "local authority" OR "local democracy" AND "preventative medicine" OR "public health service" OR "health protection" OR "public health"	
				Citation search on above	
		Early searches post agreement of theories to pursue	Title search, abstract, key word; Timespan: 2012-2018. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.	"public health" AND "local government"	Web of Science
			Topic search, abstract, key word; Timespan: 2012-2018. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.	"local govern*" OR "municipality" OR "local authority" or "local government agency" or "local democracy" or "local admin*" AND "public health" OR "preventative medicine" OR "health protection" or "epidemiology"	
C	Local governance reforms and role of officers	As a result of emerging data	No date limit	Specific searches on local reforms as a result of citation checking within papers identified in guided search A and as result of emerging data from the case site pilot work.	Scopus
			<2004	Several separate searches for specific titles	UK Parliament Database
S	NICE's experience post the Health and Social Care Act	Early searches post agreement of theories to pursue	Title, limit >2012, English Language; UK affiliated country; Limit to subject areas: SOCI, BUSI, ECON, MEDI, ARTS, DECI, HEAL; exclude bio clinical, maths or agriculture2013 onwards	"NICE guide*" OR "National Institute for Health and Care Excellence"	Scopus

	Focus of theoretically guided search[12]	Timing within the review	Limits[13]	Search terms [14]	Databases
				"local admin*" OR "local govern*" OR "local government authority" OR "local authority" OR "local democracy" AND "NICE guide*" OR "National Institute for Health and Care Excellence"	
		Early searches post agreement of theories to pursue and post Scopus search	Title search, abstract, key word; Timespan: 2012-2018. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.	Broad search on NICE making using terms identified above	Web of Science
		As a result of emerging data	2013 onwards	Source specific searches using local government (synonyms thereof) AND NICE (and variations thereof)	Other sources
		As a result of emerging data	>2013; filters: shared learning	“authority”	NICE Shared Learning Database

Stage 3 and 4: assessment for relevance and data extraction

Greenhalgh et al (2014) argue that quality assurance and data extraction are combined in realist synthesis. It has already been stated that diverse data sources may produce evidence relevant for the synthesis. Inclusion in the synthesis should be based on relevance to the review focus and be theoretically driven. Inclusion based on privileging for example an RCT is considered inadequate practice (Booth et al., 2018). Moreover, in this topic area there are no RCTs available. Decisions on inclusion are not based on study rigour as familiar to systematic reviewers. Rather, decisions around inclusion of a text are based on an assessment of relevance to the primary inquiry, assessment of the rigour of primary data to test the theory (The RAMESES Project, 2013b). Greenhalgh et al (2014) identifies that assessment of rigour occurs alongside study relevance and that quality appraisal occurs on a case-by-case basis. The criteria used for inclusion were based on the source, its impartiality, underlying approach to data collection, and relevance to the synthesis (The RAMESES Project, 2013b). Relevance decisions were two-fold based on the theoretical relevance to explanation of theory and explanation of contexts, mechanisms, outcomes. It is recognised that *'different fragments are [...] sought and utilised from each study'* (Greenhalgh et al., 2014, p.5). The results of the searches and decisions regarding inclusion are contained in a flow diagram of studies included in the review (See Diagram 21).

In terms of data extraction, all papers included in the study were read and data were extracted using a data extraction sheet. Ultimately, data extraction is '*confrontation of theory with evidence'* (Pawson, 2006). Data was extracted using the form which can be found in Annexe 6: Data Extraction Sheet and was itself an iteration.

The initial version was piloted using 3 studies: one from the search set on the return of public health to local government (Marks et al., 2015); one from the nature of decision making in local government (Wesselink and Gouldson, 2014) and one on the experience of NICE in local government (Atkins et al., 2017). Initially evidence was extracted from the text and labelled, context, mechanism or outcome on the extraction form. In addition, there was space on the form to comment or theorise on aspects of the evidence. Diagram 10 below illustrates the initial approach which resulted in large passages being extracted.

Diagram 10: extract from initial data extraction sheet

Evidence experiential evidence/comment	Within the abstract (p1194) *'accountability to the local electorate'* is identified as a key result *'Local authorities are democratically accountable to the local population: this was identified as a key factor in decision-making and underlined how priority-setting differed from a centralised NHS.' (p1198)*	Internal C2 M (resources) democratic governance *M (LGO reasoning) professional values*
	Authors argue that PH transfer opportunity to address structural /social determinants of health; shift away from lifestyle/individual focus (p1195)	External context M (resources) democratic governance
	Paper identifies the importance of health and wellbeing boards and the use of HWBB strategies supported by JSNAs (p1195)	M(resources) statutory committee/committee structure M(resources) JSNA/HWBB strategy
	LG viewed as autonomous organisations with freedoms under legislation e.g. 2012 Local Government Finance Act (p1198). As a result, there is scope to set priorities in line with corporate values	M (resources) powers & duties C2 (joint elite)
	Priority settings emerged from debate and 'collective intelligence of the group' *"We have big forums where we debate things and try and harness the collective intelligence of the group, and out of that will come a set of priorities' p 1200*	M (resources) structure of committees *M (LGO response) recognising the need and skill to make a case*
	PH grant transfer effectively mandated programmes which reflect down stream PH spending; transfer is an opportunity for upstream and this can lead to potential conflict re spend. Example given politicians may be reluctant to spend on something perceived as clinical (e.g weight management) and symptom driven rather than preventative (food work; healthy eating etc) P. 1200. *politicians may support the later philosophy - issue may be if service cut in their patch(geog, portfolio) or impact on their constituents (surgeries, in street) - councillors much closer to their constituents.*	*M (response) to conflict - ethics and values; philosophy of public health practice* External context (impact of transfer for Public Health as a profession; public health tribe)

Data extracted during this pilot were reviewed within the supervision team and a decision made to use the hypothesised candidate theories as the deductive framework. This ensures more parsimonious data extraction and, more importantly,

directly linked the data to the Cs, Ms or Os (see Diagram 11 which illustrates data extraction on a paper (Gains, 2009) within the local governance reform and officers study set). This extract reveals the beginnings of context mechanisms and outcome configuration and the connection between them. Additionally, the experiential knowledge or reasoning of the researcher is transparent within the data extraction process. This resulted in the papers being carefully scrutinised and sections were coded: context, outcome or mechanism and entered on to the data extraction sheet as per the example (Diagram 11). For each study extracted meta data included: source, authors, basic information around relevance to the overall synthesis, judgement on text quality, source, contribution to theory building, testing or refinement, and leads to pursue and inclusion in developing synthesis. Data extraction memoranda were kept to inform the synthesis and to meet the detailed reportage on each case as advocated by Pawson (2006).

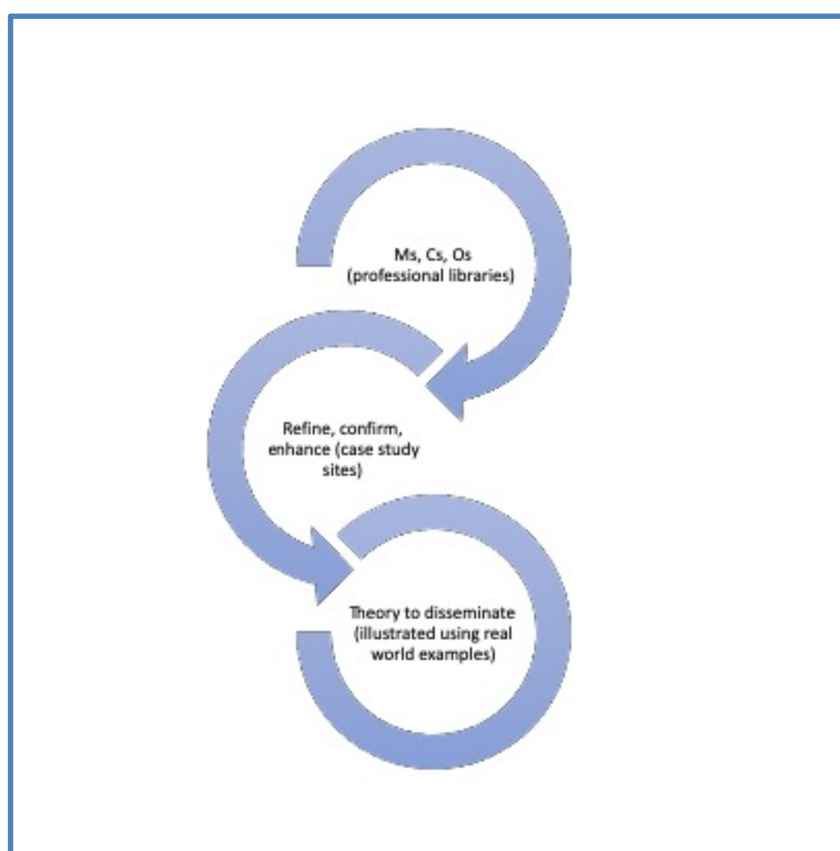
Diagram 11: extract from final data extraction form

Programme Theory	**M** (resources) (physical resources)	52	A. *NICE guidance as a resource held by LGO* B. Dynamic dependency argues - historical antecedents > institutional arrangements > set the context of roles, rules & resources within which bureaucratic relations occur C. Formal 'rules of the game process drive decision making forward.
	INTERNAL C2 (DECISION MAKING IS HIGHLY POLITICISED)	50 52 52 52 53	A. The key argument here is that there will be a diverse dependency between officers and their political counterparts, which will vary according to the allocation of political, informational and operational resources. B. Gains argues that understanding bureaucratic relationships requires 'dynamic dependency' analysis **[on initial reading, this seems to be an extension/ development of the 'dual elite; Gains argues because doesn't assume a shared world view]** C. **[see M resources B]** This idea draws on literature re civil service relations **[see p.52 for key authors, crux >]** 'each actor (or group of actors) hold resources which are exchanged to achieve policy goals' political-administrative resources. Gains argues LGO - logistics of admin (Amongst other) : **[IME - cllr acutely cognizant of 'logistics' issues within their community] [is dynamic dependency - nuanced 'dual elite? - refinement?]** D. Shared perspective does tend to develop over time E.
	M *(reasoning) (response to culture*	52	A. Within dynamic dependency analysis: the power potential of actors **[in my case PH LGO]** is linked to extent of resource exchange **[see O (A)]** B. Patterns of shared clusters of narratives > material contexts (cites Hay, 2004) may be 'conduct shaping' but not 'conduct determining' (traditions are not fixed and vary over time and *communities of meaning) [**think about this in relation to Maxwell's realist exposition of culture.***
	Outcome pattern (utilisation of 'evidence'/ NICE PH guidance)		A. Extent of resources exchange **[M resources (A)]** 'will vary and depend on e.g. political resources of cllr leader; strength of party group; extend HoS can dominate policy making -technical or professional knowledge **[think Lee]** B. [M resources (C)] if use of evidence is part of the rules of the game; expected to be seen within e.g. board report or inserted in (see M reasoning A]

Stage 5: data synthesis (including data from the case sites)

The aim of this inquiry was to develop an understanding of what happens to NICE public health guidelines after publication in terms of how they are viewed and used by local government officers. The review then should synthesise evidence relevant to this aim, identify caveats, and conditions supplemented by evidence from three case sites. Pawson (2006) states that the synthesis is developed by juxtaposing, adjudicating, reconciling, consolidating and situating further evidence. In practical terms, this synthesis began by bringing together information from diverse sources to explain outcome patterns. The inquiry logic is illustrated in Diagram 12 below:

Diagram 12: logic of data synthesis



This basic form of synthesis became increasingly sophisticated over time, as disagreements between texts, for example, requiring adjudication arise. Again, detailed working memoranda were kept as graphical memorandum utilising mind mapping software. An illustration of the output of this approach can be found in Diagram 13 and demonstrates how data were brought together from different sources (empirical study review and case sites). This mind mapping software was also used to produce conjectured CMO configurations (Mukumbang et al., 2016) (see Diagram 14).

Diagram 13: example of theory synthesising graphic memo

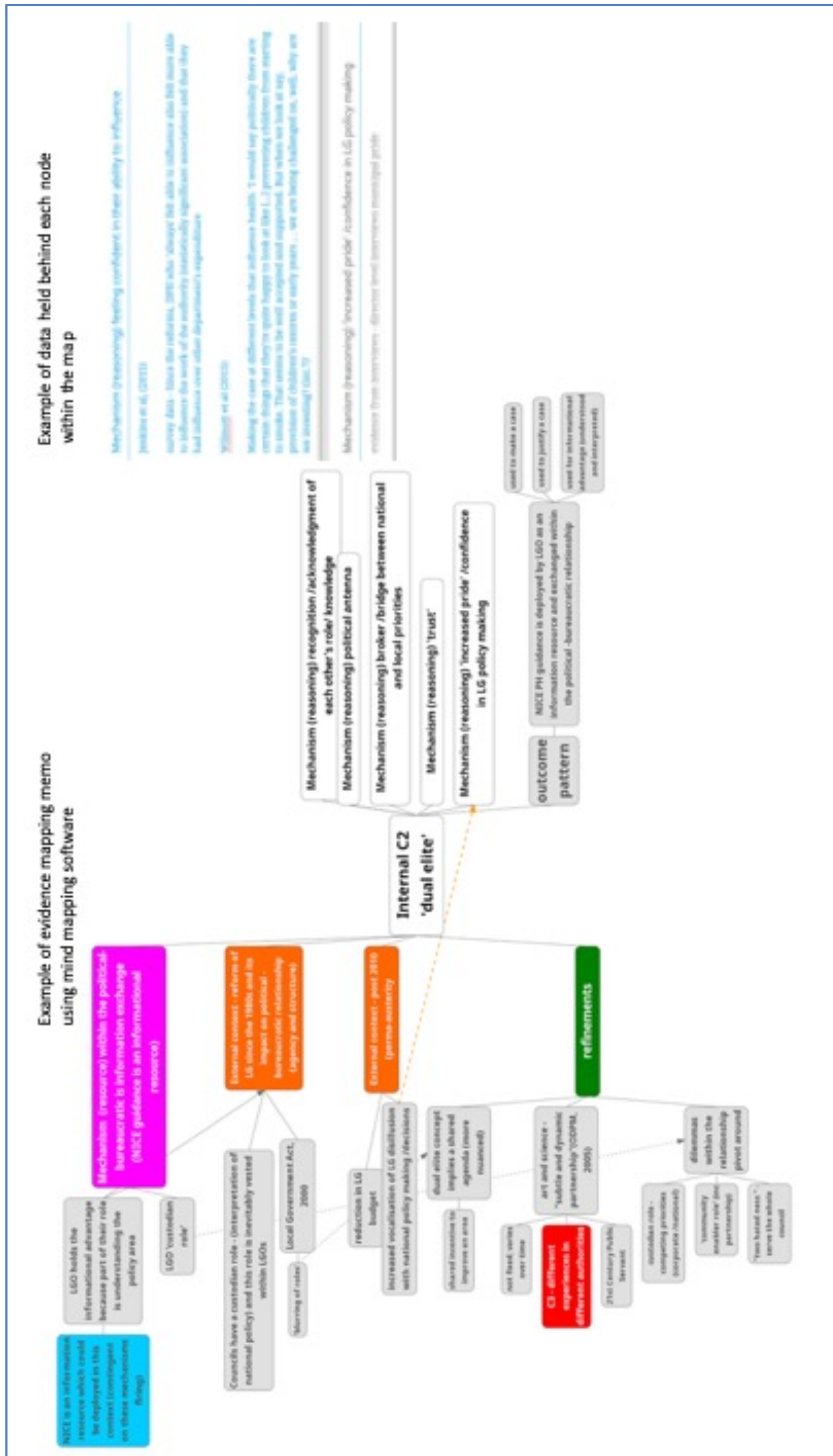
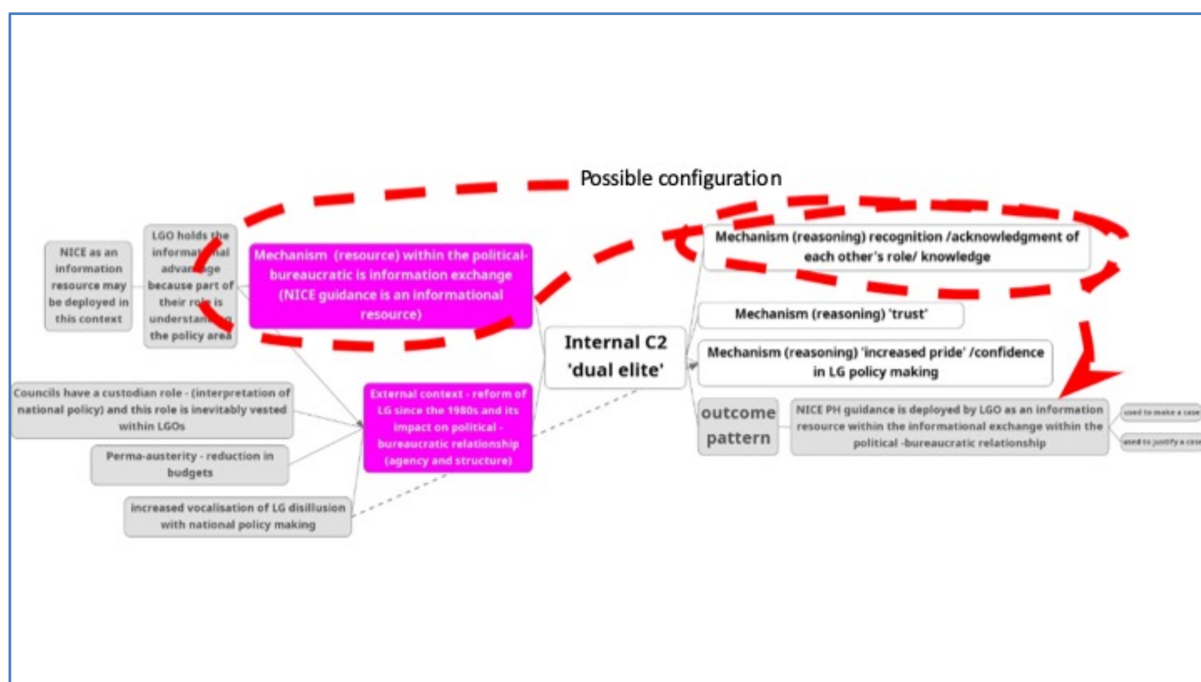


Diagram 14: example of graphic used to suggest possible configurations



Evidence from the case sites

A key benefit of using a realist approach to review and synthesise evidence is the ability to include primary data sources. In this inquiry, comparative case studies of evidence use in local government were conducted using multi-method data collection. As outlined in Diagram 12, data collection within the case study sites was designed to further explore and refine the theories surfaced earlier. Mukumbang et al (2019) describe realist research as method-neutral. This section begins by justifying the decision to use comparative case studies within this configuring review. Yin (2014) argues that case studies are particularly useful for explanatory work, for how and why questions. In this inquiry, comparing cases is a means of exploring, refining and confirming theories in the real world of public health practice within English local government. The data collection within the case sites must be theoretically driven - it cannot simply result in a description of decision-making. Rather the method must

seek and bring together evidence which tests or confronts theory with the aim of illuminating how knowledge such as NICE guidelines are received and used (or not) within decision-making. Some elements of the case study findings do provide rich description of the culture of decision-making and the role of local government officers. Within, this rich description up to date practice examples illustrate the theory in praxis and support its validity. These data can provide powerful and accessible illustrations of mechanisms (defined as the reasoning of officers) because they are drawn from the study of contemporary, real world and recognisable practice. Yin (2014) argues that case studies are helpful when focussing on contemporaneous events such as is the focus of this thesis. In realist terms, such illustrations can be used to communicate the refined theories. Yin (2014) also argues that case studies can incorporate numerous sources of evidence.

It is important to note that effort has been made to ensure that the ontological stance of this study is reflected in a realist epistemology. Specifically, there was careful attention to ensuring that case selection was realist (Emmel, 2013) and that data was collected like a realist to slightly adapt Manzano's (2016) guiding principle of asking questions like a realist. Case selection was theoretical and purposeful (Emmel, 2013) and reflected the emerging hypothesised statements to be tested. It aimed to take into account hypothesised contextual factors, such as political control or public health model, within the authority. Case selection in realist work does not consider the case as a unit of analysis. Rather the theory, is the unit of analysis and, consequently cases were chosen to test and refine theory because they can contribute to theory building (Pawson and Tilley, 1997; Emmel, 2013). Emmel (2013) argues that realist sampling produces information rich cases which can be used to test a set of ideas.

Sampling and case selection is inevitably constrained by powers and liabilities (Emmel, 2013) and access to the cases was mediated by the researcher's position. Initially consideration was given to using the researcher's own authority as a case site. This was dismissed on ethical grounds, specifically the possibility of coercion within consent processes, given the relative positional power of interview participants.

Cases were selected theoretically using contextual features from within the hypothesised candidate theories. For example, the Delphi findings achieved high levels of consensus in Round 1 to support the theory that decision-making was highly political in comparison to the NHS. This informed the decision to seek and recruit sites to ensure diverse political control of the administration. The review of the literature identified that public health's influence, within the decision-making process, may be predicated on how the function has been set up and, indeed, the extent of public health need or concern within the population. It made sense to include this consideration within the selection of cases. These decisions needed to be made within the resource constraints of a PhD study. Consequently, authorities were accessed within the geographical footprint of Yorkshire and Humber using the Collaboration for Leadership in Applied Health Research and Care Yorkshire and Humber (CLAHRC YH) network for recruitment. This footprint contains 4 separate counties and the sampling occurred within 3 of these. Table 4 contains an overview of the sites recruited.

Table 4: overview of case sites selected

Theoretical justification (aspects of context under examination)	Case site 1	Case site 2	Case site 3
Political make up[15]	Single party control; nearly 75% of Councillors from a single party	Single party control, over 80% of Councillors are from a single party	Single part control, nearly 60% of Councillors are from a single party
Political stability	History of single party control (mainstream political party A)	History of single party control (mainstream political party B)	Recent history of no overall control
Model of public health within the setting	PH in one directorate	PH split between two directorate	Distributed model of PH; PH grant devolved across the Council
Health of the population	The health of people living in case site 1 is generally better than the England average. About 12% (6,100) of children live-in low-income families. Life expectancy for both men and women is higher than the England average. Life expectancy is 6.9 years lower for men and 3.8 years lower for women in the most deprived areas of case site 1 than in the least deprived areas (Public Health England, 2018c)	The health of people in case site 2 is varied compared with the England average. This authority is one of the 20% most deprived district /unitary authorities in England (Public Health England, 2018c) and about 19% (11,500) of children live in low income families. Life expectancy for both men and women is lower than the England average. In terms of inequality life expectancy is 9.0 years lower for men and 8.2 years lower for women in the most deprived areas of case site 2 than in the least deprived areas. The under 75 mortality rate: all causes, cardiovascular and cancer is significantly worse than the England rate (Public Health England, 2018c)	The health of people in case site 3 is varied compared with the England average. This place is one of the 20% most deprived districts/unitary authorities in England and about 22% (21,600) of children live in low-income families. Life expectancy for both men and women is lower than the England average. In terms of inequality, life expectancy is 9.9 years lower for men and 8.6 years lower for women in the most deprived areas of case site 3 than in the least deprived areas (Public Health England, 2018c).
Geographical spread	Rural, County 1	Urban, County 2	Urban, County 3

[15] Please note, the number of Councillors has been described using terms such as 'nearly' and 'just over' with the aim of preserving anonymity.

Collecting data like a realist

As Yin (2014) advocates data was collected from several sources which are set out in Table 5 below. The case study method aimed to facilitate the production of mid-range CMO hypotheses about the use of NICE guidance in different contexts (Jackson and Kolla, 2012). Initial consent and governance were obtained at each site. Pilot work for data collection occurred with the researcher's home authority which tested feasibility of data collection and how best to introduce realist ideas.

Table 5: overview of data collection at each site

		Case site 1	Case site 2	Case site 3
Gatekeeping conversations to inform sampling decisions	Officers (PH)	1	1	1
	Group discussion (PH)	0	1[16]	0
Interviews	Members	1	1	0[17]
	Officers (PH)	5[18]	4	4[19]
	Officer (non-PH)	2	4	5[20]
Total interviews (including group)		**9**	**11**	**10**
Formal observations of e.g. committee meeting[21]		0	1	0
Documentary analysis		via website	via website	via website

The key component of primary data collection involved the use of realist interviews within the 3 case study sites. Interviewees were selected according to their potential to add insight (Pawson and Tilley, 1997). Decisions on who to interview were

[16] There were 10 attendees
[17] It was not possible to interview a member at case site 3 due to practicalities around a new portfolio holder being appointed post local elections.
[18] One officer had always worked in local government
[19] Two officers had always worked in local government.
[20] Important to interview non-PH officers as initial interviews exposed the importance of influencing officers as well as members.
[21] In addition, informal observations occurred at each site.

informed by conversations with gatekeepers within each site. These were helpful in that they gave insight into the setting. Additionally, emerging findings from the review of empirical sources were also informative. For example, the need to interview officers working in Overview and Scrutiny was identified after reading the Hunter et al (2016) study. Each interviewee was given a participant information sheet (see Annexe 7) and signed a consent form.

Time was spent at each case site and this allowed informal observations within each council. This observational activity was not specifically about collecting data to test programme theories rather it was the use of opportunistic time between interviews, in waiting areas within civic buildings. These observations were recorded in the form of contemporaneous notes but were not formally included in the full synthesis due to their opportunistic nature. Instead, they were used in two specific ways. Firstly, time in waiting areas allowed observation of, for example, objects selected to be displayed and how these varied across sites and building within sites. Examples, of such objects included products made within place, historical artefacts and certificates, trophies and awards. These observations contributed towards recognising contextual features such as 'pride in the prize' found in case site 1 (see on page 139). Secondly, informal observations could be used to support probing or clarifications within the realist interviews.

Two types of documents were accessed at each site. First, publicly available documentation on the structure and decision-making adopted within the council such

as its scheme of delegation.[22] Second, documents (policies or strategies) referred to during the interviews often, in relation to the use of NICE guidelines, were accessed to verify the interview data and to identify outcome patterns in terms of the use (or not) of NICE guidelines. On more than one occasion the interviewee brought documents to support their memory or demonstrate their use of NICE guidelines within their work. Expand how I recorded observations and how they did or did not contribute to the analysis.

It was argued earlier that operationalising realist inquiry can be challenging. Maxwell identifies that studies are often true to realist ontologies but accepting of other epistemology and that qualitative study rarely utilises a realist epistemology (Maxwell cited in Manzano, 2016). Within this study attention has been paid to using realist epistemology within the qualitative component of the research and this is set out below. Pawson and Tilley (1997) advocate the use of realist interviews and Mukumbang et al (2019) have recently rehearsed the advantages of realist interview techniques in maintaining theoretical awareness during data collection.

Realist epistemology requires that interviews within realist research are necessarily different to interviewing in social sciences more generally. This is because the very essence of the interview is to discuss the researcher's theory. This involves a different relationship between interviewer and interviewee, specifically the use of teaching-learning cycles (Pawson and Tilley, 1997; Manzano, 2016). Within the

[22] Schemes of delegation form part of the Council's constitution and incorporates those matters delegated from the Council or the Executive to Members and Officers. They differ depending on how the council is set up, for example, whether there is a leader and cabinet model, a modern committee model or a directly elected mayor.

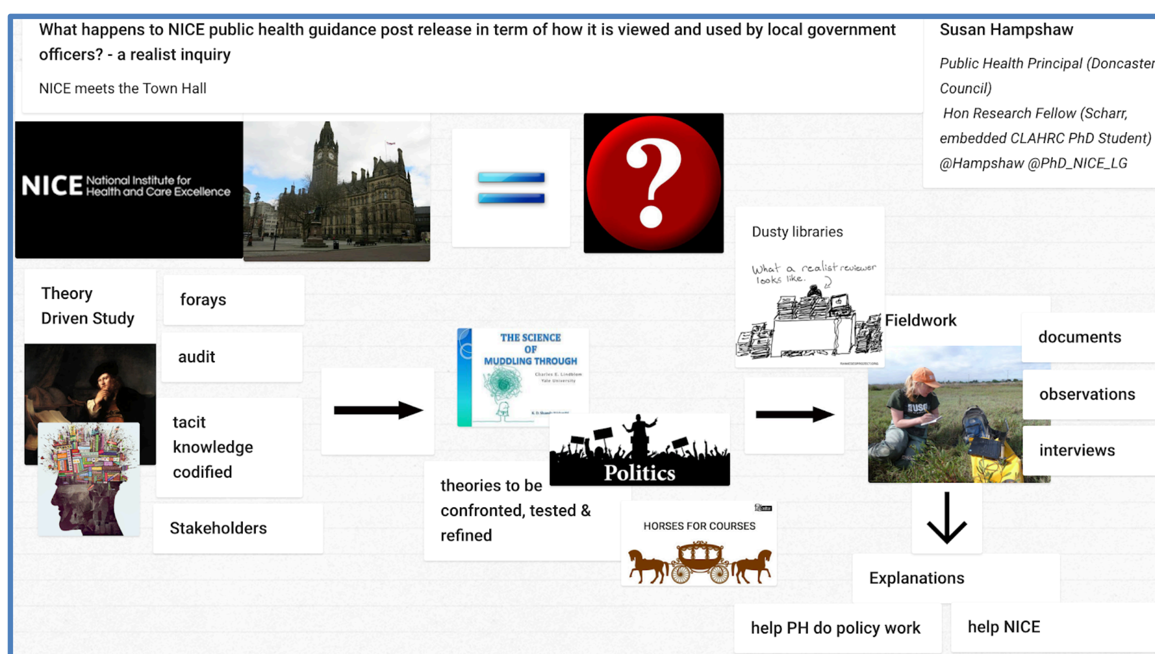
interview the suggested programme theory is set out by the researcher, and commented on by the interviewee. The technique allows investigation of whether a theory holds. This requires clear communication so that the interviewee understands both the theory and their role to comment and clarify during the interview. Manzano (2016) provides two guiding principles to support realist approaches to the interview and these principles have been adopted within this research. The first principle relates to ensuring that choice of data collection methods is theory-driven (Manzano, 2016). In this study, it was deemed essential to talk to stakeholders, first within the Delphi to support the articulation of theories to be investigated and second within the case to test, refine, refute and co-produce explanations as to what works, for whom, in what circumstances and why? It is essential then to examine the theories within the contemporary world of public health practice and comparative cases have been selected. As stated earlier, case study methods are well suited for research questions seeking explanation, can bring together data from numerous sources and are particularly useful for the study of contemporaneous events (Yin, 2014). Within this inquiry then, it is argued that the choice of method is theory driven and therefore follows Manzano's first guiding principle.

The second guiding principle relates to asking questions like a realist (Manzano, 2016). It reminds the realist researcher that neither thick description nor a set of relative perspectives are the outcomes of a realist interview. Rather, a realist interview aims to elicit reasoning and illuminate causation. This requires the researcher to take control and avoid the 'amiable incompetent', innocent abroad, or adopted neutrality found within traditional qualitative methods (Manzano, 2016). Instead, adopting the teaching-learning cycle within the realist interview allows the researcher to offer

theory, learn, offer refined theory or receive refined theory. This approach was adopted within the study and reflection on its use can be found on on page 213. Manzano (2016) identifies two phases to interviewing; theory gleaning and theory refining. For this particular study the focus of interviews is theory refining, as gleaning occurred within an earlier stage of the study (see page 43).

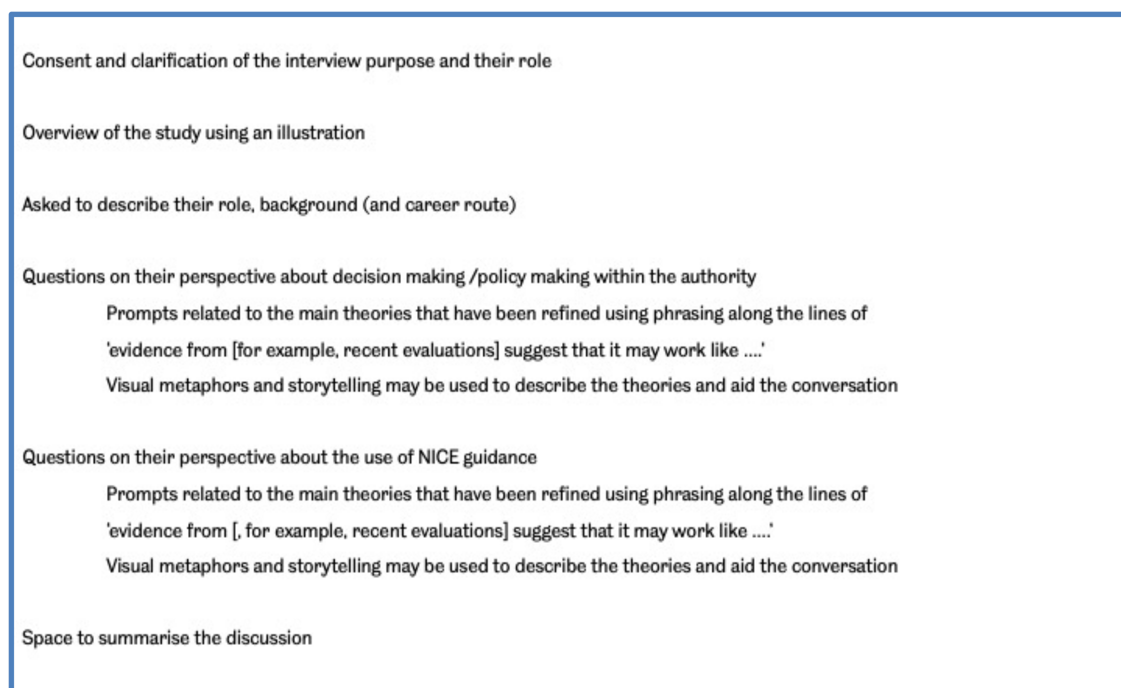
This principle was operationalised in two ways within this study. First, interviewees were introduced to the theories by using a graphical overview which summarised the study (see Diagram 15). Within the graphic carefully selected images offered a visual short hand for the theories which would be presented during the interview. For example, the image of two horses labelled 'horses for courses' aimed to depict the uniqueness of individual authorities. It was decided to use such a graphic following the 4 pilot interviews. One of the interviewees drew as s/he was talking and within this drawing there were visual representations of, for example, barriers to decision-making. This led to the production of the study graphic to be used as an introduction to each interview. The interviewee response to the graphic was often revealing of where rich data may lie.

Diagram 15: graphic outlining the study



Second, topic guides complete with their underpinning logic were produced (Manzano, 2016). These were tested and modified as a result of the pilot interviews within the researcher's own organisation (see Diagram 16: topic guide for realist interviews). The content of the topic guide was also derived from emerging findings from the review of empirical sources. The topic guide sets out the intended use of metaphors to offer the programme theories within the interviews. The use of metaphors is a long-standing teaching tool and therefore appropriate within teaching-learning cycles. The idea is that the metaphors would be recognized by the interviewee thereby increasing their comfort. Additionally, rather than presenting the theory and asking for deviant examples, identifying where a metaphor became over-stretched or broken may open up the possibility of the counterfactual. All interviews were recorded.

Diagram 16: topic guide for realist interviews



Consent and clarification of the interview purpose and their role

Overview of the study using an illustration

Asked to describe their role, background (and career route)

Questions on their perspective about decision making /policy making within the authority

Prompts related to the main theories that have been refined using phrasing along the lines of 'evidence from [for example, recent evaluations] suggest that it may work like ....'

Visual metaphors and storytelling may be used to describe the theories and aid the conversation

Questions on their perspective about the use of NICE guidance

Prompts related to the main theories that have been refined using phrasing along the lines of 'evidence from [, for example, recent evaluations] suggest that it may work like ....'

Visual metaphors and storytelling may be used to describe the theories and aid the conversation

Space to summarise the discussion

Data analysis

Much discussion in the literature concerns the technical process of undertaking realist analysis (Jackson and Kolla, 2012; Mukumbang et al., 2016). Key is that data analysis is also real and, is not and is not intended to be, just about comparing categories (Maxwell, 2012). Instead data analysis is concerned with refining theories of the mid-range i.e. sufficiently abstract as to be useful. Moreover, analysis is not a defined separate stage. It is on-going and iterative (Manzano, 2016), for example, additional data was collected as a result of immediate debriefing exercises post interviews, for example, accessing documentation as described above. At the end of interviews, a period of brief reflection and memo making occurred which identified data to be pursued such as accessing and reviewing documents/strategies mentioned by interviewees such as evidence on the use or not of NICE guidelines. The immediacy of these reflections further operationalised the teaching-learning cycle described

above. This is because they improved the researcher's offer of particular programme theory; enhancing it with a local example previously offered by another participant. The interviews themselves were recorded, transcribed and transcripts coded using the hypothesised C, M and Os as a framework. In terms of analysis, each case site was reported separately in the form of narratives and diagrams commonly used in case study reporting (Yin, 2014). In additional cross-case analysis was included within detailed analytical memoranda (graphical memorandum utilising mind mapping software) as illustrated in Diagram 13. These diagrams illustrate how data were brought together from different sources (empirical study review and case sites). For example, behind each node are attached notes summarising evidence from both the theoretically guided searches and the field work. As an illustration, the node labelled (mechanism: reasoning – political nous) is linked to evidence from the literature on Overview and Scrutiny, survey data from LGA, interviews with officers in each field site, observation of the Health and Well Being Board in site 2). Cross-case site analysis is reported within the individual case narratives using commentary on similarities and differences found across sites.

Stage 6: preparation of theories for dissemination

The key aspect of the dissemination stage is the preparation of mid-range theories. Within this study a specific activity was the production of summary findings to be presented back within each case site and also to colleagues at NICE.

Ethical implications

Gopichandran et al (2016) identify that it is important to identify and assess risk. Key ethical issues relate to the recruitment of the Delphi panel and the collection of primary data to contribute to the realist review. The primary data collection involved interviews within the 3 case sites and as such required ethical approval. This was a low risk study but, nevertheless, does illuminate ethical dimensions principally around data collection and the position of the researcher. These are briefly outlined below; first participants in the interviews effectively take part in co-creative activity (Jackson and Kolla, 2012) to produce the final study insights. The participant's role in this process was outlined to them. They may be concerned about confidentiality so to mitigate this individual contribution to the study would be anonymous. In terms of the three case study councils, care was taken to anonymise the geographical setting using phrases. Consent is viewed as complex in implementation research and it was necessary to gain consent at more than one level i.e. the individual and the organisation they work for or the setting within which they operate (Gopichandran et al., 2016).

The researcher's position embedded within local government was a further ethical consideration. It is argued that this position offers unique insight into possible mechanisms given that social phenomena are dependent upon actors' conceptions of them, and as such *'internal access'* to these phenomena albeit *'fallible access'* (Sayer, 2000). This offers natural opportunities to observe and reflect on the visibility of NICE guidance within local government decision-making. A participative observation approach was considered and dismissed as being likely to produce description rather than explanation. Instead, the researcher was able to pursue ad hoc realist conversations, to present theory in passing to colleagues, as opportunities arose: to

make conversation, with colleagues, along the lines of 'it seems to be working like this [insert C M O of interest] in these circumstances – what do you think?' These potential nuggets of evidence lie outside the primary data collection described above. No formal consent was sought for these conversations as they are naturally occurring and simply contributed to emerging ideas to be more formally tested.

It was necessary to recognise the importance of reflexivity in this enterprise (Emmel, 2015) and, in particular, the need to act as a critically reflexive practitioner and to focus on issues to support ethical practice (Cunliffe, 2004). Key then is answering the question 'how do I relate to others and the world around me?' and the 'need for self-conscious and ethical action based on a critical questioning of past actions and future possibilities' (Cunliffe, 2004). To operationalise this throughout the study, memoranda (in the form of graphics) were kept and time was spent debriefing post data collection activities. This can also help mitigate confirmation bias, in resisting the seeking of evidence that supports a favoured theory.

Ethical approval was sought and gained from the University of Sheffield (reference number 008676) for all aspects of this study which required primary data collection. This included the Delphi panel work, the realist interviews within the case sites, and the pilot interviews within the researcher's own authority. The Delphi was considered to be a low risk study in that it was an on-line survey which required professionals to extemporise on the culture of decision making within their experience of local government. All data produced from the study was stored on University of Sheffield's secure drive and accessed by the researcher alone. Aggregated findings were shared within supervision meetings but the raw data remained the responsibility of the principal investigator. In terms of reporting findings, throughout the Delphi and

during the synthesis, all responses were anonymised and quotations simply state the nature of the expertise i.e. local government officer (Gopichandran et al., 2016). These titles were also suppressed if there use may reveal the source of a particular quotation. Finally, all setting-specific permissions around research governance were obtained.

Findings

As set out in the methods, this inquiry undertook a configuring review in order to produce explanations expounding how NICE guidelines are viewed and used by local government officers following publication. The earlier methods chapter deploys a Generate, Explore and Test structure (Gough et al., 2012). The findings follow a similar approach as set out below:

- Chapter 3: generation of theory
- Chapter 4: exploring and testing theory from the literature
- Chapter 5: exploring and testing theory within 3 local authorities

This structure has been used to aid clarity; however, it does give the false impression that findings are easily slotted into a section and that the process of conducting a realist review is neat and linear. In point of fact, the process of reviewing is iterative and involves considerable 'to and fro' between candidate theories and the evidence with which they are confronted (Pawson and Tilley, 1997). Moreover, the method of realist review produces an extensive volume of data; choices are perpetually made between depth and breadth, and the need - particularly within the boundaries of a PhD - to pursue the most fruitful lines of inquiry in terms of developing causal explanation (Pawson, 2019a).

Similarly, there is judicious selection of what to include within this chapter based upon the explanatory power of the finding. For example, the programme theory uniqueness of place $_{(C3)}$ grew in importance as the inquiry progressed. Arising from theory generating activities (literature forays, doctoral student embeddedness and the Delphi panel); the hunch about place as a context was initially simply

conceptualised as the uniqueness of each council. When the programme theories were tested in the contemporary real world of public health practice in local government (Yin, 2014) the importance of place and local government's role within a place, as place maker and shaper, surfaced as a conceptual refinement and as a crucial explanatory context. One which is linked to and integrated with concepts such as 'muddling through' and 'joint elites.' The explanatory importance of place was further ascended when the case study data were analysed utilising diagramming – the graphic form of memorandum (Yin, 2014). This interrogation (as the inquiry progressed) led to a more nuanced /refined and explanatory view of place linked to its historical context, its constitution and its capabilities (Gains, 2009).

Presentation of realist inquiry is challenging. Realists tend to employ metaphors, prose, diagrammatic representations of theory, and the ever-present CMOC heuristic. In this inquiry, the relationships between the decision-making context and the officer response(s) within this context are the 'findings' to be illuminated. If these diagrams, metaphors or CMOCs are clear expositions then they can increase our understanding of, for example, in this case, the reasoning of officers in their actual situation (Maxwell, 2012). The difficulty in clear exposition is, of course contained within the limits of language, choice of idiom and media.

This findings section will therefore build in stages to produce the context, mechanism and outcome configurations by elucidating causal data to set out in detail, the hows and whys. This will include both diagrams, tables and narratives. This elucidation requires setting out empirical evidence on different elements of the refined theory that, taken together, provide causal explanation(s).

Findings are thus set out in three chapters:

- *Chapter 3: generation of theory*: here the focus is on findings arising out of activity to elicit theory and prioritise it, using an adapted Delphi technique (Okoli and Pawloswski, 2004), in terms of its explanatory relevance. This section ends with the presentation of the 3 hypothesised candidate theories that were selected for exploration and testing.

- *Chapter 4: exploring and testing theory from the literature:* reports on the theoretically guided searches of the literature, data synthesis and resulting theoretical refinements.

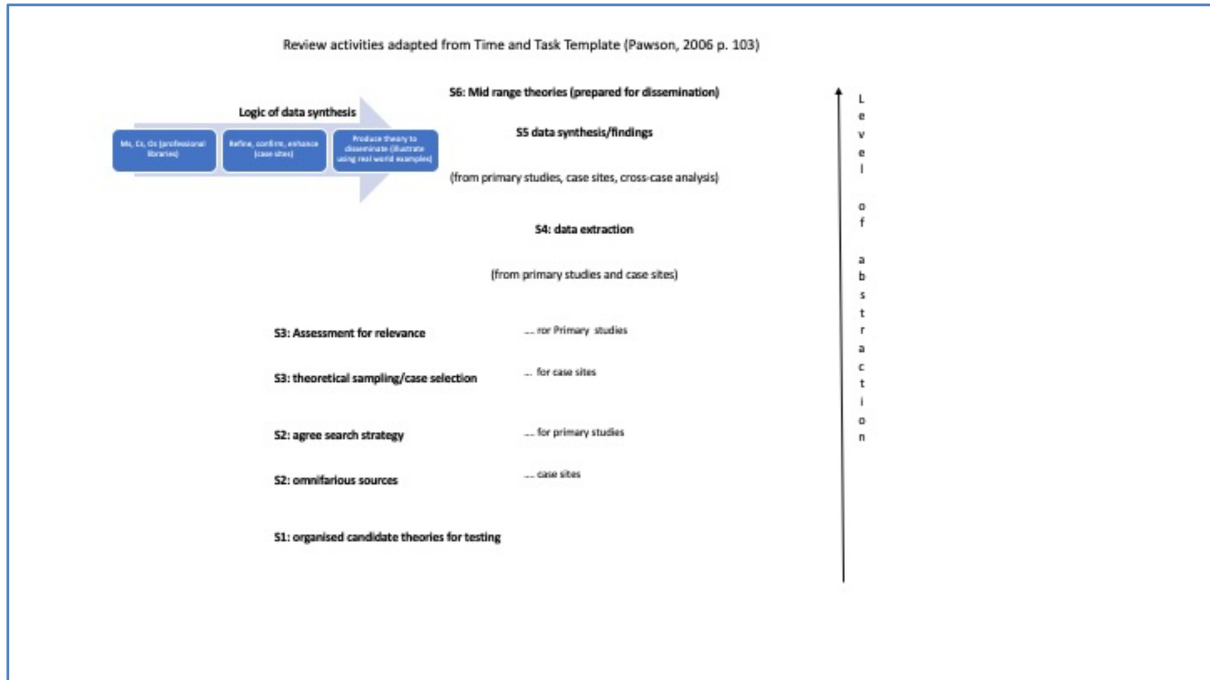
- *Chapter 5: exploring and testing theory within 3 local authorities: here the focus is* on findings from the 3 case sites (Yin, 2014) and summary theory from cross case analysis.

These findings are further developed within Chapter 6 (discussion) into theories of the mid-range and the focus is on the outcomes i.e. configured explanations of the use or not of NICE public health guidelines by local government officers.

The study specifically followed the stages outlined Diagram 3 (above) which was adapted from Pawson's (2006) Time and Task template. The adaption attempts to show the iterative process of the review activities and highlights the increasingly abstract products of the review. The stages identified within the diagram were used as sub headings within the methods chapter and this has been repeated (where appropriate) within the finding chapters. Diagram 3 has been revisited to produce

Diagram 17 below to make explicit how case study findings were integrated into the overall synthesis.

Diagram 17 : stages of the review



Chapter 3: Generation of Theory

Stage 1: organised theories for testing

The theory elicitation activities outlined within the methods chapters produced numerous initial hunches illustrated by the following example: **local government officers in the 21st century need synthesis skills to sort and analyse evidence from multiple sources and this requires creativity; they also need to combine voice from the community and politicians. Sifting and combining different types of evidence tend to focus on bringing it together rather than the quality of how the evidence was produced. If NICE guidance can slot in to this way of bringing together evidence then it may be used.** These hunches arose from the intellectual work described within both the methods and introduction. A key aspect of this work was forays into the literature using the graphic memorandums (Yin, 2014) as access points (see pages 16 and 17). A summary of pertinent literature from these forays can be found in the introduction and comprise insights into the use of evidence by local government and the transfer of public health back to local government. The forays aimed to 'surface and articulate theory' (Pawson, 2006) ultimately resulting in 'initial rough theory' (The RAMESES Project, 2013b) or hunches which were organised into three explanatory categories:

1. The culture of decision making in local government;
2. How evidence is valued, sought and deployed in local government;
3. The guidance itself.

The first two explanatory categories consisted of feeble theory (Emmel, 2015) emerging from the forays. Emmel (2015) describes this theory as feeble because

preliminary ideas are drawn from the researcher's sense of the area of study, creativity and scholarly enterprise. In this case, the embeddedness of the doctoral student within local government was key to the development of these preliminary ideas. The third set of explanations (still feeble) arose from aspects of the literature and work scrutinising NICE (2014c) medicines management in care homes guidelines. In summary, these three explanatory categories were constructed by the realist reviewer inspired by data, evidence, and the literature (Jagosh, 2017a). Within these three explanatory categories there were numerous sub-hunches, or secondary explanations (11 in total). For example, the culture of decision-making explanation contained the following secondary explanations: decision-making was characterised as muddling through (Lindblom, 1959, 1979), decision-making is highly politicised, uniqueness of individual local authorities, and the nature of bureaucracies. Each category contained a similar number of secondary explanations and within each there were other hunches. For example, within the muddling through secondary explanation there were hunches pertaining to NICE's perceived authority and its analyses of cost effectiveness. It was clearly not possible to examine each of these within the resources of this study and the Delphi exercise aimed to prioritise theoretically fruitful lines of inquiry.

Theory prioritisation – the Delphi findings

Findings are reported using the standards developed by Jünger et al (2017)who advise that the results of each round should be reported separately and should include a critical reflection of potential limitations. Additionally, Jünger et al suggest the need to reflect on the outcomes with respect to their applicability. In this case, how did the consensus achieving If Then statements contribute to decisions on which theories

were pursued within the inquiry. The decisions on which areas to pursue established the study boundaries (Westhorp, 2013) and are reported on below page 100.

In round 1, Delphi panel members were asked to identify whether the presented hunches had explanatory relevance so were asked to score each theory on a Likert scale in terms of its theoretical relevance. Consensus from the panel as to whether a hunch was explanatory would be important in terms of the prioritisation of theories to be pursued within the study. Consensus was reached in several areas and this is displayed in Table 6 below. A survey item reached consensus when the aggregated score for extremely relevant and very relevant reached a level of 75% and over, with a median of 1-2.

Table 6: items from Delphi 1 where there was consensus

Explanatory category	Secondary explanations **and *further hunches***	**Level of consensus**
The culture of decision making in local government	*perceived authority of the guidance*	88%
	guidance includes technical evidence (e.g. costings)	88%
	IF NICE guidance is released into a 'more political' context than the NHS THEN local government will need to see the value of the guidance in terms of making a political decision	84%
	guidance sets out politically palatable actions	76%
	guidance is applicable to local policy scenario	92%
	guidance reflects local government Powers and Duties	88%
	guidance includes an economic case	76%
	IF NICE guidance is released into a context where local evidence is valued THEN local government will need to see the guidance as supportive of local circumstances	88%
	guidance has local applicability	76%
	guidance is viewed as authoritative	76%
	guidance sets out its implications for local government	84%
	guidance has clear implications for deploying resources	80%
How evidence is valued, sought and deployed in local government	*guidance can be tailored to the local situation*	80%
	guidance is timely	84%
	guidance resonates with local evidence	96%
	guidance can add legitimacy to a decision	92%
The guidance itself	**IF the recommendations within NICE guidance (message) are viewed as useful THEN the guidance will be considered**	84%

Of the 11 secondary explanations only 3 achieved consensus from the whole panel (see bold cells above). Round 1 also contained a question asking panel members to think about each of the 3 sets of explanations they had examined and choose the one that most reflected their viewpoint. Of the 25 panel members, 44% selected the

culture of decision-making in local government followed by how evidence is valued, sought and used (32%) and finally the guidance itself (24%). Additionally, 2 of the 4 secondary explanations in the culture of decision-making reached consensus in the first Delphi. This was more than either of the other two which was suggestive that the culture of decision-making was a fruitful area to pursue.

The questions within the Delphi were designed to elicit responses on why the respondent had answered in the way they did. Thereby supporting a realist epistemology to try to uncover their reasoning. The qualitative answers fell into three categories. First, answers that were confirmatory of the If, Then statement but added greater detail which was later used within teaching-learning cycles in the case site interviews. For example, the statement: **IF NICE guidance is released into a context where local evidence is valued THEN local government will need to see the guidance as supportive of local circumstances** achieved 88% consensus that this was explanatory. Respondents explained their reasoning for example: *"this type of reasoning is built into the way local authority works since the duty is place based so for example, any decisions requiring formal sign off by committee or council will include a section where implications for the local population have to be spelled out"* (respondent, Delphi 1). Within this statement not only reside possible mechanisms, for example, in terms of resources of committee reports but also the essence of Place. As stated above, these details were helpful within the presentation of theory within the teaching-learning cycles.

Second, and conversely, analysis of the open text responses also produced areas of dissonance. As Jünger et al (2017) argue this (non) consensus can provide

informative insights and highlight differences in perspectives concerning the topic in question. In realist terms this could be where the counter factual may lie. For example, in the questions on how evidence is valued, sought and deployed in local government there were high levels of consensus (92%, Delphi 1). On the further hunch that guidance can add legitimacy to a decision, one respondent identified: *"Evidence is often deployed most strongly when it is supportive of a policy direction, however, the opposite is also true. NICE could and should be used to challenge poor practice and as counter to services that are commissioned against evidential advice"* (respondent, Delphi 1). This 'challenging' use of evidence theory was followed up within the case sites and again informed sampling decisions in terms of where evidence to confront this theory might be found. Third, analysis of the open text responses revealed possible ambivalence towards the terms 'bureaucratic' and negative connotations associated with 'muddling through'. The summaries returned within Delphi 2 and illustrated in Diagram 8 on page 55 attempted to address this by explaining in more detail about the 'muddling through' theory. However, it is recognised that this negative association may have influenced responses.

Finally, the Delphi findings also informed sampling decisions for the case site selection specifically, analysis of the open questions supported the need to collect data at sites across the political spectrum. For example, one respondent agreeing that the statement: **IF NICE guidance is released into a 'more political' context than the NHS THEN local government will need to see the value of the guidance in terms of making a political decision** was theoretically relevant went onto explain their reasoning. They outlined that in their experience local politicians tend to accept the evidence base without too much interrogation as it tends to match their stance on

addressing inequalities. This was important as it reinforced the value part of the If, Then statement but also identified that it would be fruitful to explore whether this held in a different administration where addressing inequality was not so high on the political agenda.

Delphi 2 contained a brief summary of the above findings together with an opportunity to comment further. The remainder of Delphi 2 consisted of revisiting the secondary explanations where consensus had been lacking in the first round. Panel members were sent copies of their own response together with extensive summaries of the panel responses. Panellists were then asked to score these items again in terms of explanatory relevance and this resulted in consensus in several additional areas. Table 7 below outlines the areas which achieved consensus across both Delphi rounds.

Table 7: items from both Delphi rounds where there was consensus

Explanatory category	Secondary explanations **and *further hunches***	Level of consensus[23]
The culture of decision making in local government	If NICE guidance is released into a 'muddling through' context THEN local government will need to see the value of the guidance to support decision making	81% consensus Delphi 2
	perceived authority of the guidance	88% consensus Delphi 1
	guidance includes technical evidence (e.g. costings)	88% consensus Delphi 1
	IF NICE guidance is released into a 'more political' context than the NHS THEN local government will need to see the value of the guidance in terms of making a political decision	84% consensus Delphi 1
	guidance sets out politically palatable actions	76% consensus Delphi 1
	guidance is applicable to local policy scenario	92% consensus Delphi 1
	guidance reflects local government Powers and Duties	88% consensus Delphi 1

[23] A survey item reached consensus when the aggregated score for extremely relevant and very relevant reached a level of 75% and over, with a median of 1-2.

Explanatory category	Secondary explanations **and *further hunches***	Level of consensus[23]
The culture of decision making in local government	*guidance includes an economic case*	76% consensus Delphi 1
	IF NICE guidance is released into a context where local evidence is valued THEN local government will need to see the guidance as supportive of local circumstances	88% consensus Delphi 1
	guidance has local applicability	76% consensus Delphi 1
	guidance acknowledges local powers and duties	82% consensus Delphi 2
	guidance is viewed as authoritative	76% consensus Delphi 1
	guidance sets out its implications for local government	84% consensus Delphi 1
	guidance has clear implications for deploying resources	80% consensus Delphi 1
How evidence is valued, sought and deployed in local government	*guidance can 'be heard' amongst competing sources*	94% consensus Delphi 2
	IF NICE guidance is able to answer a specific policy question THEN it will be accessed	87% consensus Delphi 2
	guidance can be tailored to the local situation	80% consensus Delphi 1
	guidance reflects local experience of the policy issue or decision point	76% consensus Delphi 2
	guidance contains economic data/cost effectiveness information	100% consents Delphi 2
	IF NICE guidance is supportive of an agreed policy direction THEN it will be used within the decision-making process	87.5% consensus Delphi 2
	guidance is timely	84% consensus Delphi 1
	guidance clearly supports a particular policy decision	88% consensus Delphi 2
	guidance resonates with local evidence	96% consensus Delphi 1
	guidance can add legitimacy to a decision	92% consensus Delphi 1
The guidance itself	**IF the recommendations within NICE guidance (message) are viewed as useful THEN the guidance will be considered**	84% consensus Delphi 1
	IF the NICE guidance includes recommendations that recognise local government's (target audience) Powers and Duties THEN the guidance will be considered	94% consensus Delphi 2

Explanatory category	Secondary explanations **and *further hunches***	Level of consensus[23]
	IF NICE guidance (messenger) is viewed as authoritative by local government THEN the guidance will be considered	88% consensus Delphi 2

At the end of this round, eight of the secondary explanations achieved consensus. The Delphi achieved consensus within several areas and the open text responses provided considerable insight into possible reasoning. This confirmed the sets of explanations were considered relevant, worth pursuing and these data informed decisions on which areas to pursue.

Selection of theories to pursue

Despite this confirmation of theoretical relevance of the hunches, choices in terms of the study boundaries were still necessary. The findings from the theory elicitation and prioritisation were therefore further analysed to produce 3 diagrams (diagram 18: theoretical framework; diagram 19: illustration of connections and diagram 20: hypothesised candidate theories) which build to produce the hypothesised candidate theories; effectively the culmination of stage 1 i.e. organised candidate theories for testing (Pawson, 2006).

Diagram 18 below has been constructed by layering candidate programme theories (retroductively developed and co-constructed), key mid-range theories (arising from the literature forays) and levels of consensus within each explanatory category for both the secondary explanations and the hunches (from the Delphi). These have been re-labelled candidate programme theories and influencing factors respectively.

Diagram 18: theoretical framework

First set of explanations: culture of decision making

MID-RANGE THEORIES

Second set of explanations: nature of evidence in local government

CANDIDATE PROGRAMME THEORIES

"21st Century Public Servant" (Needham et al, 2014)

Bureaucratisation of decision making

What counts as legitimate evidence

"Two communities theory" (Caplan, 1979)

Uniqueness of the authority (88% consensus)

Authoritative (76%); LG implications (84%); deploying resources (80%);; *Accessed by all parts of the bureaucracy; Publicised*

Heard amongst competing sources (94%); *includes: multiple sources, non- research based evidence, decision choices*

"Joint elite theory" (John, 2014)

Local applicability (76%); Powers & Duties (82%); *local input; local circumstances; local policy position*

Can be tailored (80%); reflects local experience(76%); cost effectiveness (100%); *clear summary; evidence from multiple sources of research evidence*

Evidence produced to answer a specific policy question (87% consensus)

Politicisation of the process (84% consensus)

Palatable political actions (76%); local policy scenario (92%); Power & Duties (92%); economic case (76%)

INFLUENCING FACTORS

The art of muddling through (82% consensus)

Authority (88%); technical evidence (88%) *sets our what is known; adds to known*

Timely (84%); supports a particular policy (88%); resonates with local evidence (96%); adds legitimacy (92%)

How the evidence can be deployed (87.5% consensus)

"Science of muddling through" (Lindblom, 1959)

Recommendations viewed as useful

Familiar format

"Research Utlisation Theory" (Weiss, 1979)

Recognises powers & duties

NICE is authoritative

Message (84% consensus)

Presentation of the guidelines

Target Audience (94% consensus)

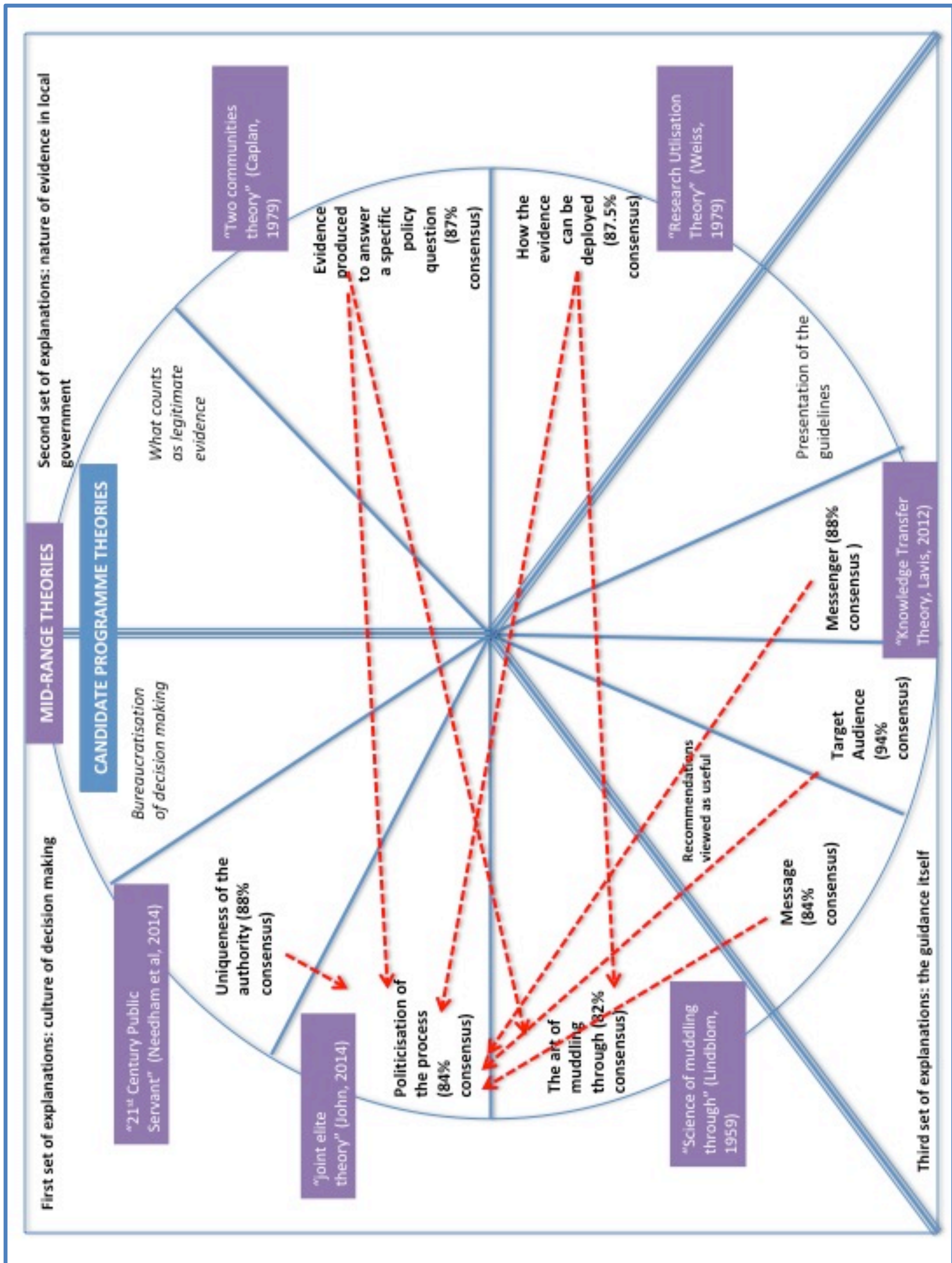
Messenger (88% consensus)

"Knowledge Transfer Theory, Lavis, 2012)

Third set of explanations: the guidance itself

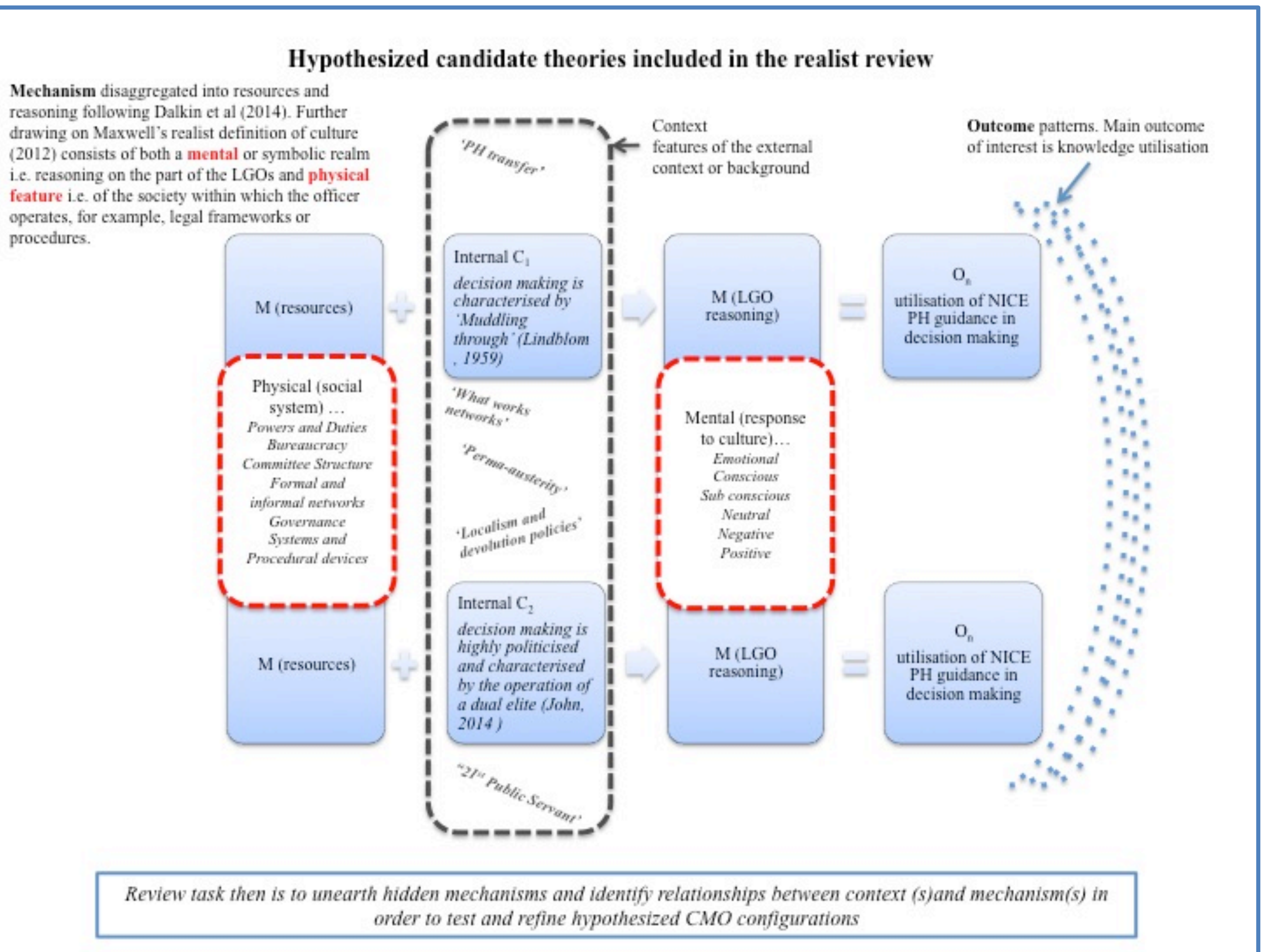
Diagram 19 below builds on the previous diagram by mapping areas of theory where connections exist (red dashed arrows). In particular, the explanations on the nature of evidence use in local government, drawing on mid-range theories on knowledge utilisation (Caplan, 1979; Weiss, 1979), is related to theories around the culture of decision-making. To aid clarity Diagram 19 has been simplified by removing the influencing factors (inner circle on Diagram 18). The arrows all run towards the first set of explanations for two reasons. Firstly, the culture of decision-making in local government was identified as the most important explanatory category by the first Delphi panel (see above). Further, two secondary explanations (labelled politicisation of process and uniqueness of authority) achieved consensus in the first round of the Delphi. Secondly, as stated earlier, realism acknowledges that all observations are shaped through the human brain (Westhorp, 2014). It is argued that, the embeddedness of the doctoral student within the setting of local government produces a visceral view of the theoretical fruitfulness of working within a different culture of decision-making.

Diagram 19: illustration of connections



The explanatory category the culture of decision-making contained 4 secondary explanations labelled as: muddling through, politicisation, uniqueness of the authority, and bureaucratisation of decision-making. As illustrated in the Diagram 19, there was consensus within the Delphi for the first three. These three explanations were identified as candidate programme theories and illustrated in the Diagram 20 below. This diagram uses the CMOC heuristic and sets out the hypothesised Cs, Ms, and Os. The focus of the diagram is the nature of decision-making i.e. politicisation and muddling through. The final secondary explanation the uniqueness of the authority is not articulated using the CMOC heuristic. Instead, the decision was made (see methods) to explore the two illustrated candidate theories using theory guided searches and to further test these in different settings using the uniqueness of the authority to determine the theoretical and purposeful sampling strategy within the case studies (Emmel, 2013). In other words, the candidate theories were tested in real world public health practice. Inevitably, these choices between candidate theories draw parameters that exclude other potentially rewarding avenues for exploration.

Diagram 20: hypothesised candidate theories

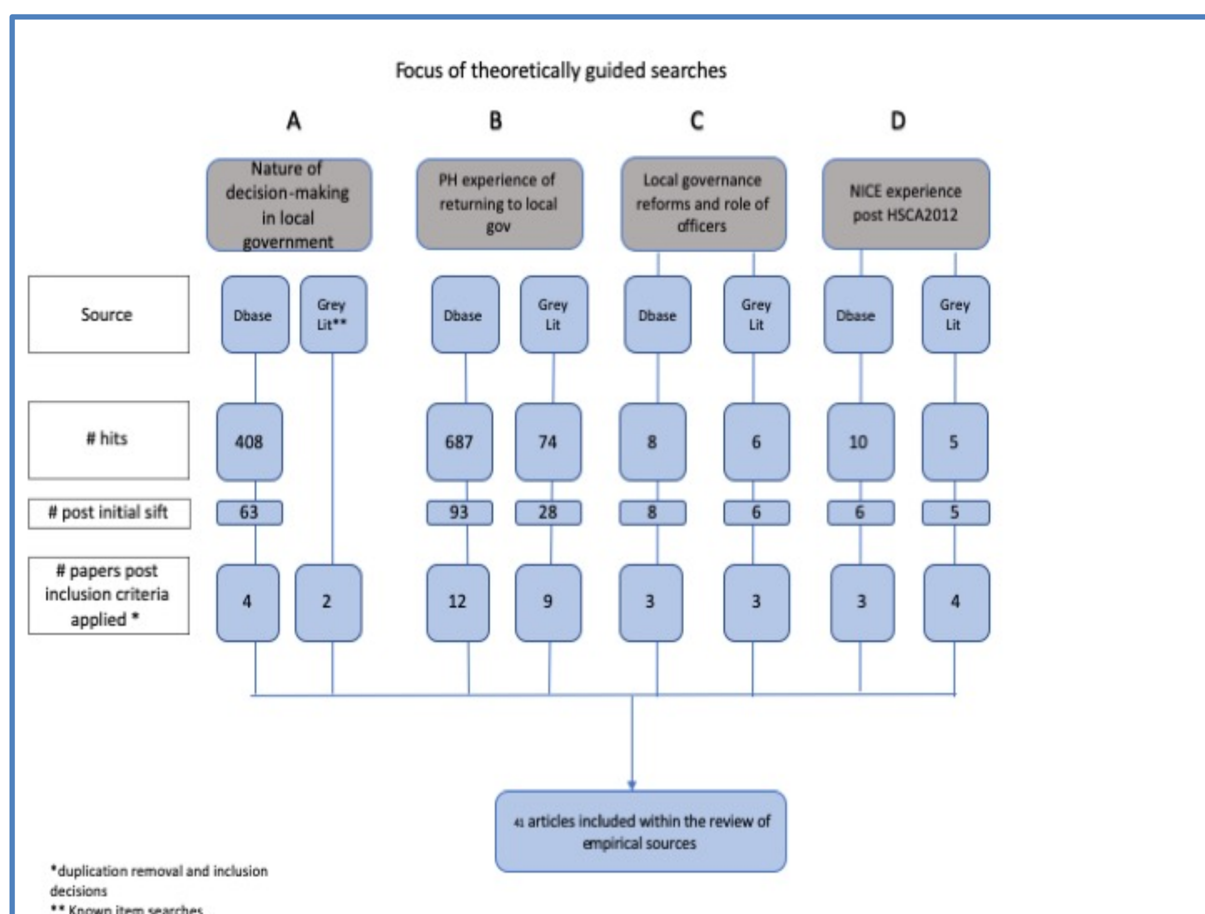


Chapter 4: Exploring and testing theory using the literature

Stage 2: findings from the search for primary studies and stage 3: assessment for relevance

The following section comprises findings from the review of the empirical studies. It begins by setting out the results from Stage 2 of the adapted Pawson's (2006) Time and Task template i.e. the search for primary studies (see **Error! Reference source not found.** above). Diagram 21 sets out the results of the search process and identifies the number of studies included within the review i.e. as a result of stage 3 (assessment for relevance).

Diagram 21: flow diagram of studies included in the review



As can be seen, 4 theoretically guided sets of searches were conducted. These searches did not all occur simultaneously but were iterative and overlapped with field work as outlined on page 133. Outputs from the searches were initially sifted after reading the abstract and studies that had potential to offer explanatory insight were exported to Mendeley for de-duplication and for final inclusion decisions. The four theoretically guided searches produced papers that aided the exploration of the candidate theories. In addition, the study database was searched for previously identified studies on evidence use that might offer background on the culture of decision-making in local government. These 'study database' papers (Tyner et al., 2013; Rainey et al., 2015) were not formally dealt with as part of the data extraction process. This is because they had been initially identified during the theory elicitation phase of this inquiry. These 'study database' papers did serve two purposes during data extraction. First, they were helpful background and familiarity with them (alongside researcher embeddedness and the intellectual theory work described earlier) helped to orientate data extraction. Second, familiarity with the 'study database' papers contributed to decisions on data saturation as these papers were often included in the reference lists of papers selected for inclusion in the review itself. Table 8 below illustrates the contribution of each theoretically guided set of searches to the final review.

Table 8: evidence source to explore each candidate theory

Search set→ / Theory↓	A	B	C	D
Decision-making is characterized as 'muddling through'	✓	✓	✓	✓
Decision-making is highly politicised	✓	✓	✓	✓
The uniqueness of individual local authorities		✓	✓	
Utillisation of NICE guidance within English local government		✓		✓

Stage 4: data extraction

As stated, in the methods section, all 41 papers included in the study were read and data extracted using the hypothesised candidate theories as the deductive framework (stage 4). Each paper was carefully scrutinised and sections were coded: context, outcome or mechanism and entered on to the data extraction sheet (see Annexe 6 on page 253). This coding did not just focus on the findings presented in the paper but also included theoretically relevant evidence from, for example, the discussion. This process was largely deductive. However, in the case of mechanisms or generative forces this is less straight forward. There is a recognition that these are generally hidden and need to be unearthed (Jagosh, 2019). This means that these generative forces are not explicit within the paper being examined; they are not helpfully labelled as such, particularly, as none of the studies included within this review adopted a realist methodology. The hypothesised candidate theories did include possible mechanisms disaggregated into resource and reasoning following Dalkin et al (2015) and Maxwell's (2012) realist exposition defining culture as consisting of both a mental or symbolic realm and a physical realm (see Diagram 20 above). Given the hypothesised candidate theories were concerned with culture of decision-making this split between mental or reasoning and physical i.e. the structure

within which the officer operates was helpful when unearthing mechanisms. Physical mechanisms such as 'procedural devices' are inevitably easier to identify during the review process. The mechanisms considered within the mental realm such as an emotional response are hidden. Nevertheless, Diagram 20 contains a list of possible mechanisms which act a starting point for data extraction and this aspect of the review deployed both deductive and inductive methods. The list of mechanisms was constructed from the forays into the literature and the embeddedness of the researcher. The list of possible mechanisms contributed to the coding frame for the study. The review task then was to unearth these hidden mechanisms and identify the relationships between context(s) and mechanisms in order to test and refine the candidate theories and ultimately produce configurations of context, mechanisms and outcomes which are explanatory. The identified mechanisms, contexts and outcomes are embedded within the review narrative using subscripted text within brackets.

Stage 5: findings from the data synthesis (primary studies)

Reporting of the synthesis is presented in four parts. First, evidence on how public health is faring on its return to local government is presented. Second, an examination of the two targeted candidate theories on the nature of decision-making in local government labelled: muddling through $_{(C1)}$ and decision-making is highly politicised $_{(C2)}$. This part of the synthesis uncovers and refines mechanisms identified as partners within each of these contexts (Pawson, 2013). It draws on data from all four search sets (see Table 8) and the findings are presented as narrative. Third, refinements arising from the review of the literature in relation to the uniqueness of

an individual authority $_{(C3)}$ are briefly discussed. Finally, evidence on NICE's experience post the Health and Social Care Act, 2012 is explored.

Parts 1 and 4 of this review are effectively bookends; one side focuses on the external context of public health's return to local government; the other flank being an exploration of the visibility of NICE guidelines within public health's new setting. Between these bookends, the unearthed contexts, mechanisms and outcomes can be found ready for further exploration within the case sites. More prosaically, the details of all studies, papers or projects reviewed can be found within Annexe 8 on page 257. The table is structured using the four aspects of the review found below and includes a column populated from the data extraction sheets summarising data extracted and where appropriate coded as context, mechanisms and outcomes. It is important to remember that this review aims to integrate theory from the case sites and formal theory identified empirical studies (Astbury, 2018). The following findings represent the synthesis of theory from empirical studies and the mechanisms, contexts and outcomes are embedded within the synthesis using subscripted text within brackets, for example $_{\text{(mechanism: reasoning- trust)}}$ or $_{\text{(mechanism: resource – statute)}}$.

1. How is public health faring on its return?

This section comprises a synthesis of evidence on public health's return to local government post the Health and Social Care Act 2012. It draws on theoretically guided search set B. It should be noted that several papers/reports containing more historical or speculative analysis were identified within the initial literature forays (Kisely and Jones, 1997; Great Britain. Department of Health, 1989; Great Britain. House of Commons Health Committee, 2001; Great Britain. Department of Health, 2010; Timmins, 2012; Gorsky et al., 2014; Perkins and Hunter, 2014; Humphries, 2013;

Tomlinson et al., 2013; Rainey et al., 2015; Hunter, 2008; Kingsnorth, 2013; Buck and Gregory, 2013; South et al., 2014). These were dealt with as part of the introduction (see above on page 28) and informed the surfacing of initial theories. They are not included in this section as a key inclusion criterion was that papers should focus on experience post return to local government. Moreover, papers identified as part of the initial forays are better conceived as initial or background searching (Booth et al., 2018).

There were two key grey sources: longitudinal surveys undertaken by the Association of Directors of Public Health and a series of invited essays/commentaries from the Local Government Association (LGA) on the return of public health to local government. This section begins with these grey sources. It is important to note that some publications identified via grey sources or websites focussed on lobbying/evidencing the impact of national debate with regard to the current and/or future allocation of public health funding. Austerity is an important backdrop to the public health infrastructure reforms and signified challenges to public health practice (Buck, 2020). However, the focus of this review was on the culture of decision-making within English local government rather than nuance of the spending/allocation of public health grant and so these papers were excluded as not being theoretically fruitful.

The survey work undertaken by the Association of Directors of Public Health provides helpful insight into the experience of Directors of Public Health (DsPH) in their new setting (ADPH, 2014, 2019). In particular, the survey has tracked DsPH positions in terms of their line management and access to the Chief Executive Officer within their authority. Initially, there were complex line management arrangements

with only 49% (50) reporting directly to the CEO or equivalent (ADPH, 2014). Wight argues that the position of the DPH has in many cases been downgraded in that they are not always an executive officer, which can mean they are divorced from strategic decision-making(mechanism: reasoning - ability to influence) (Wight, 2016). However, the 2019 survey provides evidence that DsPH have healthy and increasing levels of influence within local authorities; 97% said they had direct access to their CEO (up from 94% in 2017) and 99% said they had sufficient access to councillors (ADPH, 2019). The LGA survey of portfolio holders found that this access in the form of advice from public health was valued. 78% of politicians found verbal advice very helpful; 67% briefings and board papers (written); 56% DPH annual report (mechanism: reasoning – knowledge exchange)(Local Government Association, 2017b). The LGA has published a series of invited commentaries/essays on public health's return to local government (Local Government Association, 2014, 2017b, 2018, 2019a). A consistent thread within the essays is the importance of strong, trusting relationships between the public health team and the rest of the council (mechanism: reasoning – relationship building; mutual respect, trust) (Buck, 2014 cited in Local Government Association, 2014).

The 2019 ADPH survey, also identifies positive relationships with other senior officers within the council: Directors of Adults Social Services (99% positive), Directors of Children's Services (89% positive) and relationships with other directorates (88% positive) (C2 decision-making is highly politicised and characterised by a dual elite, (John, 2014) – possible refinement dynamic relationships between local bureaucratic elites) (ADPH, 2019). These positive two-way relationships were identified in a LGA commentary from the Chief Executive of the Association Directors Adult Social Services (ADASS) who argued that the mutual benefits outweigh any local challenges (C2 decision-making is highly politicised and characterised by a dual

elite, (John, 2014) – possible refinement dynamic relationships between local bureaucratic elites). Public Health were considered to bring a vast wealth and depth of expertise, skill and knowledge to local government, which itself was positioned to know and engage with local people and organisations (mechanism: reasoning – bringing together different knowledges) (Keene, 2014 cited in Local Government Association, 2014).

It is possible to identify from these grey sources a learning curve with respect to how decisions are made within a democratic setting, and what evidence is required (Local Government Association, 2014, 2017b, 2018, 2019a). Public health leaders will need to '*see and influence the bigger picture, not letting the perfect become the enemy of the good*' (Buck, 2014 cited in Local Government Association, 2014). Cox, a transferred DPH reflecting on public health post the transfer suggested that '*I was once told that public health is a marathon, but I have recently revised my view that it perhaps needs to be a 15-20 kilometre and whilst we need to train for a sustainable longevity we need to be part of a pacier race*(C2: highly politicised culture of decision making; mechanism: reasoning – fleet of foot)' (Cox cited in Local Government Association, 2014). Hunter argues that future public health leaders need to be politically astute (mechanism: reasoning – political nous), able to communicate with different audiences (mechanism: reasoning persuasive modes of communication), form collaborative relationships that enable things to get done (mechanism: reasoning – relationship building), and assemble the business case for investing and disinvesting in public health using evidence from NICE and elsewhere (C1: science of muddling through – assembling/ crafting of evidence)" (Hunter cited in Local Government Association, 2014).

It is also possible to discern this assembling of evidence to support the decision-making process needs to be cognisant of a decision-making culture that emphasises best value or options appraisal (C1: decision-making culture- possible refinement – best value processes shape

knowledge required produce muddling through). This is illustrated by Furber's analysis that the move to local government has precipitated a review of public health's commissioned services such as sexual health to ensure they are effective and efficient (Furber cited in Local Government Association, 2017a). It is possible to identify the value of using technical public health skills within this assembling and crafting of evidence and this is valued within local government. One local council CEO argues: *'The core role of the public health workforce in this world is to ensure the sophisticated use of data to guide evidence based commissioning, providing a toolkit of evidence based interventions and evaluating the impact on outcomes and inequalities'* (Najsarek, 2017 cited in Local Government Association, 2017a) (mechanism: resource – PH technical competencies; mechanism: reasoning – deployed, valued). A fit for purpose workforce, funding aligned with population need, a strong evidence base and good quality data (mechanism: resource - data; technical skills) were also identified as key enablers of the public health system (Local Government Association, 2018). Opportunities for public health to operate within the local government planning system were identified within the grey literature (mechanism: resource – planning rules mechanism: reasoning – trust; influence, persuasion). The LGA (2018) found that working with planning teams is a particularly productive area for public health, since it provides an opportunity to influence many of the social determinants of health.

Finally, in terms of grey sources the House of Commons Select Committee (2016) conducted an inquiry into the experience of public health since transferring to local government in 2013. It concluded that public health should remain in local government; and that the function was well placed to embed the health and wellbeing agenda within their local communities across all the policies for which they are responsible (mechanism: resource – DPH powers and duties)(Great Britain. House of Commons Health Committee, 2016).

The Select Committee did identify a tension between politics and evidence which is illustrated by the following quotation: '*I know that a lot of it is about localism and being locally democratically responsive and accountable, but then you run into problems where you have something that is not necessarily politically palatable or popular, like providing services to drug and alcohol users and migrant health services, which will not get you any votes and, therefore, are not necessarily high on the local authority's agenda, depending on where you are'* (public health registrar cited in Great Britain. House of Commons Health Committee, 2016). Another respondent, saw the importance of working within local democracy: *'There is something for me about the empowerment that you have as a director of public health working in a body that contains democratically elected members. It is an incredible experience. I have been born and bred in the NHS, but the work that we do, working with those elected members and bringing democracy into what we do in public health, is very powerful'* (DPH cited in Great Britain. House of Commons Health Committee, 2016).

There are several published studies outlining how public health has fared since returning to local government. These are synthesised below. The literature can be organised into three categories within which several mechanisms can be unearthed for further examination. The broad categories of evidence are: dilemmas arising from the transfer; relationships and the deployment of evidence.

Dilemmas arising from the transfer

One dilemma identified within the grey literature was the organisational position of the DPH. This was examined by Peckham et al (2017) who linked the ability to influence decision-making to organisational position. They found that half the professional public health leads (53% n = 39 in 2015) were on their councils' most

senior management team. When the public health function was distributed across the organisation there was potential conflict between professional values and organisational values: '*. . . a genuine tension for some of the people who've come over from public health; is their ultimate responsibility to their profession or is it to their organisation?* (local policy officer)' (Peckham et al., 2017). Gorsky et al (2014)describe the danger of public health teams placed in 'health silos' leading to wide variations in DsPH powers, for example, in relation to managing staff and budgets.(C3: contextual feature organisation of PH team).

A period of adjustment was evident; adjusting to new roles and ways of working; there was a reported initial culture shock even where there had been joint appointments (C2: culture of decision making – political environment; mechanism – reasoning relationship building officer-member, officer-officer) (Peckham et al., 2017). Senior public health staff had to adjust to new roles and relationships relative to other actors (Gadsby et al., 2017). Directors of Public Health (DsPH) were previously key decision-makers on the executive boards of PCTs and had clear authority with regards to public health priorities. They were now expert advisers to elected members (C2: culture of decision-making highly politicised). DPH could not rely on status or position; relying instead on softer skills (mechanism: reasoning – negotiate, network, 'win friend and influence people', relationship building) and by recognising that how evidence is conceptualised may need to be broadened (Jehu et al., 2017). Dilemmas around independence, professional judgement and degree of influence over priority-setting are apparent (mechanism: reasoning – quality of advice versus getting things done; balancing knowledges; recognising red lines) (Marks et al., 2015). However Willmott et al (2016) conclude that DsPH are responding to their new environment; evidence from DsPH to the House of Commons Select Committee (2016) further supports this conclusion.

Leadership for public health was found to be more dispersed; decision-making is now more complex (C1: science of muddling through: refinement more 'business'-orientated approach adopted by many local councils, using best value frameworks) and may well be subject to both politics, ideology and personal interest (C2: highly politicised)(Gadsby et al., 2017). Jehu et al (2017) found that some public health staff felt restricted in the way they could operate: "*Part of the way in which the council controls the members is by not letting people anywhere near them. So it's bizarre. My boss gets very upset if I go and speak to a Cabinet member without her present in the room. But I do it anyway*" (mechanism: resource – access to members)

Relationships

Dhesi and Stewart (2015) identified tensions between public health and other local government officers specifically Environmental Health (EH) officers because of a need to compete for limited resources (mechanism: reasoning on the part of newly transferred officer – the need to recognise how others are responding/how they are being received). An additional tension between these sets of officers was the view that evidence within public health was *'like a religion'* (Dhesi and Stewart, 2015, p.7) EH officers saw themselves as doers and more importantly 'do now'; evidence- based practice was viewed as frustrating (C2 – characteristic of decision-making culture – evidence-based practice is not the default). In terms of relationships between officers and members, there is evidence that both public health officers and elected members were largely positive about the way staff had become embedded and integrated; public health staff were valued and their advice was trusted (mechanism: reasoning – trust; mechanism: reasoning -give advice) (Peckham et al., 2017). Local government officers have multiple relationships and accountability in local government – local population, members etc and need to arbitrate between different groups (Phillips and Green, 2015 cited in Peckham et al., 2017). *'At different times the same course of action may be*

more or less palatable depending on the particular constellation of local and national policies, public opinion and funding' (Phillips and Green, 2015 cited in Peckham et al., 2017) (C1: muddling through Lindblom's argument on relative values of policy objectives).

Deployment of evidence and skills needed

Sanders et al (2017) identified diverse evidence cultures within the local authority suggesting politicians were influenced by the 'soft' social care agendas affecting their local population and treated local opinion as evidence, whilst public health managers prioritised the scientific view of evidence informed by research(C2 – characteristic of decision-making culture – evidence-based practice is not the default; mechanism: reasoning – recognise differing forms of evidence). Public health teams find themselves in a different decision-making culture where decisions are often based on political pressure rather than evidence (C2 – highly politicised); teams would benefit from having better influencing skills (Royal Society of Public Health, 2015 cited in Jenkins et al., 2016). One means of informing decision-making by using evidence is the opportunity to advise. As Furber(2017), points out in his blog the DPH is *'the person elected members and senior officers look to for leadership, expertise, and advice* (mechanism: reasoning - advice) *on a range of issues, from outbreaks of disease and emergency preparedness through to improving local people's health and concerns around access to services'* and the local authority has a statutory duty to appoint the DPH (mechanism: resource – statutes) (Great Britain. Department of Health, 2012). Clearly, advice is a key part of the job role. The issue is how to advise in this context. Peckham et al identified that demand for public health advice by other departments had remained fairly static from 2014 to 2015; 44% (n = 32); other departments 'definitely' asking for advice (mechanism: reasoning – give advice; refinement officer-officer relationships)(Peckham et al., 2017). This advice and support tended to be in: provision of

data; needs assessments; monitoring against goals or targets; inequalities analysis; and commissioning (mechanism: reasoning – deployment of technical knowledges). Jesu et al (2017) identified that to be able to advise (deploy evidence) it was necessary to have political insight: *'you have to be quite fleet of foot and you have to have political nous. It's no good doing the job if you haven't got any political nous. It's a nightmare. You need to know where you're going and you need to make sure you've covered all your bases before you plunge into something. [...]'* (mechanism: reasoning – political nous). DsPH therefore need excellent communication, negotiation and influencing skills to form a consensus in a political working environment (Gorsky et al., 2014); one where democratic accountability to the whole population is viewed as a key factor in decision-making (C2: highly politicised; mechanism: resource -democratic processes; mechanism: reasoning – recognition of the power of the ballot box)(Marks et al., 2015).

Finally, and out with the timescales of the initial searches and fieldwork the King's Fund has recently published an independent assessment of English local government health reforms (Buck, 2020). This is a different focus to this study; however, its findings largely support the above synthesis and it draws on many of the papers/case studies highlighted above. Buck (2020) argues that the public health reforms are embedded and have led to innovations and strengthening of commissioning in terms of the more clinically focussed services. He concludes that: '*Our overall view is that the move to local government for many public* health services was the right one. More important still, *in the long term is the opportunity to influence wider local government policy and decisions; now is the opportunity to make good on the opportunity in the context of the development of place-based population health systems'* (Buck, 2020, p.5). This recognition that Place is important, is echoed in the recent essay collection

(Local Government Association, 2019a), and within this thesis there are numerous examples of how the opportunity to influence policy to make and shape Place was being recognised and by whom.

Candidate theories (C1) and (C2)

The following section draws on evidence from all 5 guided searches and the included studies are listed in Annexe 8; here they are presented in the form of a narrative analysis which aims to refine the initial candidate theory and identify mechanisms that have been unearthed. Examination of the literature confirmed the two candidate theories and identified key refinements which are outlined here and summarised in Diagram 22.

Decision-making can be characterised as muddling through (C1)?

Evidence to support this candidate theory is drawn from 14 studies. Key findings are concerned with the nature of the decision-making structure in terms of its origin and its operation. Evidence requirements within the process are identified and the how and by whom this evidence is deployed is also highlighted. Phillips and Green's analysis describes local government in England as a creature of statute. This national legislation has two purposes. First, it acts as a framework for mandated services such as refuse collection '*officers have a degree of discretionary autonomy in how they apply these tools, enabling them to shape health determinants (if in often marginal ways) through, for instance, the control of licences for alcohol sales'* (mechanism: resource - statutes; mechanism: reasoning recognition of the opportunity; evidence deployed). Second, it acts as a tool whereby the local authority *'can shape and control the local commercial, physical and social environment'* (C3 -place maker and shaper; mechanism: resource -legislative powers and duties) (Phillips

and Green, 2015, p.493). The use of these powers is shaped by *'policies and priorities of the incumbent local political administration, and their historical commitments and ethos'* (Phillips and Green, 2015, p.493). This supports Lindblom's (1959) thesis that policy-making is focussed on building out from the current situation, step by step and by small degrees – working at the margins and gathering (importantly for this study) knowledge at the margins. Phillips and Green (2015) give the example of transport officers rarely having public health outcomes as a primary goal, arguing that some health outcomes may be marginalised in achieving other goals, for example free parking in town centres to support local businesses does not encourage active transport or reduce the impact of car emissions on air quality. Further, different health outcomes may be prioritised by different constituencies. This example is a demonstration of Lindblom's (1959) hypothesis that policy objectives have relative values.

The decision-making system in English local government arose from modernisation reforms (Great Britain. Cabinet Office., 1999; Great Britain, 2000); national legislation providing the framework and local history influencing the interpretation (Gains et al., 2005, 2009). The reforms aimed to produce transparency and encourage strong leadership from a small group of politicians held to account by a strong Overview and Scrutiny system (Gains et al., 2005; Boyd and Coleman, 2011). Evidence synthesised from the included papers reveals a decision-making process that does not fit a rational cycle of selecting the 'instrumentally effective choice.' Instead, it is a system of government by discussion and analysis – a process of argument and persuasion (Wesselink and Gouldson, 2014). Policy decisions are part of an iterative process of reviewing and amending (Marks et al., 2015) as the decision progresses to

the ultimate decision-making forum within a particular authority. Peckham et al found that decision-making processes were complex and required close working with the lead elected member. There were several decision-making fora and consultations within the authority and community (Gadsby et al., 2017). It was seen as a lengthy process but the study found one valued by public health because of the scrutiny: *'it's actually a very robust process and explains well how we are going to spend public funds, because you are justifying your business needs and getting feedback to see if it's the right thing to invest in, you've got chances for peer review, and you can get an understanding from your colleagues about where they think would be a better area to focus on. You have to get legal clearance, financial clearance, so it's all formally done, and then it goes to the decision makers. So, by the time it gets to the cabinet it has been through all of that'* (Peckham et al., 2017). Sanders et al (2017) described how the process has been underpinned by transactions (mechanism : reasoning – navigating processes; supplying required information) and identified that interdependency of the system required negotiation across departments(Sanders et al., 2017). Within these processes options appraisal and a focus on best value was the norm (Gadsby et al., 2017) which contrasted to public health's recent NHS experience. This in turn dictates the type of knowledge which can be used within the process i.e. what decision-making tools are helpful. For example, Marks et al identify that the focus is often on purchasing to meet a policy priority which requires identification of options rather than an analysis of need or implementation of a best practice guideline (Marks et al., 2015). Kelly et al conclude that NICE guidelines may have a role in local government decision-making if their use could be framed as an important *'starting point'* (mechanism: reasoning framing of evidence, assembling, weaving) to address local problems (Kelly et al., 2017). It is also possible to identify from

the literature the importance of local evidence (Atkins et al., 2017, 2019) and that economic or technical arguments are not sufficient (Wesselink and Gouldson, 2014).

Decision-making is highly politicised and characterised by a dual elite (John, 2014) (C2)

Evidence to examine this theory is drawn from 18 studies. Findings from the literature were confirmatory of the candidate theory that the culture of decision-making in English local government is highly politicised and this is in contrast to public heath's previous setting. Politicians are the key decision-maker but the relationship between officers and members is mitigated by the local decisions-making processes and the balance of these relationships. Candidate theory (C2) was also articulated in terms of the importance of the relationship between senior officers and senior councillors (John, 2014). Evidence from the synthesised studies refines these two aspects i.e. highly politicised and dual elite. These findings begin with exploring the highly politicised component.

There is considerable confirmatory evidence set out above in the examination of public health's return to local government to support the highly politicised aspect of the candidate theory (Gadsby et al., 2017; Peckham et al., 2017; Jehu et al., 2017). This quotation sums up an element of this highly political context: *'In local authority there is a big political element to any decision-making process. And there are a number of times where you take something and if we take this example, this intervention works but it's not going to be popular. Then there is that political angle that you are going to need to wrestle with'* (public health officer cited in presentation by Sanders, 2016). However, this is more than just a concern with the future ballot box and the importance of democratic accountability to the local population (Marks et al., 2015;

Wesselink and Gouldson, 2014). Rather it speaks to the heart of role of an elected member strongly rooted in their wards and localities acting as a steward of place (mechanism: resource- democratic cycle, mechanism: reasoning - valued responsibility)(Mangan et al., 2016).

It can be identified that an elected member's authority comes from knowledge of their communities and what is important: *'We had a discussion about smoking and drugs, and it was pointed out that lots more people die of smoking related conditions than they do of alcohol and drug related conditions, but nobody complains to me about the next-door neighbour smoking. But they will complain about the drug dealers on the corner and the alcohol, noise and abuse and all that stuff, which has a big effect on peoples' lives. It ripples out on the community. But they've got a point, but we've got a point as well'* (Marks et al., 2015). Wilmot et al identifies that the politics of resource allocation is an element of this highly politicised context. Economic or return on investment arguments are of less importance than a clear articulation of who gets what and when: '*by and large the politician's first interest is not the evidence. Or even the return on investment. Um, their first interest sits between doing the right thing and being politically acceptable. And you have to have to meet those two targets first…'* (Willmott et al., 2016) (mechanism: reasoning – political nous; democratic accountability).

In terms of the second aspect of this candidate theory, the concept of a dual elite, there is confirmatory evidence from within the included studies on the crucial importance of the relationships between senior officers and elected members. As argued earlier national legislation outlined in Table 9 below has shaped governance within an authority and the resulting relationships between local bureaucratic elites (mechanism: resources – legislative frameworks, statute, powers and duties; mechanism: reasoning – adapt, adopt).

Evidence from the included studies suggests there is a more dynamic relationship amongst local bureaucratic elites.

Table 9: key governance arrangements arising from recent legislation

Legislation	Key governance strand
Local Government Act, 2000	Act set out four governance options for councils: 1. leader working with a cabinet 2. directly elected executive mayor 3. a council manager working with a directly elected mayor 4. streamlined committee system (Sillett, 2014; Great Britain, 2000).
Localism Act, 2011	The Localism Act, 2011 amended governance arrangements relating to committees and added a further form of local authority governance. Option 4 was removed. All councils were given the additional option of adopting a committee system (Schedule 2 Sections 9B and 9K, Great Britain, 2011). If a committee system were adopted the authority was able to decide can decide how its functions, i.e. the powers given to it by central government, are delivered. It can have full council to make all of its decisions or it can delegate certain responsibilities to a committee, a sub-committee or an officer (Sillett, 2014). This is known as a scheme of delegation and forms part of the Council Constitution.

Local government officers have two sources of political authority: national and local (Gains, 2009) and this can lead to dilemmas within their relationship with the local source of authority i.e. executive councillors. A key tension is '*supporting a locally strengthened executive in a context where central control of policy and performance is exercised*' and this requires negotiation about the interpretation of national priorities (mechanisms: resource – constitutional role of officers; mechanism: reasoning – assembling a case, relationship building, trust, integrity, political nous) (Gains, 2009). Local government officers balance the agendas of a number of different actors: national government, local politicians, the

financial concerns of their executive directors, the priorities of external funders, their own human resources and the interests of the local community and businesses (Phillips and Green, 2015). Personal attributes such as longevity in post and capability of both politician and officer can create differing and diverse dependency relationships (Gains, 2009). The reforms have produced a blurring of boundaries between officers and members, for example the use of delegated decision-making powers – executive officers and politicians need to operate in a 'zone of interaction' (Gains, 2009) and this produces a 'subtle and dynamic partnership'(Gains, 2009).

Gains (2009) argues that the new political management arrangements have varied across authorities in terms of its impact on officer-member relationships. They have diminished the power and/or empires of Heads of Service. However, in many places and situations though the officer has 'informational advantage' and considerable, overt, transparent, decision-making powers (mechanism: reasoning – resource exchange, mutual respect) (Gains, 2009). Interpersonal relationships are crucial and described in the literature as the everyday politics of influencing, persuading and negotiating. A key finding of Phillips and Green (2015, p.496) study was that everyday politics trumps *'Politics with a big P'*(mechanism: reasoning – mutual respect; balancing knowledges; relationships counter weight to Politics is a refinement). This knowledge built up over time (mechanism: reasoning – longevity in service /geography). Members likewise connected to their communities and this added to the *'geographically bounded and locally embedded expertise'* (Phillips and Green, 2015, p.498).

The uniqueness of local authorities (C3)

As stated in the methods, it was recognised that evidence for the uniqueness of an individual local authority lay within the proposed case sites rather than within databases of studies. No specific searches were undertaken focussing on the uniqueness of local government. However, the review of the empirical studies did reinforce and refine the concept of the uniqueness of individual authorities specifically within search sets B: public health's experience of returning to local government and C: local governance reforms and the role of officers. Full details of the data extracted are set out Annexe 8. Data from the empirical studies then further clarified the concept of uniqueness in terms of the history of English local government and its position with respect to national government leading to the emergence of Place as the more theoretically useful concept.

In addition, data extracted on public health's return to local government produced a picture of differing approaches within authorities to the establishment and role of public health. This theoretically guided search identified that public health's influence, within the decision-making process, may be predicated on how the function has been set up. This evidence was then used as part of the sampling decisions for case site selection (see Table 4). These literatures together refined C3 defining it in terms of the idea of Place to be further explored within the case sites.

Utilisation of NICE guidelines in decision-making (outcome)

As can be seen from the flow diagram (Diagram 21) this section included 3 articles on NICE's experience post 2013. Accessing the grey literature identified a further 4 studies which met the inclusion criteria. Additionally, 3 papers identified during the literature foray and held in the study database, although not directly examining NICE,

offered evidence on NICE's use or not within English local government were therefore included in the review. This section focuses on evidence from the literature (empirical studies and other sources) to confront this outcome which is the essence of the study itself. Given the concern with outcome, realist logic suggests that there will be outcome patterns and these have been identified and summarised in Table 10 below.

In terms of the 3 papers identified from the search of academic databases, 2 (Atkins et al., 2017; Kelly et al., 2017) were outputs from the Public Health in Local Authorities (PHiLA)project. The third paper was a report from the NICE's Shared Learning Database on applying NICE guidance to a local authority led quality framework (Mulligan, 2019). Mulligan's (2019) entry into the Shared Learning database describes joint working between the CCG and the local authority. NICE guidelines (and the associated quality standards) were used as a lever within the commissioning process specifically as a source of best practice (O pattern: lever within commissioning). Mulligan describes on-going meetings with the local authority to embed health into the Council's existing quality measure in a '*manner that was research and evidence based'* (2019, p.2). The paper reveals a sense of differing cultures between health and local government and a need to respond to this by pro-actively and regularly meeting (mechanism: reasoning- trust). Mulligan also identifies that the success of the project was aided by a secondee from local government who understood the particular local authority (C3: uniqueness of individual authority).

Examination of the two articles from the PHiLA project was revealing. In particular, the authors noted that their initial interest was on how extant NICE public health guidance published from 2006 and therefore predating the Health and Social Care Act reforms had fared in local government. As their study progressed the focus was

broadened into examining. the role of evidence and its use in local councils more generally (Kelly et al., 2017). This broadening from their initial research question arose from their data collection (i.e. 31 in depth interviews within four local authorities) and also, it is argued, reflects Kelly's interest in the application of the principles of Evidence Based Medicine to the production of public health guidelines (Kelly et al., 2009, 2010). As has been described earlier the outputs of the PHiLA project contained rich and relevant data to support the refinement of the hypothesised theories on the nature of decision making (see above). The data collection did, however, occur in 2014 relatively soon after the implementation of the Health and Social Care Act, 2012.

The PHiLA project has recently published another article focussed on perceptions of the public health transfer arising from the interview study (Atkins et al., 2019). This paper does not focus on how NICE guidance fares, and therefore does not add to the theory development within this inquiry. The evidence set out below consists of data extracted from Atkins et al (2017) and Kelly et al (2017) and is simply linked to the outcome of interest. The studies found limited evidence of NICE guidelines being utilised (outcome pattern: invisible within decision-making). They did, as referenced above, conclude though that *'if, however, the role of guidelines could be framed as an important 'starting point' to address local problems, then in the complex political world of local authorities, the guidelines could find an important place'* (outcome pattern: conversations)(Kelly et al., 2017). The Atkins et al (2017) paper sets out that *'Local government users do not necessarily consider national guidelines to be fit for purpose at local level, with the consequence that local evidence tends to trump evidence-based guidelines'* (outcome pattern: guideline not fit for purpose). This quotation speaks to the nature of evidence use within local government which needs to meet the knowledge requirements of a muddling

through context (C1). As one respondent in their study described it: *"Well, as you know, every politician works on an anecdote* (mechanism: reasoning -story telling). *We have to use evidence either to support or refute the anecdote* (mechanism: reasoning – exchange of resources) *and sometimes you get overruled* (C2: decision making is politicised). *If you manage to ... ensure the evidence base is followed 75% to 85% of the time probably in this environment, we're doing pretty well"* (Atkins et al., 2017). One aspect of the uniqueness of local authorities (C3) was also identified i.e. the likely limited implementation because such guidance would be viewed as a national diktat and therefore something local government would instinctively ignore (outcome pattern – dismiss) (Atkins et al., 2017).

Evidence from Kneale et al's (2017, 2018) reviews conclude that post 2013 public health decision-making landscape NICE could be considered invisible (outcome pattern – invisible). Beenstock et al (2015) reviewed the content of Health and Well-Being strategies (HWS) and identified there was limited use of NICE guidelines within these. Specifically, they identified that only 3 HWS referenced NICE guidelines (outcome pattern limited use within strategies). Moreover, these references were concerned with establishing a need rather than identifying an effective intervention (outcome pattern – guideline not fit for purpose). This is important because the expectation to produce a HWS was seen by the House of Commons Communities and Local Government Committee as instrumental to the success of the new public health structure.

The search for grey sources identified 4 reports or papers that met the inclusion criteria. First, an unpublished survey of public health teams based in local government across the geographical area of the Collaboration for Leadership in Applied Health Research and Care Yorkshire and Humber (CLAHRC YH) explored the extent to which NICE guidance has been used to underpin HWS (outcome pattern: underpin

strategy) (Powell-Hoyland and Homer, 2015). The team conducted structured interviews with DsPH in 2015. Two years post the formal transfer date of public health teams Powell-Hoyland and Homer found that respondents identified NICE guidance as an additional source to support public health work (outcome pattern: support to practice). Similar to Kneale et al (2016, 2017, 2018) and Beenstock (2015), Powell-Hoyland and Homer (2015) found little evidence within their interviews of NICE guidance being used to underpin strategy (outcome pattern: invisible within a strategy). Second NICE's report on their field operations although focussing on social care identified generally low levels of awareness of their emerging role in social care (Leng, 2014). Third, correspondence with authors identified a working paper/ slide set related to the PHiLA project (Michie, 2014) academic outputs from which are reported above (Atkins et al., 2017; Kelly et al., 2017). The PHiLA project set out to investigate how NICE public health guidance was received and implemented in local authorities. It examined what roles are played in the process by individuals and committees such as the Health and Well-being board. It sought to identify barriers and facilitators to implementation. The PHiLA study recognised the relevance of local government as the new implementation context and principal audience for NICE public health guidance. A key aim of the study which was partially funded by NICE itself was to *"investigate what data and mechanisms are available in local authorities for monitoring and evaluating the process of implementation"* (Michie, 2014, p.4). In terms of the outcome of interest within the present inquiry, data extracted from the slide set suggests that knowledge and awareness of guidelines tends to be limited to particular roles (outcome pattern- awareness of guidelines).

Finally, correspondence in relation to the work being undertaken at UCL by Kneale et al (2016) identified a scoping review characterising the activities and landscape around implementing NICE guidance. This scoping review identified 87 studies that met their inclusion criteria, 7% of which (6 studies) were concerned with increasing uptake of public health guidelines. They found no published studies on social care guidelines (Kneale et al., 2016). All 6 studies had a clinical focus and were set in the NHS. This suggests that there is limited work within implementation science on interventions to support the implementation of NICE guidelines within local government. Within this scoping review, a web-based search was conducted to identify whether national stakeholders were supporting the implementation of NICE guidelines locally. They found relatively little presence of local government within this search. Where examples were found they were from PHE or the Local Government Association embedding guidance within a topic awareness raising report suggesting these bodies may have a better reach into local government than NICE (Kneale et al., 2016).

Table 10: outcome patterns derived from the literature

Identified outcome pattern	Evidence
POLICY AND STRATEGY:	
Invisible within the documentation	NICE guidance not referenced within strategies (Kneale et al., 2016, 2017, 2018; Powell-Hoyland and Homer, 2015; Beenstock et al., 2015); guidance may be embedded by other national bodies who may have more recognition/credibility within local government (Kneale et al., 2016)
Invisible within decision-making	Limited evidence of NICE guidance being utilised within decision-making (Atkins et al., 2017; Kelly et al., 2017)
PUBLIC HEALTH PRACTICE:	
Visibility within developmental work	NICE guidance identified an additional source for public health practice(Powell-Hoyland and Homer, 2015)
Visibility within commissioning work	NICE guidelines (and the associated quality standards) were used a lever within the commissioning process specifically as a source of best practice (Mulligan, 2019)
Visible within conversation/influence	"If, however, the role of guidelines could be framed as an important 'starting point' to address local problems, then in the

Identified outcome pattern	Evidence
	complex political world of local authorities, the guidelines could find an important place"(Kelly et al., 2017).
AWARENESS OF GUIDELINES	Low levels of awareness of emerging role of NICE (Leng, 2014); knowledge of guidance tends to be limited to particular roles(Michie, 2014); aware but dismiss as a national diktat (Atkins et al., 2017)
USEFULNESS OF GUIDELINES	'Local government users do not necessarily consider national guidelines to be fit for purpose at local level, with the consequence that local evidence tends to trump evidence-based guidelines' (Atkins et al., 2017); used to establish need rather than for as an intervention (Beenstock et al., 2015)

There is an important distinction from the literature in terms of visibility of guidelines and awareness. The concept of visibility and conversely invisibly arises from studies which analyse documentation where it might be reasonable to expect reference to NICE guidelines, for example, health and well-being strategies. These studies largely concluded that NICE was invisible within the documents associated with decision-making. In contrast, when the researchers undertook interviews with decision makers there was reference to NICE guidelines as a source i.e. NICE was visible within the process. In addition, although Michie's work is in a health rather than local government context it does suggest that awareness of guidelines is role dependent and this finding was supported by Leng's work in adult social care.

Refined theories and implications for the case studies

As stated in the methods chapter there was a 'to and fro-ing' between phases within the exploring and testing of theory (Hampshaw et al., 2016) In other words, there was an overlap between the field work and review of empirical studies. This overlap largely occurred during S2: search for empirical studies. S3: assessment for relevance and S4: data extraction stages of Pawson's Task and Time template. Stage

5 of the template is synthesis and the synthesised findings from the secondary sources are reported directly above. These findings resulted in refinements of the original candidate theories and helped shape data collection within the three case sites. These refinements were not fully assembled (as set out in Diagram 22) but they were sufficiently developed to focus the data collection within the fieldwork. In other words, the refined candidate theories were the theory against which the evidence (from the field) was explored or tested. Findings from the empirical review shaped the case studies by reinforcing the necessity to explore and test in different settings and aided the theoretical selection of cases (Emmel, 2013). Moreover, the findings also directed and supported case selection within the case studies, for example, within the PHiLA study natural public health allies, were identified as facilitators of the use of NICE guidelines (Michie, 2014). Interviews were sought with non- PH officers to explore this idea. Additionally, findings from the review of empirical sources were used within the realist interview process (teaching-learning cycles) (Manzano, 2016). For example, the review surfaced mechanisms to be explored within the interviews, for instance, mutual respect within the relationship between officer and members. This helped ensure that the interview topic guides met Manzano's second guiding principle: 'asking questions like a realist' (Manzano, 2016).

These refined expositions of theory became the focus of primary data collection and are summarised within Diagram 21. There are four key refinements:

1. C1: *decision making is characterised by 'muddling through'* is refined to recognise that the options appraisal cycles prevalent in local government (Hunter et al., 2016) require specific knowledge to be deployed. This focussed questions within the interviews on the use of evidence within these processes.

2. C2*: decision making is highly politicised and characterised by a dual elite* (John, 2014), was refined to recognise the dynamic relationships between local bureaucratic elites (Gains, 2009) and these relationships became the focus of the interviews. The refinement to local bureaucratic elites broadens the focus to include officer-member (executive and non-executive), executive member – non-executive member as well as officer-officer relationships.
3. C3 initially labelled uniqueness of the authority is further understood to be the council's view of itself and is linked to its historical context, its constitutions and its capabilities. Throughout the section above evidence for C3 was labelled *'uniqueness of the authority,'* in the next section, the label Place is used.
4. The outcome originally described as utilisation of NICE guidelines within public health decision making was refined to identify patterns of visibility of NICE guidelines within the culture of decision-making. Thus, linking the outcome to contexts more explicitly and recognising likely outcome patterns.

Diagram 22: refined exposition of programme theories

	Original exposition of candidate theory Simplification	Refined exposition of candidate theory (summary result theoretically guided literature search)	
Context 3 (C3)	Uniqueness of the authority	Each council's view of itself and its Place is linked to to its historical context, its constitution and its capabilities S H A P E S :	
Internal context (C1)	Decision making is characterised by the science of 'muddling through'	Recognition of the options appraisal cycles within decision making which utilise a muddling through approach and require Knowledge at the edges	Key mechanisms • Instruments of governance *(resource)* • Mutual respect of each other's role (officers, members) *(reasoning)* • Collective sense making
Internal context (C2)	Decision making is highly politicised and characterised by the operation of a dual elite	Highly political constrains governance (constitutions); reforms (formalised politics); dynamic relationships within local bureaucratic elites (exchange of resources) – dilemmas within both roles (blurring of boundaries)	
Outcome	Utilisation of NICE guidance within PH decision making	Patterns of visibility of NICE guidance within culture of decision making	

Deployed where	By whom
policy and strategy	Transferred PH staff (senior)
commissioning practice	Transferred PH staff (leads)
within developmental work	Other officers
conversations	Members (portfolio; committee members)

Chapter 5: Exploring and testing theory within 3 local authorities

This chapter sets out findings from the field work in each of the three sites across Yorkshire and Humber. All three councils were unitary authorities - a type of local authority that is responsible for all local government functions within its area including public health (Local Government Association, 2019b). In terms of governance, all three sites operate a leader working with cabinet model, have adopted a committee system and a scheme of delegation for decision-making (see Table 9 above for further detail). Early theorising and consensus within the Delphi panel surfaced that the uniqueness of each individual municipality could help to explain why guidance is differentially used. Moreover, as argued, the theoretical fruitfulness of the candidate theory labelled place emerged as the realist inquiry progressed particularly as data analysis advanced. Selecting 'place' for attention is not only fruitful in terms of explanation building but also a lens for examining the decision-making context within each authority. One purpose of a realist synthesis is to test theory in differing settings (Jagosh, 2017b).

Findings within this chapter are reported in the form of narratives and summary diagrams commonly used in case study reporting (Yin, 2014) although the mechanisms, contexts and outcomes are embedded within the narrative they are identified by use of subscripted text within brackets, for example $_{\text{(mechanism: reasoning- trust)}}$ or $_{\text{(mechanism: resource – committee)}}$. Each case site is initially reported separately. Both the case site and data from the interviews have been anonymised. Although, direct quotations are used they are simply labelled as public health officer, officer and member to preserve anonymity. Where pertinent, the seniority of the informant is also identified.

Evidence from the documentary analysis such as the council constitution is identified within the text, but is not included in the full reference list to avoid identification of the authority. These narratives begin with a brief description of each Council which sets out features of the context that contribute to its sense of uniqueness (C3). They then aim to present evidence which explains how these shape decision-making cultures (C2, C3) and identify mechanisms whether instruments of the organisation or how officers reason when operating within these contexts. Findings related to the use, or non-use, of NICE guidelines (outcome patterns – NICE visibility) are identified within this chapter but further explored within the discussion chapter.

As outlined above, the review of empirical sources identified evidence that NICE could be considered to be largely invisible in the post 2013 public health decision-making landscape (Kneale et al., 2016, 2017, 2018). NICE themselves have limited evidence of how its guidance is used by local government and do not routinely collect this information (NICE Implementation Consultant, 2019). However, the process of reviewing suggested that there was a pattern of visibility of NICE guidelines within local government (summarised in Table 10 above). This discovery helped refine the hypothesized candidate theories and further conceptualised Outcome to be concerned with patterns of visibility. The case study approach to data collection explored this further.

Within each of the case sites, findings are presented which illuminate an aspect of the candidate theory. Within these narratives, there are the tentative configurations of contexts, mechanisms and outcomes that are further developed in the discussion chapter. For example, in case site 1 the description of navigating: *“hoops of decision making within the Council”* (public health officer) suggests that muddling through (C1)

has greater explanatory power in terms of how NICE is deployed (visibility within specifications) (outcome pattern: visibility within commissioning work) than the local bureaucratic elites (C2) because within the place (C3) officers are not encouraged to work closely with members *"good relationships but at a very senior level [...] layers of staff that don't routinely meet [members]"* (public health officer).

Case site 1

"Essentially, the officers make recommendations to the politicians and the members are very unlikely to turn those recommendations down and they don't have very much influence in drawing up those recommendations" (public health officer)

The analysis of the case study data identified two features of this context which have been labelled 'pride in the prize' and 'sensible local bureaucratic elite relationships' (C3- Place). These contextual features help to build an explanation of the culture of decision-making within the authority and in turn how this results in the observed patterns of visibility of NICE guidelines. Further, the existence of these specific features of the place contribute to adjudication between the two refined candidate theories of muddling through and highly-politicised decision making. In other words, aspects of the place itself (C3), and how the place views itself is real and either produces or limits the extent to which, for example, decision-making is characterised by the process of muddling through (C1). This in turn dictates what and whose knowledge is required within such an incremental process and this is explanatory in terms of the visibility of NICE guidelines (outcome pattern).

Pride in the prize

One aspect of this place (C3) is the authority's evident pride in its record of and drive for efficient, and high-quality delivery of services for its population. This place adopts both pride and quality as behaviours and values within its written constitution (mechanism: resource). The council prides itself on offering value for money: "*the council is good at spending money well [...] part of what it does; in its DNA [to] push its contracts really hard [and]* "*know where every penny is"* (public health officer). This was borne out by all interviewees whether they were long standing council officials, transferred public health staff or politicians. One respondent explained that the *"Council spends money on behalf of the population and therefore wants proof that the recipient* [of a service] *is a* [local] *resident, for example.* [This came as a] *major shock to the NHS"* (public health officer). Public health officers with commissioning responsibilities commented on the difference in contract management between the NHS and local government. All argued that their previous contracting arrangements and monitoring relationships were light touch. Further the contracts they brought into local government were *"laughed at"* or seen as inadequate by other council officers within legal and procurement teams: *"procurement [rules are] rigorously applied"* (public health officer). Gadsby et al (2017)in their examination of the commissioning implications following the 2012 reforms also identified that there was stronger scrutiny within Councils. The importance of legal advice was also identified in case site 3 with regard to 'getting it right' on powers of enforcement, for example.

There was also a palpable sense of the importance of quality within council functions; for example, democratic service officers responsible for supporting Overview and Scrutiny and the local Health and Well-Being Board took pride in the

competent and correct operation of these functions or committees. : *"a lot of officers fear Overview and Scrutiny and think it will be adversarial [...] a large part of our job is getting people to understand [...] I like to think Scrutiny is all part of the Council* (mechanism: resource- committee structure) *– being a good Council* *(mechanism: reasoning - pride). Here Scrutiny is* [supported] *at a high level and is used properly* *(mechanism: reasoning - pride)* [and this] *varies across the region"* (officer). Coulson and Whiteman (2012) identify that effective scrutiny requires a responsive executive and senior officer culture and dedicated officer support. Observation, documentary analyses and interviews suggest that Overview and Scrutiny functions within the authority are effective and that pride (mechanism: reasoning - pride) in being a competent council helps to explain this.

This sense of pride was underpinned and reinforced by a culture that sought out recognition in the form of prizes and awards, for example, a number of interviewees highlighted winning regional and national awards for leisure centres or for customer service: *"seven years in a row"* (public health officer). Observations during time spent at the authority reinforced the idea that the display of awards was important in terms of validation and that this was the manifestation of a municipal pride (mechanism: reasoning - pride). This validation was both external in the form of national recognition and internal in the form of establishing credibility of a department or team. This quotation illustrates a recognition of pride as an aspect of this place and surfaces the interviewee's reasoning within this context: *"we are in a new ecology, what are the drivers? because this system survives, and rejects things that threaten it. And, if we are seen as a threat, viewed as those 'weird NHS people, over paid and a bit lefty'* [...] *we needed to say 'look we do procurement, like you, we get awards like you, we are more like you, than you - and so people accept us"* (senior public health officer).

Sensible local bureaucratic elite relationships

"The Council has people working for it called 'Officers' to give advice, implement decisions and manage the day-to-day delivery of services. Officers have a duty to ensure that the Council acts within the law and uses its resources wisely" (council constitution).

The second relevant contextual feature is the notion of sensible local bureaucratic elite relationships. There are several levers that determine the nature of the relationship between members and officers. These have arisen over time and are influenced by national policy, legislation and the complex relationship between national and local government (Gill-McLure, 2014; Gains, 2009). The review of the empirical literature identified potential dilemmas within the relationships between officers and members arising from a series of reforms of local government. One identified dilemma was that the introduction of cabinet governance (Great Britain, 2000) would undermine the tradition that the officer serves the whole council (Gains, 2009). Within this authority itself there are formal rules and protocols enshrined in its constitution that govern relationships between members and officers, and between, for example, officers and executive councillors which acknowledge the role of officers to serve the whole council; a key differentiation between local public servants and civil servants. For example: *"Whilst it is acknowledged that there should be a close working relationship between Cabinet Members/Chairmen of Non-Executive Committees and Officers, such relationships should not be allowed to bring into question the officer's ability to deal impartially with other Councillors"* (case site 1, constitution). Local government reforms also formalised party politics effectively bureaucratising it with

the establishment of party groupings within the system (John, 2014). Officers are able to attend party group meetings to brief or answer questions (case site 1, constitution). However, public health senior officers in this case site did not attend party group meetings in contrast to, for example, routine attendance within the decision-making processes found in case site 3 (mechanism: reasoning - influence).

The constitution in case site 1 and its accompanying protocols specifically identify the need for trust and mutual respect (mechanisms: reasoning -trust, respect). This then constitutes part of the formal rules and protocols to manage relationships. Of course, custom and practice in the real world and evidence from the case studies can test, illuminate and add nuance. The importance of the relationships is stressed in each of the three case sites; however, in case site 1 the idea of *"sensible"* (member) local bureaucratic elite relationships was a key feature of the context. The label sensible arises from the data and was initially used by a local politician; reference to this idea continued as data collection progressed through all 7 interviews. In addition, when asked about theories on local bureaucratic elites such as for example John (2014) on dual elites, interviewees revealed a layer of nuance. Specifically, that here, in this place, there was a supreme elite relationship between the chief executive and the council leader. This primary relationship was a long-standing one and dictated the relationships between members and officers throughout different levels of the bureaucracy.

Interviews with officers from across the council, and with members, talked about the importance of this stable and long-standing relationship between the chief executive and council leader. Evidence from interviews also identified that this key relationship occurred within a politically stable authority and one in which there was

very little party-political opposition. For example, the May 2019 [24] whole council election resulted in almost three-quarters of the council seats held by a single party. There was also the view that most local politicians were community focussed and concerned with ensuring that *"services were delivered appropriately [but that] national [party] politics [...] not relevant here"* (public health officer). It was opined that local politicians recognised that if they delivered well managed services then re-election was likely and this contributed to a sense that the *"leader could get what [s/he] wanted"* (public health officer). Political stability was also present in case site 2 in contrast to case site 3 where there was slightly more volatility with political control switching between two parties and no overall control several times since 1999.

This feature of the context i.e. sensible local bureaucratic elite relationships creates organisational control of access to members by officers, particularly junior officers. Custom and practice here is that there is fairly limited access on the part of more junior staff: *"I don't have contact with members, but we are trusted to get on with it"* (public health officer). Where access does occur, evidence from the interviews suggests that it tends to be initiated by senior officers. For example, when maintaining support for the Family Nursing Practitioner programme, senior public health officers wanted the portfolio holder to meet public health commissioners (generally more junior officers)*: "Councillor* [...] *invited to meet us* [we had] *a lovely meeting at* [...] *centre and talked about integration.* [...] *was blown away with what was going on.* [s/he] *met inspiring young people now on an apprenticeship. Really nice."* (public

[24] This is notable because elsewhere the 2019 local elections resulted in political fragmentation within the traditional two-party system of the United Kingdom as a result of the outcome of the 2016 referendum on membership of the European Union. See here for Election timetable in England https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/792138/Election_Timetable_in_England_2019.pdf)

health officer). In this example, senior officers set out to influence decision-making by showing politicians the broad impact of policies in this case designed to support young parents. This approach was welcomed: "[my role] *is finding out, feeling and understanding it.* [I]*make visits, get involved: drugs and alcohol centres, children's care units* [meeting] *staff. I like to go out and meet people"* (member). In terms of formal decision-making within the authority, these again reflected this idea of *"comfortable and sensible"* (member) relationships. Respondents described the process as going through a series of iterations (briefings and advice) (C1: muddling through) leading to the final decision-making forum of Cabinet where *"going into a Cabinet meeting where a Director presents and we say no,* [...] *never a time where this happens"* (member).

This show casing of public health interventions (mechanism: resource – public health commissioned services) by senior officers was deliberate (mechanism: reasoning – the need to influence) and a response to their new context. The council has been described as *"anti-intellectual"* (public health officer); officers described being advised to remove footnotes and references from corporate reports. However, the council was described as not *"anti-professional"* (public health officer) suggesting members were interested in and supportive of, for example, front line health visiting staff within the Children's centre. The quotation above from the member provides confirmatory evidence.

When public health arrived in the Council, it recognised that although the "*idea here is that the leader sets the policy and then doesn't get involved operationally. We were not waiting for committees [...] we were pushing the policy. We had to bring people on board [...] drugs and alcohol treatment is not a vote winner but it is important. NICE states do this, invest in this* (outcome: visible within developmental work)" (public

health officer). Public health staff also recognised that once an issue was addressed in a council strategy it would be implemented across the whole system "*but the process of what is the problem is difficult because people don't necessarily recognise that there is a problem or that we should be working in this area. So, you use whatever levers, stories, portfolio holder interests* [...] *hoping to raise something"* (public health officer). Involving members in visits then enables stories which may land emotionally to be used when influencing or changing the narrative. These visits also contribute to members' experiential knowledge.

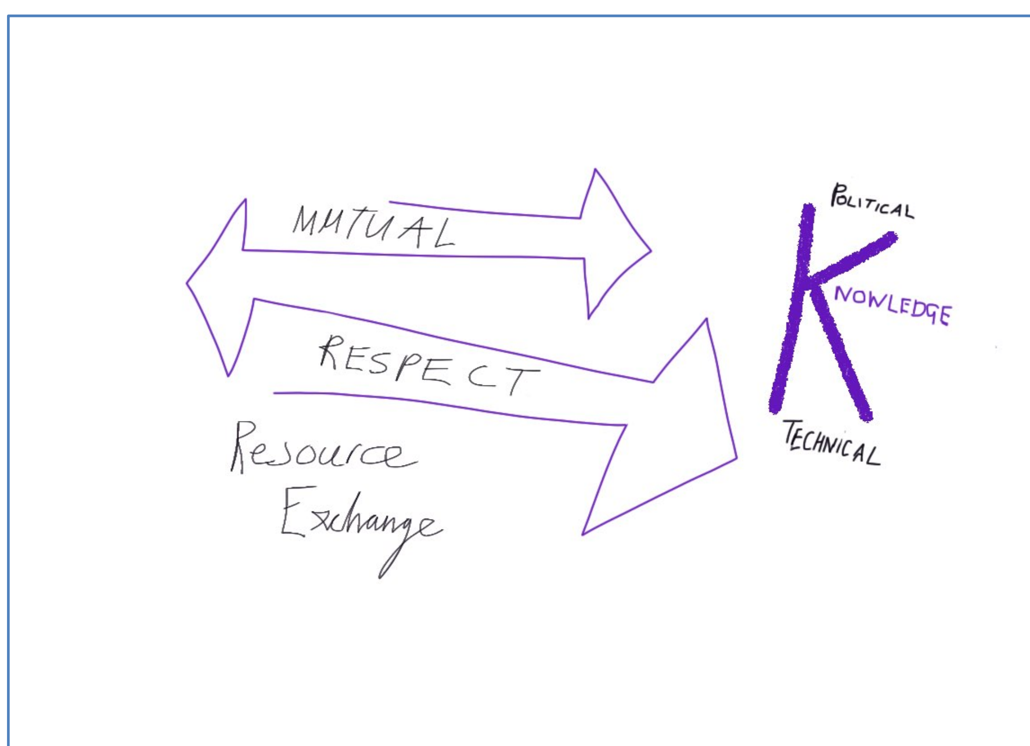
As identified in the literature, the mutual exchange of resources (mechanism: resource - knowledge) is pivotal in the relationship between officers and members. The resources exchanged between the two parties takes the form of knowledge. For officers, this is technical-administrative knowledge; for the members it forms political knowledge. In this case, the public health officer holds several knowledges which can be exchanged. For example, technical knowledge on the extent of need within the population; commissioning knowledge consisting of quality, cost, and clinical effectiveness; knowledge on what should be done (including NICE guidance); and, political knowledge related to corporate priorities. Additionally, data from the case site suggests that the political nous of officers, extends, in the above example, to recognition of the role of the ballot box *"drugs and alcohol is not a vote winner"* (public health officer). The knowledge the politician brings is both political and pragmatic i.e. comprises an understanding of what is politically possible in this place; what is practical in this place and includes member understanding of: *"what it is like for people, what their concerns are"* (public health officer).

Evidence from case site 1, identifies that senior officers weave these knowledges (mechanism: reasoning – weave and craft) to tell a story and that some of their knowledge, for example the NICE guideline (outcome: invisible), is not overtly used within exchange: *"public health has evolved, still need the [technical] skills but need to understand much more about the social construction of influence – stories, financial pressures.* [You] *need to read the situation much better"* (senior public health officer). This reflects studies on the future role of 21st Century public servants identified as 'story tellers and resource weavers' (Needham et al., 2014, p.8). Officers in this setting frequently brief members and there are protocols which guide this process (constitution). A visit to a drugs and alcohol service is effectively a briefing brought to life, using stories – encouraging memorable conversations with, for example, both clients and professionals working in the service: *"members like seeing a shift on the ground"* (senior public health officer). Such visits also localise the evidence: *"the most powerful evidence for how [a programme is working] is the anecdotal evidence on the individuals who have lost weight"* (public health officer). Another example of creating memorable stories was cited within the interviews specifically, a demonstration for the HWBB of how the local Family Nurse Partnership (FNP) programme worked used Duplo farm animals: *"powerful [and]unforgettable"* (public health officer). The desire for local knowledge and evidence was identified within the Delphi study (88% consensus) and was also a key finding within of Kneale et al' s (2019) study of the use of research evidence in local public health decision making.

Within this exchange of resources, two further mechanisms are at play; those of trust and mutual respect both identified from the literature and evidenced within this case site. Building relationships with members was again a deliberate act within

the context with transferred public health staff recognising that this was necessary within local government. One officer described the building of a relationships with politicians as needing to *"read the system, look for opportunities [... play] 'heads up rugby'"* (public health officer). The mutual exchange of resources which contributes to the decision-making process i.e. how things get done and requires mutual respect (mechanism: reasoning) and trust (mechanism: reasoning). This is illustrated within Diagram 23 below:

Diagram 23: mechanism reasoning - mutual respect within resource exchange



The resource exchange depicted occurs if mutual respect (mechanism: reasoning) is triggered by contextual conditions in this place (C3) such as sensible local bureaucratic elite relationships. Respondents identified respect within their relationships and described this as developing over time and as result of recognising each other's roles and boundaries. Another feature of this place (c3) is the tendency for longevity on part of both officers and members: *"I've worked my way up. The council encourages this"* (officer).

Evidence of mutual respect within the case site is set out below. The members clearly evidenced respect for senior public health staff: *"I'm trying to think of any issue where I would say, oh no I don't agree with that. It just makes common sense what public health is about anyway* […] *usually it is a case of how do we do that in* [this place] *(mechanism: political knowledge within resource exchange)"* (member). This quotation is illustrative of the member readily accepting public health advice and being willing to contribute her/his knowledge on how to get things done here: *"I try not to be parochial, in relation to my own ward, I think I have a good feel for* [this place]. *I've been a councillor for a long time and intuitively you have an understanding for what people will accept with regard to public health"* (member). Political knowledge involved being willing to champion public health by actively promoting public health initiatives. There was evidence within this case site that the championing occurred in three arenas. First, within the public sphere through meeting people as described above and being the face of public health with the press, for example, when an initiative was being launched. Members had the ability to *"get attention [through] media, photo opportunities, raise the profile* [something] *which public health have not had"* (member). Second, with other politicians at cabinet and in the local party group meetings: *"I've had a broad range of experiences, held most portfolios so know how to get things done … know who to talk to"* (member). Finally, members are able to utilise their ability to convene (mechanism: resource – local government power), both in their individual capacity as the portfolio holder and also drawing on local government's power to convene or to bring stakeholders together (NLGN, 2018). Conversely, there was evidence of public health staff having a more nuanced understanding of the numerous roles of members and

becoming respectful of the experiential and tacit knowledges inherent in being a councillor particularly an executive councillor.

This mutual respect illustrated above, by and large operates within the context of very senior relationships. More junior officers within the council and in this case, this included anyone below Director or Deputy Director were not encouraged to have contact with members. This includes policy leads within public health who, if developing strategies, would require papers approved by Cabinet (the ultimate decision-making body). Such papers would be taken by senior public health staff. Junior staff accessed members through the visits described above where they were effectively chaperoned by senior officers. Officers who service non-executive and non-regulatory committees such as Overview and Scrutiny have more routine access to councillors despite their being relatively junior officers. Nevertheless, these relationships operate within clear boundaries. Officers within the study operated within a *"friendly but not friends"* mindset (public health officer).

Returning to do public health in this place

"*Public health has grown up a bit"* (public health officer).

Moving from the NHS into local government was not easy *"I've always worked in local government [in environmental health] … [after 2013] I spotted lots of bewildered PCT colleagues who I had [previously] worked with in partnership. We are still battling through it now and we've had some amazing successes"* (public health officer). The majority of the public health staff interviewed related to this bewilderment and identified cultural differences between the NHS and local government. These findings are broadly in two areas. First, qualms stemming from facing differing terms and

conditions and ways of working: "*from day 1 there was a culture clash; people coming on NHS contracts. The council is hard on its pay [...] we were viewed as 'over paid and over here' and had to show value"* (public health officer). These personal transfer issues were also identified in the literature (Kingsnorth, 2013; Gadsby et al., 2017). Gaining mutual respect (mechanism: reasoning) between public health and other officers was recognised. Finding allies in departments such as audit, finance and legal often ones populated by long-serving staff was essential. One public health officer identified that early on the team had *"showed our worth* [by responding to] *avian 'flu* [dealing with] *the duck problem. Council felt that public health knew what they were doing and we could meet with environmental officers on the ground (mechanism: reasoning – 'do-er')"*. This chimed with the view in this place, high expectations of public service and servants and therefore the need to deliver high quality public health (C3: pride in the prize).

In terms of pay and conditions, colleagues on similar pay scales within local government, such as social workers, were expected to manage a team of people. This contrasted with, for example, health improvement officers whose grade expectations had previously been dictated by the NHS tendency to privilege qualification. Issues on differing terms and conditions were not yet resolved and one respondent expressed uncertainty about staying in local government. For some there was also deeply personal concerns about losing their professional NHS identity: *"NHS badge loss was traumatic*" (public health officer). One interviewee also recalled an epiphany in a local car park when s/he recognised that a Council badge meant that the lack of spaces was now his/her problem: *"people assume it's your job."* By contrast, one senior officer ~~when asked about the possibilities of influencing the role, for example of planning in the social determinants of health did~~ expressed the view that being employed by the

Council was not especially important: *"co-location doesn't make much difference, a bit, but who the employer is doesn't make a difference."*

The second qualm was a recognition of a different culture of evidence use in local government; the accompanying uncertainty about how to get things done and the role of an officer within this process. In other words a rendering of the classic realist question: what works, for whom, and in which circumstances (Pawson and Tilley, 1997). The public health team itself is small and had one of the lowest per capita public health budgets in the country. It landed in a setting where there was pride in the delivery of high quality and value for money services: *"most of the time is spent doing the routine stuff but we try to be innovative [and] try to address areas of emerging need in advance of other areas* (mechanism: reasoning - pride) [...] *and we've published* [articles, attended conferences on these innovations]" (public health officer).

The craft of public health in this place

The health of people living in case site 1 is generally better than the England average (see Table 4 above). The portfolio holder described the setting as *"generally middle class, wealthy [...] pockets of, of* [poverty] *of course there are. Generally, people are very sensible and susceptible to* [lifestyle] *messages, they welcome them* [...] *in general people are receptive to the information."* Interviews with the team and review of documentation identified this framing of public health around lifestyle choices, for example: *"Public health will commission local services within* [the area] *to assist residents in living healthier lifestyles and thereby reduce their risk of long term illness and premature death. Services will include smoking cessation, health trainers, drug and alcohol misuse service, supporting mothers to breastfeed, school nursing,*

increasing levels of physical activity in the local population, mental health improvement and assessment of health needs" (Public Health webpages).

Additionally, the team states that its role is to advise (mechanism resource advice role of officers; mechanism: reasoning – ways of advising) other directorates on how to adapt council service to make the healthy lifestyle option the easy option for residents e.g. smoke-free public places or, breastfeeding friendly venues etc. This focus on commissioning and framing of public health around lifestyle options reflects this place i.e. generally better levels of heath; longevity of politicians and political stability and an ethos of high quality and value for money services. This focus on encouraging people to adopt a healthy lifestyle using commissioning could be criticised for ignoring structural causation of unequal patterns of health (Wilkinson and Pickett, 2009; Smith et al., 2016). However, observations and interviews within this site reveal that the approach has provided opportunities to work on embedding primary prevention (see leisure example below) and to target work in the more deprived areas of the authority or to specific sub-populations (for example, the preservation of the FNP) aiming to address inequality.

A useful case example identified by both politicians and officers concerned working with other council departments and therefore influence (mechanism: reasoning – influence) other officers (C2: local bureaucratic elites) aiming to *"convert the leisure workforce into a health improvement workforce based on their interests specifically a good quality service* [the council is] *very good at this 'best leisure centre'* [awards]" (public health officer). This approach required public health officers to recognise enabling contextual features, in this case, pride in the prize and respond. Building on this example, one officer identified that working with leisure staff who were motivated to

deliver a high-quality service were potentially also able to deliver personalised public health advice. Specifically, s/he observed "[I saw] *19 and 20 year old lads can improve life for* [a person with Parkinson's and I] *thought this works because individuals recognise the context of peoples' lives and* [are able] *to personalise the service* [and] *this doesn't need NICE guidance (outcome – guidance irrelevant) and evidence base or commissioning* [and that recognition] *opened up opportunities."* This example, typifies evidence of public health staff recognising aspects of the context (C3 – pride in the prize) and using this to influence (mechanism: reasoning – ability to influence) the everyday work of other services. Embedding primary prevention, in this case, was also framed as *"prevention keeps people independent*" (public health officer) and can therefore help reduce high service high delivery costs in areas such as adult social care against backdrop of central government austerity measures. Perma-austerity within local government was identified as a theme by the 21st Century Public Servant research project (see Needham et al., 2014; Mangan et al., 2016) and was included in the contextual backdrop in Diagram 20 above. Within this case site, the 2019/20 provisional local government finance settlement represents a 10.3% reduction from the 2018/19 allocation (Case site 1, 2019b). Within public health, funding per person has declined in England since 2013 (Kneale et al., 2019).

Framing prevention as both a response to perma-austerity and also as another department's routine work requires mutual respect (mechanism: reasoning – mutual respect) between officers and members and because officers recognised and responded (mechanism: reasoning - craft and weave) to features within the context (C3). Evidence from case site 1 supports the idea of the need to balance skills within public health practice in local government. Primarily, there is a need to recognise the context within which public

health is being practiced and weave evidence together – the craft of public health practice in local government utilising the officer role to advise. As explained in the methods, these findings were tested by presenting them to public health teams in each of the three settings. The weaving of technical and political knowledges within advice resonated for each audience. This is illustrated by this quotation: *"in my* [office there are] *old reports from the 1880s – they were writing about pipes and where to put them* (mechanism: reasoning -technical knowledge) *and using influence to get things done* (mechanism: reasoning - political nous). *We are doing the same"* (mechanism: reasoning - craft and weave) (public health officer).

In this place then, there is a palpable sense of pride in running the council and this influences how decisions are made, the relationships between local bureaucratic elites and has implications for the use of knowledge such as NICE guidelines.

Case site 2

"it's been a tough year for the Council financially, we are still having to make cuts that are being imposed upon us, but I hope you feel that we have delivered a good range of services right across the board. We've certainly done our best to try to do so [...] We've also got increasing levels of poverty in the [area] increasing levels of deprivation and as a Council we intend to do what we can to alleviate these problems" (Council Leader's Cabinet round up, YouTube).

As with case site 1, data analysis identified features of the context which have been labelled 'alleviating poverty' and 'political stability' (C3 – Place). These contextual features and officers' responses to them help to build an explanation of the culture of decision-making and how this results in the observed patterns of use of NICE guidelines.

Alleviating poverty

The health of people in case site 2 is varied compared with the England average. This authority is one of the 20% most deprived district /unitary authorities in England (Public Health England, 2018c) and about 19% (11,500) of children live in low income families. Life expectancy for both men and women is lower than the England average. In terms of inequality life expectancy is 9.0 years lower for men and 8.2 years lower for women in the most deprived areas of case site 2 than in the least deprived areas. The under 75 mortality rate: all causes, cardiovascular and cancer is significantly worse than the England rate (Public Health England, 2018c).[25] Interviewees from the public health team identified poverty as a feature of the context and opined that it mitigated against the use of NICE guidelines: *"biggest issue here is that people are poor. Where is the evidence? Where is the real evidence on early help? So NICE is completely irrelevant in my world* (outcome: NICE guidance irrelevant)*, I wouldn't even think about it* [...] *areas where help is needed* [no evidence available] *in my work on reablement I went to a neighbouring authority"* (senior public health officer). The backdrop of perma-austerity was also identified as an issue: *"previously there was money* [...] *so room for innovation. Budget cuts mean that a lot of the work is 'can we keep people safe.' In the past, NICE guidance was used to improve, to review, 'how can we do better.' We are not in that place. We don't have that luxury"* (public health officer). This was further emphasised when the study findings were presented in this place with officers arguing that implementing NICE guidelines on topic x for example would require allocating a

[25] Data from https://fingertips.phe.org.uk/profile/health-profiles/area-search-results/E12000003?search_type=list-child-areas&place_name=Yorkshire%20and%20the%20Humber (Accessed May 2019)

large section of the public health grant (presentation, case site 2). In this place, there was a palpable sense of a Council striving to deliver services and mitigate against austerity measures and poverty.

One interviewee recalled decisions around reducing service provision and the possible knock on effects on the place and people. S/he recalled that the discussions were about *"is this the kind of Council we want to be [...] That's not how we treat people. This was what they cared about* (mechanism: reasoning – recognition that the member advocates for their communities) [rather than the cost or clinical effectiveness of the service]" (public health officer). Another officer clarified this by identifying that the decision may not be correct from a population health perspective but is the right decision for the Council: *"where there is most conflict is where austerity imposed upon us* [means] *that as an officer I might recommend decommissioning but that doesn't sit well with elected members* [...] *I get that it's a political organisation"* (public health officer). There was also a real sense of frustration with regard to the budget: *"the council has 40% less staff, reduced budget that can stand in the way of getting things done. People say necessity is the mother of invention. You can innovate up to a certain point* [but] *when you've got really vulnerable people who are not getting a service anymore that argument doesn't wash"* (public health officer).

Political stability

Within this place, there was stability in terms of political control. The Administration had been in single party control since the reforms of local government as a result of the 1972 Local Government Act (Great Britain, 1972). This stability was also marked by the longevity of politicians: *"I've been a councillor for 15 years and*

worked for the local authority prior to that [...] *been an executive councillor for 12 years and started on [Overview and] Scrutiny. A long time"* (member). There was an absence of career politicians found in other places: *"I've worked in* [name of Council] *where cabinet members were career politicians [...] here is it about the longevity of members* [pause] *in it for different reasons"* (public health officer). Members were identified as ambitious for re-election and these political horizons i.e. the ballot box were important. However, they were not seen as holding personal ambition in terms of Westminster, for example. One respondent identified that this longevity of service meant that, by and large members had *"not much truck"* with the machinations of and or ascendancies of the differing wings of the national party (officer). They also were viewed as coming from and belonging to the communities that they represented; perhaps having established community groups or third sector organisations.

Political stability and longevity of roles was identified as a feature of the context which begins to explain the culture of decision-making and influences what evidence might be used through the decision-making process and by whom. Decision-making in this Place was described as consisting of steering reports through a series of meetings. For example, the Strategy meeting attended by the Council Leader and Cabinet and the Corporate Management Team and finally Cabinet. There was emphasis within the interviews that decision-making lay with Cabinet: "*with a steer from officers, but at the end of the day, the decision-making body* [...] *what we say is the Cabinet makes the decision and then it is taken to* [party] *Group. Sometimes, there's disagreement but people trust us as a body of people"* (member). Regular Cabinet member briefings from officers (mechanism: resource – briefing, formal advice) form part of the process: *"I have regular meetings with my Corporate Director and the Director of Public Health is there. I*

challenge there and [when satisfied] champion. [...] I read [the reports] ask questions [e.g.] 'have we done everything possible regarding this decommissioning?'" (member). The need to challenge (mechanism: reasoning - challenge) was identified as essential to the politician's duty and necessary within relationships between local bureaucratic elites (mechanism: reasoning -mutual exchange of resources): *"absolutely, you've only got to look at* [named service] *at the moment. Not enough challenge by politicians there* [...]. *Therefore, [got to be] sure in your own mind that things are being done correctly. I want a regular update. That is what the Cabinet member is there for, and then it goes through the system* (C1) *so we can all* [politicians] *challenge each other"* (member).

The relationships between the local bureaucratic elites was described as *"like a dance"* (public health officer) and there was no sense of the 'sensible' local bureaucratic relationships found in case site 1. In this place, members were considered to *"have lot of power and strong views especially around the voluntary sector* [...] *you spend time managing your cabinet member and not getting work done"* (public health officer). Here there was a sense that the officer role was to *"give good quality advice but that they* [the politicians] *make the decision"* (public health officer). This was also explained more bluntly by another officer: *"we say what we think should be done but got to get political buy in. I have had a portfolio holder say to me 'I set the agenda here not you.' It was a good lesson to learn".* S/he suggested there had had to be "*a mind shift* [coming from the NHS to local government] *although we think of ourselves as highly trained public health professionals, we don't set council strategy. We might think we do but there's a complicated balance between officers and members"* (public health officer).

Similar, to case site 1 the key officer-member relationships were found within the bureaucratic elite i.e. senior officers and executive councillors. In this case, the DPH and the Cabinet member. More junior public health officers suggested that there was *"not much direct interaction with Councillors unless there was an issue* [...] *go through the management structure* [...] *system in place within the Council to protect officers* [...] *I'm a bit too far down the tree for influencing. It is a case of providing* [senior officer] *the information* (C2: local bureaucratic elite). *S/he does the day to day political influence. I'd write a paper to explain the NICE guidance* *(outcome: guidelines used to support policy /strategy)* *and s/he'd take it. S/he has better relationships and s/he knows the political agenda* (mechanism: reasoning – political nous)" (public health officer). This was also the case with regard to Overview and Scrutiny panels with more junior officers stating they had limited experience or expectation of attendance. This was endorsed by the Scrutiny officer who said: *"usually it's a high-ranking officer that attends* [...] *you actually want to talk to* [...] *get the practitioner perspective* (C2: dual elite)."

There was evidence from interviewing both officers and the member of the importance of mutual respect (mechanism: reasoning) and trust (mechanism: reasoning) the development of which takes time and is supported by the political stability of this place (C3 – uniqueness of place). Similar to Case site 1, there was a recognition of the need to balance close working and boundaries: *"I think we are open and honest here* [officers] *know where we are coming from, it is not that you want to be bosom buddies* [...] *you do need to work closely together. I work very closely with the Corporate Director* (C2: local bureaucratic elite) *because we have a challenge* [budget cuts] (C3: alleviating poverty). *We therefore have to have a close relationship* [meet outside] *of cabinet meetings"* (member). Officers outside public health supported the theory of the importance of relationships

between officers and members and the operation of local bureaucratic elites when asked about mutual respect and trust: *"yes that is absolutely how it works* [...] *an understanding of each other's roles, it is a bureaucracy and* [there is a need] *to respect and look at those* [role] *definitions.*[26] *From my perspective the chair understands my role as an officer, which is important, because quite a few politicians just don't and can abuse, misuse and misunderstand it and that can create tensions and can work against a good relationship"* (officer).

The longevity of officers (Phillips and Green, 2015) was also apparent within this site and the experiential knowledge this brought was valued: "[Corporate Director] *s/he is an all-rounder, sees the bigger picture so we get priorities right"* (member). Officers interviewed (public health and non-public health) recognised that there were pitfalls in relationships with Members and that it was essential to understand the boundaries and *"tread carefully* (mechanism: reasoning – political nous)*"* (public health officer). One officer suggested: *"To be honest. I'm still learning about it and some people are better at putting time into developing relationships. On balance, I haven't had many things where we've made a wrong decision or elected members have been obstructive. I've known where they've been coming from"* (public health officer). Officers also identified the need to be pro-active if a decision was likely to be challenging or politically controversial (mechanism: reasoning – political nous).

This pro-activity was different to the 'show-casing of services' approach identified in case site 1. It tended to utilise briefing opportunities and drew on the

[26] These are clearly set out within the Council constitution and related schemes of delegation (case site 2, constitution).

relationships between local bureaucratic elites and was perhaps typified by opportunistic corridor conversations and regular briefing meetings (C3: political stability). The following quotation illustrates both the relationship building (mechanism: reasoning - mutual respect) and the use of evidence (mechanism: resource – briefing; advice role of officer; mechanism: reasoning – craft and weave). *"I've noticed my Boss* [Corporate Director s/he is] *brilliant, it's the respect thing. I can imagine people coming in and saying 'this is what we should be doing.' This isn't helpful you bring instead (if it's a challenging decision) work really early and express it as 'I'm worried about [x or y] what do you think?' and you also talk to colleagues* (refinement officer-officer relationships key with local bureaucratic elites). [You are] *thinking about the politics* (mechanism: reasoning - political nous). *You don't learn this on the training scheme. You don't do it much as a Public Health Consultant.* [You are] *trying to understand the slow burn of a relationship to support a decision and I've seen my boss do this really well. At no point, would I use NICE* (outcome: invisible in resource exchange between local bureaucratic elites). *I might say we're adhering to national standards and best practice."* (senior public health officer). The member's political knowledge is also exchanged within these conversations, for example: *"I've met with the people who will need to tender. I've got a good understanding* [...] *it's the politics of things, politically if we make a decision, it's about knowing the people out there – the circumstances – knowing who might cause problems* [being] *conscious of the art of politics"* (member).

Officers also identified that they had developed their understanding of how much detail to include in written reports submitted to the decision-making bodies. These reports were in the public domain and so likely to draw local media attention. There was a recognition that where a decision was challenging (mechanism: reasoning – political nous) there was a need to brief elected members early and *"see how things land"*

(officer) before providing details within the report. There was also evidence of the knowledge being transformed as it passed through the decision-making stages (C1: muddling through). This quotation is illustrative of this: "*I wrote a paper and it went to* [a more senior officer] *and s/he said tweak it so we can present it to* [head of service] *there's layers of feedback. In my role,* [I'm] *providing information but at the end of the day, it is the politics that shapes the decision* [...] *need to work within the system* [...] *person who is better at priming the politician is the person with the better relationship"* (public health officer).

The power of politicians in this place is illustrated by the operation of Overview and Scrutiny. Overview and Scrutiny committees were established as result of the Local Government Act 2000 and further provisions were made under the Localism Act, 2011. Their role is to act as a counterweight to the Executive and to develop and review policy and make recommendations. Local government in England has an additional power to manage a process of scrutinising external bodies such as the NHS (Sandford, 2016). Generally, Scrutiny was viewed as supportive of the Executive of the Council: "[I'm] *called to Scrutiny. I sometimes meet with the Scrutiny chair* [we] *are both working to the same ends. I think it works very well"* (member). An example was given of the Executive using Scrutiny as means of 'booting into the long grass' controversial decisions. By and large though, officers described the role of the Health Scrutiny committee in this place as facing or focussed on scrutinising the NHS rather than scrutinising the Cabinet.

In this place, 80% of members are from a single party. The composition of Overview and Scrutiny reflected the single party dominance with all members coming

from the same party (Case site 2, website, Case site 2, constitution). Despite this party dominance the Committee is politically proportionate in accordance with the requirements of the Local Government and Housing Act 1989 (Great Britain, 1989). This reflects the political stability of this place (C3: uniqueness of place) and is linked to longevity of officers and members: *"fortunate here, I've been in the role a long time and so has the chair. S/he is very competent and has a health background. By and large, there's a consistent membership. Now we have a more collaborative approach.* [pause] *when you are looking at major reconfigurations* [to NHS structures or services] *it gets contentious. Local elected members are looking at their electoral horizons and not necessarily clinical horizons.* [it is a case of trying] *to balance the two"* (officer).

Overview and Scrutiny, in particular, the committee covering public health was viewed by some interviewees as challenging to attend and adversarial in style. This can partially be explained by the additional powers of Health scrutiny committees described above. These powers are made clear within the Council constitution and on its public website where emphasis is given to the Committee's role in terms of democratic accountability in terms of the provision and the reconfiguration of services: *'review and scrutinise matters relating to the planning, provision and operation of the health service within the district, ensuring that new and existing organisations/commissioners/independent providers/charities are held to account through democratic structures* [...]. *Working with the NHS Commissioning Board to secure local agreement on some service reconfiguration, ensuring that proposals for change meet the Secretary of State's 'four tests'* (case site 2, council website). The Scrutiny officer identified that the health Scrutiny committee had changed over time: *"it has been in operation since 2003 and it has changed and now has a better*

relationship with health, at first it was adversarial [driven by] *inspection and regulation and this concept didn't sit well [with health]. We needed to establish relationships; personal and organisational [...] the culture changed but still needs work"* (officer).

Returning to do public health in this place

"I'm wedded to evidence but have mellowed. You don't need a randomised control trial to know we need to do bin collections [...] Nor NICE guidance to tell me that social prescribing is a useful idea." (public health officer).

Within case site 2, some public health officers work within a health improvement team which is in a different directorate to the DPH. Others work within the public health team, which includes: public health commissioners, health intelligence and health protection. The DPH has wide responsibilities including adult social care commissioning but is not a member of the Corporate Management Team.

Public health specialist capacity has reduced since the transfer to local government. This reflects the national picture where specialist capacity has fallen by 5% in local authorities since 2015 (Rankin et al., 2017). This reduction of specialist capacity was also identified in case site 3. Both sites expressed this as meaning they were more restricted in their ability to undertake critical appraisal of the evidence a skill viewed as core competency within public health practice (Public Health England, 2016b; Faculty of Public Health, 2015). The reduction in capacity was keenly felt here particularly with respect to core skills. Senior public health officers described the dilemma of having no time to critically appraise evidence yet recognised its inherent usefulness and feared the loss of skill.

In terms of moving back to local government, respondents generally agreed that: "*local government feels like a right place to be for public health* [...] *it is going well but I still feel we view ourselves as not wholly Council. We still say we need to work across the Council, but we are the Council.* [Local government] *is a good place to be and of the 170 years of public health, only 30 were spent in the NHS. It takes time to be embedded and we need to work out what the public health role is with* [respect to the] *NHS."* (public health officer). Mirroring the literature and similar to case site 1, arrival in local government was not straight-forward. Here, it was about recognising the need to build relationships and valuing the experiential knowledge of other officers: *"When public health arrived* [they] *told people who had been doing a job for 30 years they were doing it wrong. As a result, there was antagonism. I needed to go and make friends* [...] *I'm here in a new job rather than NICE say [do this and] I can help you in your job"* (public health officer).

The craft of public health commissioning in this place

Commissioning of public health services now occurs within a politicised context (C2) and one where alleviating poverty is a contextual feature (C3: uniqueness of place). The commissioned services are either mandated (such as health checks) or non-mandated but are a condition of the public health ring fenced grant, such as drugs and alcohol (Public Health England and Association of Directors of Public Health, 2016). Within this place the DPH is delegated *"to take responsibility for the management of the Council's Public Health Services, with professional responsibility and accountability for their effectiveness, availability and value for money"* (Case site 2, 2013, p.9). These public health services tend to fall within a clinical sphere where NICE guidelines are likely to

exist, for example public health guidelines on contraception (NICE, 2014b) and needle exchange (NICE, 2014d). Interviews with officers in this team identified that NICE remained an important source within the commissioning process. The technical skills and knowledge required to commission these services remained privileged within public health, however decisions around, for example, recommissioning or decommissioning services required navigation of political decision-making processes (C1 and C2). Navigating through council decision-making hoops (C1: muddling through) is the craft practice in local government and does require understanding of the process, politics and weaving of evidence: *"it is frustrating here, but if you respect the process you can get things done"* (public health officer). One officer reflected on this: "[decision-making] *is above board. There is a process here – it makes you think about it and the documentation [helps]. In some ways more ethical than the NHS, where lots of things money was spent on, were not evidence based. Perhaps, I'm being naïve about democracy but that phrase 'it's the best system we've got' I can see how that works in local government"* (public health officer). There was also a recognition that for the mandated services although decisions did have to go through the process (C1- muddling through – hoops) the Council was unlikely to say no.

In other areas where there was no mandated commissioning responsibility then it was necessary for transferred public health officers to respond in the new political context: *"I've really changed in that I now really understand living in a democracy means people are elected* (C2) *and you need to respect* (mechanism: reasoning – respect) *your elected member"* (public health officer). There was also a recognition on the nature of evidence required within local government and that effectively NICE was invisible within conversations (outcome). For example, within local government evidence is much

more likely to refer to having looked at several things: *"I wouldn't use the word* [NICE] *it wouldn't be understood"* (public health officer). The decision-making process described by interviewees fits within the candidate theory of muddling through (C1) specifically in terms of how evidence is used at various points. This had implications for the visibility of NICE guidelines: there were some decision-making conversations, or fora where the word itself would not be used, for example, at directorate management team meetings or corporate management team meetings and *"certainly not to an elected member"* (public health officer). The process was described as a journey where NICE guidelines starts visible i.e. within internal public health meetings (outcome: visible within development work) and then disappears within conversations outside the team (outcome invisible within conversations between local bureaucratic elites): *"I'd use a story [...] I don't use the language, I used to use NICE as the trump card 'I'm a public health consultant and NICE says this'*[...] *because that isn't how it works* [here]" (public health officer). Officers describe changing the language they used and fitting the evidence to a story "[I] *start with local evidence and then bring in national depending on how the conversation is going"* (public health officer). This reflects findings from the Delphi theory prioritisation exercise where there was consensus about the importance of local evidence (88% see Table 7 above) and Kneale et al's (2019) recent study.

Officers also described using, the statutory duty for Directors of Public Health to produce an annual report (Great Britain. Department of Health, 2012) as a means of influencing decision-making (mechanism: resource-advice). For example, actively using it in different fora and finding that *"bits of it were sticking* [and] *are being played back"* (public health officer). Officers also talked about reframing prevention in terms of ethical and moral arguments preventing people getting into crisis. Using cost

effectiveness or return on investment evidence, a key component of NICE, was dismissed: *"money not able to be moved, no bankable savings - it is not that simple. Sustainable argument is more substantial* [...] *health economics is, well a lot of it is 'a finger in the air' and if you can't get the data you sort of make it up' it gives a clue, but not convinced by social return on investment – stronger argument is the narrative of impact on people's lives. Elected members are convincible on prevention"* (public health officer). There was a recognition of the opportunity to move beyond commissioned public health services: *"we need to think about our limited time and its use. Slowly shifting here to prioritise early years, how we can use the Council's powers to influence the social determinants of health, health in all policies for example*" (mechanism: resource – powers; mechanism: reasoning – influence) (public health officer). The public health skill set or technical skills were still valued, however there was sense that these could be further democratised. Within this place then a continuing professional education programme has been established and was open beyond the public health team marketed as: *"it is a public health skill but it is not exclusive and there are things you might find useful"* (public health officer).

The craft of public health within the health improvement team

> "*So, we are all part of public health, except we are not. We are health improvement within a different directorate* [...] *there is a cultural gap between us. They are more evidence/NHS - much more 'NHSy' [...] tend to work with evidence first, whereas it's about relationships – got to build relationships* [members and other officers]. *You have to use more than 'the evidence says this"* (public health officer).

The health improvement team sits in a separate directorate. The team has embraced the opportunity of spatial planning and used Health Impact Assessment (HIA) as a means of influencing the planning system (mechanism: resource - spatial planning instruments). The National Planning Policy Framework (NPPF) sets out the purpose of the planning system as being "to contribute to the achievement of sustainable development" (Great Britain. Minstry of Housing and Local Communities, 2019a). The health improvement team in this place sets out how HIA can promote sustainable development by: *"Demonstrating that health impacts have been properly considered when preparing, evaluating and determining development proposals. Ensuring developments contribute to the creation of a strong, healthy and just society. Helping applicants to demonstrate that they have worked closely with those directly affected by their proposals to evolve designs that take account of the views of the community. Identifying and highlighting any beneficial impacts on health and wellbeing of a particular development scheme."* (case site 2, website).

The HIA is framed within the decision-making process with its purpose being to *"make recommendations to decision makers as to how any positive health impacts of a particular scheme may be increased and any negative impacts reduced"* (case site 2, website). This approach reflects the idea that the English local planning system aims to ensure *'that communities benefit from appropriate development through determining acceptability of submitted planning applications'* (Keeble et al., 2019). Keeble et al (2019) also identify that national guidance informs local planning practice and is increasingly outlining the potential of the planning system to improve public health. This national guidance informs the content of core strategies or Local Plans (Keeble et al., 2019). Moreover, from interviews with officers within planning, there is

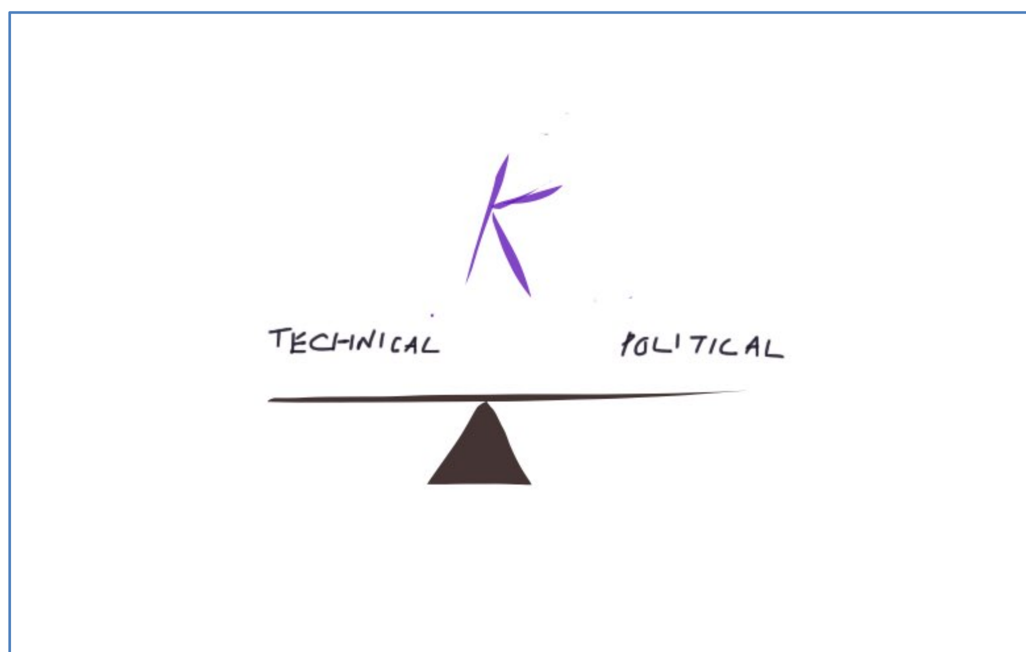
a sense that the authority sees itself as good at planning. The planning system requires evidence at different stages and as such there is potential for the use of NICE guidelines within this process.

Under the Localism Act 2011, this place adopted a committee system where by decisions on planning are delegated to the Planning and Highways Committee. Its role and delegated responsibilities are clearly outlined within the council constitution: "*Functions relating to town and country planning, development and building control and the regulation of the use of highways as specified in Schedule 1 to the Local Authorities (Functions and Responsibilities) (England) Regulations 2000 (the Functions Regulations) insofar as these have not been delegated to a Corporate Director/Director or are referred by the Committee for a decision by the Corporate Director or Director"* (Case site 2, 2019). Although the Localism Act 2011, refreshed local governance, a committee focusing on planning is long established within local government. The concept of a dual elite i.e. the chair of the committee and the head of service operating together to make policy is derived from the committee system (John, 2014). However, there was an acknowledgement that: *"the committee system is there but it is still a Cabinet led Council and so there is the fact that the Cabinet is the lead. It is that thing about using the Cabinet system to navigate the committees"* (public health officer). In order to do this, respondents highlighted the importance of the relationship between officer and Cabinet members (C2: local bureaucratic elites).

This has implications for the role of the officer and the visibility of NICE guidelines within this navigation process, which will be explored below. There was awareness of the type of knowledge, how and when to use it within the committee system (C1: muddling through): *"If I go to planning and say NICE says this* [...] *they would say*

'thank you very much' and put it on a pile with 20 other pieces of evidence, guidance and policy and there's still the Council's political position which [is] ideologically based. Everything goes through a political lens" (C2: highly politicised) (public health officer). However, NICE was viewed as an authoritative source which if translated (mechanism: reasoning – knowledge translation) could be helpful within planning: "*it is about choosing what is most appropriate,* [I] *choose NICE because it is simpler, the hard work has been done. Where there is no NICE guidance you need to sift through papers and do your own review.* [You] *might need to supplement NICE guidance, for example, if I want to influence a planning officer it is easiest to point to an [existing] policy. So, my key role is to make sure the policy has the stuff we want in. The way we do that is to advise the planning officer writing the policy technical paper* [Also] *if I say NICE guidance says this* [as I said earlier] *they would say 'nice, very interesting.'* This officer expressed an ambition to *"integrate* [public health lens/evidence] *into the DNA of development so you can't get rid of it."* However, there was an acknowledgment of the labour involved here: "[NICE] *is valuable, but it is a lot of hard work to get them* [planning officer] *to take notice of it and it is a lot of hard work to build the confidence of the planning officer and more work for the planning officer to produce the committee report"* (public health officer). Here it was possible to identify three key mechanisms: the need to build trust between officers (mechanism: reasoning), the weaving or crafting of knowledge (mechanism: reasoning) and the planning system itself (mechanism: resource- powers and duties). Important here was the recognition of the need to weave or craft knowledge and thereby balance technical and political knowledges as illustrated Diagram 24 below:

Diagram 24: mechanism – reasoning the craft of balancing knowledges



There was a tension or dilemma in two areas 'knowledge purity' and the 'drive for local knowledge.' First, there was an acknowledgement of differing cultures in terms of how evidence was presented: *"planning said what we were doing was rubbish that our data was too complicated. Our intelligence team were reluctant to 'dumb down'"* (public health officer). Second, and a refinement to the importance of local knowledge: *"The thing about planning is you have got the NICE guidance which is the national stuff but it has to be applicable locally* (mechanism: resource – planning inspectorate[27]) *[we'll be] interrogated by the planning inspectorate: why is this data relevant* [in this area]? *why is this an issue here? So, I take NICE guidance and add the locally relevant"* (public health officer). This confirms the importance of local evidence and adds a layer of refinement. Local evidence contributes to the narrative used to influence politicians

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[27] Local plans are prepared by the Local Planning Authority (LPA), usually the Council or the national park authority for the area. Once the Local Planning Authority has finished preparing and consulting on a local plan it must be submitted to the Secretary of State who will appoint an Inspector to carry out an independent examination. This process is dealt with by the Planning Inspectorate. (source: https://www.gov.uk/guidance/local-plans

but is also necessary to pass tests within the planning process. An authority cannot simply argue that something is done elsewhere it must, at least in planning terms, provide local evidence for why it is acting. It also confirms the opportunities within the planning processes for utilising NICE guidelines.

In this place then, there is a palpable sense that this is a highly political yet stable setting and that this influences how decisions are made, the relationships between local bureaucratic elites has implications for the use NICE guideline.

Case site 3

"[This is] a member led authority and some people find that difficult. I did a peer review recently in [name of council] *and it was so obvious that they were not member led.* [They] *tell members* [about decisions] *afterwards. You would not get away with that here. We have cabinet members who are very strategic* [...] *ultimately it is them that need to stand up in public and defend what may be a controversial policy*"

(public health officer)

As with the two preceding case studies data analysis identified features of the context which have been labelled 'political control' and 'distributed model of public health' (C3 – Place). These contextual features and officers' responses to them help to build an explanation of the culture of decision-making and how this results in the observed patterns of visibility of NICE guidelines.

Political control (of administration and member led)

Political control is stable; however, the situation is slightly more complex than in, for example, case site 2 where over 80% of seats are held by a single party. Here the

ruling party has just under 60% of the seats. Between 1974, the first election post the reforms of local government (Great Britain, 1972), and 1999 there was single party control. Since 1999, there have been short periods of no overall control and two periods when the current opposition had control of the administration. Nevertheless, the current ruling party has ruled for 15 of the last 20 years. This political history is a contextual feature and has implications for the nature of decision-making within this place. This has been labelled 'control' because it suggests control of the administration (in the conventional sense of the term. i.e. the ability to govern) but also control by members. As is illustrated by the opening quotation above, case site 3 is member-led and the responses by officers to this context (mechanism) is explanatory in terms of the use of evidence within decision-making (outcome: visibility or not of NICE guidelines). For example, officers were more likely to attend / brief political party group meetings than in other case sites. Politicians were viewed as ambitious both for the Place and themselves: *"You can say many things about* [cabinet member] *but lack of ambition, and vision and bravery isn't one of them"* (public health officer). Another officer noted: "[I've] *30 years in this* [names place]*, doesn't have much change in the balance of power, more or less and the manifesto more or less stays the same (updated for the time) but you know you are working towards those ambitions. Politicians become experienced at handling constituents and the public. Health does do difficult things but there is learning* [from here]. *Once politicians here have got something and know it is the right thing to do – they champion it, drive it – no matter the backlash. Morally, they know that's the right thing to do. I've not seen anywhere else* [other local partners] *where you've got that*" (officer).

This contextual feature helps explain the relationships between local bureaucratic elites (C2). In terms of the relationship between cabinet members and officers it was seen as *"fairly healthy and two-way"* (senior public health officer) and perhaps reflects what was described as a strong executive team. Other officers, were less confident (mechanism: reasoning - confidence; understanding the importance; having the time) of their relationships and role with respect to members: *"DPH has contact and officers I work with have direct contact, only very occasionally do I have direct, direct contact – usually about a specific topic. I feed in more predominantly with officers, I trust them.* [pause … it takes] *time to build direct relationships* [pause] *if Planning was not getting my agenda* [then] *it feels, at the moment, it works quite well"* (Consultant in Public Health). There was also a recognition of the importance of these relationships, the inherent hierarchy and fear of not getting it right (mechanism: reasoning - caution): "*I need to be respectful of other people's relationships* [other officers and members] *knowing when to deliberately step on someone's toes* [building on their earlier metaphor that it was 'dancing on ice'] *and not stumbling"* (Consultant in Public Health). In all three case sites, within this grade of public health staff, there was a fear of not getting it right and references to examples of needing to learn from early stumbling. This fear could either galvanise or stifle action to build relationships with members.

As in case site 1, the relationship between the Council Leader and the Chief Executive Officer (C2: dual elite) was identified as crucial and that the CEO acted as a defender of the politician: *"There are times when senior officers, say 'if only* [Leader] *would do x or y"* [It's the CEO] *job to defend* [the Leader] *to* [their] *own officers"* (senior public health office). This relationship was seen as core in terms of how the council operated but also a key component in terms of maintaining political control:

"Relationship is critical and it matters because in this relationship is the stability of the Council which is place maker" (senior public health officer). In realist terms this study hypothesised the uniqueness of place $_{(C3)}$ and officers' response to this context as offering explanation on the visibility of NICE public health guidelines. A further hypothesis on the nature of decision-making and in particular the operation of a relationship between local bureaucratic elites has also been offered and explored. In this place, there is an interplay between these two hypotheses; the history of political control explains decision-making but the relationships between senior officer and leader reinforces political control. Politics is more visceral, partisan, ambitious and perhaps slightly more unstable in this place. For example, these interviews took place shortly after a local election and it was not possible to interview politicians in this place because of the time the Leader needed to carefully balance/construct their Cabinet and so there was a reluctance to be interviewed.

One interviewee identified that the Leader tended to: *"shuffle around political responsibility and landscape"* (officer). Non-public health interviewees were aware that they would possibly need to build new relationships due to a recent reshuffle: "[at an] *early stage with the new cabinet lead in terms of relationship building; got to be a level of trust and honesty with cabinet lead* *(mechanism: reasoning – relationship building).* [They] *are here so that we officers understand the voice of what the public want in* [names place] *and how they want it.* [...] *the voice of realism. What we think it is and what their constituents tell them. Got to be trust and relationship building, you both have to invest time in it. Of all my politicians: I know* [name] *the least;* [name] *already have a relationship;* [name] *was a cabinet advisor so we are aware of each other and* [name] *no previous relationship*" (officer). This illustration of officers needing to advise/work

with several executive members is a refinement of John's dual elite (John, 2014). One outcome of this feature of the context is that decision-making can be summed up by this quotation: *"this place isn't great for making bold decisions* [it] *makes safe incremental decisions (C1: science of muddling through)"* (public health officer). It was identified that this was not simply member wanting to retain their own seat rather it was collective, nuanced view that their party's politics and policies were better for the place. This mirrored evidence from within case site 1.

Evidence from non-public health officers reinforced the importance of the relationship between senior officers and members but also identified the officer's role in supporting the whole council (Gains, 2009). For example: *"on a weekly basis 70 questions from local councillors around issues and we need to respond. I've been around a long time, more than 30 years, you grow up, know who and where to go.* [There's] *respect on both sides, honesty and open (mechanism: reasoning – mutual respect). You have to open your mind and listen to what is being said. Very, very easy (happens in civil service) to slip into the model of 'this is what we can do, there are tight constraints.' I see this sometimes as almost protective gatekeeping* [to services], *it retains authority, as a local authority, and restricts what people can ask of you. I've tried to shift out of this mind set"* (officer).

Distributed model of public health

Within case site 3, the public health team is distributed across several of the portfolios that make up the council's structure. Within this model, the public health grant is also distributed and this is important. For example, the Healthy Child Programme transferred to local government on the 1st October 2015 (Public Health

England, 2018a). This included commissioning of such services as health visiting and school nursing and represented the completion of public health's transfer to local government. Within this case site, the Director, responsible and accountable for these programmes, is not the DPH. The model means that devolved public health staff, responsible for commissioning the above-mentioned services are within the command of different executive directors. Peckham et al's (2017), survey conducted in 2015, identified that only a small number of public health teams, 7% or n= 5 were similarly distributed across directorates or functions, or across multiple councils. In each of the other two case sites, under the Schemes of Delegation the DPH was directly responsible for commissioning public health services and as has been demonstrated above this is where NICE guidance was most visible. Indeed, in case site 2, the DPH has an additional responsibility for adult social care commissioning (Case site 2, 2013).

This distributed model, found in case site 3, was established when the public health team transferred into the organisation in 2013. It was generally observed by interviewees that there was no appetite for change. The DPH is a member of the council's executive management team which provides strategic direction to the authority (Case site 3, council website). In this place, the DPH role is described as "*liaison with executive directors regarding integration of public health specialist teams into the portfolio management structures*" (Case site 3, council website). There was some evidence from the officer interviews that this enabled the DPH to work across a broad range and that this was helpful. Alongside broad responsibilities for public health overall, including health improvement, health protection and health care public health (Case site 3, council website). Information within the Scheme of Delegation from this case site is similarly framed in broad terms (Case site 3, 2019).

Moving from the NHS into local government was, like the other case sites difficult, Not least of which moving onto a distributed model meant the severing of routinely used professional ties and the danger of professional isolation. Potentially exacerbated by the need to influence other officers as well as members.

Data from this case site suggests that this feature of the context i.e. a distributed model has specific implications for the relationships between the local bureaucratic elites (C2). Specifically, the devolved model was viewed as an opportunity by senior public health staff, one respondent explained that they had been told: *"When the Leader says that* [name of Council] *is a public health council, s/he doesn't know what it means but s/he means it and it is* [the DPH's] *job to figure out what it means*" (senior public health officer). This challenge of making this rhetoric real, it is argued, means that the task was to *"influence, and not just members."* This illustrates the craft of public health in this place. There is a need to advise and influence politicians in terms of the direction of a policy, for example, prioritising active travel over keeping traffic flowing and also influence other officers to develop interventions that reinforce this rather than weaken it. At the same time in a member-led council, interviewees described members as not only setting direction, and making decisions but wanting to be sighted early on interventions: *"the cabinet member for public health takes* [their] *role very seriously. [S/he] gets public health is* [the grant] *but also a much broader mission and responsibility. S/he expects us to come up with bright ideas* [and] *wants to be in on it very, very early and most cabinet members are in the same place"* (public health officer). This was clearly relished by the DPH: "*Consultant in Public Health in* [...] *for seven years [...] Applied for Director of Public Health here* [and have been here] *two and half years; it is the best job I've ever had"* (mechanism: relishing the challenge; thriving). This

feature of this Place adds nuance to the relationships between local bureaucratic elites in that they extended beyond member-officer relationships and included relationships with other officers of the Council. In this place, the public health function is devolved, the budget is devolved and the task is to influence.

One interviewee described their task as "*break in* [to] *and making relationships with transport and planning"* (public health officer). There was a recognition throughout the interviews of the differing professional backgrounds of other council officers and how this dictated the nature of knowledge these officers sought and used. Colleagues were described as *"on the same page"* with regard to the opportunity of using planning and transport decision-making processes to increase, for example, active transport options such as walking and cycling using planning. However, many of the council officers working in transport or planning were recognised as coming from a "technical world" (public health officer). For example, transport professionals with air pollution within their portfolio *"tend to be scientists"* (public health officer). It was suggested that these backgrounds resulted in a focus on a technical solution, for example, technical solutions around traffic control to reduce congestion motivated by the need to keep traffic flowing, perceived as important for the local economy, to reduce air pollution. With active travel perhaps being a bi-product or unintended consequence of the solution rather than the initial policy priority, at least for these officers. One interviewee suggested that: *"planning has got to have a role in improving health and well-being in terms of what we do. But not quite sure how we can work together"* (public health officer). This perhaps reflected the relative newness of the relationship and the recognised need to break in. This was more apparent in case site 3 where public health staff are more professionally isolated: "*I'm still at the bottom of*

a steep learning curve with the planning world, lots of things I don't understand. I've been told things a few times by planners and I only retain some of it" (senior public health officer). Not knowing or perhaps failing to understand is perhaps an uncomfortable and possible hitherto unusual position for a Consultant of Public Health who has been through the training programme which requires the demonstration of knowledge and skills leading to the kitemarking of their competency and which gives membership to what political science terms an epistemic community (Hass, 1992; Löblová, 2018).

Distributed public health officers, recognised that there were opportunities within the planning system, for example, the statutory duty to develop the Local Plan (also identified by officers in case site 2). One opportunity identified by interviewees was that of enshrining interventions to address the social determinants of health within the Local Plan. Dahlgren and Whitehead (1991) developed their main determinants of health model – commonly described as the rainbow model – as part of a working paper for the World Health organisation. This working paper argued that policy had to be based on understanding what the main influences on health are, and that these influences could threaten, promote or protect health. The rainbow model organises influences on health into categories and layers them beginning with the overall, general socio-economic, cultural and environmental conditions; living and working conditions, social and local community networks, individual and lifestyle factors and fixed factors such as age, sex and genetic makeup. Dahlgren and Whitehead argued that there was little control in this last layer; the other layers though give rise to *'quite distinct levels of intervention for health policy making'* (1991, p.11). It is within these layers that local government may be well placed to act as described

earlier in the introduction (Tomlinson et al., 2013). Tomlinson et al (2013) highlighted a concern about the lack of practical guidance to support delivery of spatially targeted intervention at the local level. A space for NICE perhaps?

Public health interviewees in case site 3 recognised that the scope of the Local Plan: "*a vision and a framework for future development, addressing needs and opportunities in relation to housing, the economy, community facilities and infrastructure – as well as a basis for safeguarding the environment, adapting to climate change and securing good design"* (Case site 3, 2018) represented an opportunity. However, it was also recognised that in this place, developing the local plan was highly political (C3- political control, C2 – local bureaucratic elites) and might require decisions that would impact on the ballot box, for example, building on the green belt. Given, the features of this context i.e. member led, politically febrile (C3- Place) – any officer response requires a recognition of the need to *"get politicians moving"* and the use of planning structures (mechanism: resource: statutory duty to develop a local plan) and relying on established relationships (mechanism: reasoning -mutual respect, trust) between local bureaucratic elites (C2). It was observed during time in the case site that this was a complex space to step into for transferred public health staff. Particularly, given the learning curve about planning highlighted above. This quote illustrates the difficulty, there is a recognition that *"we want to influence the plan behind the plan* (evidence also found in case site 2); *the grand policy – so we've had chats with planners working on that to try to get health and well-being a core thing. We are having a little success, but it isn't quite clear, ever changing,* [an] *'invisible nebular'* [pause] *so I'm still feeling unclear, have we been successful?"* (public health officer).

The ability to influence policy is made additional complex by the need in this place to influence other officers (C2: local bureaucratic elites – refinement officer-officer); this arises from the distributed model(C3- place -feature) and it also involved mechanisms such as trust and respect: "*I'm a pragmatist, I don't need the policy to say health and well-being, it mustn't say public health, if is someone else's agenda* [i.e. agenda owned by/within the portfolio of non-public health officer] [pause, I do] *want it hard wired in – if it is someone else's words* [terminology] *then that is fine. So complex, still in a situation where we are reaching in as opposed to being in there and pro-active, working alongside them. Relationships and trust* [there's a] *lack of clarity of role. Time* [is needed] *day to day* [time together] *and over time – finding tangible things we can do together"* (public health officer). Non-public health officers, also identified the importance of close officer to officer relationships. Senior officers with responsibility for commissioning public health services and managing public health staff (within the distributed model) saw the necessity to develop close working with, for example, the DPH, despite this role being outside reporting lines. This resulted in the interviewee working with more than one executive director but s/he also worked with several cabinet leads because of the broad responsibilities within her/his area of responsibility. Given that this distributed model occurs within a member led council there is a need to influence members and also work with other officers. The art of doing this is explored below.

The craft of public health in this place

"*None of the* [politics, the control, the stability of this Place] *is reflected in the traditional evidence base that public health professionals rely on* [there's a] *subtle art of getting things done"* (public health officer).

Given a key role for public health officers, within this place, is focussed on influencing, it is useful to explore how this occurs. Interviews within this case site confirmed that like other places this was all about relationship building (mechanism: reasoning - trust). The following quotation illustrates how officers respond to the need to build relationships: *"be seen, communicate, collaborate* [for example, I] *went to see the Cabinet advisor* [before I went, I got to] *know their ward, what might make them tick"* (senior public health officer). A second example was given "*I was at* [political party name] *group last night talking about the drug strategy that we will put through the Cabinet process. Lots of interesting and erudite questions* [...] *we answered there but I will follow up; 'I've been reflecting on that', I'll say, 'I've had further thoughts'* [I'll aim to] *build the relationship".* Other interviewees identified that there was a difference between briefing within health governance processes and briefing politicians: "[politicians] *are less worried about savings and more worried about what is the difference we are going to make* [...] *health route documentation is all about savings, efficiencies and transformation linked to savings. In the Council, it is about what we want to see, what does it look like and feel like and what do we need to do" (officer).* Other officers observed senior public health officers building their relationships: *"*[s/he] *is a friend of scrutiny. The chair likes to meet* [her/him] *and see what is going on."* Building these relationships requires recognising the layers of decision-making; the need to build relationships and the time to do so (mechanisms: reasoning - understanding, mutual

respect, time). This quote illustrates the nuances within relationships between officers and members: the interviewee struggled to articulate the nub of her/his argument and so this lengthy but illuminating passage has been quoted in full: *"hard to explain* [pause] *the power of a local authority is that there are some things that officers just need to* [do] *and other aspects where, not using* [politicians] *but an understanding of how politicians want to be involved in issues* [pause] *power of political views. You really need to understand. I can't describe it, but it is really important, if this doesn't work then nothing works. There are things that politicians can say about things that officers cannot and should not and understanding the difference is really key"* (officer).

Similar to case site 2, one interviewee identified that there was a learning curve for public health in terms of the use of evidence within conversations: *"yes, they've struggled 'yes, but we work from an evidence base' bad way to start a conversation* [here]. *'we are coming to save you (may be this is so, we are primitive and they are illuminati* [but]*) politicians wouldn't like that here, not the style of leadership that is required. In the NHS come in, tell us what we need to do, tell us which way is up. Very rarely how it works here. Democratic representatives., represent the public, and indeed they do here,* '[politician] *I tell you what public concerns are'*[...] *here* [your job] *is to convince people* [politicians] *that they have told you which way is up"* (officer transferred to the public health team).

As in the other case sites, public health officers recognised, that influencing required them to broaden their view on what counts as evidence. For example, recognise the legitimacy of technical, political, policy and local knowledge held by politicians and other officers: "*Now,* [I'm] *slightly less cavalier towards other forms of evidence. Now appreciate the politics here* [importance of] *reputation* [...] *I now*

understand the difficulties of making decisions as a politician versus my simple evidence world of 'evidence says this now crack on'" (public health officer). The distributed model of public health in this place (C3) resulted in an awareness of and need to take account of the technical knowledge of other officers. This technical knowledge arose from these officers' professional background and was bolstered by their experience of operating in local government. Influencing other officers was complex and this had implications for the craft of public health in this place. An illustrative example follows: one senior public health officer identified that the most senior officer within transport was in the process of developing an all-encompassing transport plan: *"s/he wants a vision and strategy that dovetails with other plans 'one ring to rule them all.' This is new for transport planners"* (public health officer). This public health officer identified the need to have this officer 'on-side' and stepped carefully around them, for example, not undermining them by developing a separate relationship with the relevant cabinet member (mechanism: reasoning – damage avoidance). However, s/he also recognised that officers working within the transport team could influence policy and that they might not see transport as a determinant of health. For example, it was identified that the transport team: *"see role as responding to what people want, if they think of people at all, 'we build stuff and do stuff.' Job is to respond to issues* [and] *the voice here that is strongest is move fast and drive. [I] get the sense that they put forward ideas that they know Councillors will go for and not rock the boat* [mechanism: reasoning – damage avoidance]. *But the boat needs rocking, gridlock is coming* [and we need to] *change car owning culture."* Although the public health officer recognised the interconnectedness and the payoffs within the transport world s/he was less sighted on the complexities of local versus national politics and policies; the

role of national and international lobbying (through public protest and legal frameworks) and the need to work across neighbouring authorities within this agenda. Non-public health officers in case sites 2 and 3 emphasised these layers of complexity. Additionally, the decision-making process was identified as not as logical or coherent as the health system where it was viewed as a more direct path: *"here it is about shifting practice, muddling or struggling through the process* (C1: muddling through), [it's the] *nature of democracy*(C2: highly politicised) *and it's a beautiful thing – its crap, but it's better than anywhere else"* (officer transferred into public health).

The recognition that this was the decision-making context produced two responses. First, in terms of relationship building, for example, not undermining the senior transport officer. Second, in terms of the use of evidence specifically in this study, the use of scientific recommendations from NICE: *"I'm a NICE defender;* [they've] *done some spectacularly good things but they are just one source and the skill is putting the evidence sources together* (mechanism: reasoning craft and weave; assemble evidence) *that matters as much as the evidence itself"* (senior public health officer). When asked about the specific use of NICE guidelines within the transport scenario above: *"NICE guideline stuff does have a use. I don't look at it much (it is underneath* [underpins] *some of the stuff). So, the challenge is I look at it, get frustrated, it's useless to me* [pause] [let's] *step back, it is not useless, it is a useful summary; but it isn't like, commissioning sexual health services -this is the complex world of policy. It less useful for me because of its single* [issue] *focus* [...] *NICE guidance is too simplistic"* (public health officer). By too simplistic, the officer was referring to their need to navigate the complex interplay of policy arguments in this arena. During the interview several connected issues were identified: the impact of air pollution in terms of mortality and

morbidity; the micro-economics of people spending when using cycling to travel; framing arguments that investment in a healthier workforce would support economic growth and productivity, and concerns regarding the impact of any measures on inward investment from large multi-nationals. Inevitably, some of these arguments have more political traction and can be informed by local visible knowledge such as economic data (inward investment figures versus spend in the local economy by cyclist): *"people understand that air pollution kills but the biggest issue is economic growth."* This is a demonstration of Lindblom's (1959) hypothesis that policy objectives have relative values.

NICE is effectively invisible in this high-level policy conversation, from the perspective of public health (outcome: NICE invisible). Public health officers expressed the view that, for example, their transport colleagues would not recognise NICE as a source: *"I would be surprised if they did, gob smacked, fall off my chair. They are more interested in DTI* [Department of Trade and Industry]*, for example, when we talk in STP*[28] *world of Simon Stevens*[29] *[the] CEO here says: 'well he's not my God, he's your God'* [pause] *NICE is irrelevant to transport."* It was more visible however in terms of specific interventions such as the idling engine campaign developed and promoted by the transport team (see Table 11). The idea of 'He's not our God' resonated in other

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[28] STP stands for sustainability and transformation partnership. These are areas covering all of England, where local NHS organisations and councils drew up shared proposals to improve health and care in the areas they serve. STPs were created to bring local health and care leaders together to plan around the long-term needs of local communities. They have been making simple, practical improvements like making it easier to see a GP, speeding up cancer diagnosis and offering help faster to people with mental ill health. In some area, STPs have evolved to become 'integrated care systems', a new form of even closer collaboration between the NHS and local councils. The NHS Long Term Plan set out the aim that every part of England will be covered by an integrated care system by 2021, replacing STPs but building on their good work to date (source: https://www.england.nhs.uk/integratedcare/stps/faqs/#one – accessed December 2019).

[29] Simon Stevens is the Chief Executive Officer of NHS England (further detail is here: https://www.england.nhs.uk/about/board/members/#exec)

interviews: *"my reflections on this year* [on working with the Clinical Commissioning Group. (CCG) on mental health], *the CCG is so embedded in the health system, they are paralysed by "they say* [we've] *to do it this way"* (mechanism; resource- NICE guidelines, CQC; mechanism: reasoning – fear] *this is why they struggle with local authorities. I've done all sorts of delivery and commissioning. I don't have a particular model on how we must achieve this; I look for* [a] *'work- around', a local government trait* (mechanism: reasoning – craft and weave) *trying to shift goal posts within a safe parameter* (mechanism; reasoning – dilemmas of local government officers)*"* (officer). Officers in this place also identified the need to be prepared, for example, citing work to develop lines to take with members and the need to assemble and marshal evidence to feed into forthcoming policy proposals (C1: muddling through – use of knowledge at the edges).

In this place then, there is an emphasis on the need to influence within a member-led and more politically febrile environment. This influence goes beyond member-officer relationships and is concerned with the need to develop relationships with other officers; the distributed model of public health further supports this and these contextual elements have implication for the use of knowledge such as NICE public health guidelines.

Summary findings

"I'd use a story [...] *I don't use the language, I used to.* [In the NHS], *I'd use NICE as the trump card: 'I'm a public health consultant and NICE says this' ... because that isn't how it works* [here]" (public health officer).

Evidence was set out above which aimed to explore and test the candidate theories using findings from both the theoretically guided searches of the literature and from the case studies (Yin, 2014). The review of the literature led to initial refinements. Particularly, useful was the refinement of C3. As stated, earlier C3 was initially labelled 'uniqueness of the authority.' This label came from the earlier exercises to articulate theory. The label was researcher identified drawing together experiential knowledge and endorsed by the Delphi panel as theoretically relevant (88% consensus). However, it is argued the initial exposition of uniqueness of each council, although immediately recognisable to local government officers, was a naïve and overly simplistic construction of the theory. It was and remained until the next stage of the review a workable hunch. The workaday language of 'every council is unique' was a useful entry point. However, the guided literature search produced refinements which aided understanding. It introduced the label of Place and specifically, the reasoning that how each council viewed itself was linked to its historic context, its constitutions and its capabilities. Moreover, a recognition that these might be important in terms of explaining and shaping decision-making and ultimately the reception of NICE guidelines. The evidence set out above identifies that it was possible to discern specific features of each site which reinforced this idea of the importance of Place. It is also evident that they shape the nature of decision-making and help adjudicate between other candidate theories i.e. the importance of relationships

between local bureaucratic elites and the use of knowledge within the decision-making processes (at the edges). These contextual features of Place were identified through time in the 3 case sites and data analysis. In case site 1 they were labelled: pride in the prize and sensible local bureaucratic elite relationships; case site 2: alleviating poverty and political stability and in case site 3: political control and distributed model of public health. It was found that these features shape the nature of decision making in the authority (C1 – muddling through; C2 – local bureaucratic elites). They are part of the generative causation and this is further developed in the discussion below which begins with configurations of contexts, mechanisms and outcomes, in other words, explanations of the use or non-use of NICE public health guidelines by local government officers.

Chapter 6: Discussion

The discussion chapter begins by examining the visibility of NICE public health guidelines, in other words the identified outcome patterns. In early theorising, outcome was described as the use or non-use of NICE guidelines within decision-making. This was refined as the study progressed to be concerned with identifying patterns of visibility of NICE guidelines within the culture of decision-making. Thus, linking the outcome to contexts more explicitly. These patterns of visibility have been labelled throughout the findings. Here though they are given centre stage because they are the essence of the review. In realist terms, the outcome of interest is the extent to which NICE guidelines are visible in local government and how the mechanisms triggered in context explain these outcomes. These findings, located within what is known, best as partial knowledge (recognising the permanently evolving relationships between contexts, mechanisms and outcomes). Building on these outcome patterns this chapter then presents summary theory, in other words, it sets the configurations of context, mechanisms and outcomes, which aim to explain what happens to NICE public health guidelines post publication in terms of how they are viewed and used by local government officers. This summary theory includes identification of transferable knowledge and its implications.

These are the key findings of this configuring review: adjudicated, refined and fragile theory. They represent ongoing choices between depth and breadth, and the need - particularly within the boundaries of a PhD. - to pursue the most fruitful lines of inquiry in terms of developing causal explanation (Pawson, 2019a). These choices were made throughout the inquiry and, indeed, throughout the writing up. Decisions on what to include in this thesis were based on the perceived explanatory power of

the finding in question and how it can add to overall understanding. These choices in terms of their implications for the strengths and limitations for this study are discussed below. Such choices were made by an embedded researcher i.e. a part time PhD student transferred from the NHS to local government. The embedded and multiple positions of the researcher have been referred to throughout the thesis. The implications for the study and for realist approaches are towards end of the chapter which concludes with a consideration of future study within this sphere.

Summary Context, Mechanism and Outcome Configurations

Stage 6: preparation of mid-range theories for dissemination

As a reminder, review activities in this inquiry have followed a technical sequence (see page 36) which consists of multiple stages. These stages form the underpinning logic of discovery within a realist review (Pawson, 2006). The final stage is concerned with preparing mid-range theories for dissemination. Pawson identifies three tasks within this stage: negotiation with decision-makers on the analytical and policy focus; consultation on which emerging lines of inquiry should be followed and summary theory to initiate the process of 'thinking through' future implementation decisions (Pawson, 2006). In terms of the timing of review tasks, Pawson (2006) suggests the first two tasks are undertaken earlier in the review; in this case the negotiation was with stakeholders within the Delphi panel, an early activity within the inquiry. The latter task (i.e. the preparation of summary theory or theory of the mid-range) is the subject of this section. This leads to thinking around how to design future interventions to mobilise research derived knowledge within local government, given

a greater understanding of the context and the causal mechanisms therein (see page 226 for further discussion).

Middle-range theories, initially described within sociology, are theories which '*deal with delimited aspects of social phenomena, as is indicated by their labels'* (Merton, 1967, p.40). Merton reasoned that these theories lie between minor working hypotheses used by researchers in their day-to-day work and all-inclusive and systematic efforts by the academy to develop a unified theory (grand theory) to explain all observations. Davidoff et al (2015) offer examples such as theory on social inequality. Merton (1967) suggests that middle-range theory is used to guide empirical inquiry. It involves abstractions but these are *'close enough to observed data to be incorporated in propositions that permit empirical testing'* (1967, p.40). Within improvement science, mid-range theory, has been described as big theory to distinguish it from small theory or programme theory, examples of mid-range theory such as Roger's Diffusion of Innovation are given (Rogers, 2003 cited in Davidoff et al., 2015). In this study, pre-existing theories such as 'bounded rationality' or 'the science of muddling through' can be considered to be theories of the mid-range. They have been incorporated within the candidate theories to be refined and tested. The summarised configurations of context, mechanism and outcome operate at a higher level of abstraction than the earlier candidate theories and represent articulated theories to explain the reception of NICE guidance in local government. In doing so they bring together evidence from omnifarious sources (Pawson, 2006).

Identified outcome patterns

All three case sites exhibited patterns in the visibility of NICE public health guidelines. These outcome patterns are identified within Table 11, which includes configurations of contexts, mechanisms and outcomes illustrated using data from the case sites and guided literature searches. The table builds on an earlier diagram (see page 135) which refined the candidate theories following the guided literature reviews. Part of the earlier diagram is reproduced at the beginning of the table. It starts by setting out the rival theories which have been targeted within this review i.e. two on the nature of decision making (C1 and C2) and one on the uniqueness of the authority (C3). The review process has led to a refined understanding of the importance of Place and as result within Table 11 this theory is given primacy over theories on the culture of decision-making. Fundamentally, local government officers need to respond to their Place and recognise inherent key features such as, for example, within case site 2 the emphasis on alleviating poverty. It is within this context that key mechanisms identified throughout this inquiry, such as mutual respect or trust, are triggered and this, in turn, dictates how knowledge (such as NICE guidelines) is viewed and used. This idea is summarised in the first part of the table.

Table 11: configurations of contexts, mechanisms and outcomes

Mechanisms are triggered by these contexts …

Original exposition of candidate theory → Refined exposition of candidate theory
C3 (uniqueness of the authority) → Each council's view of itself is linked to its to its historic context, its constitutions and its capabilities (from guided literature review) Case site 1: pride in the prize and sensible local bureaucratic elite relationships Case site 2: alleviating poverty and political stability Case site 3: distributed model of public health (officer – officer relationships) and political control these SHAPE: ↓
C1 decision making is characterised by the science of 'muddling through' → clarification of options appraisal cycles within decision making which utilise knowledge at the edges (muddling through)
C2 decision making is highly politicised and characterised by the operation of a dual elite → highly political constrains within (constitutions); reforms (formalised politics); dynamic relationships

Which produce to outcome patterns …

Outcome patterns	Configurations of context, mechanisms and outcomes
Within policy and strategy: (invisible within documentation; within decision making)	**Case site 1:** All strategies in this authority were required to be agreed at Cabinet level. This meant the strategy would need to be guided through this process (C1) and all interviewees described accessing NICE guideline but that they were not necessarily visible in the final product. Analysis of the most recent HWS within this case site reveals that there is direct mention of NICE guidelines within the strategy (outcome: invisible) (Case site 1, 2019a). *Although, there is no direct mention of NICE interviews from the case site suggest that NICE recommendations were part of its genesis (outcome: visible within the process) for example emphasis within the strategy on community development and behaviour change approaches* (Case site 1, 2019a). The portfolio holder was familiar with NICE public health guidelines. S/he also cited NICE guidelines on air pollution (NICE, 2017) being discussed within local policy discussions. Officers from democratic services also described accessing the Overview and Scrutiny Committees use of NICE guidelines : "*so if we are looking at cancer services we may use NICE [..] to challenge the provider [...] 'what's your justification for not providing x or y, for example."(outcome: visible).* Officers did comment on the guidance being viewed as quite technical and clinical and thus too opaque to be a go to source. *"we are looking for top line information"* (officer). **Case site 3;** "air quality guidelines are pretty good, authors knew their space, we have used it for anti-idling around schools" (public health officer). The site suggested they were not doing it directly because of NICE but argued it was useful background noise (the knowledge wasn't used in an instrumental way) and used within their conversations with other officers (C3: distributed PH, importance of officer to officer relationships). Officer outside public health aware of NICE (pre 2013). Have used guidance within clean air strategy (NICE, 2017; Case site 3, 2017): *"I'm keen on evidence based policy (political decisions can be through principles and other things but officers generate strategy. My position is we need to back things up with evidence – so we provide a reference to guidance as part of the strategy."* (officer).
Visibility within commissioning practice:	**Case Site 1:** NICE guidelines were utilised within the commissioning process because they offered evidence to be exchanged "*[developing a] strategy policy or services specification then straight to it*"(public health officer, case site 1). This was identified as part of the hoops necessary within the context (C1). All interviewees described turning to NICE when "*recommissioning a service or when you want something to change (part of artillery or tool box)"* (public health officer). However, many participants reflected on *"not really looking at it [NICE guidelines] for a while. I used to quote [whole] paragraphs"* (public health officer). **Case site 2:** When asked about NICE economic tools: "*I used it more 3 or 4 years ago, but its prominence has dropped and there are other things. I use PHE tools (they will have drawn on NICE) publications. Also use LGA. Any new procurement project or new piece of work I go to NICE but for the wider determinant stuff there are really any there or if they are [spatial planning example] but vague not enough detail to be helpful*" (public health officer)

	Case site 3: Although NICE was viewed as an important source within the commissioning process, the distributed model of public health found in this setting (C3) has produced pressure to operate differently: *"I've spent time with the public health team (and said) their skill regarding population health gets lost in the contract management/commissioning process.. 'this is what NICE tells us' takes us away from what we know about the services* (mechanism: reasoning – trumping of local knowledge). *I've asked them to spend time on influencing and informing strategic commissioning"* (officer).
Visibility within developmental work/ interventions	**Case site 1:** One public health lead gave a detailed example of the use of NICE guidelines in their policy work. S/he described work undertaken in isolated geographic community within the authority. This work combined bringing people together and working with strengths in the community: *"quite a lot of elderly people, lots of inequality, complex health conditions. People don't have cars, isolated […] a hours drive from any hospital. [an isolated place] but there's a strong sense of community and a GP practice who had been [running] a long-term conditions clinic."* Work was undertaken with the practice manager and started by mapping NICE public health guidelines against current practice (outcome: visible) (NICE, 2012, 2011). The use of the guidelines helped identify gaps in local provision for example brief interventions to support behaviour change (NICE, 2014a). This enabled the practice to access additional education sessions and enable a health care assistant to start having preventative conversations with high risk patients Work was also undertaken to develop the front-line workforce to understand their role in delivering lifestyle brief interventions and this was again based on recommendation within NICE guidelines (outcome: visible). **Case site 3:** *"if I'm really honest, I think about the direction we want to go and sit down with Public Health Colleagues and I say 'what does NICE tell us.' It would kill me if I had to look at it all the time. I think this is the skill of local government [officers] we are constantly having to reinterpret guidance from government to meet local priorities in terms of political ambition. I don't worry because I know I have a team [public health] who are embedded in it.* [example, healthy child programme(Great Britain. Department of Health, 2009 contains 2 pieces of NICE guidelines) *I wanted to say I don't care about the number of visits [by health visitors] I do care about early identification. Where is the flexibility in the guidance that allows us to use services around the edges without losing the due diligence of the health perspective" (officer)*(C2)
Visibility within conversations/influence:	**Case site 1:** There was evidence within the case site that NICE guidelines were used when making a case: *"NICE tells you what you should do"* (public health officer). The guideline was not necessarily in the foreground of the resource exchange (mechanism) between public health officer and member or between public health officers and other council officers. Rather the guideline was used got informational advantage. The case site revealed two aspects of this informational advantage: For example, used in two ways, First, one officer described NICE guidance as supporting them as commissioners (i.e. reinforcing their technical knowledge): *"makes you feel more confident [though] there are areas I disagree with […] also helpful when reviewing outcomes."* However, another officer found NICE's website hard to navigate and preferred for example PHE *"visual"* commissioning guides (see Public Health England, 2018a). Second, as a policy, strategy or commissioning specification was being developed it was subject to iterations and needed to be guided through the decision-making process. This process was

	described as: *"I love that [muddling through] (C1) when I saw that such a good phrase […] navigating the system [is]a series of hoops to jump through"* (public health officer) to produce increasingly refined papers. In this context (c1) knowledge of the detail of NICE guidelines might be held in reserve to help bolster the policy as it was being steered through its various iterations. For example, in the case of the development of the Infant Feeding strategy it was helpful to use NICE guidelines (NICE, 2008) to justify investment in breast feeding but maintaining within the document parity between breast and bottle feeding which was politically important. It is also worth noting that the start point for the public health policy lead was PHE commissioning toolkit which itself identifies 6 NICE guidelines (Public Health England, 2016a, p.30). **Case site 2:** You need to know how to do it then perhaps not use it" (senior public health officer). The interviews evidenced a capacity issue when it came to seeking, reading and deciding to implement NICE guidance and concerns about not having the capacity to do this type of work. (Mulligan, 2019)(Some expressed the view that there were more public health consultants prior to transfer and in the past, there were more public health consultants and that portfolios had grown: "*I don't have what I used to have […] to be able to sit for a day looking at evidence"* (senior public health officer) NICE invisible in the work of senior public health officers and invisible in the resource exchange between officers and politicians. Nevertheless, there was an expectation that public health leads would check their commissioning frameworks against NICE guidelines and guidance on oral health in care homes was cited (NICE, 2016). It was also identified that in some areas, such as contracted services, for example, NICE was a trusted source. **Case site 3:** *"In the past 5 years, I have never, ever, ever opened a piece of NICE public health. It is irrelevant [pause] probably over-cooked irrelevant, not irrelevant) but it comes from a world where [there is the] application of a bio-medical model to a social paradigm and it don't work right well. Second, comes from a world where 'oh there's NICE guidelines of course we'll do that. Finally, it comes from the [position] if only we had better evidence, we'd do the right thing but the world is more complex than that. I still look there for the more NHS orientated issues."(C1, C2)* *"I was reflecting on this, this morning, before you came. [NICE] is an organisation from my point of view. I had to ask [names Public health colleague] 'what do we do with it' zero relevance to my day to day stuff. I looked on their website and thought there's good stuff on here – why hasn't it made its way through. There's probably the history of NICE is NHS, clinical excellence used to stand for. It surprised me, when I looked today, that it had changed its name. Wow, 5 years and that hasn't filtered. I didn't know it had a social care remit; I don't know its status local government context – guidance to me is usually 'thou shalt follow unless have a good reason'"* (officer) (C1,C2) *"one piece of NICE guidance on physical activity said issue pedometers. I thought it, felt neo-liberal, politicians would say I am stood with someone and they've no money, no job, no hope – telling them they need to do more physical activity […] I wouldn't put that sort of NICE guidance in front of politicians"* (officer transferred into PH) (C2)

Summary theory, transferable knowledge and its implications

Brennan et al (2017) drew together lessons from the literature on how to improve the uptake of guidelines in a health care setting. They concluded that *"guidelines only have paper authority. Managers do not need a checklist of their pros and cons, because the fate of guidelines depends on their reception rather than their product"* (Brennan et al., 2017, p.1). The logic of this thesis was based on the idea that it was the reception / reasoning on the part of local government officers rather than the guidelines themselves that would predict use. This thesis adds to our understanding of how guidelines are received within local government.

Brennan et al (2017) also identify dilemmas that may limit the uptake of guidelines within health care. These dilemmas are described as tensions in using simple guidelines for complex comorbidity; tensions between national credibility of and local control; tensions between patient choice and top-down guidelines and, finally, tensions related to the volume of guidelines. Each of these dilemmas, albeit out with the clinical labels of patient and co-morbidity, were present within this inquiry, often initially highlighted within the empirical studies reviewed and then later refined as evidence emerged from the case sites. Each of these tensions features in the summarised theories above and they are helpful in highlighting broader theories which help to illuminate dilemmas within local government decision making. Through the review process, it has been possible to explain how NICE guidelines are received by local government officers and to identify transferable knowledge. This transferrable knowledge operates at a higher level of abstraction than the explanations found within the findings section but is close enough to the observed data to be useful both as an explanation of the reception of NICE guidelines and for incorporation within

interventions to enhance public health practice in local government. There are three key transferable knowledge explanations, which are labelled: the pre-eminence of place; mutual exchange of resources by local bureaucratic elites and the trick to balancing knowledges. These are explained and set out below and use both narratives and, where appropriate, graphics to elucidate. The three key transferable knowledge explanations, alongside summary theory, were sense-checked during presentations within each case site and at a NICE guideline developers technical meeting.[30] The case site presentations were found to be especially useful in terms of assessing the validity of the explanations for two reasons. First, some members of the audience were interviewed as part of the inquiry. Second, audience members were public health officers in local government grappling with the role of doing public health in an overtly political environment. It is not unreasonable to point to the fact that these explanations resonated with this audience as evidence for their validity.

Pre-eminence of place

As stated earlier, when the programme theories were tested in the contemporary real world of public health practice in local government (Yin, 2014) the importance of place and local government's role within a place, as place maker and shaper, surfaced as a conceptual refinement and as a crucial explanatory context. The explanatory importance of place was further ascended when the case study data was analysed

[30] They were also presented at the annual Yorkshire and Humber Public Health Network sector led improvement conference (see here https://www.yhphnetwork.co.uk/media/2299/implications-for-developing-the-local-government-public-health-workforce-pdf.pdf); as an electronic poster at and as an electronic poster at the Public Health England's Annual Conference (see here: https://phe.multilearning.com/phe/2018/eposters/221197/susan.hampshaw.that.ll.do.nicely.a.realist.inquiry.examining.what.happens.when.html?f=listing%3D4%2Abrowseby%3D8%2Asortby%3D2%2Amedia%3D2%2Aspeaker%3D670651

utilising diagramming – the graphic form of memorandum (Yin, 2014). This interrogation (as the inquiry progressed) led to a nuanced /refined and explanatory view of place linked to its historical context, its constitution and its capabilities (Gains, 2009). Place itself then is pre-eminent, it shapes bureaucratic - political relationships within which the officer operates; it helps to explain the pattern of outcomes. For example, the place shaping role was described as custodial: "if you want to be pejorative, it can be viewed as 'neb-sticking' but actually, for me, it is about politicians saying: 'we are the custodians of this place. We have been elected with overall responsibility for the well-being of [case site 3] not just to run [the council] as an organisation but to consider how is this Place doing" (officer).

Further, the inquiry identified that within each case site there were specific features of Place, for example, within case site 1 'pride in the prize' and that these features were important in terms of shaping the culture of decision-making. The study sought to examine two candidate theories on decision-making (labelled muddling through and decision making is highly politicised). It identified that the features of Place contributed to the adjudication between these two theories on the culture of decision making. In other words, aspects of the place itself; how the place views itself is real and either produces or limits the extent to which, for example, decision-making is characterised by the process of muddling through; how local bureaucratic elites operate through relationship building including trust and influencing as mechanisms. This in turn dictates what and whose knowledge is required within such an incremental process and this is explanatory in terms of the visibility of NICE guidelines. There is a need for officers to recognise and respond to Place.

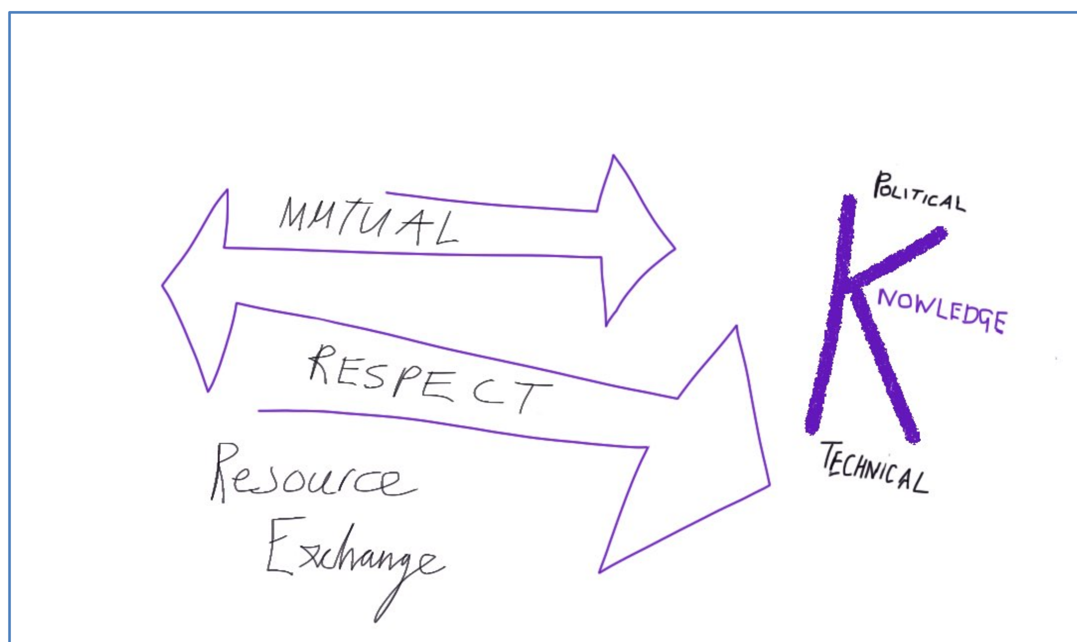
Mutual exchange of resources by local bureaucratic elites

"there's a complex web of stuff we knit together" (officer)

A key finding is that a mutual exchange of resources is pivotal within the relationship between local bureaucratic elites. This finding was identified within the literature and explored, tested and validated within the case sites. The resources exchanged between the two parties takes the form of knowledge transactions. Officers possess technical-administrative knowledge, members cultivate political knowledge. Several forms of knowledge can be exchanged within this transaction: technical knowledge on the extent of need within the population; commissioning knowledge consisting of quality, cost, and clinical effectiveness; knowledge on what should be done (including NICE guideline or other forms of research derived evidence), knowledge from consultations or from seeing what other authorities have tried. The knowledge the politician brings is also multiple and is both political and pragmatic i.e. comprises an understanding of what is politically possible in this place; what is practical (i.e. how to get things done) in this place and includes member understanding of the concerns of their citizens. These knowledges are also exchanged within a decision-making process that is characterised by bounded rationality and requires mutual respect of each other's position, usually created through the development of trust: "[it is an] *oversimplification to say members make policy and officers make it happen.* [The] *reality is priorities are moulded and shaped between*

conversations – an iterative process" (officer). This is illustrated within Diagram 25 below.

Diagram 25: resource exchange

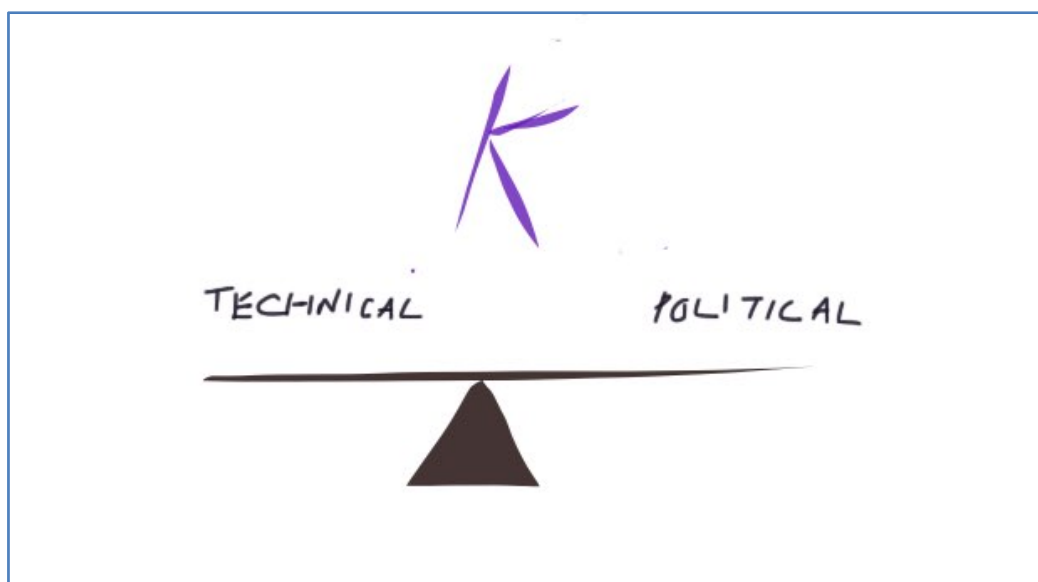


The trick to balancing knowledges

Given, the importance of knowledge transactions there is a need to develop the craft of balancing the knowledges within the mutual exchange outlined above. The officer, in this case, the public health officer needs to acquire/ use political knowledge related to, for example, corporate priorities, their role as local government officer in terms of advice and the development of political nous i.e. recognising the political cycle, role of the ballet box or machinations of both national and local politics. Needham and Mangham (2014) identified synthesising amongst 21st century public servant literacy suggesting the skills required to sort and analyse evidence, make judgements and be creative. If they are adept and confident in this aspect, they are able to weave or deploy technical knowledge within the decision-making process. In

essence, this is the craft of public health practice in local government. The need to recognise that public health in this setting requires balancing knowledge (technical-administrative expertise) and political nous. This is illustrated within Diagram 26 below:

Diagram 26: balancing knowledges



Further it requires a recognition and understanding of how the Place or contextual features within the place such as the nature of local bureaucratic relationships impact on how knowledge is utilised within the culture of decision-making and how to use the decision-making structures (mechanism: resources – cabinet, committees, delegated powers, briefings, reports) and identify where to have influence (mechanism; reasoning – influencing, craft and weave).These relationships differ from place to place but the pre-eminence of the uniqueness of place as an explanation means that officers need to understand the specific Place within which they are operating. Not knowing or perhaps failing to understand is perhaps an uncomfortable and possible hitherto unusual position for senior public health staff. The dilemma arising from public health in local government

being a craft is the need to ensure balance / equilibrium within knowledge exchanges. Ensuring that public health practice does not either over rely on its technical or epidemiological knowledge or entirely dismiss it in the pursuit of influence.

Although, it is possible to identify these three pieces of transferable knowledge it is important to acknowledge the difficulty of disentangling evidence use from the decision-making processes within local government. Evidence is used in the way it is used because of the decision-making process itself. This in turn is dictated by the political context of decision making within local government. This thesis sets out ways evidence is deployed and used by local government officers but it use is constrained by the decision-making process. This process both dictates the required evidence and how and if knowledge derived from research such as NICE guidance can be included in the craft of decision-making.

Study strengths and limitations

This inquiry sought to explore how local government officers receive NICE guidelines and thereby explain what happens to the guidelines. There have been studies on the use of NICE guidelines within local government post 2013 (Atkins et al., 2017) in which officers were interviewed about their view on guideline use. However, there have not been inquiries that sought to examine the decision-making context. Indeed, even within the political science literature there are limited studies on the day to day decision-making of local government officers and calls to do more of this. This inquiry then aimed to add to our knowledge and this is a study strength. As Boaz et al (2019b) point out, just as '*evidence is integral to both the process and the evaluation of policy making, [it] is also fundamental to both understanding and improving*

practice' (2019b, p.1). It is hoped that this study can support understanding and lead to further scholarship on improving practice.

All inquiry has limitations and these are set out below. Some limitations are simply practical and relate to the resources available within a doctorate which, for example, limits primary data collection to three councils. Additionally, it was not possible to interview a member in case site 3; this was due to the recent local election and a delayed cabinet reshuffle. This was disappointing and can be considered a study limitation. It can also be considered data as it is illustrative of one of the contextual features found in this place. It is revealing of the leader's role in this place and the need to carefully consider the composition of the Cabinet to take account of the nature of political control found in this place (C3). A further practical limitation was concerned with data collection during the day-to-day conversations with local government officers. As described within the ethics section, there was an acknowledgement that the researcher's embeddedness within local government would produce natural opportunities to test theory. At the time, there was an intention to routinely record notes of these conversations and use these within the analysis. In the event, it was impractical to do this routinely and this is a limitation of data collection. However, the opportunity to hold these conversations, to receive feedback on hunches, to gather examples of navigating decision-making helped with communicating theory within the later teaching-learning cycles and can be considered a study strength.

Another area for critique within this study is the use of sometimes interchanged terms policy-making, decision-making and commissioning. Sometimes data within this

study is concerned with, for example, the minutiae of commissioning decisions which has a different orientation and focus to policy making (Boaz et al., 2019a). Boaz et al's (2019a) framing of policy and practice is useful here. They recognise the practical utility of such distinctions but argue for overlap, in terms of the actors and nature of the task. Specifically, they argue that policy-making tends to be about setting direction, often through political processes, and that practice tends to be a response to policy direction within the constraints of budget/service demand etc. Actors within this inquiry, it is argued, (local government officers and members) are operating at both levels of decision-making and sometimes at the same time, for example, within case site 1 commissioning decisions regarding alcohol treatment services also set a policy direction. The choice of terminology is then situation-specific and transparent in the reporting.

As stated earlier, the study was designed to detect causal mechanisms and produce explanations of the observed outcome patterns. The extent to which the study design was effective is set out below and uses the 6 stages (Pawson, 2006) that have underpinned this review:

1. Organising theories for testing;
2. Searching for empirical studies;
3. Assessment for relevance
4. Data extraction
5. Data synthesis and case studies
6. Mid-range theories for dissemination

Additionally, Pawson (2006) argues that a realist synthesis involves more than following the tasks against time outlined in his template, i.e. simply following the logic, but that it also requires *'fashioning the very text of the review in terms of that logic'* (2006, p.104). The extent to which this review has embraced this idea will be judged by the reader. There may well be as Lewin (1943) asserts *'nothing as practical as a good theory'* but in the policy world, Lindblom (1959) identifies that policy makers are less enamoured with theory. This study has attempted to convey ideas around theory using accessible language such as hunches, explanations and If, Then statements. These terms, alongside words such as forays and the illustrations of mechanisms, for example, are scattered throughout this thesis. Within the method they were an attempt to convey realist precepts to stakeholders. Within the thesis they serve as a means of fashioning the text of the review using realist logic.

Stage 1: organised theories for testing

As Booth et al (2018) explain, programme theory searches aim to identify possible candidate theories before these are prioritised ready for theory testing. This process is described as iterative: the literature is explored as theories emerge. In this study, the search for programme theories involved the organisation of the researcher's tacit knowledge (one product of this being the mind maps found on page 16) which led to the topic-based searches using a series of forays. This approach started with the researcher becoming familiar with background literature but over time became the means by which potential theories were sought. This embraced the idea of an evolving search and the approach allowed *'the searcher to move quickly – haphazardly but successfully into new territory which appears to be fruitful, much like foraging for berries'* (Booth et al., 2018, p.157). The approach helped both surface and articulate

theory; although necessarily limiting its transparency and hence reproducibility. Multiple choices ensue: choice of shrubs to identify and then at which to stop, branches to lift or leave, roots to ignore was instinctive and experimental. Search notes were kept, however, piecing these together to produce clear report of activity - that would be useful to others - has proven difficult. However, these searches produced the hunches which underpinned the Delphi and were identified as theoretically relevant thus meeting a realist standard.

Programme theory searching largely relied on bottom up approaches described rather than systematically searching for theory (Booth and Carroll, 2015). Shearn et al (2017) have called for early use of pre-existing theories, at a higher level of abstraction, to inform programme theories. Within this study, pre-existing theories were used to develop programme theories aiming to combine informal theory and formal theory (Davidoff et al., 2015). The informal theory consisted of the articulated tacit knowledge supported by the intellectual work theory (Emmel, 2013) described earlier. Formal theory arising from the identification and selection (during the forays) of relevant theories of the mid-range, for example, ideas around bounded rationality (Cairney, 2019) exemplified by Lindblom's (1959, 1979) analysis of the science of muddling through. The selection and combination of these theories was not systematic; rather it was inevitably shaped and constructed by the researcher and this is a study limitation. Inevitably, choices between candidate theories exclude other potentially rewarding avenues for exploration. These decisions were guided by stakeholder engagement (in the form of the Delphi panel), discussion within the supervisory team and reflections on time in the field. The detailed choices are set out within the findings chapter with a view to making them transparent (see page 100) and this transparency

is a study strength. No doubt, others may have prioritised different theories. Additionally, as the inquiry developed and particularly when the programme theories were tested in the contemporary real world of public health practice in local government (Yin, 2014), the importance of place emerged. This reflects Pawson's (2006) suggestion that the *'final scope for your synthesis may move over time or that your efforts may focus on a particularly fruitful target'*.

Stage 2: searching for empirical studies

It is acknowledged that a realist review cannot, by its nature, be comprehensive and uses creative and iterative searching (Booth et al., 2013) to identify rich evidence. The technical sequence used to search for empirical studies was outlined in the methods chapter and sets out the separate theoretically guided searches used (see Diagram 9). Table 3 contains the details of search strategies for each theoretically guided search. This reporting aims for transparency, to enable the reader to either evaluate or reproduce the approach. However, neat tables and diagrams conceal the creative process. Searching occurred throughout this study and the temporal aspect is not consistently recorded, although Table 3 does attempt to convey rough timings of searches within the review. Moreover, the searches were conducted by a doctoral candidate embedded in the setting and so were constructed through several relative positions or sieves. For example, search terms within the topic-based search on public health's return to local government (search set B, within Diagram 9) were influenced by the researcher's position as a transferred public health officer. Recommended approaches to structure the searches were used, such as combining the population group (public health) AND the phenomenon of interest (return to local government)

or in later searches the mechanism (influence) and the phenomenon of interest (return to local government) (Booth et al., 2018). The researcher's position is perhaps most influential in the choice of, for example, databases used; the construction of the search terms and an instinctive sense around sufficiency. Moreover, the position of newly transferred public health officer was temporal. Over time the sieve mesh size changed, time passed and the researcher became more attuned to being a local government officer. This brought with it a recognition of, for example, different instruments of governance such as Overview and Scrutiny (mechanism; resource) and this recognition not only influenced the series of searches, but dictated focus – the pursuit of the fruitful. This represented more than just a recognition of an instrument of governance but also a response by officers to engaging with Scrutiny. This too changed over time; moving from fear, trepidation and reluctance to bravery and recognising the opportunity, for example. Recognising, isolating and articulating how each sieve influenced the decisions is problematic and this is a limitation of this study.

Stage 3 and 4: assessment for relevance and data extraction

For ease, and to be consistent with the methods chapter, limitations and strengths relating to decisions on study inclusion and data extraction are dealt with together. Studies were included because of realist logic i.e. they were considered to be theoretically relevant and these decisions were made on a case by case basis. The assessment was based on the source, its impartiality and underlying approach to data collection and relevance to the synthesis (The RAMESES Project, 2013b). The key consideration was theoretical relevance. Details of this knowledge or reasoning of the researcher were captured in the data extraction sheets and this transparency is

considered a strength. An example from a study on Overview and Scrutiny is included in Diagram 27 below (Boyd and Coleman, 2011) and includes highlighted in yellow reasoning on relevance. Additionally, decisions on both sufficiency and theoretical saturation were based on the necessary study boundaries and the limited resources of a doctoral study.

Diagram 27: extract from the data extraction sheet

Theoretical justification		SS2 re the nature of influence within decision making & in particular the context of scrutiny as a mechanistic check on the power of the executive; p. 254 authors argue that 'Health scrutiny is significant both from the point of view of the development of the wider scrutiny function, because it is the first example of formal external scrutiny, and from the point of view of improving health, because it '*offers a unique opportunity to take a thematic, crosscutting inter-sectoral perspective on health and health related services'* (Coleman & Glendinning, 2004: 32).' Authors argue number of papers on governance (and I've selected review type papers) but limited on health scrutiny so this paper should be included for this perspective. I have been parsimonious in data extraction as some elements not relevant or too focussed on partnership element of influencing rather than the role of the officer and was prior to PH return but useful because of the two models of influence.

Stage 5: data synthesis (including data from the case sites)

The aim of synthesis was to develop an understanding of what happens to NICE public health guidelines after publication in terms of how they are viewed and used by local government officers. Pawson (2006) states that the synthesis is developed by juxtaposing, adjudicating, reconciling, consolidating and situating further evidence. In this inquiry this means bringing together information from diverse sources (including data from the three case sites). Detailed working memoranda were used in the form of graphical memorandum utilising mind mapping software and these exemplified the considerable 'to and fro' between candidate theories and the evidence with which they are confronted (Pawson and Tilley, 1997). A criticism of realist studies is that they sometimes create catalogues of mechanisms, contexts and outcomes neatly set out in lists (Pawson and Manzano-Santaella, 2012) rather than configurations of contexts,

mechanisms and outcomes. The use of graphical memorandum and mind mapping software avoids the catalogue trap and is considered a strength of this study. Moreover, combining evidence from a review of empirical studies and from field work is considered a strength.

Limitations related to the case studies are concerned with sampling and case selection; data collection and analysis. In terms of sampling and case selection, the three case sites were selected on a theoretical basis aiming to follow realist epistemology and this is a strength of this thesis. There were, of course, practical limitations; sites needed to operate a similar type of governance (Great Britain, 2011) and hold responsibility for public health (Great Britain, 2012). In this case, all three sites operated a 'leader working with cabinet' model and have a scheme of delegation for decision-making. Given the limited resources of a doctoral study, the case sites needed to be geographically located within Yorkshire and Humber. Sampling within the case sites was largely driven by advice from the key site contact during an initial exploratory meeting, which included discussion about the setting, identification of potential key informants. Ultimately, practical issues such as availability and willingness were important. The governance process for case site 2 included presenting a study overview to a meeting of senior public health staff. This discussion confirmed that it was important to talk to officers whose role could involve clinical, NHS facing guidance such as on contraceptives for the under 25s (NICE, 2014b) and to officers whose role was concerned with the social determinants of health, for example, environmental determinants such as air pollution (NICE, 2017). Examining the methodology of other studies of the experience of public health's return to local government reinforced the

importance of meeting officers supporting committee work such as Overview and Scrutiny officers (Hunter et al., 2016).

Data collection within case sites was threefold: accessing publicly available documents, realist interviews and observations. It was intended that the documents would be collected, in advance of the field work, and reviewed for evidence of the use of NICE guidelines. In the event, most documents were identified during time in the setting and reviewed post interviews to validate or sense check interviewee evidence. This is a study limitation as documentary collection was less methodical than envisaged. Realist interviews aim to elicit reasoning and illuminate causation. This requires the researcher to take control and avoid the *'amiable incompetent',* innocent abroad, or adopted neutrality found within traditional qualitative methods (Manzano, 2016). Adopting this approach was helpful as the interviewees were aware of the researcher's role within public health; some knew or had worked with her – an amiable incompetent would have been uncomfortable for both parties.

Manzano (2016) contends that there is a need to adopt the teaching- learning cycle within the realist interview to allow the researcher to offer theory, learn, offer refined theory or receive refined theory. Moreover, teaching-learning cycles help keep theory central to data collection (Mukumbang et al., 2019). This however requires clear communication so that the interviewee understands both the theory and their role to comment and clarify during the interview. In practical terms this meant that the interview topic guide used metaphors and physical images (see Diagram 15). Within study the metaphors were recognised by the interviewees and increased their comfort. This perhaps arises from the researcher's embeddedness resulting in

familiarity with shared local government and/ or public health language facilitating rapport. Opportunities to hold informal conversations within the researcher's own authority can be conceived of as a rehearsal.

Listening to the recorded interviews demonstrates how these teaching-learning cycles operated. For example, in one interview with an officer in case site 2, this involved picking up on their footballing metaphor and extending it by weaving theory regarding longevity of officers and members (*players and managers)* within the setting and testing in what circumstances this produces collaborative approaches to Scrutiny (*total football*). There are dangers here as an engaging metaphor (especially one coming from them) may lead to too ready agreement with the theory in other words confirmation bias. On the other hand, as the metaphor builds it can reveal nuance, and possible layers of abstraction. Where the metaphor fails, or begins to fail, is possibly the key to the counterfactual by offering an opportunity to seek examples of where and why the theory does not hold. Keeping aware of all this within the interview is not straightforward and is, it is argued, a limitation of researcher capacity rather than the study.

Stage 6: preparation of theories for dissemination

It was intended to share these summary mid-range theories with the Delphi panel which consisted of guideline producer and potential guideline users i.e. from the two communities (Caplan, 1979). This was not practical in terms of the turnover of staff within the setting and instead the findings were shared at the case sites and within NICE as described earlier. This is a study limitation. Finally, as well as identifying, testing and refining theories to explore and explain how NICE guidelines are received

in English local government this study also provides rich insight into decision-making in local government and contemporary public health practice within this setting.

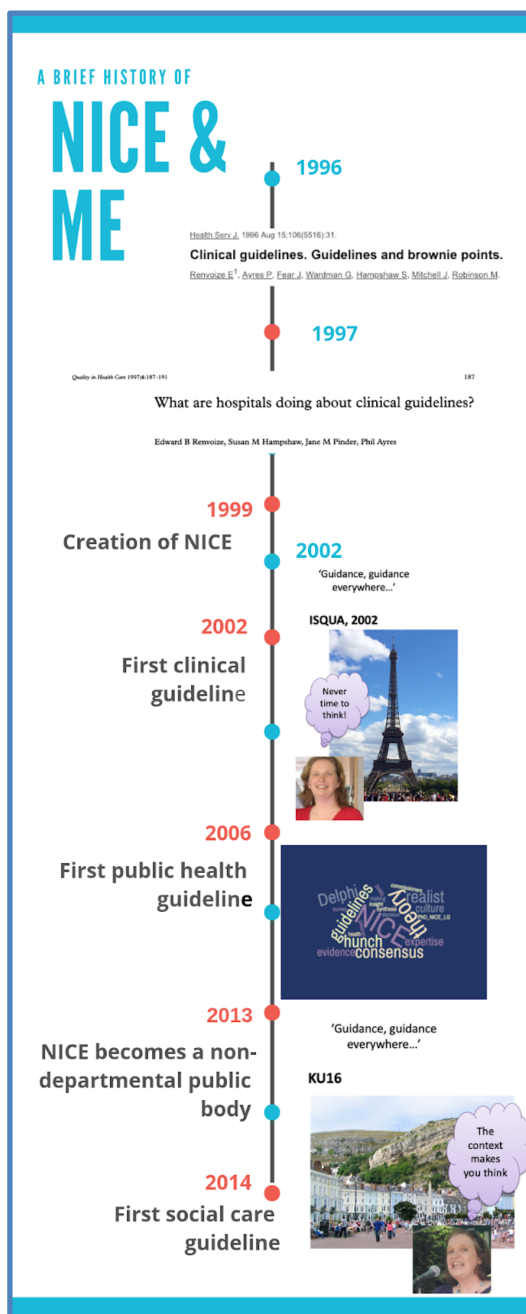
Reflecting on the inquiry

This reflection is written in the first person and draws on contemporaneous study memorandum. Throughout the study, the memorandum were simply a means of giving space and attention to methodically reflect and answer the question: how do I relate to others and the world around me? (Cunliffe, 2004). The actual process of writing this section also gave meaning to my reflections on the study itself and my position as an embedded doctoral student (Wolcott, 2001). I begin with reflecting on my prior knowledge and its implications in terms of theorising, and then go on to consider the embeddedness of my research.

Harnessing and understanding prior knowledge

I recognised quite early in the process that I had considerable prior interest in this topic including several publications. This meant that I had a sense of where issues might lie and where I wanted the inquiry to focus. My interest in the use of guidelines as a means of synthesising and curating evidence predated the establishment of NICE in 1999. I produced Diagram 28 as a means of summarising this history, my scholarly interest and recognition of the importance of context. I have used this as part of presentations on my PhD.

Diagram 28: a brief history of NICE and me



I was working in a large teaching hospital and we were interested in how we could persuade medical staff to take note of guidelines based on evidence rather than those based on eminence (Wilson and Sheldon, 2019). At the time I was slowly becoming aware of work to establish evidence based medicine (EBM) (Guyatt et al., 1992, 1995; Sackett et al., 1996) and have followed debates ever since (Greenhalgh and

Russell, 2009; Greenhalgh and Wieringa, 2011; Greenhalgh et al., 2015). I was particularly drawn to work on guidelines (Grimshaw and Russell, 1993; Woolf et al., 1999; Shekelle et al., 1999) which later underpinned the research projects I was involved with (Renvoize et al., 1996, 1997; Hardern and Hampshaw, 1997; Hughes et al., 1998).

However, back in 1992, my understanding and conceptualisation of these ideas was naïve and messy. My first role, following graduation, was working to support medical audit within a team, led by a Consultant in Public Health, and which largely followed Shaw and Costain's (1989) guidance on the development of medical audit. I was attached to the Obstetrics and Gynaecology department. One of the Consultants, who was also a Reader, was concerned with variation across firms[31] in their approach to assisted vaginal delivery. We found evidence by searching the Oxford Database of Perinatal Trials, established by Chalmers and colleagues. We also searched through the systematic reviews published in Effective Care in Pregnancy and Childbirth (Chalmers et al., 1989) using an, at the time cutting edge, dial up modem. In 1993, these electronic publications became the Cochrane Pregnancy and Childbirth Database. We put together recommendations to set an audit standard: that the Ventouse cap rather than forceps as the means of assisted vaginal delivery be adopted across all firms. We also had audit data on the variation of practice across the clinical firms. The medical audit meeting was a salutary experience.

[31] The term 'the firm' refers to a unit of doctors working together; it was the key mechanism and organisational unit for apprenticeship style learning. It was more salient in some specialties than others and in this teaching hospital Obstetrics and Gynaecology was organised along these lines. Reform of the structure of medical education and legislation such as the European Working Time Directorate have resulted in its demise. (Spencer, 2003; Timm, 2013)

We envisaged a linear path between our evidence-based recommendation and the collective decision to move to Ventouse as the standard procedure. This did not happen. Our carefully constructed evidence was countered by a senior Consultant who eloquently and somewhat dramatically recalled witnessing the tragic outcome of using a Ventouse cap. The story was graphic and emotional and the knowledge it contained i.e. the experiential knowledge of using Ventouse in clinical practice outweighed our knowledge i.e. the dry, summary of average effects contained within the systematic review. Consequently, the meeting agreed to move on without setting the standard we had hoped. I did not label these knowledges as I have in this account. These ideas and understanding came later. My feeling at the time were simply frustration that my objective evidence had been so easily dismissed, by a simple yet emotionally gripping story. I had not spent time thinking about knowledge or how it is mobilised. I did not recognise the complexity of the relationship between evidence, policy and practice nor how it is '*nuanced, dynamic, political and contested*'(Boaz et al., 2019b, p.1).

This experience provided early insight into some of the barriers to getting research into practice and lead to the intellectual theory work described earlier. Within this brief example, it was possible (and I have pondered this over the intervening years) to discern explanations for the outcome and some of these explanations have proven helpful in early theorising within this thesis. Possible explanations lie in several places: the distinction between instrumental and conceptual use of knowledge (Weiss, 1979); the differences between knowledge producers and users (Caplan, 1979); power structures both inherent in the salience of the firm within the specialism (Timm, 2013), and changes within the professional dominance of

medicine (Light, 1988) and they may also lie in the concerns /criticism related to EBM itself (Wilson and Sheldon, 2019). Perhaps, crucially they lie in the idea that knowledge to underpin decision-making, in this case the decision to use Ventouse routinely, inevitably takes account of diverse sources of knowledge and that the context in which the decision is made constitutes part of this mix and is not simply a separate backdrop.

Several rival theories to be adjudicated then. These ideas and my experiences of trying to fill the know do gap (Graham et al., 2006) and why this may be difficult were whirling around when I started the PhD – accessing and organising these ideas has been key to this PhD. When I started they were not neatly labelled and categorised. The process of developing the initial hunches via the described theory elicitation activities produced labels. Throughout the study, my experiential and tacit knowledge a fundamental part of my researcher inspired theories (Jagosh, 2017a) has been tested and challenged in two main ways. First, by engaging with stakeholders through the Delphi panel and via ad hoc conversations with other local government officers. Second, within PhD supervision where I was encouraged to make my assumptions explicit. Supervision was a space where knowledge coming from differing sources began to be categorised and where there was the beginnings of *'confrontation of theory with evidence'* (Greenhalgh, 2016).

An embedded doctoral candidate

As stated earlier, Maxwell identifies that studies are often true to realist ontologies but accepting of other epistemology (Maxwell cited in Manzano, 2016). Within the confines of a PhD I have been keen to ensure my study was ontologically

and epistemologically realist and I hope my operationalisation of scientific realism reflects this ambition.

I have elected to describe myself as an embedded doctoral student rather than as an embedded researcher. I would argue that embedded researchers can be considered to fit with second-generational thinking on using evidence i.e. relational approaches (Best and Holmes, 2010 cited in Boaz and Nutley, 2019). Embedded researcher initiatives (Cheetham et al., 2018, 2019) aim to facilitate the integration of evidence into practice. Cheetham et al's (2018) work set in public health argues that "*increased situated understanding of organizational culture and norms and greater awareness of the socio-political realities of public health, embedded research enables new co-produced solutions to become possible*". My inquiry has, I hope, added to our understanding of the socio-political realities of public health decision-making and the necessary craft skills required to do public health in English local government. Within my study I was not aiming to integrate evidence into practice. I was instead seeking to explain the reception to NICE guidelines by local government officers. I was not an embedded researcher but I was an embedded doctoral student – immersed in my setting – working as a local government officer. This gave rise to powers and liabilities.

I had unique access to the object of my study: decision-making in English local government and local government officers. I was also a local government officer, newly transferred to what, at first, felt a bewildering place. Being wrenched from the familiarity of the NHS and moved to local government was traumatic; gone were all the known ways of trying to get things done; intriguing were the possibilities of tackling the social determinants of health (South et al., 2014); looming were the local politicians

and debates about the nature of evidence and the 'medicalised' public health profession (Phillips and Green, 2015). These feelings of bewilderment were real, palpable, and in terms of uncovering mechanisms these feelings offered as Bhaskar has it internal access albeit 'fallible access' (Bhaskar cited in Sayer, 2000). These feelings have also changed, over time, as I have responded to my environment – mechanisms, rising and flickering over time, perhaps. Five years on is a long time in a political environment.

I am also conscious that a further tenet of realism is that it acknowledges that *'all enquiry and observation are shaped and filtered through the human brain and that there is, therefore, no such thing as 'final' truth or knowledge'* (Westhorp, 2014, p.14). This sifting is acutely relevant for my study as I have filtered data through differing sieve mesh sizes at different times. I am public health principal and former senior NHS manager. I am an embedded doctoral student. I am a local government officer. My current role spans the boundary between academic and practice public health. These are all relative positions and these differing mesh sizes constitute my filtering process. This has helped in revealing mechanisms that may be hidden at greater ontological depth in the realm of the real. In other words, like the use of mind maps as an access point to the literature, my relative stances were an access point to mechanisms. I could 'feel' possible mechanisms (visceral experience of being an officer) and then observe from the standpoint of an academic.

Being an embedded doctoral student can also problematic - there is no escape. Local government is facing, and has faced, huge cuts and this means difficult decisions, which have implications for population health (Buck, 2020). This labour is emotional

and the need to view perma-austerity as context; to label and categorise – to adopt the stance of observer is cold comfort. There is also no escape from the inquiry; routine conversations often merit further reflection. This means I have sometimes been 'absent when present' as my thoughts wander.[32] I have found the acts of writing (blogs, tweets, memoranda) and drawing especially helpful. Initially to articulate my embryonic thoughts and later to organise and categorise. They have been helpful in writing this section. Indeed, the very early mind maps or sketches (see Diagrams 1 and 2) were the subject of my very first supervision. They helped set the scope of my inquiry; enabling me outline my interest and prior knowledge; acting as access point to the literature and to unearth mechanisms. As has a recognition, arising from my data, of the value of storytelling to influence policy. [33] I began, this section with a story of a Consultant and a Ventouse cap. I end it with an extract from a presentation on my findings [34] which began with the story of the construction of Leeds Civic Hall. I've told this a few times because it helps explain a key finding on the importance of Place, how Place is real and is shaped by its historical context, constitution and capabilities (Gains, 2009).

An extract from Yorkshire and Humber Sector Led Improvement presentation.

> *"I am also now (and wasn't when I started) a proud local government officer - my lens and world has changed. The clock is meant to depict time (time since we moved back; time as a local government officer, time in terms of local government history. This clock is hugely symbolic - some of you might recognise the Gold clock on Leeds Civic Hall but you may not know the story of its construction - (I was told this on a school exchange visit in 1985 - my German exchange buddy Annette's father was the Deputy chief executive of Siegen council and so I got to tour Municipal buildings both in*

[32] I have blogged about this in relationship to parenting here: https://thinkaheadsheffield.wordpress.com/2018/06/07/parenting-phds-and-poolside/

[33] See this blog on story telling http://knowledgemobilisation.net/uk-knowledge-mobilisation-forum-2019/reports-reflections/susan-hampshaw-highlights-from-kmb2019/

[34] See https://www.yhphnetwork.co.uk/media/2299/implications-for-developing-the-local-government-public-health-workforce-pdf.pdf)

my home town of Leeds and in Germany). The Lord Mayor of Leeds, told the story of the Civic building - the growth of local government responsibilities and a forthcoming enlargement of the number of council seats meant there was no space at the Town Hall. A special sub-committee was established in 1929 and it was eventually decided that a new building was needed. Due to the economic climate, it was pursued as a Keynesian project to provide work for labourers and the council approached the government to receive funding from the unemployed relief works programme. The council were successful in applying for the government's Unemployed Grants Committee Capital scheme. Work started in September 1930. 90% of the workforce were unemployed locals - who worked in different teams for set periods of time in order to spread the work among the unemployed. I'm telling this story because to me, it feels, a modern tale - local government with broad responsibilities, local government as place maker, the role of committees and members; the role of making national policy work locally and the opportunity to address poverty through its actions. Building a new HQ viewed through the lens of fairness and resource distribution. All these things are recognisable within my study … taking place in in the 21st Century."

The scholarship of intervention

This inquiry was not an interventional study rather it was scholarship of integration (Golding, 2017). There has been limited attention in this area and this study contributes to detailed understanding of the context of the new public health decision-making infrastructure. Cheetham et al (2018) in their embedded research work have found that increased understanding of the socio-political realities of public health is necessary to facilitate the integration of research with practice. This thesis adds to our understanding of the socio-political realities of public health decision-making and identifies necessary craft skills required to do public health in English local government. Public health training currently focuses on technocratic skills which may be inadequate preparation for the local government role (Gorsky et al., 2014). There is a need for implementation studies within local government (Kneale et al., 2016, 2019) drawing on implementation science to develop an intervention to promote the uptake of evidence (Eccles and Mittman, 2006).

There is real scope to turn this work into the "scholarship of application" (Golding, 2017); specifically, to develop and test an intervention generated

from the context, mechanism and outcome configurations and the identification of transferable knowledge. Davidoff et al (2015) argue that the explicit application of theory can aid improvement interventions. Fafard (2015) calls for the use of political science theory to enhance public health policy making. Indeed, Kislov et al (2019) have heralded a need for the 'harnessing the power of theorising in implementation science.' It is not unreasonable to suggest that well-articulated theories on how knowledge is exchanged between local bureaucratic elites might enable improvement interventions to mobilise evidence such as NICE guidelines within English local government. Such interventions could involve a series of experiential learning cycles which are theoretically based yet constantly adapted in the light of new information. By combining theory testing and refinement with improvement methodology (Davidoff et al., 2015) and co-producing approaches these interventions can seek to address the complexities inherent in balancing knowledges within the craft of public health in English local government.

Annexes

Annexe 1: Breakdown of NICE guidance since its establishment

Table 12: breakdown of NICE guidance since its establishment

Guidance category	number released	%
Antimicrobial prescribing guidelines	11	4
Cancer service guidelines	9	3
Clinical guidelines	204	66
Medicines practice guideline	5	2
Public health guidelines	67	22
Safe staffing guidelines	2	1
Social care guidelines	12	4
Total	310	

Annexe 2: Toward hunches

List of possible hunches arising from examining the Medicines Management Guidelines (NICE, 2014c) produced in 2016.

- If NICE tailor their output to meet the needs of their new audience then the guidance is more likely to be implemented
- Does NICE assume that if Local Authorities have systems in place to support staff to access NICE guidance /products then it will be implemented into policy
- If providers are able to work together then the good practice recommendations will be implemented (Is Guidance issue meant to precipitate this?)
- If the guidance is clearly written then the recipient is more likely to act? (does the use of everyday terms such as medicines help – de-medicalises context – care albeit administering pharmaceutical and all that entails. Need to think about the different contexts within which it lands)
- If the guidance provides additional resources in the form of readily accessible information about the administrative and legal context then this supports the 'recipient' / reader's to make an informed decision on guidance implementation.
- If the guidance reminds the reader of the regulatory framework and resulting responsibilities then this can act as a trigger for action (need to consider actor here – contract officer more likely to reason action needed than commissioning officer)
- If the guidance is presented as 'authoritative' then this will trigger recipient to reason that it should be implemented
- The guideline recipient will be motivated to achieve foundations of good practice and therefore will act on the guidance (drawing on their actions as a professional)
- If NICE use terms that are more appealing to the wider audience that this guidance is intended to reach then it is more likely to trigger action OR NICE tailor the tone of their social care guidance to help ensure that it is acted upon?
- If the guidance is clear about where action is required and by whom then it is more likely to trigger action on the part of the individual or organisation (does this bring in notions around freedom to act?
- If the guidance encourages compliance then it will trigger action on the contracting part of the organisation and therefore the guidance will be implemented.
- If the organisational context focusses on compliance then contracting officers will be motivated to ensure adherence (mechanism of fear of consequences both personally and organisationally may be triggering the action)
- If the guidance is translated into a care medicines policy then it will be implemented
- If ideas around informed decisions are embedded in the local authority culture then the guideline will be implemented
- If ideas around informed decisions are embedded in the local authority infrastructure then the guideline will be implemented.
- If the guidance specifies record keeping requirements then the organisation (which) will invest resources to ensure they comply
- If the organisation is reminded of their legal duties then systems will be put in place to ensure that there is compliance (again, compliance feels like a soft outcome)
- If existing processes such as care plans are adapted then best practice in medicines management will occur.
- If medicines management is viewed as an area requiring accurate and timely record keeping then the guidance will be viewed/accepted as a means to enhance/quality assure or improve existing systems and is thereby likely to result in action as it simply requires modification of existing systems
- If local authority adult social care has high quality workforce development in place then this will include training on medicines management and this will support implementation of the issued guidance.
- If workforce development within Adult Social Care is high quality then it will include systems that encourage staff to access authoritative evidence/guidance.
- If workforce development within Adult Social Care is high quality then it will offer training to the wider social care workforce i.e. care home staff
- If the recommendations are written a clear, logical (step by step), common sense /hard to disagree with tone and backed up by the weight of the law where relevant then they are more likely to be accepted and implemented
- If the organisational culture encourages professional practice on the part of adult social care staff then the guidance will land in an enabling context
- So, if the guidance includes/uses simple aide memoire then it will be perceived as helpful by health and social care practitioners and this will mean that it is used
- If good practice is encouraged by ensuring that systems are in place within the local authority to ensure health and social care staff (and this is an increasingly blurred boundary) are able to access up to date information about medicines then the guideline can be implemented (transferred into practice)
- If local organisations work together they will be able enshrine this guidance into local policy (this is still a step away from implementation)
- Is there a programme theory about the status of the guidance linked to both NICE itself and the development process (absence of LA input – though they will have been able to comment?) of this particular set of guidance.

Annexe 3: Hunches arising from supervisory workshop

Papers discussed	Brief summary of the discussion	Points to consider
What Works Network (Puttick, 2012; Alliance for Useful Evidence, 2014; Great Britain. Cabinet Office., 2014).	All reports asking should social care have a NICE and then describing what works Felt like a NICE is a straw man Societal values – PPI missed – values into evidence. They think societal values – more embedded	
	If evidence producing organisations take into account societal values that people will use the evidence	this means full range of stakeholders – involved in evidence production – then will get into practice
	Ownership of evidence	
	If the evidence base is built up then people will trust the evidence (feels simplistic)	So much about trust that is relevant
	Discussed legislation - as a lever (people resist)	
	Government supported vs government enforced	
	Observability of practice (good practice projects =) if demonstrated that it works elsewhere (diffusion of innovation – Rogers)	
literature on the nature of evidence in a local authority setting (Mortimer, 2014; Allen et al., 2014; Pawson et al., 2003)	Broaden definition of what it meant by evidence then people are likely to use (role of the clients; multifield definition of what is meant by evidence) – recognise their evidence as valuable.	
	(NICE more now in the middle) – draws on knowledge briefing – recognition of multiple choice of question – in social care starting point multiple knowledge – this is an interesting philosophical distinction. NICE more complicated then we thought it was Tend to oversimplify NICE and its current work.	
	Privilege of evidence – what should be legitimate in local authorities (context of social care – hierarchy may be different)	Privilege of evidence (possible mechanism)
	Discovery of complex interventions	
	NICE – SCIE what happened? – resistance – what works; scie now part of NICE – what works ; SCIE – framed as an independent charity – status (feels like revisionism) quality framework for social care 1998/2000 ish	
	What makes people trust the evidence	
	Training and support for users	
	Knowledge navigator -	
	Evidence from a survey of 99 managers – Scale of local authorities is a possible theory	
	Austerity driving the agenda	
	(variability in practice) viewed as a good thing	
	Accountability is to the local area is (information systems) client data and monitoring;	
	More likely to take account of best practice examples (cf early days of EBM)	Need to problematize it / create an appetite
	Skills and capacity gap	
	What does evidence look like?	
	Potential programme theory helps get decision – provide value for money; bring partners together; reduce criticism and agreement; build trust – evidence to arbitrate	Story telling /opinion leaders
	Evidence and research can be used to support existing policy rather than used to produce empirical evidence	
Papers on the evaluation of the implementation of NICE guidance in a social care setting (Barrett, 2009; Long et al., 2006)	Form of evidence case studies –engage and excite an appetite	No understanding of how you use research evidence base – our data to inform our practice is where they are at – production of evidence (evaluation of organisations such as RIP –impact) literature reviews not teased out at the beginning. (mechanism – research as practice) – research practice partnership - dating agency

	Programme theory – NICE guidance highlighted how work but issues re access to marginalised groups	Evidence work – if we increase of uptake then likely to get a better impact for marginalised groups (inclusive of that)
	In context – good practice examples – to get guidance into practice can get it into practice	
	Faithful to original programme re: tinkering and tailoring (likely to know active ingredients)	
	Examples of good practice -	Unique take on synthesis (stringing together – compilation rather than themes) – pen portrait
	Synthesis– compilation Ingredients plus real examples Finding common themes (create avatar) Traditional synthesis (analyse whole body of the evidence)	May be limited to prescriptive patterns (need pre agreed evaluation framework) Lacking synthesis And lacking evaluation – gap between good and effective practice.

Annexe 4: Round 1 - Delphi Survey

The use of NICE guidance in local government

Welcome to this Delphi survey which is part of a PhD study investigating how NICE guidance (specifically NICE public health guidance) is received and used by local government.

You will be presented with a series of hunches which may explain what happens to NICE guidance in local government. These hunches have been developed as a result of spending time in local government and by reviewing the literature.

We have organised the hunches into 3 explanatory categories:
- the culture of decision making in local government;

- how evidence is valued, sought and deployed in local government;

- the guidance itself.

There are too many hunches to test within the PhD and so we are using a Delphi to develop a consensus as to which hunches are most relevant (in terms of offering explanation) and therefore which to pursue in the next phase of the research.

Membership of the Delphi panel includes both people who are possible end users of NICE guidance and those who are involved in the development of such guidance. Everyone is asked the same questions and we simply need you to read the hunches we present and decide whether you think they may have explanatory relevance.

The survey consists of 6 sections:

Study over view and consent
Sets of possible explanations (3 sections)
About you
What happens next

Finally, thank you once again for agreeing to take part and particularly for sharing your insights and experience.

*Response required

Consent

This section also contains a question about how you would like to keep in touch between the two different phases of the study. The final question asks you if you are willing to be contacted to discuss your written responses; this is included because we are interested in the reasoning behind your answers and so a conversation may shed light on this. We will not routinely follow up your responses.

Finally, please note that any information you enter will be stored and processed using services provided by Google. These services have been the subject of careful assessment to ensure they comply with UK data protection law and the University's own privacy policies.

1) I confirm that I have read and understand the information sheet explaining the research project and I have had the opportunity to ask questions about the project *

Mark only one oval.

Yes
No

2) I understand that my participation is voluntary and that I am free to withdraw at anytime without giving reason and without there been negative consequences. In addition, should I wish not to answer any questions, I am free to decline. Susan Hampshaw can be contacted on 07794 708599 and SMHampshaw1@sheffield.ac.uk *
Mark only one oval.

Yes
No

3) I understand that my responses will be kept strictly confidential *
Mark only one oval.

Yes
No

4) I give permission for members of the research team (i.e. PhD supervisory team) to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report(s) that result from the research *
Mark only one oval.

Yes
No

5) I agree for the anonymised data collected from me to be used in future research *
Mark only one oval.

Yes
No

6) I agree to take part in the above research *
Mark only one oval.

Yes
No

7) I agree to be contacted for a telephone interview to further discuss my responses *

Mark only one oval.

Yes
No

If you are willing to take part in a telephone interview please tell us your best contact number:

8) Finally, if you'd like to keep in touch between the 2 phases of this study you can do this in several ways. If you would like to please choose how you would like to keep in touch. Select as many as apply. Tick all that apply.

Quarterly emails

Twitter @PH_NICE_LG

Project blog http://phdlocalgovernmentnice.wordpress.com

I will only get in touch if, for example, my contact details change (minimum contact)

Candidate explanations

The next three sections outline possible explanations that might help us to understand what happens to NICE guidance in local government.

For each set of explanations, we will give a brief overview and then use IF, THEN statements, for example:

'IF, the weather forecast suggests that the sun will shine tomorrow THEN, I will put sunscreen on before leaving the house'

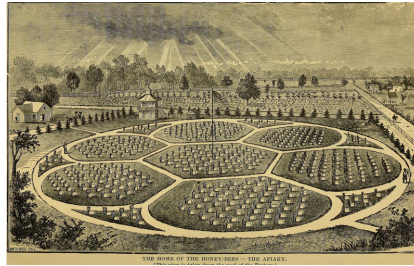
Each statement represents a scenario and your task is simply to judge whether your feel that the statement offers a likely explanation. For the purposes of this study, we ask you to reflect on why you reasoned in that way. In the example above, you would need to reason that the weather forecast is a possible relevant explanation for people putting on sunscreen. You will be given an opportunity to explain your thinking or reasoning, for example, you may reason that the weather forecast has some relevance but other reasons are likely to apply such as the availability of sunscreen etc.

The IF, THEN statements are designed to help you to identify what may be happening and to reflect upon your "hidden reasonings". Collectively, your responses will help us to determine which of the hunches need to be pursued.

First set of explanations

Public health decision making and delivery structures have changed as a result of the Health and Social Care Act, 2012. Since 1st April 2013, upper tier local authorities have responsibilities under the Act. This means that decision making now takes place in a new context which may impact on the implementation of NICE public health guidance. This set of explanations is concerned with the culture of decision making within local government and draws on evidence from the decision-making literature. Four separate secondary explanations are presented with each one setting out a different characteristic of the decision-making context.

You are asked to read, consider and score the various scenarios in terms of their EXPLANATORY RELEVANCE.



Secondary explanation 1 - decision making is characterised by the art of 'muddling through'

Decision making in local government is complex and is subject to financial, legal and political constraints. This has been characterised as 'muddling through' first identified by Lindblom in the 1950s. The idea is that, in reality, decision making is focussed on building out from the current situation, step by step and by small degrees - and seeks / uses 'evidence' which supports this.

9) IF NICE guidance is released into a 'muddling through' context THEN local government will need to see the value of the guidance to support decision making
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

10) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

11) Several factors may influence whether NICE guidance has value in a 'muddling through' context: *
Mark only one column per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
perceived authority of the guidance						
Guidance sets out what is known						
guidance adds to what is known						
guidance includes technical evidence e.g. costings						

Secondary explanation 2 - decision making is characterised by the politicisation of the process

Decision making in local government is on a continuum between decisions that are highly technical and those that are highly political. This is a different public health decision making context to the NHS and this may impact on how NICE guidance fares.

12) IF NICE guidance is released into a 'more political' context than the NHS THEN local government will need to see the value of the guidance in terms of making a political decision.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

13) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

14) Several factors may influence whether the NICE guidance has value in a 'politicised context': *
Mark only one rectangle per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
Guidance sets out politically palatable actions						
Guidance is applicable in the local policy scenario						
Guidance reflects local government's Powers and Duties						
guidance includes Guidance includes an economic case						

Secondary explanation 3 - the uniqueness of 'NICEhampton' Borough Council

This explanation seeks to explain whether the uniqueness of the locality and the relevance of the guidance to the local community are important in determining whether the guidance will be used or not.

15) IF NICE guidance is released into a context where local evidence is valued THEN local government will need to see the guidance as supportive of local circumstances.
Mark only one oval.

Extremely relevant 1 2 3 4 5 Irrelevant

16) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

17) Several factors may influence whether the NICE guidance is seen to be locally relevant:

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
Guidance has local applicability						
Guidance development has local government input						
Guidance content reflects local circumstances						
Guidance acknowledged local powers and duties						
Guidance supports local policy position						

Secondary explanation 4 - decision making in local government is bureaucratised

Over almost two centuries local government reforms have reinforced a system of institutionalised politics within a well organised management structure (legal, financial, corporate etc). The reality of the decision-making context within which public health decision making is now placed relies on navigating this bureaucracy and this may impact on how NICE guidance fares.

18) IF NICE guidance is released into a bureaucratic context THEN local government will need to have a management process through which it accesses and reviews the guidance
Mark only one oval

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

19) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

20) Several factors may influence whether the NICE guidance is accessed and reviewed: *
Mark only one rectangle per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
Guidance is published						
Guidance is viewed as authoritative						
Guidance is accessed by relevant parts of the bureaucracy						
Guidance sets out implications for local government						
Guidance has clear implications for deploying resources						

__Second set of explanations__

The last set of explanations focussed on the different aspects of the culture of decision making in local government. A further aspect of the culture of decision-making merits separate examination. As part of its systematic process to develop guidance on a topic, NICE commissions syntheses of research evidence. Explanation set 2 concerns the idea that local government may differ, in the way evidence from research is viewed and used, from the previous public health decision making setting i.e. the NHS and that this may impact on how NICE guidance fares.

This time there are 3 secondary explanations and you are asked to read, consider and score the various scenarios in terms of how well you think they explain what happens.

Secondary explanation 1 - what counts as evidence in local government

Public health decision making no longer takes place in a context which privileges evidence derived from research nor one where there is a clear hierarchy of evidence. The literature suggests that, within local government, evidence is conceived more broadly and this may help to explain how NICE guidance is received and acted upon.

21) IF NICE guidance is recognised as a legitimate source of evidence within local government THEN the guidance will be used.
Mark only one oval

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

22)We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

23) Several factors may influence whether the NICE guidance is a legitimate source of evidence:

*Mark only one rectangle per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
Guidance includes research evidence from multiple sources						
Guidance includes non-research based evidence						
Guidance can" be heard' amongst competing sources of evidence						
Guidance includes decision choices						

Secondary explanation 2 - how the evidence has been produced

The literature suggests that local government tends to use commissioned external reports and locally produced evidence to support decisions, rather than seeking reviews from authoritative sources such as NICE or accessing systematic reviews such as those produced by the Cochrane Collaboration.
This favouring of locally commissioned research may have help to explain how NICE guidance is received and used.

24) IF NICE guidance is able to answer a specific policy question THEN it will be accessed.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

25) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

26) Several factors may influence whether NICE guidance is judged to answer a specific policy question: *

*Mark only one rectangle per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
Guidance contains a clear summary of the policy area						
Guidance can be tailored to the local situation						
Guidance reflects local experience of the policy issue or decision point						
Guidance includes research evidence for multiple sources i.e. controlled trials, qualitative research, expert opinion etc						
Guidance contains economic/cost effectiveness information						

Secondary explanation 3 - how evidence can be deployed

This final explanation suggests that evidence can be deployed to justify or legitimise a policy decision and that this may determine how NICE guidance may fare in local government.

27) IF NICE guidance is supportive of an agreed policy direction THEN it will be used within the decision-making process.
Mark only one oval

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

28) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

29) Several factors may influence whether the guidance can be deployed to support a policy decision: *

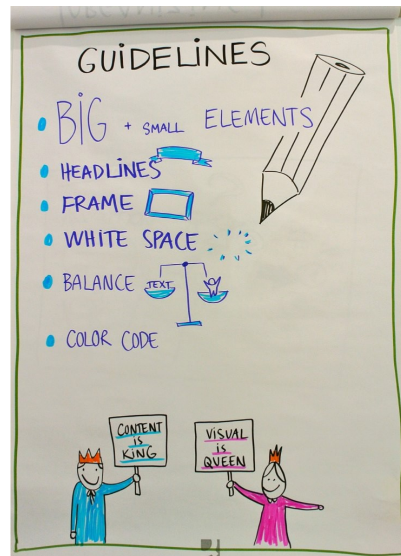
*Mark only one rectangle per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant	No opinion
Guidance is timely						
Guidance clearly supports a particular policy position						
Guidance resonates with local evidence						
Guidance can add legitimacy to a decision						

<u>Third set of explanations</u>

The first two sets of possible explanations adopted the perspective of those likely to use the guidance. The final set of explanations is concerned with the guidance itself and asks you to review several IF, THEN

statements which are based on a framework to transfer knowledge (Lavis, 2003, 2012) and to assess the extent to which you feel these are relevant within the context of local government.



30) IF the recommendations within NICE guidance (message) are viewed as useful within the local context THEN the guidance will be considered.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

31) IF the NICE guidance includes recommendations that recognise local government's (target audience) Powers and Duties THEN the guidance will be considered.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

32) IF NICE guidance (messenger) is viewed as authoritative by local government THEN the guidance will be considered.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

33) IF NICE guidance is presented in a format familiar to local government THEN the guidance will be considered
Mark only one oval.

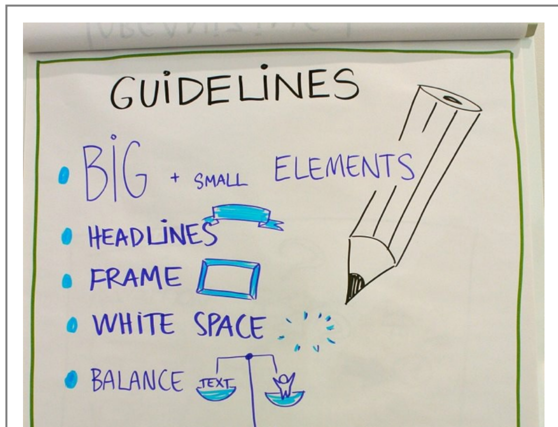
Extremely relevant (1) (2) (3) (4) (5) Irrelevant

34) We are keen to understand why you think the way you do. Could you please outline your reasoning in the space below. Please provide as much detail as you are able.

35) Thinking about the 3 sets of explanations you have examined, please chose the one that best reflects your own viewpoint.
Mark only one oval.

Explanation set 1 (the culture of decision making) ⬭

Explanation set 2 (how evidence is viewed, sought and used) ⬭



Explanation set 3 (the guidance itself) ⬭

36) Now, you've had chance to think about these possible explanations and judge how well they explain your own understanding. Can you think of any additional explanations that may be helpful for us to consider. Please use the box below.

About you

This final section simply asks a few questions about you. Complete part A if you work in local government and part B if you work outside local government

Part A - if you work in local government

Please go to part B if you work outside local government

37) How long have you worked in local government? (in years)

38) Could you please briefly outline your role?

39) Could you please tell us if you have a particular professional background, for example, social worker.

40) We are interested in where the public health function sits in your organisation. Please tick the box that most reflects the position.
Mark only one oval.

team within a directorate
team distributed across directorates external to the organisation
unsure

Part B - if you work outside local government

Please skip these questions if you work in local government

41) Could you please briefly outline your role?

What happens next

Thank you for completing this Delphi survey. We will now analyse the results and send you a summary document together with the next round of the Delphi. The next stage of the PhD study will be seeking evidence to test and refine these explanations by seeking cases and further evidence from the literature.

To that end, we have one final question:

42) Are you aware of any projects, project reports or local evaluations which involve the implementation of NICE Public Health Guidance?
Mark only one oval.

Yes
No
Unsure

43) If yes, could you please give brief details below. Thank you.

A copy of your responses will be emailed to the address that you provided
Powered by

Annexe 5: Round 2 -Delphi Survey

The use of NICE guidance in local government

Welcome to this second Delphi survey which is part of a PhD study investigating how NICE guidance (specifically NICE public health guidance) is received and used by local government.

As you may remember, membership of the Delphi panel includes both people who are possible end users of NICE guidance, and those who are involved in the development of such guidance. For the first round of the Delphi we achieved a 92% response rate. We are very grateful both for this high level of response, and for your insights into our question areas.

In the first round, you were asked to judge whether our hunches about what happens to NICE guidance in local government were relevant explanations. We have analysed your responses (alongside your written comments) and used these to develop this next survey which, we are glad to say, is shorter than the first. Within this survey we begin by setting out areas where as a panel we had consensus and ask you to simply reflect on this.

The bulk of the questions are concerned with the areas where we did not have consensus. Your answers for the last round were automatically sent to you but we have also sent a copy of your responses (as a pdf file) within the covering email.

YOU MAY WISH TO REMIND YOURSELF OF YOUR ORIGINAL RESPONSES AND REASONINGS.

Finally, thank you once again for agreeing to take part and particularly for sharing your insights and experience.
Required

Email address *

Consent

The consent form only appears in the initial survey as participation in subsequent Delphi rounds will be considered to indicate your ongoing consent. We have one further question related to consent which appears in the final section

Please note that any information you enter will be stored and processed using services provided by Google. These services have been the subject of careful assessment to ensure they comply with UK data protection law and the University's own privacy policies.

Areas where consensus was agreed

In the first Delphi we proposed several hunches to explain what happens to NICE guidance within local government. You were asked to judge whether these explanations were meaningful to you.

The table below outlines all the questions where the panel reached consensus. A survey item achieved consensus where the aggregated response for extremely relevant and very relevant reached a level of 75% and over, with a median of 1-2.

The areas contained in the table will be prioritised in the on-going study.

YOU MAY WISH TO REMIND YOURSELF OF YOUR ORIGINAL RESPONSES AND REASONINGS.

Table 1: Items from the first Delphi where we had consensus across the whole panel

Item from survey	75% consensus that the item has explanatory relevance	Median
Perceived authority of the guidance	88	2
Guidance includes technical evidence (e.g. costings)	88	2
Guidance released into a 'more political environment'	84	2
Guidance sets out politically palatable actions	76	2
Guidance is applicable in the local policy scenario	92	2
Guidance reflects local government Powers and Duties	88	2
Guidance includes an economic case	76	2
Guidance supports local circumstances	88	2
Guidance has local applicability	76	2
Guidance sets out implications for local government	88	2
Guidance has clear implications for deploying resources	80	2
Guidance can be tailored to the local situation	80	2
Guidance is timely	84	2
Guidance resonates with local evidence	96	2
Guidance can add legitimacy to a decision	92	2
Guidance recommendations (message) are viewed as useful	84	2

Please add any additional comments you may have about the findings in the above table.

Areas where we did not have consensus

In several areas, we did not achieve consensus although we were quite close to 75% for some items. In the following two sections we summarise these findings, both the level of agreement reached and comments given by respondents across the spectrum of agreement. For this final round, you are asked to consider what others have said and voted, and then you are asked to judge again whether, in light of the panel responses, the statement has explanatory relevance.

YOU MAY WANT TO REMIND YOURSELF OF YOUR ORIGINAL RESPONSES AND REASONING

Decision making is characterised by the 'art of muddling through'

Studies of decision making in local government suggest that it is complex and subject to financial, legal and political constraints. One way of looking at this was first described by Lindblom in the 1950s as 'muddling through.' The 'muddling through' idea is that, in reality, decision making is focussed on building out from the current situation, step by step by small degrees - and seeks/uses 'evidence' which supports this incremental approach.

The panel were asked 'IF NICE guidance is released into a 'muddling through' context THEN local government will need to see the value of the guidance to support decision making'.

RESULTS:
72% of the panel said this was 'extremely relevant' or 'very relevant.' Comments from panel members are listed below:

"NICE guidance may not be as specific as it needs to be if decision makers are focussed on their own current situation. This is often because of the lack of specificity in the evidence base and the need to make recommendations in a national context"

"If guidance is released into a muddling through context it has to be seen as valuable or it will be ignored. However, other political factors and monetary factors also will impact whether the guidance is used, also people often are looking for something to support the decision already made."

These comments illustrate responses where the hunch was seen as 'somewhat relevant' or 'irrelevant':

"I don't think that guidance needs to be released in any way that that even acknowledges the local authority processes. NICE guidance is evidence for best practice and specifying good quality services.' Commissioners in the local authority will, or should, seek to use the evidence as it is, and will fit it into their 'muddling through' processes rather seek the expectation that the guidance should reflect the processes of the council"

"Often NICE guidance may not be influencing the decision-making process in terms of 'policy' - the what, but may be used to influence the implementation - i.e. the how, - which may not be a political issue at all, more an interpretation issue - which may affect structural issues like staffing and delivery"

We would like you to consider the aggregated scores and score the 'muddling through' hunch for a second time.

Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

In the first Delphi, we set out factors that may influence whether NICE guidance has value in a 'muddling through context'. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *
Mark only one oval per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
Guidance sets out what is known (44%)					
Guidance adds to what is known (68%)					

NICE guidance needs to be locally relevant

We had high levels of consensus about the explanatory relevance of local evidence. In the first Delphi we set out several factors that may influence whether NICE guidance is seen to be locally relevant and we did not reach consensus in the following areas: guidance development has included local government input (48%); guidance reflects local circumstances (72%); guidance acknowledges local Powers and

Duties (72%) and guidance supports local policy position (64%). Remember for consensus we require 75% or above.

In the first Delphi, we set out factors that may influence whether NICE guidance is seen to be locally relevant. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *

Mark only one oval per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
Guidance reflects local circumstances (72%)					
Guidance supports local policy position (64%)					
Guidance development has included local input (48%)					
Guidance acknowledges local powers and duties (72%)					

Decision making in local government is 'bureaucratised'

Over almost two centuries local government reforms have reinforced a system of institutionalised politics within a well organised management structure (legal, financial, corporate etc.). The reality of the decision-making context within which public health decision making is now placed relies on navigating this bureaucracy and this may impact on how NICE guidance fares.

The panel were asked 'IF NICE guidance is released into a bureaucratic context THEN local government will need to have a management process through which it accesses and reviews the guidance'.

Results: 72% of the panel said this was 'extremely relevant' or 'very relevant.' Comments from panel members are listed below:

"The governance framework needs to be created to support this within LA" "Otherwise this would get lost in the quagmire of other priorities"
These comments illustrate responses where the hunch was seen as 'somewhat relevant' or 'irrelevant':
"The context should not require a separate process to be established"
"Negotiating the bureaucracy is just a technical issue, not really a filter, just a matter of know how and patience."

We would like you to consider the aggregated scores and score this 'bureaucratic context' hunch for a second time.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

In the first Delphi, we set out factors that may influence whether NICE guidance is accessed and reviewed in a 'bureaucratic context'. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *
Mark only one oval per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
Guidance is published (68%)					
Guidance is accessed by all relevant parts of the bureaucracy (44%)					

What counts as evidence in local government

Public health decision making no longer takes place in a context which privileges evidence derived from research nor one where there is a clear hierarchy of evidence. The literature suggests that, within local government, evidence is conceived more broadly and this might help explain how NICE guidance is received and acted upon.

The panel were asked 'IF NICE guidance is recognised as a legitimate source of evidence within local government THEN the guidance will be used'.

Results: 52% of the panel said this was 'extremely relevant' or 'very relevant.' Comments from the panel are listed below:

"NICE is highly respected and has a good reputation" "I think the biggest part of this is the IF"
The following quote reflects responses scored at 'somewhat relevant' or 'irrelevant':

"Guidance is used to react to locally identified issue or challenge not used just because the guidance is produced [...]"

We would like you to consider the aggregated scores and score this 'legitimate source' hunch for a second time.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

In the first Delphi, we set out factors that may influence whether NICE guidance is viewed as a legitimate source. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *
Mark only one oval per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
Guidance includes research evidence from several sources (40%)					
Guidance includes no research-based evidence (24%)					
Guidance can be 'heard' amongst competing sources of evidence (56%)					
Guidance includes decision choices (40%)					

How the evidence has been produced

The literature suggests that local government tends to use commissioned external reports and locally produced evidence to support decisions, rather than seeking reviews from authoritative sources such as NICE or accessing systematic reviews such as those produced by the Cochrane Collaboration.
This favouring of locally commissioned research may help explain how NICE guidance is received and used.

The panel were asked 'IF NICE guidance is able to answer a specific policy question THEN it will be accessed.'

Results: 64% of the panel said this was 'extremely relevant' or 'very relevant.' Comments from the panel members are listed below:

"it is more likely to be used if it answers a specific policy question although there are no guarantees of course"

"it is no good NICE guidance just saying lots of things we should do that can't be afforded - if it answers a specific policy question that LAs are asking it will be more useful"

The following quotations reflects responses scored at 'quite relevant' "Local priorities seems to chime more than 'policy questions'
"Still don't think this guarantees the guidance will have traction"

We would like you to consider the aggregated scores and score this 'answer a policy question' hunch for a second time.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

In the first Delphi, we set out factors that may influence whether NICE guidance is judged to answer a specific policy question. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *
Mark only one oval per row

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
Guidance includes decision choices (52%)					
Guidance reflects local experience of the policy issue or decision point (60%)					
Guidance includes research evidence from multiples sources i.e. controlled trials, qualitative (36%)					
Guidance contains economic data/cost effectiveness information (72%)					

How evidence can be deployed

The literature on evidence use in local government suggests that evidence and be deployed to justify or legitimise a policy decision. This may explain how NICE guidance may fare in local government.

The panel were asked 'IF NICE guidance is supportive of an agreed policy direction THEN it will be used within the decision-making process.

RESULTS: 72% of the panel said this was 'extremely relevant' or 'very relevant. Comments from panel participants are listed below:

"Provides a strong evidence base which will add legitimate value"

"If it provides evidence that it is the right decision it will be used, if it provides a counter argument it may not be or will be given equal weight to non evidenced local argument"

These comments illustrate responses where the hunch was seen as 'somewhat relevant' or 'irrelevant':

"If the agreed policy direction is established then it's unlikely that an authority would seek further validation from other sources"

"I believe that in general people look to NICE guidance for answers, rather than to justify decisions already made"

We would like you to consider the aggregated scores and score this 'answer a policy question' hunch for a second time.
Mark only one oval.

Extremely relevant (1) (2) (3) (4) (5) Irrelevant

In the first Delphi, we set out factors that may influence whether NICE guidance can be deployed to support a policy direction. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *
Mark only one oval per row.

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
Guidance clearly supports a particular policy position (72%)					

The guidance itself

The panel were asked to review several IF, THEN statements based on Lavis' Knowledge transfer framework which identifies the importance of the message, the target audience , the messenger and the format in supporting Knowledge use. The question below sets out the panel's responses in the three areas where we did not have agreement. These following quotations illustrate responses scored as 'extremely relevant' or 'very relevant' :

"The format and the usefulness of the topic ability to address the issue is key to influencing those outside public health - rather than relying on the authority of the NICE brand"

"Format does need to be different for LA than in Health. Argument reasoned differently, less empirically"

"Persuasion and influence require the messenger to enter the receiver's frame of experience. Therefore the language and relevance are of importance"

The following quotations are illustrative of panel members who judged this hunch to be 'somewhat relevant' or 'irrelevant':

"The format is not particularly relevant, it is how the guidance is 'sold' that makes the difference to the decision or not"

"Messenger is more about getting the message to the ear of the right people and for them to be authoritative and influential within the organisation"

"Reliability, relevance and usefulness are more important than guideline presentation, although poor presentation (e.g. vert lengthy, unclear recommendations, poorly titled guidelines are a barrier to use

The guidance itself: IF, THEN statements. The aggregated scores of extremely relevant, very relevant are below. We would like you to consider the panel scores and vote again. *

	Extremely relevant	Very relevant	Quite relevant	Somewhat relevant	Irrelevant
If the NICE guidance includes recommendations that recognise local government's (target audience) Powers and Duties THEN the guidance will be considered (72%)					
If NICE (messenger) is viewed as authoritative by local government THEN the guidance will be considered (72%)					
If NICE guidance is presented in a format familiar to local government THEN the guidance will be considered (60%)					

Finally, having completed the question set. Please feel free to add any additional comments, ideas or reflections. You may wish to comment on areas where you decided to remain outside the consensus, for example.

What will happen next

Thank you for taking part in this Delphi survey, we will send you a summary of the full findings. Many of you agreed to take part in interviews regarding the Delphi study and this stage is likely to take place in early September 2017.

We will use your collective responses from both Delphi surveys to guide the focus of the realist review which will involve both time observing within four case study sites and synthesising findings from the literature. The product of the realist review will be a set of refined explanations and we will sense check these (and their format) by returning to you for final Delphi. We anticipate that this will occur in September 2018. In the meantime, we will keep in touch via the means you selected in the first round.

Our Delphi findings to date offer rich insights into decision making and the use of evidence (particularly NICE guidance) within local government and could therefore make a useful contribution to emerging evidence in this area. We therefore a aim to publish the Delphi findings as soon as possible. Often, reports of Delphi studies name members of the panel and so our final question addresses this.
A copy of your responses will be emailed to the address you provided

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Annexe 6: Data Extraction Sheet

	Study title and authors			
	Ref number (inc study set(s))			
	Mendeley link (via website not desktop)			
	Study design			
	Abstract			
	Theoretical justification			
	CMOC codes	page	Evidence	Evidence type
Programme Theory	M (resources) (physical resources)		A.	
	INTERNAL C1 (DECISION MAKING CHARACTERISED BY 'MUDDLING THROUGH')		A.	
	M (reasoning) (response to culture		A.	
	Outcome pattern (utilisation of 'evidence'/ NICE PH guidance)		A.	
Programme Theory	M (resources) (physical resources)		A.	
	INTERNAL C2 (DECISION MAKING IS HIGHLY POLITICISED)		A.	
	M (reasoning) (response to culture		A.	
	Outcome pattern (utilisation of 'evidence'/ NICE PH guidance)		A.	
	External context (features of external context or background) (to all)		A.	

	Possible refinements (to all)	
	Areas to pursue (kin, citation search etc, hunches)	Their citations previously identified via my search strategies Additional papers to pursue: Other thoughts:
	Completion codes:	
	Green highlight	Area of interest within the abstract
	Yellow highlight	Park - postdoc ideas /paper ideas/ NB parsimonious!
	Pink highlight	Methodological implications /decisions
	[]	experiential evidence or comment
	italic	where M (response is speculative)
	Evidence type	1. Data from the study which may support, refine, clarify, refute theories I'm testing 2. Study author(s)'s interpretation of MRT on e.g. policy making (which may add to my own understanding of MRTs?) 3. Study author(s)'s interpretation /citation of other studies' empirical evidence which may support, clarify, refute theories I'm testing (may want to go to the source)

Annexe 7: Participant Information Sheet – Case site research

1. Research Project Title:

The use of NICE guidance in Local Government: a realist synthesis to identify and test enabling mechanisms which may support implementation

2. Invitation paragraph:

You are being invited to take part in a research project for a PhD study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

4. What is the project's purpose?

National Institute for Health and Care Excellence (NICE) has expanded its work and issues guidance to local government. This project aims to explore how such guidance is received and used by local government and in particular NICE public health guidance. Successful implementation of such guidance within local government appears problematic and there is limited evidence of its widespread uptake. Therefore, this study aims to explore the context within which the guidance lands and in particular the decision-making culture within which Local Government Officers (LGO) operate. This study will examine how LGOs receive the guidance and go on to identify when and how (and in what respects) it is acted upon – if at all. The findings will be in the form of theory about what is likely to work, in what circumstances, in which respects and why.

We have developed a set of hunches or candidate theories which may help to explain how NICE guidance is received and acted upon. These candidate theories will be explored throughout the whole study. We have prioritised these theories in terms of their relevance to decision making using a Delphi Panel and have spent time refining these theories using published literature and reports. We are now interested in talking to decision makers about their experience of the decision-making process in local government and in particular about the place of NICE guidance within this process.

4. Why have I been chosen?

We are asking you to participate as you work in a decision-making role within local government and have been identified as someone who may have insight that will help us understand how better to implement NICE guidance. We are aiming to interview 20 people across 3 local authorities. The interviews will take place in your workplace and will happen between March and May 2018.

5. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form and you can still withdraw at any time without it affecting any benefits that you are entitled to in any way. You do not have to give a reason. Any data collected to this point will be retained.

6. What will happen to me if I take part?

We will agree a mutually convenient time and setting and anticipate the interviews will last for 1.5 hours. We would like to audio record these interviews. The interview process for this study uses a style of interviewing that is based on a teacher-learning cycle which means we will present theories about how we think an aspect of, for example, decision making might work and then we would have a discussion which would lead to us creating a more refined theory which we would discuss and so on. Ideally, both parties would then be able to follow up this discussion via email or telephone but we recognise that this might be inconvenient.

7. What do I have to do?

You simply need to take part in the discussion as described above.

8. What are the possible disadvantages and risks of taking part?

We recognise that this is a commitment of your time but will aim to arrange a mutually convenient time.

9. What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, we anticipate that the process may be rewarding, as it is an opportunity to reflect on your work. You will have the opportunity to contribute to the development of theory on what works in what circumstances in terms of implementing guidance.

10. What happens if the research study stops earlier than expected?

If this is the case the reason(s) will be explained to you.

11. What if something goes wrong?

If you need to raise a complaint about this study then you will need to contact my PhD supervisor Dr Andrew Booth in the first instance. If you are not happy with the handling of your complaint then you can contact my Head of Department who will be able to escalate the complaint appropriately.

Supervisor	Dr Andrew Booth	a.booth@sheffield.ac.uk
Head of Department	Dr Mark Strong	m.strong@sheffield.ac.uk

12. Will my taking part in this project be kept confidential?

All the information we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports or publications.

13. What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

We will collect a minimum amount of information about you and this will be used to help us make sure we have expertise from across local government and to refine theories. This means we will collect some data about your role, length of service, area of practice and involvement with NICE guidance.

14. What will happen to the results of the research project?

The overall study will be part of the submission for completion of a PhD. In addition, we will aim to present findings at conferences and in academic, peer-reviewed journals. You will not be identified in any report or publication. We will send you notification of any publications and you are welcome to copies of summary reports.
Due to the nature of this research it is very likely that other researchers may find the data collected to be useful in answering future research questions. We will ask for your explicit consent for your data to be shared in this way and if you agree, we will ensure that the data collected about you is untraceable back to you before allowing others to use it.

15. Who is organising and funding the research?

This is part of an embedded PhD study funded by the Health Inequalities and Public Health Theme of the Collaboration for Leadership in Applied Research and Care – Yorkshire and Humber (see http://clahrc-yh.nihr.ac.uk for more information).

16. Who has ethically reviewed the project?

This project has been ethically approved via School for Health Related Research (ScHARR) department's ethics review procedure. The University's Research Ethics Committee monitors the application and delivery of the University's Ethics Review Procedure across the University.

17. Contact for further information
Thank you for taking the time to read this document. If you would like any further information please contact:

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Annexe 8: Studies included in the review

Aspect of the review	Study/article or project	Key data extracted[35][36]
How is Public Health faring on its return?	(Dhesi and Stewart, 2015)	▪ Study identified tensions between public health and other local government officers specifically Environmental Health (EH) officers because of ○ a need to compete for resources (Mechanism: reasoning – recognise how others are responding) ○ tension with respect to the nature of evidence: "like a religion in medicine" ○ EH officers see themselves as 'doers' – evidence-based practice can cause frustrating delays ○ Example of an uncomfortable meeting with public health colleagues, when they questioned the use of the medical evidence-based practice norm to secure funding (C2 – characteristic of decision-making culture – evidence-based practice is not the default).
	(Sanders et al., 2017)	▪ Diverse evidence cultures present in the LA with politicians influenced by the 'soft' social care agendas affecting their local population and treating local opinion as evidence, whilst public health managers prioritised the scientific view of evidence informed by research(C2 – characteristic of decision-making culture – evidence-based practice is not the default; mechanism: reasoning – recognise differing forms of evidence)
	(Peckham et al., 2017)	▪ Ability to influence decision-making is linked to organisational position. Peckham et al's study evidences accountability lines of DPH and models for public health teams: ○ In 2015, 47% (n = 34) of DsPH reported being managed by the chief executive – a slight increase from 42% (n = 38) in 2014. ○ Others tended to be accountable to whoever was leading the directorate in which public health was located. ○ Half the professional public health leads (53% n = 39 in 2015) were on their councils' most senior management team. ▪ Dilemmas for transferring public health teams:

[35] Please note this column has been populated by editing data extraction sheets to summarise key findings: where appropriate contexts, mechanisms and outcomes are identified using sub-script and theoretical refinements are in bold. Please note it does not include the commentary /hunches triggered illustrated in Diagram 11.

[36] Please note:

- the papers /slides set (Sanders, 2016; Sanders et al, 2017 and Grove et al, 2019 are sibling papers; the PhD candidate was a member of this study team.
- (Atkins et al., 2017, 2019; Kelly et al., 2017) papers are sibling papers from the PhILA study
- (Gadsby, 2017; Peckham, 2017) are sibling papers from the PHOENIX study
- (Marks et al, 2015) study is part of research study (2012-2016), funded by the National Institute for Health Research, School for Public Health Research aimed to identify enablers and barriers for decision- making related to prioritizing investment in public health.
- (Needham et al, 2014; Mangan et al, 2016) outputs from the 21st Public Servant project funded by ESRC 2013-4 and initially identified during literature searching for theories.
- The papers by Gains et al are outputs from a 5 year evaluation of the impact of the Local Government Act, 2000.

Aspect of the review	Study/article or project	Key data extracted[35][36]
		○ When distributed across the organisation there was a clash between professional values and organisational values: '. . . a genuine tension for some of the people who've come over from public health; is their ultimate responsibility to their profession or is it to their organisation?'(local policy officer) ○ Reductions in workforce: 2015 survey suggests DPH loss rarer but public health consultants and specialists continued to fall in 28% of councils (n = 20) (reduction in capacity to influence); Study found some public health staff elected to leave local government to work in other parts of the Public Health infrastructure. ○ Time to adjust to new roles – an initial culture shock (even where there had been joint appointments) and process of adapting to new systems and ways of working (C2: culture of decision making – political environment; mechanism – reasoning relationship building officer-member, officer-officer) ▪ Evidence on relationships: ○ public health and elected members largely positive about the way staff had become embedded and integrated; public health staff were valued and their advice was trusted (mechanism: reasoning – trust; mechanism: reasoning -give advice) ○ demand for public health advice had remained fairly static from 2014 to 2015; 44% (n = 32); other departments 'definitely' asking for advice (mechanism: reasoning – give advice; refinement officer-officer relationships) This advice and support tended to be in: provision of data; needs assessments; monitoring against goals or targets; inequalities analysis; and commissioning (mechanism: reasoning – deployment of technical knowledges). ○ Ability to influence – DsPH felt confident in their ability to influence the council's priorities for health and that, following the reforms, they were more able than before to deliver real improvements in the health of the local population. ○ Local government officers have multiple relationships and accountability in local government – local population, members etc and need to arbitrate between different publics (Peckham et al., 2017). '*At different times the same course of action may be more or less palatable depending on the particular constellation of local and national policies, public opinion and funding*' (Peckham et al., 2017). (C1: muddling through Lindblom's argument on relative values of policy objectives)
	(Gadsby et al., 2017)	▪ Public health officers have also had to adjust to different roles and relationships relative to other actors at local level. Directors of public health were previously key decision makers on the executive boards of PCTs. Whilst they were often the first to be pushed back if cuts were required or budgets exceeded, DsPH had clear authority with regards to public health prioritisation. Following the reforms, they are expert advisers to elected members (C2: culture of decision-making highly politicised). Leadership for public health is more dispersed; decision-making is now more complex (C1: science of muddling through), and arguably subject to greater political ideology and personal interest (C2: highly politicised).

Aspect of the review	Study/article or project	Key data extracted[35,36]
		○ The transfer of public health staff and resources into local councils from PCTs was far from straightforward. ○ DsPH were not always in the best place for strategic influence in the council. ○ Elected members are the key decision makers within councils; the role of officers, including those in public health, is to support them. C2: highly politicised). ○ As a result, there appears to have been shift in how public health commissioning is performed, from a more specialist-led investment approach to a more 'business'-orientated approach adopted by many local councils, using best value frameworks (C1: science of muddling through), (mechanism: reasoning – adapt practice) ○ Gadsby et al identified that public health capacity has been both freed and stifled.
	(Jehu et al., 2017)	▪ Study identified dilemmas associated with the transfer: ○ Freedom to operate: some PH staff felt restricted (mechanism: resource- financial rules) *"Part of the way in which the council controls the members is by not letting people anywhere near them. So it's bizarre. My boss gets very upset if I go and speak to a Cabinet member without her present in the room. But I do it anyway"* (DPH 6, follow-up interview) (mechanism: resource – access to members) ○ Political nous *"you have to be quite fleet of foot and you have to have political nous. It's no good doing the job if you haven't got any political nous. It's a nightmare. You need to know where you're going and you need to make sure you've covered all your bases before you plunge into something. […] (DPH 5 initial interview)"* (mechanism: reasoning – political knowledge) ○ Welcome (members and officers); not smooth but chief executives and strategic directors recognized welcomed the contribution of public health skills and knowledge. Responses from elected members, however, were more mixed. (linked to salaries and negative connotations on the term consultant); interviewees identified growing relationships between officers and officer and members and officers based on trust (mechanism: reasoning – trust) ○ A political decision-making environment: ▪ elected members have ultimate decision-making authority (C2) and priorities arising from the public health evidence base were not in line with the political priorities of the council. ▪ An NHS commissioner highlighted the risks of making decisions 'purely based on public opinion', while also recognizing that 'if you just take a totally cold analytic approach, it's difficult for people to become enthused or engaged by it'. (Mechanism: reasoning – influencing differently) ▪ support provided by elected members, with one DPH stating they were 'pleasantly surprised to see opposition parties really articulating the importance of public health in the council'. (mechanism: reasoning – getting to know each other) ▪ DPH could not rely on status or position; instead relied on softer skills (mechanism: reasoning – negotiate, network, 'win friend and influence people', relationship building) `and by recognising that how evidence is conceptualised may need to be broadened.

Aspect of the review	Study/article or project	Key data extracted[3536]
	(Marks et al., 2015)	▪ Local authorities are democratically accountable to the local population: viewed as a key factor in decision-making. (C2: highly politicised; mechanism: resource -democratic processes; mechanism: reasoning – recognition of the power of the ballot box) ▪ Dilemmas around independence, professional judgement and degree of influence over priority-setting (mechanism: reasoning – quality of advice versus getting things done; balancing knowledges; recognising red lines) ▪ Tensions between a focus on effective public health interventions, as reflected in the evidence base for public health on the one hand, and broader notions of well- being across a local area on the other. (linked to grant and how it is spent); (C1 – muddling through – Lindblom on relative policy objectives)
	(Lambert and Sowden, 2016)	▪ Prior to the transfer The UK Faculty of Public Health (FPH) identified six main concerns with the legislation: potential withdrawal of NHS services, increased transaction costs associated with competition, loss of quality of care, widening of health inequality, instability from work- force transition and the difficulties of sustaining effective discharge. This study of Faculty members (regardless of work setting) identified levels of concern among public health professionals about ongoing risks from the Health and Social Care Act. Respondents identified that without further remedial action there was a high probability that infrastructure for public health, planning and delivery of NHS services, as well as attractiveness of public health as a career would all be severely compromised.
	(Willmott et al., 2016)	▪ Study concludes that DsPH are responding to a new environment; economic arguments and evidence of impact are key components of the case for public health, although multiple factors influence local government decisions around health improvement.
	(Gorsky et al., 2014)	▪ Gorsky et al argue that frame-work for local delivery in 1948 is similar to that enacted in 2012: public health leadership role (MOH then, now DPH); annual report specific duties set out by statute (see Great Britain. Department of Health, 2015). ▪ DsPH need to be in executive team of Council in order to develop a broad public health function (including social determinants of health); evidence suggest many in 'health silos' leading to wide variations in DsPH powers(managing staff and budgets).(C3: contextual feature organisation of PH team) ▪ DsPH require excellent communication skills, negotiation and influencing skills to form a consensus in a political working environment (C2: highly politised decision-making culture).
	(Jenkins et al., 2016)	▪ Study identified: ○ Influence and influencing skills: DsPH reported greater influence since the reforms (across and beyond their authority); most apparent when the transfer had worked well (mechanism: resource – partnership working; mechanism: reasoning – collaborative working relationships); public health teams find themselves in a different decision-making culture - decisions are often based on political pressure rather than evidence (C2 – highly politicised); teams would benefit from having better influencing skills (Jenkins et al., 2016) ○ Position of DPH in the organisation - 42% were managerially responsible to the chief executive (C2: joint elite The strongest statistical association with influence was found when public health teams had built good relationships within their authority (mechanism: reasoning – relationship building) DsPH who were managed by

Aspect of the review	Study/article or project	Key data extracted[35][36]
		the council's Chief Executive were also more likely to say that they were always able to influence priorities within the local authority (23% compared with the average of 15%). (mechanism: resource – organisational position)
	(Wight, 2016)	▪ Response to editorial identifies: along with the loss of senior posts, the position of the director of public health (DPH) has in many cases been downgraded (not always executive officer, divorced from strategic decision-making(mechanism: reasoning - ability to influence).
	(Furber, 2017)	▪ Blog identifies influence and influencing skills: ○ good public health is informing (mechanism: reasoning – resource to be exchange) and influencing (mechanism: reasoning – communication) the decisions that our elected representatives make (mechanism: reasoning -respect) We need public health specialists around the table with politicians. We need to respect their democratic mandate and earn their trust. ○ Some DsPH hold broad portfolios (adult social care, leisure and housing). ○ Local authority statutory duty in appointing a DPH who is "the person elected members and senior officer look to for leadership, expertise, and advice on a range of issues, from outbreaks of disease and emergency preparedness through to improving local people's health and concerns around access to services" (Great Britain. Department of Health, 2012) (mechanism: resource – statutes)
	(ADPH, 2014)[37]	▪ Survey findings included evidence about line management, access and influence ○ Complex arrangements; subject to change; access to CEO viewed as important (C2: local bureaucratic elites) ▪ 49% (50) report directly to the CEO or equivalent ▪ 28% (29) report to a 'super director' ▪ 20% (20) report to another Director (usually DASS) – in London this rises to 33%. ▪ 90% report that they have appropriate access to all Councillors; 67% felt they have appropriate influence across all the Council Directorates. ▪ view that Councillors are more supportive of PH than some officers (mechanism: reasoning – mutual respect)
	(ADPH, 2019)	▪ Survey findings included evidence about line management, access and influence ○ DsPH have healthy and increasing levels of influence within local authorities. ○ 97% said they had direct access to their CEO (up from 94% in 2017) ○ 99% said they had sufficient access to councillors. ○ DsPH have varying levels of satisfaction with key partners in the system. Their most positive relationships are within Local Authorities, with Directors of Adults Social Services (99% positive),

[37] The Association of Directors of Public Health have regularly surveyed their members since the transfer in 2013 and asked similar questions throughout. Each of these surveys has been collected within the study database but the review focussed on the initial and most recent survey.

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		Directors of Children's Services (89% positive) and relationships with other LA directorates (88% positive).
	(Great Britain. House of Commons Health Committee, 2016)	▪ Inquiry into experience of Public Health post 2013 o Conclude public health should remain in local government; function is well placed to embed the health and wellbeing agenda within their local communities across all the policies for which they are responsible (mechanism: resource – DPH powers and liabilities); recognise upheaval large scale system change resulting from the Health and Social Care Act 2012. o The evidence we have received suggests that the relocation of public health to local authorities in England has been largely positive, allowing public health to become integrated into all policies and to take account of the wider determinants of health. o Tension between politics and evidence identified as a challenge : ▪ "*There is something for me about the empowerment that you have as a director of public health working in a body that contains democratically elected members. It is an incredible experience. I have been born and bred in the NHS, but the work that we do, working with those elected members and bringing democracy into what we do in public health, is very powerful*" (DPH evidence to the inquiry) ▪ "*I know that a lot of it is about localism and being locally democratically responsive and accountable, but then you run into problems where you have something that is not necessarily politically palatable or popular, like providing services to drug and alcohol users and migrant health services, which will not get you any votes and, therefore, are not necessarily high on the local authority's agenda, depending on where you are". [*Public health registrar, informal session]
	(Great Britain. Department of Health, 2016)	▪ Response to the Select Committee report: ▪ the 2013 reforms deliberately avoided placing hard borders around the different components of the public health system – that would risk opening up stretches of no man's land between them as priorities evolve and new threats to health emerge. Instead the reforms encourage partnership and close collaboration between parts of the system, which requires a degree of overlap between what the different national players may legitimately do. ▪ This should not be a cause of confusion - it is for those players to find the most effective ways of working together flexibly in the prevailing circumstances, which will inevitably change over time. The Government continues to believe that this arrangement is necessary and that in most circumstances it works well, but accepts that, in what is still a young system, there is some settling down to be done in establishing a full and mutual understanding of roles and responsibilities.
	(Local Government Association, 2014)	▪ Series of commentaries on public health in local government:

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		▪ "There have been a series of useful recent snapshots of the reforms from the British Medical Association, Local Government Association, New Local Government Network, Royal Society of Public Health and Association Directors of Public Health. Although the focus, questions and interpretation have varied, a consistent thread runs through all of these reports, the importance of strong, trusting relationships between the public health team and the rest of the council (mechanism: reasoning – relationship building; mutual respect, trust). But there is recognition of a steep learning curve and how decisions need to be "evidence-based". Paying more attention to evidence will undoubtedly improve public health. In order to help that happen, public health leaders will need to build on the strong start, cementing relationships, demonstrating impact and see and influence the bigger picture, not letting the perfect become the enemy of the good" (Buck, 2014 cited in Local Government Association, 2014) ▪ "The reunion of public health moving back to local government 12 months ago was (and is) welcomed by the Association Directors Adult Social Services (ADASS) as a very positive step towards responding to improving the health and wellbeing outcomes of local people, and whilst the procedure has been bumpy and sometimes fraught with a sense of uncertainty, the mutual benefits far outweigh these often local challenges on the way" (C2: local bureaucratic elites) Public Health colleagues bring a vast wealth and depth of expertise, skill and knowledge to local government, which itself is naturally well positioned to know and engage with local people and organisations (mechanism: reasoning – bringing together different knowledges). This combination is a powerful catalyst to bring about real change to how individuals can experience and enjoy improved health and wellbeing outcomes, and the both elements are well versed in the policy mantra of early intervention and prevention, and ultimately empowering individuals to play their part in meeting these. (Keene, 2014 cited in Local Government Association, 2014). ▪ "The real agenda has to be about place-based, or community, budgeting – pooling resources from a range of bodies and determining how best to allocate them to meet identified needs (C3: place shaping and making). In that way, local authorities can become truly public health organisations. A key challenge concerns the changing public health workforce. What is seen to have been appropriate for the NHS (although many would agree it was not fit for purpose) may not meet the needs and expectations of local authorities If it is to serve public health better than the NHS managed to do, with exceptions, then the workforce and its skills base must change. The future public health leaders need to be politically astute (mechanism: reasoning – political nous), able to communicate with different audiences (mechanism: reasoning persuasive modes of communication) , form collaborative relationships that enable things to get done (mechanism: reasoning – relationship building), and assemble the business case for investing and disinvesting in public health using evidence from NICE and elsewhere (C1: science of muddling through – assembling/ crafting of evidence)" (Hunter, 2014 cited in Local Government Association, 2014) ▪ "I have also been pleased with the ways that the NICE evidence base of effective public health interventions has been welcomed into the heart of local government. Siren voices had suggested that local authorities weren't interested in our evidence. Nothing could be further from the truth. Maybe it's not evidence from double blind randomized controlled trials but local authorities do use all kinds of evidence and the broad

Aspect of the review	Study/article or project	Key data extracted[35][36]
		approach to the evidence base which NICE takes sits very comfortably in the world of local government" (outcome: NICE sits comfortably in local government) (Kelly, 2014 cited in Local Government Association, 2014). ▪ "I was once told that public health is a marathon, but I have recently revised my view that it perhaps needs to be a 15-20 kilometre and whilst we need to train for a sustainable longevity we need to be part of a pacier race" (Cox, 2014 cited in Local Government Association, 2014). (C2: highly politicised culture of decision making; mechanism: reasoning – fleet of foot)
	(Local Government Association, 2017a)	▪ "DsPH have quickly adapted to new and wider responsibilities and the need to shape the places (C3: place maker and shaper) in which local people live within changing political contexts – an experience that most would not have encountered previously. They have truly landed on their feet, and while there is more maturing to come in these relatively new roles (Selbie, 2017 cited in Local Government Association, 2017a) ▪ "The core role of the public health workforce in this world is to ensure the sophisticated use of data to guide evidence based commissioning, providing a toolkit of evidence based interventions and evaluating the impact on outcomes and inequalities"(Najsarek, 2017 cited in Local Government Association, 2017a) (mechanism: resource – PH technical competencies; mechanism: reasoning – deployed, valued) ▪ "The core purpose of a DPH remains that of an independent advocate for the health of the population and leadership for its improvement and protection. At one level this is no different to when the role was first created in 1847. However the some of the challenges have changed out of all recognition, as has our understanding and ability to address them. The fundamental influences on our health remain our social circumstances. The last three years have provided an incredible opportunity to work with housing, economic development, education, planning and transport. These are the things that really have the potential to improve health over the longer term. The move to local government has also allowed us to review all the services we commission and ensure they are effective and efficient (C1: decision-making culture- focus on value for money). There are many examples of new service models delivering better outcomes at lower cost. The changes to public health over the last three years can be seen as an exemplar of public sector reform. The principles used and the skills required can be applied to other functions. Indeed many DsPH now have wider portfolios reflecting local priorities such as integrated commissioning, prevention and intelligence (mechanism: resource-portfolio)" (Furber, A cited in Local Government Association, 2017a) ▪ "Councils as place shapers can create conditions for better health, through town planning, housing, environmental and regulatory services (C3: making and shaping of place). Councils as service providers and commissioners can improve health through education, social care, community and leisure services. The potential to use local legislation to move local health objectives is largely untapped (mechanism: resources – use of powers and liabilities).. Public health staff have moved from the relatively protected, centrally driven NHS to the 152 unitary authorities, different in their political colour, local culture and managerial delivery styles (C3: uniqueness of authorities). Many councils have seen the opportunity – the asset of public health and many DsPH are now rising to the challenge. The best councils are looking at their total budgets and seeking to make all investment decisions for

Aspect of the review	Study/article or project	Key data extracted[3536]
		the best health impact. The best DsPH are performing as high level corporate directors holding wider portfolios relevant to the public's health.(Middleton, 2017 cited in Local Government Association, 2017a)
	(Local Government Association, 2017b)	▪ Survey of public health political portfolio holders: ○ Vision to improve public health: 96% agreed or tended to agree that their council has a clear vision to improve public health for the local population, and the commissioning of public health services is well supported by their council. ○ Understanding of the issues: 93% agreed or tended to agree that their council is aware of its issues and challenges with regard to public health ○ Role of council : 71 % agreed or tended to agree that all parts of their council understand the role they play in improving the public health for the local population ○ Public health advice 78% found the verbal advice very helpful; 67% briefings and board papers (written); 56% DPH annual report (mechanism: reasoning – knowledge exchange) ○ Role of the DPH: 47% use the Director of Public Health for system leadership for wellbeing issues
	(Local Government Association, 2018)	▪ Emphasises PH input into planning strategies (mechanism: resource – planning rules mechanism: reasoning – trust; influence, persuasion). ▪ Integration occurring and risks 'public health losing a distinct identity'; local government needs to continue to draw on .public health techniques and expertise (mechanism: reasoning – technical knowledge valued).. ▪ Working with planning teams is a particularly productive area for public health, since it provides an opportunity to influence many of the social determinants of health.
	(ADPH, 2017)	• Integration of services needs to extend beyond the NHS and social care to the wider range of services engaging with the population, taking a place-based approach and working collaboratively to ensure people lead healthy and fulfilling lives. (C3: recognition of the importance of Place) ▪ A fit for purpose workforce, funding aligned with population need, a strong evidence base and good quality data (mechanism: resource - data; technical skills) are key enablers of the public health system.
Candidate theories (C1, C2):		
Decision making is characterised by the science of muddling through	(Kelly et al., 2017).	▪ 'if, however, the role of guidelines could be framed as an important 'starting point' to address local problems, then in the complex political world of local authorities, the guidelines could find an important place' (C2: highly politicised) (C1: muddling through requires Knowledge; mechanism: resource – NICE guidance as a starting point within this knowledge transaction)
	(Atkins et al., 2017)	▪ 'Local government users do not necessarily consider national guidelines to be fit for purpose at local level, with the consequence that local evidence tends to trump evidence-based guidelines' This quotation speaks to the nature of evidence use within local government which must meet the knowledge requirements of a muddling through context. (mechanism: resource- knowledge)
	(Sanders, 2016)	▪ 'But they (councillors) also like facts and it's kind of getting that balance right, and by facts they don't necessarily mean the evidence from the research or whatever. What they are probably interested in is the

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		numbers that might need to go through the system and how much that would cost and what kind of outcomes can they expect, so you know can we reduce obesity by 2%, what does that mean, how many people is that, that sort of thing' (mechanism; reasoning – information/knowledge exchange)
	(Sanders et al., 2017)	▪ Decision-making is underpinned by a transactional business ethic (mechanism: resource- processes) ▪ Diverse evidence cultures: politicians - 'soft' social care agendas; public health managers - scientific view of evidence. ▪ System interdependency requires negotiation with other departments and partners
	(Grove et al., 2019)	▪ 'We would write a report, it would be based on evidence, you'd have done everything right, and normally everything would be based on that. Here it can change because of an individual's view. And that's the system that we work in. Decisions made have to go through a process, we have to present the information and then decisions are made.' (public health officer)
	(Peckham et al., 2017)	▪ Decision-making processes complex: close working with the lead elected member, several decision making for a, consultations, lengthy process but study found valued by public health because of the scrutiny: o it's actually a very robust process and explains well how we are going to spend public funds, because you are justifying your business needs and getting feedback to see if it's the right thing to invest in, you've got chances for peer review, and you can get an understanding from your colleagues about where they think would be a better area to focus on. You have to get legal clearance, financial clearance, so it's all formally done, and then it goes to the decision makers. So, by the time it gets to the cabinet it has been through all of that"
	(Gadsby, 2017)	▪ Decisions subject to a greater range of decision-makers and wider consultation, both across the council and amongst the public, than before (focus on 'Best Value – options appraisal); experienced at competitive tendering
	(Marks et al., 2015)	• Study argues that the process of option appraisal, which draws on a range of methods for assessing value, is better suited to policy evaluation within local government than NICE's use of cost utility analysis. • Decision-support methods need to consider how low government priority set and commission – focus is on purchasing to meet policy priorities: o "And it was quite interesting that the people that worked in the county that wanted to come and work in public health, their idea of a commissioning cycle was basically a PDSA cycle, so plan, do, study, act. Rather than a commissioning cycle that we might recognize coming from the health service … so they didn't recognize that at all" (Assistant Director of Public Health) • Priority-setting was part of an iterative decision-making process (review and amendment) o "We have big forums where we debate things and try and harness the collective intelligence of the group, and then out of that will come a set of priorities" (Director of Children's Services)
	(Allen et al., 2015)	▪ Fears from some politicians that evidence might displace political judgment.

Aspect of the review	Study/article or project	Key data extracted[3536]
		▪ Study demonstrated that councils are 'keen to find evidence, which can help them to respond to the challenges which they face. But they are often unaware of how to do this.' Councils often look for advice on narrow practical issues (outcome pattern: NICE may be irrelevant in this situation).
	(Gains et al., 2005)	▪ Study focused on the concept of path dependency 'captures the tendency for a policy step in one direction to encourage the next step to be in a similar direction'; builds on economics – policy makers bound in a direction because of their previous investment in it and their knowledge of other players responses; short term horizons of politicians count against radical shifts in the path. Gain et al analysis focus on whether the reform of political management structures i.e. the move to executive forms of political management (see Table 9) on page 125 above (Great Britain. Cabinet Office., 1999) are a break from path dependency. ▪ Post war period – accommodation of the system of party politics (supported by the Widdecombe Inquiry, 1986 which investigated local authority business) ▪ New decision-making system aimed to be more transparent – encourage strong leadership from a small group of politicians held to account by strong overview and scrutiny (decision-making system results from public management reforms)
	(South et al., 2014)	▪ Local government is the leading local democratic institution: shapes the way that citizens are involved in their own wellbeing, can improve wellbeing in their communities, and hold local health and wellbeing services to account. (mechanism: resource -democratic role) ▪ Local government's place-shaping role, health needs to be brought into local policies and strategies, such as spatial planning or transport (mechanism: resource – planning; mechanism: reasoning – influence; respect; harnessing the opportunity) ▪ Evidence needs to feed into local government planning and decision making, but what is understood by evidence and the different types of evidence are hotly debated issues in public health.
	(Wesselink and Gouldson, 2014)	▪ The policy maker / LGO 'negotiates amongst disparate players to achieve an appropriate outcome' deal with partial, overlapping & conflicting agenda, political & institutional context & fluid or unclear (Mechanism: reasoning - recognise need to negotiate; skills to respond) ▪ Economic and technical arguments are not enough, there is also the social and political side to take into account ▪ In one authority within the study circulation of evidence was controlled by officers ▪ Argue that policy making in local government does not fit rational cycle of selecting the instrumentally effective choice; local authorities do not have single purposes, but are traverse by multiple rationalities which are drawn upon by constructing agreement on course of action. Evidence is good (not because of its inherent quality) but because of its utility in making sense of these complexities. ▪ System of government by discussion, analysis – process of argument/persuade (mechanism: reasoning – craft and weave evidence)
	(Boyd and Coleman, 2011)	▪ Committee uses expertise as the primary resource, gatherig data from a variety of sources in a variety of ways with the aim of producing a quality product to influence decision-makers (mechanism: system of scrutiny; mechanism: reasoning – recognise the role scrutiny plays within their council (C3; will vary) and respond to it)

Aspect of the review	Study/article or project	Key data extracted[35][36]
		▪ Committee uses pre-briefing sessions for members (mechanism; reasoning – trust) ▪ Members possess practiced political expertise (mechanism: reasoning – deploy political expertise within the exchange); know their constituencies and experienced within the consultation process ▪ Officers themselves 'play a significant role in reviews typically designing the research process' ▪ Dedicated health scrutiny officers - political-administrative expertise (mechanism: reasoning – weaving knowledge) ▪ Study identified 2 types of influence strategy which can be brought to bear on decision makers o Cooperative or interactional strategy (mechanism: reasoning trust, mutual esteem, through the exchange of information and search for fair and reasonable compromise) o Adversarial or pressure (mechanism: reasoning – fear, threats of negative consequences) ▪ Members emotions can run high on a topic and override collective sense making or 'compromise an analytical approach to research' / members can be frustrated if recommendations are ignored] ▪ Tension between a quality review which can take time and topicality [kicked into long grass? While decision making occurring elsewhere or feeding into longer term plan such as Local Plan] akin to policy windows /Implementation gaps - items dropping of an agenda
	(Clifford, 2016)	▪ An important element of the nature decision making within planning is the impact of reforms (including performance management on timings of decisions) on front line planners impacts on agency and autonomy (mechanisms: reasoning- resist or accept)
	(Phillips and Green, 2015)	▪ Local government in England has been described as a creature of statute (complex web of legislation created through individual Acts of national parliament) o Legislation as a framework for mandated services e.g. refuse collection 'officers have a degree of discretionary autonomy in how they apply these tools, enabling them to shape health determinants (if in often marginal ways) through, for instance, the control of licences for alcohol sales' (mechanism: resource -statutes; mechanism: reasoning recognition of the opportunity; evidence deployed) o Legislation as a tool the local authority 'can shape and control the local commercial, physical and social environment' (C3 -place maker and shaper; mechanism: resource -legislative powers and duties) The use of these powers is shaped by 'policies and priorities of the incumbent local political administration, and their historical commitments and ethos.' ▪ 'For local authority officers in transport, housing, trading standards and other sectors, public health outcomes are rarely a primary goal. Indeed, some health outcomes may be marginalised in achieving other goals: advocacy of free parking in town centres to support local businesses, for instance, is contrary to encouraging active transport and reducing the impact of car emissions on air quality. Further, different health outcomes may be prioritised by different constituencies. Funding for cycle path development is contingent on the selection of segregated cycle paths, but officers interpret evidence to indicate that these might increase cycle casualties in their specific locality'

Aspect of the review	Study/article or project	Key data extracted[35][36]
Decision making is highly politicised	(Perkins et al, 2019)	▪ Study identified: ▪ important change for public health relationship with elected members; politicians key decision-makers; (system more accountable than NHS) ▪ relationships were good and valued by both parties (mechanism: reasoning – mutual respect): ○ "was very keen and asked them [public health] to put together the programme for how we engaged all the other departments within the council and. . . which they've done, and that will be a programme that starts very soon" (member). ▪ Public health staff felt their work was valued by the council and elected members, and councillors also talked about their public health teams in a positive way. ○ "I'm impressed with public health . . . they're working very hard with limited funds, and so with public health more than anybody they've got into the joined up thinking. So public health . . . are doing really well as far as I'm concerned and they are setting an example so some other areas could follow the same" (member)
	(Atkins et al., 2017)	▪ As one respondent in their study described it: "*Well, as you know, every politician works on an anecdote* (mechanism: reasoning -story telling). *We have to use evidence either to support or refute the anecdote* (*mechanism: reasoning – exchange of resources*) *and sometimes you get overruled* (*C2: decision making is politicised*). *If you manage to … ensure the evidence base is followed 75% to 85% of the time probably in this environment, we're doing pretty well"* (Atkins et al., 2017).
	(Sanders, 2016)	▪ "In local authority there is a big political element to any decision-making process. And there are a number of times where you take something and if we take this example, this intervention works but it's not going to be popular. Then there is that political angle that you are going to need to wrestle with." (officer).
	(Sanders et al., 2017)	▪ Examining acceptability of an economic modelling tool: ▪ 'To achieve legitimacy within the commissioning arena health economic modelling needs to function effectively in a highly politicised environment where decisions are made not only on the basis of research evidence, but on grounds of 'soft' data, personal opinion and intelligence. In this context decisions become politicised, with multiple opinions seeking a voice'.
	(Grove et al, 2019)	▪ Local government hierarchical structure: organisational norm impacted on the decision-making process and centered decisions around the opinions of individuals, not what was presented in the evidence: ○ "Local authorities are very much more hierarchal; we have an electoral system. We would write a report, it would be based on evidence, you'd have done everything right, and normally everything would be based on that. Here it can change because of an individual's view. And that's the system that we work in. Decisions made have to go through a process, we have to present the information and then decisions are made." (officer)

Aspect of the review	Study/article or project	Key data extracted[3536]
	(Gadsby, 2017)	▪ PH role different – DPH previously key decision maker on executive board of PCT (clear authority on public health prioritisation. Now. 'expert advisors to elected members' in a complex decision-making process 'subject to greater political ideology and personal interest" ▪ Elected members: influence priorities and actions of public health (overtly/subtly) ○ 92% of elected members said they felt always able (45%) or quite often able (47%) to influence the priorities of the public health team. ▪ e.g. subtly: in one Conservative-led council, the elected member explained that he would have a very difficult job persuading his cabinet to significantly increase spending on smoking cessation: "They're not particularly interested in it, they think … 'oh well if people smoke themselves silly, let them smoke themselves silly"
	(Jehu et al., 2017)	▪ I think if you embrace [the DPH role] and you find it interesting then I think it's a very, it can be incredibly rewarding. But it's quite challenging and you have to be quite fleet of foot and you have to have political nous. It's no good doing the job if you haven't got any political nous. It's a nightmare. You need to know where you're going and you need to make sure you've covered all your bases before you plunge into something. […] In policy terms you have to be absolutely clear that you're not going to end up doing something that's unpalatable (DPH) (mechanism: reasoning -political nous)
	(Marks et al., 2015)	▪ democratically accountable to the local population: seen as key factor in decision-making (mechanism: resource- democratic cycle; mechanism: reasoning, valued this responsibility, eye to the ballot box) ○ " Inevitably the cultures are different and I think you will inevitably see a tension between a culture that likes to see itself as very evidence based in a possibly sometimes purist way and the political process which by its very nature is rather different"(chair of HWBB) ▪ Additionally, members knowledge of local community (organisations, constituents experiences) plus the valuing of democracy is influential and balances/outweighs the evidence base: ○ "We had a discussion about smoking and drugs, and it was pointed out that lots more people die of smoking related conditions than they do of drug related conditions, alcohol and drug related conditions, but nobody complains to me about the next-door neighbour smoking. But they will complain about the drug dealers on the corner and the alcohol, noise and abuse and all that stuff, which has a big effect on peoples' lives. It ripples out on the community. But they've got a point, but we've got a point as well." (politician)
	(Willmott et al., 2016)	• Study identified: ○ 'evidence is there to influence and support, [the] political agenda perhaps and the particular area of work'. (interview) Evidence unnecessary where the public health case was congruent with current ideas e.g. multi-agency working - common sense. (mechanism: resource – public health evidence; mechanism: reasoning make the case 'one of the tenets of our profession interview') ▪ Making the case at different levels that influence health:

Aspect of the review	Study/article or project	Key data extracted[3536]
		○ 'I would say politically there are certain things that they're quite happy to look at like [...] preventing children from starting to smoke. That seems to be well accepted and supported. But when we look at say, provision of children's centres or early years. We are being challenged on, well, why are we investing? (Interview)' ▪ Economic argument important but it is not ROI or HE rather the 'politics' of resources allocation: ○ 'we're showing that the family-led partnerships are generating savings of more than five times the programme costs. ... statements like that are of interest and they can be good for making the case and lobbying, but people [Councillors] want to be really, really clear who gets the savings and over what timeframe, how secure, how certain are they (interview)' ○ 'by and large the politician's first interest is not the evidence. Or even the return on investment. Um, their first interest sits between doing the right thing and being politically acceptable. And you have to have to meet those two targets first... (interview)'. (Mechanism: reasoning – political nous; democratic accountability)
	(Coulson and Whiteman, 2012)	Overview and scrutiny study ▪ Prior to the reforms power in the hands of chairs & senior LGO who drafted the papers (Dual elite) ▪ OSC powers to examine and request officers and cabinet members to attend and answer questions (mechanism: resource -scrutiny system); in some councils officers are sceptical and uncooperative with the scrutiny process (mechanism: reasoning – member engagement) ▪ Effective scrutiny requires: ○ Member leadership and engagement - main role has been reviews in policy areas based on oral hearing but also some innovative use of evidence such as workshops etc; not got to grips with performances (tends to be in the technical sphere of officers). (Mechanism: resource – knowledges) ○ A responsive executive - a successful scrutiny chair has to maintain a relationship with the corresponding members of the executive, and with senior officers. Recommendations will if possible be crafted and presented in ways that executives or cabinet members can accept. ○ Genuine non-partisan working - good practice but not mandatory ○ Effective dedicated officer support and management of the scrutiny process ○ A supportive senior officer culture - process depends on individuals coming & being prepared to share. 'Few will look forward to attending a scrutiny committee, but if they believe that they will be heard fairly, and that their concerns will be taken seriously, and where relevant, incorporated into scrutiny reports and recommendations then useful information is likely to be forthcoming (mechanism: reasoning – fear, see the opportunity)
	(Gains, 2009)	▪ Personal attributes such as longevity in post and capability of both politician and officer can create differing and diverse dependency relationships ▪ Dilemmas within relationship between local bureaucratic elites' impact on decision-making processes

Aspect of the review	Study/article or project	Key data extracted[35][36]
		▪ Blurring of boundaries; reforms producing delegated decision-making powers – executive officers and politicians need to operate in a 'zone of interaction' (Gains, 2009); 'subtle and dynamic partnership'(Gains, 2009); relationships viewed as crucial; clear boundaries; partnership work and officer role as 'community enabler' was not found to blur the boundaries; helpful mechanism – 'clear delegation of decision-making between officers and executive members, with a schedule of delegated decisions published in all council constitutions.' New political management arrangements varied in term of its impact on officer- member relationships – diminished the power/empires of Heads of Service. In many places though – officer has 'informational advantage' and considerable, overt, transparent, decision-making powers (mechanism: reasoning – resource exchange, mutual respect) ▪ Managing central local accountabilities: local bureaucratic elites have 2 sources of political authority – tension between 'supporting a locally strengthened executive in a context where central control of policy and performance is exercised' – requires negotiation about the interpretation of national priorities. ▪ Serving the whole council: found differences in views: senior officers defended their ability to wear two hats; tensions highlighted with respect to emerging overview and scrutiny process 'officers feel challenged by scrutiny and anyone who tells you otherwise is lying"; demise of committee system leading to a loss of training ground for junior officers.
	(Gains et al, 2005)	▪ Spectrum of leadership is possible fusion, collective accountability, executive autonomy, separation of powers (and this has implications for the culture of decision making and the relationships between officers and members)
	(Wesselink and Gouldson, 2014)	▪ The tier of government closest to the public (Mechanism: resource - local governance/accountability Mechanism: reasoning - duty to local people by members and LGO0 ▪ Ability to act locally is shaped by national policy ▪ 'policy work is political work since 'policy making civil servants negotiate complex streams of puzzling and powering, in which expert advice is but one parameter in a fuzzy set of undefined equations' citing Hoppe, 2010, p110 ▪ Main factor contributing to the topic being a priority was high level leadership, specifically elected members (Council leader, portfolio holder & CE) (joint elite) ▪ Politics and political cycle can interrupt agenda – short termism
	(Needham et al., 2014)	▪ Roles of local government officers that are considered theoretically relevant: o Storyteller - the ability to author and communicate stories of how new worlds of local public services might be envisioned in the absence of existing blueprints, drawing on experience and evidence from a range of sources. The ability to fashion and communicate options for the future, however tentative and experimental, will be crucial in engaging service users, citizens and staff.

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		○ Resource-weaver – the ability to make creative use of existing resources regardless of their intended/original use; weaving together miscellaneous and disparate materials to generate something new and useful for service users and citizens. ▪ Generic skills will be as important as technical skills for future public servants ▪ SOLACE, who represent local authority chief executives, have been developing a framework for the skills that future council chief executives will need. They have described these as 'contextual' skills: two are particularly useful: ○ Leading place and space: acting as the advocate, hub, facilitator and supporter of all aspects of the development of their community. This means more than just managing and contributing to partnership working – it requires creating local identity, community cohesion, balancing priorities and creating 'whole system' approaches. (C3: place shaping and making) ○ Leading through trust: creating a motivational environment where others will have enough trust to follow them, even when the way ahead is not clear (mechanism: reasoning -trust)
	(Mangan et al., 2016)	• Roles of elected members – theoretically relevant • Steward of place (C3; making and shaping) Advocate – acting to represent the interests of all citizens; Buffer – seeking to mitigate the impact of austerity on citizens; Sensemaker – translating a shift in the role of public services and the relationship between institutions and citizen;Orchestrator – helping broker relationships, work with partners and develop new connections • Councillor-citizen relationship remains at the heart of representative democracy • Councillors and Officers: roles overlapping as executive members become more professionalised, the number of officers reduces, and as officers in neighbourhood roles play a greater role as community 'fixers'. • Councillors and Place: Councillors are strongly rooted in their wards and localities.
	(Phillips and Green, 2015)	• local government officers balance the agendas of a number of different actors: national government, local politicians, the financial concerns of their executive directors, the priorities of external funders, their own human resources and the interests of the local community and businesses. • 'At a more senior officer level, this is typically work negotiating with and managing the expectations of elected councillors, particularly the executive members in the cabinet, who lead the political side of the local authority and form the joint management team with the senior directors.' (joint elite) • Interpersonal relationships crucial – described as everyday politics of influencing, persuading and negotiating; key finding in this study trumps 'Politics with a big P'. (mechanism: reasoning – mutual respect; balancing knowledges; relationships counter weight to Politics is a refinement) . • Knowledge built up over time (mechanism: reasoning – logevity in service /geography) members llikewise connected to their communities "geographically bounded and locally embedded expertise"
	(Boyd and Coleman, 2011)	▪ Scrutiny administered separately however relationships between scrutiny members and executive members

Aspect of the review	Study/article or project	Key data extracted[35][36]
		○ "some interactions are more akin to ongoing relationships which develop and are influenced by their own history"(mechanism: reasoning – longevity, history, party allegiances) ▪ Some evidence of party politics influencing scrutiny topic choices " ○ [issues] crop up because of one or other councillors having longer-term political and parliamentary goals in mind" (health scrutiny officer)
	(Coulson and Whiteman, 2012)	Overview and scrutiny study ▪ Prior to the reforms power in the hands of chairs & senior LGO who drafted the papers (Dual elite) ▪ OSC powers to examine and request officers and cabinet members to attend and answer questions (mechanism: resource -scrutiny system); in some councils officers are sceptical and uncooperative with the scrutiny process (mechanism: reasoning – member engagement) ▪ Effective scrutiny requires: ○ Member leadership and engagement - main role has been reviews in policy areas based on oral hearing but also some innovative use of evidence such as workshops etc; not got to grips with performances (tends to be in the technical sphere of officers). (Mechanism: resource – knowledges) ○ A responsive executive - a successful scrutiny chair has to maintain a relationship with the corresponding members of the executive, and with senior officers. Recommendations will if possible be crafted and presented in ways that executives or cabinet members can accept. ○ Genuine non-partisan working - good practice but not mandatory ○ Effective dedicated officer support and management of the scrutiny process ▪ A supportive senior officer culture - process depends on individuals coming & being prepared to share. 'Few will look forward to attending a scrutiny committee, but if they believe that they will be heard fairly, and that their concerns will be taken seriously, and where relevant, incorporated into scrutiny reports and recommendations then useful information is likely to be forthcoming (mechanism: reasoning – fear, see the opportunity)
The uniqueness of local government (C3)	(Mulligan, 2019)	▪ Success of the project was aided who understood the particular local authority
	(Atkins et al., 2017)	▪ Likely limited implementation because such guidance would be viewed as a national diktat and therefore something local government would instinctively ignore.
	(Marks et al, 2015)	▪ 'Local authorities show great variation, and even in the three case studies studied, marked differences of emphasis were evident: one site was keen to refocus the budget on community engagement and community assets; a second focused on corporate values and how they reflected the local authority as a public health organization, with part of the public health budget being used as a catalyst; while a third was particularly concerned to improve collaboration with CCGs in developing preventive services and integrated care. This diversity demonstrates that local authorities are likely to adopt different solutions to prioritization tensions described in this study. It is also the case that the political composition of a local council, and views over the

Aspect of the review	Study/article or project	Key data extracted[35][36]
		role of individual responsibility, may lead to a focus on lifestyle choices rather than on wider policy interventions'.
	(Gains, 2009)	▪ Identified a variety of response to local government reforms within different places
	(Gains et al., 2005)	▪ Post-war period: "process of decision-making varied in context of traditions, local issues and challenges and the presence or otherwise of effective leaders" ▪ The Act reforming political management of councils allowed choices for local councils in terms of its implementation (Great Britain, 2000) and exact powers within governance model are set out within individual council constitutions. Gains et al study identified that councils have implemented the new system in a variety of ways. ▪ Traditions of decision-making in different types of council have limited the adoption of new forms of governance (including party traditions – collectivist versus autonomy)
	(Gains et al., 2009)	▪ Analysis identified reforms have been implemented in different ways within different authorities
	(South et al., 2014)	▪ Such a context includes a local council's political traditions, its wide range of services that address the social determinants of health, its democratic connections with citizens, and its role as a local leader - responsible for setting the tone and culture in an area.
	(Wesselink and Gouldson, 2014)	▪ Within the study each authority required their own report – locally relevant data
	(Clifford, 2016)	▪ New rules will be adapted to local environments, organisations and groups – absorb, co-opt or deflect
	(Phillips and Green, 2015)	▪ 'One facet of this stress on localness was the importance of constructing a unique organisational identity in relation to other (English) local authorities. For many, there was an eponymous 'local authority way of doing things' that was a source of pride. In both interviews and informal talk, officers emphasised the unique, rather than the typical, features of their area or population. For example, the authorities were described as having the 'poorest' health in the region and therefore standard practice guidance on smoking cessation was unlikely to be appropriate; being the 'first' to implement a certain piece of legislation; or as having unusually narrow the pavements and a large cycling population, making generic road engineering solutions inappropriate'. ▪ Knowledge built up over time (mechanism: reasoning – logevity in service /geography) members llikewise connected to their communities "geographically bounded and locally embedded expertise"
Utilisation of NICE guidance in local decision- making (outcome)	PhILA project (Atkins et al., 2017, 2019; Kelly et al., 2017)	▪ Limited evidence of NICE guidance been utilised within decision making (outcome pattern: invisible).
	(Mulligan, 2019)	▪ NICE guidelines identified as source of best practice within the commissioning process; used as a lever (outcome pattern: visible within commissioning work). ▪ Differing cultures between health and local government and a need to respond pro-actively and meet regularly (mechanism: reasoning – develop trust)

Aspect of the review	Study/article or project	Key data extracted[3536]
	(Kneale et al., 2017)	▪ Post 2013 public health decision-making landscape NICE could be considered invisible
	(Kneale et al., 2018)	▪ Post 2013 public health decision-making landscape NICE could be considered invisible
	(Beenstock et al., 2015)	▪ Limited use of NICE guidance within health and well-being strategies; where mentioned concerned with establishing a need rather than identifying an intervention (outcome pattern – perceived usefulness of NICE guidance)
	(Powell-Hoyland and Homer, 2015)	▪ Little evidence of NICE guidance being used to underpin strategies (outcome – invisible within documentation and decision making)
	(Kneale et al., 2016)	▪ Limited involvement of local government in NICE implementation projects (mechanism: resources – dissemination approach)
	(Michie, 2014)	▪ Knowledge of guidance tends to be limited to particular roles (mechanism: resources – dissemination approach)
	(Leng, 2014)	▪ Low levels of awareness of NICE's emerging role in social care (mechanism: resources – dissemination approach)
	Explanations arising from other search sets:	
	(Marks et al., 2015)	▪ Study argues that the process of option appraisal, which draws on a range of methods for assessing value, is better suited to policy evaluation within local government than NICE's use of cost utility analysis. This might explain the visibility of NICE guidance.
	(Coulson and Whiteman, 2012)	▪ LGO likely to use familiar evidence sources within their draft reports (mechanism: resources -dissemination approach)
	(Gains, 2009)	▪ Local bureaucratic elites have 2 sources of political authority – tension between 'supporting a locally strengthened executive in a context where central control of policy and performance is exercised' – requires negotiation about the interpretation of national priorities. (outcome – NICE needs to be part of the interpretation)

References

ADPH (2014) *English transition 2013 '6 months on' survey – summary results*. London: ADPH.
ADPH (2017) *Narrative on the UK Public Health System*. London: ADPH.
ADPH (2019) *The Association of Directors of Public Health ADPH System Survey 2019 Summary Report*. London: ADPH.
Allen, T. et al. (2015) *Making the most of research. Final Report of the ESRC Local Government Knowledge Navigator*. London: ESRC.
Allen, T. et al. (2014) *The role of Evidence and Research in Local Government*. London: ESRC.
Alliance for Useful Evidence (2014) *The nice way: lessons for social policy and practice from the National Institute for Health and Care Excellence*. London: Alliance for Useful Evidence.
Astbury, B. (2018) 'Making claims using realist methods', in Nick Emmel et al. (eds.) *Doing Realist Research*. 1st edition London: SAGE Publications Inc. pp. 59–77.
Astbury, B. & Leeuw, F. L. (2010) Unpacking Black Boxes: Mechanisms and Theory Building in Evaluation. *American Journal of Evaluation*. 31 (3), 363–381.
Atkins, L. et al. (2019) From the National Health Service to local government: perceptions of public health transition in England. *Public Health*. 174 (0), 11–17.
Atkins, L. (2014) *Personal correspondence*.
Atkins, L. et al. (2017) Reversing the pipeline? Implementing public health evidence-based guidance in english local government. *Implementation Science*. 12 (63), e1–e13.
Barrett, H. (2009) *Follow up work to support implementation of the NICE/ SCIE guidance on parenting programmes (CSDI)*. London: SCIE.
Baxter, S. & Killoran, M. P. (2010) Synthesizing diverse evidence : the use of primary qualitative data analysis methods and logic models in public health reviews. *Public Health*. 124 (2), 99–106.
Beenstock, J. et al. (2015) Are health and well-being strategies in England fit for purpose? A thematic content analysis. *Journal of Public Health*. 37 (3), 461–469.
Blue, S. et al. (2016) Theories of practice and public health: understanding (un)healthy practices. *Critical Public Health*. 26 (1), 36–50.
Boaz, A. et al. (2019a) 'Section one. Policy and practice as arenas for evidence', in Annette Boaz et al. (eds.) *What works now? Evidence-informed policy and practice*. Bristol: Policy Press. pp. 17–20.
Boaz, A. et al. (2019b) 'What works now? an introduction', in Annette Boaz et al. (eds.) *What works now? Evidence-informed policy and practice*. Bristol: Policy Press. pp. 1–16.
Boaz, A. & Nutley, S. (2019) 'Using evidence', in Annette Boaz et al. (eds.) *What works now? Evidence-informed policy and practice*. Bristol: Policy Press. pp. 251–284.
Booth, A. et al. (2018) 'Scoping and searching to support realist approaches', in Nick Emmel et al. (eds.) *Doing Realist Research*. SAGE Publications Inc. pp. 147–166.
Booth, A. et al. (2020) The "Realist Search": a systematic scoping review of current practice and reporting. *Research Synthesis Methods*. 11 (0), 14–35.
Booth, A. et al. (2013) Towards a methodology for cluster searching to provide conceptual and contextual 'richness' for systematic reviews of complex interventions: case study (CLUSTER). *BMC medical research methodology*. 13 (118), e1–e14.
Booth, A. & Carroll, C. (2015) Systematic searching for theory to inform systematic reviews: is it feasible? Is it desirable? *Health Information & Libraries Journal*. 32 (3), 220–235.
Boyd, A. & Coleman, A. (2011) Strategies used by Health Scrutiny Committees to Influence Decision-makers. *Local Government Studies*. 37 (3), 253–274.
Breckon, J. & Dodson, J. (2016) *Using Evidence: What Works: A discussion paper*. London: Alliance for Useful Evidence.
Brennan, C. et al. (2017) Guidance on guidelines: Understanding the evidence on the uptake of health care guidelines. *Journal of Evaluation in Clinical Practice*. 1 (12), e1–e12.
Buck, D. (2020) *The English local government public health reforms: an independent assessment*. London: The King's Fund.
Buck, D. & Gregory, S. (2013) *Improving the public's health: A resource for local authorities*. London: The King's Fund.
Cairney, P. (2019) 'Evidence and policy making', in Annette Boaz et al. (eds.) *What works now? Evidence-informed policy and practice*. Bristol: Policy Press. pp. 17–40.
Caplan, N. (1979) The Two-Communities Theory and Knowledge Utilization. *American Behavioral Scientist*. 22 (3), 459–470.
Carlsen, B. et al. (2007) Thou shalt versu thou shalt not: a meta-synthesis of GPs' attitudes to clinical practice guidelines. *British Journal of General Practice*. 57 (545), 971–978.
Case site 1 (2019a) *Health & Wellbeing Strategy 2019 -2022*.
Case site 1 (2019b) *Revenue Budget 2019-20 and Financial Plan 2019-20 to 2022-23*.
Case site 2 (2019) *Council Constitution*.

Case site 2 (2013) *Officer Scheme of Delegation*.
Case site 3 (2017) *Clean Air Strategy*.
Case site 3 (2018) *Local Development Plan Timetable*.
Case site 3 (2019) *The Leader's Scheme of Delegation of Executive Functions*.
Chalmers, I. et al. (1989) *Effective care in pregnancy and childbirth.* Oxford: Oxford University Press.
Cheetham, M. et al. (2018) Embedded research: a promising way to create evidence-informed impact in public health? *Journal of Public Health*. 40 (suppl_1), i64–i70.
Cheetham, M. et al. (2019) *Local Authority Champions of Research Project : A Report for the Health Foundation Study team*. Newcastle: FUSE.
Clifford, B. (2016) 'Clock-watching and box-ticking': British local authority planners, professionalism and performance targets. *Planning Practice and Research*. 31 (4), 383–401.
Cooke, J. & Hampshaw, S. (2015) *Integrating Knowledge into Practice: the CLAHRC YH experience* [online]. Available from: http://ssrg.org.uk/wp-content/uploads/2012/01/05-Hampshaw+cooke1.pdf (Accessed 4 April 2018).
Costandroipoulos, D. et al. (2009) Knowledge Exchange Process in Organisations and Policy Arenas: A Narrative Systematic Review of the Literature. *The Milbank Quarterly*. 87 (4), 842–862.
Coulson, A. & Whiteman, P. (2012) Holding politicians to account? Overview and scrutiny in English local government. *Public Money and Management*. 32 (3), 185–192.
Cunliffe, A. L. (2004) On Becoming a Critically Reflexive Practitioner. *Journal of Management Education*. 28 (4), 407–426.
Dahl, R. & Lindblom, C. (1953) *Politics, economics and welfare: planning and politico-economic systems, resolved into basic processes*. New York: Harper & Brothers.
Dalhlgren, G. & Whitehead, M. (1991) *Policies and strategies to promote social equity in health. Background document to WHO – Strategy paper for Europe*. Stockholm: Institute for Future Studies.
Dalkin, S. M. et al. (2015) What's in a mechanism? Development of a key concept in realist evaluation. *Implementation Science*. 10 (49), e1–e7.
Davidoff, F. et al. (2015) Demystifying theory and its use in improvement. *BMJ Quality & Safety*. 24 (3), 228–238.
Day, M. et al. (2014) Training public health superheroes: five talents for public health leadership. *Journal of Public Health*. 36 (4), 552–561.
Dhesi, S. & Stewart, J. (2015) The Developing Role of Evidence-Based Environmental Health: Perceptions, Experiences, and Understandings From the Front Line. *SAGE Open*. 5 (4), .
Eccles, M. P. & Mittman, B. S. (2006) Welcome to Implementation Science. *Implementation Science*. 1 (1), 1–3.
Emmel, N. (2015) *I'm not dancin, I'm zigzagging The metaphor of dance* [online]. Available from: https://realistmethods.files.wordpress.com/2015/03/im-not-dancing-im-zigzagging.pdf (Accessed 16 February 2016).
Emmel, N. (2013) *Sampling and choosing cases in Qualitative research - a realist approach*. London: SAGE Publications Inc.
Faculty of Public Health (2015) *Public Health Specialty Training Curriculum* [online]. Available from: www.fph.org.uk (Accessed 20 October 2019).
Fafard, P. (2015) Beyond the usual suspects: using political science to enhance public health policy making. *Journal of Epidemiology and Community Health*. 69 (11), 1129–1132.
Fox, N. J. (2011) Boundary Objects, Social Meanings and the Success of New Technologies. *Sociology*. 45 (1), 70–85.
Furber, A. (2017) *Andrew Furber : What is the role of public health in a modern democracy ?* [online]. Available from: https://blogs.bmj.com/bmj/2017/08/17/andrew-furber-what-is-the-role-of-public-health-in-a-modern-democracy/ (Accessed 12 September 2017).
Gadsby, E. W. et al. (2017) Commissioning for health improvement following the 2012 health and social care reforms in England: what has changed? *BMC Public Health*. 17 (211), e1–e11.
Gains, F. (2009) Narratives and dilemmas of local bureaucratic elites: Whitehall at the coal face? *Public Administration*. 87 (1), 50–64.
Gains, F. et al. (2005) Path dependency and the reform of English local government. *Public Administration*. 83 (1), 25–45.
Gains, F. et al. (2009) The Impact of Political Leadership on Organisational Performance: Evidence from English Urban Government. *Local Government Studies*. 35 (1), 75–94.
Gill-McLure, W. (2014) The politics of managerial reform in UK local government: a study of control, conflict and resistance 1880s to present. *Labor History*. 55 (3), 365–388.
Golding, C. (2017) Advice for writing a thesis (based on what examiners do). *Open Review of Educational Research*. 4 (1), 46–60.
Gopichandran, V. et al. (2016) Developing the ethics of implementation research in health. *Implementation Science*. 11 (161), e1–e13.
Gorsky, M. et al. (2014) Public health and English local government: Historical perspectives on the impact of 'returning home'. *Journal of Public Health*. 36 (4), 546–551.
Gough, D. et al. (2012) Clarifying differences between review designs and methods. *Systematic Reviews*. 1 (28), 1–9.

Graham, I. D. et al. (2006) Lost in Translation: Time for a Map? *Journal of Continuing Education in the Health Professions*. 2613–24.
Graham, I. D. & Tetroe, J. (2007) Some theoretical underpinnings of knowledge translation. *Acad Emerg Med*. 14 (11), 936–941.
Great Britain. Cabinet Office. (1999) *Modernising government: CM 4310*. London: The Stationery Office.
Great Britain. Cabinet Office. (2014) *What Works? evidence for decision makers*. London: The Stationery Office.
Great Britain. Communities and Local Government Committee. (2017) *House of Commons Communities and Local Government Committee Effectiveness of local authority overview and scrutiny committees First Report of Session 2017-19, HC 369*. London: The Stationery Office.
Great Britain. Department of Health (2012) *Directors of Public Health in Local Government i) Roles, responsibilities and context*. London: The Stationery Office.
Great Britain. Department of Health (2013) *Directors of Public Health in Local Government ii) Guidance on appointing directors of public health from 1 April 2013*. London: The Stationery Office.
Great Britain. Department of Health (2010) *Equity and excellence: Liberating the NHS, CM 7881*. London: The Stationery Office.
Great Britain. Department of Health (2016) *Government response to the House of Comons on Public Health Post 2013 (Second Report of Session 2016-17), CM 9378*. London: The Stationery Office.
Great Britain. Department of Health (2009) *Healthy Child Programme Pregnancy and the first five years of life*. London: The Stationery Office.
Great Britain. Department of Health (2011) *Public Health in Local Government. Factsheets*. London: The Stationery Office.
Great Britain. Department of Health (2015) *The Local Authorities (Public Health Functions and Entry to Premises by Local Healthwatch Representatives) and Local Authority (Public Health, Health and Wellbeing Boards and Health Scrutiny) (Amendment) Regulations 2015 , No,921*. London: The Stationery Office.
Great Britain. Department of Health (1989) *Working for Patients, CM 555*. London: The Stationery Office.
Great Britain. Department of Health and Social Security (1988) *Public Health in England: the Report of the Committee of Inquiry into the Future Development of the Public Health Function, Cm 289*. London: The Stationery Office.
Great Britain. HM Treasury (2018) *The Green Book. Central Government Guidance on Appraisal and Evaluation*. London: The Stationery Office.
Great Britain. House of Commons Health Committee (2001) *Health - Second Report; Session 2000-2001* [online]. Available from: https://publications.parliament.uk/pa/cm200001/cmselect/cmhealth/30/3008.htm (Accessed 6 November 2019).
Great Britain. House of Commons Health Committee (2016) *Public health post – 2013 (HC 140)*. London: The Stationery Office.
Great Britain. Minstry of Housing and Local Communities (2018) *Government Response to the Communities and Local Government Committee First Report of Session 2017-19 on the Effectiveness of Local Authority Overview and Scrutiny Committees, CM 9569* [online]. Available from: www.gov.uk/government/publications (Accessed 23 November 2019).
Great Britain. Minstry of Housing and Local Communities (2019a) *National Planning Policy Framework* [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810507/NPPF_Feb_2019_print_revised.pdf (Accessed 6 July 2019).
Great Britain. Minstry of Housing and Local Communities (2019b) *Statutory Guidance on Overview and Scrutiny in Local and Combined Authorities*. London: The Stationery Office.
Great Britain (2012) *Health and Social Care Act 2010, C7*. London: The Stationery Office.
Great Britain (1972) *Local Government Act 1972, C70*. London: The Stationery Office.
Great Britain (2000) *Local Government Act 2000, C22*. London: The Stationery Office.
Great Britain (1989) *Local Government and Housing Act 1989, C42*. London: The Stationery Office.
Great Britain (2007) *Local Government and Public Involvement in Health Act 2007 Local Government and Public Involvement in Health Act 2007, C28*. London: The Stationery Office.
Great Britain (2011) *Localism Act 2011, C2*. London: The Stationery Office.
Greenhalgh, J. (2016) *A realist synthesis of PROMS feedback to improve the care of individual patients* [online]. Available from: https://usheff.echo360.net/ess/echo/presentation/673be987-0d6d-4221-97b9-bbee758d4b67 (Accessed 12 April 2016).
Greenhalgh, J. et al. (2014) Functionality and feedback: a protocol for a realist synthesis of the collation, interpretation and utilisation of PROMs data to improve patient care. *BMJ Open*. 4 (7), e005601–e005601.
Greenhalgh, J. et al. (2017) Functionality and feedback: a realist synthesis of the collation, interpretation and utilisation of patient-reported outcome measures data to improve patient care. *Health Services and Delivery Research*. 5 (2), 1–280.
Greenhalgh, T. et al. (2015) Six 'biases' against patients and carers in evidence-based medicine. *BMC Medicine*. 13 (1), e1-11.
Greenhalgh, T. & Russel, J. (2009) Evidence-based policy making: A critique. *Perspectives in Biology and Medicine*. 52 (2), 304–318.

Greenhalgh, T. & Russell, J. (2009) Evidence-based policy making: A critique. *Perspectives in Biology and Medicine*. 52304–318.
Greenhalgh, T. & Wieringa, S. (2011) Is it time to drop the 'knowledge translation' metaphor? A critical review of the literature. *Journal of the Royal Society of Medicine*. 104 (1), 501–509.
Grimshaw, J. M. ; & Russell, I. T. (1993) Effects of clinical guidelines on medical practice: a systematic review of rigorous evalautions. *The Lancet*. 342 (8883), 1317–1322.
Grove, A. et al. (2019) A qualitative exploration of evidence-basded decision making in public health practice and policy: the perceived usefulness of a diabetes economic model for decision makers. *Evidence & Policy*. 15 (4), 461–488.
Guyatt, G. et al. (1992) Evidence-Based Medicine: A New Approach to Teaching the Practice of Medicine. *JAMA*. 268 (17), 2420–2425.
Guyatt, G. et al. (1995) Users' Guides to the Medical Literature: IX. A Method for Grading Health Care Recommendationsitle. *JAMA*. 274 (22), 1800–1804.
Hampshaw, S. (2016a) Guidance, guidance everywhere, but context makes you think; the use of NICE guidance in Local Government – a realist synthesis to identify and test enabling mechanisms which may support implementation. KU16 oral presentation
Hampshaw, S. (2016b) *Lightening rods and pitfalls: lessons arising from the development of a realistic evaluation of Well Doncaster (a Well North pilot site)* [online]. Available from: https://www.liverpool.ac.uk/media/livacuk/iphs/researchgroups/CARES,2016,Book,of,Abstracts.pdf (Accessed 11 January 2017).
Hampshaw, S. et al. (2016) *Phased out? on to-ing and fro-ing in a realist study of the use of NICE guidance in local government* [online]. Available from: https://www.liverpool.ac.uk/media/livacuk/iphs/researchgroups/CARES,2016,Book,of,Abstracts.pdf (Accessed 7 February 2017).
Hampshaw, S. (2015) *Using a retro-reflective metaphor (cats eyes) to illuminate & focus a realist synthesis on the use of NICE guidance in a local authority setting* [online]. Available from: https://www.youtube.com/watch?v=xcOriZhyMkY (Accessed 17 February 2017).
Hampshaw, S. et al. (2018) What is a research derived actionable tool, and what factors should be considered in their development? A Delphi study. *BMC health services research*. 18 (740), e1-10.
Hardern, R. D. & Hampshaw, S. (1997) What do accident and emergency medical staff think of practice guidelines? *European Journal of Emergency Medicine*. 4 (2), 68–71.
Hass, P. M. (1992) Introduction: Epistemic Communities and International Policy Coordination. *International Organisation*. 46 (1), 1–35.
Hasson, F. et al. (2000) Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing*. 32 (4), 1008–1015.
Hibble, A. et al. (1998) Information in practice Guidelines in general practice: the new Tower of Babel? *BMJ*. 317 (0), 862–863.
Howlett, M. & Migone, A. (2011) Charles Lindblom is alive and well and living in punctuated equilibrium land. *Policy and Society*. 30 (1), 53–62.
Hughes, T. et al. (1998) General hospital services for those who carry out deliberate self-harm. *Psychiatric Bulletin*. 22 (2), 88–91.
Humphries, R. (2013) Health and wellbeing boards: Policy and prospects. *Journal of Integrated Care*. 21 (1), 6–12.
Hunter, D. J. (2008) *Perspectives on joint director of public health appointments*. Durham: Durham University.
Hunter, D. J. (2016) 'Public health: Unchained or shackled?', in *Dismantling the NHS?: Evaluating the Impact of Health Reforms*. Durham: The Policy Press. pp. 191–210.
Hunter, D. J. et al. (2016) The potential value of priority-setting methods in public health investment decisions: qualitative findings from three English local authorities. *Critical Public Health*. 26 (5), 578–587.
Jackson, S. F. & Kolla, G. (2012) A New Realistic Evaluation Analysis Method: Linked Coding of Context, Mechanism, and Outcome Relationships . *American Journal of Evaluation* . 33 (3), 339–349.
Jagosh, J. (2017a) *Introduction to Realist Evaluation and Synthesis* [online]. Available from: https://www.youtube.com/watch?v=QrneOfFXzx0 (Accessed 12 March 2018).
Jagosh, J. (2019) Realist Synthesis for Public Health: Building an Ontologically Deep Understanding of How Programs Work, For Whom, and In Which Contexts. *Annual Review of Public Health*. 40 (1), 361–372.
Jagosh, J. (2017b) *The 'Context + Mechanism' Association: A key heuristic in Realist Evaluation for innovating complex programmes: webinar* [online]. Available from: https://www.youtube.com/watch?v=e5CgJJwzayl (Accessed 21 October 2017).
Jehu, L. M. et al. (2017) Directors of public health as 'a protected species': qualitative study of the changing role of public health professionals in England following the 2013 reforms. *Journal of Public Health*. 40 (3), e203–e210.
Jenkins, L. M. et al. (2016) Integration, influence and change in public health: findings from a survey of Directors of Public Health in England. *Journal of Public Health*. 38 (3), e201–e208.
John, P. (2014) The great Survivor: the persistence and resilience of english local government. *Local Government Studies*. 40 (5), 687–704.
Jünger, S. et al. (2017) Guidance on Conducting and REporting DElphi Studies (CREDES) in palliative care:

Recommendations based on a methodological systematic review. *Palliative Medicine*. 31 (8), 684–706.
Keeble, M. et al. (2019) How does local government use the planning system to regulate hot food takeaway outlets? A census of current practice in England using document review. *Health & Place*. 57171–178.
Keeney, S. et al. (2006) Consulting the oracle: ten lessons from using the Delphi technique in nursing research. *Journal of Advanced Nursing*. 53 (2), 205–212.
Kelly, M. et al. (2010) Evidence based public health: A review of the experience of the National Institute of Health and Clinical Excellence (NICE) of developing public health guidance in England. *Soc Sci Med*. 71 (6), 1056–1062.
Kelly, M. P. et al. (2009) A conceptual framework for public health: NICE's emerging approach. *Public Health*. 123 (1), e14–e20.
Kelly, M. P. (2015) *Personal correspondence*.
Kelly, M. P. (2014) *Personal correspondence*.
Kelly, M. P. P. et al. (2017) Evidence-based medicine meets democracy: the role of evidence-based public health guidelines in local government. *Journal of Public Health*. 39 (4), 678–684.
Kingsnorth, R. (2013) Partnerships for health and wellbeing Transferring public health responsibilities to Local Authorities. *Journal of Integrated Care*. 21 (2), 64–76.
Kisely, S. & Jones, J. (1997) Acheson revisited: public health medicine ten years after the Acheson Report. *Public Health*. 111 (6), 361–364.
Kislov, R. et al. (2019) Harnessing the power of theorising in implementation science. *Implementation Science*. 14 (103), e1–e8.
Kneale, D. et al. (2016) *A scoping review characterising the activities and landscape around implementing NICE guidance*. London: EPPi-Centre, Social Science Research Unit, UCL Institute of Education, University College London.
Kneale, D. et al. (2018) Exploring the importance of evidence in local health and wellbeing strategies. *Journal of Public Health*. 40 (Supplement 1), i13–i23.
Kneale, D. et al. (2019) Obstacles and opportunities to using research evidence in local public health decision-making in England. *Health Research Policy and Systems*. 17 (61), 1–11.
Kneale, D. et al. (2017) The use of evidence in English local public health decision-making: A systematic scoping review. *Implementation Science*. 12 (53), e1–e12.
Lambert, M. F. & Sowden, S. (2016) Revisiting the risks associated with health and healthcare reform in England: Perspective of Faculty of Public Health members. *Journal of Public Health (United Kingdom)*. 38 (4), e438–e445.
Lavis, J. N. et al. (2003) How Can Research Organizations More Effectively Transfer Research Knowledge to Decision Makers? *The Milbank Quarterly*. 81 (2), 221–248.
Leng, G. (2014) *The National Institute for Health and Care Excellence The NICE field team of implementation consultants Annual report 2013 / 14*. London: NICE.
Lewin, K. (1943) Psychology and the Process of Group Living. *The Journal of Social Psychology*. 17 (1), 113–131.
Light, D. W. (1988) The Changing Character of the Medical Profession: A Theoretical Overview. *The Milbank Quarterly*. 66 (S2), 10–32.
Lindblom, C. (1979) Still muddling, not yet through. *Public administration review*. 39 (6), 517–526.
Lindblom, C. E. (1959) The Science of 'Muddling Through'. *Public administration review*. 19 (2), 79–88.
Löblová, O. (2018) Epistemic communities and experts in health policy-making. *European Journal of Public Health*. 28 (suppl_3), 7–10.
Local Government Association (2019a) *An effective custodian of the public's health: A collection of essays on six years of public health in local government*. London: LGA.
Local Government Association (2017a) *Maintaining our momentum. Essays on four years of public health*. London: LGA.
Local Government Association (2014) *Public health in local government – one year on*. London: LGA.
Local Government Association (2017b) *Public health perceptions survey*. London: LGA.
Local Government Association (2018) *Public health transformation five years on*. London: LGA.
Local Government Association (2016) *Walk Tall. Being a 21st Century Public Servant*. London: LGA.
Local Government Association (2019b) *What is local government? | Local Government Association* [online]. Available from: https://www.local.gov.uk/about/what-local-government (Accessed 28 May 2019).
Long, A. F. et al. (2006) Assessing the Quality of Knowledge in Social Care: Exploring the Potential of a Set of Generic Standards. *British Journal of Social Work*. 36 (2), 207–226.
Lorenc, T. et al. (2014) Cultures of evidence across policy sectors: systematic review of qualitative evidence. *The European Journal of Public Health*. 24 (6), 1041–1047.
Mangan, C. et al. (2016) *The 21st Century Councillor*. Birmingham: University of Birmingham.
Manzano, A. (2016) The craft of interviewing in realist evaluation. *Evaluation*. 22 (3), 342–360.
Marks, L. et al. (2015) The return of public health to local government in England: Changing the parameters of the public health prioritization debate? *Public Health*. 129 (9), 1194–1203.
Marmot, M. G. (2004) Evidence based policy or policy based evidence? *BMJ*. 328 (7445), 906–907.
Maxwell, J. A. (2012) recommendation on RAMESES. *A realist approach to Qualitative Research*. First Edit. Los Angeles: Sage Publications Ltd.

McVeigh, J. et al. (2016) Promoting good policy for leadership and governance of health related rehabilitation: a realist synthesis. *Globalization and Health*. 12 (49), e1–e18.

Merton, R. K. (1967) *Social theory and social structure*. 1st edition. New York: Free Press.

Michie, S. (2014) *How are local authorities using evidence ? Recent findings from the PHiLA project*. London: University College London.

Michie, S. & Lester, K. (2005) Words matter: increasing the implementation of clinical guidelines. *Quality & Safety in Health Care*. 14 (5), 367–371.

Mortimer, J. (2014) *A Local Government Knowledge Navigator Evidence Review*. London: ESRC.

Mukumbang, F. C. et al. (2016) Realist evaluation of the antiretroviral treatment adherence club programme in selected primary healthcare facilities in the metropolitan area of Western Cape Province, South Africa: a study protocol. *BMJ Open*. 6 (0), e009977.

Mukumbang, F. C. et al. (2019) Using the reallist interview approach to maintain theoretical awareness in realist studies. *Qualitative Research*. 00 (0), e1–e31.

Mulligan, C. (2019) '*A focus on health: applying NICE guidance to a local authority led adult quality service provider framework*', in London: NICE. p.

Murphy, M. K. et al. (1998) Consensus development methods, and their use in clinical guideline development. *Health technology assessment*. 2 (3), i–iv, 1–88.

National Collaborating Centre for Methods and Tools (2012) *Lavis' framework for knowledge transfer* [online]. Available from: https://www.nccmt.ca/knowledge-repositories/search/119 (Accessed 1 March 2016).

National Evaluation Team (1999) *Health Action Zones: Learning to make a difference.* Kent: University of Kent.

Needham, C. et al. (2014) *The 21st Century Public Service Workforce : Eight Lessons from the Literature*. Birmingham: University of Birmingham.

Needham, C. & Mangan, C. (2014) *The 21 st Century Public Servant*. Birmingham: University of Birmingham.

NHS Health Research Authority (2013) *Defining research* [online]. Available from: www.screc.org.uk (Accessed 24 February 2019).

NICE (2017) *Air pollution: outdoor air quality and health, NG70*. London: NICE.

NICE (2007) *Atopic eczema in under 12s: diagnosis Atopic eczema in under 12s: diagnosis and management and management, CG57*. London: NICE.

NICE (2014a) *Behaviour change: individual approaches, PH49*. London: NICE.

NICE (2014b) *Contraceptive services for under 25s, PH51*. London: NICE.

NICE (2014c) *Managing medicines in care homes, SC1*. London: NICE.

NICE (2008) *Maternal and Child Nutrition, PH11*. London: NICE.

NICE (2014d) *Needle and syringe programmes, PH52*. London: NICE.

NICE (2016) *Oral health for adults in care homes al health for adults in care homes, NG48*. London: NICE.

NICE (2012) *Type 2 diabetes: prevention in people at high risk, PH38*. London: NICE.

NICE (2011) *Type 2 diabetes prevention : population and community-level interventions, PH35*. London: NICE.

NICE Implementation Consultant (2019) *Personal correspondence*.

NLGN (2018) *Rebalancing the Power* [online]. Available from: www.localtrust.org.uk (Accessed 8 June 2019).

Office of National Statistics (2018) *Public sector employment, UK : September 2018* [online]. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/publicsectorpersonnel/bulletins/publicsectoremployment/september2018 (Accessed 2 August 2019).

Okoli, C. & Pawloswski, S. (2004) The Delphi method as a research tool: an example, design considerations and applications. *Information & Management*. 42 (1), 15–29.

Oliver, K. et al. (2014) A systematic review of barriers to and facilitators of the use of evidence by policymakers. *BMC health services research*. 14 (1), 2.

Oliver, K. & de Vocht, F. (2017) Defining 'evidence' in public health: a survey of policymakers' uses and preferences. *European Journal of Public Health*. 27 (suppl_2), 112–117.

Pawson, R. (2002) Evidence-based policy: the promise of realist synthesis. *Evaluation*. 8 (3), 340–358.

Pawson, R. (2006) *Evidence-based Policy A realist perspective*. 1st edition. London: SAGE Publications Inc.

Pawson, R. (2019a) *Re: Appopriate scope for realist PhD. RAMESES Discussion list* [online]. Available from: https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind1901&L=RAMESES&P=26519 (Accessed 18 May 2019).

Pawson, R. (2019b) *Re: If/ Then because ?! RAMESES Discussion List* [online]. Available from: https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind1912&L=RAMESES&O=D&P=32802 (Accessed 4 January 2020).

Pawson, R. (2013) *The Science of Evaluation: A Realist Manifesto*. London: SAGE Publications Inc.

Pawson, R. et al. (2003) *Types and quality of knowledge in social care. Knowledge Review 3*. London: SCIE.

Pawson, R. & Manzano-Santaella, A. (2012) A realist diagnostic workshop. *Evaluation*. 18 (2), 176–191.

Pawson, R. & Tilley, N. (1997) *Realistic Evaluation*. London: Sage Publications Ltd.

Peckham, S. et al. (2017) Views of public health leaders in English local authorities–changing perspectives following the transfer of responsibilities from the National Health Service to local government. *Local Government Studies*. 43 (5), 842–863.

Perkins, N. & Hunter, D. J. (2014) Health and Wellbeing Boards: A new dawn for public health partnerships? *Journal of Integrated Care*. 22 (5/6), 220–229.

Phillips, G. & Green, J. (2015) Working for the public health: politics, localism and epistemologies of practice.

Sociology of Health & Illness. 37 (4), 491–505.
Pineault, R. et al. (2010) Conceptual and Methodological Challenges in Producing Research Syntheses for Decision-and Policy-Making: An Illustrative Case in Primary Healthcare. *Evaluation*. 16 (2), 137–152.
Powell-Hoyland, V. & Homer, C. (2015) *Evidence in local authorities: Y&H Public Health Survey and Health and Well Being Strategy Analysis*. Sheffield: Sheffield Hallam Univeristy.
Public Health England (2018a) *Best start in life and beyond: Improving public health outcomes for children, young people and families Guidance to support the commissioning of the Healthy Child Programme 0-19: Health visiting and school nursing services*. London: PHE.
Public Health England (2016a) *Commissioning infant feeding services: a toolkit for local authorities (Part 2)*. London: PHE.
Public Health England (2018b) *Framework agreement between DHSC and PHE*. London: PHE.
Public Health England (2018c) *Local Authority Health Profile 2018*. London: PHE.
Public Health England (2016b) *User Guide [version 1] For the Public Health Skills and Knowledge Framework (PHSKF)*. London: PHE.
Public Health England & Association of Directors of Public Health (2016) *Guidance on the Ringfenced Public Health Grant Conditions and Mandated Functions in England*. London: PHE.
Puttick, R. (2012) *Why we need to create a ' NICE'' for Social Policy ''*. London: NESTA.
Rainey, C. et al. (2015) *Research capacity, knowledge, skills and use in Councils with Adult Social Care Responsibilties. Findings from an online survey of research active Local Government staff*. London: LSE.
Rankin, B. et al. (2017) *Public health specialist capacity-findings*. London: Health Education England.
Renvoize, E. et al. (1996) Clinical guidelines. Guidelines and brownie points. *The Health service journal*. 106 (5516), 31–33.
Renvoize, E. et al. (1997) What are hospitals doing about clinical guidelines? *Quality in Health Care*. 6 (4), 187–191.
Robson, C. (2002) *Real World Research*. 2nd edition. Oxford: Blackwell Publishing Inc.
Rycroft-Malone, J. et al. (2015) Collective action for knowledge mobilisation: a realist evaluation of the Collaborations for Leadership in Applied Health Research and Care. Health Services and Delivery Research 3 (44).
Sackett, D. L. et al. (1996) Evidence based medicine: what it is and what it isn't. *British Medical Journal*. 312 (7023), 71–72.
Salter, K. L. & Kothari, A. (2014) Using realist evaluation to open the black box of knowledge translation: a state-of-the-art review. *Implementation Science*. 9 (115), e1–e14.
Sanders, T. et al. (2017) Incorporation of a health economic modelling tool into public health commissioning: Evidence use in a politicised context. *Social Science and Medicine*. 186 (0), 122–129.
Sanders, T. (2016) *What counts as Evidence in the Public Health Commissioning Context of Local Authorities: 'mindlines' and Knowledge Use in Context*. Sheffield: The University of Sheffield.
Sandford, M. (2016) *Overview and Scrutiny in Local Government* [online]. Available from: http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06520#fullreport (Accessed 22 July 2019).
Sayer, A. (2000) 'Key Features of Critical Realism in Practice: A Brief Outline', in *Realism and Social Science*. SAGE Publications Inc. pp. 11–27.
Shaw, C. D. & Costain, D. W. (1989) Guidelines for medical audit: seven principles. *BMJ*. 299 (6697), 498–499.
Shearn, K. et al. (2017) Building Realist Program Theory for Large Complex and Messy Interventions. *International Journal of Qualitative Methods*. 16 (0), e1–e11.
Shekelle, P. G. et al. (1999) Clinical guidelines Developing guidelines. *BMJ*. 318 (0), 593–596.
Sillett, J. (2014) *Changing to a committee system in a new era*. London: Local Government Information Unit.
Smith, K. E. et al. (2016) *Health Inequalties : critical perspectives*. first. Oxford: Oxford University Press.
Smith, R. & Rennie, D. (2014) Evidence based medicine — an oral history Provides the background to one of modern medicine ' s greatest intellectual achievements. *BMJ*. 371 (January), 1–3.
South, J. et al. (2014) *What local goverment needs to know about public health*. London: ESRC.
Spencer, J. (2003) ABC of learning and teaching in medicine Learning and teaching in the clinical environment. *BMJ*. 326 (7389), 591–594.
The RAMESES Project (2013a) *Quality standards for realist synthesis (for researchers and peer-reviewers)* [online]. Available from: http://www.ramesesproject.org/media/RS_qual_standards_researchers.pdf%0Ahttp://www.ramesesproject.org/ (Accessed 9 November 2019).
The RAMESES Project (2013b) *Realist Synthesis Rameses Training Materials* [online]. Available from: https://www.ramesesproject.org/media/Realist_reviews_training_materials.pdf (Accessed 25 January 2016).
Thornton-Jones, H. et al. (2002) Evidence, policy making and the art of the possible: a methodology applied to screening. *Journal of Clinical Excellence*. 4 (0), 9–16.
Thornton-Jones, H. & Hampshaw, S. (2003) Adherence to guidelines as a performance measure; it's an indicator Jim but not as we know it (oral presentation). 20th International Conference of the International Society for Quality in Healthcare. Dallas
Thornton-Jones, H. & Hampshaw, S. (2002) Guidance, guidance everywhere and never time to think (oral

presentation). 19th International Conference of the International Society for Quality in Healthcare. Paris
Tilley, N. (1993) *Understanding car parks. Crime and CCTV: evaluation lessons from safer cities* [online]. Available from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.518.3703&rep=rep1&type=pdf (Accessed 22 July 2015).
Timm, A. (2013) *The demise of the firm-What is happening to apprenticeship learning? Report on a medical education research project conducted in 2009*. Southampton: University of Southampton.
Timmins, N. (2012) *Never again? The story of the Health and Social Care Act 2012*. London: The King's Fund, Institute for Government.
Tomlinson, P. et al. (2013) Joining up health and planning: how Joint Strategic Needs Assessment (JSNA) can inform health and wellbeing strategies and spatial planning. *Perspectives in Public Health*. 133 (5), 254–262.
Tyner, E. et al. (2013) Cultures of evidence among decision makers in non-health sectors: systematic review of qualitative evidence. *The Lancet*. 382 (0), 98.
Van Urk, F. et al. (2015) Involving stakeholders in programme theory specification: discussion of a systematic, consensus-based approach. *Evidence & Policy*. 12 (4), 541–557.
Weiss, C. H. (1979) The Many Meanings of Research Utilization. *Public Administration Review*. 39 (5), 426–431.
Wesselink, A. & Gouldson, A. (2014) Pathways to impact in local government: the mini-Stern review as evidence in policy making in the Leeds City Region. *Policy Sciences*. 47 (4), 403–424.
Westhorp, G. (2013) Developing complexity-consistent theory in a realist investigation. *Evaluation*. 19 (4), 364–382.
Westhorp, G. (2014) *Realist Impact Evalaution: An Introduction*. London: Overseas Development Institute, Australian Department of Foreign Affairs and Trade, Better Evaluation.
Wight, J. P. (2016) Huge potential from putting public health into local government is being lost in the implementation. *BMJ (Online)*. 353e1.
Wilkinson, R. & Pickett, K. (2009) *The Spirit Level Why More Equal Societies Almost Always Do Better*. London: Penguin Books.
Williams, L. et al. (2016) Bringing critical realism to nursing practice: Roy Bhaskar's contribution. *Nursing Philosophy*. 18 (2), e1–e11.
Willmott, M. et al. (2016) Making the case for investment in public health: Experiences of Directors of Public Health in English local government. *Journal of Public Health (United Kingdom)*. 38 (2), 237–242.
Wilson, P. & Sheldon, T. A. (2019) 'Using evidence in health and healthcare', in Annette Boaz et al. (eds.) *What works now? Evidence-informed policy and practice*. Bristol: Policy Press. pp. 61–88.
Wolcott, H. F. (2001) *Writing up qualitative research*. 2nd edition. London: SAGE Publications Inc.
Wong, G. et al. (2012) Realist methods in medical education research: what are they and what can they contribute? *Medical education*. 46 (1), 89–96.
Wong G, et al. (2013) RAMESES publication standards: realist syntheses. BMC medicine 11 (21) p.1741–7015.
Woolf, S. H. et al. (1999) Clinical guidelines Potential benefits, limitations, and harms of clinical guidelines. *BMJ*. 318 (7182), 528–530.
Yin, R. (2014) *Case Study Research; Design and Methods*. 5th edition. Los Angeles: SAGE Publications Inc.