

Multi-sectoral perspectives on integrated food policy with reference to food environment change through urban planning and land use - case studies from the English West Midlands.

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Abstract

This study explores multi-sectoral perspectives on integrated food policy, with reference to food environment change through planning and land use. It takes a case study approach, focused on three metropolitan boroughs in the English West Midlands – Sandwell, Dudley and Solihull, with insight from in depth interviews and documentary evidence. In so doing it has addressed some gaps noted in urban food planning literatures - that in conditions of complexity, greater understanding is needed of nuances behind integrated policy making, and particularly on the views and motivations of actors, including planners and public health, towards achieving food environment change. The research draws on wide academic, practice and conceptual literatures with focus on integrated policy making, systems thinking, determinants of health models, and across the intersections of urban food policy, public health and healthy planning.

The research reveals that integrated policy making processes are inherently messy, complex and dynamic, vulnerable to change and unintended consequences. It suggests that although there may be willingness, interest, political support and policy alignment for integrated upstream action on food environments, the ability and momentum to see this through to tangible or land use change is often lost. Actors revealed varied understanding, definitions and concepts in use around - food environments, food systems, and structural vs. individual factors - indicating clarity and skills development within food policy groups would help illuminate responsibilities and pathways to change. In addition, long time frames and complexity of underlying factors on the ground can mean failure to recognise, track and connect the dots across change, time, process and levels. Knowledge transfer is key to protection of legacy vulnerable to change and loss, along with distribution of leadership and responsibilities across "constellations" of actors across all levels of the system.

Findings reveal significant "dis-integrating" factors, including systems "blind spots"; powerful influence of hidden actors, impact of austerity and change and tensions within the policy making process. Without making this overt, there may be a tendency to fall back on "talismanic" symbols of food environment, at the expense of addressing real levers change. In addition, differential overt and covert presence, dynamic tensions and roles of actors involved in policy for food environment change was suggested in a development of Lang's Food Policy "triangle". Findings suggest that within these local authority settings, closer alignment between planners, public health and food policy actors is needed to enact broader systems approaches. Understanding and working within systems approach is emerging but nascent – development of systems skills, knowledge and progress is supported by integrated work through joint policy making groups, grounded learning and risk taking. Embedding food within "healthy public policy" and healthy planning might provide greater opportunity for integrated action beyond dedicated food policy focus – offering a pivotal vehicle for addressing some of the spatial and structural levers of food environment change. Focus on histories of places where food policy may be dormant, "failing" or no longer visible can bring valuable insight into policy making within "ordinary settings".

Key words: urban food policy, healthy public policy, healthy planning, integrated policy, land use planning, food environment, systems, determinants of health.

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Declaration

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Any remaining errors are my responsibility.

List of Abbreviations

AESOP	Association of Schools of European Planning
APA	American Planning Association
BAME	Black and Minority Ethnic
CCG	Clinical Commissioning Group
DPH	Director of Public Health
DMBC	Dudley Metropolitan Borough Council
FAO	Food and Agriculture Organisation
HFT	Hot food takeaway
HIA	Health Impact Assessment
HiAP	Health in All Policies
HWBB	Health and Wellbeing Board
JSNA	Joint Strategic Needs Assessment
JHWBS	Joint Health and Wellbeing Strategy
LSOA	Lower Super Output Area
NCPT	Natural Capital Planning Tool
NHS	National Health Service
NPPF	National Planning Policy Framework
PCT	Primary Care Trust
PH	Public Health
PHE	Public Health England (N.B. replaced in 2021 by UK Health Security Agency and Office for Health Improvement and Disparities)
RTPI	Royal Town Planning Institute
SAMBC	Sandwell Metropolitan Borough Council
SHUDU	Sandwell Healthy Urban Development Unit
SLOAP	Space Left Over After Planning
SMBC	Solihull Metropolitan Borough Council
ТСРА	Town and Country Planning Association
U.N.	United Nations
WHO	World Health Organisation

Chapter One: Introduction

1.1. Introduction

This chapter sets out the broad context for this research, outlining some of the key concerns driving the rise of urban food planning, as well as introducing some of the main actors and concepts within this field. It briefly introduces background, highlights gaps in knowledge and understanding before describing the subject and scope of the research. The final section gives a breakdown of thesis structure as a guide to the work.

1.2. Context

Food policy is simply "a plan or course of action" involving food. It is enacted at different scales and involves "decisions that impact the ways that people produce, obtain, consume and dispose of their food" (Lang et al., 2009:66). Food policy decisions are made at international, national, regional and local levels - a complex process involving multiple sectors within and between state, civil society and food supply actors (MacRae, 1999; Mansfield and Mendes, 2013; Sonnino et al., 2019). It is important to highlight the roles and perspectives of different actors in order to identify nuances of policy making and how this "shapes who eats what, when and how; and of whether people ... eat and with what consequences" (Lang et al., 2009:21). Many drivers for change within food policy have come from "local" or "bottom up" food initiatives, through alternative food networks (AFN) and grassroots civil society activity. However, urban food policy in the "global north" is increasingly being shaped at different spatial scales, with local governments taking action, often in part, in response to weak central government food policy leadership. This level of local government action embraces multiple players, including public health, urban and economic planners and civil society (Hawkes and Halliday, 2017; Hinrichs, 2003; Morgan 2015; MUFPP, 2015; Roep and Wiskerke, 2012; WHO, 2013a; Smith et al., 2016). In the "global north"¹ including developed nations, Australia and New Zealand, inter-sectoral action and inter-disciplinary approaches are emphasised as ways to create a more sustainable and healthy food system and tackle these emerging cross-cutting complex challenges (APA, 2007; Jebb, 2012; Koc et al., 2008; Lang, 2005; Lang and Barling, 2012; Lang and Ingram, 2013; Seed et al., 2013; Sonnino et al., 2019). MacRae and Winfield (2016: 141) argue that a "coherent and comprehensive policy environment that links food system function and behaviour" is needed to promote both human health and environmental sustainability.

¹ <u>https://dictionary.cambridge.org/us/dictionary/english/global-north</u> "group of countries in Europe, North America and developed parts of Asia"

A number of concerns have arisen to drive this interest and focus on urban food planning. The increasing burden of non-communicable diseases (NCD) both in the global north and south is a focus of public health, seen as underpinning the major causes of death and ill health. Low intake of fruit and vegetables is now recognised as one of the top ten selected risk factors for global mortality (Hawkes, 2012; WHO, 2002, 2004, 2013a, 2016; Wang et al, 2014b; WCRF and NCD, 2014). The dualities of poor consumption patterns, under and over-nutrition, can be clearly seen. In England, obesity, a major contributor to ill health, has been steadily on the increase in the last few decades, with over two thirds of adults above a healthy weight in 2020, at an estimated annual cost of £6.1 billion to the NHS (Butland et al., 2007; DHSC, 2020). U.K. food insecurity and reliance on emergency food provision have also increased, driven by underlying inequalities, and socio-economic factors, with related impacts on diet and health (Dowler and O'Connor, 2012; Lambie-Mumford, 2017; Lambie-Mumford and Silvasti, 2020; Taylor-Robinson et al., 2013). Wider concerns focus on impacts on health and resilience from potential shocks to food supply. Emerging climate emergency and political upheavals have brought fragility of food supply to light; currently all the more clear in U.K. in 2022, as it grapples with impact of COVID-19, cost of living crisis, war in Ukraine and supply chain adjustments following "Brexit" (Adams, 2021; Lang, 2019, 2022; Loopstra, 2020; Middleton, 2008b; U.K. Met. Office and World Food Programme, 2021; Swinburn et al., 2019). There is also increasing recognition that food environments in which people make their food choices, characterised by exposure to unhealthy high-calorie, high-fat products, have a negative impact on health (Defra, 2016; Maguire et al., 2015; Saunders et al., 2015).

Together, urban food policy and its impact on health can be described as an example of what Rittel and Webber (1973) described as a "wicked problem". As such it represents a problem that is complex, difficult to frame and understand, subject to different viewpoints and not possible to solve through linear approaches (Rittel and Webber, 1973; Plamondon and Pemberton, 2019). The combined concerns of health, climate, food safety and security raise questions for the many actors involved in developing and delivering urban food policy. This has led them to explore how routes to improve environments for healthy food choices can be supported through collaborative inter-sectoral activity (Lang et al., 2009; Marsden and Morley, 2014). Since the 1990s food policy, processes, activity and impact are increasingly depicted as a complex, interconnected "food system" that should be seen as a whole (activities and outcomes involved in the pathway from production to consumption). This view takes policy focus of food beyond issues of individual choice and behaviour to broader factors across production to consumption - including supply, quality, price and consumption and impact on human and ecological health (APA, 2007; Ericksen, 2008a; Neff et al., 2009;

Pothukuchi and Kaufman, 2000; Swinburn et al., 2019). "Socio-ecological" approaches also inform action, identifying the pathways to food choice and illuminating underlying wider determinants of health (Glanz et al., 2005). Whilst these approaches require recognition of the multiple influences on outcomes around food, in practice there are many challenges to achieving integrated action in real- world settings (Orme et al., 2010). Despite growing prominence in recent years, many food policy initiatives have been driven principally at the level of civil society, with local governments slow to endorse strategic, joined-up action on food (Cohen and Ilieva, 2021; Hammelman et al., 2020; Ilieva, 2016). Much activity remains fragmented, siloed or focused on "downstream" individual-level change at a local or project level, such as nutrition-based interventions (Cohen and Ilieva, 2021; Parsons, 2020).

One area of exploration which can shed light on the way "integrated policy making for food environment change" is understood in urban settings is through examination of the intersection between urban food planning, public health and urban planning. Whilst, until recently, food was seen as a "stranger" to planning, there is now evidence that cities across the global north are recognising the place of food within the urban fabric and its impact on health and wellbeing (Pothukuchi and Kaufman, 2000; Raja et al., 2008a; Ilieva, 2016; Cabannes and Marcocchino, 2018). A recent focus on underlying environmental factors has brought attention to the ways in which planning and land use can support public health and others to tackle issues "upstream" to create healthier, more supportive and sustainable food environments (Mui et al., 2018). There is room for better working relationships between a range of disciplines to influence the place of food within the planned and managed fabric of cities, as part of population health and prevention interventions. Practically, approaches through planning and land use have encompassed attempts to regulate unhealthy food environments and promote healthy foods. This has been realised through regulatory and other planning policy measures to restrict unhealthy food outlets, alongside initiatives to promote healthier retail, encourage urban agriculture and food growing. Taken together these approaches can, through planning for the design, management and use of urban space, create environments that support healthier food choices (Ilieva, 2016, 2021; PHE, 2014; Ross and Chang, 2014).

Recent literature and rapidly emerging policy development on the ground, has begun to give more understanding of how food can be integrated into the urban fabric through planning and health at city level, illuminating the players, tools, governance and conceptual approaches used in order to achieve increasing coherence and integration (Cabannes and Marocchino, 2018; Food Trails, 2022; Ilieva 2021; Mandala Consortium, 2022; MUFPP, 2015; RUAF, 2021). However, there is still progress to be made, in acknowledging the rhetoric of food policy aspiration and translating this into practice, along with understanding

the barriers and opportunities to institutionalise food planning (Cabannes and Marocchino, 2018; Carmichael et al., 2019; Ilieva, 2016, 2021; Lake et al., 2017; Morgan, 2015; Mui et al., 2018; Pothukuchi, 2019; Shill et al., 2012). Whilst much literature focuses on aspiration and on the ground interventions, there is a gap in understanding the underlying policy-making processes, supporting conditions, multi-sectoral perspectives, and motivations that take place behind the scenes. There is a need for more understanding of how aspiration translates into application, and how interpretation of food policy aims are realised on the ground. In addition, relatively little is known about the role and viewpoints of public health, planners and others in working together for food systems planning (Mui et al., 2018; PHE, 2017b, c; 2020; Raja et al., 2008a).

1.3. Subject and scope of this research

This research took place between 2015 and 2017. Now, in 2022, the evidence of food system fragility and complexity is increasingly apparent, and with it growing awareness and focus on the critical need for joined up action. Much progress has been made in the development and understanding of integrated urban food policy since the time of research, and the issues and challenges are becoming both more visible and understood (Cabannes and Marocchino, 2018; Food Trails, 2022; Ilieva 2021; Mandala Consortium, 2022; MUFPP, 2015; RUAF, 2021). It is against this backdrop that this research sits; setting out to give deeper understanding of multi- sectoral perspectives on integrated food policy towards food environment change. The primary focus is placed on examining aspects of integrated work towards "upstream" action on urban food environments, through planning and land use. The research is still relevant in giving insight into some of the challenges behind issues faced today.

The work takes place through detailed investigation of food policy making within three metropolitan boroughs in the English West Midlands: Solihull, Sandwell and Dudley. Taking an exploratory case study approach, the research, uses documentary investigation and semi-structured interviews conducted between 2015 and 2017. It also provides historical insight into the origins of food policy development and related actions in preceding decades, to provide a richer context and deeper understanding.

The aims and objectives of the research are:

"To explore multi-sectoral perspectives on integrated food policy with reference to food environment change through urban planning and land use"

Objectives

To examine development of integrated food policy and the factors which have led to the emergence of understanding of the links between food, public health, planning and land use.

To examine contextual factors, barriers, facilitators for integrated food policy with reference to food environment change through planning and land use.

To identify policies and practices at a local level which have considered links between food and planning for food environment change.

To draw lessons for policy and practice for implementing integrated food policy and food environment change through planning and land use.

Through providing a rich and detailed exploration of perspectives of the actors, including of public health workers and planners, it hopes to contribute to knowledge and help address the gap in understanding of integrated policy-making processes in urban food planning. The work draws on concepts from social and health policy literatures, along with an investigation of systems perspectives. Whilst acknowledging their value, it does not focus on food policy aspirations for "downstream" individual behaviour change approaches or specific projects. It also does not set out to understand effectiveness of policy approaches, implementation, or their ability to achieve an end result.

1.4. Thesis structure

The introduction so far has provided a brief overview of the context and concerns of this research, as well as introducing the scope and subject of study. The next section outlines the thesis structure.

Chapters 2 and 3 explore the key intersections within urban food planning, public health and planning practice literatures, with a focus on integrated activity to create healthier food environments.

The first section (Chapter 2) sets the scene by examining definitions of healthy food and food environment influences on food choice, before exploring the underlying evidence for links between food environment and health. It then reviews some of the practical environmental interventions that have sought to address food and health within the fabric of the city, where planning and land use have a part to play.

The second section (Chapter 3) explores the actors and arenas in which these interventions are enacted and integrated policy making takes place. It draws on literatures from three sources: urban food planning, public health and land use planning, and the interface at which they consider food environments and health. It concludes with highlighting some of the constraints to integrated work.

Chapter 4 explores the "higher level" concepts underpinning and informing this work and the approaches described in the literature, in Chapters 2 and 3. It reviews approaches to public health and understanding of determinants of health, including definitions of "upstream" and

"downstream" approaches, and "socio-ecological" concepts. It then explores emerging "systems" concepts used across public health, food policy and planning. The second section examines concepts behind policy making, drawing on social and health policy literatures.

Chapter 5 outlines the methodological approach in the research, which is a qualitative, exploratory case study approach. Research aims and objectives are revisited, and the specific methods chosen for data collection and analysis explained.

Chapter 6 sets out the background to the three case studies, giving an overview of the context and settings in which the research took place, including geographical, social, economic and political factors.

Research findings are laid out in chapters 7 - 10. First, **Chapter 7** presents the results of initial case study review, using evidence gathered from policy and documentary analysis, to provide a timeline and an overview of the development of urban food policy with reference to food environment changes. It also identifies the key actors and vehicles for integrated governance, including public health, planners and civil society.

Chapters 8, 9, and 10 present three core themes that emerged from the narratives of the 58 people who took part in in-depth interviews. This gives their views on engagement in integrated food policy work, and emerging understanding of realisation of food environment change.

Chapter 8 critically reviews the motivations behind and framing of food policy in the case study areas and explores how upstream food environment change comes into focus through integrated food policy groups. **Chapter 9** explores the "integrating" factors supporting use of practical pathways, mechanisms and opportunities to realise food policy aspiration for food environment change, with particular focus on planning and land use. **Chapter 10** focuses on the "dis-integrating" and contradictory factors that undermine integrated approaches to upstream food environment change.

Chapter 11 provides the main discussion, drawing on the results and main themes presented in both literature and research. It examines the findings in the light of the broader literature, and explores how they support, refute or contribute knowledge to academic research.

The concluding **Chapter 12** briefly presents a summary of conclusions, as well as highlighting pointers for policy and practice. It also provides final reflections on the methodology, gaps and weaknesses, contribution and limitations of this study.

Chapter 2: Exploring food Environments

2.1. Introduction

Building on the context and driving factors outlined in the introduction, this chapter explores the literature which sets the scene for consideration of healthy food environments. It firstly explores definitions, concepts and tools used to understand food environments. It then reviews current understanding of influences of food environments, and their impact on both health and food choice. It moves on to explore some practical approaches taken through urban planning and land use to support interventions in the food environment, including through retail intervention and urban agriculture, and restricting unhealthy food through use of planning levers.

2.2. Setting the scene for consideration of healthy food environments

2.2.1 Understanding the food environment – definitions, concepts and tools

Consideration of interventions to address environmental influences of food choice has brought focus onto what constitutes a *healthy food environment*. Broad definitions of 'healthy" and "unhealthy" food in use in academic literature and food policy encapsulate nutrition-based criteria and dietary guidelines, through views about under- and over-nutrition, "food security", equity and environmental impact (Dowler and O'Connor, 2012; Dowler and Lambie-Mumford, 2015 a, b; Lang and Barling, 2012; Mason and Lang, 2017; Pollan, 2009; Swinburn et al., 2019; WHO, 2013a). Food security, including access and affordability, is the essential foundation to good health and nutrition. Anderson (1990: 1560), highlighted the way in which food underpins not only physical health, but the ability to participate in social life with dignity, including the "ability to acquire acceptable foods in socially acceptable ways". The 1996 World Food Summit definition of food security, adopted in the Rome Declaration, asserted that "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO, 1996: Para 1). More recently, a growing concern for "healthy and sustainable" diet has broadened the interpretation of health to include consideration of ecological, planetary and human health, encapsulated in the

processes and impacts of production and consumption throughout the food system (Mason and Lang, 2017; Swinburn et al., 2019; U.N., 2015; Willett et al, 2019).

Establishing the parameters, influences and scale is an important starting point to understanding entry points for interventions aimed at supporting healthier food environments. Defining the food environment and arena in which food choices are made can be difficult, with a broad range of concepts and measures in use, across scales and disciplines. Challenges to evidence on links between health and place by academics and policy makers, include questions of heterogeneity of methods, measures, and reliability of data. These factors can lead to difficulty in assessing aspects of the environment, links to food choice and health outcomes, and comparisons across scale, setting and country (Burgoine, 2010; Casey et al., 2014; Feng et al., 2010; Lake et al., 2010; Pomerleau et al., 2013). Methods used in defining the food environment and influences on food choice vary in scale and approach from qualitative perceptual measures, such as customer interviews, to quantitative studies such as shopping basket surveys, spatial access to healthy and unhealthy foods, distance from and distribution of food shops. Data originates from sources including GIS, spatial mapping (Black et al., 2011), consumer and census data (Morland et al., 2002a), food basket and cost (Breyer and Voss Andreae, 2013) population health studies (Currie et al. 2009, 2010), ordinance survey and business directories (Burgoine and Harrison, 2013). A variety of scales is explored from small neighbourhood (Donkin et al., 2000a) to state- and population-wide studies (Currie et al., 2009, 2010; Pearce et al., 2007).

2.2.2 Using a socio-ecological perspective to describe pathways to food

Glanz et al. (2005) offer a socio-ecological model to explore the impact and scope of environmental factors on food choice and highlight the different points of food access. They develop the concept of *nutrition environment* as influenced not only by individual and behavioural variables, but also the wider physical and policy environment. In identifying four areas of influence - *community, consumer, organisational* and *informational nutrition environments* - they tease apart factors influencing individual dietary behaviour and choice. This includes the exploration of possible interventions to influence the community nutrition environment, which includes the "number, type, location and accessibility of food outlets" in the community, both of relevance to urban planning policy and public health (Glanz et al., 2005:331). This could include consideration of fast-food outlets, and grocery shops, as well as issues of cost, and availability of healthy foods, such as fresh fruit and vegetables. This work has been widely cited and influential in helping frame points of policy intervention across environmental and behavioural levels and for policy makers to understand the complexities of influences on food choice. Townshend and Lake (2009:910) likewise describe the food environment or "foodscape" as "any opportunity to obtain food", again distinguishing between "physical, socio-cultural, economic and policy factors at both micro and macro-level" (see also: Lake and Townshend, 2006; Lake et al., 2010). Cummins and Macintyre (2006) also conceptualise pathways to food, and significantly this includes consideration of both food for consumption within the home, and that consumed out of home. Story et al. (2008) developed an ecological framework across individual, social, physical and macro level environments to show the multiple influences on individual dietary behaviour, health and nutrition. Again, here, the physical environment encompasses where people buy or consume food, and present opportunities or barriers to healthy eating.

2.2.3. Examining food and place

Some scholars have taken a spatial or place-based view to describe the urban food environment. Analysis and nomenclature of city food supply systems, "urban food sheds" or "foodscapes" for example, provide descriptions and analysis of flow of food into cities including interactions with surrounding rural agricultural areas (Ilieva, 2016; Quaglia and Geissler, 2018; Zasada et al., 2019). Some posit "conventional" food systems spanning global networks, responding to the increasing globalisation of trade in the past half-century, in contrast to a "community food system" characterised by a more local, place-based focus (Raja et al., 2008a:3). Here, concepts of "local food" emerge as interest in community and social justice, sustainability and shortened supply chains emerge, influencing the creation of "alternative food networks" (Goodman et al., 2012; Kneafsey et al., 2008). Urban agriculture initiatives, for example, which tend to be small in scale and supply local consumers, have been argued as embodying "food sovereignty", engaging people at a local level in a "public culture of democracy" with what is seen as more equitable, just and sustainable food systems rooted in place (Block et al., 2012; Kirwan and Maye, 2013; Renting et al., 2012; Roep and Wiskerke, 2010). Some have criticised attention to local food, noting it has limited impact on the conventional food system aside from reflecting individualised responses to underlying anxieties of consumers (Holloway and Kneafsey, 2000; Kneafsey et al., 2008, Kneafsey et al., 2013). Others challenge claims that it is an alternative to the dominant food regime (Anderson et al., 2014; Guthman, 2008; Harris, 2009). Born and Purcell (2006) highlight pitfalls of a localism emphasis as a "local trap", and along with others argue that "local" needs to be seen alongside global systems, with knowledge exchange and solutions across different scales if food security is to be achieved (Evans et al., 2013; Flint and Taylor, 2007; Hinrichs, 2003; Koc et al., 1999, Lang et al., 2009; Sonnino, 2009).

2.2.4. Access to healthy food

Other ways of describing spatial and physical food access factors have also been developed, again putting the focus on place. The term "food desert" came into use in the U.K. in the 1990s to describe areas of poor physical access to healthy foods and healthy food retail, for example distance travelled, distance to shops (Beaumont et al., 1995; Cummins and Macintyre, 2002, 2006; Wrigley et al., 2003, 2004). Since then, some have questioned the concept of food deserts, and a more critical and nuanced understanding has developed. This considers the wider cultural, economic, social, temporal and political factors influencing consumer choice and behaviour (Breyer and Voss-Andreae, 2013; Coveney and O'Dwyer, 2009; Cummins et al., 2007; Ghosh-Dastidar et al., 2014, 2017; Reese, 2019; Weatherspoon et al., 2015). Cummins et al. (2007:1827) argue that much research on health and place has relied on conventional Euclidian concepts of space, based on a static understanding of the interaction between people and place. Using food and diet as an example, they explore a "relational" view of place, incorporating influence at multiple scales, networked relationships, with dynamic and fluid interaction across time and space.

2.2.5 Temporal, cultural and other factors behind food choice

Understanding the complexity of context and consumer perceptions and landscape of choice is essential in order to tease apart the variety of pathways to health in relation to food, people and place. Temporal aspects of food environment change have provided wider perspectives of changing influence on consumer behaviour over time. Increase occurrence over time of "fat swamps" or areas where there is high exposure to cheap, energy dense foods have given context for understanding influence on eating behaviours (Defra, 2016; Maguire et al., 2015; Saunders et al., 2015). Burgoine et al. (2009) tracked a 79.4% increase in availability of all food outlets over a twenty-year period (1980-2000) in N.E. England. The term "obesogenic" environment has been coined in England's Obesity Foresight report (Butland et al., 2007) and has been used to describe and unpick aspects of environments seen to promote weight gain including a high density of fast-food outlets and limited healthy choice (Swinburn et al., 1999; Butland et al., 2007; Lake, 2018). In Cambridgeshire, U.K., Burgoine and Monsivais (2013) found that eating choices extended well beyond the home environment to include work and commuting routes, where exposure to unhealthy fast-food outlets was higher, arguing that a narrow focus on residential neighbourhoods gave an unduly restricted picture.

Others have similarly challenged food environment concepts based on place, to highlight the wider complexities of choices, purchasing decisions and access. For example, Shaw (2006) developed a wider classification of food deserts in a UK setting, based on interviews with

consumers, which showed financial and attitudinal barriers. Sauveplane-Stirling et al. (2014) explored the retail environment of a small Scottish town and showed that most residents moved beyond their immediate neighbourhood to purchase food. Here, they were driven by factors of price and value, and car access, in making choices of where they sought food. This, of course, parallels rise in private car ownership and use, and personal movement more generally. Work by Donkin et al. (2000b) and Dowler and Lambie-Mumford (2015a, b) also highlights the complex choices made by those on low incomes in a context of increasing food insecurity, again challenging narrow spatial views of food choices.

Culture, and ethnicity also play a part in the complex interplay of food choice and place. Reese (2019) for example, challenges the location and focus of the food desert debate, bringing a Black perspective to food environment and healthy food in her study of Washington D.C. She adds the viewpoint of structural racism to examine unequal food distribution and to show the complexities of Black residents' navigation of the food environment. Guthman (2018) takes a critical perspective on thinking behind rationale for built environment interventions, such as improving supply to tackle obesity, arguing that focus on ethnicity and obesity fails to understand the socially produced nature of the built environment. Slocum and Saldhana (2013) and Joassart-Marcelli et al. (2018) similarly explore the underlying nuances of food and place with relation to race.

Understanding the parameters of food environment choice is key in guiding decision making, as public health, urban planning practice and policy has begun to focus on interventions to influence the food environment in order to promote population health. Despite this, there is still ongoing debate as to the robustness of evidence supporting environmental interventions and causal pathways on food choice. This is important for policy makers who draw on evidence to inform food environment interventions, including restriction of unhealthy foods and promotion of healthier foods through use of public health and planning measures.

2.3. Exploring unhealthy food environments

2.3.1. Unhealthy food and health inequalities

Focus on health inequalities has led to exploration of links between unhealthy food environments and health. Evidence increasingly points to links between unhealthy food environments and deprivation. Whilst measures and methods for investigation vary, associated links between concentrations of fast-food outlets and deprivation have been found in the U.S. and Canada (Morland et al., 2002a, b; Smoyer-Tomic et al., 2008), Australia (Thornton et al., 2016), New Zealand (Day and Pearce., 2011; Pearce et al., 2007;) and the U.K. (Cummins et al., 2005a; MacDonald et al., 2007). In the U.K., Cummins et al. (2005a) found links between density of McDonalds' fast-food outlets and neighbourhood deprivation in super-output areas of England and Scotland. The drivers for this pattern may be complex: MacDonald et al. (2007) in England and Scotland found co-location of the larger fast-food chains in deprived areas, suggesting that this might be attributed in part to higher consumer demand, lower land costs, and fewer planning constraints. Maguire et al. (2015) followed changes over eighteen years (1990- 2008) of both fast-food outlets and supermarkets in Norfolk, UK, and found that the density of takeaways increased over time, with a significant concentration in more deprived areas. Others have also shown changes of retail environments over time, with increases in fast food outlets (Cohen, 2008; Guy et al., 2004).

Links between fast-food density (clustering), socio-economic deprivation and proximity to *schools* have also been observed across cities of the North (Austin et al., 2005: Fleischhacker et al., 2011). Pearce et al. (2007) and Day and Pearce (2011) used GIS and socio-economic data to identify a higher concentration of and access to fast-food outlets in deprived neighbourhoods around New Zealand schools. In this case, the same pattern was observed with convenience stores and local shops selling food, leading to comment that inquiry should extend beyond narrow focus on influence of fast-food on food choices across these settings. Smith et al. (2013) used GIS to explore changes in food environment and unhealthy and healthy diet scores of students over time around secondary schools in a London borough, finding small but significant links between proximity of takeaways and unhealthy diets. Sanchez-Vaznaugh et al. (2019) showed similar increases over time of fast-food outlets around schools in California, across all racial groups, apart from the most affluent neighbourhoods.

Further associations between poor food access and high proportions of fast food have also been seen to have a disproportionate impact on those from Black and minority ethnic populations, particularly in North America (Block et al., 2004; Fleischhacker et al., 2011; Powell et al., 2007). Gordon et al. (2011) developed food desert index scores for New York, to assess access to healthy foods. They found areas with a high Black population fared worse than predominantly white neighbourhoods, which had higher food desert index scores, denoting better access with more supermarkets and healthy food outlets. Smoyer-Tomic et al. (2006, 2008), in a study of Edmonton, Canada, showed greater exposure to unhealthy food outlets among deprived groups, including those from what they described as "aboriginal" ethnic backgrounds, although economic status provided a buffer.

2.3.2. Unpicking the causal pathways to ill health

The causal pathways between the food environment and prevalence of unhealthy foods with poor health such as increased obesity, weight and higher body mass index (BMI) are harder to pin down (Guthman, 2013, 2018). Studies show mixed results and are difficult to compare,

as they use a wide range of methodologies, scales and approaches. For example, Casey et al. (2014) in a systematic study of papers on environmental determinants of childhood obesity, found comparison across 25 studies a challenge, again due to use of different measures, approaches and means of analysis. They pointed to the complex interactions at play between environment and obesity and cautioned against using too narrow measures. Feng et al. (2010) in a systematic review of epidemiological literature on links between built environment and obesity in adults and children, similarly, saw that within 63 papers selected, there was a wide and diverse range of measures in use in study design. Both Casey et al. (2014) and Feng et al. (2010) call for clearer study design, use and definitions of metrics for studies to be of comparative use and to inform policy making. Table 1 below attempts to simplify some of these complexities of scale and measures in use, within the latter two studies, to illustrate some of the challenges found to cross comparison.

Focus of studies	Casey et al., 2014 (25 papers)	Feng et al., 2010 (63 papers)
Scale and place	Nation, state, city, county, neighbourhood	Urban, suburban, rural neighbourhood, buffer
Area definition	Euclidian (various), Zip Code, census	Administrative unit, non-specific "community"
Exposure assessment	Density, walkability	Density, access, walkability
Measure of obesity	Measured, self- measured, parent measured	BMI score, category, average etc.
Built environment measure	Food and physical activity – land use, open space, grocery and fast- food store, sidewalk	Physical activity, land use and transport, food environment, spatial access

Table 1. Brief summary of approaches to scale and measure found in papers reviewed by Casey et al. (2014) and Feng et al. (2010).

Whilst over *consumption* of high energy density, fast-food has been shown to contribute to obesity, it is harder to demonstrate a link between *exposure* to fast-food and obesity. It is possible that increased exposure to fast-food outlets is associated with increased consumption and weight (Burgoine et al., 2014; Maguire et al., 2015). Lachat et al. (2012) concluded consumption through eating out was associated with higher energy intakes. They undertook a systematic review of literature on eating out of home and its association with dietary intake, higher proportion of fats and lower micronutrient intake. Some evidence, however, mainly from the U.S., shows exposure may be at play, and indicate that obesity is

higher in areas with a prevalence of fast-food outlets (Currie et al., 2009, 2010; Morland, Diez-Roux and Wing, 2006; Morland and Evenson, 2009; Spence et al., 2009;). As noted previously, differential exposure reflects underlying (Fleischhacker et al., 2011; Kwate et al., 2009; Powell et al., 2007). A systematic literature review by Black and Macinko (2008) of neighbourhood determinants and obesity in high-income countries (1997-2006) showed that living in a deprived neighbourhood was consistently associated with obesity and higher body mass index (BMI), and more pronounced for women and those from ethnic backgrounds. However, it is important also to note debates about the complex elements both of eating behaviours and obesity, as awareness of their underlying drivers. These include emerging evidence of possible factors beyond exposure, such as environmental contaminants (Guthman, 2012, 2013), genetics (Albuquerque et al., 2017) addictive elements of some fast-food ingredients (Fortuna, 2012), and considerations of convenience, cost and time among other factors are increasingly recognised (Glanz et al., 1998).

Currie et al. (2009, 2010) showed that proximity to fast food was positively associated with weight gain in a study of six million pregnant women, and ninth-grade school children, in the U.S. Having a fast-food outlet within 0.5 miles of a school was seen to be correlated with a 5.2% increase in the rate of obesity for year 9 students. For women, having a fast-food outlet within 0.5 miles of residence, increased the probability of over 20kg weight gain by 1.6%. They conclude that broad interventions to reduce access to teenagers, including restricted outlets and advertising, could be beneficial (Currie et al., 2009). In a large U.S. study using economic access and health surveillance data, Mehta et al. (2008) showed that density of number of fast-food outlets was associated with a higher Body Mass Index (BMI) for individuals. However, not all studies show a positive link with obesity and fast-food proximity. In an ecological study in California, Howard et al. (2011) explored possible links between different types of food outlet within 800m of schools on weight metrics in ninth grade students. There was no correlation between overweight and fast-food outlets, but the study highlighted that the existence of other nearby outlets such as convenience stores within a ten-minute walk from school, was linked to overweight. Caraher et al. (2013a, 2014, 2016) found evidence of impact of fast food on food behaviours of school children in Tower Hamlets in London, when leaving school at lunchtimes. This highlights that all food sources, not just access to fast food, should be considered as a potential source of energy-dense foods by policy makers, and compounds the complexity of issues at play.

2.4. Exploring the influence of healthy food environments

Studies that explore the influence of *healthy* food environments need to be considered alongside those seeking to understand the impact of *unhealthy* food environments on

consumer choice and health. Again, this has influenced a range of food policy interventions and practice across urban planning and land use, aimed at supporting healthier food environments for improved population health.

2.4.1. Healthy shops and retail

For instance, exploration of shops and retail outlets has shown that the presence of a supermarket or larger food store tend to be associated with healthier food availability, wider choice, lower price and lower obesity levels (Caspi et al., 2016; Cummins and Macintyre, 2002; Morland et al., 2006; Morland and Evenson, 2009; Raja et al., 2010). Much of the literature, especially U.S. based sources, focus on inequalities of access and health outcomes, and the relevance of specific contexts, hence it is difficult to extrapolate to different contexts. In a systematic review of environmental factors affecting weight behaviours and outcomes of African Americans, Casagrande et al. (2009) found that the presence of a supermarket or speciality store was positively associated with intake of fruit and vegetables. Morland et al. (2002a, b) showed differential access to supermarkets between wealthier and poorer areas in four U.S. states. Supermarkets were five times more likely to be found in more affluent white areas than in poorer, predominantly black, areas. Some have focused exploration on the role played by smaller shops and grocery stores (Martin et al., 2014). Some indicate increased cost of shopping for healthy foods at these outlets (Jetter and Cassady, 2006; Morland et al., 2002a). However, Raja et al. (2008b), whilst mapping food access disparities across ethnicity in Eyrie, New York, found a higher proportion of small grocery stores in these areas. They argued these stores played a role in providing access to affordable healthy foods and could be better supported and recognised by policy makers in addressing healthy food access issues.

Studies in Canada (Smoyer-Tomic et al., 2006, 2008), in contrast, show a mixed picture for access to supermarkets, with relatively good access for low-income groups; reflected also in New Zealand, where areas of social deprivation had relatively good access to a range of stores (Pearce et al., 2008). Results in the U.K. have also been different, perhaps reflecting the different urban settings from the US. Maguire et al. (2015) in a study of Norfolk, U.K. found no positive association between the location of supermarkets and social deprivation but reported other factors such as price acting as barriers, supporting previous studies such as Cummins and Macintyre (1999).

Research has also focused on the impact of supply-side interventions, as a possible counterbalance to poor food access in deprived areas. Wrigley et al. (2003, 2004) explored the impact of a new supermarket in a deprived area of Leeds, U.K. This "before and after" study, although uncontrolled, showed that physical access improvements, significantly reduced distance travelled to shop, and increased walking. This was seen to indicate that

perception of proximity and access by consumers is an important factor in choice. Small improvements to fruit and vegetable intake were found among those switching to the new store, particularly among those with a low starting baseline of consumption. A further observation in Glasgow, Scotland, followed consumer behaviour and views after establishment of a new Tesco store in a deprived area. The study however, showed no significant improvement in consumption of healthy foods and weak evidence for impact on diet after the shop opened (Cummins et al., 2005b, 2008). Sadler et al. (2013) noted similar findings when they tracked the impact of a new food retailer in Flint, Michigan, U.S., an area of deprivation with high levels of obesity and low fruit and vegetable consumption. A low percentage of residents switched to the new store, and consumption patterns remained little changed, apart from some increase in frequency of purchase of pre-prepared foods. Cummins et al. (2014) investigated the impact of a new supermarket established in a neighbourhood of Philadelphia, PA, in the U.S. The controlled study explored residents' perceptions, fruit and vegetable intake and BMI before and after the establishment of the new store. Although residents viewed food as more accessible, there was no change in BMI or reported consumption of fruit and vegetables (Cummins et al., 2014). These studies reflect on the need for clearer evidence and understanding of consumer choice for policy intervention in retail as a way of improving diet.

Some limited evidence for the positive impacts of active promotion and establishment of markets or vendors selling fresh fruit and vegetables has also been found. Sadler (2016), for example, explored the impact of an intervention to move a Farmer's Market into a downtown area of Flint, Michigan, U.S. Located near a bus station, access to healthy food was found to improve, as a result, for low-income residents with mobility constraints. Sadler argued that this held lessons for public health practice and could guide future interventions. Jennings et al. (2012) followed the impact of siting a mobile fresh fruit outlet in Great Yarmouth, U.K., showing an increase in the uptake of fruit and vegetables with support from public health trainers. However, these studies are small in scale and hence limited in reach.

2.4.2. Links between urban agriculture, food growing and healthy eating

Urban food growing and urban agriculture have also been highlighted as an increasingly popular form of environmental intervention on food, promoted as a key element within food policies to support healthy food availability and choice (Davies et al., 2014; Diekmann et al., 2020; Mougeot, 2005; Wang et al., 2014a; Zick et al., 2013). However, much evidence on urban agriculture, point beyond food to its broad benefits to individual, community wellbeing and environmental enhancement. Evidence for the direct impact of urban food growing on eating behaviour, access and provision is mixed. Studies vary, reflecting a lack of well-planned systematic approach, control, or focus on longer-term change; with predominantly

self-reported qualitative data along with a strong "advocacy" trend in much of the literature. This makes it difficult for clear understanding and exploration of real impact of this type of activity in terms of food consumption and security (Armstrong, 2000; McCormack et al., 2010; Park et al., 2011; Tornaghi, 2014).

Some evidence does point to increased consumption of fruit and vegetables among those taking part in food growing initiatives. For example, in a phone survey of 766 adults in Flint, Michigan, U.S., Alaimo et al. (2008) found that adults with a member of a household who took part in community gardening were 3.5 times more likely to consume at least 'five a day' portions of fruit and vegetables. Evidence of impact on fruit and vegetable consumption among participants of school-based food growing projects is more mixed, particularly with regards to impacts beyond the short-term. Some show an increase (Christian et al., 2014; McAleese and Rankin, 2007; Parmer et al., 2009) and others, little impact (Lineberger and Zajicek, 2000; Morgan et al., 2010; Ratcliffe et al., 2011; Robinson-O'Brien et al., 2009) in fruit and vegetable consumption. However, involving schoolchildren in food growing has been shown to make children more willing to try, as well as better identify fruit and vegetables, which may be a precursor to improved consumption and food skills later in life (Morgan et al., 2010; Parmer et al., 2009; Ratcliffe et al., 2011). In a systematic review of studies examining the association of fresh fruit and vegetable availability and consumption, Jago et al. (2007) found that availability was positively associated with higher intake, sustained over time, and that changes in availability affected consumption. Psychosocial variables, such as efficacy and preference were seen as affecting intake, supporting the case for socio-ecological approach.

2.5. Interventions to address food environments for health through urban planning and land use

Some of the literature explored in the previous sections has served as guidance and evidence to support policy making. This has included considerations of how *interventions* influencing food environments upstream could drive changes in food choice and help tackle underlying health inequalities. Here, urban planning – involving the "existing and prospective uses of land and coordination of policies for such use" is utilised to bring influence to bear (Ilieva, 2016:132). Raja et al. (2008a) for instance, in a *Planners Guide to Community and Regional Food Planning*, highlight emerging examples of how food environment change has been addressed at the local government level in the U.S. They note this has been achieved through combinations of policy, programme and planning efforts. The following section explores ways in which interventions have manifested within a food systems response, and with engagement from urban planning and public health.

2.5.1. Interventions to tackle unhealthy food environments

Public health interventions on fast food "swamps" commonly focus on changing nutritional contents of food on offer and influencing consumer choice and individual behaviours "downstream". However, regulatory mechanisms are increasingly being used to tackle underlying causes of *unhealthy* food environments at "upstream" or structural level, through the use of tools within the planning system (London Borough of Barking and Dagenham, 2010; Caraher et al., 2013a; Cummins and Macintyre, 2006; Keeble et al., 2019; Long et al., 2015; Mayor of London, 2018; PHE, 2014). Support for this type of food environment intervention is found both in overarching planning policy and urban food policy documents, for example in WHO, Healthy Cities guidance, the London Plan, and associated planning guidance (London Healthy Urban Development Unit, 2013; Ross and Chang, 2013, 2014; TCPA, 2014a, Mayor of London, 2018; WHO, 1997).

In Australia, New Zealand, and U.S., public health organisations make use of zoning or planning laws to limit the density of fast-food outlets (New York Academy of Medicine, 2010; Raja et al., 2008a; Sacks et al., 2008). Los Angeles, California, was one of the first to use a zoning ordinance in 2008, to ban fast-food outlets opening within areas of high obesity, although this faced a challenge to demonstrate evidence of impact over time (Raja et al., 2008a; Sturm and Hattori, 2015).

In England, over the past decade, the use of regulation and planning measures to restrict hot food takeaways has been supported by public health authorities nationally as a route to tackle obesogenic environments and a perceived over-abundance of energy dense foods (LGA, 2015; Garside et al., 2010; PHE, 2014, 2019a). Public Health England now maps fast food "hot spots" across the country, depicting outlets per 100,000 population against area deprivation (PHE, 2017a). Increasingly interventions through use of planning tools are being adopted. Ross and Final Draft Consultancy (2013) identified 21 planning authorities at the time using policies or draft policies to restrict hot food takeaways, through use of Local Plans, Supplementary Planning Documents (SPDs), and Development Management Policies. The Local Government Association (LGA, 2015) reviewed the use of planning powers to restrict hot food, citing examples in Sandwell, Brighton and Hove and Tower Hamlets, London. These approaches are becoming more common within local planning policy.

Evidence and rationale for implementing exclusion zones or limits of density for hot-food outlets in urban settings have been included in documents published in England at local authority level. Factors considered includes use of evidence of health impact, to support use of planning tools in regulating the proximity of hot food outlets to schools, as well as the wider consideration of urban aesthetics, retail mix, and environmental health (Dr. Foster Intelligence, 2011; LGA, 2015; PHE, 2014). This approach is supported by the National Planning Policy Framework's focus on role of planning in creating healthy communities (MHCLG, 2012; 2018, 2019, 2021). However, the impacts of such planning decisions on obesity, food intake and choice pathways are difficult to evaluate (Nixon et al., 2015).

Whilst planning decisions at a local level must be based on evidence, and endorsed within planning policy, some local authorities in England and elsewhere have faced challenges to attempts to regulate hot-food outlets using this approach. Local authority planning decisions have faced challenges brought by fast food operators and others via both the planning inspectorate, policy and legal routes (Dr. Foster Intelligence, 2011; Nixon et al., 2015; PHE, 2014). In examination of U.S. news coverage of local efforts to improve food environments through land use regulations, Nixon et al. (2015) highlight the contentious nature of planning decisions to restrict hot food and the challenges to land use policies. They show how arguments based purely on health focused policies are less successful than wider policies, eliciting fears of accusations of a "nanny state" approach, also echoed in Lake et al. (2017). Framing policy in broad terms, including highlighting factors such as urban aesthetics and wellbeing, was identified by policy makers as more successful in gaining broader popular and policy support than taking a narrow argument. Keeble et al. (2019) also note that whilst local governments in England use various planning approaches to regulate hot food justified on both health and non-health grounds - there is a gap in local stakeholders' understanding of both the acceptability of such measures and the decision-making process behind the scenes.

For those working in public health, navigating the landscape of fast-food business has been shown to present challenges. In a qualitative study of 36 public health professionals in N.W. England, Hanratty et al. (2012) found they expressed the view that they were more confident working with public sector and with individual behaviour-change. They were not confident engaging with or understanding the private sector around hot food issues. This was compounded by an acknowledged lack of experience, knowledge of and contact with the business sector. There was also a conflict of interest perceived between business promotion of profit and public health promotion activities.

2.5.2. Interventions to support healthier food environments

Again, a focus on *healthy* food environment interventions has promoted urban food policy initiatives that affect land-use considerations, with public health and planners using levers within the planning system, such as zoning, local and spatial planning policy, comprehensive plans and licencing incentives (Cabannes and Marocchino, 2018; Ilieva, 2016; Morgan, 2009; Raja et al., 2008a; Wegener et al., 2012a, b, 2013). These focus on removing barriers to bring fresh, healthy, accessible and affordable foods, healthy retail or fruit and vegetables

into deprived or underserved neighbourhoods. Examples of environmental interventions span support of both state-led conventional or structural approaches along with responses to support "alternative" and grassroots innovation for healthy food provision initiatives driven by community demand.

2.5.2.1. Support for healthier retail

Many examples of supply side upstream or structural approaches to tackle an apparent lack of healthy retail outlets in more deprived areas have been seen in the U.S. For example, state support established in 2011 the Federal Healthy Food Finance initiative (Packer, 2017). Pennsylvania is one area to have modelled this through its Fresh Food Financing Initiative to increase healthy food access with grants and loan incentives to bring healthy retail into underserved areas (Cummins et al., 2014). Other examples include support to establish Farmers' Markets in downtown areas, or support for mobile vendors such as healthy food carts selling fruit and vegetables as part of a neighbourhood planning focus (Jennings et al., 2012; Raja et al., 2008a; Sadler, 2016). New York's Green Cart initiative, for example, established in 2008 under Mayor Bloomberg, formed a new retail class within planning, and 1000 permits were given for mobile fruit and vegetable vendors between 2008-11 (Farley et al., 2015).

Other actors engaged in food policy development have embedded healthy food retail into overarching planning documents. In England, the recent London Food Strategy (Mayor of London, 2018) highlights aspirations for "good food" with a definition spanning food that is healthy, fair, accessible, affordable, sustainable, and supports economic prosperity and social engagement. It outlines specific priorities, action and joined-up work needed to achieve these aims, at strategic through to community level. This includes actions in support of healthy retail, for example through development of Good Food Retail Plans (London Food Link and Sustain, 2020; Mayor of London, 2018).

2.5.2.2. Urban agriculture and food growing

As previously noted, focus on urban food growing and urban agriculture alludes to its potential to contribute to healthier urban environments, food provision and food systems planning, with focus in policy and academic literature (Ross and Chang, 2012; De Zeeuw and Drechsel, 2015; Grewal and Grewal, 2012; Ilieva, 2016; Kent et al., 2011; Ross and Chang, 2014; RUAF, 2020; Tsouros, 1995; Twiss et al., 2003; Van Veenhuizen, 2006; Veolia Institute, 2019; WHO, 1997). It has increasingly attracted attention of policy makers exploring improvements to food environments. An initial definition of urban agriculture was proposed by Mougeout as "an industry located within (intra-urban) or on the fringe of a town (peri-urban), a city or a metropolis, which grows and raises, processes and distributes a

diversity of food and non-food products" (Mougeot, 2000:10). However, this focus on food production, is increasingly recognised as too narrow, as is in many cases food growing is not an end in itself, but an entry point into activities and associated broad social and environmental benefits (Blythe, 2021; Caputo, 2012; Schoen et al., 2020).

In the global north, diverse examples of urban agriculture manifest, including allotments and community gardens taking both informal and informal approaches. These make use of urban spaces, including parks, rooftops, high rise buildings, areas within planned housing developments and urban regeneration sites (Lohrberg et al., 2016; Mougeot, 2005; RUAF, 2020; Veolia Institute, 2019). Whilst emerging themes in global north indicate the "multifunctional" nature of UA, the associated academic literature can lack critical analysis and focus (Deelstra et al., 2001; Tornaghi, 2014, 2017; Schwab et al., 2018). What distinguishes urban agriculture from other food policy interventions, according to Morgan (2015: 1385), is its "visceral materiality, the fact that it is palpable, tangible and above all visible" in the fabric of cities. Urban agriculture perhaps serves an important "symbolic" function for its ability to capture and focus interest in food issues, through its very practical nature, and ability to involve ordinary citizens. The realities of urban agriculture in terms of its ability to contribute in real terms to food provisioning and food security are sometimes over claimed and little explored. Some note that urban agriculture provides people with a route to manage individual anxieties about the wider food system they inhabit (Kneafsey et al., 2008).

The literature is rather more clear where food production is not the main aim but provides an entry point into broader social and environmental benefits beyond food including community cohesion, resilience, climate change and resource use, and flood alleviation, as well as to mental and physical wellbeing (Barry, 2017; Barry and Blythe, 2016, 2018; Buck, 2016a; Caputo et al., 2021; Certomà and Tornaghi, 2015; Davies et al., 2014; Gorgolewski et al., 2011; Grewal and Grewal, 2012; Guitart et al., 2012; Hardman and Larkham, 2014; Kirby et al., 2021; Lohrberg et al., 2016; Schoen et al., 2020; Scott et al., 2016; Tornaghi, 2014; Van den Berg et al., 2010). The focus in the global north is dominated by established vocal grassroots and civil society urban agriculture-related movements seen in Canada and the United States (Cohen and Reynolds, 2014; Taylor and Lovell, 2012). Fewer examples span Australia, Northern Europe and the U.K., where allotments and "community gardens" proliferate as a model (Guitart et al., 2012; La Rosa et al., 2014; Mason and Knowd, 2010; Middle et al., 2014; Mintz and McManus, 2014; Sarker et al., 2019). Others focus on the potential of food growing in public parks and open spaces, along with use of temporary, "meanwhile" and interstitial land, seen for example in the expanding interest in the "Incredible Edible" movement across Europe where spaces such as verges and graveyards

are brought into production (Hardman and Larkham, 2014; Clarke, 2010; DCLG, 2017; Incredible Edible Network, 2021; Martin and Marsden, 1999; Middle et al., 2014; RUAF, 2020). Many of these initiatives remain outside the formal planning view of city structure and management and have been in the main driven by "alternative food" interests, civil society food activists and grassroots action.

The "bottom up" influence by civil society and food policy activists has however led to urban agriculture and allotments being increasingly endorsed and supported within policy from "above". This has meant that it has begun to be included in more formal urban food policy. public health and planning strategies as part of targeted food environment interventions. In the U.K., civil society food groups such as Sustain have led the way, with key publications and toolkits highlighting the place of food within planning (Sustain, 2011a, 2014). They use exemplars such as Brighton and Hove where food growing has been embedded for new developments into local plan documents or Supplementary Planning Documents (Sustainable Food Places, 2019; Sustain, 2011, 2014). Blay-Palmer (2009) similarly demonstrated the role of the Toronto Food Council in influencing by-law change to enable provision for rooftop gardening to be added to building codes. London, Bristol, and Brighton and Hove all support food growing within their overarching food strategies, accentuating links to planning (Adams and Hardman, 2014; Brighton and Hove Food Partnership, 2012; Bristol Food Policy Council, 2021). Scotland's Community Empowerment Act (2015) established a duty for local authorities to prepare food growing strategies, including strengthening access to food growing land and use of planning levers (Gov. U.K., 2015). In the U.S., urban agriculture is now seen at the forefront of moves reforming "zoning" in cities for productive land use (Maloney, 2013). Detroit has multiple visions of urban agriculture within a major city regeneration plan, with food systems at its heart; Baltimore (2018) has created spatial maps of urban agriculture and food growing across the city, and Providence, Benicia and Seattle have all supported integration of urban agriculture in comprehensive plans and zoning ordinances following community action and pressure (Brown and Brush, 2018; Cabannes and Marocchino, 2018; Giorda, 2012; Raja et al., 2008a).

Others posit the "multifunctional" benefits of greenspace, including contribution of urban agriculture within this to food and health within a city, link between ecosystems and health, and as a rationale for its adoption within urban green infrastructures (La Rosa et al., 2014; M.E.A. 2005; Van Leeuwen et al., 2010). Food charter documents provide a mandate and focus for action and envisage urban agriculture as an integral part of food systems (Block et al., 2012; Hardman and Larkham, 2014; Ilieva, 2016; RUAF 2021; Sonnino, 2009). Urban agriculture and food growing also form part of public health food strategies to support healthier food environments (Ilieva, 2016). UK-based and wider literature, for example, has

explored policy restraints of incorporating food growing into planning, explored in more detail later in this chapter (Howe, 2002; Martin and Marsden, 1999; Schwab et al., 2018).

2.5.2.3. Plan making and design

Innovative urban design approaches have explored the integration of food production within both architecture and the fabric of the planned urban environment. This has focused on exploring integration of food as edible urban foodscapes linking food and planning agendas (Gorgolewski et al., 2011; Raja et al., 2008a). The architects Viljoen and Bohn developed the concept of Continuous Productive Urban Landscapes (CPUL), envisaging integration of food growing into urban landscape planning, embedding food through continuous links of greenspace through the heart of the cityscape (Viljoen, 2005; Viljoen and Bohn, 2005). Others posit multifunctional benefits of UA to food and health within a city as a strategy for its adoption within planning (La Rosa et al., 2014; Van Leeuwen et al., 2010). Ambitious plans are also being seen in new developments like Almere, Oosterwold, in the Netherlands, where urban agriculture on a large scale is being incorporated into place making and design of 4,300 hectares of land and new residential areas (Jansma and Vissa, 2011).

Whilst urban agriculture has gained much attention, how visions can be realised in practice is underexplored, and more robust analysis of its role, contribution and potential within food systems, food production and urban planning is needed, with critical appraisal in real world settings (Tornaghi, 2014). Despite great enthusiasm and advocacy for urban agriculture, there is lack of evidence about "scaling up" and processes of embedding it within policy; many initiatives remain at the project level, limited in their ability to make significant impact on food choice and consumption. The complex politics of race, class and gender within this movement have been raised by some, and its impact on deprived neighbourhoods are only just beginning to be explored (Draus et al., 2014; McClintock, 2018; Reynolds, 2015; Sbicca, 2019).

Chapter 3: Enacting Urban Food Environments

3.1. Introduction

Having explored the drivers, evidence and examples of interventions to improve the food environment for health in cities in chapter 2, this chapter explores the literature which focuses on the actors and arenas in which policy and decisions about urban food environments are enacted. This will examine perspectives from three strands; urban food planning, public health and urban planning and their intersections that occur through food. It will highlight why and how the interest in food environment interventions explored thus far, underpins moves to collaborative and integrated activity between the three strands.

3.2. The emergence of urban food planning

In the absence of coherent national food policies, over the past two decades there has been a renewed interest in what is known as urban food planning in the global north, as cities move to fill the "policy vacuum" (Cabannes and Marocchino, 2018; Lang et al., 2009; Mansfield and Mendes, 2013; Morgan, 2015; Sonnino et al., 2019). This highlights the emerging role taken by actors at municipal or city level in shaping the "urban food system", focusing on addressing underlying failures in work towards more sustainable, healthy and just food systems and healthier food environments (Blay-Palmer et al., 2015, 2018; De Zeeuw and Dubbeling, 2015; Dubbeling et al., 2015; Moragues-Faus and Morgan, 2015; Sonnino and Spayde, 2014; Wiskerke, 2015). These growing concerns around health, sustainability, food price volatility and climate change signal the emergence of what Morgan and Sonnino describe as a "new food equation", which has brought cities into the front line of action (Ilieva, 2016; Milan, 2015; Morgan and Sonnino, 2010:209). In this rapidly developing field, Morgan (2013:1) describes how an emerging "new food planning community" is embracing stakeholders across different scales and sectors including municipal and local government, planners, health, civil society actors and retailers. This landscape is explored by others (Cohen and Ilieva, 2021; Ilieva, 2016; Mendes, 2008; MUFPP, 2015; Raja et al., 2008a; Morgan, 2009).

Morgan describes the complex "multifunctional" and "kaleidoscopic" nature of the food system, arguing that it must be seen through the "multiple prisms" in which food is viewed and valued (Morgan, 2015: 1380). Reaching consensus across diverse actors, departments and multi-level governance is not easy (APA, 2007; Caraher et al., 2013b). Whilst there are positive signs of an emerging movement of urban food planning, with growing influence and

cross-fertilisation of ideas, both within and between cities and countries, there is still some way to go to embed unifying approaches at local and municipal levels (Anderson et al., 2014; Campbell, 2004; Cohen and Ilieva, 2021; Hammelman et al., 2020; Santo and Moragues-Faus, 2019; Sonnino et al., 2019; Veen et al., 2012). There is increasing focus on need for integrated action across silos. Cohen and Ilieva (2021) cautiously welcome joined up work in New York during COVID-19 as indicating possibility of moving beyond silos and narrowly focused food policies to collaboration to tackle upstream drivers. The FAO Food for Cities Programme outlines the need for concerted collaborative action at city level towards support of sustainable, healthy, just and resilient food provision (FAO, 2014). The Milan Urban Food Policy Pact (2015) was seminal in launching a world-wide initiative that by 2018, had guickly gained commitment from 179 cities, pushing for change at local level, including through EUROCITIES collaboration to explore "food in cities" and highlighting examples of activity (BCFN MUFPP, 2018; De Cunto et al., 2017; MUFPP, 2015). UK Sustainable Food Places as a network (established 2011) is similarly growing in its ability to join up urban food policy initiatives and share learning and insights in how to influence change (Marceau, 2018; Hills and Jones, 2019; Jones and Hills, 2021; Sustainable Food Places, 2021). The literature on aspects of urban food planning has matured over time, moving from initial descriptive, advocacy and "project" based case studies to, recently, development of more nuanced critical and theoretical analyses (Coulson and Sonnino, 2019; Sonnino, 2016; Tornaghi, 2014).

3.2.1. Vehicles for urban food policy

New vehicles of participatory governance have emerged, offering to bring diverse stakeholders together to build consensus, partnership, action and influence policy around food, at city, county or state levels (Deakin et al., 2015; Morgan, 2009; Sonnino, 2016). Emerging policies are underpinned by common values including, food "systems thinking", focus on civil society involvement, and varied definitions of "local" scale (Born and Purcell, 2006; Sonnino, 2017).

Food policy councils (FPCs), food partnerships and local food policy groups (LFPGs) have emerged as a range of vehicles for steering collaborative organisation around food policy action (Blay-Palmer, 2009; Halliday, 2015; Hawkes and Halliday, 2017; Morgan, 2013; Santo and Morgues-Faus, 2019; Scherb et al., 2012; Schiff, 2008). They vary from being "top down", "within" government - as advisory groups, under departmental or mayoral support - or "without" - as largely "bottom up" civil society driven non-profit bodies, or hybrids of the two (Dubbeling and De Zeeuw, 2007; Halliday, 2015; Hatfield, 2012; MacRae and Donahue, 2013; Schiff, 2008). From these have emerged a range of statements of intent; "food charters", comprehensive "urban food strategies", food policy frameworks, or formal plans of action - for embedding food policy into wider urban policy and planning (Clayton et al., 2015; Dahlberg, 1994; Deakin et al., 2015; Hardman and Larkham, 2014; Ilieva, 2016; Roberts, 2001; Schiff, 2008). Common areas of activity and aspiration of food strategies span broad food system themes - including domains of social and food justice (increasingly food poverty), sustainability and environment, economic and community resilience, urban design, health and wellbeing. Practical manifestations of work under these themes include support to urban agriculture and food growing, focus on waste, healthy retail and local procurement, health education and community food projects, food security (Deakin et al., 2015; Ilieva, 2016). Diverse in form there is some debate over nomenclature, and separation of function and form of these different formations: some separate mechanisms involved in food policy councils and food strategies (Sonnino and Spayde, 2014), whereas others see the strategic activities and form as "two sides of the same coin" (Halliday, 2015: 52). However, whilst urban food policies can contribute to change, Hawkes and Halliday (2017) note that, in reality cities have limited powers to manage food system change, and that responsibility lies across multi-level governance both within and beyond their boundaries.

Since the first Food Policy Council emerged in the 1980s in the U.S., this form of urban food governance has now expanded to over 200 cities and regions of North America, and in different forms across Europe and Australia (Blay-Palmer, 2009; Caraher et al., 2013b; Deakin et al., 2015; MacRae and Donahue, 2013; Halliday, 2015; Hawkes and Halliday, 2017; Ilieva, 2016; RUAF, 2020; Schiff, 2008; Schwab et al., 2012). The Toronto Food Policy Council, for example, was established in 1990 as a sub-committee of the public health department, whereas that in Los Angeles (2011) takes the form of an independent non-profit group (Hatfield, 2012). Some remain as food policy offices without developing formal Food Policy Councils - London and New York City developed and coordinate collaboration under Mayoral departments (Freudenberg and Atkinson, 2015; Reynolds, 2009). In the U.K., Brighton and Hove Food Partnership (est. 2003) and Bristol Food Policy Council (est. 2011), are examples of influential non-profit groups which have paved the way for joined up activity around the food system, through building key relationships with local government including public health and planners (Brighton and Hove Food Partnership, 2012, 2021; Bristol Food Policy Council, 2021; Carey, 2013; Sonnino, 2019).

3.2.2. Role of food policy groups in driving change

Ilieva (2016: 316) comments that "purposeful integration of food planning practices remains more the exception than the rule" at local government level, with most remain as civil society, "bottom up" driven or non-profit groups outside government. Literature on food policy groups reflects this, with most exploring their role as grassroots or community-based entities, and their relation to local government (Gupta et al., 2018; Raja et al., 2018a). Where these groups stand in relation to government can have an impact on their ability to influence, develop and effect policy change. Constraints identified on ability to impact include uncertain relationships and political change, leadership, public support, funding, time, skills and ability to nurture partnerships and understand policy making (Clancy et al., 2007; Clayton et al., 2015; Dahlberg, 1994; MacRae and Donahue, 2013; Mendes, 2008; Roberts, 2001; Roep and Wiskerke, 2010; Scherb et al., 2012; Walsh et al., 2015). De Zeeuw and Dubbeling (2015) weigh up advantages and costs of convening multi-stakeholder food planning groups which, whilst addressing complex issues and problems, can also be time consuming, complex and illuminate tensions. Santo and Moragues-Faus (2019) note the volatility of food policy groups, many of which come and go over time as support and conditions change. Hawkes (2018) argues that food policy must be relevant, built on understanding of "lived experiences" and that more needs to be done to understand how citizens see the problems facing them in their everyday lives, in order to build real solutions - this calls for genuine engagement.

Schiff (2008) explored 13 Food Policy Councils across the U.S. and Canada showing their varied understanding of the role and function of FPCs, as placed both within and outside the system of local government, and their function in "building political capital" (2008:226), networking and supporting sustainable food system development. She highlights a tension between efforts to work for policy change, and seemingly narrower "project" work, with a tendency to focus on the latter within an unstable government context. The challenge for many FPCs based outside government departments is how to simultaneously gain legitimacy while remaining as a "voice outside the system" (Schiff, 2008:226). Here, the energy and drive of civil society is key, whereas those under the direct auspices of local government may find it harder to see issues so clearly and to challenge them (Carey, 2013; Deakin et al., 2015; Derkzen and Morgan, 2012). More exploration is needed of both factors operating and efficacy within these groups which enable them to achieve significant and lasting policy influence. Hawkes and Halliday (2017:93), from a range of case studies, highlight different "enablers" important to success of development of urban food policy. They group these under the themes of "data, monitoring and learning", "vertical" multi-level governance, "horizontal" city-level governance, participatory policy process, funding and political commitment. Barriers emerged when any one of these factors were not present, resulting in impeded progress of urban food policy (Hawkes and Halliday, 2017: 74).

Others focus on the value of partnership building through a food focus. Bedore (2014: 2979) demonstrates the "convening power" of food policy, which can act as a benign influence, generating both "exchange and use value" in order to support successful partnerships and generate civic capital. Clayton et al. (2015) explore 12 U.S. food policy councils and their

support of cross sector partnerships in influencing policy change. They found that partnerships around food policy council work supported advancement, visibility and legitimacy of policy goals, connexion with key stakeholders and identification of policy opportunities. Partnerships enabled collaborative engagement over shared agendas. Key factors included the role of food policy councils to bring about connection, link with policy experts, and local government leaders – all of which are important in giving strength to food policy council efforts. Blay-Palmer (2009) in describing the Toronto Food Council's success working from within the health department, shows how positioning of food as "multi-functional", and aligning across wider city goals, are keys to success and navigating links into decision-making arenas of the city. Mah and Thang (2013:107) noted that in Toronto, food offered a vehicle for policy change, giving "room to act" through not being tied to specific policy departments. Who is at the table is important, and MacRae and Donahue (2013) question potential impact on food system planning in Canada's local and urban food policy as a result of failure to engage mainstream food chain stakeholders in the debate.

Less common is literature exploring the perspective of local government actors in relation to food systems change; most still comes from view of those outside. Raja et al. (2018a) focus on the role of local and regional government engagement in food systems across the US and Canada, in a special issue of the *Journal of Agriculture, Food Systems and Community Development* (October 2018). Gupta et al. (2018), in this issue, analyse the activity of ten Californian Food Policy Councils and show how these civic groups such as food policy councils can support collaborative dialogue and activity around food, using opportunities to influence policy-making processes through engagement and communication with local government. They argue that where FPCs are located in relation to government, there is less "structural autonomy" and more pressure to follow this lead, resulting in less receptivity to community concerns than food policy councils situated at grassroots which are more likely to be able to hear and reflect community voices. They also note that local governments can work in a number of ways to support food policy councils, including taking a lead to develop and launch one in areas which do not have one in place.

The role of leadership, political endorsement and support for food policy also arises as clear factors in its success (Freudenberg and Atkinson, 2015; Mendes, 2008; Reynolds, 2009; Santo and Moragues-Faus, 2019). For example, both Reynolds (2009) and Freudenberg and Atkinson (2015) highlight the importance of mayoral roles and high-level political buy-in for moving food on to the policy agenda in London and New York. In exploring the context of food strategy governance in Vancouver Canada, Mendes (2008) highlights the role of

leadership from a position of power to drive change. Where political buy-in is absent, change can be limited (Santo and Moragues-Faus, 2019).

3.2.3. Developing metrics for urban food planning

Further debate on ways to measure the effectiveness of urban food planning interventions is emerging. Increasingly metrics, guiding principles and frameworks are being developed to support learning and potential replication across place (Dahlberg, 1994; Mayor of London, 2018; Prosperi et al., 2015). Mansfield and Mendes (2013), for example, explore factors supporting urban governance of Vancouver's Food Action Plan and identify both structural and procedural factors influencing policy success. These include the extent of recognition of food policy within a local government setting, integration of food within broader policies, mechanisms for civil society participation, support for staff, and establishment of partnerships for focus on food.

Moragues-Faus and Marceau (2019) build on learning from the U.K.'s sustainable Food Cities Network to develop a draft conceptual framework for a systems approach to healthy and sustainable food. Six levers for change are identified to help meet goals: partnerships and collaboration; policies and strategies; infrastructure; public services and support; knowledge and awareness; and market-based mechanisms. Links with health and planning are cited through examples of urban food growing and land use, food access mapping, use of planning tools to create healthier food environment and restrict unhealthy outlets, and demonstrated in partner cities. More recently, Marceau (2018) and Hill and Jones (2019) highlighted practice by food policy groups again under the U.K.'s Sustainable Places Network, where influence has been brought to bear on development of local planning documents and policies. As understanding of the levers of planning grows, groups like the Hull Food Partnership are able to share insights into the journey to insert food growing into the Hull Local Plan (Hull City Council, 2017; Hull Food Partnership, 2021; Morgan, 2017). However, there is a gap in understanding the multiple perspectives at play, and in understanding how food reaches planning documents, or not, in the context of local government decisions.

In her comprehensive overview of urban food planning, Ilieva (2016) explores the state of 93 urban food system reports in the global North. She identifies over 200 different indicators commonly used to measure goals and succinctly summarizes these under five broad categories: health and wellbeing for all; environmental sustainability; fairness; local economic diversity and prosperity; and resilient communities. Metrics commonly under health and wellbeing within urban food strategies focus on a broad range of issues including spatial, economic, and cultural factors influencing access to healthy food (e.g. distance to

healthy food stores, affordability - cost of healthy food items, healthy food subsidy, and consumer skills, knowledge and awareness, and consumption patterns).

3.2.4. A new geography of food governance

A more recently emerging "new geography" of food governance has attracted attention (Sonnino, 2016:190). Blay-Palmer et al. (2016: 28) point to the potential learning to be had between these diverse groups geographically. They point to their potential to transform food systems, sharing best practice for adoption as place-based solutions, as well as enhancing sustainability and resilience across "communities of food practice". They also note the importance of supporting collective space for action and to reduce the apparent isolation of those working within the food system. Santo and Moragues-Faus (2019) explore how emerging networks connect across scale, beyond the city, with opportunity to share food system knowledge, impact, lessons and practice. They argue for a more critical approach to place-based food policy governance, and that there is a need to explore the uneven distribution of power and resources across actors and groups. In examining the food governance literature, they highlight the ways in which unequal landscapes of food policy settings and underlying uneven social, cultural and political dynamics might impact on abilities to participate in drives to improve the food system. They draw on literature to question the underlying forces of neo-liberalism and set the moves to food democracy against a backdrop of shrinking states and a shifting landscape of power, seen since the financial crash of 2008. They highlight, for example, how attention on food governance can be held by those where there is an active civil society, particular champions or focus on particular "pioneer" cities. Understanding difference is important:

"We know very little of how food partnerships are contextually positioned within the overall geography of austerity, reduced local authority budgets, and the everyday micro-politics related to the (re-) negotiation of roles and responsibilities in multi-actor food coalitions" (Santo and Moragues-Faus, 2019:2).

Two national initiatives, the U.K.'s Sustainable Food Cities Network (SFCN – now named Sustainable Food Places) and the Food Policy Network in the U.S., are used to illustrate these emerging issues, and the opportunities for moving beyond these tensions to (re)politicize food activity through collaboration. Coulson and Sonnino (2019:171) also illuminate the potential exclusionary practices at play across and between "winning" and "losing" areas involved in food policy. Again, they point to the uneven attention focus on pioneer cities, and subsequent "overly optimistic stance": noting some tensions around "who decides what is a sustainable food city" and how that debate is informed (Coulson and Sonnino 2019: 178). It is important to understand more about how cities outside these networks and with lower civil society action, approach and develop policy and activity on

food, where struggles take place, and how these narratives can relate to more dominant advocacy approach of food policy movements.

3.3. Public health as a player in urban food planning

Increasingly within local governments, public health departments have been seen as both driving and participating in urban food planning and policy development, led by concern across a range of health issues from nutrition, obesity, food security and access, and increasingly also ecological concerns (Lang et al., 2005; Bedore, 2014; Caraher and Coveney, 2004; Hatfield, 2012; Lang and Rayner, 2007; Morgan, 2015; Seed et al., 2013; Sisnowski et al., 2016; Tornaghi, 2014). While food has long been a concern of public health, the impact of unhealthy diet is now considered to be one of the main influences on the burden of non-communicable disease and one of the leading causes of death globally, thus bringing food policy to the fore, along with a focus on tackling inequalities in health (Hawkes, 2012; WHO, 2004, 2010).

3.3.1. Understanding approaches to public health

Whilst pinning down a clear definition of public health is not without its challenges, understanding underlying concepts in use is essential. This will assist in understanding the rationale behind different public health approaches emerging in urban food policy activity to support environments for healthy food.

The following chapter will explore in more depth the relevant conceptual underpinning and models informing public health, including socio-ecological, determinants of health, and systems approaches - all of which inform the scene for action on food environment change (Barton and Grant, 2006; Dahlgren and Whitehead, 1991; Marmot, 2010). For now, it is enough to note Winslow's 1920 definition of public health which underpins both U.S. and U.K. public health terminology; later built on by U.K.'s Faculty of Public Health (FPH - a membership organisation of public health professionals), defining public health as "the science and art of promoting and protecting health and well-being preventing ill health and prolonging life through the organised efforts of society" (FPH, 2016:2; Winslow, 1920). This perspective recognises that health spans not only individual and "downstream" drivers but also points to collective efforts needed to influence health at a population level, highlighting the key role of the state, in order to tackle "upstream" or "structural" factors and the so-called wider determinants of health (FPH, 2016; Michie et al., 2014; Sommer and Parker, 2013). Public health in this view thus has a responsibility to focus beyond narrow medical and individual models towards the underlying conditions which create illness and health including creation of environments for health, through taking a multidisciplinary approach. It steers public health away from concepts based purely on epidemiological or biomedical

approaches, and the search for single cause and effect, and challenges traditional "evidence based" approaches (Rydin et al., 2012). However, in taking this broader view, recognition of the messy power-laden processes, pathways and responsibilities is also needed, to highlight the real challenges of achieving, driving and evaluating joined-up action on the ground to tackle these issues (De Leeuw, 2018; Hendriks et al., 2014; Murphy et al., 2018).

3.3.2. International and national policy drivers to consider food, health and environment

Public health policy has increasingly emphasised the role played by environmental factors in food choice and health. A "social-ecological" or "systems" perspective (described in more depth in the next chapter) can help clarify individual, behavioural and structural points of intervention and policy focus. Similarly, population health promotion perspectives building on the seminal Ottawa Charter (WHO, 1986) support wider approaches for public health promotion of healthy diets. These perspectives give a lens through which to explore intervention opportunities across individual, community and policy levels (Raine, 2005). Since the Ottawa Charter and Health for All (WHO, 1986), key international policy documents in health have continued to highlight the need to address structural factors, emphasising the interplay between individual choice, social, economic and environmental factors. WHO's "Health 21" (1999) framework outlined 21 targets, including two with reference to increasing accessibility and affordability of healthy food, and creating "healthy settings" (WHO Regional Office for Europe, 1999).

The extent of obesity also came to the forefront of national and international attention towards the early 21st century, bringing attention on food to help address this complex issue. The WHO "*Global Strategy on Diet, Physical Activity and Health*" (2004) acknowledged the key role of diet played in the burden of disease and obesity, calling for regional and national action plans to create "healthier environments", with civil society seen as key in creating grassroots pressure on the policy agenda for healthier diets (WHO, 2004). In 2005 the UK Government Foresight Report on *"Tackling Obesities: Future Choices"* used a systems perspective to analyse the complex multiple drivers of obesity. The obesity "systems map" was a key influence in highlighting pathways and interactions within a so-called "obesogenic" food environment seen as driving individual behaviours and food choice (Butland et al., 2007). Leeds Beckett University is exploring pathways and barriers to implementing a whole systems approach to obesity at local government level, across England (Public Health England, 2019 a, b).

An emphasis on joined-up action is also seen in the Commission on the Social Determinants of Health (CSDH) (CSDH, 2008). The CSDH recommends a whole of government approach

and calls for the creation of health enhancing environments through health professionals working collaboratively with planners. The Commission argued for inter-sectoral work where, "local government and civil society plan and design urban areas (and)...encourage healthy eating through retail planning to manage the availability of and access to local food" (CSDH, 2008: 66). Varied risks and exposures were recognised for individuals as a result of differential distribution of power and resources (CSDH, 2008; Marmot and Bell, 2019). WHO's Global Action Plan (2013-20) for prevention and control of non-communicable diseases provides a further road map of policy options for member states, including pushing for strengthened food policy and action, increased affordability and availability of fruit and vegetables, and emphasis on the role of urban planning (WHO, 2013a). Hawkes et al. (2013) describe application of the "NOURISHING" framework developed by the World Cancer Research Fund, indicating a range of comprehensive interventions to support healthy diets, including a policy focus on upstream food retail environment and food system change. Examples such as restriction of unhealthy food outlets through work between planners and health professionals, and promotion of urban agriculture, are cited. WHO's focus on Health in All Policies (HiAP) also acts as a push for public health bodies to embed health across all policies and action at local government level, with systematic collaborative inter-departmental work, and use of tools such as Health Impact Assessments and food system change (Carmichael et al., 2012; Department of Health, 2010; De Leeuw, 2017; Hawkes et al., 2013; Hendriks et al., 2013a; HUDU, 2013; Kickbusch and Gleicher, 2012; LGA, 2016; WHO, 2014). Key leverage was also embedded in the 2030 UN Agenda for Sustainable Development, into which food could be linked throughout 17 sustainable development goals (SDGs) including reference to good health and wellbeing, zero hunger, sustainable cities and communities, of relevance both to public health and planners (U.N., 2015).

3.3.3. Limitations to public health action on food, health and environment

Behavioural and individual factors have been the predominant focus in relation to public health approaches to improving diet; programmes and projects have largely focused on obesity and at individual change. Some point to the fact that, whilst focused strongly on individual responsibility, such initiatives are limited in tackling the underlying causes and powerful drivers of diet-related ill health (Caraher and Coveney, 2004; Lang et al., 2009; Mercer, 2010; Mitchie et al., 2014; Panjwani and Caraher, 2013; Sommer and Parker, 2013). In reality, there has been limited appetite at government level for and adoption of stronger policies to tackle vested interests or to change upstream food environments (Cohen and Ilieva, 2021; Lang, 2022; Swinburn et al., 2013, 2015; WHO, 2013a). Cohen (2020) illustrates for example, how emphasis on individual choice and lifestyle has shaped U.S.

policy attitudes to food and health, with a focus on provision of better information for individuals to bring about change, rather than on more upstream factors. Others argue for development of strong public policies that promote healthier food environments. More widely, rationale for policy focus on individual responsibilities is questioned in the context of pressures exerted by strong vested interests and unhealthy food environments (Cohen, 2020; Lang and Barling, 2009; Public Health England, 2017b; Roberto et al., 2015.). Cohen (2008) and Cohen and Farley (2008) show how the food environment presents continuous visual and sensory cues to the individual, undermining any self-restraint and ability to make real choice. This presents a question as to whether individual choice alone can drive food environment change and sets the scene for attention to more upstream action.

Roberto et al. (2015: 2400) highlight simplistic dichotomies between individual and structural viewpoints and action - noted in the "patchy progress" on obesity prevention and lack of coherent food policies at the national level (only 9% of high-income countries have coherent food policies). Using obesity, they argue that public health frames which pitch "individual" against "structural" are too simplistic, can slow progress on action, and negatively influence both public debate and policy success. They also point to a "vicious" cycle in which people's food choices are further undermined by poor food environments, affecting personal choices and subsequently demand. "People have some personal responsibility for their health, and environmental factors can affect the ability of people to exercise personal responsibility" (Roberto et al., 2015: 2404). In reality, both structural and individual approaches have some contribution, and they call for a pragmatic reframing of debate to embed a combination of the two.

As austerity took effect after 2008, there was concern in England about associated food poverty along with a narrowing of approach from the "upstream" to "downstream" focus, as public funding is cut (Ashton et al., 2014; Trussell Trust, 2021). Lang and Rayner (2012:12) raise concern that here, public health is increasingly adopting a narrow "managerial" approach, becoming a "technocratic localised act" whereby focus is on "minute behaviour change" to the detriment of attention on the wider forces that shape health.

3.3.4. The influence of "healthy planning" efforts

Consideration of healthy planning is another driver which provides an important context for urban food planning, acting as a unifying issue to bring together public health, urban planners and others (Lake, 2018; Lake et al., 2017; Mah et al., 2016; Morgan, 2009, 2013, 2015; Mui et al., 2018).

One source of learning, emerging from the Healthy Cities programmes led by cities in the North and launched in 1986 by the WHO, has highlighted pathways for cross-sectoral action

by local governments for the creation of healthy and supportive environments at a city scale (De Leeuw et al., 2014b, 2015; Tsouros, 2015). Embodying underpinning principles of equity, sustainability, inter-sectoral cooperation and community involvement, the rolling five-year phases of Healthy Cities since 1986 created an arena for innovation and learning (Ashton, 2009). The movement is underpinned by overarching frameworks found within Agenda 21, the Ottawa Charter, and Health 2020 framework (U.N., 1992; WHO, 1986, 2013b).

Food features as a thread throughout Healthy Cities' frameworks and toolkits under the themes of accessibility, use of green and open space, and specific interventions to protect or support urban food production (Barton et al., 2009; Barton and Tsourou, 2000; Belfast Healthy City, 2014; Morgan, 2009, 2015; WHO, 1997). Urban planners, for instance, are seen to play a key role through safeguarding allotments, exploring ways to incorporate food growing opportunities in new developments, encouraging local healthy, affordable food markets, and tackling obesogenic environments (Barton and Tsourou, 2000; Lake et al., 2017; Rydin et al., 2012; WHO, 1997).

In a perspective wider than the Healthy Cities frameworks, WHO and others have emphasised that consideration of healthy planning principles must be a priority of all planning activity on the ground. Here, again, food is considered. For example, the Healthy Built Environment Programme of the University of New South Wales explores practical links between health and the built environment (Kent et al., 2011). Urban agriculture and food growing is featured as an evidence base and example of healthy planning linked to healthy food. Some explore the links and literature around obesogenic environments which serve to foster links between planning and health. For example, Sautkina at al. (2014) evaluated England's Department of Health-funded Healthy Towns initiative, which promoted a systems approach through environmental interventions to tackle obesogenic environments found few officers on the ground understood how to implement this approach. Lake et al. (2017) investigated the extent to which English planners were working with public health, and their views of tackling obesity through spatial planning. Here, planners tended to see physical activity as relatively straightforward to understand tackle through planning, whereas there was less understanding about the complexities of built environment links with food and obesity. Chang (2017a, 2018) also reflected this and emphasised the need for multi-agency approaches. Lake et al. (2017) highlighted the key role of leadership and champions, along with the need to ensure that health is embedded in planning education. Kent and Thompson (2012: 1) envisage a reinvigorated relationship between health and built environment professionals, moving beyond silo working, towards a "healthy built environment profession"

where health has a role within the planning agenda, budgetary support is available, and policy weight in considerations of land use.

Much of the push for change within broader healthy planning in England has recently come from the work of national, regional and local public health policy. 2016 saw the launch of ten NHS Healthy New Towns demonstrator sites across England, highlighting potential of designing healthy places (NHS England, 2019 a,b,c; Petrokofsky et al., 2016). Promotion of healthy food through planning and licencing, in addition to restriction of hot food, is suggested as a way of creating healthier food choice. In England a public health focus on "place-based health" also gives a drive for increased collaboration, to support healthier communities in response to local needs (New Local Government Network, 2016). Use of tools such as Health Impact Assessments (HIA) to influence planning and contribute to health considerations has been successful in cities such as Quebec and London as part of the place-shaping agendas (DOH, 2010; Learmonth and Curtis, 2013; London Healthy Urban Development Unit, 2013).

Public Health England² (PHE; an executive agency of Department of Health focused on public health policy and support) has also increasingly taken a role in supporting planning for health through production of formal guides and documents (PHE 2017a, 2018, 2019a,b, 2020a). Its 'Spatial Planning for Health' document (PHE, 2017a) reviewed evidence for planning and designing healthier places and use of planning principles in supporting population health. This included a focus on supporting healthier food environments, including interventions for enhancing community food infrastructure, citing urban agriculture and support of healthy, affordable food at a population level. The document highlights modifiable features including decreasing exposure to unhealthy food environments and improving access to retail outlets selling healthier food, linked with varied evidence of positive health outcomes. Public Health England's Healthy High Streets: Good placemaking in an urban setting (PHE, 2018), similarly explores the role of place in contributing to health. It examines the high street as a determinant of health, including access to healthy / unhealthy foods and their impact on health inequalities. From the planning side, nonstatutory groups, the Town and Country Planning Association (TCPA), RTPI and civil society food group Sustain have also highlighted the links between planning and health in numerous documents and good practice guides, including focus on food and obesity, using levers and interventions such as supplementary planning documents, urban agriculture and support of diverse food offers in retail (LGA, 2016; Ross and Chang, 2012, 2014; RTPI, 2009,2014; Sustain, 2011a, 2014). However, there is limited analysis of how this might be achieved in

² Superseded in 2021 by UK Health Security Agency, and Office for Health Improvement and disparities

practice, and often the main focus remains on physical activity, with food environments explored in less detail.

3.4. Urban planning as a player in urban food policy

Urban planners themselves are increasingly shaping healthy food environments through use of planning policy and levers. Ilieva (2016) outlines that whilst urban planners may have been part of the *problem* in creating some urban food challenges, they are now increasingly seen as part of the *solution*, through embracing sustainable development, collaborative working, and holistic approaches to address these cross-cutting issues in the design of the urban fabric.

Having explored healthy planning as a bridge between planning and public health practice, this section considers the drivers and thinking behind urban planning per se for considering food within the urban fabric. It explores how urban planning has evolved over time, what the place of food has been and how this context influences planners' role in imagining current food environment change and urban food planning.

3.4.1. Seeing food within the fabric of cities

Food - its production, consumption and waste - have become increasingly invisible in the fabric of northern cities; and with it, citizens' connection with this element of life, and the regulation of urban space planning and management (Howe, 2002; Viljoen and Bohn, 2014). Carolyn Steel (2013, 2020) in her vibrant books *Hungry City* and subsequent *Sitopia* traces the place of food within cities in the Northern hemisphere. She shows that the banishment of food was relatively recent; in the past the production and sale of both animals and plants were an integral part of cities' fabric giving its citizens a close connection to food, as explored using the example of milk supply in London by Whetham (1964). Following both 19th century public health reforms and planning and land use regulation in northern cities, food production and processing retreated out of sight, or to the rural. Food now enters the city invisibly from world-wide sources, allowing citizens to remain in ignorance of its origin, environmental and social impacts (Lim, 2014; Steel, 2013, 2020).

Some argue that the removal of food production from cities has been in part driven by urban planning in its pursuit of technical and functional ordering of space, in which urban settings are classified and divided along Cartesian lines (Hall and Tewdwr-Jones, 2019; Qvistrom, 2007; Scott et al., 2018). Aspects of "nature" embodied in productive green spaces such as allotments and urban agriculture can be seen as a challenge to this approach, presenting dis-ordered, messy space, in opposition to urban ideals of ordered "civilisation" (Costa et al., 2016; Crouch and Ward, 1988; Hardman and Larkham, 2014; Hinchliffe, 2007; Scott et al., 2018). Some argue that a regulatory approach to planning hinders flexibility,

experimentation and drives for sustainability, illustrated in responses to challenges posed by unorthodox, informal forms of land use on the "edges" such as guerrilla gardening and urban agriculture (Adams et al., 2013; Hardman and Larkham, 2014; Hardman et al., 2018).

In their early survey of U.S. planners, Pothukuchi and Kaufman (2000) highlighted barriers to inclusion of food within planning agendas. At that time, they described food as a "stranger" to the planning system, whereby planners showed limited understanding or responsibility for food systems and relationship to infrastructure and built environment planning. Planners were found to frame food as either a rural issue, or as led by the private market, underpinned with perceived lack of funding to focus on food (Clancy, 2004: 435; Sonnino, 2009). Raja et al. (2017, 2018b), in a five-year study of planners in the U.S., found progress in attitudes to food as a planning issue but less evidence of *activity*, with uneven use of planning policy to enhance food systems across U.S. cities. They indicated that there is a way to go for local governments to take a stronger role in food planning.

As Ilieva (2016) shows, planners have a range of levers and tools at their disposal in which to influence food in the city, from zoning, and land-use plans, through to comprehensive and strategic spatial plans, and more innovative design. Examples in U.S. explore use of comprehensive plans for addressing food systems, for example in Detroit; urban agriculture was seen as a common intervention used with aspiration to promote food security. (Hodgson et al., 2011; Mui et al., 2018; Raja et al., 2017, 2018b). Cohen (2018) also highlights how in Harlem, New York, whilst zoning has supported integration of food intentionally, more attention needs to be paid by city planners to the unintended consequences of zoning on the food system, whereby food may be end up being displaced.

The American Planning Association (APA) has also led the way in documents such as "*A planners guide to community and regional food planning*" in arguing for alignment with community and regional food planning, and for food system planning to be taken seriously across urban planning including land use, transport, health, environment and economic planning (APA, 2021; Raja et al., 2008a). The Association of European Schools of Planning (AESOP) have followed this example, along with others to focus increasing attention on work to build "sustainable food systems" (Hardman 2012; Viljoen and Wiskerke, 2012; RUAF, 2020). Wiskerke and Viljoen (2012) have suggested there is a need for more cross-disciplinary work within the development of food strategies to enable urban planners and designers to make food more visible spatially. Drivers have also come from civil society and planning advocates, seen for instance in English publications such as civil society food group Sustain's toolkit for "*Good Planning for Good Food*", and the Town and Country Planning Association's *'Planning Healthy Weight Environments*' along with other documents,

focusing on obesity and planning (Sustain, 2014; Ross and Chang, 2014; Chang and Radley, 2020).

lieva (2016) argues that planners are well placed to consider food as part of a holistic approach. Against this context, and with growing awareness of food systems challenges, land-use planners are beginning to envisage food as part of their remit - in their consideration of land use development and management within cities. Ilieva's book (2016) and Cabannes and Marocchino's (2018) exploration of 'Integrating Food into Urban Planning' (2018) highlight links between urban food policy and planning and give an indication of how far urban food planning has come since the pioneering study by Pothukuchi and Kaufman (2000). Cabannes and Marocchino (2018: 20) draw attention to the progress made, highlighting how food has increasingly been incorporated into planning documents through food strategies and wider sustainability plans, such as those for London (2006 and 2018), Amsterdam (2007), Bristol (2013), and Toronto (2015). They argue that despite this, in many cases, integration remains narrow, limited to certain aspects of activity in the food system, such as urban agriculture, and a wider view is less common. They comment on a gap in knowledge, (addressed in part in this thesis), that, "although food is beginning to be integrated into planning in various cities and regions, local practices have not yet been made visible to a wider audience and, just as importantly, reflections on their limits and successes remain scarce" (Cabannes and Marocchino, 2018: 20). The authors describe the complexities of interpretation of food strategy aspirations into spatial terms, where entry points and motivations vary across diverse actors, and there is a challenge in the ability and capacity of urban food planning to "connect the different dots" in a systemic way (Cabannes and Marocchino, 2018: 30). Mui et al. (2018), exploring the work between public health and planners in the U.S. to progress food systems, show the influence and leverage which public health can bring to support consideration of food in planning. Additional capacity is brought in by public health via funding, community engagement and use of metrics to support planners in considering health outcomes. Pothukuchi (2019) in a comment on Ilieva's book, again highlights a gap in understanding, and the need for more indepth exploration and reflection on processes by which food planning is institutionalised, and insight into the decision-making taking place behind the scenes.

3.4.2. Understanding the planning system and practice

Understanding the policy context and roles in which urban planners operate is important in gaining insight into the extent to which urban planning can play a role in influencing food environments. Modern urban planning approaches described by Hall (1996) emerged in the twentieth century, initially as an expert driven, technical discipline making use of an array of policy, enforcement and regulatory tools to support the rational organisation of urban space

in response to the rapid expansion of cities. Contemporary planning practice is underpinned by rational, path dependent, bureaucratic and often inflexible approaches to space, including zoning, land use categories and regulations governing the urban environment (E.C., 1999; Ilieva, 2016; Prager et al., 2012). Its work includes the current and prospective organisation and management of land use, and coordination of policies related to land use (Ilieva, 2016; Hall and Tewdwr-Jones, 2019). Planning practice has continued to evolve and manifest in different forms across northern cities - for example, in U.S. with land zoning from the 1940's and from the late 1990s with moves towards spatial planning in the U.K. and Germany (Ilieva, 2016; Kidd, 2007).

From the 1990s and 2000s, evolution of planning theory and practice has brought potential to broaden out from a reactive, regulatory stance, towards more integrated and holistic approaches. Concepts such as collaborative planning, spatial planning, and healthy planning did, in theory, give more focus to place-shaping and opportunity to think about the way in which cities are shaped. This involved emphasis on collaborative working by a range of stakeholders to meet needs of sustainability, health and community (Adams et al., 2013; Almendinger and Haughton, 2010; Clifford and Tewdwr-Jones, 2013; E.C., 1999; Kidd, 2007; Tewdwr-Jones et al., 2010). Spatial planning, for example, aspired to provide grounded system-wide perspectives supporting the integration of collaborative involvement across health, economic development, transport and other sectors, enabling more effective and long-term action on cross-cutting issues such as health and climate change (Allmendinger, 2009; Allmendinger and Haughton, 2010; Carmichael et al., 2013; RTPI, 2014; Wilson and Piper, 2010). However, Adams et al. (2013: 375) and others (Scott et al., 2017) argue that whilst contemporary spatial planning theory should enable more innovative use of space through maximising both social and environmental potential, there is in fact a "disjuncture between spatial planning theory and practice", whereby the continued regulatory approaches to planning hinder experimentation and innovation. The formulation and adoption of the U.N. Sustainable Development Goals (U.N., 2015), New Urban Agenda (U.N., 2017; Battersby and Watson, 2020) and U.N. "Nutrition Decade" (2016-25) has embedded further binding targets and drivers for planners and others to achieve by 2030, and with it, consideration of the role of food against overarching sustainability goals set within territorial perspective (BCFN and MUFPP, 2018; U.N., 2016).

In England, local government is responsible for administering and delivering much of the planning system, guided by overarching policy and process to deliver Local Plans, assess planning applications and carry out enforcement roles, for example as seen in restriction of fast-food outlets previously discussed (LGA, 2015, 2016). Versions of the National Planning Policy Framework (NPPF) Ministry of Housing, Communities and Local Government

(MHCLG, 2012, 2018, 2019, 2021) sets out the government's planning policies for England, underpinned by a presumption in favour of sustainable development across, economic, social and environmental objectives. The 2012 Framework (MHCLG, 2012) represented a simplification and overhaul of previous planning guidelines, and was positive in that it highlighted the need for collaborative action (e.g. for public health and planners and other stakeholders to work together) to create more healthy and sustainable communities (NPPF Paragraph 171 'local planning authorities should work with public health leads and health organisations to understand and take account of the health status and needs of the local population') (MHCLG, 2012: 47). Since 2012, revised versions of the NPPF (MHCLG, 2018, 2019, 2021) are less clear about this proactive approach but remain underpinned by aims to achieve sustainable development including the social objective to support promotion of healthy communities. They outline promotion of "healthy and safe" communities, including environments and well-designed places that support healthy lifestyle, including access to healthier food, allotments and food growing opportunities (MHCLG, 2018, 2019, 2021). Critics have raised concerns about the removal in the NPPF (2018) of references to Garden City Principles, failure to tackle food system holistically and a weakened focus on health and healthier food outcomes (TCPA, 2018 a,b; Sustain, 2018a). Concerns also remain about the pressure for housing and economic development in recent NPPF documents (MHCLG, 2019, 2021), and subsequent impacts on quality of design - albeit welcoming some aspects including measures to alleviate climate crisis with mention of trees, parks and community orchards (Ing, 2021).

3.4.3. Imagining the city

Whilst some see an inherent tension in the realisation of regulatory planning function and innovation, there have been glimpses through time of imaginative experimentation and debate about the type of places cities can be, and with it, where food can play a part in those visions. In nineteenth-century England, in response to perceived social and environmental ills arising from rapid urbanisation, some radical thinkers imagined new ways of organising human interaction with the urban fabric. Connection to the land, food production and ability to grow food was central to these ideas - Kropotkin (1901), for example, as an anarchist, envisaged the development of small, self-contained settlements in which industry and agriculture could be combined enabling people to retain their connection with fields. William Morris similarly developed ideas for settlements enhancing dignity through connection with the land (Morris, 1890). Some visions were realised in practice, often through independent finance. Industrialist George Cadbury developed a model "garden village" in Bournville, Birmingham, recognising the role of planned development, combining green space,

community and living areas to improve health of his factory workers. Here productive gardens were planned and promoted:

"If possible, cultivate your garden with the help of your own family. Man's natural place is the land. Work in the garden enlarges the minds and strengthens the bodies of your children" (Richardson, 2016).

Later, Ebenezer Howard was to outline the role of proactive planning to combine the healthgiving features of urban and rural life, in the development of new Garden City settlements, partially realised in Letchworth (1911) and Welwyn Garden City (1926) (Future Spaces Foundation, 2015; Hall and Ward, 1998; Howard, 1902; TCPA 2018b; Wheeler and Beatley 2014). Howard's 'town-country magnet' model fused the best elements of town and country, with a vision for settlements which brought connection to land at its heart, balancing settlement, parks, cultivation of food, and employment through progressive land reform (Hall and Ward, 2014; Howard, 1902; Steel, 2013). In 1899, Howard founded what was to become the Town and Country Planning Association (TCPA), an organisation which continues to this day to influence thinking on the nature and sustainability of cities, the role of green space, and promotion of health through planning. The influence of these ideas continues to be played out within planning in England and beyond through creation of "new towns" (1950s-1970s) and seen in the recent government planning focus on creation of garden towns and villages in England, with influence reaching across Europe and the United States (Hall and Ward, 2014; Future Spaces Foundation, 2015; MHCLG, 2017; TCPA 2018b; Wheeler and Beatley, 2014).

Others have envisaged innovative approaches to urban food systems design through linking food and planning agendas. Viljoen and Bohn's (2005) concept of Continuous Productive Urban Landscapes (CPULs) has been mentioned, seeing integration of food growing throughout urban landscape planning. Whilst Lefebvre (1974) argued that nature has become "problematic" within planned urban settings, Viljoen and Bohn (2014:1) build on this view of a "second nature" to envisage how urban agriculture could "herald a future" for the urban world. More ambitious plans explore the integration of urban agriculture into new development, seen in examples like Almere in the Netherlands (Jansma and Visser, 2011).

3.4.4. Embracing nature-based solutions, green infrastructure and ecological design

There is increasing consideration of climate crisis, sustainability, biodiversity and the role and design of Green Infrastructure within planning. This has provided further potential leverage for consideration of food, set within context of challenges to ecological and human health. Concepts such as "nature-based solutions" (NBS) and "biophilic urbanism" as solutions to urban problems have enhanced the consideration of ways in which relationship between cities and natural environment is negotiated and planned (Beatley, 2009, 2011; Cohen-Stracham et al., 2016). Increasingly, visions of the city search for ways to create "natureful" cities within all aspects of building design, land use, and planning of space (Beatley, 2011). Moves to quantify and recognise "ecosystem services" (ES) provided by the natural environment attempt to influence development in contribution to human and environmental health and future resilience and sustainability (Beatley, 2011; Haase et al., 2014; Millennium Ecosystem Assessment, 2005; Watson et al., 2011; Scott et al., 2016). Here, the place of food growing, and urban agriculture is recognised as playing a role in the consideration of benefits of multifunctional green space, and a "provisioning" function of ecosystem services set within the fabric of cities. This includes examples of urban agriculture and community gardens, in spaces including parks, rooftops, high rise, and within planned housing developments and urban regeneration, and creation of edible green infrastructures (Gorgolewski et al., 2011; Mougeot, 2000, 2005; RUAF, 2020). Others posit "multifunctional" benefits of green space within a city where multiple uses, activities and benefits of activities possible within green spaces such as urban agriculture can be developed, embraced and incorporated as a strategy within urban planning (La Rosa et al., 2014; Van Leeuwen et al.,2010).

Literature on urban agriculture and its intersection with urban planning tends to focus on interest in ascertaining and achieving functional, productive potential and capacity of land, as seen in the case of master planning in post-industrial Detroit (Giorda, 2012; Martellozzo et al., 2014; Walsh et al., 2022). Others focus on identifying the capacity of land for hypothetical productive use, using tools such as geographic information system mapping (GIS), aerial and Google imaging, to give optimistic views of how cities could provide more food through use of vacant ground, rooftops, gardens and green space (Colasanti and Hamm, 2010; McClintock et al. 2013; Port and Moos, 2014; Saha and Eckelman, 2017; Taylor and Lovell, 2012). Haberman et al. (2014) explore land potential in Montreal, through scenarios of vacant space, roof tops, consumption needs, and productive potential. Grewal and Grewal (2012) linked crop yield scenarios, and food intake recommendations to explore self-reliance possibilities in Cleveland (OH), through potential use of urban land use and vacant lots. McClintock et al. (2013) used GIS mapping in Oakland (CA), and advocated land mapping tools for enhancing work of with municipalities. Mendes et al. (2008) advocated the use of land inventories in Portland (WA) and Vancouver in enhancing development of UA policy. While these studies advocate urban agriculture's potential for food production and influencing planning, they have limitations. Broad brushstroke

assessments "from above" cannot take complexities on the ground, such as land contamination, access, and logistics of regeneration, fully into account, and thus remain over-idealistic (De Sousa, 2006, 2014). How to realise this in practice is underexplored, and analysis of urban agriculture's role within food systems and urban planning debate is needed, with critical appraisal in real-world settings (Tornaghi, 2014). Despite great enthusiasm, there is lack of evidence about "scaling up" of urban agriculture, and many initiatives remain at a project level. Others point to urban agriculture as inadvertently supporting a 'neo-liberal' agenda in the context of a shrinking state (McClintock, 2014).

3.4. Constraints to integrated planning approaches to food and health

Having explored three strands of enacting urban food environments - urban food planning, public health and planning - this final section explores some of the more grounded literature noting opportunities and constraints to integrated, cross-sector work. This draws from more recently emerging literatures within healthy planning, and although not always directly focused on food, this literature provides a useful pragmatic context for the exploration of integrated policy making processes behind the scenes - which is the main focus of this thesis. There is need for greater insight into the complexities of decision making around healthy planning and implementation of such approaches, in relation to impact and application to food environments (Cabannes and Marocchino, 2018; Mattioni, 2021).

A number of studies focus at this level exploring some of the viewpoints of stakeholders in integrated approaches. Wegener (2011), for example, develops a "GENERATE" acronym to indicate a step-by-step framework for "what works" to move food system policy making and integration of food within a regional plan. Her exploration of regional food planning in Waterloo, Canada, highlights the importance of effective food system groundwork, awareness-raising and partnership work in supporting action between planning and public health to advance healthier food environments. However, she also identified barriers of institutional habits and silos in blocking change. Murphy et al. (2018) investigate both government and non-government stakeholders in Melbourne to understand perspectives on spatial planning and governance for local food environments, in efforts to advance health and equity in cities. Interviews highlighted a range of barriers and opportunities relating to regulation, finance, urban planning policy, coordination and partnerships, and leadership. Barriers included competing priorities and siloed ways of working, limited control and lack of joined work between planning and public health, along with healthy food not being seen as a priority in urban planning. Opportunities were seen through harnessing pressure for governmental policy change upstream, and bringing housing, land use and urban design

policy into focus to support local food environments. Ongoing and robust governance, political leadership was seen as essential to achieve change, along with focused leadership distributed across government and identification of shared goals to enable action. These findings echo Shill et al. (2012) in their exploration of attitudes in state government in Australia to action food environment change; this research previously pointed out barriers of silo working, conflicting agendas and "neo-liberal" concerns about interference with the market-driven economy.

Raja et al. (2018b) argue that integrating food into planning pathways must take account of local contexts, including the historical nature of challenges faced by communities. They found examples of the ways in which planning is being used across U.S. cities to strengthen consideration of food. They made a distinction between two types of approaches. Communities of *innovation* were characterised by strong local government leadership, (e.g. in Minneapolis' Urban Agriculture Policy Plan (2011), whereas communities of *opportunity* were seen as primed for food system change facilitated by pressure from beyond local government (e.g. Dougherty County, Georgia). Key points showed that strong community drive, strong local government leadership, cross sectoral partnerships and funding availability all underpinned success of integrating food into local government planning (Raja et al., 2018b:148). Despite relatively limited tools, planners could act as "convenors" for stakeholder engagement in food. Examining joint work between planning and public health to strengthen food systems in the U.S., Mui et al. (2018) showed that whilst progress was being made to integrate food systems into comprehensive plans and other strategies, barriers of funding and insufficient staffing remain as challenges.

Constraints within planning practice to increase urban greening and, with it, possible implications for urban food growing and urban agriculture also act as a barrier. Pressure within cities for space, and drives for housebuilding, have meant that green space is sometimes at risk. Kazmierczack (2016) explores challenges to greening brownfield land in Manchester for climate alleviation, highlighting huge pressures on urban and green belt land as local authorities are pushed by central government to pursue ambitious housebuilding targets. Planning policies favour dense developments along with smaller gardens to prevent urban sprawl, and have been shown to put green space, urban food growing and allotment sites at risk (Drilling et al., 2016; Eisenberg et al., 2016; Haaland and Van den Bosch, 2015; Leendertz, 2013; Spiková and Vágner, 2016). Austerity has also led to threats to green spaces, including the loss of public green space and parks (DCLG, 2017; HLF (2016); Lake et al., 2017; Whitten, 2019).

More broadly, there is still a way to go in bringing planners to work collaboratively on the ground with health - again with implications indirectly for focus on food. Since Barton (2005)

argued that current planning theory and practice was "health-blind", there has been some progress. In England and elsewhere, whilst planners and public health professionals are more aware of the need for health to be incorporated into planning practice, there is evidence that this is still patchy, dependent on a narrow view of health, local context, weak leadership, and understanding, along with limited knowledge transfer between the disciplines (Carmichael et al., 2012, 2019; Geddes et al., 2011; Gray et al. 2010; Hofstad, 2011; Kent and Thompson, 2012; Lake et al., 2017; McKinnon et al., 2020; Petrokofsky et al., 2016; Geddes et al., 2011; Roberto et al., 2015). Sautkina et al. (2014), exploring planning and public health professionals' interactions around England's NHS Healthy Towns programme, highlighted challenges to embedding systems thinking in joining up the work beyond project level to tackle obesogenic environments. Hawkes and Halliday (2017) echoed this in exploration of Amsterdam's attempts to tackle obesity in a joined-up way. They comment that initially "thinking about food in public spaces was relatively new to public health officers, while planners had little understanding of how their work affected public health", a realisation that led to increased cooperation over time through joint ventures (Hawkes and Halliday, 2017:47).

More recently, for example, the TCPA noted in 2018 that only 22% of Local Plans in England made reference to Health and Wellbeing Strategies. This was despite the fact that local authorities are responsible for production of such strategies and plans, that health was supported within the NPPF, and that public health and planning departments were under local authority jurisdiction (TCPA, 2018a). Lake et al. (2017), in their exploration of English planners working with public health around obesogenic environments, identified a range of barriers to effective action, including the need for greater understanding of and confidence in the causes of obesity, economic constraints driven through austerity and cuts, which impact both on capacity and infrastructure such as green space spending. Whilst they note that the organisational move of public health into local authorities, post 2013 presented an opportunity for closer work with planning, there was still limited evidence that this was the norm. Planners were sometimes seen as "reactive" rather than "proactive" in bringing public health into their work and were often seen to face conflicting priorities.

Attention is also drawn in the literature to the practical and logistical barriers faced by planners when considering health, and food, such as involvement and negotiation with powerful stakeholders, and in working within the realities of planning legislation. Developers for instance, play a role in influencing ability to act on food environment and health. Lake et al. (2017) note how developers may be averse to providing large areas of greenspace (as potential food growing space for example) within developments. This is perceived as potentially eroding developer profit margins, meaning that developers in effect may "hold all

the cards" in more deprived areas: in some cases exerting opposition to planners' suggestions of healthy planning features. Chang (2017a; 2018), in a TCPA report from an engagement event with developers around healthy planning, indicated the need for more direct and timely involvement of developers in healthy place-shaping. This could include improving the evidence-base as persuasion for the commercial case for healthy development, and engaging developers earlier on with health, before financial decisions which set the shape of projects have taken place. Chang noted planners were ultimately "thwarted" as they juggled with local authorities' need to deliver jobs, economic regeneration and housing, and pressures of developer and dominant food system power. Their priorities needed to be better aligned with public health, through enhancing roles and public health leadership to ensure cross disciplinary work.

Planning "use classes" in England have also provided some legislative challenges when used by planners to guide implementation of tools such as Supplementary Planning Documents aimed at restricting hot-food outlets. The original Town and Country Planning (Use Class) Order 1987 (operational at the time of research) established "use classes" as categories for retail outlets, indicating approved end use. For example, category A5 denoting hot-food takeaways, A3 restaurant, and A1 retail including sandwich bars (Gov. U.K., 1987). However, distinction between categories and subsequent loopholes exploited by operators, meant that implementing regulations in practice was often challenging for local authority planners. Lake (2018: 241) in exploring local planning policy and practice of this type in England in influencing neighbourhood food environments, argues that planning legislation was not nuanced enough. She noted that despite some upstream measures (SPDs for example), approaches still tended to predominantly focus on lifestyle change targeted at individuals. Lake commented that planning use classes in use at the time, were a blunt tool and, need an "overhaul" in order to respond to the complexity and challenges of food environments (Lake et al., 2017; Lake, 2018). Lake (2018) also notes that attempts to use upstream planning measures are lacking and need national and local leadership, along with an integrated and whole-systems approach. The 1987 use classes were overhauled in legislation in 2020, removing A4 and A5 categories, and placing drinking establishments with food provision and hot-food outlets as "sui generis" or "in a class of its own" (Gov.UK, 2020). This overhaul was cautiously welcomed by civil society food group Sustain, as holding more potential to address proliferation of hot food outlets and encourage community outlets (Footprint, 2020). This remains to be seen.

Of final note, the differing viewpoints, perceptions and approaches between public health and planners are seen to present a challenge in integrated decision making. Carmichael et al. (2016, 2019) explore different extents to which planning and health worked together in England, based on a series of seminars from 2015-17. They saw fragmented approaches underpinned by differing views on evidence used within planning and public health, presenting barriers for inter- sectoral work. Planners and public health work from different knowledge, evidence and policy environments, and still do not consistently work together - factors which undermine healthy planning principles. Planners work within tighter operational constraints of planning policy, process and delivery mechanisms, with evidence and decision making in planning based on use of precedent and case set within key legal guidance. There was uncertainty as to how to make use of academic evidence in local contexts, although there was evidence of use of local intelligence documents such as Joint Strategic Needs Assessments, (JSNA) used to guide decision making. Carmichael et al. (2016) also identified resource constraints, and challenges faced in trying to encourage developers to consider healthy place-making, with long-term view against perceived short-term pressures on housing delivery and viability (Carmichael et al., 2016, 2019).

In contrast to planning, public health may be seen to have broader aspirations, making decisions based on evidence from local knowledge (JSNAs for example) and wider sources such as up to date research from Public Health England, National Institute for Clinical Excellence (NICE) and the Cochrane Collection (Brownson et al., 2009; Cochrane Database, 2020). In practice, broader forms of evidence may be necessary, especially in relation to long-term data on social determinants of health. In community settings, where control trials are not possible, practitioners need to make a balanced analytical assessment including local context, observation, and cross-disciplinary evidence (Carmichael et al., 2016;). Black and Donald (2001) caution about the assumptions of linear models where evidence is seen to lead directly to policies, and points to a more complex journey, influenced by a range of factors. They found evidence may be dismissed as irrelevant if it comes from a different sector, embodies different values, or where there is lack of consensus, or competing evidence. McGill et al. (2015) exploring built environment professionals view of evidence for determinants of health, identified use of a broad range of knowledge sources, including academia, and with favour towards local evidence, and acceptance of case study examples more likely from comparable areas. They were also seen to emphasise immediate outputs and outcomes above evidence of longer-term outcomes- such as addressing determinants of health.

3.5. Summary of chapters 2 and 3

Chapters 2 and 3 gave wide ranging insight into current key academic and policy literatures around understanding of integrated action towards healthier food environments. They explored some of the concepts, evidence behind links between focus on food environments

and health, whilst highlighting some of the complexities in understanding the causal pathways. They also examined some of the policy approaches, including efforts to promote healthier and discourage unhealthy food environments, and vehicles for this to happen. Common throughout the literature is recognition of the need for integrated governance, decision and policy making to tackle complexities of upstream food environments. Exploration of perspectives from three intersecting disciplines; urban food planning, public health and urban planning, reveal that whilst opportunities exist and progress has been made towards integrated policy approaches, barriers remain. Whilst integrated work is emerging, there are still significant political, leadership, practical and resource constraints, and in practice silo working is common. There is need for greater insight into the complexities around implementation of integrated approaches across these themes, and more in-depth exploration into decision-making taking place behind the scenes and reflection on processes by which food planning is institutionalised.

Chapter 4: Conceptual Underpinnings 4.1. Introduction

As the literature discussion in chapters 2 and 3 showed those working in public health, urban food planning and urban planning disciplines are increasingly recognising that fragmented ways of approaching "wicked problems" with multi-level causes are no longer working. Instead, increasingly policy makers argue that tackling challenges in relation to food environment change requires joined up, integrated policy making and governance. This chapter will explore some of the relevant "higher level" concepts that underpin this move towards more integrated and interdisciplinary approaches which are emerging in the literatures of these disciplines. Firstly, it will clarify approaches to public health, and underlying concepts focusing on the "structural", "upstream" or environmental factors driving health. Next, it will examine some of the key concepts behind the development of systems thinking and skills. Finally, it will examine this in the light of the literatures on the policy process and integrated policy making, drawing on approaches within social policy and healthy public policy literature. All these concepts are commonly found in relation to urban food governance; rather than reviewing a wide range of governance frameworks, the focus here is on specific concepts that, in the literature, seemed to have traction and appeared most pertinent for integrated urban food planning and food environments.

4.2. Examining Health and Determinants of Health

4.2.1. Understanding approaches to public health

Whilst pinning down a clear definition of public health is not without its challenges, understanding the different concepts in use is essential in unpicking approaches to the complex challenges seen within food planning programmes and emerging urban food policy activity. A clearer understanding of the underlying concepts helps to distinguish between "individual" and "structural" drivers of diet related ill health, and hence to discern points at which interventions can be targeted (Blankenship et al., 2006; Cohen and Farley, 2008; Lang and Rayner, 2005,2007; Lang et al., 2009; Sommer and Parker, 2013). Coupled with this is a move towards a holistic "systems view" to avoid what Lang and Rayner (2007: 166) describe as a "policy cacophony" around food: found, for instance, in early approaches to obesity. This then also helps contextualise public health involvement in urban food policy, and the emphasis placed on integrated policy and governance, debates about individual and structural approaches to diet, and the focus on links to the built environment and planning as points of policy intervention. As noted in chapter 3, Winslow (1920) provided the foundation for contemporary definitions of public health, still in current use in the U.K. and U.S. He defined public health as "the science and art of preventing disease, prolonging life and promoting physical health and efficacy through organised community efforts..." (Winslow, 1920: 30). This, he saw, included interventions across different realms, including sanitation, diagnosis and treatment, and support of "social machinery" needed to ensure healthy living standards. Here, he encapsulated social, "structural" and wider "environmental" factors, as well as individual and behavioural factors, impacting on health. The U.K.'s Faculty of Public Health builds on this, seeing public health as "the science and art of promoting and protecting health and wellbeing preventing ill health and prolonging life through the organised efforts of society" (FPH, 2016:2). This perspective recognises that collective efforts are needed to tackle health at a population level. It identifies a key role for the state and recognizes the underlying socioeconomic and wider determinants of health, as well as disease (FPH, 2016). FPH sees public health as working across three areas: health improvement, improving services and health protection (FPH, 2016:2). Public health in this view thus has a responsibility to go beyond narrow medical models and consider the underlying conditions which create health, through an integrated approach.

Key phases of public health have been identified, underpinned by different paradigms and influenced by changing political, scientific and cultural factors and viewpoints (Awofeso, 2004; Bentley, 2014; Hanlon et al., 2011; Kickbusch, 2003; Lang and Rayner, 2012; Rayner and Lang, 2012). Awofeso (2004), for instance, maps out six approaches to public health from antiquity to the present day, marked by different dominant underlying paradigms. The first approach, starting in antiquity and ending in the 1830s, was defined by health protection, and regulation of behaviours, for instance through the use of religious codes. The second, the "miasma" era (1840s-1870s), has its origins in public health measures found in Victorian England, for instance in Edwin Chadwick's work in 1843 demonstrating understanding of the effects of poor environmental conditions on disease and poor health outcomes. This served to shape a particular approach and discipline of public health. The third era (1880s-1930s), described as the contagion era, was led by advances in bacteriology and increasing understanding of the pathways for disease, and a basis for control. The fourth (1940s-1960s), led public health to focus on preventive medicine, such as nutrient supplement, and focused on those members of the population at high risk. Fifth is the so called Primary Health Care era (1970s-80s), underpinned by the Alma Ata Declaration (WHO, 1978), defined the broader underlying conditions needed for good health, including peace, socioeconomic development with an emphasis on community participation and equity, preventive and primary health care, as well as state responsibility. This

underpinned initiatives such as Healthy Cities previously discussed. The sixth era (1990spresent) Awofeso defines as the health promotion era, again underpinned by aspirations embedded within the WHO Ottawa Charter (1986), with a broad health promotion focus to create supportive environments for health, develop healthy public policy, and support community action. This era is sometimes referred to as "The new public health". Awofeso argues that each era has adapted approaches from previous thinking, in order to meet the challenges of the time.

Rayner and Lang (2012: 46) highlight that it is important to understand tensions within conflicting philosophical standpoints of public health over time in order to better understand different approaches taken on the ground. Over time, different views can be seen about the value and importance of environmental and "structural" influences on health versus those favouring "individual" responsibility. Rayner and Lang (2012), for example, describe midtwentieth century activity as dominated by a "socio-behavioural" model, characterised by emphasis on personal choices and autonomy. This is still echoed within food policy debates today, for example in the UK, through reluctance for government intervention, emphasis on individual choice, lifestyle, "nudge" theories and social marketing, against a backdrop of "neo-liberal" emphasis on reduced regulation and accusations of "nanny state" influence in food choice (Rayner and Lang, 2012: 75, 83). The authors comment that it is important for policymakers to establish the "degree to which the individual has responsibility and the degree to which the environment supports or undermines social and individual responsibility" (Rayner and Lang, 2012: 79, 82). Rayner and Lang (2012) challenged limitations of concepts of public health and proposed a broader "ecological public health" model, embracing interrelationships between health of both humans and the natural environment. Based on concepts of ecological "systems", explored in more detail below, and gathering strength within emerging "nexus" thinking and "planetary health" debates, this model indicates a growing understanding of the impacts of food systems on human and ecological health (Bentley, 2014; Kickbusch, 1989; Lang, 2012; Mason and Lang, 2017; Morgan, 2014; Rayner and Lang, 2015; Swinburn et al., 2019; Weitz et al., 2017; WHO, 1986).

4.2.2. Identifying the determinants of health

Leading from these wider debates, various models have been developed to clarify underlying drivers of health and distinguish intervention potential across "structural", "environmental" and "upstream" through to "downstream" and "individual" or behavioural approaches (Carey and Crammond, 2014, 2015a, 2015b; Michie et al., 2014; Sommer and Parker, 2013). One such approach draws on "socio-ecological" perspectives as a framework through which to view the underlying wider "determinants of health". Stokols et al. (2013) trace the roots of socio-ecological perspectives to theories of urban development espoused within the Chicago School of Human Ecology in the 1930s. This was later developed in nuanced form within "*social ecology*". Social ecology, as Stokols et al. (2013: 3) state, has come to refer to "the study of communities from a broad, interdisciplinary perspective that encompasses bio-ecological and macro-economic concerns, but gives greater attention to the social, psychological, institutional, and cultural contexts of people-environment relationships than did earlier human ecology research". Work by Stokols (1992), Ericksen (2008 a,b) and Ostrom (2009) amongst others served to develop this focus.

Stokols et al. (2013:3) highlight four core principles common to social ecological approaches that:

Identify the multiple dimensions of human environments - across physical, social, spatial and subjective elements

Involve multi-level analysis in order to understand the different elements and levels within the complex system and the way in which they interact

Draw on key concepts found in systems theory including interdependence, homeostasis and negative feedback

Place emphasis on transdisciplinary approaches to analysis and exploration of humanenvironment systems, so that broad perspectives and knowledge can be brought to bear in relation to developing understanding, improvement and leverage points within the system.

Dahlgren and Whitehead (1991) build on this concept to identify the underlying determinants of health, as seen in Figure 1 below, indicating a "rainbow" of influences on the individual including impact of individual lifestyle factors, social and community networks, and general socio-economic, cultural and structural or environmental conditions. This has since been used to underpin public health policy focused on identifying underlying drivers and entry points into action on poor health (Bentley, 2014; CSDH, 2008; Exworthy, 2008; Marmot, 2010; Public Health England, 2017b; Rayner and Lang, 2012; Sommer and Parker, 2013).

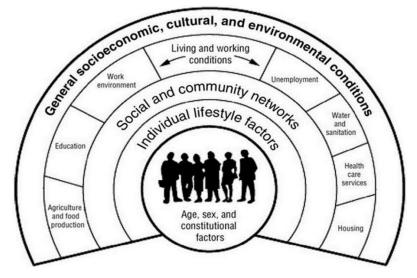


Figure 1: The main determinants of health model. Source: Dahlgren and Whitehead (1991)

Based on their experience with Healthy Cities work, Barton and Grant (2006) further developed this and mapped the determinants of health to create a model of how settlements affect health including natural and built environment influences (Figure 2). They emphasised the importance of intervention at a structural level, including through planning and land use to create healthier environments.

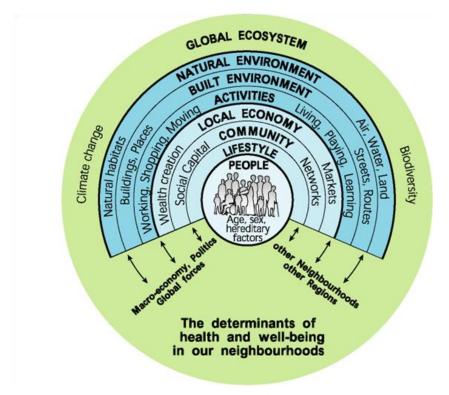


Figure 2: Health map for the local human habitat. Source: Barton and Grant (2006:253].

Chapter 2 discussed in more depth how some of these debates manifest in different approaches to food environment interventions. It examined food and health literature and explored ways in which an environmental approach has helped to understand food and environment pathways and influences. For example, Glanz et al. (2005) and Story et al. (2008) used socio-ecological models to explore impact and scope of environmental factors on food choice, highlighting the different points of food access and multiple influences on individual dietary choice. This has been of use to support policy makers' understanding potential points of intervention for improving food environments.

Socio-ecological and structural approaches indicate that public health must move towards recognition of the complexity of health problems and away from a search for single cause and effect. This can pose a challenge to traditional "evidence based" policy making and more narrow foci on epidemiological or biomedical approaches (Rydin et al., 2012). Sommer and Parker (2013:5) argue that lack of agreement and shared understanding about what "structural interventions" actually are, has hampered progress in moving beyond health education and behavioural approaches. Significant challenges also exist in the need for long-term thinking, policy adaptation and ways to evaluate effectiveness of these structural approaches which work through complex and indirect pathways (Pronyk et al., 2013).

4.3. Taking a Systems Approach

A related and complementary concept - the use of a systems approach - has been gaining traction in the literature on determinants of health, healthy planning and food policy (Exworthy, 2008; Greenhalgh and Papoutsi, 2018; Hawkes and Parsons, 2019; Stokols et al., 2013). What distinguishes a systems approach from the previously described socio-ecological approaches is the recognition that a system is characterised by constant movement and change. This section explores the underlying principles and origins of a systems view. It draws out some of the emerging key common themes in relation to socio-ecological and environmental approaches to health, and subsequent integrated policy action around food environments (Johnston et al., 2014).

4.3.1. Origins of systems thinking concepts

Early perspectives from ecology and biology, arising from Darwin's scientific approach in the 1850s, began to highlight the interconnectedness between organisms and their environments (Rayner, 2009). They described dynamic living processes as a "system" emphasising the complexity, constantly evolving, and adaptive nature of interactions among interdependent factors, characterised by non-linear pathways and feedback loops that take place as a result of any activity. This "systems thinking" view has influenced the development of understanding and analysis in both natural and social sciences, and public health (Rayner, 2009). It has aided exploration of human-environment interactions and the complex levels at which these occur.

Glouberman et al. (2006) develop a "Health in Cities" framework for interventions in cities for health, based on complex systems, including seven steps which recognise the complex

levels of interaction and change embedded in urban health. They describe a system as a "network of relationships and interactions, in which the whole is very much more the sum of the parts" (Glouberman et al., 2006:328). They build on systems thinking to highlight the way in which urban health processes are interlinked with underlying "feedback" and where alteration or change at any point in the system can trigger changes elsewhere. This makes it challenging for policy makers to understand and predict at which points interventions could bring about improvements, and to predict cause and effect. Glouberman et al. (2006) also distinguish between the terms "complex" and "complicated" indicating that a complex system refers to strong interconnections, within which elements might interact in ways that are not always predictable or clear (Glouberman et al., 2006).

Understanding the interactions within a system can help to tease apart the factors that lead to particular outcomes and understand how and where change might be made as well as demonstrating the need for joined-up policy action and governance approaches.

4.3.2. Application of systems thinking to understanding health, environment and food challenges

The concept of systems has been used broadly, in varied ways, and across disciplines to explore and illuminate varied approaches of relevance to food, urban health and environment influences. Table 2 below sets out some of the ways in which systems approach has been used in relation to food, and within public health and planning disciplines, where food is of relevance. This illustrates the diverse and broad ways in which a systems approach has been used. In order for clarity for policy making, it is important to arrive at some consistency of definition and language in use and understanding as to what "whole systems approaches" might mean in practice (Bagnall et al., 2019; Hammond and Dubé, 2012).

Food Systems	Ericksen, 2008a, b; Hawkes and Parsons, 2019; MacRae and Winfield, 2016; Neff et al., 2009; Parsons et al., 2019; Sonnino et al., 2019.
Models for food and nutrition security	Hammond and Dubé, 2012.
Explanation and definition of food and environment pathways	Glanz et al., 2005; Story et al., 2008.
Food and health	Hammond and Dubé, 2012; Story et al., 2008; Swinburn and Egger, 1999.
Drivers of obesity	Barnhill et al., 2018; Butland et al., 2007; Hawkes et al., 2015; McGlashan et al., 2018; Public Health England, 2019 a,b.
Health and environment pathways of which food is a part	Glouberman et al., 2006; Jebb, 2012; Rydin et al., 2012; Stokols, 1992.

Determinants of health, public health and emerging ecological public health approaches, and obesity	Bagnall et al., 2019; Bentley, 2014; Carey and Crammond, 2014; Garside et al., 2010; Lang and Rayner, 2007; Rayner, 2009.
Planning disciplines such as healthy urban planning, spatial planning and sustainable urban design	Bai et al., 2016; Barton, 2005; Corburn, 2004, 2015; NHS England, 2019 a,b,c; Rydin et al., 2012.
Resilience and management of common resources (such as food sources) across different levels of natural, ecological systems	Anderies et al., 2004; McGinnis and Ostrom, 2014; Ostrom, 2009; Stokols et al., 2013.

Table 2 Examples of application of systems approaches, used within food policy, public health and planning literatures.

4.3.3. Conceptualising food systems

A specific use of systems thinking in urban food policy literature explores the concept of *food system* from a range of world views (MacRae and Winfield, 2016; Van Berkum et al., 2018). Here again, whilst specific to food, common themes emerge, characteristic of systems thinking approaches found within other disciplines - that this approach illuminates the complex interconnections and influences at play beyond a single factor. In relation to food, it can support identification of factors involved across the entire context in which food is produced, consumed, governed and embedded (Ericksen, 2008 a, b).

The concept of food system in this case relates to the entirety of the processes, influences and pathways surrounding food production through to consumption. Emerging from the 1960s, initially in studies of agricultural systems, this literature is now seen to encompass *analysis* of the *processes* from production, consumption to disposal of waste, the human *relationships* taking place within that, including policy influences, and *scales* at which food systems occur along with frameworks for assessing food systems across domains (Blay-Palmer et al., 2015, 2016, 2018; Clancy, 2012; FAO,-2018; Lang and Heasman, 2004; Parsons et al., 2019; Sonnino, 2019). Sonnino (2019) argues that there has been a lack of a systems approach to food policy, and that it has therefore not been possible to develop an integrated approach to tackling the challenges.

Ericksen (2008a) outlines a holistic framework which broadens the concept of the food system to embrace all aspects of production, processing, distribution and consumption. Her definition includes "interactions between and within bio-geophysical and human environments, which determine a set of activities, the activities themselves (from production through to consumption); outcomes of the activities (contributions to food security, environmental security and social welfare) and other determinants of food security" (Ericksen, 2008a: 234). She argues that a systems approach is of value for food in that it

can be used to explore both structural macro level factors as well as local and individual actions, at the same time as taking into account nonlinear feedbacks and uncertain outcomes. Her framework adopts normative goals of food security and environmental management and can be used to describe any outcome within the broader system, as a way of identifying points of entry for change, along with analysis of drivers and determinants for that change. Of note, the framework does not explicitly identify the agency of structures or people influencing the food systems such as decision makers and policy makers, although it can be assumed that these are seen as the determinants, influencing particular outcomes such as food access. She also notes that there will inevitably be "trade-offs" across social welfare, economic growth and environmental sustainability, as decision makers with different views make interventions.

Ericksen argues that identifying the level at which to examine the complex system can be challenging. She acknowledges that different approaches to using the framework are of value including *exploration* of institutional *interventions* at geographical or jurisdictional level as well as the *drivers* for supporting food secure outcomes. Through the use of this view she argues that it is important to tease apart and analyse the different parts of the system, as well as actors, their interactions and outcomes of their interactions, to reveal "critical processes and factors that govern them" (Ericksen, 2008a: 243). However, whilst these types of analysis sound simple, as seen in Chapter 2 and 3, in real world practice, this may be dependent on both visibility and understanding by actors of the complex linkages, not always possible against constraints of short-term decision making and budgetary considerations.

In applying a food systems focus to food policy, Parsons et al. (2019:1) see the food system as the "interconnected system of everything and everybody that influences, and is influenced by, the activities involved in bringing food from farm to fork and beyond". They note that the concept "food system" is used in three ways: "The food system", "A food system", and "Food Systems"- acknowledging the totality of the interconnected food system, but also recognising the diversity of food systems and different manifestations of scale, locality or context - seen, for example, in the "urban food system".

Ruben et al. (2018) explore inherent challenges in early concepts of linear and circular food systems which outlined the pathways from production to consumption. They indicate that more nuanced, concepts would be useful, in giving more of a sense of the complex and flexible nature of the connections within and across the different food system realms. These led them to visualise concepts of "nested" elements of the food system as part of wider "sub-systems". These, they suggested, could bring better understanding multiple layers and interlinkages across different levels, such as to human health and resilience, and economic

development. These broader views are useful for understanding the different levels of interaction across the food system including policy and institutional influences.

Understanding the different aspects of food systems at different levels is seen as key in understanding where and how to act. However, the many viewpoints and definitions must move from theory to practice. In the real world, this can be challenging, and difficult for policy makers to grasp, recognise the interconnections, actors and actions needed at multiple points.

4.3.4. Using a systems approach to explore pathways between food environment and health

A systems approach is also evident in the socio-ecological view of health in illuminating "food environment" and "health" pathways. Glanz et al., (2005), Story et al. (2008) and Neff et al. (2009) each used ecological frameworks in varied ways to study local level food systems and explore different settings, pathways and influences of food choice. Through this, each build the picture of eating behaviours as complex; influenced by multiple factors beyond the individual and behavioural to embrace environmental, social, policy, economic and structural influences. Recognising this is essential for planning successful food environment interventions. Hamm (2009:243) argues that the food system is inherently a "wicked problem" lacking clear definition of either problem, causes or solutions. As a result, Hamm argues that multiple stakeholders must work together to find a way forward, and a healthy food system must "connect 'healthy' across the layers of the system"; by considering health throughout (Hamm, 2009:243).

Neff et al. (2009) argue that a food systems approach can highlight differences in approaches in public health and their potential impact on underlying inequalities. They comment that "a food systems approach begins with the recognition that the roots of health disparities include but go deeper than individual choice, nutrition or price. They reach outwards to community factors like access and deeper to broad social, economic and political forces that affect food supply, nutrient quality and affordability" (Neff et al., 2009:283). In reality, individual choices are constrained at many levels. Neff et al. (2009) develop a conceptual model to explain relationships between food system and health disparities, depicting a prism showing the interplay across the food environment, social and policy levels. In common with broader systems thinking, they highlight "non-linear pathways" and "feedback loops" and caution that care is needed to guard against interventions that might end up increasing health disparities if not fully understood and thought through (Neff et al., 2009: 283). A food systems framework can help focus on potential intervention points and interactions across food system pathways, bringing clarity of insight into these

"interrelationship and multi-faceted spheres of influence" (Neff et al., 2009:300). Again, applying these concepts into real world contexts is the challenge.

4.3.5. Systems approaches to obesity

Concern over obesity rates has come to the fore since the mid 2000s, as part of a focus on the emergence of non-communicable disease burden (CSDH, 2008). A systems lens has been used in this context to explore and explain aspects of the interconnected influences and linkages within obesity, including food, physical activity and built environments, and wider policy settings. The U.K. Government Foresight Obesity System Map has been key in that it visually depicted the complex multi-level network of influences on obesity including energy balance, dietary choice and behaviours, and the influence of the food environment (Butland et al., 2007). Whilst it highlighted the complexities of the so-called "obesogenic environment", and gave a visual form which made it clearer, it did not offer solutions as to how and where to start tackling the different elements. In systematic reviews, both Garside et al. (2010) and Bagnall et al. (2019) indicate that there is still some way to go in understanding how to operationalise whole systems approaches, with a need for consistent language and definition of terms across multiple sectors.

However, others have sought to address the challenges of operationalising systems approaches, in practical ways, for example through development of toolkits or frameworks, as support to key highlight points of intervention, and priority for policy action. Meadows (1999) and Johnston et al. (2014), for example, developed frameworks for locating intervention points in such systems, including obesity. Hawkes et al. (2015), working with a theory of change, identified "smart food" policy principles for addressing obesity, indicating a view of comprehensive policy actions needed across all levels. This in their view includes mechanisms to stimulate a systems approach to tackle food environment influences. They argue that such smart policy could thus bring about positive responses in the food system through dynamic feedback. (Hawkes et al. 2015: 2412). They noted, "Effective policies work, directly or indirectly, to change the food, information and social systems that underpin people's environments" (Hawkes et al. 2015: 2415). They argue that the selection of policy priorities to tackle different problems involves taking a step-by-step approach. This includes identifying a problem, mechanisms through which the policy might work, selection of policy actions tailored to a population, and taking time to reflect and develop action on the basis of understanding and examining feedbacks within the system. They furthermore argue that one priority should be to give people the opportunity to eat well and overcome the barriers to this. However, they recognise the challenge to policy makers in identification of both feedback effects and positive changes from interventions.

More recently in England, building on the systems view behind the Foresight map, Public Health England has put effort and resource into supporting greater understanding of a "whole systems approach" to tackling obesity. They worked with Leeds Beckett University during 2016-17 to co-produce, with four Local Authority pilot sites, a guide and resources toolkit. The learning gained through this process was seen as a way to support local authorities to plan and take a "whole systems" approach to obesity, drawing from systems science literature and practice (PHE, 2019 a,b³). The programme arrived at a definition of whole systems approach, aimed at prospective action planning as follows:

"A local whole systems approach responds to complexity through an ongoing, dynamic and flexible way of working. It enables local stakeholders, including communities, to come together, share an understanding of the reality of the challenge, consider how the local system is operating and where there are the greatest opportunities for change. Stakeholders agree actions and decide as a network how to work together in an integrated way to bring about sustainable, long-term systems change" (PHE, 2019b:13).

The guide, published in July 2019 (PHE, 2019b), identifies six phases in the whole systems approach to obesity process as summarised in Table 3 below:

Phase	Aim	
1 Set up	Senior level support. Establishing governance	
2 Build local picture	Local information and data to explain why obesity matters locally and develop shared understanding	
3 Mapping local system	Stakeholders create comprehensive map and agree shared vision	
4 Action	Prioritise interventions in local system through collaborative action	
5 Managing system network	Develop stakeholder network to agree shared vision and action plan	
6 Reflect and refresh	Critical reflection and change and development of consistent approaches to evaluation actions	

Table 3: Summary of six phases in the whole systems approach to obesity. (As identified by guide developed by Public Health England. (PHE, 2019b:14))

Initial information showed that there was a dominant focus on both nationally identified priorities as opposed to local, and on individual level actions "rather than more upstream actions addressing the wider determinants of health" (PHE 2019: 19). The work cautiously identified a "shift in mind-set" of local authorities involved and pointed towards a move away from individually targeted work to more structural approaches, focusing on the wider

³ (Two case study areas, Dudley and Solihull participated as one of further seven Local Authorities in testing the process and resources- - this took place after the end of the research for this thesis).

determinants and underlying factors. The emphasis was placed on the sum of actions and an 'alignment of actions rather than a focus on single and individually targeted actions' (PHE, 2019b:19). The study developed an "action mapping tool" to identify a shift to a systems-based approach, categorising actions taking place against "wider determinants of health model" and an "action scales model" (PHE, 2019b:42); both used as ways of understanding levels of intervention within a system.

This work gave local authorities insight into how progress to whole systems approaches to obesity could be supported, identifying both supporting factors and challenges to this approach (see Table 4). Key learning points identified that whole systems approaches represented new ways of working to most stakeholders: it was not the same as 'joined up working' and identified a need for those beyond public health to learn about how obesity was an issue from their viewpoint and jurisdiction (PHE 2019b:22).

Factors to support whole systems approaches to obesity	Contextual and implementation challenges as identified by PHE
Enough time available	Competing priorities. Justifying longer term preventive work against other more pressing priorities.
Skills, confidence and experience	Budgetary constraints- impact on staff capacity, interventions and focus on gaining return on investment
Team continuity and connection	Stakeholders not being in a position to take ownership or action
	Community members not well engaged
Strong senior leadership support and stakeholder buy in, multi-sectoral, strong social networks	Difficulty accessing senior leaders and senior staff
	Complexity and understanding of systems concepts, local obesity causes and inequalities, time and resource requirements
	Local cultural and behavioural and attitudinal factors
	Silo working and seeing obesity as more than a public health concern

Table 4: Summary of factors identified as supporting and challenging Whole Systems Approaches Source: Adapted from PHE guide (PHE, 2019b: 20-21).

4.3.6. Systems view for urban health

There is growing recognition of the need to tackle urban health challenges through integrated working, and for clarification within policy as to the potential pathways and impacts of urban planning on health outcomes (CSDH, 2008; Tsouros, 2015; U.N. Habitat and WHO, 2020). Beyond obesity, a systems view has proved of value for exploring the

intersection of both health and urban planning disciplines, in attempts to understand the interactions between human health and the built environment, in which food environment is a part (Stokols, 1992; Glouberman et al., 2006; Bai et al., 2012). Stokols' (1992) early work built on ecological concepts to explore the conditions underpinning "health promoting environments", and to understand the leverage points for action. Glouberman et al. (2006) argue for a move away from a narrow, fragmented approach, suggesting a broader framework for improving health in cities. Using the perspective of "complex adaptive systems", they propose a "health in cities" approach which moves beyond both an "urban health approach" (with more narrow view of urban health problems), and "Healthy Cities" approach (which recognises human environment interconnections), to present a broader view based on systems thinking. They argue that taking a perspective of complex adaptive systems gives a third way; "health in cities", which involves "multiple groups with multiple health needs, and potentially competing interests, connected in a nonlinear fashion to multiple urban environments, each of which interacts with the groups and individuals within those groups" (Glouberman et al., 2006: 327). They argue for an approach based on experimentation in a range of interventions where those that prove effective are chosen and modified.

Building on Glouberman's work and lessons from the Healthy Cities movement, in a Lancet Commission report, Rydin et al. (2012) accept the view that cities are complex systems "with urban health outcomes dependent on many interactions and feedback loops" (Rydin et al., 2012: 2079). Using case examples, including urban agriculture, they demonstrate complexities and potential of urban systems, involving planning and its intersection and impact on urban health. They argue that a new approach to planning and policy making for urban health should undertake initial "complexity analysis" to take into account all aspects of the urban realm - physical, social, economic and policial - and move away from both linear planning approaches and evidence-based policy making.

Some commentators on planning disciplines have long recognised cities as organic, messy, unpredictable, self- organising and responsive to local force (Jacobs, 1961). Understanding cities as complex entities, or systems, has helped to support moves beyond the "rational" city planning approach, whereby interventions were underpinned by supposition of predictable and linear outcomes. Assumptions cannot be made about the linear and predictable nature of change, and analysis of the complex linkages between aspects of urban fabric and health is needed before policy interventions can be clearly understood (Bai et al., 2012). Others point to the need to illuminate complexities of power within the urban fabric, where its' shape, layout, and subsequent impact on health reflectunderlying and often covert interests and influence of powerful actors, 'capital' or vested interest (Barten, 2011;

Corburn, 2009; Smith and Harvey, 2008). Rydin et al. (2012: 1) comment that as a result of lack of joined up approaches and insight into the complex web of interactions, "predictions within the planning process is fraught with difficulties and unintended consequences are common". Lawrence and Gatzweiler (2017: 594) echo that poor understanding of cities' complexity along with failure to engage in integrated working, can even end up creating or compounding adverse health outcomes. Corburn (2015), likewise exploring how urban environments shape health, argues for recognition of the failure of linear processes and narrow disciplinary approaches. He again draws on a systems perspective to show how an integrated approach to city planning could underpin its worth as "preventive medicine". Here, taking a relational view of healthy place making in order to clearly see the interconnections, is crucial for understanding the processes involved in healthy planning.

Thus a systems approach is seen by practitioners and policy makers as one way of explicitly drawing out the principles both behind joined up and integrated working, and a focus on understanding the complex pathways between planning and health (Carmichael et al., 2019). There is more emphasis on the development of "toolkits" to support this approach. NHS England (2019 a, b) has supported the development of systems thinking to create healthier places, moving from "silos to systems", and drawing out principles through lessons derived from NHS Healthy New Town developments in pilot sites across England. One of ten principles for healthy place making includes Principle 6 to "inspire and enable healthy eating". Here, a systems-based approach is seen as key to developing commitment locally to supporting healthier eating, through collaborative action to map food provision, support healthier retail offers, using planning policies limiting unhealthy food outlets, and creating opportunities for food growing.

4.3.7. Skills for and systems thinking in practice

Key to all systems thinking approaches across the different disciplines is that multidisciplinary, cross-sector, and integrated work can enable a view of the bigger picture and provide solutions to challenging problems. However, there is some way to go in implementing these approaches, and there is evidence of some gaps between theory and practice.

For example, Shill et al. (2012) explore attitudes to promotion of healthy food environments within state governments in Australia and identify silo working as a barrier to change, where departments kept to their own sector. Sautkina et al. (2014) explore systems-wide approaches to obesity, through implementation of the NHS "Healthy Towns" programme in England. This supported programmes to take a systems wide approach to obesity prevention, building on the Foresight report. The nine participating case study towns developed range of environmental and population level interventions including through

planning and built environment (encompassing both physical activity and food environments). They found that, in most cases, officers in the case study towns struggled in practice to move from traditional programme-based approaches towards a systems-wide approach. Dudley (one of the case studies in this research) was identified as one of the few where programme officers were seen as having better understanding of a systems-wide approach to its work. Sautkina et al. concluded that there was a "theory-action gap" and disconnect between the concepts of systems wide approaches and practice on the ground. They showed that although policy narrative argues for a "systems wide approach", in practice, lack of guidance, clear narrative, understanding and leadership from government on what a systems-wide approach might mean. This they cautioned, leads back to adoption of well-trodden "multi component approaches to prevention" as opposed to tackling issues at root (Sautkina et al., 2014:65).

Bai et al. (2016) explore the use of systems approaches for sustainable urban planning and explore barriers to its successful implementation. They highlight six barriers which hinder the adoption of a systems approach in urban governance, policy decision making and action. The first three barriers include institutional evolution and behaviour, lack of recognition of systemic nature of cities, difficulty in understanding and managing systems approaches. "On the ground", they identify managers often search for simple solutions and immediate actions. Fourth, they highlight a lack of incentive for moving beyond working in individual sectors, towards mainstreaming systems approaches. Fifth, they highlight that underpinning knowledge, evidence and modelling also fail to take in multiple perspectives, and decision making is often limited to sectoral views. Sixth, they show how "urban physical, institutional and cultural development is typically path-dependent, often leading to lock in of infrastructure, inertia in practice" (Bai et al. 2016: 74).

These insights shed light on the challenges of taking a broader approach in practice, and the difficulties of shifting beyond traditional approaches, and harnessing action and understanding across all levels within a system. Certain skills are needed by policy makers and practitioners in order to progress in taking a systems approach to overcoming complex health related problems. De Savigny and Adam (2009) identify five "systems skills" or approaches which would support this way of working, summarized below on Table 5. (Baum et al., 2013 provide a useful example building on this to explore healthy policy making in action). Within health systems, Sauvigny and Adam argue that in contrast to traditional linear cause and effect approaches, systems thinking require a change of mindset and use of more flexible, creative and broad approaches. In contrast to so-called "usual approaches", to them, system skills incorporate "dynamic thinking", "systems as cause thinking", so called

"forest thinking" (understanding context and relationship), "operational thinking" and "loop thinking" as summarised below in Table 5.

'Usual approach'	'Systems thinking approach'
Static thinking- focus on single events	Dynamic thinking - seeing a problem as changing over time
Systems-as-effects thinking- sees external forces as driving behaviour	Systems-as-cause thinking - sees responsibility for a behaviour as that of those who manage policies
Tree by Tree thinking- knowledge entails focus on detail	Forest Thinking- knowledge entails seeing relationships and context
Factors thinking- highlighting factors that create a result	Operational Thinking - looks more broadly at causality
Straight line thinking- unidirectional cause and effect	Loop thinking - sees multiple cause, feedback and ongoing dynamism

Table 5: Skills of systems thinking. Adapted from De Savigny and Adam (eds) 2009:45. Whilst systems concepts, frameworks and skills discussed above point to the way in which urban health might be better equipped at tackling complex problems, it is clear there is still some way to go in achieving a clear understanding of this in practice (Bagnall et al., 2019; Garside et al., 2010; Greenhalgh and Papoutsi, 2018; Hawe et al., 2009; Rutter et al., 2017). A partial solution to this is to support decentralised *governance* and *policy making* to take account of the need for collaborative efforts to solve complex issues, involving bottom-up approaches and inclusive decision making for urban planning. This, De Savigny and Adam (2009) argue, requires shared agreement on goals and a systems-based understanding and approach to planning. It also requires a longer-term view in which impact of action is set within long time frames, beyond short-term political and funding considerations. Finally, they indicate that learning and understanding needs to come from all levels across a system, beyond narrow viewpoints, and with sharing of knowledge. Others, as discussed in more detail below, have focused on the need for "whole of government" approaches.

4.3.8. Replicating interventions across systems

With all of these approaches, some have focused on the conditions which might support spread or scaling up of a successful implementation across a system or systems. Hawe et al. (2009) noted that although most interventions claim an ecological approach, in practice this more often meant multi-level intervention using multiple strategies - not a systems approach, which importantly understands context. They focus on understanding of systems being key to sustainability of proposed interventions, noting that interventions and impact are "events in systems that either leave a lasting footprint or wash out depending on how well the dynamic properties of the system are harnessed" (Hawe et al., 2009: 270). Lanham et al (2013) examine the spread of practices in the context of change in the health sector and identify key features of an informed "scale and spread" based on complexity science. Here, local context is all-important where "self-organisation" will occur in response to this context, rooted in what is required to complete a task - even when there are formal procedures or rules of action. Other features involve actively recognising unpredictability, facilitating interdependencies and relationships, and encouraging "sense making" through questioning and understanding different points of view. Greenhalgh and Papoutsi (2018:2), again focusing on health sector, build on Lanham et al. (2013) adding additional features including "develop adaptive capacity in staff" so that they can problem solve in situ and adapt, "attend to human relationships" where teams work together and can "muddle through", as well as "harness conflict productively" whereby conflicting viewpoints can drive new solutions. They note "complexity can be hard to square with spread strategies that seek to replicate a blueprint; innovation in a standardized way across widely different settings". Greenhalgh (2020) also notes that a bigger system will have a greater level of interdependence, and hence more complex implementation efforts, as well as inherent tensions which can be impossible to resolve, for example that between local contingency and national standards.

4.3.9. Summary of concepts and their key characteristics

Table x.6 below summarizes some of the core principles emerging from the concepts described above. It identifies common themes and key cross-cutting characteristics, skills and approaches recognised in both socio-ecological and systems approaches. It draws out implications for policy making and issues of concern to achieving an integrated approach in reality on the ground.

Concept	Examples	Authors Examples	Key features	Skills, knowledge and approaches	Examples of barriers to adopting this approach	Implications for governance and policy making
Socio-ecological approaches	Determinants of health models, health promotion approaches - food-health pathways	(Dahlgren and Whitehead,1991; Barton and Grant, 2006; Glanz et al., 2005, Neff et al., 2012; Exworthy, 2008)	-Focus on levels of influence including 'upstream drivers' -Focus on human environment relationship and influence -identify causal pathways	understanding pathways of influence on health and wider underlying conditions -ability to work across spheres of influence and actors	 -harder to see cause and effect- can be seen as linear -lack of simple solution -longer term change -silo working -policy levers unclear -needs tackling across a range of domains and actors -Healthcare/ill health focus easier 	Implications for governance to support move from silo working to joined up action Policy processes to reflect wider view and integrated action Longer term thinking
Systems approaches	e.g. 'Food systems', health in all policies ('HiAP'), 'obesity systems'	e.g. Butland et al., 2007; Meadows, 1999; De Savigny and Adam, 2009; Baum et al., 2013	-identify complex, dynamic connections between elements in a system- focus on relationships between elements -incorporates change, unpredictability and feedback	-dynamic thinking 'systems skills' (identified by De Savigny and Adam, 2009) understanding context, relationships, change and causality -recognising constant change and learning	-Silo working-non-linear and complex causes difficult to see -Lack of systems thinking in policy and practice -lack of understanding leads to negative feedback/ unintended consequences	Implications for governance to support move from silo working to 'systems thinking' and integrated policy making and action Need for culture of learning and experimentation Longer term thinking and understanding of system as a whole

Table 6: Summary of core principles underpinning socio-ecological and systems approaches (drawing on the literature explored above).

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4.4. Examining policy making

Clavier and De Leeuw (2013 a, b) echo others in asserting that to understand health, one must explore beyond sick care and its systems to wider policies and underlying factors affecting all aspects of life (Clavier and De Leeuw, 2013 a, b;-CSDH, 2008). Common to implementation of joined-up approaches around food environments and underlying determinants of health, as discussed in the previous section, is an emphasis on integrated governance and policy making. However, as already noted, challenges remain as to how this might happen in practice. De Leeuw et al. (2014a) indicate that there has been some confusion within health promotion fields as to the distinction between intervention and policy. Policy, they note, is "not an intervention, but drives intervention and development of implementation" (De Leeuw et al., 2014a:1).

Understanding policy processes is thus critical to achieving effective change, particularly when attempting change across departments and within complex domains. Relevant to this is literature exploring the varied integrated *policy making processes* across domains and sectors involved at local government level, aimed at tackling upstream, environmental or underlying determinants of health - presenting as "wicked" problems (Carey and Crammond, 2014; CDSH, 2008; Clarke et al., 2020; De Leeuw et al., 2014a; Exworthy, 2008; Exworthy and Hunter, 2011; Hendriks et al., 2013a,b; McCosker et al., 2018; McLeroy et al., 1988; Plamondon and Pemberton, 2019; Rittel and Webber, 1973; Sommer and Parker, 2013; Walt et al., 2008).

This section explores how these approaches might be achieved in practice, drawing on higher level frameworks and concepts from social policy and health policy to help shed light on the processes at play within policy making.

4.4.1. Embracing the messy nature of policy making

Policy can be seen loosely as "anything a government chooses to do or not to do" (Dye, 1972:2), or as Lang et al., describes, "simply defined as a plan or course of action" through which decisions are enacted (Lang et al., 2009:66). Public policy making is concerned with "*why and how governments pursue particular problems, and how and to what extent (if any) the institutions of government handle these problems*" (Lang et al., 2009:66). Policy making takes place at many increasingly diffuse levels including international, national and local government, involving broad range of "visible" and "hidden" actors including civil society, commercial and interest groups (Lang et al., 2009). Policy is of course a broad term, embracing a dynamic, messy and often chaotic real-world process, involving a range of different actors and viewpoints (Buse et al., 2012; Clavier and De Leeuw, 2013 a, b;

Exworthy, 2008; Lang et al., 2009). For instance, Lang et al. (2009) highlight the "contested" nature of *food policy*, complicated by competing agendas, power interests and influence of the diverse actors involved. Walt and Gilson (1994) point to hierarchy of power and influence within government – whereby some actors are more able than others to influence the policy making process. Clavier and De Leeuw (2013b) highlight how health promotion has often been limited in its understanding of policy, tending to see it as a *physical document* or end report, missing the politics and process behind policy making.

Some have argued that using traditional policy analysis tools is challenging when it comes to understanding policy aimed at tackling these complex, interconnected, multi-faceted or so called "wicked problems" - and can be limited (Plamondon and Pemberton, 2019; Rittel and Webber, 1973). For example, policies aimed at tackling structural factors affecting health need to take into account the multiple levels at which these factors operate, and the potential for unintended consequences and feedback as described within systems concepts. Increasingly the case is made for use of a combination of tools and frames to help develop understanding and tease apart interconnected aspects of these problems (Baum et al., 2013: De Leeuw et al., 2013: Exworthy, 2008: MacRae and Winfield, 2016: Plamondon and Pemberton, 2019). Similarly, Greenhalgh and Papoutsi (2018), as noted previously, argue that this also requires a new approach when it comes to researching complexity problems. MacRae and Winfield (2016:3), for example, examine potential analytical frames for achieving joined up, "coherent and comprehensive" food policy environment in Canada. They take a normative approach to attempt to understand "what is" and "what could be" through using different lenses. Macrae (2011) and Macrae and Winfield (2016) recognise that food policy change is a complex issue for policy makers to grasp. This is partly because food issues are traditionally divided across departments and viewpoints, has no clear institutional home. To bring about systems change requires new ways of thinking, including addressing entrenched viewpoints, and challenging perceptions that food is just about markets. There are also externalised costs that are difficult to pinpoint, and within health, this challenges a system that tends not to focus on prevention but on individual change.

4.4.2. What is healthy public policy?

Whilst the increasing drive to consider "integrated public health policies" is seen as key to gaining equitable outcomes for urban health, challenges in practice have led some to question the wide operational definitions and application of terms in use (De Leeuw et al., 2014a; De Leeuw, 2018). Recognition of the "messy" power laden process, pathways and responsibilities is needed, to highlight the real challenges of achieving and evaluating joined up action on the ground (De Leeuw, 2018; Hendriks et al., 2014; Murphy et al., 2018; Synnevåg et al., 2018).

Clavier and De Leeuw and others tease out the underlying ideas behind the emergence of the concepts such as "healthy public policy" (Breton and De Leeuw, 2011; Clavier and De Leeuw, 2013b; De Leeuw et al., 2013). De Leeuw et al. (2013) argue that "*healthy public policy*" is one of a number of subsets, held within an overarching field determined as "*policy for health*" which also embraces other subsets such as "*public health policy*" and "*health policy*", with different areas of influence. First coined as a term by Milio (1981:4), the term "healthy public policy" served to identify the role of public policy in creating environments which support health. This recognises that health, in its broadest sense, is under the influence of many sectors, and takes policy making out of narrower "health care" and "public health" frames, towards a holistic and integrated approach. This push for an integrated approach to healthy public policy making has been reflected through influential documents since the Ottawa Charter (WHO, 1986), CSDH (2008) and more recently in *Health in All Policies* (HiAP) approaches as a way of building health considerations across all domains and sectors of policy making (De Savigny and Adam, 2009; Baum et al., 2013).

4.4.3. Governance underpinning integrated policy

Fundamental to integrated, inter-sectoral policy approaches is the need for effective, relevant and supportive "governance for health" to be recognised as key to providing the platform for their development (Hawes and Halliday, 2017; Hendricks et al., 2013; Kickbusch, 2008; Kickbusch and Gelicher, 2012; Murphy et al., 2018; Sonnino et al., 2019). Drawing on extensive governance literatures within the social policy field, Kickbusch and Gleicher (2012) develop the term *governance for health* involving joint action between a range of governmental and non-governmental actors defined as "the attempts of governments or other actors to steer communities, countries or groups of countries in the pursuit of health as integral to well-being through both whole-of-government and whole-of-society approaches" (cited in De Leeuw et al., 2015: i33). Likewise, this focus on involvement of civil society and more "participative", distributed "horizontal" forms of governance for integrated policy making is seen as a recurrent focus across literatures on urban food policy and healthy planning exploring intersection of food policy, health and built environment (Barton et al., 2003; Swyngedouw, 2005; Hawkes and Halliday, 2017; Kent and Thompson, 2012; Moragues-Faus and Morgan, 2015; Sonnino and Mendes, 2018).

4.4.4. Drawing on social policy to understand policy process

De Leeuw (2018) and others challenge the lack of rigour in examining policy process in health studies and argue that this field could learn much through drawing on concepts and frameworks within social policy, without which insights will remain at best anecdotal (Breton and De Leeuw, 2011; Clarke et al., 2020; Clavier and De Leeuw, 2013 a, b; De Leeuw,

2018; De Leeuw et al., 2014a; Exworthy, 2008; Kickbusch, 2012). Buse et al. (2012) also comment that there is much needed understanding and analysis beyond simply the content or the "*what*" of policy to examine the "*how*" of health policy making. This involves gaining an understanding of what happens behind the scenes, shedding light on the complexities of both who is making decisions, and how those decisions are made; in short, examining the policy *process*, all of which have an impact on policy content.

4.4.4.1. Models and frameworks to describe policy process

Varied models and frameworks have been used to understand both health policy and policy making processes, drawing on social policy literature. Walt and Gilson (1994), for example, presented a simplified "Health Policy Triangle" as a framework to think clearly about and identify the elements involved in health policy making (Figure 3).

Here, the points of the triangle represent the *Context*, *Content*, and *Process*, with *Actors* involved in that process, situated in the middle.

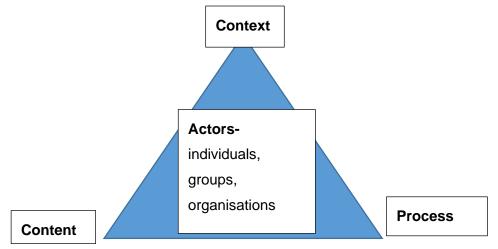


Figure 3. Policy Analysis Triangle. Source: Walt and Gilson 1994.

Within food policy, Lang's "Food Policy Triangle" depicts a simplified model of policy, used to identify the actors within food policy making. In this case, the triangle points are occupied by the actors - state, civil society, and food supply chain, often in tension, as depicted by the image in the centre in Figure 4 below (Lang, 2005).

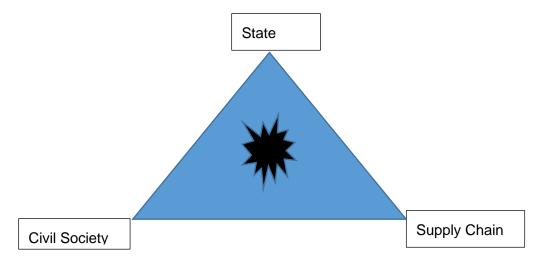


Figure 4. Food Policy Triangle. Source: Lang (2005).

Others have made sense of policy making through envisaging it as a linear path, where policy process is seen as a set of "stages"- including stages of "agenda setting" where a problem emerges and is identified, "policy formulation" with different solutions developed, "implementation" and "evaluation" (Buse, Mays and Walt, 2012; Clavier and De Leeuw, 2013a; Fischer and Miller, 2017; Lasswell, 1956).

Whilst this simple "stages" model is still valuable, it can also be seen as limiting in that it does not recognise the more complex, constantly changing, iterative and messy processes behind policy making in real life. Policy makers trying to address the determinants of health need to recognise, if taking a systems lens - characterized by dynamic feedback and adaptive change - that there needs to be more than static policy (Exworthy, 2008). Carey and Crammond (2014:8) note that this involves not so much focus on where an intervention is targeted, but "how it works to create change within the system" and its ability to find effective leverage points across the system). Other policy analysts point to the way in which policies can only develop in small incremental steps, constrained from making radical changes as a result of past decisions, context and history, "muddling through" or creating what is known as "path dependency" (Greener, 2002; Lindblom, 1959). Others attempt to make sense of the complexities of relationships within policy making processes and emphasise the role of the multiple actors, advocates and networks along with their varied ideas and beliefs (Buse, Mays and Walt, 2012; Rhodes, 1997; Marsh and Rhodes, 1992; Jenkins-Smith and Sabatier, 1993). Sabatier's "Advocacy Coalition Framework" (Jenkins-Smith and Sabatier, 1993) for example, and Marsh and Rhodes' (1992) analysis of the different roles of "issue networks" and "policy communities" in the policy making process highlight some of these aspects (Others have explored concepts of how different types of knowledge is developed and shared within policy making (Best and Holmes., 2010; Hunter, 2013). Hunter (2013:133) emphasises that in grappling with "wicked problems" in health promotion, relationships are key in building and adapting and exchanging knowledge in

response to local context, in what is a changing, messy continuous process, rather than simply taking "off the shelf" solutions and evidence.

4.4.4.2. Agenda setting - Kingdon's Multiple Streams Framework (MSF)

Another approach, still used by policy analysts, is that of Kingdon (1984) who was interested to see how ideas gained support and traction to influence decision making, and gain attention of policy makers in the agenda setting process. He developed a model, "Multiple Streams Framework", identifying certain "universal" features in reflecting on health and transport policy making in a U.S. federal governmental context. He described and explored three "streams" of the agenda setting stages of the policy making; namely *problems*, *policies* and *politics*.

Kingdon sought to explore how problems were initially formulated and defined, why some ideas were taken up and others dropped or disappeared, and how issues were brought to the attention or agenda of policy actors. The problem stream refers to how problems may be identified and raised in response to a range of pressing issues in society that emerge, each demanding and competing for attention. Problems and aims can be ambiguous and framed in multiple ways, depending on the viewpoint. Whilst there are many problems, few gain attention and actually reach the top of the policy agenda. The policy stream refers to the range of solutions that are developed and available in circulation among a range of individuals and groups, and from which policy actors can draw to implement policies to address a problem. Experts and analysts examine the issues and propose possible solutions. In the politics stream, policy makers have both the ability and opportunity to develop a solution into policy, through selection of specific solutions and their development into policy. This selection and decision is influenced by wider factors in an ever-changing policy making environment, such as dominant thinking, ideological positions, influence of pressure groups or administrative turnover, all of which may impact on the choice of policy, its uptake and success. Kingdon also focused on the role of individual actors within the policy process, and the way in which they overtly or covertly work behind the scenes, often with limited time and resource, to bring agendas to attention, (also discussed in Beland and Howlett, 2016; Buse et al., 2012; Cairney and Jones, 2016; Clavier and De Leeuw, 2013a; Fischer and Miller, 2017; Howlett et al., 2015; Rawat and Morris, 2016). Different actors might cut across the streams but are more likely to inhabit certain streams. For example, politicians would most likely be found within the politics stream, whereas researchers or officers -exploring the issues and presenting the case - would be found mainly within the policy stream.

Kingdon's "multiple streams framework" (MSF) proposes that a coupling of two or more streams enables issues to move into decision making arenas, and ultimately into policy. He

argues that whilst policy change might be incremental, sometimes a brief "window" of opportunity might present itself, when two or all three streams became "coupled" together. This enables issues to find traction and move forward in a given situation. Windows may be opened due to a range of factors including "focusing" events such as a crisis, staff turnover or activity of "policy entrepreneurs" within or outside government, or by institutional events such as elections or budget deadlines. Exworthy and Powell (2004) in their focus on social determinants of health also note that attention needs to be drawn to examine the operation and application of "little windows" of policy making at a local level.

"Policy entrepreneurs" – are seen as individual actors, acting overtly (or covertly) behind the scenes. They are able to develop solutions in anticipation of future opportunity, invest time and resources and highlight connections between issues and individuals, and finally take advantage of these "policy windows" to present favoured solutions at the right time. Kingdon suggested that policy entrepreneurs should try and build the case, develop links and, prepare solutions. Policy entrepreneurs, found in both formal and informal spaces, and within and outside government, are seen to demonstrate advocacy, expertise and persuasion. They bring together connections or influence and are essential in joining the streams together. Whilst Kingdon may perhaps emphasise more the competitive or self-interested aspects of policy entrepreneurs - such as politicians pushing 'pet projects' or responding to popular issues - others note the creative agency of entrepreneurs working more collaboratively to achieve a bigger consensus or societal aim (Rawat and Morris, 2016).

4.4.4.3. Use of MSF in exploring aspects of food and healthy public

policy

Whilst focused on governmental policy making, Kingdon's model is valued for its insights, simplicity and flexibility and has since been used extensively – albeit with varying depth, success and integrity - to examine policy making across a range of spheres, including national, local or municipal government levels (Cairney and Jones, 2016; Rawat and Morris, 2016). This has included using it to explore policy making within food policy, (Caraher et al, 2013b; Cohen 2012; Craig et al., 2010) healthy public policy including obesity prevention (Carey and Crammond, 2015b; Clarke et al., 2016; De Leeuw et al., 2013; Lyn et al., 2013; Moloughney, 2012; Sisnowski et al., 2016) social determinants of health (Exworthy et al., 2002; Exworthy, 2008) and healthy planning literatures (Harris et al., 2016; McCosker et al., 2018). The framework has been used to tease apart the agenda setting stage of policy making and identify points at which policy might gain successful adoption, and where

opportunities might lie. It has been seen as valuable for giving insight into policy making in complex situations and over time (Rawat and Morris, 2016).

Freudenberg and Atkinson (2015) for example, used multiple streams framework to gain insight into food policy development in both London and New York. They noted the role of support from the city mayors, but also groups of food policy advocates, in "getting food onto the table" in the policy making process, and emergence as an issue during mayoral electoral cycles. Sisnowski et al. (2016) similarly applied Kingdon's model to explore the way in which Mayor Bloomberg acted as a "policy entrepreneur" through his advocacy and role in creating windows for agenda change for regulatory obesity prevention in New York City. Craig et al. (2010) similarly use Kingdon's model to explore the rise of focus on childhood obesity onto the policy agenda, in Arkansas U.S., and showed the role of public health professionals in setting the scene and advocacy to build the case for action. Clarke et al. (2016) in a systematic review investigate the application of theories within seventeen studies of policy process to examine themes within obesity prevention policy, including food policy. They found multiple streams framework was a commonly used lens, but argued that use of multiple theoretical perspectives would better assist in understanding the complexities of decision making in this area (For use of multiple streams in relation to food policy, see for example, Yeatman, 2003; Quinn et al., 2015).

Rydin et al. (2012) use both a systems approach and policy analysis to shed light on healthy planning, with examples of urban agriculture and food production, suggesting that this dynamic approach to planning has three key features. First, they allude to Kingdon's model showing how planners take advantage of "windows of opportunity" and can focus on "trial and error" using a range of localised projects where lessons can be drawn. Second, they broaden the concept of knowledge and learning from such activity, widening it to involve inclusion of diverse viewpoints, a wide range of stakeholders in a process of dialogue and deliberation, "social learning" and creation of a "community of practice" to explore the improvement of health through urban development. Here, they note, the role of the policy practitioner takes on a role of "policy entrepreneur who searches for policy windows to effect change", at the same time as taking on a role as participant and not controller of the process (Rydin et al., 2012:2100). Thirdly, they argue for need for recognition of the value-laden nature of urban policy action, whereby there needs to be space to explore the complexities of potential solutions, through problem solving, underpinned by understanding of health equity and power dynamics.

However, Clarke et al. (2016) and others highlight methodological weaknesses both in application of and in studies using Kingdon's framework. The pitfalls lie in that it can be oversimplified in its use, lack depth, but also fail to pick up complexities, such as underlying

political climate and power dynamics. It also focuses on the agenda setting stage of policy making thus leaving other factors unexplored (Cairney and Jones, 2016; Clarke et al., 2016; Howlett et al., 2015; Rawat and Morris, 2016). Exworthy (2008) highlights the complex features of policy making around the social determinants of health, in that there is lack of clarity, difficulty in clearly defining "problem" and "solution", along with obfuscation of the issue as a result of surrounding ideological debates, interests and accepted evidence around drivers of ill health. Social determinants of health thus often struggle to reach the policy agenda, and as such are complex to describe and discern clearly within the operation of the "three streams". Exworthy also notes the challenges of tracking policy making and attributing pathways and causes of change which takes place over long periods of time. Similar issues are faced within food policy making, within a wider determinants of health lens.

4.5. Summary

This chapter has drawn out in more detail some of the underpinning concepts predominant in previously discussed literatures, in use across public health, food policy and planning in relation to integrated food environment change. In so doing it explored the underlying approaches to food environment change in use. Firstly, it took a focus on socio-ecological concepts to highlight pathways to health. It also examined the growing use of systems approaches, increasingly seen as important to policy makers and practitioners in understanding and addressing the complex, constantly changing and dynamic forces at play within urban environment and health. Finally, it explored drew from social policy and healthy policy making approaches, which illuminate the aspects of policy process and wider elements- further setting the scene for the following chapters and case study investigations (Walt and Gilson, 1994; De Leeuw et al., 2013).

Insight from analysis of led to particular concepts outlined in this chapter (Walt and Gilson's Health Policy Triangle, Kingdon's model, determinants of health and systems approaches) being chosen to build key themes and sub themes with which to inform the research and methodological approach. This process, and explanation of choice of concepts used to guide the research is explored in depth in narrative and summary tables in the next chapter.

Chapter 5: Methodology 5.1. Introduction

This chapter moves on to outline the methodological approaches considered and used in undertaking the research. It starts by setting the scene for a broad qualitative research approach, which derives from an understanding of the chosen interpretive paradigm or "basic set of beliefs which guide action" (Denzin and Lincoln, 1998:185; Guba, 1990:17). It then "situates the researcher" as an integral part of the research approach. Next, it identifies the methodological framework adopted in the research including case study methods and use of some of the policy process and other concepts explored in chapter 3.

The research aims and objectives introduced in chapter 1 are defined with reference to how the methodological framework has supported development of questions, data handling and analysis. Next, it is explained how data was collected using a variety of data sources and methods. The issues of trustworthiness and ethics are explored in order to ensure validity of qualitative research. The final section describes the approach to data analysis in order to set the foundation for the following chapters and development of the thesis.

5.2. Methodological approach

5.2.1. Qualitative research approach

It is important to acknowledge from the start that the chosen research paradigm embodies and illuminates a researcher's understanding and approach to the world. This clarifies assumptions about the nature of reality (epistemology), relationship between the researcher and the "known" (ontology) and determines choice of research methodology (how we gain knowledge of the world) as a result (Denzin and Lincoln, 1998:26). Central to the design of social research lies a question about how we frame both the nature of society, and the role of people within it (Snape and Spencer, 2003). How we each perceive "reality" varies, and as a result affects what theoretical perspective we take, how we define goals of research, relate to research participants, and what methodology we choose. O'Brien describes this as akin to looking through a dynamic kaleidoscope, through which "shifting perspective, the world under investigation also changes shape" (O'Brien, 1993:10).

Whilst a positivist approach, has sought to ascertain "objective" truth, where a researcher strives to be neutral, a qualitative approach acknowledges the view that reality is in fact "socially constructed" with meaning and fact being influenced by the interpretation or perspective taken (Mies, 1993:68; Schwandt, 1998; Silverman, 2000). Taking a "constructivist" paradigm emphasises the relative nature of reality and understanding of the

world is both derived by the knower and the subject, and is best suited to use of naturalistic methodologies (Denzin and Lincoln, 2000; Guba and Lincoln, 1994).

Qualitative research methodology, as used in this research, lends itself to exploration of the policy process with exploration and understanding of complexities of human experience, meanings and environments, and the subsequent interpretation of those meanings (Alvesson and Sköldberg, 2000; Denzin and Lincoln, 2000; Ormston et al., 2014; Silverman, 2000). The divide between positivist and qualitative approaches need not be stark, but a pragmatic approach enables "mixed methods" to be used where needed through a "toolkit" approach, reflecting the needs of transdisciplinary research (De Vaus 2001; Snape and Spencer, 2003). Identification of a clear research design is essential to support the search for the right types of evidence in order to answer the question clearly (De Vaus, 2001).

This research broadly aims to "*explore multi-sectoral perspectives on integrated food policy with reference to food environment change through urban planning and land use*". Of interest is the policy making process. Here, the researcher adopts an exploratory approach concerned with identifying "why phenomena occur and the forces and influences that drive their occurrence", including understanding of influences, motivations, events and context (Ritchie, 2003:28). In this case, qualitative research provides the tools to understand the process of policy making, and tease out what lies behind a "decision, attitude, behaviour or other phenomenon" giving insight into the context, motivations, and underlying attitudes of influence (Ritchie, 2003:28).

5.2.2. Situating the researcher

Denzin and Lincoln (1998:23) recognise that "behind all...the phases of interpretive work stands the biographically situated researcher". As qualitative research does not happen in a vacuum, but in real world contexts, both the role and perspective of the researcher must be acknowledged and included from the outset. The researcher needs to adopt and open and reflexive approach, acknowledging both experience, outlook and potential for bias, in a process of continual reflection on their impact both on the research and relationships with the "researched" (Alvesson and Sköldberg, 2000; Mansvelt and Berg, 2005; Winchester, 2005).

The focus of this research derived in part from the researcher's own history, interest and perspective, from over twenty years of work within urban agriculture and community food projects. In particular, for fifteen years prior to the research, the researcher was employed within an NGO in Sandwell, one of the case study areas. Their role (1999-2014) involved leading development of Sandwell's urban agriculture programme, working closely with Sandwell Public Health towards wider food policy goals (Barry, 2017; Blair and Barry, 2014;

Davis et al., 1999; Davis et al., 2001; Davis and Middleton, 2012). This gave the researcher an insight into both development of "upstream" and "downstream" interventions for food environment change on the ground. It also brought insight into the relationships, aspirations and complexities behind the food policy making process taking place at local government level within the West Midlands. It led the researcher to want to explore how aspirations for food environment and food system change might move beyond short-term "projects" to become embraced within wider policy action and embedded within a more structural focus, a challenge noted by previous authors (Dowler and Caraher, 2003).

This prior knowledge and experience served as an advantage in that it supported both case selection and access to key informants, along with providing an understanding of context and history of food policy work, particularly for Sandwell. However, as will be shown, the personal experience of Sandwell was not a central factor in selecting Sandwell as a case study and, as will also be discussed, efforts were made to avoid bias. Interviews took place during 2016-17, after the researcher had left this role in Sandwell to take up the PHD studentship (2015-17). Whilst the research time enabled them to "step back" and begin to reflect and gain a perspective on the issues, it also presented some methodological challenges. Use of an ongoing personal research journal for reflection helped to identify and steer through some of these.

Interaction with research participants in local authority settings of Dudley and Solihull, for example, initially raised expectations that the researcher might be able to contribute insight into programme development, particularly around urban agriculture. Throughout meetings and interviews, the researcher was always open about their own background, but did at times feel that it was acceptable to make contributions to meetings when asked directly. For example, they were able to provide examples of flagship food growing projects, or highlight reports of relevance. This was seen as part of a process of relationship-building with the case study areas, and with key informants. A contrasting challenge stemmed from the researcher's previous involvement in Sandwell. As the research progressed, it was clear that that the researcher was witnessing some well-established food policy programmes and ideas, including urban agriculture, undergoing great challenge, as staff and programmes were reorganised or ceased to gain support. This meant that the researcher had to strike a balance between understanding current experiences, whilst acknowledging the historical legacy of the work. This involved effort to not make assumptions based on past experiences, in order to clearly hear multi-sectoral perspectives about what was important. These experiences support Hammersley and Atkinson's view (2007) that the researcher is inevitably a key part of the social world studied, acknowledging it is impossible to completely avoid influencing or being influenced by it. Recognition that actors bring different meanings

and understanding to the world acknowledges that the "knower" and "knowledge" cannot be seen as separate. This made it imperative that the researcher was constantly vigilant and reflective as to their position and potential for bias throughout the process (Steedman and Steier, 1991:53).

5.3. Establishing the methodological framework

5.3.1. Acknowledging the 'messy' nature of the policy process

The broad approach to the research question draws on health and social policy literatures examining policy processes outlined in the previous chapter. The researcher wanted to focus more on the "how" and "who" within the policy making process, rather than on specific policy content and evaluation of policy programmes per se. However, from the outset, the realities and challenges of the research brought to the fore the inherently messy nature of research within a real-world setting. This presented the researcher with methodological challenges, in relation to both arriving at a focus, and understanding and describing the complexities at play, all important to acknowledge whilst seeking a suitable methodological framework.

5.3.2. Finding the language for complex systems

The challenges of initially identifying scope and conduct of research, finding the language and concepts to describe it, and level at which to focus, was paramount. This alludes to some of the challenges identified by others exploring integrated policy making focused on the wider determinants of health, or systems approaches - noting the long-term nature of change, difficulty in attributing change, complex inter-sectoral drivers and opaque nature of policy making (De Leeuw et al., 2013; Exworthy, 2008; Greenhalgh and Papoutsi, 2018). In recognition of these factors, the researcher set out at the start to take a broad and open approach, implicitly acknowledging the complexity, inter-sectoral and systemic nature of policy making within this area. This meant that arriving at a clearer understanding emerged over time, in relation to further reading and reflection. The researcher grappled throughout in finding a way to grasp complexity and understand how to unpick and conceptualise the messy contextual factors. The researcher was aware of the temptations to take a reductionist approach, which might simplify focus down to single themes, projects or particular interventions. However, the things they set out to try and examine were of a very messy nature, thus a reductionist approach would not address the underlying challenges or recognise the complexities of the explicit and implicit interconnected elements at play.

Others researching this type of "wicked problem" with multiple factors acknowledge similar methodological challenges, including lack of clear paradigms and road maps for analysis,

needed when taking account of complexity, unpredictability and uncertainty inherent to systems (De Leeuw et al., 2013; Exworthy, 2008; Greenhalgh and Papoutsi, 2018; Plamondon and Pemberton, 2019; Rittel and Webber, 1973). In examining the issue of complexity in health services research, Greenhalgh and Papoutsi (2018:1) argue that "many researchers are still using methods that assume a closed system" characterised by "linearity and predictability". They allude to the need for a "paradigm shift" with "new standards of research quality (for example) rich theorising, generative learning, and pragmatic adaptation to changing contexts". As a result, they call for a flexible, theoretically grounded, approach to research design. An approach informed by complexity would, in contrast to traditional research approaches, recognise that there is constant change, data would be dynamic and hence never complete, and demand a nuanced, flexible approach, in order to produce a "nuanced picture of what is going on and why" (Greenhalgh and Papoutsi, 2018:3). This challenge is also noted by authors within studies exploring the wider determinants of health, emerging systems thinking approaches, and food system change. They note that a combination of tools and frames can help clarify methodological approach, develop better understanding and tease apart elements within interconnected aspects of these problems (Cohen, 2020; De Clavier and De Leeuw, 2013a; Exworthy, 2008; Greenhalgh and Papoutsi, 2018; MacRae and Winfield, 2016).

5.3.3. Research within constant change

The research took place in a period of fluid political and contextual change characterised, at the local authority level, by ongoing reorganisation, staff turnover, austerity, funding cuts and policy change. Whilst this constant change was challenging for the researcher, it also shed light on the vulnerability of food policy making within local authority settings, set against competing agendas and priorities especially at a time of austerity. However, it did mean that gaining ground was difficult, highlighted by the loss of institutional memories in some instances as staff changed or left and were not replaced.

5.3.4. Examining policy process

However, whilst recognising these challenges, as data collection progressed the researcher also became clear that drawing on frameworks for policy analysis would be useful - in guiding focus, data management and analysis. Whilst overarching concepts of policy process and healthy public policy have been discussed in chapter 4, this section draws on some of the specific perspectives in order to support the methodological framework for the research. Reading of food policy research by Seed (2011) and Wegener et al. (2012 a, b) helped bring this approach to the attention of the researcher and support further investigation of policy analysis tools.

As examined in chapter 4, varied models and frameworks have been used to simplify and understand both policy and policy making processes, drawing on social and health policy literature. Walt and Gilson (1994), for example, present a simplified "Health Policy Triangle" as a framework to examine the different aspects of policy making including context, content, process and actors. Lang (2005) similarly developed a "Food Policy Triangle" to examine the different actors within food policy making. Others, like Kingdon (1984), examined certain parts of the policy making process, in this case agenda setting.

Aspects of all of these are useful to this discussion. Table 7 below summarises the key themes, and sub themes taken from some of the salient concepts already examined, and draws out which aspects are of use in approaching the research question in hand, and used to underpin this work

Concepts drawn from policy process literature (as discussed in Chapter 4)	Key themes	Of use to this research
Health Policy Triangle, Walt and Gilson (1994)	Examines: Context: wider contextual factors Content: subject and objectives Process: initiation, negotiation, communication, implementation and evaluation Actors: Individuals, organisations, groups	Useful for examining - the 'how' and 'who' of policymaking- through teasing out contextual, process factors and actors. Also some focus on content.
Lang's Food Policy Triangle (2005)	Examines : role of actors- State, Civil Society, and Food Supply Chain	Useful in identifying dynamics between actors and gaps in involvement in the policy making process
'Stages' models of policy making (e.g. Howlett and Ramesh, 2003; Lasswell, 1956)	Breaks policy making into stages, agenda setting, policy formulation, implementation and evaluation	Not used. As addressed in Walt and Gilson (1994) above under process
Kingdon's Multiple Streams Framework (1984): Focus on agenda setting stage of policy making process, including 'policy windows', role of policy entrepreneurs, individual actors	Examines: Agenda setting aspects of policy making process- Problems - How problem formulated and presented Policies -range of possible solutions Politics -wider factors in policy making environment	Useful for examining how food is recognised, framed and presented within policy, and gains attention on policy agenda or not. Also of use in identifying role of individual actors or "policy entrepreneurs". Again recognises contextual factors in policy making.
Determinants of health "structural" or "upstream" focus	Examines: underlying factors driving poor health, e.g. food choice/ food environment	Useful lens to explore to what extent actors focus on individual or structural approaches, and how informed integrated work
Systems approaches, thinking and skills	Examines:	Useful to explore to what extent actors understood and were using this approach

Table 7 Summary of concepts from policy studies used to develop research approach (From Chapter 4)

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5.4. Research aim, objectives and questions

In summary, the research will draw on the concepts identified both in Table 7 above and within Chapter 4 to examine views on the policy making process underpinning integrated food policy activity to tackle food environment change upstream. In addition, further underlying concepts (sub themes) emerging from the literature were highlighted in Chapter 4 and Table 6, including: determinants of health, systems approaches and skills, and integrated policy making. These viewpoints were used to support the examination of the research aims and objectives, to sensitize the researcher to themes in the analysis and to guide later discussion. Focus was placed on to what extent the case studies demonstrated understanding, use and practice of these concepts in real world settings.

Time was taken to enable the research question to be clarified, in order to avoid being focused too early on and thus avoid taking a too-narrow view of issues under examination (Maxwell, 2008).

Research aim:

"To explore multi-sectoral perspectives on integrated food policy with reference to food environment change through urban planning and land use"

Objectives

To examine development of integrated food policy and the factors which have led to the emergence of understanding of the links between food, public health, planning and land use.

To examine contextual factors, barriers, facilitators for integrated food policy with reference to food environment change through planning and land use.

To identify policies and practices at a local level which have considered links between food and planning for food environment change.

To draw lessons for policy and practice for implementing integrated food policy and food environment change through planning and land use.

By drawing on the above objectives, the researcher has summarised areas of focus to be explored within the research as seen below in Table 8.

Research objectives	Examples of questions within research focus	Primary area of focus: Key themes: Policy Making Process
(ref above) To explore multi sectoral		(Sub themes : drawing on concepts from determinants of health, systems thinking and skills as in Table x.6 in Chapter 4)
perspectives:		
Objective 1 & 2:	What is the context in which policy making is taking place?	Context
	What historical, socio economic or political factors in food policy making are important?	Describe wider contextual factors supporting or hindering integrated
	What are the drivers behind integrated food policy making for upstream food environment change?	food policy making and focus on 'upstream' action on food
Objective 1 & 2:	What are the underlying factors influencing integrated food policy making process?	Process
	How is upstream action on food environment change negotiated, communicated?	Explore processes by which food policy emerged on policy agenda
	How is food brought to the policy table? How is the 'problem' identified?	with focus on 'upstream' action on food environment
	How is a shared vision for integrated food policy developed and negotiated?	
	How does upstream action on 'food environment' gain attention?	
	To what extent is a systems perspective understood and communicated?	
	How does the problem reach a policy agenda, and adopted or not?	
	How do 'policy windows' become available or close?	
	Are systems 'feedback loops' resulting from policy implementation recognised, and does	
	it lead to learning? How is knowledge shared- does reflection and learning take place?	
Objectives 1 & 2, 3:	Who are the actors involved in integrated food policy development?	Actors
	What are their interests in food policy, what do they bring to the table?	

	How do they work together? Can policy entrepreneurs be identified? How does integrated working take place towards tackling upstream factors in food environment? Are systems approaches and skills demonstrated? Specific focus on role of planners and public health- how do they work together? Role of civil society and food supply side actors?	Explore how public health, planning and others have worked towards integrated action to influence food environment
Objective 3:	What policies and practices can be identified at a local level that are used to bring about food environment change? Examples used to illustrate where relevant to area of focus as a way of discussing factors above e.g. planning or public health policies aimed at tackling upstream factors, determinants of health, and how they have fared within the policy making process	Secondary area of focus: Policy content Highlight specific policies aimed at influencing 'upstream' food environment- in order to support considerations above
Objective 4:	What lessons can be learned more widely for practitioners and policy makers?	Process, content, actors Drawing on key findings and themes from the research

Table 8. Summary of areas of focus for the research deriving from policy scholars and concepts in Chapter 4.

5.5. Case Study Methods

Recognition of the complex and messy nature of the real world contributed to the choice of case study approach for this research. Research design using case studies - single or multiple - is well suited to "how" and "why" questions, and examination of contemporary, real world events in depth, within the context they are found (Eisenhardt, 1989; McDonnell et al., 2000; McGloin, 2008; Yin, 2009). Yin argues that case studies can be used both for qualitative and quantitative methods, arguing that a strict distinction is not necessary, and can also be useful for examining factors within the policy process (Yin, 2009). Case studies lend themselves to situations where there is no possibility of manipulating variables, but where explanation or analysis is of interest (De Vaus, 2002).

Flyvbjerg (2006:223) challenges common misconceptions about the use of case study methods which lead to their being undervalued as "unscientific". He notes that they can in fact give opportunity for gaining an in-depth, nuanced view of reality through close observation of a subject. Flyvbjerg (2006:223) argues that "concrete, context-dependent knowledge is...more valuable than the vain search for predictive theories and universals" and case studies through their depth and close contact with the materials can provide this unique insight. Flyvbjerg (2006) comments that the concerns with subjectivism and bias apply to all qualitative methods, not just case studies, and that the in-depth nature of case study research, and immersion in the data over time implicit in the case study approach may mean, in fact, that this is less of a problem. "The case study contains no greater bias towards verification of the researcher's preconceived notions than any other methods of inquiry. On the contrary, experience indicates that the case study contains a greater bias towards falsification of preconceived notions that towards verification" (Flyvjberg, 2006: 237).

Debating validity, quality and rigour of case study research, Yin argues that four factors common to social sciences can be used to judge the quality of research, including: focus on construct, internal and external validities, reliability throughout the process of research design, and data collection and analysis (Yin, 2009: 41). This embeds rigour within the process itself, enabling a clear pathway to be discerned from initial question to end result, which could, if needed, be followed by others to achieve similar findings (Yin, 2009). Clarifying the case study approach at the outset is essential, in order to ascertain if it is theory testing, theory driven or theory developing (Eisenhardt, 1989; Ravenswood, 2011). The starting point to this research was an inductive and investigative approach, enabling a broad look at themes which emerged through immersion of the researcher in the case studies from the start. This enabled rich data to emerge and exploration of similarities

and/or differences that might be used not only to gain greater understanding of the particular contexts but also to draw wider lessons for both policy and practice (Corbin and Strauss, 2008; Eisenhardt, 1989; Løkke and Sørensen, 2014; Ravenswood, 2011; Yin, 2014).

Others focus on the ways in which case study areas are chosen and identified. Flyvjberg (2006:229) recognises that it can be justifiable to select cases both in that they demonstrate validity to the researcher and indicate that they have a rich information content on the topic in question. In this case, he notes, case exploration can be used to "clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur".

The researcher, as outlined in the next section, adopted a "purposeful" approach to selecting case study areas, combining both pragmatic and theoretical considerations (Ames et al., 2019; Campbell et al., 2020; Deniette, 2020; Etikan et al., 2016; Patton, 1990). As Polgar and Thomas (2011: 33) comment,

"The purpose of purposeful sampling is to select information rich cases that best provide insight into the research questions and will convince the audience of the research... purposeful sampling is a case of pragmatism in which ... neither theory nor method are overburdened"

Here, cases are selected on the basis that they will provide rich insight into the area in question, meet certain predefined criteria to justify their choice, and are sufficient to help explore the area of focus or question which is of interest to the researcher. Case study research can make use of purposive sampling methods in order to focus on particular groups, geographical areas or features that give insight into the area under inquiry, and in relation to key identified criteria (Denzin and Lincoln, 2000; Maxwell, 2008; Ritchie et al., 2003; Yin, 2014). The selection of cases was informed by a step-by-step process and draws on a combination of factors including identification of key features, pragmatic considerations along with insights and underlying knowledge gained from initial exploration of the topic and literature review. Silverman (2000: 104) supports this approach and an active choice of case(s) "because it illustrates some feature or process in which we are interested" thus enabling the researcher to find settings, groups in which this feature would be likely to occur. In making the selection of cases, the question is often asked, "can you generalise from a case study?" Answering this question calls for reflection on whether the chosen cases are "representative" in any way. In the case of this research, information gained from cases could be developed to gain insight into perspectives, historical context, challenges and practicalities, of how food environment change might happen in a local authority setting. There are differences, such as embedded historical and contextual features peculiar to each, but there might also be lessons which can be drawn for wider practice. The essence is in

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distilling this from the cases. As Miles et al. (2014:101) comment, the "purpose is to see the processes and outcomes across many cases, to understand how they are qualified by local conditions, and thus to develop more sophisticated descriptions and more powerful explanations".

5.5.1. Choice of case study areas.

The choice of the three case studies, Sandwell, Dudley and Solihull resulted from a step-bystep consideration of the research question and areas identified as research focus. The researcher followed a selection process, informed by a combination of purposeful judgement, theoretical and pragmatic considerations, as described above. The process of making choice of case study areas took a range of considerations into account, described below, including purposive, theoretical and pragmatic considerations. This facilitated a search for key features that would provide a starting point for exploration of the aims and objectives of the research. Table 9 below, illustrates the "purposeful" approach taken in case selection, and demonstrates the steps taken in decision making.

Table 9 Considerations and criteria for selection of choice of case study areas	
Consideration and criteria for selection of choice as case study area:	With reference to:
Based on purposeful selection	Purposeful sampling: Ames et al. 2019; Campbell et al. 2020; Etikan et al. 2016; Patton,
	1990; Polgar and Thomas 2011
Demonstration of activity and features of relevance to research question and topic	Theoretical considerations
Local authority with food policy activity, and specific reference to public health links to	Reference to identified research aims, topic and objectives- to explore food policy activity
planning and land use around food environments.	within local authority with links between public health, and planning and focus on food
Urban food policy making at local authority level and jurisdiction.	environment. Gaps in the literature identified as identified in the literature review
Addressing the gap in literature (food and health policy and wider determinants of	(chapters 2 and 3), highlight limited understanding of behind-the-scenes processes.
health) focusing on policy making processes and behind-the-scenes perspectives in	
food environment change.	
Geographic focus	Purposeful considerations
Geographic focus on cases in the West Midlands - giving definition and shape to the	• Yin (2014) outlines how case areas can be defined by taking projects or services in a
study and ability to explore both common and contrasting historical and contextual	specific geographic area.
factors. Emerging focus of the West Midlands identity. Focus on urban authorities.	Initial brief investigation of policy documents within all West Midlands boroughs to find
	evidence of support for activity and to guide choice of case study area.
Focus on 'ordinary' settings	Purposeful considerations
Choice of cases in 'ordinary' and real-world settings as:	Coulson and Sonnino (2019: 171) call for wider exploration of cases, particularly within
Adding knowledge to bridge gap in literature predominantly focused on 'idealised' or	the context of austerity and unfolding uneven geography of 'winning' and 'losing' areas'.
'desired' food policy activity, flagships and exemplars, or dominated by advocacy	Davoudi and Bell (2016) emphasise the value of studying 'ordinary' cities.
narratives for food system change, often led by an active, empowered civil society- the	Tornaghi (2014) calls for critical approach and move from advocacy focus of much
case study areas had limited civil society input.	literature.
Pragmatism and convenience	
······	Pragmatic considerations
Pragmatic decision making - e.g. prior knowledge of context, links to case study areas	Pragmatism and convenience underpinning realities of research - e.g. budgetary and time
through their membership of West Midlands Strategic Food Board, and access to key	constraints, distance etc. (Denscombe, 2007: 41; Miles et al., 2014; Patton, 1990;
informants.	Silverman, 2000: 102).

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The initial choice of case studies was supported by theoretical considerations. The researcher sought areas that identified and demonstrated a food policy focus within a local authority setting, with policy documents indicating specific reference to public health, planning and land use. Suitable areas were identified in an initial literature search of concepts and insight from both academic sources, food policy literature, and area-specific urban food policy and other documentation. This included indication of local authority led food policy activity with input from public health, and involvement and links to planning and land use.

Taking a focus on cases within the West Midlands geographical area made sense to the researcher in that this provided a focus and definition on a bounded geographical area, at the same time as presenting rich sources of inquiry (Yin, 2014). Of the other urban West Midlands boroughs, Birmingham was considered, but not chosen, because even though Birmingham now has an active Food Council, established in 2014, this sees itself operating independently outside local authority, as a "critical friend". Whilst the Food Council has been prolific in its work, at the time of selection (2015), being newly formed, and independent, it was not seen at the time to offer insights into decision and policy making processes *within* a local authority setting (Birmingham Food Council, 2021). (However, since this research was completed, Birmingham has emerged as one of the front runners of current food policy development; see for example Mandala Consortium (2022) and Food Trails (2022)). Wolverhampton and Walsall, other urban authorities within the West Midlands area, were also considered, but had no indication of food policy focus or activity, and thus did not meet the factors indicated by Silverman (2000) above.

Each case study area was able to offer a basis for broad exploration through presenting both common features, but also differences – for example, aspects of shared geographic identity, at the same time as presenting contrasting features, such as socioeconomic and political status. In addition, for the researcher, a combination of pragmatism and convenience also supported the choice of the West Midlands area; in that they had knowledge of the presence of relevant food policy activity in one area, Sandwell, along with some initial links and routes through which to access the other areas.

None of the case study areas chosen were part of wider 'sustainable food places' network (Sustainable Food Places, 2021). In exploring such areas, one can learn from more "ordinary" settings such as the case studies chosen, to provide insights into work by people and institutions in varied, everyday conditions, and assist understanding as to how food policy making takes place when directly engaged in the wider and high-profile food policy movements (Coulson and Sonnino, 2019; Santo and Moragues-Faus, 2019; Tornaghi,

2014). It is important to look beyond food policy flagships, such as Bristol and Brighton in the U.K. This could help present a better picture of how food policy is navigated, how thinking has developed around food, and identify factors for its emergence into policy, taking account of the wider contestations and particular context. One could argue a dominance in much food policy literatures, where those cities – pioneers, exemplars or more dominant voices in urban food policy work, attract significant attention. There is, as a result, room for understanding the factors at play within more ordinary settings (Morgan and Sonnino, 2010; Santo and Moragues-Faus, 2019).

Areas chosen could be described as having features of what Bell and Davoudi (2016) imagine as "ordinary cities", at the same time as responding to Coulson and Sonnino's (2019) call for understanding of areas beyond well-known exemplars of food policy. The "ordinary city" approach thus allows exploration of the particular features and characteristics of each case, along with the distinctive circumstances that shape its progress and development of solutions. In making the case for focusing on this concept, Bell and Davoudi (2016) build on Jennifer Robinson's (2006) critique of an overemphasis on the "global cities approach" in urban studies which, she argues, has led to other cities being "off the map" in terms of research and focus, with a potential loss of valuable insights (Bell and Davoudi, 2016:13; Robinson, 2006:94;). Bell and Davoudi (2016) explore their own city, Newcastle on Tyne, as an "ordinary city", through which to research different aspects of fairness and justice, including environmental and food justice (see also Davoudi and Bell, 2016; Davoudi and Brooks, 2016; Midgley and Coulson, 2016). They argue that if, as Robinson (2006) argues, all cities are ordinary, then they are all "on the map" for researchers (Bell and Davoudi, 2046:13).

Whilst the characteristics of the case study areas will be discussed in chapter 10, each area demonstrated all elements of these features.

5.6. Data Collection

This section outlines the approach to data collection for the research. As Yin (2014) alludes, case studies typically use multiple levels of analysis and data for study. Five sources of data identified by Yin are used in this study - including archival records, documentation, interviews, direct and participant observation. Each source has its strengths and weaknesses common to all qualitative research and the researcher needs to be aware of subjective views and bias potentially embedded in the data. Table 10 gives examples of data sources used for the research.

Data sources used (examples)	Public Health	Planning/Land	Food Policy	Other
Documentation and archives (See also table 11 below)	Local: Annual reports, documents, action plans and strategies, obesity policy, JSNA, Health and Wellbeing Board committee Regional and wider: Public Health Policy documents e.g. PHE, WHO.	Local: Local Plan documents and directives, Planning strategy documents, Green Space Audits. Committee meetings. Regional and National: Planning Policy e.g. NPPF	Local: Food policy or strategy documents, obesity policy, food growing or urban agriculture. Regional and wider: Food Policy Documents	Local: Civil society resources, reports and social media presence Regional and wider: Civil society and advocacy groups- across all themes
Interviews (See table 12 below)	Food policy, public health, planners, council and civil society	Food policy, public health, planners, council and civil society	Food policy, public health, planners, council and civil society	Regional
Participant observation and direct engagement	Health and Wellbeing meetings,	Healthy Planning meetings	Food Strategy / Food policy meetings	Regional food policy and planning meetings

Table 10. Examples of types of archival and other data sources used in the research (With reference to Yin, 2009. N.B. not including Literature Review).

From the outset, the researcher, influenced by their experience of practice, took a view that it was useful to be involved in case study areas from the start, in order to build up knowledge and understanding of the settings, through getting "out and about" at community food projects, meetings, and events in order to observe and become immersed in the context. Punch (1998: 157) is clear that whilst a well thought our model of research is key, it must not be overly restrictive, and argues for a practical "get out and do it" perspective, at the same time as acknowledging that research in "the field" is in its essence messy and taxing.

5.6.1. Documentation and archival literature

Initially a broad review of the academic and grey literature was undertaken in order to develop the focus and explore concepts (chapters 2-4) in the research, and to gain insight into the context, gaps and overarching themes around the area of interest. Table 11 below summarises the types of documentation used.

An initial broad search for literature took place using Boolean search methods, incorporating inclusion and exclusions, including using reports and peer reviewed journals, with ongoing iterations of relevant terms in order to explore the intersections between food policy, public health and planning (see Appendix 6 for example). Established databases were used,

including Science Direct and Assia, along with Summon (Birmingham City University library search engine) and use of Google Scholar databases for specific searches. This was supported by ongoing and cumulative alerts for relevant literature, along with examination of bibliographies, review papers and systematic reviews. Internet searches were also used to locate local, national and international policy literatures around food policy and public health. Search of this kind enabled the researcher to gain an overview both of the key areas of practice, but also academic and policy literature, and to begin to clarify area of focus and research question for the research based on appraisal of this. (See appendix 6 Tables 31-34 for more details)

In addition, once the case study areas were chosen, broad literature sources were explored, including sources such as contextual data on health and economic status, local strategies and policies, council committee papers, meetings minutes, and annual reports (Table 11 below). Local context was also enriched through exploration of websites, Facebook pages and blogs, enabling understanding of key local policy, intervention, actors and practice developments both at local authority setting and grassroots setting adding to a richer understanding of context overall. Denscombe (2007) argues in the main that these types of documents can be seen as authoritative, objective and factual, and of use. Whilst minutes of meetings, for example, are seen as publicly accountable, highlight decisions and are available for scrutiny, they will not however show the nuances behind the decisions taken, and thus are a partial representation of what went on behind the scenes.

Type of literature used	Useful for
Broad literature search using Boolean methods, recognised databases in methodical approach	Developing literature review and concepts Narrowing down research focus and question Understanding context and activities around food policy area in focus
Wider policy literature (e.g. WHO, PHE), urban food policy, health and planning policy literatures and practice	As above
Data sources for case study context e.g. Indices of Deprivation, health and socio-economic data	Overview and description of case study areas
Local Policy and 'grey literature' for case study areas, including committee papers, meetings minutes, annual reports, strategies and policy documents. Timeframe 1998-2017	To gain insight into case study areas, and into development of policies and interventions Gain historical perspective of food policy development linked to public health
Scan of local digital information including social media, blogs of relevance, websites	To gain insight into local activity and context around food policy and links with local authority

Table 11. Documentation sources used in the research.

5.6.2. Interviews

Use of interviews is one of the recognised ways of collecting data within case study and qualitative approaches, providing "a framework within which respondents can express their own understandings in their own terms" (Yin 2009; Patton 1980:205). Algozzine and Hancock (2016) identify features common to successful interviewing, and these were used to guide the approach taken by the researcher. These include, identification of participants, use of interview guide(s), considering the setting, use of recording and ethical considerations. In using interview data, the researcher must again understand that knowledge is socially constructed, and be aware that those interviewed represent different individual, political and organisational viewpoints.

The researcher followed Patton's (1980) suggestion that taking a "general interview approach" (as opposed to a tightly structured approach) is a method suited to qualitative studies. This enables an inductive approach to be used, with broad topic themes to be covered, whilst retaining flexibility, and without use of a set of standardized, pre-determined or closed questions. This approach enables a check list of relevant topics to be covered with each interviewee, but enables the researcher to "adapt, both the wording and the sequence of questions to specific respondents in the context of the actual interviews" (Patton, 1980:198). This looser structure gives respondents opportunities to answer in their own

terms, and for additional questions to be asked as new issues arise. Thus, the researcher must "think on their feet" and improvise and respond as the interview proceeds.

5.6.2.1. Selection of interviewees

Interviewees were located using a "snowballing" approach and a total of 58 interviewees were located (Table 12 below). Initially "key informants" were identified and selected on the basis of their role within public health food policy work. Interviews took place between June 2015 and July 2017, thus providing the opportunity to explore development of policy over time. Initial interviews enabled the researcher to gain historical and contextual information, and to start to identify themes and questions. Key informants provided the entry point to bring in new informants from others involved in the policy process. In effect, officers from public health served to identify informants who would in turn make suggestions of further interview subjects. As a result, the majority of interviewees were drawn from a mix of public health, council and planning officers, with some civil society representation. Seven were from regional or national food policy representation, but data here was used for setting the context only unless there was direct involvement in the case study areas. A constraining factor affecting the choice of interviewees was the recognition of the relatively small size of each local authority, where relatively few were involved in food policy discussion.

The research sought to portray the realities of the policy making space "as is" at the time rather than as it "should" or "could" be within an ideal food system view. As described, initial contacts with public health officers involved in food policy, led to suggestions and introductions for wider interviewees linked to the work. This led to further suggestions and widening circles of contacts, from food policy actors themselves. Relying on snowballing revealed the shape, reach and realities of current local authority food policy making and actors involved - as it was seen by those actors. Initial attempts were made by the researcher to speak with representatives of "hot-food" retailers operating behind the scenes the case study areas. This was initially explored because of the profile of this area in the literature, and their potential impact on policies. One was initially forthcoming but withdrew, at which point the researcher acknowledged the scope was best focused on food policy makers world view. As a consequence of this, links with "food supply chain" were not sought or developed, as policy makers involved revealed limited or no interaction and links with this group of stakeholders. The implications of this real-world exploration and approach are discussed further in chapters 11 and 12.

As noted above and in chapter 3, much food policy literature highlights the strong role played by civil society groups in working for food system change. Initially, the researcher considered using Tim Lang's "Food Policy Triangle" as a way to identify stakeholders for interview - namely locating "state", "food supply chain" and "civil society" actors at points of the triangle (Lang, 2005; Seed et al., 2013). Lang's Food Policy Triangle gave insight into the different stakeholders, as well as highlighting the absence of some of these stakeholders (e.g. retailers) in the food policy work, as indicated in Table 12 below, and as such was of use during later discussion of findings. Food policy making in the case study areas was led mainly by local authority and had limited or emerging civil society engagement, due to factors discussed later.

Whilst referring to Lang's triangle, the researcher drew mainly on Walt and Gilson's (1994) "Health Policy Triangle". This was useful as a broader concept for identifying the elements of the policy process – the focus of interest. Here, content, context and process was central, and helped to identify "actors" and their role within this. Use of this lent itself to the snowballing process, enabled actors to be identified initially by public health leads, and emerge through focus and exploration of the policy process, including public health, council and planning officers, some civil society input as the cases revealed information and links.

5.6.2.2. Interview process

The researcher adopted a procedure to ensure that interviewees were involved and understood what was being asked of them. Prior to interview, participants were sent an overview of research questions, and a consent and agreement form. The initial introduction to the researcher for interviewees was made through public health food policy links, by email, and followed up to negotiate meeting times. Each interviewee was able to define the time and meeting place at their convenience. Interviews lasted between 45 and 90 minutes. All interviews were recorded using voice recorder, allowing the researcher to focus on the interview at the same time as capturing all content. Recordings were transcribed verbatim within a few days. Some civil society interviews were carried out using note taking at the interviewee was happy that notes accurately reflected what they had said. Whilst anonymity was highlighted, and interviewees are referred to in the findings through representation of the sector they come from, this posed some challenge due to the small nature of participants involved.

It was hoped that flexibility in time and location on the part of the researcher would accommodate the fact that interviewees were extremely busy and facing a period of unprecedented change at local authority level, with both budgetary cuts and ongoing restructuring, set against political and national change. The majority of interviews were held in official office settings, with one using skype. Civil society interviews were held in a mix of settings including cafes, community gardens, often with distractions, meaning the researcher had to be flexible and creative. Turnover of staff also presented a challenge, with some key people leaving before the end of the study, reflecting the organisational changes taking

place in authorities at the time. This meant there was some loss of knowledge and historical information, meaning the researcher fell back on documentation to try and explore some themes.

A broad interview approach enabled the researcher to focus on topic of enquiry with interviewees- to explore views about policy processes behind joined up food policy links to public health and planning. An iterative approach was taken, building concepts through initial literature but developing as interviews progressed and new themes came to light. This required a naturalistic, flexible and conversational approach to interviewing, whilst making sure not to lose sight of the topic under exploration (Legard et al., 2003: Patton, 1980). The researcher used a broad topic interview guide to frame questions, and to ensure that all appropriate themes were covered. Interviews with key respondents took place in two phases. An initial interview served to gain a broad understanding of the area in focus, and gather background information, and contextual factors. This was followed up in a second phase, once the research developed, with deeper focus on particular elements where needed. Not all interviewes were interviewed twice, but interviews with some key informants enabled both tracking of policy process and checking of key facts and development of themes.

Interviews (2015-17)	Sandwell	Solihull	Dudley	Regional/other
State Number and key to identity in interview narratives (Chapters 8-10) as(e.g. SAPH1, SAPH2)				(context only)
Public health (food policy leads, consultants/directors	6	4	3	2
and healthy planning)	(SAPH)	(SPH)	(DPH)	
Planning (Spatial planner/ strategic/planning officers)/	6	3	4	3
Regeneration/Landscape	(SAPlanner)	(SPlanner)	(DPlanner)	
Council other (Parks and greenspace, community	3	5	4	
development, Councillor)	(SAMBC)	(SMBC)	(DMBC)	
Civil Society				
Food growing, food poverty	5	4	3	
	(SACS)	(SCS)	(DCS)	
Regional/national				2
Food supply chain				
Fresh produce consultant	1			

Hot food retailer				(withdrew)
State total	15	12	11	5
Civil Society total	5	4	3	2
Food Supply Chain total	1	-	-	-
Overall totals	21	16	14	7

Table 12- List of interviewees (58 total) (with reference to: Food Policy Triangle (Lang, 2005) and Health Policy Triangle (Walt and Gilson, 1994).

5.6.3. Participant and direct observation

Table x.11 above outlined examples of participant observation that supported the research. The researcher was invited to attend a number of meetings within the case study areas, as an observer. This involved attending a range of events and meetings, at different levels from policy meetings (e.g. Health and Wellbeing Board), network policy meetings (e.g. Healthy Planning, or Food Policy), and community meetings (e.g. Community food policy meetings). These meetings were useful for observing food policy discussions. This involved reflexive practice as ensuring that the researcher was aware of how they might influence proceedings.

5.7. Ensuring trustworthiness

Lincoln and Guba (1985: 304) cite four key points which should be taken into account to ensure that trustworthiness of the research can be established. This includes consideration of credibility, transferability, dependability and confirmability. Techniques for establishing credibility including a prolonged engagement in the field enables the researcher to develop in depth understanding of context and setting, build relationships and trust. Persistent observation enables identification of 'characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them in detail. If prolonged engagement provides scope, persistent observation provides depth' (Lincoln & Guba, 1985: 304). Another approach is to continually 'triangulate' the data, checking multiple sources against each other in order to reach as accurate a view as possible and strengthen findings (Eisenhardt, 1989; Ravenswood, 2011; Silverman, 2000; Yin 2009). Whilst Silverman (2000:99) alludes to the constructed nature of social reality, stating that "we cannot simply aggregate data in order to arrive at an overall truth" making use of and comparing multiple data sources does help ensure a more accurate picture of the case is built up using rich description and insights. Other techniques include checking factual information and emerging themes during interview, by email and follow-up conversations, reflecting back information to key informants and asking their opinions. "Thick descriptions"

(Geertz, 1973) derived from in-depth immersion in the field and subsequent detailed accounts, are also seen as a way of generating a level of external validity, enabling information to be compared, potentially across settings (Lincoln and Guba, 1985).

5.7.1. Ethics

Ethics approval for this research was given by Birmingham City University, following their ethical framework guidelines (2010) and following internal policy and protocols (Birmingham City University, 2010). Examples of relevant forms for consent and explanation are included in Appendix 7. Data was handled according to policy, including safe storage, and ensuring anonymity. Beauchamp and Childress (2001) identify four fundamental moral principles relevant to research with human participants - non-maleficence, beneficence, respect, autonomy and justice. Ethical implications are considered under the following headings:

Confidentiality and anonymity: the researcher has sought to maintain anonymity. Case study areas are identified to give understanding of real-world settings, but individuals are not. Prospective participants were assured of this as part of negotiating interviews. Participants spoke in their organisational role.

Use of data⁴: all participants were given consent forms before taking part, explaining use of data, media access and storage. The researcher considered issues around the potentially political impact of findings, such as reflection on funding for projects, or civil society-state relationships. Anonymity was used to protect interviewees.

Stakeholder relationships: this issue was central to the research approach, and encompassed consideration of consent, confidentiality, clarity, openness, boundaries, professionalism and behaviour. In addition, the researcher was open about prior involvement in food policy work, particularly in Sandwell.

Fairness and accuracy: the researcher acknowledged their responsibility to carry out research authentically. At the heart of verification of "quality" and "authenticity" is the implication that findings must be grounded in the research data, whilst recognising the perspective the researcher might bring to interpretation, and in involving research participants where possible in verifying research findings. This was done where possible, reflecting back with key informants about emerging findings.

5.8. Data Analysis

Analysis of the data from all sources took place guided by well-established methods common to qualitative research, drawing on both Huberman and Miles (2002) and on Ritchie

⁴ The data collection took place before General Data Protection Act 2018 (GDPR) came into place. However, data was stored following these guidelines.

and Spencer's "Framework" (1994). Both sit within a broad tradition described as "thematic" or "qualitative content analysis". Ritchie and Spencer's framework has been used by others both in applied policy and food policy, in addition to qualitative health research (Gale et al., 2013; Sautkina et al., 2014; Seed, 2011; Seed et al., 2013). The process of data analysis took place in an ongoing, iterative, and inductive fashion, continually visiting and revisiting the data until clarity of themes emerged. Analysis was also guided both by the research questions, and with reference to the underpinning concepts around policy making, systems thinking and wider determinants of health, as outlined in Chapter 4 and Table 7 above.

Miles et al. (2014:9) describe the approach taken by the researcher as that of a "pragmatic realist" drawing on different genres of qualitative research, but driven by common sense, similar to grounded theory approaches, where the themes emerge from ongoing examination of the data. They describe a process by which the researcher "moves from one inference to another by selectively collecting data, comparing and contrasting this material in the quest for patterns or regularities, seeking out more data to support or qualify theses emerging clusters, and then gradually drawing inferences from the links between other new data segments and the cumulative set of conceptualisations" (Miles et al. 2014:10). Materials from the multiple sources used in this research generated rich, detailed information and the critical challenge for the researcher was to ensure that the analysis was carried out in a clear, transparent and systematic way.

It is important to be able to defend the credibility of the research approach. Lincoln and Guba (1985) and Silverman (2000) suggests that in order to avoid the problem of "anecdotalism", where the researcher is tempted to choose only certain examples of data, other methods such as triangulation must be used to ensure the validity of analysis (Angen, 2000; Eisenhardt, 1989; Silverman, 1993; Silverman, 2000). Ensuring that the researcher to reflect on the data and emerging themes within the supervisory support team.

5.8.1. Steps taken to analyse data

Breaking down data analysis into a series of steps is a useful way of gaining some clarity. The researcher referred to Miles et al. (2014:10) to explore common steps involved in qualitative analysis including: assignment of codes, sorting codes to identify patterns, isolating patterns to inform new data collection, reflecting using memos and journals, developing assertions, propositions or generalisations, and comparing these with formalised knowledge, constructs or theories. Ritchie and Spencer's (1994: 178) "Framework" approach was also drawn upon, including the five stages identified as familiarization, identifying a thematic framework, indexing, charting and mapping and interpretation.

5.8.1.1. Familiarization of data

In-depth immersion of the data throughout the research took place, drawing on the wide variety of data sources and methods. Interviews were digitally recorded and transcribed by the researcher, enabling them to revisit and immerse themselves in the data. This enabled the researcher to inductively gauge key ideas, recognise recurrent themes, and begin to form initial concepts and ideas. The researcher also reflected on the data as the research progressed through using ongoing notes and research journals and discussion with supervisory team.

5.8.1.2. Identifying a thematic framework

Ritchie and Spencer (1994:180) describe the development of an index or thematic framework as using "logical and intuitive thinking ... making judgements about meaning, about the relevance and importance of issues, and about implicit connections between ideas". Breaking up the data into themes and sub-themes enabled identification, retrieval and analysis according to theme, and across common or divergent themes within case study areas. The thematic framework was guided with reflection on the research question and emerging policy process, and other concepts identified above (Table 7), at the same time as in-depth immersion in the data to identify understand issues of importance. This was an ongoing process, time consuming, using a continuous "back and forth" approach. As research progressed, new themes arose and were used to inform the way forward.

5.8.1.3. Coding the data

Coding enables the thematic framework or lens to be applied to all the data - through ongoing reading, annotation, in order to bring out the themes, at the same time as taking an inductive approach to identify codes. Data was studied in depth and labelled with codes ("indexing"), sorted using these codes, and for emerging patterns and reflection across the case studies (Ritchie and Lewis, 2003; Miles et al., 2014). Initially the researcher used "traditional", manual methods to analyse interview transcripts on paper, using highlight pens, and abstracting themes. However, this was challenging for two reasons. Firstly, the large amounts of data meant that this was time consuming and difficult to handle, meaning that the researcher struggled to find an overview and clear way of analysis. In addition, the researcher also found that memory of contexts and people made the data feel "too close" and struggled to get a distance from the data in order to allow themes to emerge. As a result, and in recognition of the danger of bias, the researcher moved on to use computer software to support the identification of codes within interview data (Nvivo 11® qualitative analysis tool). Whilst this was initially time consuming to learn, it also helped to save time in supporting the handling and sorting of large amounts of text (Leech and Onwuegbuzie,

2011). The development of codes within Nvivo (known as "nodes"), and sub nodes (known as "tree nodes") gave a much-needed distance from the data for the researcher and supported a better overview. Documentary materials and reports and research notes were not analysed using Nvivo, but through traditional techniques, but were used to support coding and charting throughout. Again, reflection within the research supervision team enabled codes to be checked and discussed.

5.8.1.4. Charting

Ritchie and Spencer (1994) describe charting as the process in which the data is lifted and rearranged according to the thematic framework. Again, this was an ongoing "back and forth" process, which took place over time, and gradually enabled the researcher to understand how to present and structure the data according the themes. The researcher made the decision to present the data thematically, rather than case by case, highlighting examples across the cases for each theme, and in order to explore differences or common themes across the cases (Ritchie et al., 2003; Miles et al., 2014). Direct quotes from interviews were used to illustrate emerging themes. In doing this, the researcher continually referred back to the concepts identified in Table 7 above, drawing on policy process themes, and concepts identified in Chapter 4 as a way of supporting analysis and charting.

5.8.1.5 Mapping and interpretation

Denscombe (2007:287) outlines four principles for qualitative data analysis including where a researcher can: use detailed iterative reading of data to help an explanation emerge and ground analysis and conclusions in collected evidence. The step of mapping and interpretation enables the researcher to reflect on the previous steps taken in the analysis to arrive at an interpretation of the data. In this case, the researcher sought to develop assertions or explanations for the findings, and seek patterns, links between case studies and themes, whilst comparing with wider knowledge and constructs in order to try and explain the "why" of findings (Miles et al., 2014).

Coded sections of interview transcripts, plus use of documentary, reports and other materials were used to develop the interpretation and explanation of the data, drawing again on the initial literature and concepts identified throughout. This was done using a combination of word and Nvivo, using traditional sifting and analysis techniques (Nvivo was not used in analysis, only coding and categorisation as previously described). This process formed the basis of the discussion of findings in order to come up with some recommendations for future research, and for practitioners and policy makers.

5.9. Summary

This chapter has explained the methodological approach taken within the study, and rationale for case study approach, and ways in which concepts including use of policy process were drawn on to inform analytical approach. It has outlined the thinking behind data collection, analysis and ensuring that the process followed is robust, ethical and valid. It also set out the research question and objectives, along with rationale for choice of case studies used. In so doing it provides the setting for forthcoming chapters including case study descriptions and context, and support of analysis of documentary materials, interview narratives and subsequent discussion. The chapter also alluded to some of the possible limitations to the research, for example selection and representation of interviewees. This will be discussed in more depth in chapters 11 and 12.

Chapter 6: Case study overview 6.1. Introduction

Previous chapters established the focus of research as an exploration of integrated food policy making for upstream food environment change. Solihull, Sandwell, and Dudley, metropolitan boroughs within the English West Midlands, have been taken as case studies to support exploration of the research question: all demonstrate aspects of integrated food policy making processes, at the local government level.

Chapter 4 introduced a health policy triangle (Walt and Gilson, 1994) as a way of exploring the elements of policy making: context, content, process and actors. This chapter will describe relevant factors of the geographic and governance context - national, regional and local - in which the case study areas are set. It will introduce the population, health, and environmental factors of each area, as well as identifying significant actors and policies. It will finally focus on specific contextual factors at play in each of the case study areas. It will end by outlining a brief timeline of key food policy developments in each of the case study areas, including reference to national policy relevant to the research.

As a whole, this chapter gives a picture of the constraints, challenges and opportunities against which food policy has developed in each of the case study areas, and as a background for discussion in the forthcoming chapters.

6.2. Context: Geographic, political and social factors

This section briefly describes the overarching context for governance, and highlights relevant influences at national, regional and local level that came to bear on the case study areas, before discussion of each area in detail.

6.2.2. National context

6.2.2.1. Governance and government

Food policy developments within the local case studies are set within the context of wider shifts from strong, centralised, and "top down" government towards softer forms of "*new governance*" (Lang et al., 2012; Rhodes, 1997, 2007; Stoker, 2011). This has brought an expansion of players into policy and decision making arenas, beyond central and local government, to include civil society, and the voluntary and private sectors. This has increasingly changed the role of local authorities, as they move to coordinating roles and embrace partnership working, or "governing with and through networks" as opposed to centralised service delivery (Rhodes, 2007).

The case studies are also set against shifting national ideological and policy influences. The thirteen- year Labour government under Blair (1997-2007) and Brown (2007-2010) was characterised by policies to restructure governance at regional and local levels. These policies established the framework for cross sector collaborations, spanning private and public sectors, state, health and community in development and delivery of local infrastructures. Policy focus was placed on management and increased investment aimed at regeneration and reducing inequalities in deprived areas. For example, new delivery mechanisms included cross-sector Local Strategic Partnerships (LSP) from 2000 at local level, involving the local authority, health, private sector and community in coordinating regeneration. Much of this work initially focused on the delivery of Neighbourhood Renewal Funds to more deprived areas. Accountability mechanisms for local government, including agreed delivery targets, were implemented centrally through Local Area Agreements from 2004. Decision making at local level shifted to give greater involvement of local communities as embedded in the Sustainable Communities Act (2007) a move adopted by some but not all local authorities

The later Coalition Government (Conservative and Liberal Democrat) from 2010 continued the focus on the delivery of services through multiple actors. This included extending the right for community and voluntary sectors both to deliver services and have decision making influence, seen as a "new localism" agenda embedded in the Localism Act (Gov. U.K., 2011). Moves towards devolution continued, with the dismantling of regional governance levels and establishment of new, larger regional bodies with mayoral and decision-making rights (Gov. U.K., 2016).

6.2.2.2. Governance of health

The Labour Government also oversaw significant changes to structures of the NHS and wider health delivery. Whilst the ongoing change of governance took place at regional and local level, the most significant change followed the NHS Plan (2000). Establishment of NHS Primary Care Trusts (PCTs) in 2001 provided new structures with powers to control unified budgets with which to commission and run primary, secondary and community health services. Public Health sat within these structures, operating with some autonomy and political independence. Changes to powers following the "Darzi Report" of 2008 heralded a split between provider and commissioner functions of PCTs, opening up community health services to "any willing provider" and changing the landscape of programme delivery (DHSC, 2008). Whilst subject to policy guidance in part from national government and strategic health authorities, PCTs benefited from autonomy to act as partners at a local level and influence decision-making for health. They were able to benefit through membership of local

and regional partnerships, presenting the opportunity to bring health onto the agenda, working with local authority, private sector and communities to improve infrastructures.

The Coalition Government oversaw a significant and far-reaching overhaul of health structures delivered through the 2012 Health and Social Care Act (Gov. U.K., 2012). This Act led to the abolition of strategic health authorities and, more significantly for this research, of PCTs in 2013. Clinical Commissioning Groups (CCGs) were established, with GPs acting as fund-holders for health service spending. This marked a major change, and many PCT staff faced redundancy or moved to CCGs and new commissioning units. Public Health and health protection functions were moved into local authority jurisdiction in 2013, and an overarching organisation, Public Health England (PHE), with regional offices, was established to guide public health. The Act also saw the establishment of Health and Wellbeing Boards (HWBB) within local authorities, with statutory responsibility to work collaboratively to improve joined-up care and health for local populations. They were also responsible for leading action on health inequalities and producing annual Joint Strategic Needs Assessments (JSNA – annual local authority level data source used to inform policy making). Restructuring within public health continued through from 2013 at a local level, with ongoing reorganisations as public health workers became absorbed into local authority settings and priorities. Whilst some question the loss of autonomy for public health with this move and acknowledge that there is still a way to go in bridging the different cultures, there is also a recognition that the move has gone relatively smoothly in most areas and should enable public health to better influence the determinants of health within local councils (Kings Fund, 2015; Milne, 2018).

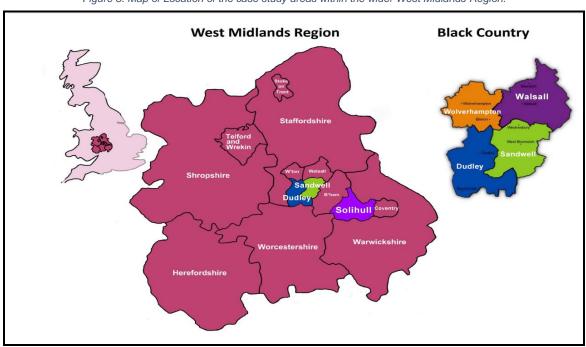
6.2.2.3. Austerity

Whilst Blair's premiership oversaw a time of economic stability, investment and growth, Brown came to the leadership against the backdrop of the global recession, financial crisis, and increasing national debt: ultimately contributing to Labour' election loss in 2010.

The Coalition Government ushered in a period of austerity measures in response to the global financial crash. This resulted in unprecedented cuts to public services and funding to local authorities: with cuts of £18bn in real terms between 2010 and 2015, and another £9.5bn anticipated by 2020 (Gainsbury and Neville, 2015). The impact of this was felt disproportionately, with larger cuts per head affecting more deprived authorities due to their dependence on grant funds and limited ability to generate revenue through rates and council tax rise (Harris et al., 2019). Innes and Tetlow conclude that "those councils most able to raise significant council tax revenues are those that are least reliant on grants - but, as a result, these are also the areas where the cuts to their revenues faced will be least severe" (2015:33). Planning and development sections were highlighted as having some of the

deepest cuts, although variations were seen as different local decisions were made, and many authorities sought to protect social care and statutory core services (Innes and Tetlow, 2015). Some have described these cuts as "ideological" or "neoliberal" programmes aimed at further shrinking the state (Meegan et al., 2014; O'Hara, 2015). From 2015-present, the Conservatives alone have been in overall control, continuing austerity measures and overseeing the historic "Brexit" referendum vote in 2016 to remove U.K. from the European Union.

With absorption of public health into local authorities from Primary Care Trusts in April 2013, funds were initially ring-fenced. However, the government subsequently announced savings within the public health budget of £200m "in year" in 2015, along with real-term savings of 3.9% each year to 2020/21, including cuts on obesity spending (Buck, 2016b; PHE, 2015c; Selbie, 2015 a,b). Public Health ring-fenced funding ended in 2018, when funding was based a model of retained business rates.





6.3. The regional and sub-regional view

6.3.1. West Midlands Metropolitan area

As the map illustrates, the case study districts are set within the national, regional and subregional contexts of the West Midlands Region (5 counties) and West Midlands County (7 Metropolitan Boroughs). The West Midlands metropolitan county was established in 1974 as a result of boundary reorganisation following the Local Government Act (1972). In 1986 each of the Metropolitan Boroughs became a full unitary authority, with responsibility for delivery of all required local government functions. Against this backdrop, they have shared common factors of influence and varying levels of connection between them and within the region as a whole.

This relationship has presented opportunities for the case study areas to pursue aspects of joint working across the region, on economic and structural regeneration, health, environment and spatial planning. Since its establishment, the West Midlands as a geographical entity has undergone continuous changes of definition, membership, governance and structure. This has reflected central government policy-driven reorganisations of regional, local governance and administrative structures and the push towards devolution of governing functions to regional level (see table x.13 below). Various levels of joined-up working have been pursued, often as routes to plan infrastructure and bring funds into the region.

Advantage West Midlands (AWM) (1999-2012) for example, was established under the then Labour Government as the regional development agency for the West Midlands. This gave a framework within which to steer and coordinate sustainable economic development across the region. This facilitated collaborations with opportunity to attract European, national and regional funds into the area. This regional tier provided the opportunity for a level of developmental strategic thinking and information sharing across the unitary authorities. It also provided a platform for the emergence of territorial thinking about food and health, as is discussed later in this chapter. The abolition of this regional governance framework in 2012 following the Coalition government's pursuit of "localism" meant that many of the relationships and structures of collaboration were abruptly discontinued. This abolition also brought to the end the Regional Spatial Strategy (2004-13) through which elements of strategic spatial planning had taken place (Parliament. U.K., 2011).

Further significant change took place in 2016 following the Conservative Governments central devolution deal. Establishment of the West Midlands Combined Authority (WMCA) gave regional powers over transport, planning, skills and economic development across the wider West Midlands, Birmingham and rural regions (WMCA, 2017a). Again, there was the emergence of common interest and collaboration, for Dudley, Sandwell and Solihull, as full cabinet and voting members. The WMCA Strategic Economic Plan (SEP) sets out the plans for economic and social, housing, and transport growth to 2030, establishing a Land Commission and bringing over £8bn investment into the "Midlands Engine" region (WMCA, 2017b). This has had an impact, more particularly on Solihull out of the three study areas, which will benefit economically with the proposed arrival of the High Speed 2 (HS2) rail link through its boundaries via the UK Central Growth Corridor (WMCA, 2017b).

Increasingly there is collaboration in economic, spatial and strategic planning and regeneration across the West Midlands, driven both by the "duty to cooperate" set within the National Planning Policy Framework (NPPF) (DCLG, 2012, 2018, 2019, 2021), and by the imperative both to find housing land supply across the Greater Birmingham region, and to capitalise on major economic development opportunities. Whilst constituent authorities are still responsible for developing their Local Plans, the West Midlands Combined Authority (WMCA) will once again establish cooperation across the region in strategic planning.

Likewise, the West Midlands has seen changing structures for delivery of health and public health, reflecting national policy. Of note are the coming and going of Strategic Health Authorities in the region, the establishment and dissolution of Primary Care Trusts, and more recently, cooperative work on improving health and wellbeing through Sustainable Transformation Plans (STP) post 2015 (see table 14 below). From 2013, regional offices of Public Health England were established in the West Midlands. Regional work of Public Health also resulted in collaboration on learning, and input into planning and food policy. Special interest groups, including the West Midlands Health and Planning Group (WMHPG, 2021) and the West Midlands Strategic Food Board (WMSFB, 2017), were established after 2011 under Learning for Public Health West Midlands (LfPHWM), significantly contributing to debates on the links between health, planning and food.

6.3.2. Sub regional - the Black Country

Sandwell and Dudley, as neighbouring authorities, have had an additional close relationship and sense of shared identity, resulting from their shared industrial history and identity. Cooperation between these two boroughs is set within emergence of a more recent definition of the "Black Country" regional identity – as a subset of the West Midlands alongside neighbouring Walsall and Wolverhampton. Again, aspects of governance for this area have provided the platform for elements of joint strategic, transport and infrastructure planning.

The term "Black Country" was attributed initially to the environment blackened by smoke and slag from foundries once seen across the industrial region. The impacts of the history of the area are still seen today in legacies of poor health, inequalities, economic deprivation and widespread land contamination. Common to these boroughs was the predominance of heavy industry, and metal working as a key economic base, until closure of many factories during the 1970s and 1980s (Spencer et al., 1986). The impact of globalisation and rapid structural readjustment led by Thatcher's Conservative Government resulted in significant unemployment and widening gaps in income and health compared to the rest of the country, particularly affecting Sandwell and parts of Dudley (Black Country Core Strategy, 2011; Middleton and Saunders, 2015). Despite over 100,000 fewer jobs in the Black Country than

in the 1970s, by 2011, manufacturing remained a large employment source (18%), along with administration (26%) (Black Country Core Strategy, 2011).

Spatially, the Black Country boroughs have worked together with other partners through various collaborative bodies such as the Black Country Consortium Ltd, Black Country Enterprise Zone (2011) Black Country LEP (2011), and through the Black Country Core Strategy (2011-26), and West Midlands Local Transport Plan (2011-26), covering land use, regeneration and spatial planning, transport, environment, economic and social issues. The Black Country Core Strategy (BCCS 2011-26) was adopted in 2011, acting as a development plan document (DPD) for the area. This document forms the overarching spatial vision for the Black Country region until 2026, providing the agreed Local Development Framework for the Black Country boroughs. The strategy identifies areas for housing and economic development through creation of a growth network, regeneration corridors, strategic centres, green infrastructure and transport routes. It takes a coordinated approach focused on building sustainable communities, economic prosperity and environmental regeneration (Black Country Core Strategy, 2011). Under this currently sit Dudley and Sandwell's individual Local Plans (Black Country Core Strategy, 2011). Sandwell's current Local Plan takes the form of an overarching Site Allocations and Delivery Development Plan (2012-21) and associated local area Action Plans (Sandwell MBC, 2012a). Dudley recently undertook renewal of its Local Plan, adopting the new Borough Development Strategy (2017-25) in March 2017 (Dudley MBC, 2017a). The Black Country Plan is currently under review, with new plan due to be adopted in 2024.

Tables 13 and 14 below illustrate the timelines of these overarching changes to administrative and health governance

	West Midlands - key timeline governance events -affecting Sandwell, Dudley, Solihull	Black Country level (Sandwell and Dudley)	Key national policy/ events
1974	Established West Midlands County - including Dudley,	1970's decline of industrial base and loss of jobs-	Local Government Act (1972)
	Sandwell and Solihull as metropolitan boroughs	structural readjustment	Conservative Government (Thatcher)
1986	Dudley, Sandwell and Solihull established as full unitary authorities within West Midlands county		1987-2005 Labour Government- Blair
1987		Black Country Development Corporation- strategic land development (1987-98)	
1999	Regional Development Agency- Advantage West Midlands established	Black Country Consortium- urban development corporation established to lead regeneration	
2000			Local Strategic Partnerships established
			NHS Plan 2000 (Labour Government)
2002			Local Government Act (2002)
2004	West Midlands Regional Spatial Strategy (2004-13)	Sandwell Unitary Development Plan (2004-12)	2005-10 Labour Government- Brown
2005		Dudley Unitary Development Plan (2005-17)	
2006			Local Area Agreements introduced (2006-11)
2007			Sustainable Communities Act (2007)
			Financial Crash (2007-8)

2011	Establishment of Local Economic Partnerships (LEP) Greater Birmingham and Solihull LEP.	Black Country Core Strategy adopted (2011-26) as Local Development Framework – Black Country LEP including Dudley; Sandwell	Coalition Government Conservative/ Liberal Democrat) 2010-15 Localism Act (2011) Austerity programme initiated with cuts across public services
2012	Abolition of regional tier of governance – Advantage West Midlands and Government of West Midlands	Sandwell Site Allocation and Delivery Development Plan (2012-21)	National Planning Policy Framework (NPPF) simplification of planning regulations
2013	West Midlands Regional Spatial Strategy revoked		
2016	Brexit vote to leave E.U. Majority Leave votes in Dudley, Sandwell and Solihull		2015-present- Conservative Government
2016	West Midlands Combined Authority (WMCAa) established with Mayor (2017)- Dudley, Sandwell, Solihull full constituent members, plus 3 Local Economic Partnerships	Review of Black Country Core Strategy begins	Cities and Local Government Devolution Act (2016)
2017		Dudley Borough Development Strategy (2017- 25)	

Table 13 Timeline of key regional governance events affecting the case study areas (1974 - 2017)

West Midlands

		Local level	Key National (England)
2000	Birmingham and Black Country and Birmingham South Strategic Health Authorities (to 2006)		NHS Plan 2000 (Labour Government)
2001		Sandwell, Dudley and Solihull establish PCTs	NHS Primary Care Trusts (PCT) established in each authority- commission health services. Include public health function
2006	NHS West Mids Strategic Health Authority est (06-12)		
2008			Darzi Report (DHSC, 2008) heralds commissioner- provider split to PCTs
2011	Learning for Public Health West Midlands (LfPHWM) -Health and Planning group established	Sandwell, Solihull, Dudley members	
2012	Strategic Health Authority abolished		Health and Social Care Act 2012 (Coalition Government)
2013	Public Health England West Midlands offices established Sandwell, Solihull, Dudley members of WMSFB	Primary Care Trusts abolished. Public Health moves into Local Authority settings and CCGs established.	Primary Care Trusts abolished/ Clinical Commissioning Groups (CCGs) and Health and Wellbeing Boards established
2016	Black Country and West Birmingham STP (inc. Dudley and Sandwell); Birmingham and Solihull STP.		Sustainability and Transformation Partnerships (STP)

Table 14. Key governance for health timeline 2000 - 2017

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6.4. Local view

Before going on to examine their involvement in food policy, this section will describe the local level features of the case study areas, Solihull Sandwell and Dudley. First, it examines the socio-economic and health data, and underlying politics, for the three case study areas. It then draws out differences, similarities and contextual background. It then moves on to briefly describe each case study separately with more detail, to draw out characteristics specific to each, including relevant organisational structures, planning strategies and other factors of relevance to the subsequent discussion on integrated food policy.

6.4.1. Overview of three case study areas: key features

Disparities in history, life chances, health, education levels and economic prospects vary significantly across the West Midlands region, presenting different challenges to each of the three case study boroughs. These factors provide the local context in which food policy developments are embedded and local authority and public health decisions made. Table 15 below summarizes some of the key data, deprivation and health indices, and political features of each.

Indicator	Dudley	Sandwell	Solihull
Political status of authority	Conservative (2004-12) Labour (2012-16) Conservative (2017-) 2019- Conservatives (by one vote)	Strong Labour majority since 1979	Conservative administrations oscillating between majority and no overall control (2000- 2019)
Total council service spending 2009-10 (IFS, 2016)	£248,288	£296,243	£159,465
Total council service spending 2016-17	£209,817	£233,814	£130,942
Percentage change (Financial Times, 2015)	-15% change	-21% change	-18%
Public health fund 2013-14 (£m) (Gov. U.K., 2013)	18,457	20,816	9,635
Public health fund 2014-15 (£m) (Gov. U.K., 2013)	18,974	21,805	9,905
Public Health fund 2015-16 (£m) (Gov. U.K., 2013)	22,283	26,608 (indicated health visiting additional £6m)	11,773
Public health fund 2016-17 (£m) (Gov.UK, 2017)	21,780	26,007 (as above)	11,508
Population (U.K. Census, 2011)	314,400	308,063	206,700
Ethnicity	88.5% White British 11.5% Other (Dudley MBC, 2014)	65.8% White British 34.2 % other ethnic (Sandwell MBC, 2016b)	85.8% White British 10.9% other ethnic (Solihull MBC, 2016c)
Life expectancy at birth (England average Males 79.3 females 83) (PHE, 2020)	79.1 male 83.0 female (2011-13)	77 years male 81.3 female (2011-13)	80.2 years male 84.4 female (2011-13)
Healthy Life expectancy at birth (PHE, 2020b)	62.1 male	59.4 male	65.3 male

	63.4 female (2011-13)	58.1. female (2011-13)	65.8 female (2011-13)
Childhood overweight and obesity Year 6 prevalence (2015/16) (England; 34.2%) (PHE, 2021)	37.8%	41.1 %	30.3%
Physical inactivity rank (out of 150 local authorities UK 2014) (150 th being the worst) (U.K. Active, 2014)	146	149	35
Density of Fast-Food Outlets) (PHE, 2017c)	309 outlets 97.3/100,000 pop	382 outlets 118.4 /100,000 pop	149 outlets 70.2 per 100,000 pop
Deprivation ranking based on average score 2015 (DCLG, 2015)	110	13	178
Ranks of proportion of LSOAs in most deprived 10% nationally 2015 (DCLG, 2015)	101	28	77
Deprivation spread	Key wards and across focused areas of borough	Fairly uniform across borough	North wards of the borough
Deprivation based on local concentration 2015 (DCLG, 2015)	93	55	66
Rank of income scale (DCLG, 2015)	34	9	100
Rank of employment scale (DCLG, 2015)	33	12	102

Table 15 Key social, economic and health related features of the three case study areas.

6.4.2. Political factors

The political balance and funding of each authority is also of contextual interest, in giving insight into the ability within councils to take clear policy action, along with understanding the fiscal and political environment within which public health found itself after the 2013 move into local authority settings. As indicated above, each authority displays different political constraints.

At the time of research, in Solihull, the balance of political power in the borough reflected its rural-urban, and high status residential-industrial dichotomy, with a majority Conservative administration (with 32 Conservative Councillors, 10 Greens, 6 Liberal Democrat, 2 UKIP and 1 Labour) (Solihull MBC, 2017a). Despite a longstanding Conservative administration, power oscillated over the past decades between a Conservative majority and no overall majority - with decisions subject to debate and challenge among Greens and other groupings. In contrast, Sandwell has had a majority Labour administration for decades, in 2016 made up of 70 Labour Councillors, 1 UKIP, and 1 independent, with consequent ability to navigate strong decisions on policy (Sandwell MBC, 2016a). For Dudley, the balance of power is fine, having moved between Conservative and Labour administrations since the early 2000s: by 2016, there was a slim Labour majority, with 35 Labour, 29 Conservative and 8 UKIP councillors (Dudley MBC, 2017b). However, in 2017 there was a return to Conservative administration with a majority of only one vote (mayoral vote).

6.4.3. Funding and austerity

As discussed above, another significant contextual factor has been the impact of austerity agendas on local policy making. All three councils have seen significant reductions in budgets after the austerity agenda of 2010, having impact on both core council services, and underlying infrastructures such as parks and green space maintenance, with inevitable impacts on the underlying determinants of health.

From 2009 onwards, Sandwell has faced significant cuts to income from central government (£120 million in the years 2009-15), resulting in a total service spending cut of 21% from 2009-10 to 2016-17 with, for example, a reduction of total spending excluding public health of £50 million between 2010 to 2014 (Express and Star, 2015; IFS, 2016). Sandwell's high needs, and the high level of residents receiving benefits, give it little leeway in raising extra funding to compensate for budget cuts, and the council introduced a far-reaching "Facing the Future" agenda from 2014 to undertake transformative reorganisation, making savings across the council.

Dudley likewise has introduced ambitious budget savings. For example, in 2017, Dudley opened budgetary decisions to democratic involvement through its "Big Question". It outlined

the pressing financial constraints facing the borough, citing a need for additional £9 million cuts, and forecasting savings of £25 million to be found between 2017-2020; calling for a total redesign of council services, leaving "no stone unturned in looking to save money" (DMBC, 2017b). The Dudley Council Plan (2016-19) outlined the redesign of public services taking place, with a need to "manage down demand" whilst maximizing community resilience (DMBC, 2016c).

Similarly, whilst enjoying benefit of increased public spending during the 2000s when under PCTs, public health spending faced a more precarious situation after the financial crash and once under local authority jurisdiction from 2013. Despite ring-fenced protection until 2018, central government cuts to public health budgets "in year" in 2015 led to ongoing restructuring and reduction of some public health activities across each case study area.

6.4.4. Socio-economic factors

Socio-economic data indicate underlying historical and economic factors, as well as giving an insight into the context and priority issues facing each authority as a foundation for strategic policy making, including health. Sandwell stands out as faring significantly worse on most deprivation and health status measures within the Black Country, followed by Dudley, whilst Solihull continues to capture economic and social benefits in the West Midlands (Sandwell Trends, 2018; WMCA, 2017b).

In comparison to Solihull, Sandwell and Dudley are low-growth economies within the West Midlands. Both share a history of a post-war boom of jobs within foundries and the car-parts industry, coupled with challenging environmental and working conditions. During the 1980s there was a loss of historical manufacturing base, rising unemployment, and later further job losses following the 2008 financial crash. Sandwell in particular, as an urban borough almost totally dependent on heavy manufacturing, saw rapid reduction of its foundries from 40 in the 1970s to only three by 2015, with jobs now predominantly in the service sector (Middleton and Saunders, 2015). Over five percent of the economically active population were unemployed between April 2017 and 2018 compared to 4.1% for Great Britain, increasing under COVID-19 (Sandwell Trends, 2018).

Dudley had a more-balanced economy, being a mix of smaller towns and urban industrial areas, but similar to Sandwell, losses in its industrial base since the 1980's. A significant proportion of Dudley's employment is still based on manufacturing (14.6%), and small businesses, with an identified over-reliance on the service industry including public sector work (Dudley MBC, 2014:5). This is further compounded by Dudley's relatively low level of qualifications, education and skills (19.7% with no qualifications in 2011), and lower than average pay, another feature shared with Sandwell (U.K. Census, 2011).

In contrast to Dudley and Sandwell, Solihull did not play a significant part in the industrial revolution, remaining a rural market town until the early 20th century, and coming later to development. As a result, it has bypassed the challenging environmental factors that have contributed to poor health in the Black Country boroughs. It is recognised as one of the fastest growing economies in the West Midlands (Atkins Ltd, 2016; Solihull MBC, 2020).

Table x.15 brings to life some of the impacts of these underlying factors on the socioeconomic indices of each area - reflecting areas of significant deprivation, income disparity and inequality. Here, according to government indices of deprivation in 2015, across seven domains measuring relative deprivation, Sandwell's average deprivation score ranks it as the 13th most deprived local authority out of 326 nationally, with Dudley placed 110th, and Solihull 178th (Birmingham City Council, 2015; DCLG, 2015; Sandwell Trends, 2018).

Patterns of deprivation vary geographically within the three boroughs. Sandwell's deprivation is spread uniformly across the borough, rather than being focused on hot spots (Sandwell Trends, 2018). Dudley, in contrast, has pockets of deprivation concentrated in specific post-industrial wards at the centre of the borough, and Solihull is affluent overall but with significant deprivation concentrated in three northern wards (Dudley MBC, 2019; Solihull MBC, 2016a).

Sandwell's 186 "Lower Super Output Areas" (LSOAs) provide a more detailed picture of deprivation at local level (1,500 people) in 2015 and one in five LSOAs fell into the most deprived category nationally, with some areas, such as Tipton, Wednesbury and Smethwick, having high levels. Overall, 55% of Sandwell's LSOAs fall within the worst 20% nationally (Sandwell MBC, 2015b). For Dudley, the more deprived communities are concentrated in the boroughs centre, around Dudley town, Netherton, Brierley Hill and Lye More with affluent communities located on the south and west edges of the borough, in Stourbridge and Halesowen. In 2015, Dudley had 8% of LSOAs in the 10% most deprived nationally (Dudley MBC, 2014).

In contrast, for most of Solihull's population, quality of life, skills and education are good, with life expectancy for residents in Solihull above the national average, house prices above average for the region and unemployment lower than the national average (Solihull 7.5%) (Solihull MBC, 2016a; Solihull MBC, 2016b; Solihull MBC, 2016c). However, Solihull has hot spots of persistent socio-economic inequalities, which are of particular focus for public health and economic regeneration activity, with wards in North of the borough distinguished by significantly poorer economic opportunities and skills levels, low levels of car ownership and higher unemployment (Solihull MBC 2016b; Solihull MBC 2016c). The Joint Strategic Needs Assessment (2016-17) highlights that, "20 out of 29 lower super output areas (LSOAs)/neighbourhoods in the North Solihull Regeneration area are among the most

deprived 20% in the country from an income perspective (IMD), with 10 of these neighbourhoods in the bottom 10% nationally" (Solihull MBC, 2016c:18).

6.4.5. Health inequalities

Differences in underlying socio-economic factors mirror similar patterns of health inequalities and give a further view of the context for public health and food policy decisions. Stark inequalities in health outcomes are seen across the region, between and within case study areas, reflect both the influence of underlying wider determinants, historical legacy and environmental factors.

Use of "Marmot indicators" (based on the 2010 Marmot report on inequalities in health) and other public health data again show Sandwell standing out from the other boroughs as carrying a disproportionate burden - this time of ill health (Marmot, 2010; Public Health England and Institute of Health Equity, 2015). Despite improvements in life expectancy and some disease outcomes in the past two decades, poor health remains a persistent problem: Sandwell has higher than average incidence of coronary heart disease (CHD), cancers and diet-related disease such as diabetes. This is coupled with a striking contrast in "healthy life expectancy", compared to England and the other case study areas. A significant number of years - up to 23 years for women in the case of Sandwell - are as a result spent managing burden of failing or ill health, along with the associated wider social and economic implications (Public Health England and Institute of Health Equity, 2015). Many people are disabled, experience poor health over many years, with impact on families and the wider community, through caring and support roles. Inequalities in health within the borough also remain, with the life expectancy gap in Sandwell between the most deprived and least deprived areas at 7.8 years for men and 6.2 years for women (Public Health England and Institute of Health Equity, 2015).

Dudley's Joint Strategic Needs Assessment (Dudley MBC, 2014) paints a picture of a more diverse borough, with complex and less uniform patterns of health, inequality and life expectancy than Sandwell. Life expectancy is slightly lower than the England average, and in the 2011 census, 78.2% of the population stated that they were in "very good health" (Dudley MBC, 2014). However, clear patterns can be seen where inequality of health outcomes and life expectancy map against the areas of deprivation; in 2010-12 the gap in life expectancy of people living in the more affluent parts of the borough, compared to those within poorer areas, was 9.2 years for men and 5.8 years for women (Dudley MBC, 2014).

For Solihull, health inequalities are starkly concentrated and related to the profiles for the three North Solihull wards, in contrast to the rest of the borough which enjoys good health. The Joint Strategic Needs Assessment 2016-17 highlight higher levels of disability, CHD,

diabetes, proportion of carers, low physical activity levels and unhealthy diet in North Solihull (Solihull MBC 2016c). A ten year gap in life expectancy between the most affluent and the least affluent areas of the borough has focused public health and the council attention on this area, with the aim of reducing the inequalities and addressing the underlying determinants.

6.4.6. Food environments and impact on health

In addition, data from Public Health England and local sources reveal glimpses of the underlying food environments within which food choices may be made, and associated costs in terms of diet-related ill health. Lack of healthy food access and unhealthy eating patterns, and later obesity, have been an ongoing public health focus to varying extents across each case study area. More recently, food insecurity has emerged as a more visible issue following the 2008 crash COVID-19 and emerging fuel crisis.

Whilst Sandwell's approach to the geography and activity of food policy will be discussed in more detail in the next section, of note here briefly are the underlying contextual food environment factors. In the early 2000s in Sandwell, local level health profiles and mapping highlighted poor healthy food access, low consumption of and poor choice within walking distance for fresh fruit and vegetables (Kyle and Blair, 2007; Sandwell Health Authority 2001; Dowler et al., 2000a, 2001; Saunders, 2001). Sandwell led the way nationally, exploring mapping methodologies, carrying out comprehensive food access work with the University of Warwick, across over 200 small shops, and identifying large networks of streets and estates within Sandwell where no shops selling fresh fruit or vegetables exist (Dowler et al., 2000a, 2001). Later between 2011-15 mapping under Joint Strategic Needs Assessments (JSNA) also focused not only on the distribution of fresh fruit and vegetables in the borough but also of hot food takeaways, leading to a description of Sandwell as a "fat swamp" or "food swamp" marked by high exposure to cheap, high fat, high salt, high calorie foods (Saunders, 2011, 2013; Saunders and Saunders, 2014; Saunders et al., 2015). Sandwell shows a significantly higher density of fast-food outlets than Dudley and particularly stark in comparison to Solihull (Public Health England, 2017c). Sandwell has also seen a rise in food bank provision and visible food poverty since 2010, by 2020 hosting 5 food banks (Sandwell MBC, 2021). Levels of diet-related ill health, cancers, CHD and diabetes are ongoing public health concerns. Adult and childhood obesity in Sandwell likewise are worse than the England average, around 25.4% adults classified as obese in 2012, with 23.6% Year 6 children classified obese in 2009/10; along with higher than average levels of diabetes (PHE, 2015a; Sandwell Trends, 2018).

The picture in Dudley reveals similarities, but unlike Sandwell which is relatively uniform in deprivation, in Dudley, there are more specific pockets of deprivation. Health surveys

undertaken in Dudley in 2004 and 2009 reveal poor eating patterns, with increased but still low intake of fruit and vegetables particularly among Black and minority ethnic groups and those in deprived areas, and high alcohol consumption (DMBC, 2010). 86.9% of the population in 2014 were eating a less than healthy diet, with only 25% of adults under 65 eating at least five portions of fruit and vegetables a day, despite 66.1% perceiving that they ate healthily (Dudley MBC, 2014.). For Dudley, JSNA (2014) noted adult obesity levels at 21% in 2009 although these were lower than the national average (23% for England), Dudley faced a widening local inequality gap and projected increase in 2016 to 24.9% obese adults (Dudley MBC, 2014). Of particular note is the concern about childhood obesity above the national average, and an average increase of 12.2% in children between reception year and year 6 defined as obese or overweight and only 62.8% of year six children being a healthy weight (2007/8) (Dudley MBC, 2014).

In Solihull, dietary patterns also map against inequalities, revealed in the Health Survey for England (2008) with higher obesity and lower intake of fruit and vegetables in North Solihull (17.8% eating five portions of fruit and vegetables a day) compared to the Solihull average (28.5%) and wider England average (28.7%) (Solihull MBC, 2015). Solihull had two food banks operating in 2017, with one in Smithswood recording 450% increase in demand between 2013 and 2014 (Solihull MBC, 2015). Although obesity levels are lower in Solihull as a whole than the national average, the rates are increasing in line with the national average as people become increasingly sedentary and consume more processed diets, and again with higher levels focused on the more deprived areas (Solihull MBC, 2016c).

Having discussed the key differences and similarities of each area above through examination of overarching features, as illustrated in Table 14 and 15, the following section briefly draws out a more detailed picture of any remaining contextual factors specific to each individual case study area which support contextual understanding further before moving on at the end of the chapter to discuss their food policy journey.

6.5. Dudley - specific contextual factors

Dudley borders on rural areas of Staffordshire and Worcestershire and is made up of a number of town centres, including Stourbridge, Halesowen, Dudley centre and Brierley Hill. Dudley has significant amounts of green space (30%), with over 3000ha of land made up of a mix of historic parks, allotments, nature reserves, heritage sites, and green belt (Dudley MBC, 2015a).

At the time of research, the Council was structured around five directorates, with a distinction between "People" and "Place". Those working on "place" sit within the Directorate of the Urban Environment (DUE) and include planning, regeneration, transport and sustainable

environment, environmental health and leisure services, under which parks and allotments are managed. Building economic stability and growth, improving the environment and housing are key priorities for the council in tackling inequalities, along with improving health and quality of life of its residents (Dudley MBC, 2014). The main priorities of Dudley Councils Joint Health and Wellbeing Strategy (2013-16) was focused on tackling inequalities in health and unhealthy life expectancy (Dudley MBC, 2013b). Dudley Council Plan 2016-19 outlined overarching council priorities including Growing an Economy and Jobs; Cleaner, Greener Place and Safer, Stronger Communities (Dudley MBC, 2016c).

6.5.1. Communities focus

Long before the then Labour Government requirement that local authorities involve and consult residents in decision making through the "Duty to involve" (DCLG, 2008) and the Coalition's Localism Act (Gov. U.K, 2011), Dudley Council and public health (PCT) established structures to support close working partnerships with local residents and the voluntary sector. Dudley Community Strategy 2005-20, (Dudley Community Partnership 2005), and "In it together" outlined pathways to community engagement and management, through local group involvement, to build partnership delivery, tackle inequalities and improve health. This was trialled during the 2000s through building "Friends Groups", in particular within the parks department (Dudley Community Partnership, 2010a).

Since 2013, the council has taken this further, undergoing a significant process of reorganisation and cultural change, aimed both at driving efficiency, promoting "community resilience" and building on community "assets" in the face of significant cuts from central government. Aiming for a stronger relationship with the communities it serves, a major reconfiguration has taken place to establish, a "community council", bringing communities into decision-making processes over budgets, spending priorities, and wider democratic decisions, through the locally-based community forums and regular consultations (Dudley MBC, 2016c). It has also pursued a policy of "asset transfer" of community assets from council to community groups, including community garden spaces and buildings. Despite cuts, Dudley retains an active voluntary sector, with more than 280 groups, including some community gardening groups (Dudley CVS, 2017). The "Big Question Dudley" now runs annually, engaging residents in questions about budget priorities to guide council decision making, securing over 6,000 responses in 2015.

6.5.2. Dudley Public Health

Public Health moved into the council setting from the PCT in 2013, and following ongoing internal reorganisations, and alignment with council objectives, it now sits within the "People" Directorate, with responsibility for health improvement, health protection and intelligence,

and leadership on implementing the asset-based approach of the Community Council. A new Director of Public Health was appointed in 2015, following retirement of the previous director who had been in place since 2004. The Public Health department is large compared to Sandwell and Solihull. In 2017 it had over one hundred staff, including a Senior Food for Health advisor, along with wider roles on obesity and weight management, a public health manager for Healthy Places focusing on healthy environments.

6.5.3. Regeneration, planning and greenspace

The "Urban Environment" directorate in the council incorporates planning and the environment, embracing place shaping, spatial planning and regeneration, environmental health, and parks and green spaces.

As noted previously, the Black Country Core Strategy (2011-26) acts as the Local Plan for Dudley. Under this strategic direction, Dudley developed the new Dudley Borough Development Strategy from 2011 onwards, finally adopted in 2017 (DMBC 2017-26) and associated local area action plans (replacing the previous Unitary Development Plan (2005) (Dudley MBC, 2017a). Health, and green infrastructure are at the core of policies within the new Development Strategy, incorporating both its previously developed Green Spaces Asset Management Plan and SPD "Planning for Health" adopted in 2013 (Dudley MBC, 2015a; Dudley MBC, 2013c).

Regeneration initiatives since the 2000s have benefited from Single Regeneration Budget, European, Lottery and other funds, focused on areas of deprivation, along with regeneration of town centres, parks and historic sites. Dudley Town Centre is currently undergoing regeneration.

Work around project bids provided strong foundations from which integrated approaches and work between public health, green space and planners. In 2007, for example, Dudley PCT Food Team won £59,750 National Lottery funding, to explore links between food access and consumption (NSMC, 2008a). 2010 saw improvements of parks and green space and support of active lifestyles, including incorporation of food growing workshops, with £1.7m funding from Lottery Funds for infrastructure in Priory Park, under the "Parks for People" Programme (Big Lottery Fund, 2010). Further funding opportunities continued to develop green spaces and parks for healthy living, including £2.6m Play Pathfinder (2008-11), and £1M from the Big Local Fund to a neighbourhood in Coseley (2014). This enabled partnerships to support community efforts to improve local areas, environment and green spaces, with community food growing being put forward as one of the priorities (Local Trust, 2014).

Dudley recognised the links between environment, green infrastructure and health during the 2000s. The parks service led on innovative green space management, aiming at bringing community into management of parks, allotments and green space, with the recognition of green space contribution to health and physical activity in particular (Dudley MBC, 2015a). This approach was galvanised within a successful £4.5 M bid to the Department of Health Healthy Towns programme (Healthy Communities Challenge Fund 2008-11), with Dudley chosen as one of nine areas to explore ways of tackling obesogenic environments (Peters and Jones, 2011). This brought significant improvements creating "Healthy Hubs" and "Active Travel Corridors" linking parks and green spaces, and increasing connectivity and physical activity infrastructures. Joint work on this project was key in informing understanding of impact of environment on health and bringing public health (then at the PCT), with council planning and green space officers into close collaboration (Peters and Jones, 2011).

Table 16 below summarizes the key contextual features of Dudley, including significant features of relevance, and key actors within the council. Dudley's work on food has spanned more than a decade, with wide-ranging public health programmes focused on healthy eating and food environment, obesity prevention, and tackling inequalities in health, as will be examined in later sections

Dudley significant features	Directorate/area	Key actors
Growing an Economy and Jobs; Cleaner, Greener Place and Safer, Stronger Communities (Dudley Plan 2016). Community Council" including asset transfer (2016 on) Dudley Joint Health and Wellbeing Strategy (2013-16)	Overarching Council strategy	Council wide Public Health leading on community asset building
 Local Plan (under Black Country Core Strategy): -Dudley Unitary Development Plan (2005- 17) Replaced by Borough Development Strategy (2017-26) and associated Area 	Place Directorate-Urban Environment	Planning and landscape Officers
Action Plans -Planning for Health SPD (Dudley MBC, 2013c)		Public Health (Manager- Healthy Places) and planners
-Green Space Asset management involving local communities (Green Spaces Asset Management Plan, Dudley MBC 2015-25, DMBC, 2015a) -Healthy Towns £4.5m Funding (2008-11)		Parks and Green Space officers Healthy Towns- Joint council work with PCT

Retirement and replacement of DPH	Public health under PCT until 2013	Director Public Health
2015 (in post 2004-15)	Public Health (People Directorate) in	
	council post 2013	Senior Food for Health Manager (2017)
Focus on tackling health inequalities,		
obesity and links to environment and		Manager for Healthy Places
health		

Table 16 Dudley summary of key contextual features

6.6. Sandwell - specific contextual factors

Adjacent to Dudley, the modern Sandwell Metropolitan Borough was established in 1974, merging county boroughs, becoming a unitary authority in 1986. It is now made up of the original "six towns", each with distinct localities, character and history.

Directorates in the council are organised into "People" and "Place" themes, with planning sitting under Regeneration and Economy. Since its move from the PCT to the local authority in 2013, the Public Health Director and staff initially sat under the Directorate of Adult Health and Social Care, Health and Wellbeing until 2019, within the "People" theme within the council, including a specific remit for environmental health.

Sandwell Council Plan (2008-18) was underpinned by aspirations of "Great People, Great Place, Great Prospects" with a focus on improving the built environment in which people live, and building economy and skills (Sandwell MBC, 2008). Sandwell's Joint Health and Wellbeing Strategy 2013-15 (JHWBS) clearly noted aspects of environment and planning in driving health, and subsequent strategy 2016-20 set a priority to close the gap in healthy life expectancy by 2020 (Sandwell HWBB, 2013, 2016).

6.6.1. Sandwell's environmental legacy and regeneration investment

The environmental legacy from Sandwell's industrial past has been an important factor for health policy making. A geography of land contamination and derelict sites, dissected by arterial roads, has brought public health to highlight clearly the links between a "public health diagnosis" and an "economic health diagnosis" (Davis et al.,1999:48; Middleton and Saunders, 2015). Whilst there have been significant improvements in the environment since the 1990s, land contamination and air pollution persist, along with perceptions by local people of poor environment due to litter, dog mess, fly tipping and derelict land (Davis et al., 1999; Middleton, 1990; Middleton and Saunders, 2015)

There was significant inward investment into regeneration programmes in the 1990s and 2000s, which set the scene for collaboration between planning and health through membership of the Sandwell Regeneration Partnership from 1996. Significant opportunities enabled Sandwell to bid for government regeneration, land reclamation and infrastructure funds focused on areas and neighbourhoods of social deprivation, including the Estates Renewal Funds, Single Regeneration Budgets (SRB), City Challenge, Neighbourhood Renewal Funds, and later funding to establish Health Action Zones and Healthy Living Networks. In 2004 Children's Centres and Surestart programmes developed as Sandwell became one of 35 pathfinder trusts, offering further chances to improve the conditions underlying health (SHA, 1995; SHA, 2001; Middleton, 2004). 2004 also saw establishment of the Joint Policy Unit (JPU), with senior joint posts and collaborative work across health

and social care. This continued the strong partnership working commitment in Sandwell, creating pooled budgets and ability to examine drivers of ill health more holistically (Sandwell MBC, 2008b).

The health and sustainability value of green spaces and parks and the environment have been recognised as contributors to health and wellbeing by public health since the 1990s (Sandwell MBC, 2004, Middleton, 2010b). Surprisingly, 24% of the borough is made up of green spaces - many of which were created from previous industrial land and where contamination remains a problem. Green spaces include the Sandwell Valley and its working farms, of over 720 ha, along with nature reserves, parks and 40 allotment sites with over 1,500 plots in local authority and association control, fostering Sandwell's strong tradition of allotment food growing (CFP, 2013).

6.6.2. Emerging links between planning and health

Public Health recognised early on in the 1990s the links between planning and health, as evidenced by the annual public health reports produced at the time. More formal opportunity to build the links between the two came from an unsuccessful bid to Healthy Towns funding by the PCT in 2008 (Sandwell MBC, 2008b). Despite being unsuccessful, this led to establishment of Sandwell Healthy Urban Development Unit (SHUDU), a cross-cutting group including public health, planning department and others (Southon and Goodman, 2016). This group focused on highlighting links between planning and health to address the underlying determinants of health. This theme was strengthened as Sandwell also became a member of the UK Healthy Cities Network in 2008, and SHUDU undertook Health Impact Assessments (HIA) for planning applications (SHUDU, 2010, 2011a,b,c). The group remained active, although reduced in capacity, following the 2013 transition of public health to the council. Significant NHS funds came to the borough from 2015 through "Right Care, Right Here" (drive for localisation of health care) bringing opportunity for input by the group into design and planning of the new regional Midlands Metropolitan Hospital in Smethwick, along with associated local estates regeneration and housing through schemes such as Smethwick Area Action Plan.

6.6.3. Sandwell Public Health

Following the 2013 move into the council, by 2014 the Public Health department had retained 68 posts. Although funds were ring-fenced by central government, in 2016-17 savings of £0.7m were to be identified in Sandwell's public health budget through identifying activity across the directorates (Buck, 2016b; Gov. U.K., 2017; PHE, 2015c). Specific roles for obesity and physical activity, food and nutrition, and a healthy urban development officer

to continue to develop links with health, planning and the built environment were retained through the restructuring.

The leadership of the Director of Public Health, Dr John Middleton, was critical to the initiation, drive and foundations of food policy and public health work between 1988 and 2014 (See for example, Booth et al., 1996; Davis et al., 1999; Davis and Middleton., 2012; Maton et al., 1998, 1992; Middleton, 2010c). As Director of Public Health (1988-2014) he presided over numerous government-driven and local reorganisations in the governance structures of public health, including the dissolution of the PCT and move of public health into the local authority in 2013. His leadership and approach to public health during this time was influenced by a deep understanding of the factors underpinning health in Sandwell's industrial borough and environment, including witnessing the clear evidence of impact on health through the period of high unemployment and recession following the economic downturn of the 1980s (Middleton, 1989, 1990, 1992, 2010a; Middleton and Saunders, 2015). Sandwell's work with food policy will be described in more depth in the next section but spans over twenty years of food policy development, and covers work to address both behaviour and the wider structural determinants at play in the food environment, including through food retail, food access, food growing, and health inequalities work.

Table 17 below summarises some of the key contextual features relevant to Sandwell.

Sandwell Significant features	Directorate/area	Key actors
Land contamination, environmental and industrial legacy, derelict land	PCT/ Public Health	Public Health/ PCT/ Council planners and green space officers
Land availability including allotment sites		
Early sustainable development focus		
Significant regeneration and inward funding	Sandwell Regeneration Partnership (including PH	PCT/ Public Health
opportunities (2000s-2017)	and council)	Council/ Planning Dept/ Regeneration and Economic Development
e.g. SRB, NRF, Right Care, Right Here (Midland	And later Sandwell MBC	
Metropolitan Hospital)	Sandwell Joint Policy Unit est. 2004 senior joint posts	
Opportunities for integrated work and policy	across public health and social care to progress joint	
making	policy	
Retirement of Dr John Middleton DPH (1998-	Public Health:	DPH
2014)	PCT to 2013. Move to LA in 2013.	Changing food policy roles
New DPH 2014-	Under Directorate of Adult Social Care to 2018	
Inequalities focus, and tackling obesity		
Establishment of Sandwell Healthy Urban	Cross cutting PCT and council membership	Public Health and council planners
Development Unit (2008)- links between planning		
and health		
Membership of UK Healthy Cities (2009)		
Use of Health Impact Assessments on planning		
proposals (2008-12)		

Table 17: Sandwell summary of key contextual features

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6.7. Solihull - specific contextual factors

Bordering rural Warwickshire, and urban Coventry and Birmingham, Solihull spans both picturesque and historic rural and agricultural areas. Ninety per cent of the population now lives in the borough's urban centres, with 3.6% in smaller villages or hamlets. Nearly 70% of the boroughs 17,828 hectares is designated Green Belt (established initially in 1975), and has been largely protected from development, providing a buffer with Birmingham, and adjoining urban areas. However, the 2016 Local Plan and Strategic Green Belt Assessment indicated need for adjustment to the Green Belt, responding to pressure to meet the housing shortfall for the Greater Birmingham Housing Market Area (Atkins Ltd, 2016).

Solihull's Council Plan (2014-2020) incorporates health and well-being as one of its main priorities, along with managed growth (Solihull MBC, 2016d). It sets out the direction and vision as one "Where everyone has an equal chance to be healthier, happier, safer and prosperous" with priorities to Improve health and wellbeing; build stronger communities; and manage growth, deliver value.

Environmental health sits within the Directorate of Managed Growth and Communities, as does Economic Development, Policy and Spatial Planning (including sustainability and climate), housing and regeneration. Following the move into the council in 2013, Public Health sat within its own Directorate.

6.7.1. Productive economy and inward investment

Solihull, designated a metropolitan borough in 1974, is recognised as "one of the most productive economies in the West Midlands" (Solihull MBC 2016e:38; Atkins Ltd, 2016). Ranked 28th out of 122 local economic areas in the country for economic output per head, it scores 7% higher than the England average (Solihull MBC, 2016e:36). Much of this economic wealth comes from Solihull's central strategic position in the West Midlands, adjacent to Birmingham, and from its significant infrastructure and employment opportunities, including Birmingham Airport, the National Exhibition Centre (NEC) and Jaguar Land Rover factory, and gains from the forthcoming development of UK Central Growth Hub and the HS2 Interchange. The borough has significant business infrastructure development, focused on strategic sites such as Birmingham and newly developed Blythe Valley Business Parks. It is also at the heart of road and rail networks for the region, adding to its ability to attract high value-added, knowledge intensive sectors, such as business and financial services, ICT and construction (Solihull MBC, 2016e). The area is undergoing rapid change, with the Greater Birmingham and Solihull Local Economic Partnership (GBSLEP), and Solihull Council playing significant roles in the strategic development of the region and as key players in the move towards the West Midlands Combined Authority (WMCA).

6.7.2. Solihull Local Plan Review

Solihull undertook a Local Plan Review during 2015-16, updating its 2013 Local Plan (2011-2028) to accommodate implications of a legal challenge, HS2 development, pressure for new business infrastructure development and need for "managed growth" to supply new housing for the region including addressing Birmingham's needs. The Local Plan sets out the requirement to deliver 15,029 additional homes between 2014-33, following a 2015 strategic housing needs study (Solihull MBC, 2016e:70). New housing developments are planned for Kingshurst, Smithswood, and other developments on green belt sites as well as Blythe Valley Park among other sites.

6.7.3. Balancing Sustainability and growth

Unlike other areas where cuts have been made, Solihull council has retained an officer role with responsibility for sustainable development. Established in the early 2000s building on Agenda 21, this role has evolved to focus on sustainability and climate change. It aims to support the council's aspirations of delivery of "managed growth" a balance between sustainability and economic growth. This focus, under the Managed Growth and Communities Directorate, has led to consistent strategy development with a focus on sustainability, climate change, and enhancing green infrastructure and biodiversity - with input into new housing and infrastructure developments brought in through HS2 and other funding sources. It has also embraced ecosystems services and piloting the Natural Capital Planning Tool (NCPT), aimed at demonstrating to developers the economic value of greenspace and natural capital, for the wider Birmingham Green Commission (Holzinger et al., 2015; Holzinger et al., 2019).

6.7.4. Solihull Public health

Public health moved into the Council in 2013, and retains its own Directorate, holding responsibility for health improvement, health protection, Solihull Active, and Coventry, Solihull and Warwickshire "resilience". The department is relatively small, with 21 employed in 2016, including at the time of research a Health Improvement Practitioner, with a focus on obesity, and responsible for driving the food strategy development.

Since its move, Public Health has been actively involved in the Health Development Group, established in 2015 and initiated with the Managed Growth and Communities Directorate, with remit to link planning and health agendas, and focusing on the new developments taking place across the borough. This was replaced in 2017 by a more strategically focused group.

6.7.5. North Solihull - focus on inequalities and regeneration

The patterns of inequality and poor health in the North Solihull wards have been noted as linked in part to the relative isolation of the area in terms of road and transport networks, infrastructure, jobs and skills levels (Solihull MBC, 2016c). As a result, North Solihull has become an important focus for social and economic regeneration, with ambitious regeneration programmes taking place since 2011, following a long-drawn-out neighbourhood planning and consultation process (Solihull MBC, 2016e). The three wards, Smithswood, Chelmsley Wood, Kingshurst and Fordbridge, have been at the centre of over £1.5 billion investment over fifteen years, bringing in European Regional Development Funds (ERDF) along with significant investment from Solihull MBC. Regeneration has been managed through establishment of North Solihull Regeneration Partnership, working with Bellway Homes, and the council with input from local residents' groups (North Solihull Regeneration Partnership, 2017).

The investment in the area has led to the creation of two new "village centres" at Chelmunds Cross in Chelmsley Wood, and Smithswood, along with additional housing and infrastructure and retail developments. The initial model of regeneration, based partly on circular investment through projected land value uplift and house sales, stalled following the economic downturn, leading the council to increase borrowing, and scale down ambitions for the area (Birmingham Mail, 2011). However, much of the work has been completed, and the initiative continues to the present, overseeing significant infrastructure and housing development, including building ten new schools, demolition of tower blocks and creation of new housing, along with new retail, business, and community facilities, and creation of new parks and green infrastructure. A summary of significant contextual features is found in Table 18 below.

Solihull: significant features	Directorate/area	Key actors
Strong player regionally economic growth and significant inward investment e.g. HS2 Interchange, Blyth Valley Park	Managed Growth and Communities	Planning and regeneration, LEP
Focus on inequalities in North of borough	Public Health	Planning and regeneration
Regeneration programme including development of "new	Managed Growth and Communities	Public Health
village" centres		Community Development
Sustainability focus across priorities and "managed growth"	Managed Growth and Communities	Planning and regeneration
Strong Green Prospectus- incorporating green space plans,		Environmental Coordinator
ecosystems services, natural capital, and carbon reduction		Parks and Open Space officer
plans		
Local Plan (2011-28) adopted 2013	Council Wide	Planning and regeneration
Local Plan Review (July 2015 onwards)		
Establishment of cross cutting Health Development Group	Managed Growth and Communities	Public Health Consultant
(2013) to develop links between health and planning		

Table 18 Solihull summary of key contextual features

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6.8. Overview and timeline of food policy development

The final section of this chapter aims to give a succinct overview of the timeline of key food policy developments in each of the case study areas, set against food policy events of relevance in England.

Table 19 below highlights the key developments from the late 1980s to 2017. Whilst broad in scope, it serves to give an overview of the development of food policy. It highlights policy and practice at a national level, characterised by continued laissez faire approach by government and absence of coherent, national food policy (see: Dimbleby, 2020, 2021; DOH, 2011b; Lang et al. 2009; Parsons, 2020). Public health food focus was placed on action to improve diet, tackle obesity and diet related disease, but remained with emphasis on "choice" and behaviour change. The table clearly sets Sandwell in context of a long history of food policy development, since the 1980s linked to strategic leadership of the Director of Public Health. Sandwell established a Food Policy Board in 2005, along with farreaching initiatives prior to that around food access mapping, work with shops, and development of urban agriculture, along with wider Eatwell food programmes led by public health lasting into 2013 (Davis et al., 2006). Dudley and Solihull arrived later in addressing food issues, in particular through the lens of obesity, in line with emerging national guidance at the time, such as Foresight (Butland et al. 2007) and public health policies around "Choosing health" driven by the then Labour government during the 2000s. Solihull embarked on development of the Food Strategy and action plan much later (2015-17) (Solihull MBC, 2015). Common to all were approaches such as promotion of fruit and vegetable consumption, driven by government policy, focused more on project and behaviour change models, and individual choice. However, Sandwell is notable for is ongoing exploration and action on upstream, systemic factors around food, such as food access and retail, as is demonstrated in some of its early reports.

	Relevant National	West Midlands	Sandwell	Dudley	Solihull
1980s		West Midlands Food Sector Report on state of food industry (WMEB, 1987)	DPH Annual Report (Middleton, 1989) ref. food growing and need for food and health policy for Sandwell Report on food business sector: "In search of the low fat pork scratching" (Maton et.al., 1988)		
1990s	DOH Low income project team for nutrition task force (DOH, 1996) <i>Policy Action Team 13 (PAT</i> 13) report on Improving shopping access for people in deprived areas (DOH, 1999). Acheson (1998) Inequalities in Health.		Food Policy Officer appointed to PCT (1994-) Tipton Food Coop formed Ten Point Plan- Sandwell Health forum frames health as sustainable development issue (1995) Community Agriculture in Sandwell- feasibility Study (Booth et al. 1996) Sandwell Agenda 21 Strategy- includes proposal for a sustainable food policy (Sandwell MBC, 2001)		1995 Hot Food Takeaway Shops SPD (focus on nuisance, noise and environmental health) (Solihull MBC, 1995)

			Community Agriculture		
			initiative begins (1999-)		
			(Davis and Middleton, 2012)		
2000-	DOH (2000 Low income, food	Report to Advantage West	Five a Day Pilot (2000-2) and	Dudley cross cutting Obesity	Food for Health Strategy
2010	and nutrition report.	Midlands- on value of local	extension (2002-4) (Rex et	Task Group established	(Solihull PCT, 2005)
	The Cancer Plan (NHS, 2000)	food initiatives (Dowler et al.,	al., 2001)	(2004)	recommends multi agency
	NHS Plan (DOH, 2001) to	2004).	Food Access Worker	Dudley Food for Health	Food Action Group
	support "healthy eating	Advantage West Midlands	recruited to PCT (HAZ funds	Steering Group established	Green Spaces Strategy
	choices"	Development of "healthy food	2001)	(2004) Food for Health Action	(Solihull MBC, 2006; See
	2003 Five A Day launched	accessibility standard" for	GIS Food access mapping	Plan (2004-7)	Solihull MBC, 2014d)
	(NHS, 2018)	planning (DOHWM and JMP	study with Warwick Uni.	Dudley Food for Health Action	PCT delivers on range of
	Tackling Obesities in England	Consultants, 2009)	(Dowler et al., 2001; Rex and	Plan Report 2004-7	lifestyle services action on
	(National Audit Office, 2001).		Blair, 2003).	Closing the Gap- Tackling	food (2006 onwards)
			Public Health- study on	inequalities in health in	
	Choosing Health-Making Healthy Choices easier public		family diet to inform school	Dudley (Dudley MBC/ Dudley	
	health white paper (DOH,		food policy 2000-1 (Kyle and	PCT, 2005) reference to	
	2004)		Blair, 2007)	Dudley Food for Health Action	
	·		Salop Drive Market Garden	Plans	
	Choosing a Better Diet Food		and other food growing sites	Dudley Community Strategy	
	for Health Action Plan (DOH,		established (2000-)	(Dudley Community	
	2005)		Obesity in school children	Partnership, 2005) reference	
			study (National Child	healthy food access	
	Food in schools and school		measurement programme)	Tackling Obesity- a	
	Fruit and Vegetable scheme		(Kyle, 2002)	framework for Action in	
	launched (SFVS) (2004)			Dudley (2005-10) (Dudley	
				Obesity Task Group, 2005)	

Foresight Report- Tackling	Sandwell Food Policy	National Lottery funds for	
Obesities (Butland et al. 2007)	Adopted (Sandwell PCT,	"Bostin Value" project working	
Healthy Weight, Healthy	2005)	with NSMC to explore healthy	
Lives- A cross Government	Eatwell in Sandwell	food access in deprived	
Strategy for England (DOH,	programme establishing	estate (NSMC, 2008a,b)	
2008)	Cookwell, Growwell, Slimwell,	Dudley Council Parks and	
National Obesity Observatory	Shopwell	Green Spaces Strategy	
Established (2008)	and community "Food Interest	(Dudley MBC, 2009a)	
Food Matters Report (U.K.	Groups" (NRF Funding) 2004-	includes allotments and food	
Cabinet Office, The Strategy	6 and 2006-8 (Davis et al.,	growing	
Unit, 2008)	2006; Kyle and Blair, 2007)	Joint Strategic Needs	
	Growing Healthy	Assessment (2009) ref	
UK Food Security Assessment (Defra 2009)	Communities : A community	obesity.	
, , , , , , , , , , , , , , , , , , ,	agriculture strategy for	2008 Healthy Towns bid	
Foresight U.K. (2011) Future	Sandwell, 2008-12. (Sandwell	successful- tackling	
of Food and Fa	PCT and Sandwell MBC,	obesogenic environment	
Food 2030 Strategy (HM	2008).	(Peters and Jones, 2011)	
Government, 2010)	Core funding for community	Food for Health Action Plan	
Some councils begin to	agriculture programme by	(2010-13)	2010 "Scores on the Doors"
develop SPD to restrict hot	PCT-to Ideal for All (2005-17)	Dudley Strategy for tackling	Food hygiene ratings by
food (e.g. Brighton and Hove	Reports on Sandwell food	Health Inequalities (2010-15)	Environmental Health
City Council and NHS	economy for SMBC/PCT:	(Dudley Community	
Sussex, 2011)	Growing a Healthy Food	Partnership, 2010b)	
Green Food Project	Economy (Ital, 2005),		
Conclusions (Defra, 2012)	Nourishing the Local		
	Economy? (Field, 2008)		
	Better Business, Healthier		

			Food (Field, 2009) Getting to the Grassroots- strengthening the regional supply chain into Sandwell Council (Field, 2010) "Lessons to Takeaway" Conference on Hot food public health and planning (Birmingham Mail, 2010) HIAs for new development comment on food (SHUDU 2010, 2011a, 2011b, 2011c) 2009-12 Sandwell Child and Family Obesity Strategy (Sandwell PCT, 2011; Sandwell Partnership, 2010)		
2010- 17	Marmot Review (Marmot, 2010) focus on tackling Health Inequalities and determinants of health, including ref to food Healthy Lives, Healthy People, a call to action on obesity (DOH 2011a)	West Midlands Healthy Planning Group (2011) (WMHPG, 2021) West Midlands Strategic Food Board (WMSFB) established (LFPHWM) (WMSFB, 2017)	2010-11 Commissioner provider split. Food Team split and moved from PCT under "Lifestyle Services" tender won by My Time Active. Supplementary Planning Document on Hot Food	"Food Dudes" contracted to deliver food literacy in schools (begins 2011) (BBC, 2013) Tackling Obesity- a health needs assessment for Dudley (Dudley MBC, 2012, Dudley MBC, 2013a) Planning for Health SPD (DMBC, 2013c) including hot	Solihull Local Plan (2011-28) include reference to health, food and food growing- adopted 2013 Solihull MBC develops Vision for Allotments (2012-15) (Solihull MBC, 2012a) HWB Strategy (2012-16) endorses Food Strategy

PH "Responsibility deal" to	Takeaways (Sandwell MBC	food restriction and food	Development (Solihull Health
encourage industry to reduce	2012b)	environment	and Wellbeing Board, 2012)
sugar and salt (DOH, 2011b)	Report: Development of	Tackling Obesity- a	Solihull Health Development
Good Planning for Good Food	Sandwell's Integrated Offer to	framework for action. Inspiring	Group established (2013) to
(Sustain, 2011a)	Grow the Food and Drink	a healthy generation 2013-17	develop links between public
Sustainable Food Cities	Business Sector. (Regional	(Dudley MBC and Dudley	health and planning
network launched, (Sustain,	Food Academy, 2012)	CCG, 2013)	
2011b)	Barlow Road: second major	Dudley Food for Health	Draft Hot Food Takeaway
National Planning Policy	community agriculture site	awards established for	SPD (Solihull MBC, 2014c)
Framework (NPPF) 2012	taken on by Ideal for All	retailers (2013)	and subsequent decision not
notes food and health under	(2012-)	Green Spaces Asset	to adopt
healthy communities	Public Health move to L.A.	Management Plan 2015-25	
(MHCLG, 2012)	(2013) retain obesity/weight	(Dudley MBC, 2015a)	2014 Health Development
	management roles, plus food	2015 Draft Dudley Food	Group (Solihull MBC, 2014b) asks for Food Strategy to be
Planning sustainable cities for community food growing	and nutrition project manager,	Growing Strategy (Dudley	developed- Food Sub Group
(Sustain, 2014)	and Healthy Urban	MBC, 2015c. Still in draft form	established
	Environment Officer (2014)	2017)	
Planning healthy weight	JSNA Environment and		Solihull Food Strategy and
environments (TCPA) (Ross	Health- highlights access to		Action Plan developed with
and Chang, 2014)	healthy and unhealthy foods		community involvement
Healthy People, Healthy	(Saunders, 2013; Saunders		<i>"Focus on Food</i> " (2015-17) adopted by HWB Board
Places programme est. 2013	and Saunders, 2014)		(Solihull MBC, 2015)
including- obesity and the	SMBC/ PH 2013-14 analysis		
environment- regulating the	of fat, salt content hot food		PH Health Improvement
growth of fast food outlets	takeaways (Saunders et al.,		Practitioner leads on strategy
(See: Gov.UK, 2022; PHE,	2015)		development. DPH becomes
2014)			Chair of West Midlands
			Strategic Food Board (2015)

Childhood Obesity- a plan of	Sandwe	Food Systems	Local Plan Review 2015-16
Action (H.M. Govt, 2016)		: A Map for the	includes reference to food
		Sustain and Sandwell	growing and regulation of fast
Leeds Beckett begins "Whole	MBC, 20		food (Solihull MBC, 2016e)
systems obesity" pilot with			
local authorities (2017 on		ategy (SMBC 2013-	2016 "Health in every system"
funded by PHE) (PHE,	,	environment focus	obesity strategy (Solihull
2019a,b)	and ref to	community	MBC, 2016f)
Health Matters: Obesity and	agricultur	e	2017 April workshop with
the food environment.	2014 F3	consultants	Leeds Beckett university on
Guidance (PHE, 2017b)	commiss	oned by SMBC to	"whole systems obesity" and
	report on	future of	continued work as pilot
	commur	ity agriculture (F3,	
	2014)		
(Note: By 2020, attempt at	Public H	ealth- Nutrition	
suggesting a coherent,	Develop	nent of the Food	
national food policy was	· · ·	ncluding report on	
developed, but remained		well Food Business	
advisory see: Dimbleby, 2020,		nent Club Project:	
2021)		dams University,	
	2015)		
		ealth contribution on	
		anning vision	
		-	
		Black Country	
		<i>ity</i> " proposal	
		014) and via	
		o West Midlands	
	Metropol	tan Hospital	

proposals " <i>Right Care, Right</i>
Here" (Birmingham NHS
Trust, 2021)
SPD on Hot food refresh
(Sandwell MBC, 2016b)
PH funding to Community
Agriculture programme
ceases (2017)
Dudley Port Design SPD
notes food growing (Sandwell
MBC, 2017)

Table 19 Key developments in food policy at national, regional and case study level.

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6.9. Summary

This chapter has outlined the key relevant factors of the geographic and governance context – national, regional and local – in which the case study areas are set. It introduced the population, health, and environmental factors of each area, and identified significant actors and policies. It then focused on specific contextual factors at play in each of the case study areas. Finally, it outlined a brief timeline of key food policy developments in each of the case study areas, including reference to national policy relevant to the research. This gave a historical perspective to the work and will serve to support understanding of the following chapters, setting narratives of actors within this context. As a whole, this chapter helped to give a picture of the case study areas, and as a background for discussion of policy processes in the forthcoming chapters.

Before going on to examine the themes arising from interview narratives in chapters 8 - 10, the following chapter will explore initial results of the investigation, using evidence gathered from documentary sources, and indicating developments in integrated food policy towards food environment change.

Chapter 7: Results 7.1. Introduction and overview

This chapter is the first of four chapters presenting the findings. It provides a brief overview of the results of the investigation into the three case study areas, arising from the methodological approach taken as set out in the previous chapter 5. This acts as a bridge by giving further contextual insight into the subsequent thematic analysis chapters which explore narratives of key informants in more depth.

As outlined in chapter 5, the research set out to "explore multi-sectoral perspectives on integrated food policy actions with reference to influence the food environment through planning and land use". It did this by using a range of methods to gather data, including documentary review, interviews, and participant observation, and through case study areas chosen in that they displayed aspects of integrated food policy activity. It drew from concepts within policy studies literature including Walt and Gilson's (1994) "Health Policy Triangle", which explores content, context, actors and process in policy making.

This chapter examines the wider documentation underpinning understanding of the policy making process that emerged through the research process. It briefly states the key results and identifies the extent to which food policy in the case study areas focused on upstream factors of food environment change, including integrated activity involving planning and land use.

The previous chapter 6 set out a timeline of food policy development in the three case study areas. It gave an overview of *all* aspects and timelines of food policy activity that had taken place at a local level - encompassing activity across both upstream (structural) and downstream (individual) food environment change interventions.

Ilieva (2016) adopted a transitions lens that succinctly mapped the pathways of the topic of food into urban policy and planning - examining over 200 food-related policies in the global north. She identified a range of policy routes including stand-alone food systems plans, food charters, or as part of comprehensive plans, along with regulatory and spatial planning. Here, similarly, this chapter highlights those results of the investigation which signal the extent to which upstream food environment factors were considered within the case study areas within policy, planning and land use. The study as a whole takes a broad view of policy, defining it as "simply a plan or course of action"" beyond the written document, or the adopted formal policy (Lang et al., 2009:66). This section, however, draws from the evidence in the food policy timelines in chapter 6, with a focus on the written and formal

policy content (formally adopted and draft). This provides a baseline for later analysis and discussion of the policy-making process and narratives.

Many formal policy documents are cross cutting, for example focusing on inequalities, health and wellbeing, or broadly pointing to a framework for action. Aspects of these will be discussed in later chapters where relevant, as will broader underpinning reports and documents key to development of food policy. For the purposes of this results section, the extent to which policies have direct reference to food and focus on upstream food environment within the case study areas will be presented. This will also highlight some of the key underpinning materials which illustrate some of the journey taken in the policy making process. It will not highlight aspects here of food policy documents and background materials that focus solely on "downstream" action on food, for example dealing with influencing individual behaviour and lifestyle choice.

Factors described fall into three domains:

- Food policies (related to aspects of food per se)
- **Planning and land use policies** (that reference food within physical land use, green infrastructure, regulation or development policies)
- "Overarching" health or local authority policies (that reference food and food environment within broad, cross-cutting policies)

These are tabulated as comprehensively as possible in Table 20 below and help to give the overview for each case study area of the types of policies arising in these domains.

In addition, Appendix 2 Table 28 also highlights additional non-policy documentation of relevance, including academic journals specific to the case studies, again where focus highlights upstream food environments and underlying environmental influences. These documents can be described in three categories:

- Annual Reports (e.g. Public Health)
- Other reports such as commissioned and background reports and studies
- Academic journal articles and papers where relevant
- Conference materials where relevant

Partly due to pragmatic reasons and because the aim of this section is to focus on the more visible aspects of the policy making process and in support of later narratives of those involved, some papers have not been included. For example, committee reference papers are not included but, where relevant, these additional documents will be noted in later discussion chapters.

7.2. Overview summary of policies, documents and other references

Figures 6 and 7 below summarise both the typology and timeline of key policies, reports and other materials, drawing on the overview as described in Table 20 below and Appendix 2. These graphically illustrate the way in which policy and supporting materials arose in each case study area, and over time.

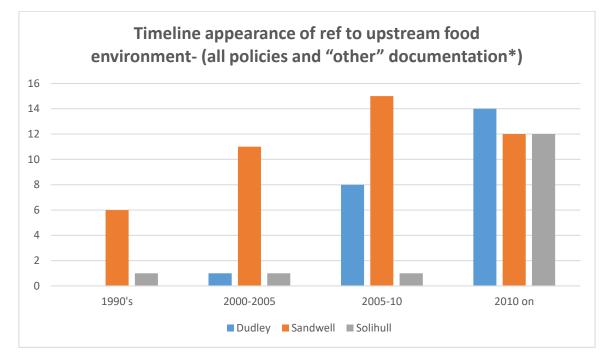


Figure 6. Incidence of upstream food references in policies and "other" sources over time 1990-2017

(*Here, academic papers excluded due to sheer amount in Sandwell in particular- see Appendix 2, Table 28)

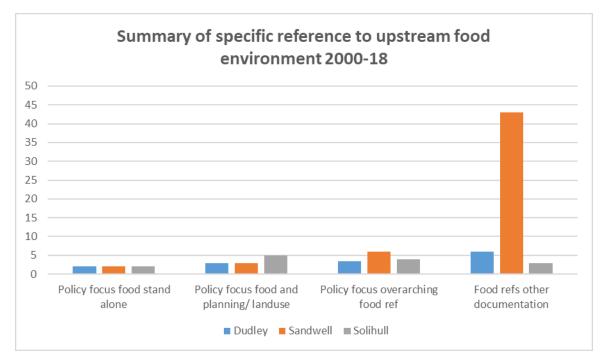


Figure 7 Summary of direct references to upstream food environment in policy and other documentation 2000-18* (*Here, "other" documentation <u>does</u> include academic references) Taken from Appendix 2 Table x 28. Of particular note is the role played by Sandwell in pioneering an early focus on food environment and food policy, in particular with generation of substantial background documentation with focus on upstream food environments from before the 1990s, underpinning the policy-making process. Dudley and Solihull, in contrast, came to focus on this aspect of food policy much later, from 2005 and 2010 respectively. In addition, the presence of actual policy documents is noteworthy: specific "standalone" food policy documents amounted to two per case study, and Solihull showed more emphasis on food within planning and land use policy, whilst Sandwell indicated more emphasis on embedding food in "overarching" policy documentation.

However, it must be noted that this does not necessarily reflect a lack of intention for policy making, but also varied opportunities to embed food within policy documentation, depending on context, as forthcoming chapters demonstrate. For example, both Dudley and Solihull had the opportunity to embed food in their Local Plans which were undergoing review during the period of research, whereas Sandwell did not. However, the figures do help visually to give an overview of the flavour of the emerging story of policy making around upstream food environment factors, and an indication of where "windows" of opportunity might have arisen.

Table 20 below outlines the appraisal of policy documentation found in the case study areas, and indicates where reference to upstream food environment factors appeared. It distinguishes between specific food policies, and wider planning, land use and healthy planning policies, and "overarching" policies within which food environment is referenced. It also indicates the delivery mechanism for action.

Policy theme/area	Policy document	Reference to upstream food	Relevant delivery mechanism
		environment factors	
1.Food Policies			
Dudley	Dudley Food for Health Action Plans(2004-2007) and (2007-2010) (2010-13)(2013-16). (See Dudley PCT, 2010)DRAFT: Dudley draft Food GrowingStrategy (Dudley MBC, 2015c) (*notadopted formally as of 2017)	 Plans aim to support local shops in deprived areas to develop healthy retail 2010: Collaborative work to tackle unhealthy eating. Role of planning 2013: Ref to food growing space, community gardens. Support Healthy Towns Support SPD on health inc. hot food and access to healthy food Food Growing Strategy: Support food growing and community gardens 	Food for Health steering group- Multi agency inc. planners, public health, green space and others Food Growing Strategy group established 2015- cross cutting, planners, PH, greenspace and others
Sandwell	Sandwell Food Policy Adopted (Sandwell PCT, 2005) Growing Healthy Communities: A community agriculture strategy for Sandwell (Sandwell MBC and Sandwell PCT, 2008)	Food Policy: Strategic approach to food Healthier food environments Ref community agriculture Community Ag strategy: Coordinated approach to urban agriculture in Sandwell Includes Aim 6- to improve environment and urban form and ref to planning and design (p. 25)	Food Policy Board –under Joint Policy Unit (est. 2004) integrated including public health, council, planners and vol sec. reps Community agriculture: Food Policy Board membership and Sandwell Healthy Urban Development Unit (SHUDU) oversight
Solihull	<u>Food for Health Strategy</u> (Solihull PCT, 2005)	recommends multi agency Food Action Group- though focus mainly behavioural 2015-17 Food Strategy and Action Plan:	Food Action Group- Cross cutting PCT, council and other

	Focus on Food - Solihull Food Strategy and Action Plan (2015-17) (Solihull MBC, 2015)	Aim 6: Local policy and planning decisions take food into account Outcome 7: impact of food is considered part of planning process Includes reference to food growing, supporting local market space, restriction of hot food Food sub group established	2015 Food strategy requested by Health Development Group: Food sub group established to develop and steer and Food Forum established (to involve community)
2. Planning and Land Use policies Black Country Core Strategy (2011- 26) overarching planning policy for: -Dudley -Sandwell	walking (Black Country Core Strategy, 201 CEN6 Meeting local needs for shopping an	cessibility standards for over 15 houses, to fr 1). nd services new development- inc. ref to foo od production "priority market sector" for dev	d shops must meet HOU2 above
Dudley (*Planning policy sits under Black Country Core Strategy (2011-26))	Dudley Green Spaces Strategy (Dudley MBC, 2009a, 2015a) <u>Planning for Health SPD</u> (Dudley MBC, 2013c)	Strategy Includes allotments and food growing spaces SPD Clearly established links between planning and health. Provides guidance in planning decisions. Includes restriction of hot food takeaways buffer zone 400m from schools. Guidance to consider access to fresh healthy food, inc. outdoor and indoor markets, "pop up" shops. Provision of allotments and consideration of community food growing spaces in development encouraged	Directorate of urban environment Planning Policy/ Green space

	Dudley Borough Development	BDS: P. S2 Planning for a Healthy	
	<u>Strategy 2017-25</u> (Dudley MBC, 2016a,	Borough-	
	2017a)	Includes reference to healthy food	
		access, restriction of hot food (S2;D9)	
		support of green space and creation and	
		protection of allotments (P S14 and S	
		30, S34) and use of HIA on development	
		proposals.	
		Evidence base document Includes	
	Dudley DDC Landssons Evidence	reference to food growing space and in	
	Dudley BDS Landscape Evidence	new development	
	Base. Part A- Borough wide (Dudley		
	MBC, 2016e)		
Sandwell	Sandwell Allotments and Community	Protect and support allotments and	
	<u>Agriculture Strategy 2004</u> (Sandwell	community agriculture	SMBC Allotments (Parks and Green
(*Planning policy sits under Black	MBC, 2004)		Space)
Country Core Strategy (2011-26))	Sandwell Green Space Audit 2006,	Includes allotments	. ,
Country Core Strategy (2011-20))	updated 2013 (CFP, 2013)		
	Rapid Health Impact Assessments		SHUDU (Sandwell Healthy Urban
	(HIA) on proposed development SPDs	HIA: Highlight food access and food	Development Unit) (Southon and
	(SHUDU, 2010, 2011a, 2011b, 2011c)	growing	Goodman, 2016)
	(Comments on SPD documents: Grove	Link to community agriculture strategy	
	Lane, Windmill Eye, Sandwell Site	Highlight food system planning	
		To influence development	
	Allocations, West Bromwich Civic AAP)		
	Supplementary Planning Document	SPD: Restriction of hot food takeaways	
	<u>on Hot Food Takeaways</u> (Sandwell	by concentration. Restricted within 400m	Planning Policy

	MBC, 2012b) refresh (Sandwell MBC,	of secondary school or higher education	
	2016)	college.	
	Dudley Port Design SPD (Sandwell	Design SPD: notes food growing	
	MBC, 2017)	potential in new developments. Link to	
		Garden City principles of BCSLEP	
Solihull	Hot Food Takeaway SPD (Solihull	SPD: focus on nuisance, noise and	
	MBC, 1995)	environmental health	
	Solihull Green Spaces Strategy	Green Space Strategy: Protects and	
	(Solihull MBC, 2006)	recognises allotments	
		Local Plan: Policy P18 Health and	
	<u>Solihull Local Plan</u> (2011-28) (Solihull	Wellbeing. Include reference to health,	
	MBC, 2013a) adopted 2013	improving access to healthy food,	
		allotments and local food growing and	Health Development Group established
		protection of food growing space-	2013 to link health and planning
		Recognises poor access to healthy food	
		in deprived areas and contribution to	
		obesity. Aims to manage concentration	
		of hot food takeaways around schools	
	North Colibull Creen Space Deview	(2013)	
	North Solihull Green Space Review	Green space review: Identifies lack of	
	(SLP072) (Solihull MBC, 2013b)	allotments in North Solihull.	
		Draft SPD: Ref to obesity and health	
	DRAFT <u>Hot Food Takeaway</u>	impacts. Proposes policies to address	
	Supplementary Planning Document	concentration and distance to secondary	
	(Solihull MBC, 2014c)	schools within 400m	
		Clearer links to health	
	Solihull Green Space Strategy Review	Ref to "allotments, community gardens	
	(Solihull MBC, 2013 b, 2014c)	and urban farms" for growing food	

	Solihull Local Plan Review November	Policy P18 Health and Wellbeing.	
	2016 (2015-16) (still ongoing- 2021)	Includes as in (2013) ref to food growing	
	<u>Draft Local Plan</u> (Solihull MBC, 2016e)	space, allotments, access to healthy	
		food. "Resisting proposals for hot food	
		takeaways being located in areas that	
		could lead to an undue influence on poor	
		diet choices" (Solihull MBC, 2016:124)	
3. Overarching policy			
Dudley	Dudley Borough Challenge.	Inc. tackling obesity and improving	Dudley Community Partnership
	<u>Community Strategy</u> 2005-2020.	access to healthy food	
	(Dudley Community Partnership,		
	2010a)		
	<u>Closing the Gap (2005) Tackling</u>	Healthy life expectancy focus	
	health inequalities in Dudley. (Dudley	"create healthy places and communities"	
	MBC and Dudley PCT, 2005). Dudley		
	Strategy for Tackling Health		
	inequalities 2010-15 (Dudley		
	Community Partnership, 2010b)		
	Dudley Tackling Obesity- a Health	Strong recognition of need for integrated	
	<u>Needs Assessment</u> (Jackson, 2012)	action on obesogenic environment and	
	(Jackson, 2012)	supportive environment for health/ role	
		of healthy urban design	
		Ref to healthy and unhealthy food	
		access, allotments and gardens	
		Goal to map "food deserts", develop	
	Tackling Obesity- A Framework for	mobile fruit and veg schemes	
	action. Inspiring a healthy generation.		
	2005-10 and 2013-2017. (Dudley		

	Obesity Task Group, 2005; Dudley	Planning for health inc. limiting access to	
	MBC and Dudley CCG, 2013)	unhealthy food. Ref urban design and	Lead Directorates: Urban Environment
		planning process to increase access to	and Public Health
		healthy food and restrict unhealthy	
		Aim set to develop SPD including	
		healthy food access and "food deserts"	
		Tackle street vending for unhealthy food	
		HWBS: Inc ref to planned environment	
	Dudley Health and Wellbeing Strategy	to support healthy choices and access to	
	(2013-16) (Dudley MBC, 2013b)	healthy food. Ref allotments and food	
		growing	
	Joint Strategic Needs Assessments	JSNA: Ref food environment,	
	(Moss and Little, 2009)	established link with health and place-	
	(Dudley MBC, 2012, 2014)	and planning.	
		Ref to food environment, access to	
		healthy and unhealthy foods, allotments.	
		Joined up working	
Sandwell	Sandwell Agenda 21 Strategy (Sandwell	Includes proposal for a sustainable food	
	MBC, 2001)	policy	
	Sandwell Public Health Business Plan	Includes reference to food policy	
	(Sandwell PCT, 2002-5)	development and healthy planning	
	Sandwell Health Partnership policy	Include development of Health Action	
	(health theme of Local Strategic	Zones and focus on improving food	
	Partnership) (2002-)	access and retail	

· · · · · · · · · · · · · · · · · · ·	2009-14 Sandwell Child and Family	3 tier "whole system" approach- ref to	
	Obesity Strategy (Andrews, 2010;	planning and obesogenic environment	
	Sandwell Partnership, 2010)	JHWBS: Objective E: "Create and	
		develop healthy and sustainable places	
	Sandwell Joint Health and Wellbeing Strategy 2013-15 and 2016-20 (Sandwell Health and Wellbeing Board, 2013, 2016) Joint Strategic Needs Assessments Environment and Health - (Saunders, 2011, Saunders, 2013; Saunders and Saunders, 2014)	and communities": food environment focus, ref to community agriculture and links to regeneration, food systems approach, control of hot food takeaways JSNA underpin JHWBS. Establish environmental tracking, map/ data of access to healthy (fresh fruit and vegetables) and unhealthy foods, and obesity (Saunders, Middleton and	Cross cutting Obesity group including Healthy Urban Development and Food Policy Board, LSP
		Rudge, 2017)	
Solihull	Solihull Joint HWB Strategy (2013-16 and 2016-19) (Solihull Health and Wellbeing Board, 2012; Solihull MBC, 2016b) Solihull Sustainability Strategy (Solihull MBC, 2012b) Solihull Green Prospectus (2016-20) (Solihull MBC, 2016g) DRAFT Healthy Weight Strategy, Health in Every System (Solihull MBC, 2016f) Solihull Council Plan (2014-20) "whole systems approach to obesity" (Solihull MBC, 2016d)	JHWBS: adopts Food Strategy Development Ref to need for overarching strategy re sourcing local food Green Prospectus: Recognises Ecosystems Services, Natural Capital. Alignment with Health Development Action Plan and Focus on Food Actions Healthy Weight Strat: "multi-faceted, upstream, cross-cutting, systems based approach": Shift beyond silo approach.	Cross cutting

Table 20. Policies with reference to upstream food environment

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7.3. Key actors

Walt and Gilson (1994) draw attention to the key actors within health policy making. As discussed in chapter 5 (methodology), a total of 58 interviewees took part in the study (table 12). These, outlined again in Table 21 below, as discussed previously, were selected following a "snowballing" approach using an entry point of public health leads involved in food policy.

This led to contact with others including planners, green space officers and others within each local authority, and served to give a picture of who was active in food policy development at a point in time (2015-17) or had influence and interest in food environment change. In addition, it led to some involvement of civil society food actors, providing more contextual understanding; although, as discussed in later chapters, these were not significant drivers of the food policy development process (Lang, 2005). Also of note is the absence of specific representation of the food supply chain (as indicated in Lang's Food Policy Triangle) giving insight into the realities and gaps in food policy reach and vision. One interview was carried out with a fresh food retail consultant in Sandwell, resulting from Sandwell's previous involvement in work to develop healthy retails in small shops through its "Shopwell" scheme. (No other opportunity was presented to follow up on Sandwell's additional previous retail linked initiatives that had been active in the 2000's. Documents associated with these are reflected, however, in the food policy timeline previously described). Initially, as previously described, attempts were also made by the researcher to speak to representatives of hot food retailers who had commented on planning policy consultations, but this was unsuccessful, with one who showed initial interest withdrawing consent to be interviewed. Implications of this will be discussed in chapters 11 and 12.

The roles and viewpoints of the significant actors will be discussed in later chapters, but of note was the key bridging role played by those with specific remit for food policy in their job or who had a focus on developing the link health and planning, determinants of health or "upstream" environment change.

Interviews (2015-17) (see also table 12)	Dudley	Sandwell	Solihull	Regional/other (context only)
State				
Public health (food policy leads, PH consultant/directors and healthy planning officers)	3	6	4	2

Planning (Spatial planner/ strategic/policy/planning development officers)/ Regeneration/Landscape professionals	4	6	3	3
Council other (Parks and greenspace, sustainability lead, community development, Councillor)	4	3	5	
Civil Society				
Food growing, food poverty groups	3	5	4	
Regional/national food policy				2
Food supply chain				
Fresh produce		1		
Hot food retailer				(withdrew)
State total	11	15	12	5
Civil Society total	3	5	4	2
Food Supply Chain total	-	1	-	-
Overall totals	14	21	16	7

Table 21 – Interviewees by sector (58 total) (With reference to: Food Policy Triangle (Lang, 2005) and Health Policy Triangle (Walt and Gilson, 1994).

As noted in chapter 5 (methodology), the interviews took place during a period when local authorities were undergoing huge change, as a result of austerity programmes, with ongoing restructuring and budget reductions. Interviews generated information which enabled the researcher to gain an understanding of how food policies had developed over time, and to begin to explore some of the moves towards integrated action, and activity on the upstream food environment.

In addition, public health departments were still in the process of settling in following the move from PCT to local authorities in 2013. As a result of these changes, and council austerity programmes, interviewees often spoke about restructuring and job uncertainty, with some leaving their jobs before the end of the research. This presented a challenge for the researcher to follow some events and narratives through, due to loss of key knowledge holders. Both ongoing internal change and the long timeline of food policy developments

also meant that some of those who had been significant in early food policy developments were no longer available. To some extent institutional memory was difficult to track - as the work went back many years; particularly in Sandwell where food policy work emerged in the late 1980's. Longevity of post-holders was also a key element: for example, some in public health in Sandwell had remained in food policy related posts over many years, and were invaluable in tracking the "story". In other cases, some current post-holders were relatively new or did not have the depth of knowledge and experience to comment on some aspects of past food policy development.

7.4. Governance for integrated food policy

Varied governance mechanisms for integrated food policy development and focus on upstream food environment was identified. Whilst informal or non-food related collaborations and structures (for example Regeneration Partnership groups, Health and Well Being Boards, or specific project groups such as Healthy Towns in Dudley) provided points at which food environment issues could be raised, more formalised governance structures such as standalone food policy or healthy planning groups specifically explored food environment factors as illustrated in Table 22 below.

	Type of group: governance for food policy development	
Sandwell	 Sandwell Food Policy Board active 2005-13 under Joint Policy Unit, Sandwell Partnership -cross cutting reps of public health (PCT), environmental health, vol sec, and Council planning, regeneration, economic development, allotments and parks. Develop Food Policy and oversee actions Sandwell Healthy Urban Development Unit (SHUDU) Sat within Joint Policy Unit (est. 2009)-forum for action on healthy planning- reps of public health, planning, regeneration 	
Solihull	 Solihull Health Development Group (est. 2013) within council support embedding of health into planning and development - including reps of public health, spatial planning, planning policy, regeneration, housing, parks and open spaces (reports to Health and Wellbeing Board) Food Sub Group- established 2013 under Health Development Group to focus on food strategy development (ceased end 2017 as council embraces Whole Systems Obesity approach) - establishes Food Forum to engage community in food policy action 	
Dudley	Dudley Obesity Task Group (2004 on) Dudley Food for Health Strategy Group (2004) cross cutting membership including council, PCT, public health, planning- led by public health no longer operational Dudley Food Growing Strategy Group est. 2015. Reps of public health, planning, green space, regen, vol sec. to develop Food Growing Strategy (draft) (ceased to function 2017)	
Regional	Regional Food Policy Group (pre 2009 DOH West Mids) West Midlands Healthy Planning Group (2011) West Midlands Strategic Food Board (2012) convened by Learning for Public Health West Midlands (LfPHWM)	

Table 22 Formal governance vehicles for integrated food policy making with reference to upstream food environment change

7.5. Next steps and emerging themes

In summary, this chapter, along with the information provided in Appendices, gives an overview of the initial results of the investigation. It indicates what was located as a result of the methodology outlined in Chapter 5, including policy and documentary investigations with a focus on upstream food environment. It sets this within a further timeline, to enable comparison of developments within the three case study authorities. In addition, it gives a view of the main governance and actors identified as being involved in the policy making process with whom interviews were carried out. Finally, it indicates the themes that are covered in the following analytical chapters which discuss these findings in the context of narratives from the actors involved.

This sets the scene for the following analytical chapters 8-10. Building on both the results outlined here, and narratives from interviews, three overarching themes and their related sub-themes are inductively developed in more depth. They will draw out key factors for each case study area, and focus on aspects of health policy making, including exploration of context, actors and process within policy making. They can be briefly summarized as:

Theme 1 (Chapter 8)	Framing food policy – move towards integrated work and how upstream food environment change comes into focus	
Theme 2 (Chapter9)	Integrating upstream food policy action including work with planning and land use- pathways, opportunity and process	
Theme 3 (Chapter 10)	Dis-integrating- factors against upstream food policy change	

Table 23. Overarching themes identified.

7.5.1. Thematic analysis - brief overview

Having built on the case study overview and initial results (chapters 6 and 7), the following three chapters will draw on the rich data from interviews with key actors, to highlight themes arising from these narratives. Following the methodology and analytical process outlined in chapter 5 with focus on the research aims, narratives include reference to factors in the policy making process (context, process, actors) and systems thinking skills (De Savigny and Adam, 2009; Kingdon, 1984; Walt and Gilson, 1994). The focus is to highlight themes related to multi sectoral perspectives on integrated food policy making process as a platform for upstream food environment change.

Chapter 8: Emergence 8.1. Introduction

This first thematic chapter explores the "emergence" of the vision for food policy thinking within the three case study areas, and developments towards integrated food policy making. Based on interviewee narratives (see table 12 for key), it includes exploration of the role of local context, knowledge sources, leadership and advocacy of actors as influences on food policy development. It focuses on initial drivers for food policy development, and how food was conceptualised and gained attention within wider policy foci over time (Kingdon, 1984; Walt and Gilson, 1994). It also explores the motivations behind integrated approaches to food policy, within cross disciplinary food policy groups and emergence of understanding that might pave way for focus on integrated action and upstream food environments.

8.2. Drivers for food policy development

8.2.1. Early food policy development - initial drivers

Timelines of international, national, local policy, along with documentation and activity were highlighted in previous chapters, indicating some overarching drivers of food policy development in each area over time. Common public health concerns, policy and funding influences - such as health inequality, obesity, healthy eating, diet related ill health, and determinants of health - emerged across all cases over time. Food policy activity in all three cases was initiated and driven by public health. Against this backdrop, food policy activity in each case study area emerged embedded in time and place, responding to local context. Interviews with key actors revealed additional factors that worked to guide their own thinking for food policy development

Capturing historic and rapidly changing drivers is not always easy. Of note are the different extents to which interviewees within the case study areas reflected on the initial drivers for food policy. A mix of factors made capturing the picture challenging - including institutional memory, longevity of role, involvement, availability of staff - but also revealed varying perspectives, depths of knowledge and understanding about the subject.

8.2.2. Responding to local context

8.2.2.1. Sandwell - recognising environmental drivers of ill health

Interviewees from Sandwell, an early pioneer in food policy, reflected deeply in comparison to other case study areas, on initial drivers for food policy thinking. Dr Middleton, as Director of Public Health (DPH) from 1989, inherited a post-industrial Sandwell, marked by high mortality rates and deep health inequalities. Industrial decline exacerbated high

unemployment, and creation of poor environmental conditions characterised by large areas of derelict and contaminated land. Sandwell's Public Health Annual Reports (1989-2015), recognise this context, and vividly track the breadth of his vision for the role of public health and food policy in meeting some of these challenges. Here, the DPH clearly acknowledged the environmental drivers of ill health, "*Our battle for environment and safety here is much less obviously a battle for secure natural resources, it is much more … a battle to protect local residents from the effects of Sandwell's over two hundred years of unsustainable development*" (Middleton, 1996; quoted in Middleton and Saunders, 2015: 1345).

Comments highlighted some of the early journey and thinking behind food policy development in relation to these concerns - including the legacy and challenges of Sandwell's industrial past. Early experience ensured Sandwell took a systemic and structural view of food, set within wider social and environmental determinants. Drawing on "peace dividend" debates of the 1980s, Dr Middleton explored how three pressing challenges - regeneration of health, environment and of Sandwell's failing economy - could be interlinked - including through development of food infrastructures:

the driver was actually my interest in military conversion ... when I got into a position with some resource in Sandwell, we started to apply the same principles of the peace dividend to health damaging industries, so we looked at food ... trying to find alternatives that could keep the jobs and still be healthy (SAPH3)

A subsequent commissioned study "*In search of the Low Fat Pork Scratching*" (Maton et al., 1988) explored Sandwell's healthy and unhealthy food sources, and suggested health and economic improvements could stem from development of Sandwell's food industries:

...most of it was ... highly processed ... Albright and Wilson could be claimed to be part of the food industry because they produced all the phosphoric acid, for coca cola ... At the time, there were three slaughter houses, and a lot of pork products - we were the world leader in pork scratchings - one of the guys said, "I will make you a low fat pork scratching if you will sell it" (SAPH3)

Early concerns with Sandwell's unhealthy food environment, and lack of access to healthy food, led to exploration of underlying drivers of poor diet. This included concerns with food access and supply, food retail support, co-ops and food growing- linking food across health, environment and economy:

The bigger ideas of not just exhorting people to eat healthily, began to take shape ... we were trying to actually be able to supply them, and to make an economic advantage out of healthier food. The food cooperative was the first outward looking expression of that (SAPH3)

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These initial activities indicate the roots of later food access mapping, and planning interventions on hot food takeaways (Dowler et al., 2001):

What we now talk about is not so much the food desert as the fat swamp, and of course they may coexist in some of the outer council estates where fresh fruit and veg hasn't established, but the fat swamp you are never more than five minutes' walk away from a fast food takeaway ... (SAPH3)

The combination of Sandwell's health, social and economic factors along with challenges of poor diet and surplus of derelict land, including disused allotments, brought strategic focus on potential for urban agriculture. Following a feasibility study (Booth et al., 1996) exploring food growing potential, a comment in the 1996 Annual Report for public health indicates the breadth of this vision: "Sandwell as the garden of England is a bit far-fetched, but it is not impossible ... to increase the food we supply to ourselves" (Middleton, 1996: 141).

The problem of derelict contaminated land, although challenging, was seen as an opportunity by the Food Policy Group:

We were starting with these truly awful land parcels and the reason we were able to start with them is because in a sense nobody else knew what to do with them. It was an immense challenge (SACS1)

8.2.2.2. Concerns with food security and food systems challenges

Awareness of food system vulnerabilities were noted some of Sandwell's central food policy actors as being a driver for early food policy development. Sandwell was seen as particularly vulnerable to potential food system shocks. Whilst acknowledged within DPH Annual reports from 1990s – allied to Agenda 21 and sustainability - this was discussed as "private" or covert concerns between those with shared understanding.

Reflecting on urban agriculture in the early 2000s, one food policy group member revealed underlying concerns about "future proofing":

There were elements of our private thoughts that we didn't articulate publicly ...was it a project that was just about helping individuals or small communities to get better ... or... about the bigger picture - the future and concerns for global food security and urban populations, I have always believed ... but it will come, I think in this century, that food shortages and potentially famine will become an urban phenomenon, with climate change and war, and lack of visionary energy and food policy (SACS1)

"Big picture" thinking was seen to underpin more privately held motivations:

It was private between a few people, the big picture thinking ... the urban agriculture, with the emphasis on agriculture being to produce food ... but you didn't talk to most people about that, it would have been a little bit too scary or too far off the wall... (SACS1)

Others, including planners also indicated personal concern of future challenges:

the big challenge that people are going to have to clock is going to be the market volatility and food prices, and I don't think people have realised that is about to happen round the corner, from a global perspective. Having local fresh food supply chains, in case of severe climate change, and in case of warfare ...things like that are not considered (SAPlanner 4)

By 2017 in light of contemporary thinking on climate and sustainability, the Director of Public Health noted that his early vision for Sandwell went beyond food security to encompass emerging "planetary health" thinking:

The Rockerfeller and Lancet Planetary Health commission actually brings things, we might have thought we were doing things, tackling things in a holistic way ... so unless you are seeing these things in the feedback loops and ecologically ... I tried to connect it to fast food "un-diversity" ... fast food takeaways dumping stuff in the street ... actually poisoning biodiversity by the way you eat your food (SAPH3)

8.2.3. Solihull and Dudley – response to public health driven concerns

Dudley and Solihull came later to development of food policy work compared to Sandwell. Interviews here revealed less deep-rooted thinking behind consideration of wider food policy drivers in the local context. Dudley's and Solihull's approach to food policy initially reflected responses to prevalent national health and food policy foci during the 2000s, with concerns around healthy eating, obesity and health inequality (Solihull PCT, 2005). Solihull's Director of Public Health, involved in later food strategy development (2015-17), reflected that his initial interest in food arose from behavioural perspectives on obesity, acting as an entry point for development of broader thinking:

I have become more aware of the issues ... of the wider aspects of food...so I suppose my understanding and experience has broadened from the healthy eating one (SPH3)

Topical debates about food were reflected by others noting pressures to respond to public concerns:

...public demand for something as well, you know, sugar is in the headlines, again, and it seems to ebb and flow, dependent on the celebrities behind healthy eating (SMBC3) Development of *Solihull Food Strategy* (2015-17) saw expansion of viewpoints with recognition of drivers of food policy linked to healthy planning and health inequalities in North Solihull's deprived wards (Solihull MBC, 2015). (See Appendix 4, Figure 13). One member of the Health Development Group commented, this encouraged perspectives within a wider system view:

It's about looking at the whole system in the Health and Wellbeing Strategy of which food is of course a part. I suppose the council priorities, whilst it doesn't specifically mention food, a lot of them hint towards it, so while we are talking about sustainable, healthy happy communities, when you start to boil that down to "What does that actually comprise of?" part of that would be food ... (SPH2)

8.2.3.1. Dudley - local drivers for food growing strategy

Aside from initial policy related concerns seen in Food for Health plans (2004 on), interviews in Dudley indicated a broader context within which thinking around food took place. Local contextual drivers of economic downturn and austerity were clear post 2010. The need for economic and skills development, new green space management, food poverty solutions and the "Community Council" shift - were seen as significant influences by those involved in developing Food Growing Strategy from 2015.

For example, parks officers concerned with austerity and shrinking budgets saw food growing as offering solutions for green space management, and meeting health and wellbeing priorities:

The fact that we had got ... greenspace that was underutilised and causing ... financial pinch point ... we were maintaining it for no purpose, so it was a kind of multi-faceted approach to say "who are the beneficiaries of this internally in the council, as well as the public, who would get the recognised outcomes, in terms of access to healthy food, satisfaction and self-esteem from growing, physical activity from hoeing and tilling?"... (DPH2)

Interviewees indicated an interplay of different factors. Rising food poverty, was noted as a backdrop to consideration of emerging Food Growing strategy:

I'm starting to see behaviours I haven't seen since I was a child, in the way people are managing food choices ... families who are going to bed at 6 to keep warm, and watching the t.v. as it saves on heating ... impossible choices (DMBC1)

The focus on food growing in Dudley post 2010 was also in response to opportunity presented by established local initiatives, and "bottom up" community action. One council member described their role in building this opportunity, responding to changing strategic priorities:

Hawbush community gardens ... growing food for the foodbank that has been the driver. Jasmine Road when that started it was about employment skills initially. What you have to do in order to help these things survive as politicians and senior officers, we have to read the runes as to where the next fashionable tag is, where the wind is blowing nationally ... (DMBC1)

8.3. Sources of knowledge for food policy development

Interviewees across the cases focused on the origins and sources of knowledge supporting initial development of food policy. Again, these reflected the different entry points into the food policy journey.

8.3.1. Early days of food policy - limited external roadmaps

Sandwell, pioneering food policy in the 1990s, had limited national or international "roadmaps" to guide food policy thinking and practice, in comparison to what was available to Dudley and Solihull by the mid 2000s. Sandwell, drew from multiple sources, including international public health, sustainability, and North American food policy examples:

It was things like Agenda 21, we knew about the Ottawa Charter ... using ... nonfood specific things, and then it was Toronto Food Policy Council ... they were three big things ... (SAPH1)

Urban agriculture development similarly reflected topical international sources:

Urban agriculture was popular for a while ... you just cash in on it, and did that successfully, cashed in on the moment, even though those ideas were a long time forming, the inspiration, a lot came from ... North America, not so much from England at the time (SACS11)

For Sandwell, interviewees reflected dynamic interplay between drawing on external policy and learning through experience. Whilst national policy viewpoints on food were seen through predominantly individual and behavioural lenses, Sandwell contextualised its own grounded food policy learning focused on wider environmental influences.

Here, external knowledge when available, helped contextualise, corroborate, contradict or challenge learning that Sandwell had through its own practice - subsequently used or rejected - at different stages of its food policy journey. Although limited, officers used knowledge to endorse its emerging embedded learning and perspectives around structural and systemic food environments:

There was a decade or more of "food policy" then it changes, the word "food policy". wasn't being used; it became obesity, CHD, cancer, diabetes, diet related disease trying to host the work, but there was no place for "systems thinking". Then Healthy Towns and SHUDU (2009) - that stopped it being something on the edge and moved it back to the centre - from behaviour change to environment (SAPH1)

Publication of the Foresight Obesity Report (Butland et al., 2007) illustrated the complex systems and drivers behind obesity. Sandwell public health recognised aspects of their own embedded learning to date. Whilst Sandwell was wary of limitations of framing "food" as "obesity", the emerging analysis gave a valuable framework onto which Sandwell's own experience in food work could be made visible. Its Eatwell programme in the early 2000s, had already highlighted systemic interconnections pictorially (Kyle and Blair, 2007):

Some of the most valuable learning, (was) when we first saw the Foresight map, and said "it's complex, but not complicated" (SAPH2)

One public health officer reflected on attempts to align food within underlying structural factors. For example, National Performance Indicators (DCLG, 2007a) for local authorities, enabled food to be portrayed as an "essential service":

Fifteen years ago I saw clearly that shops, food shops, were included as "access to services" ... (NI175) that included among other things, employment, education, art and culture and that was the only indicator with the full mix of everyday services, and in it there was "shops"... but now I think the conversation tends to think of "services" as the preventative health care services (SAPH1)

8.3.2. Emergence of external "roadmaps" for food policy development

In contrast to Sandwell; Dudley and Solihull by the mid 2000's were able to draw on wellestablished resource and practice base, reflecting decades of urban food policy learning and development. By 2015, scoping respective Food Growing and Food Strategies, well established national and international policy and practice was available. This meant that they could draw from well-trodden "roadmaps".

Solihull Food Strategy and Action Plan (2015-17) cited broad international and national references linking food, health and sustainability (Solihull MBC, 2015). Examples included well-documented U.K. case studies from Birmingham and Bristol. Solihull could almost develop its strategy "off the peg" from elsewhere prior to community consultation:

We looked at the Brighton and Hove Food Strategy and used that as a starting point, then we went out and engaged with the community and brought it all together and used that to expand on Brighton and Hove's (SPH1)

Solihull's food strategy cited diverse references to healthy eating, food poverty, alternative food, urban agriculture, sustainability and obesogenic environments encapsulating the

established wealth of food policy literature (Solihull MBC, 2015). However, some expressed that such a wealth of guides could also be confusing and contradictory:

The main context is all the stuff coming out of government and Change for Life, sugar, and stuff like Public Health England - arguing with the Faculty of Public Health about fats and sugars ... (SPH 1)

External relationships were important in Solihull's Food Strategy development. For example, Solihull benefited in particular from membership of the regional West Midlands Food Board (chaired by Solihull's DPH, 2016). This regional discussion forum supported valuable learning and ideas exchange at a key point for Solihull:

West Midlands level has been really helpful, to meet other people, and see what they are doing, and talk about it with other people...it's engaging those people... (SPH1)

Solihull's growing awareness of and exposure to a systems approach was also explicitly supported by external sources with particular influence on the Food Strategy development. In the final "*Focus on Food, a Food and Health Strategy and Action Plan*" (2015-17) the "food system" concept was firmly embedded, as a "healthy, safe, sustainable and fair food system for Solihull" (Solihull MBC, 2015:2). Interestingly, the word "system" did not feature in the first draft of the strategy - at the time there was not a strong understanding of systems approaches within the Food Sub Group. Whilst understanding of the interrelated elements emerged through collaborative work, for Solihull the "system" concept was seen as new. It was specifically inserted into the food strategy after drafting, in response to discussion with Public Health England:

I added that because when we showed the strategy to PHE the lady said, "oh, this is a systems approach" so we kind of added it, not completely understanding what it was about, and going away and reading about it, but at that point the strategy was already written (SPH1)

By 2016, however, Solihull became a pilot, in Leeds Beckett University and Public Health England's development of a "whole systems obesity" toolkit, to galvanise systems-based action on obesity at local authority level (Public Health England, 2019a,b). Whilst Solihull food strategy had alluded to a food systems perspective in hindsight, this new input enabled a rethink and for "whole system" connections to be made visible systematically from the outset.

Solihull's "whole systems obesity" workshop 2017, led by Leeds Beckett, enabled development of a new "route map" in the council involving cross cutting stakeholders, building a deliberative, strategic whole systems approach:

...we are (now) following the whole systems approach in a much more organised way - before I think we were leaning towards a whole systems approach, but we didn't have a structure, and now, with the support of Leeds Beckett, and looking at the tools they are advising us on ... I think when we were doing the whole systems before, we were doing the strategy and then imposed whole systems on the strategy, rather than starting off with a whole systems ideology and thinking about the complexity and how to draw actions form that, whereas working with Leeds Beckett, you are starting off by looking at what you want to achieve and then moving on by addressing things that are feeding into it (SPH1)

Similar to Solihull, Dudley's early *Food for Health Action Plans* 2005 onwards (Dudley PCT, 2010) cited influence of contemporary national policies on healthy eating, obesity and inequalities in health. Later, Dudley draft *Food Growing Strategy* (2015-17), initiated by public health, benefited from the breadth of practice, policy and evidence available for its development. National charity Garden Organic was commissioned by the council to bring expertise and write the strategy. As one officer noted, external influences brought new ideas:

I think it helps, to have documents from outside, like how food growing can be added to social housing, I think those are really interesting, helpful documents...Edible Estates for example ... when there is some evidence and case studies that people can look to ... that's great (DPH1).

8.3.3. Sandwell using roadmaps to demonstrate a "map for the future" in time of change

For Sandwell however, at the time of research, and after many years of sometimes lonely pioneering work, wider national and international food policy thinking had finally begun to "catch up" with perspectives expressed and explored years earlier. This served two functions – to justify the work at a time of vulnerability and change, and to consolidate food environment change perspectives. From 2013 onwards, Sandwell's food policy direction faced significant internal challenges due to austerity and restructuring. Wider context and strategic evidence was needed to support internal recognition within the council of Sandwell's work. *Sandwell Food Systems Planning: A map for the future* (Sustain and Sandwell MBC, 2015) was purposefully developed to locate and protect Sandwell's established food work firmly within a wider "movement", drawing on national and international evidence at this time of critical change. Reference to Sustainable Food Cities and Milan Food Policy Pact demonstrated both internally and externally the significance of Sandwell's work set within something bigger than the immediate local context:

The idea was that all the case studies and links showed Sandwell "you are not alone, and look at all this work nationally and internationally"...it was a knowledge transfer from Sustain to us, but it was also from us to Sustain...as almost a "control" to Sustainable Food Cities ... (SAPH1)

Despite non-existent national food policy, increasingly visible urban food policy activity, national and international examples and "food systems" debates could now be used to demonstrate that the work in Sandwell was not alone:

There is so much now compared to before, whether its Milan Urban Food Policy pact, Sustainable Food Cities, obesity strategies, scientific papers ... and obviously there is no one thing, or this, where someone can just say "that is the answer"- it will always require work, it will always require many people, but there is still a significant gap I think, and it probably is that kind of governance ... there still isn't a national food policy (SAPH1)

Additionally, by 2016 there were finally references available with which Sandwell's perspective on structural food environments could be made overt - broad policy "hooks" enabled public health to demonstrate and explain this work:

At this moment in time (2016), we have everything we need in structure and policy documents ... right now compared to 15 years ago, everything is "waiting" really ... before, the struggle to be understood, to find evidence, with documents to support ... now if asked to do a presentation its quite straightforward, I use Marmot focus on "healthy and sustainable communities", so that stands as the strongest about the food environment, then the international work ... WHO, Healthy Cities, TCPA, all that evidence rings true so I can find that easily (SAPH1)

The refreshed National Planning Policy Framework (DCLG, 2012) also gave strength to bolster local food policy ideas:

NPPF mentions food production, although this is more angled at economic regeneration and the food industry, but food growing and hot food takeaways are mentioned, maybe just a couple of words each, but it was more than before ... if you think they have lost several hundred pages of planning policy framework, yet these words remain, to me they are waiting to be used (SAPH1)

Other external documents were noted as significant to Sandwell. Lancet infographic developed by Hawkes et al. (2015) (Depicted below Figure x.8) was adapted to clearly represent "coherence" and interconnectedness of Sandwell's own food work at this critical time. This enabled public health, newly moved under local authority, to simplify, communicate and justify its food policy work to those new to and unfamiliar with the work.

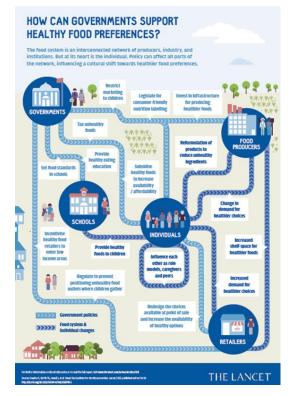


Figure x 8 Food systems levers *(Source: Hawkes et al., 2015)

Internally, a *Food Systems Strategy Map* developed by public health (Sandwell MBC, 2015a) drew on categories within the infographic to demonstrate how Sandwell council could respond to food across system, and governance:

Everything contributes, but being able to reveal these kinds of points that a substantial leap is made ... asking ... "when was the greatest coherency?"... the moment that was an opening point was Lancet's infographic, because even though for so long I had been battling to not make everything obesity, that was the general direction things were going - it limited the work, rather than opening and broadening it - but that infographic was the right thing for the time ... good enough, complete enough, and you could say "right, Sandwell's efforts fit with that" and bang! (SAPH1)

Later national systems approaches under Public Health England (2019), similarly brought timely external validation to Sandwell's learning:

I've interleaved the plan with the food systems map Leeds Beckett were doing ... we have got the strategy map, we can say, what is our role in all of this, and I kept it very simple (SAPH2)

8.3.4. Pedagogy, institutional knowledge and embedded understanding

Interviews in Sandwell revealed that beyond written policy and reports, the presence of embedded learning, collective memory and physical presence of its food work were significant sources of knowledge driving food policy forward.

Embedded knowledge and learning had momentum beyond policies, structures and projects. This learning was something that could help the work continue and survive over time:

I would say now it's the learning that does create that kind of continuity ... it's a continuity of work that is not possible in a written policy document or a job description, it's something like that collective memory, like an ancient thing, that you can't describe, but I do think the "pedagogical learning" and the collective exposure or familiarity in these things, that's what has made it now ... in a good position (SAPH1)

This sense of cumulative history and shared learning with those who remained, was seen as a platform from which the work could move on, or taken into wider agendas:

I do think the initial work over the last 15 and so years has enabled us to keep learning and it wouldn't be so hard now to make the bigger leap to have a more resilient, a better resourced, organised plan to make the type of changes that not only Sandwell's local research has shown, but regional, national and international work absolutely confirms (SAPH1).

This learning both within institutions and grounded in community had a strength of its own, even when Sandwell's food policy was losing funding, leadership, support, organisational and policy structures that had been present during the 2000s:

to me to compare now without having the food team, the NRF, the Greet's Green, the NOF, DOH, without all that funding, but with the learning, the activity now is as much as, or greater as then ... it's how the learning is transferred or experienced through time (SAPH1)

Learning remained embedded in the *physical presence* of food projects in the infrastructure and fabric of the urban setting. Urban agriculture, such as Salop Drive Market Garden and Barlow Road, demonstrated the tangible nature of these examples. Their presence encapsulated, signified or symbolised the culmination of years of "*grounded*" thinking around food. These visible manifestations created a dynamic beyond ideas and strategies, which even if lost or vulnerable, ensured ideas were "out there" to be seen and "call for attention" in new forms, within and beyond the borough:

...Barlow Road (food growing site) seeks attention, then someone wants to look at aquaponics, there's a roof top veggie garden in a local school, an eco-dome in Tipton, so the idea of food growing has got stronger, interest has never faded ... Salop Drive inspired that, it's about visibility (SAPH1)

We are noted in a lot of national publications, we had the Food Foundation down; outside the borough people think (Salop Drive) is a fantastic idea, they see it as a

flagship ... when people have come to see this, gone back to wherever they are, and emulated this on a smaller scale (SACS3)

8.3.5. Striking a balance between external and internal learning?

Interviews in all three case study areas also focused on the need to strike a balance between external and internal learning. There was, for some, a perceived mismatch between the two, questioning relevance of external models and their suitability or "fit" to local context. Some working in Sandwell, for example, felt their grounded understanding of the food policy work, particular to the context, people and conditions in the borough, was not always represented by wider food policy discussions. Examples promoted nationally were seen as viewpoints of affluent areas, often vocalised by "activists" promoting alternative food visions. The "universality" of Sandwell's determinants of poor health and deprivation set it apart from places often more affluent, cited as exemplars of food policy. To some, this meant comparison was challenging and Sandwell's solutions needed to be suited to its population and local context:

it's our health gradient, its challenging, because wherever you go to places that are trailblazing, it's hard to find statistical neighbours that are trailblazing ... the problem which always comes back to bite you is that there is always a bit of universality around the need, and then you get local examples of good practice the towns are by no means the same ... I think there is a problem where you have got a general, "if we do this it won't matter where we do it because it will be good", but you can't think like that, it's got to be much more targeted (SAPH2)

Looking back at key food policy examples and national policy documents along the journey, few early on were able to give a coherency into which Sandwell's own learning could "fit". Nationally, predominant policy focused on behavioural aspects of food and one off "projects" as opposed to structural approaches, and central government level to address these in the wider food environment post 2010:

Difficult thing is, I went to some of those obesity things, and I look at the agenda, it's just not taking us on, they are not taking the extra step...people just sat and said "what are you doing?" they want something to focus their energies around, GPs now, carb intolerance, the condition based stuff ... it's frustrating (SAPH2)

Lack of government leadership and focus on environmental determinants was sometimes seen as a frustration, in that Sandwell public health officers felt isolated within wider debates:

you end up with national institutions, actually in a group, so in terms of strategic lead you get a plan, one guy was talking about the Nuffield Ladder (of intervention) and would not address the fact that nobody was squeezing from the top ... so we were all working down here, and we asked a few gentle questions about legislation and if we all did it for the environment and he got ... cross ... so I thought "oh I am just being tarred with being argumentative and awkward?", but because you have not got a sense in the room of how we are all squeezing the balloon, inevitably you can't relate to it (SAPH2)

In Sandwell, simplistic, individual or short term approaches to food policy would not work:

you can't do an easy campaign in Sandwell, you can't stick half an eaten biscuit on a poster, you can't do that, so there is something of a disconnect in terms of people being able to lead on this, so whenever we see strategy, we've always said the important thing is about leading and driving it (SAPH2)

Wider national-based food campaigns were also perceived as mismatched in that they were not seen as "culturally fitting" in Sandwell but suited to more "middle class" areas, and hence created scepticism:

From a population based point of view, when I talk to (DPH) ... (on) that initial discussion from the Food for Life Partnership ... she would be looking at how some of that might better take root in ... different types of communities, there is a sell to be done there in terms of our communities. What she was looking at ... being over-simplistic here ... middle class, aspirational type stuff, and the kind of evidence base maybe, so people have a perception in their head, they come with a view that this works in certain types of areas (SAPH2)

... the whole process of ideas being captured by the middle classes, ideas that in a sense have been motivated by concerns about social justice, inequality, access and health, services, and things become popular and fashionable, they do get captured by the more affluent in society ... so I think, socially, politically and economically, it was the right time for what we did there was a crack in the kind of infrastructure that we were able to squeeze through ... it has snapped shut unless you are a "yummy mummy" - farmers markets are the same, they didn't take off in Sandwell, people did think "we need farmers markets", but it's just not the right place for those sort of interventions, people have just got other issues, concerns and problems (SACS1)

Comments from officers in Dudley indicated similar scepticism that external examples from flagships of food policy practice would be replicable in Dudley. There was an aspiration to create relevant and grounded models built from within the learning of local social, political and environmental context:

You can cite things where things have been done in the obvious places, and in totally different places, socially, politically and environmentally, what you can't do is cherry

pick and lift things into your local authority in isolation and expect things to work ... that's politics, so when you look at postcodes, demographics across the country, you are looking at postcode personalities (DPH1)

Bristol is classic isn't it, totally different, it's almost like the unique city in the country, because it has a shared philosophy that is collective, so everything around its public health function is pretty landmark ... (DPH1)

Whilst from 2012 there was a growing focus on a food systems approach, for example through Sustainable Food Cities, Dudley officers expressed uncertainty and lack of confidence about this:

It can be thought of in that way (systems), some places are doing it with Sustainable Food Cities work, I see that as a whole food systems way of looking at food, but I don't think we are picking up on that thinking at the moment (DPH1)

One public health officer questioned confidence in readiness of current structures and culture in the council for external influence of systems models:

At my level, I'm a bit nervous about going for a systems approach, because with Dudley I feel like we are very far behind getting people to consider a whole systems approach, but we need to take that sort of approach as it's the only (one) that can work ... me as an individual I am not confident thinking like that (DPH1)

A broader "food systems" approach encompassing aspects beyond the borough were seen as unfamiliar and too large to engage, but also "beyond" the view of an inner-city borough:

I don't know whether it is because ... we're not close enough with our growers and suppliers in the area, somewhere like Bristol or Gloucester have much closer links, I don't know if we are too far removed from that, I get the newsletters and there is always new cities drawing them up ... but I don't think I would know where to start with that ... (DPH1)

Discussion on grounded learning and relevance of external models was reflected differently in Solihull. Here comments made by local community actors in deprived North wards, indicated the importance of building *local* knowledge and solutions, indicating an attitude of *localism.* Whilst inspired by models like Incredible Edible, they asserted these needed to be grounded in local reality:

The issue is the public sector often look at models that work elsewhere, and not here, and will pay for someone to tell you how to do it, but they are not local. So it's about growing those local solutions and how do you get that sense of local ownership ... (SCS2) It was recognised that nurturing community buy in took time, and external models were not "off the shelf" solutions. As one community food growing group commented:

... it takes ages ... if someone had given us £100k and said "go and replicate what Todmorden are doing", I wouldn't have taken it, wouldn't have started to try and do it because even though parts of what they do is inspiring, it's a different place with different people, I got the feeling when I was walking round the markets there, they don't have some of the problems, I knew "it's not here"... (SCS3)

This section of the chapter has explored the different contextual factors, sources of knowledge and influence interviewees described as impacting on the development of initial and later food policy thinking in the case study areas. It highlights the interplay between context, external policy and practice, individual interest and embedded local knowledge built from experience over time.

8.4. Bringing food to the table

Having explored some of the drivers, context and sources of knowledge in development of food policy thinking, this section, reflects on emergence of integrated food policy making within dedicated food policy and cross cutting groups. This includes commentary from interviewees on the way food is brought to the table in these discussions and how consensus on joint action is reached.

It firstly explores the roles of individuals as advocates for food across broad health and local authority agendas. It then moves on to explore views of actors within dedicated food policy groups, including routes to integrated food policy making, systems thinking and collaborative approaches.

8.4.1. The role of individuals as advocates

Advocacy and leadership is key, in pushing food within policy agendas and building endorsement for food beyond public health. Discussions across the case studies, revealed key individuals at different points in the system acted as "advocates" for raising the "problem" of food and highlighting need for collaborative approaches. This brought food onto the agenda in policy and action, supporting funding and laying foundations for later working relationships between departments including, planners and public health. Personal interest, individual knowledge alongside professional perspectives supported advocacy for food.

8.4.1.1. Advocacy from positions of influence

Individuals in positions of influence were important in bringing the food onto the agenda and gaining support at strategic levels. Within Dudley for example, individual advocates helped

create profile and endorsement for both a *Food Growing Strategy* (2015), and planning and health work. One key advocate for the Food Growing strategy, Councillor for Health and Wellbeing, was noted for timely support:

... got sign off to go ahead and commission the strategy from our lead member, which for us in Dudley is quite fortunate, because she is a massive advocate, 70% self-sustaining in fruit and vegetables ... so obviously wanted to see that (DPH2)

Advocacy at leadership level in Dudley similarly laid foundations for links between planning and public health, seen in Healthy Towns (2010). The Director of Public Health was key in supporting collaborative learning and bid development:

... very proactive DPH involvement ... it was all about outdoor space ... every time we did programmes, it gave us more questions than it gave us answers, so we put all the things that we had learnt about what hadn't worked into the bid (DPH2)

Positioning of individuals at key points who had relationship, knowledge and understanding was important in building support for joined up approaches:

It helped that our previous assistant director (planning) was an environmental health officer, from a Public Health background, and it was a virtual sackable offence not to consider public health in what we did, so that helped us, because our structure reinforced the linkage (DPlanner2)

For Sandwell, consistency, advocacy and vision of the Director of Public Health was critical to shaping the unique direction and structural perspective of food policy over two decades. This strong vision and advocacy was seen as enabling:

(he) was very visionary, but not in a top down way, you would just have these conversations, in a way there wasn't a lot of talk, it was about actualisation, but we were the ones there being the entrepreneurs, because he needed practically minded people around him who would actualise elements of his green vision for the future (SACS1)

For Solihull, advocacy at strategic levels for the *Food Strategy and Action Plan* 2015 was essential for gaining support in the council. Strong leadership from the Director of Public Health, driving the agenda, prioritized food strategically across the council and released resource:

He pushes it at a higher level, when it comes down to it, I am sure a lot of us having a budget is down to him being so supportive, a lot of benefits of having him being supportive are probably things I don't see ... it's the high up levels where we benefit from him being so supportive (SPH1)

8.4.1.2. The role of key officers as advocates

At operational levels, key public health officers with specific job roles and remit for food policy development were important in moving food onto wider agendas across the case studies.

In Sandwell food policy roles held by longstanding public health officers illustrate their role as "knowledge holders" in the food policy journey. Depth of understanding gave them insight into how to frame food within a system, tailoring aspects relevant to the stakeholders at any time. The officer noted they could "reorganise" or reframe the narrative to fit the focus in response to context. This involved reflecting individual components of the whole system back to audience in a way which would be understood and garner interest:

I could design, reorganise everything around hot food takeaways if that was necessary ... and for (planner) who mentioned space for food we could reorganise everything around that- the schools, children's centres, hydroponic food growing, market garden, glasshouses and food growing at city hospital...you could organise it all round HIA and for x (Planner) she proposed around the food systems report (SAPH1)

There was a need to find "leverage" and "movement to progress food through multiple agendas. The public health food officer saw their task was to hold a wide view and find out where this movement might take place, to bring food into visibility:

... to understand what that person is learning through is the most critical thing ... for example if x (planner) says ... it's the LE P ... it's about spatial things, big spaces, such as housing, finding out what her core learning pathway is would be the most critical thing, and expanding on it ... for y (health environments), it would be SHUDU, takeaways, and environmental health ... find out their core learning around food, what freedom they have to act around food ... (SAPH1)

By 2015 with absence of both operational formal Food Policy and Group, one public health officer in Sandwell noted these key individuals now took on a role of holding and representing *"the food policy"*. They embodied a food system view for Sandwell, providing consistency, ensuring connections continued to be made across silos, even if food policy and learning was lost or not visible to others:

You really do (need the key individuals), or the silos wouldn't be connected, I suppose what's happening, is we are holding the ball ... with food policy, we are still holding the agenda, but once the agenda has landed I would be able to relax (SAPH2)

With all cases, the move of public health into local authority in 2013, presented new opportunities to embed public health messages around food more firmly across wider council actions, building potential for greater collaboration. From the perspective of those in public health, food was one of many competing public health issues, now needing to find place, expression and recognition within wider council strategies and plans.

Conversations in Dudley reflected a similar flexibility in the role played by key public health officers in interpreting and positioning food to position it on wider agendas. The complexity of food as a cross-cutting theme led public health officers to frame food in multiple ways in order to gain support and build collaboration. This involved moving beyond a health perspective, demonstrating how food could fit into wider agendas, with public health officers as advocates for a broad perspective. There was a need for flexibility and creativity:

I think I need to have almost like a different spiel for each department to back up what I am trying to put out there, so for example, talking about CVD and cancers, you can only relate that to Dudley CCG or to Doctors (DPH1)

Public Health staff saw their role as interpreting and positioning food in terms understood by each local authority department, building understanding and ownership beyond public health. This was shown in the in the way in which public health tried to gain support for the Draft Food Strategy:

... someone like Dudley housing, I am still learning about what ticks their boxes, I won't be harping on about reduction of CVD, heart disease and diabetes ... it will be about garden care, or community cohesion, anti-social behaviour, so its seeing the words that they understand in a way ... (DPH1)

This involved a change for public health finding new ways of presentation, beyond the comfort zone of their own perspective:

We can't afford to get to "public healthy" around this ... if we pigeonhole things too narrowly around food, physical activity, they remain stuck. We need to change our language a bit around connectedness, loneliness, so then we can move these things on (DPH2)

In Dudley, advocacy of individual public health officers was important in building communication about food between departments in demonstrating food environment linkages, as one planner reflected:

it's also helped by particular individuals, so x (Public Health Officer) ... has been a big advocate for planning, he gets the linkages, and therefore because he has been in the right kind of position where he has been engaging, he has helped to make that happen, so it's how we have had the linkages over the long term (DPlanner 2) X (Public Health Officer) is now one of our biggest advocates and whatever you have, he now says, "Well, planning is in the middle of that, you need to speak to planning about that" (DPlanner2)

8.4.1.3. Political councillors as advocates

The role of political councillors in supporting focus on food became increasingly important following Public Health move into local authority settings after 2013. Again, having support of informed councillors in key positions of influence, could help food gain endorsement and resource. Dudley councillor supporting Food Growing Strategy reflected:

I am really passionate about our food growing strategy, not just that I am a keen food grower myself, but it has a wider implication, not just about the growing of a few vegetables ... I am a big believer in keeping those skills ... (DMBC1)

In Sandwell, councillor with Public Health portfolio was welcomed as an advocate for healthy planning. For officers here, depth of understanding was important, recognising an element of education needed:

(the) cabinet member actually picked out healthy planning as a priority area, I think she is coming from a position that she wants to see good development, and good development impacts on health outcomes, so she kind of understands, I wouldn't say she gets it all yet, but I think she sees the purpose of it now, which is good from where I am coming from (SAPH6)

In some cases, food was seen as a *galvanizing* concept, which could garner support, advocacy and collaboration of councillors cross political party. In Dudley Councillor support for the Supplementary Planning Document (SPD) on Planning and Health (2013) came from all sides - popular among councillors, who understood its context, motivated by shared concerns about high levels of obesity:

Elected members, it's one of their favourite policies that we've had, we didn't really get any political kick back from it, they all think it's great, they love it (DPlanner3)

This motivation also gave support to *implementation* of the policy:

They just think it's a "good idea" and are happy to support it ... unlike a lot of policies which don't necessarily get specifically mentioned, they might talk about the issue, but don't necessarily relate it back to the policy, they often say if a takeaway comes up, "does this accord with the SPD, how many metres away from a school is it?" They know the policy and want to apply it (DPlanner2)

Councillor support in Dudley for tackling hot food outlets through planning was seen to come from a range of motivations, but one that could provide consensus, beyond party politics:

There are a number of key senior councillors, I am pleased to say, who are really determined that we can change some of that, there is a key concern, they come from different angles, some come from key concerns about keeping local facilities in local high streets, vibrant, getting the right kind of trade mix there ... keeping takeaways from schools areas, it ties into the obesity strategy (DMBC1)

However, councillors could also be seen as a constraining influence across the case studies, particularly where politics was more overtly at play. This will be discussed in the following chapters on the realities of efforts to implement food environment change.

8.4.2. Advocacy from within food policy groups

Whilst individuals within health and council settings were influential in bringing food to wider policy agendas, the advocacy of individual members within formal food policy groups was also important in shaping direction of strategy development. Initial participation might be motivated by desire to bring personal and professional interest onto the agenda, more than for collective action.

In other cases, it was the stronger and more energetic voices within the group that gained the attention. In Dudley, officers represented on the Food Growing Strategy Group brought personal motivation and energy to discussions. One green space officer explained keen personal interest gave her interest in supporting strategy development:

I personally want to reconnect people with the food they eat because I think its healthier, once people understand what it takes to grow something, it is easy to grow something ... it adds to what you have got on your plate and will encourage people to be less reliant on the supermarkets, ... I've always had a strong link to local growing and localism and that's where I am coming from really ... (DMBC3)

Others in the Food Growing Group recognised health benefits of green space, reflecting views underpinned by individual interest, and professional role:

From my point of view, my background as a horticulturalist, as a landscape architect, looking at people and the use of land, enjoying land, obviously living well, these are very harmonious themes, which frankly we don't have to be encouraged to have (DMBC2)

Likewise in Sandwell, personal interest linked with professional role was a key support in helping food environment focus gain attention. Here, strategically placed planners, linked to SHUDU and influenced by ongoing discussions with public health food policy, drove their aspiration to continue to food and food growing realised within planning and design:

Food for me, is a personal interest, it's from being quite clued up and looking at lots of different sources for information... I always pursue knowledge and innovation, I kept seeing hydroponics for food growing, and from then on it became an interest (SAPlanner 4)

8.4.2.1. How advocacy shapes what issues gain support

Interests of individuals influenced the advocacy role and shape the work *in other directions*, impacting on what issues reached the agenda. This sheds light on the way certain topics reach agreement may be subject to quirks of chance, opportunity and individual characteristics more than clearly thought through process.

Healthy Towns programme, for example, established to explore ways of tackling obesogenic environments, saw Dudley primarily emphasise the links between green space, environment and physical activity. Consideration of food infrastructures played a limited part. Personal drive and background of lead public health officer was one element which explains why food environment was not considered a major part of its Healthy Towns development:

Because (public health officer's) s background is in fitness, sport and physical activity, he pushed it that way...there is still potential to develop something new around food growing, but up to now it has been very much a focus on "calories in" and then you expend it by doing physical activity in the park (DMBC3)

In Solihull, again the role of advocacy, interest, energy and commitment within the Food Sub Group, led to certain agendas being developed and pursued within the strategy above others. There was a sense that issues gained priority and focus due to the more energetic players gaining attention. Parks and Green Space officers for example, were particularly proactive. This meant ideas about food growing for parks and green space quickly came forward and gain support within the Food Strategy:

A lot of what we're doing (in the Food Strategy) revolves around parks, events in parks, and developing land in the parks, and it's because x (green spaces officer) has been the person that has been involved and willing to do things (SPH1)

Advocacy, voice and energy of key people within the Food Sub Group was acknowledged to drive the development of particular Food Strategy themes more than others:

What you do tends to be led by the people who are more vocal on your groups, and have got certain interest as well, within the community and in the council. Anyone that sits on anything and has an opinion about something and they are voicing it, that's what is going to happen... (SPH1)

8.4.2.2. Sandwell – significance of collective advocacy

Whilst Dudley and Solihull showed the way in which individuals advocacy brought issues to the table in food policy, events in Sandwell strongly highlighted the role of the collective. Initial reflection on the long food policy journey emphasised importance of "*constellations*" of individuals. These were situated at key strategic points and moments in time, sharing a vision for food - indicating both opportunistic and temporal aspects behind food policy development.

This was a critical factor in enabling food policy work to emerge from the 1990s onwards. Conversations highlighted coming together of multiple factors across the system - people, funding, favourable conditions - combining to create an environment which supported risk taking, experimentation and development of food action at the time. This fragile and particular timely mix meant that Sandwell could lead the way in pioneering food policy work. Development of urban agriculture work in Sandwell, for example, was possible through the initial vision and support of key people in public health and council. One urban agriculture officer noted it was the right grouping at the "*right place, at the right time*":

You get constellations of people in places at particular times who are able to actualise "disruptive thinking" – people who are prepared to take risks and think the unimaginable, or do the unimaginable ... I think often it is not individuals- there is an idea that progress happens because someone has a bright idea - but often it doesn't work like that, and I think that the urban agriculture it was a constellation of people, structures and funding streams, eventually all of that made what we did possible - of course that has all changed (SACS1)

These individuals with a particular viewpoint on food were also able to shape bids, proposals and build opportunities for collaboration. The opportunity and "environment" for success was thus created:

There was Trust money, SRB money, Regeneration money, and that was why we ... decided to do it because that support and opportunity was there, and it was very much in there in the support of Dr Middleton, it made stuff possible, created the environment for it, that previously wasn't possible ... to find those people who are just prepared to invest in you in a way because you are prepared to take a risk (SACS1)

It was recognised that advocates at the time had influence at "pivotal points" to enable the work to flourish and grow, connect and make change happen across the system:

A period where there were key change makers ... they were not all necessarily at the top of the feeding chain they were placed at pivotal points within the system ... some

of the positions they occupied were pretty lowly, they weren't all chief execs at the time, but they were in a place to make change happen (SACS1)

Conversations with planners about current activity revealed a similar sense of emerging collective action and advocacy for food, with coalescence of enthusiastic and "likeminded individuals" around specific opportunities such as Dudley Port development:

Officers around the table in the project meeting are all like-minded individuals, where we have understood and recognised an opportunity for more of a Garden City approach to our work as planning, urban design and regeneration (SAPlanner 4)

Again timing and *timeliness* was emphasised as a new generation of planners came into place, as advocates for emerging perspectives on climate change and environmental sustainability:

I'm more passionate than some, but again, some of the younger people ... are really starting to cotton onto this idea of green technology, healthy living, food production and food growing ... I think there's a generational shift taking place in the office, and moving through the teams looking into forward planning (SAPlanner4)

8.5. Building the case for an integrated approach to food within local government

This section examines how members of formal food policy and food related groups move towards *shared vision and integrated approach* bringing potential focus on structural elements of food. Building *shared* understanding is critical for collaborative and systemic action on food environments across departments. As Lang et al. (2009) identify, achieving a shared vision is not always straightforward, fraught with obstacles, and contested in nature. Establishment of food policy groups is one factor cited in the literature, as a platform for effective joined up food policy action, bringing together different stakeholders.

8.5.1. Contested nature of food discussions - "people get personal"

Within formal food policy groups, the contentious nature of food came to the fore. Underlying "structural" and "individual" framings of food and wider political tensions, often arose in discussions with group members.

In Sandwell, discussions even inside the public health department revealed varied interpretations of food; across nutrition, skills, knowledge, behavioural and environmental approaches. As one public health officer reflected, different framings indicated underlying tensions:

I think that there has always been contention, within it ... and that has made it very difficult, but that again is necessary because there have been different perspectives and different drivers (SACS1)

In public health, there is still some learning to be done about the balance between what we think of as "services" ... things that are to improve health, so it will be conversations about things like our lifestyle services, cooking, weight management ... whereas in my head I include retail, allotments ... they could be classified as "service" (SAPH1)

Contestation was not always overt but reflected underlying assumptions and personal views brought to group discussion. Public health officers in both Sandwell and Dudley commented on how food elicited an *emotional* response in meetings, which clouded debates, needing careful navigation to move forwards. Complexity of food issues was hard to grasp:

Psychologically somehow, people have found it hard to absorb and understand the position of food work, that it hasn't assimilated easily in the past (SAPH1)

One Sandwell officer commented how debates about tackling obesogenic environment through physical activity was seen as more straightforward than reaching consensus on influencing food environments:

Since coming here (council) what I've found is that physical activity was relatively straightforward in a broader partnership, because people round the table can see the angles, they can see someone from a sports background, and all you have to do is position it. Food isn't like that, it's quite emotive, people get very personal about it ... where you have energy and drive and commitment that kind of skews where the energy goes (SAPH2)

In Sandwell, it took time for people to develop in-depth insights and understanding of the complex levels at which food might operate. Moving and maintaining interest beyond simplistic views to gain deeper insight was challenging and took time:

The great potential of the food work is it always stimulates interest, but maintaining that interest and learning, being open to learning and developing a deep understanding does take time. I think no-one can doubt the learning that has taken place in Sandwell through the work, but often that initial interest remains "soft" (SAPH1)

For officers in Dudley, public health officers similarly reflected personal aspects of debate. Building a common understanding about food could be a challenge: I think the food agenda is a bit of a double edged sword. Everyone has an understanding of food, because they consume it on a daily basis ... and they have preconceived ideas about what food is ... basically hunger or taste (DPH2)

Initial group discussions were often loaded reflecting emotional and individual views of food:

I think food, within public health, and weight management and healthy eating, and particularly within U.K. culture, is probably the hardest paradigm to crack ... I think individually it goes both ways in terms of malnutrition and overeating, I think it is very emotional at an individual and societal level (DPH2)

In Solihull debates around food reflected more overt *political* tensions and ideological perspectives underlying the authority. To some, the majority Conservative administration embodied an individualistic, neoliberal approach, played out in food strategy debates:

It's not just about food is it? It's about economics, about who we blame for problems in society, it's about behaviour change, and it's about poverty ... huge questions ... should we intervene as a society, should government be interventionist or laissez faire? (SMBC1)

One public health officer commented that tangible, focused areas of action were easier to get buy in, especially when familiar to council officers. Taking a systems and view posed challenge, making progress harder to achieve:

I think it's understood and is an easier conversation with councillors and planning officer, in relation to planning applications for food establishments like hot food takeaways, I think it is more tangible, and also particularly within the sphere of control of the council, it is an easy conversation. When it becomes broader thought, in terms of that wider food system, it becomes more difficult, I think possibly because of attitudinal differences, different values and so on (SPH3)

8.5.2. Development of food policy - builds collaborative work

Within food policy groups, development of policy documents provided opportunity for stakeholders to collaborate and arrive at a more integrated approach to food. In this process, stakeholders could gain learning and skills as foundation for systems thinking moving beyond individual to collective agendas.

8.5.2.1. Meeting multiple agendas and building collective ownership

Development of draft *Dudley Food Growing Strategy* (2015-17) provides a clear example -Initiated by public health, the steering group set out to build shared ownership across multiple stakeholders to develop food growing: We have commissioned the strategy, we have facilitated the process, but they are not all our actions, because those guys around the table, it's their agenda that said they should be round the table ... nobody gives their time for nothing (DPH2)

Public Health noted success of the strategy would rest on ability for stakeholders to see individual agendas reflected in the work. Discussions showed public health envisaged different departmental "gains" within multi-functional benefits of food growing:

So (planner) from the planning side should implement his aspect of the food growing strategy into planning, that will be a clear course of action, (parks officer) with greenspaces agenda should be looking at opportunities for maximizing greenspace for food growing (DPH2)

Initially, some participants took an opportunistic view, to find how the strategy could meet their singular needs, as opposed to collaborative action:

The reasons why I went to the consultation was a one off chance really, just to see if there was anything that came from that programme which might be able to help ... my sole intent was to go and see if there were any quirky little routes we could focus on...I wasn't really there for the food part (DMBC4 housing officer)

Motivations expressed by the different stakeholders in the group, indicated diverse reasons that had drawn them in, not always food or public health *per se*. They brought focus on wider benefits, such as sustainability, skills, community resilience, obesity, climate change, and solutions for budgetary pressures on greenspace:

Public health are coming from a very different point of view in that they are thinking about nutrition, and that's what their view is, so nutrition could be more about carbs and sugar, but my interest is on growing vegetables ... I know they would see vegetables as part of a good diet, but they wouldn't necessarily be focusing totally on veg... (DMBC3)

For planners, food growing space could provide alternatives following squeezed national standards on amenity space within housing:

Having been Chair of Planning, I have seen loss of amenity space ... so there is a whole host of reasons behind why I have pushed forward and chosen to support a food growing strategy as much as possible (DMBC1)

Some had aspirations the strategy might break down silos and "open doors", one civil society food grower noted:

Open doors, I wish, I hope it could open up one department's agenda to another, so actually parks would think, "we have a wellbeing healthy agenda, we have a responsibility for that as well" ... not just for mowing the grass (DCS1)

8.5.2.2. Solihull - collaborative development of the Food Strategy and Action Plan (2015-17)

Development of *Food Strategy and Action Plan* in Solihull, similarly enabled insight into emergence of collaborative thinking and action around food within the Food Sub-Group. Discussion of food into a cross departmental group, beyond public health facilitated a broader understanding of underpinning food interconnections. For example, the sustainability focus of one group member, embedded this theme in the strategy:

Previously the food strategy had not mentioned anything to do with sustainability at all, and I don't think it would have been a priority at all for Public Health, although they were aware of the need for sustainability, I don't think it would have come through so strongly in the strategy (SPH1)

A lead public health officer described how understanding a systems view of food emerged as links within the Food Sub-Group were revealed:

We just thought "we will do this because you want to do this, and you want to do that, and we will support you to do this"... but then as it happened, you can see the higher power that it has actually got and the more impact it has by working together and doing it, and reaching each other's audiences (SPH1)

Members of the group recognised that collaboration by diverse stakeholders on the strategy brought greater impact and strength over shared goals, beyond departmental silos, as one greenspace officer commented:

Our actions in the strategy are ones that we had already wanted to achieve. Everybody is coming at it from their point, you've got landscape architects and ecologists, education, environment and schools, a wider environmental and climate change element, you have got sports, public health, us and planning. I think we all want to achieve the same things which is to have a healthy borough and to increase food growing and educate people about food growing, but individually we were all struggling to achieve what we wanted to do, so we felt if we all came together, we could create something we could all push through (SMBC6)

The physical move of public health back into the council (post 2013) was also seen as an opportunity giving more support to collaboration and relationships:

Because public health was coming into the council, it's a more joined up approach, the links are now closer to home, there is more physical link or presence of people within the same organisation or building, it makes it easier to work together on something like this (SMBC3) The food strategy and group gave officers the chance to move beyond silos and address "cross cutting" issues, beyond "projects" focus, developing links through the shared strategy development:

I think sometimes you can be siloed, you forget that others, you automatically think that as you are working on this piece of work, that others are aware, we are a small authority, everybody is busy with what they are doing, they do one project and then move on ... but that's challenging with food and environment issues, they are crosscutting (SMBC5)

Again, bringing in new stakeholders across diverse agendas, gave a richer depth to the understanding of food system and structural elements in the new food policy:

I don't think in the first one (strategy) we talked about food waste, so it's trying to get more partners, because if you only talk about one issue, you only get a certain number of people who are turned on by that topic, whereas actually if we start talking about impact of food waste, we can engage our recycling team, who have that agenda, so I think this refresh has enabled a broader church to be established (SMBC2)

A written document, could spell out "hooks" to attract stakeholders, as well as reflect back their input. It was important that the strategy was written with this in mind. It could also give legitimacy for action, as one sustainability officer commented:

I think the strategy is the hook, I was quite keen in the early days, in that "slowly, slowly, catch a monkey" isn't it, get the hooks in, so that actually one of the objectives could be around broader sustainability, because at least that gives you the remit, to actually go ahead and explore (SMBC2)

Unlike Dudley, where the food growing strategy remained in draft form, the strategy in Solihull was formally adopted by the Health and Wellbeing Board (2016). Strategic endorsement and backing of the Food Strategy was seen as another element in bringing effective buy in, higher profile and collaboration. It also supported an emerging understanding of the interconnections:

It has been given a high priority in the council sense and we have engaged with a lot of people ... there are people within the council that are understanding more because of the combined impact of bringing together all the different departments, and having parks and the environmental sustainability side, and public health, the economy side, its seeing all the different aspects ... that has highlighted to the councillors in particular the importance of food, the fact that it is all connected (SPH1)

8.5.2.3. Sandwell's formal policies - outward symbols of food policy intent

In contrast to Dudley and Solihull which were actively developing food related policies, Sandwell no longer had a formal operational food policy document or active food policy group at the time of research. *Sandwell Food Policy* had been formally adopted by council in 2006 (See Appendix 5). Led by a Food Policy Board it drew together public health, regeneration, economic development, planning, parks and allotments, education and community agriculture. 2008 saw formal council adoption of *Growing Healthy Communities: A community agriculture strategy for Sandwell* (2008-12) and supported by Sandwell Health Urban Development Group (SHUDU). (See Appendix 1, Box 3). Huge political and organisational changes however, brought an end to this active era of food policy, and likewise the cross cutting SHUDU group lost impetus during restructuring changes post 2013 –functioning to a much reduced extent at the time of research.

The implications of loss of both overarching formal Food Policy, and Community Agriculture Strategy, along with cross cutting governance groups will be discussed in later chapters. Looking back, those in Sandwell, similarly to Dudley and Solihull, described how presence of formal food policy groups and development of policy documents were important in providing visible and representational structures to strengthen collaborative local action around food. One public health officer reflected how not only written policy but also visible manifestations of ideas embedded in policy on the ground indicated a "lasting architecture" which gave legitimacy for clear standpoints on food environment:

It's about how ideas, policy action, and policy become lasting architecture, whether that is maps, policy, strategy, building, land, architecture, how does an officer believe they are responsible to change the environment, how do I feel I can say "No, it's not right to build a takeaway opposite a school?" (SAPH1)

Again, written policy was seen as only one part of the wider representation of action:

If we were able not only to organise the work and efforts for improvement into a plan, whether it was to do with the healthy urban environment work, or children, or sustainability, but to organise it "in time" so if people, all people understand that food grows, that's the starting place, we should be able to replicate and strengthen that not only in improvements that people are able to make in the local areas, but also in the structures, the policy documents (SAPH1)

The cross-cutting Food Policy group was seen as key in developing collaborative action and a move to systems thinking. One community agriculture actor reflected on the way the group had acted as an "enabler" for thinking beyond silos: For a moment, the Food Policy Group in the beginning ...really was enabling, that relationship with the Primary Care Trust and the Food Policy Group...it started us on the road to more systems thinking, it provided an opportunity to think in a system, which people hadn't done at the time (SACS1)

8.6. Summary

This chapter explored themes behind the emergence of food policy vision with in the three case study areas as expressed by key actors within interviews. It explored initial drivers of food policy thinking and development, and the way that food was framed within discussions, and towards integrated policy making.

Each case study area drew on a mix of sources as guides to food policy development, and set against local conditions, and influenced by timing of arrival to the food policy journey. For Sandwell, arriving early to the scene, the influence of broad international and national exemplars was important, later balanced with grounded experiential and "pedagogical" learning. For Solihull and Dudley, arriving later to the work, clearer policy "roadmaps" were available to inform their food policy approach. There was a balance to be struck between local learning and drawing on external influence. Visible manifestations of food policy intent were also seen as significant in Sandwell.

Narratives highlighted the role of individuals - public health, local authority officers and political councillors - in both driving and influencing food policy development and themes. Individuals acted as advocates, and showed skills in positioning food, building consensus, and interpretation of food across broad agendas and through times of change. However, food was also contested, and framed in different ways by individuals, or interpreted according to professional or personal viewpoints. Leadership of key individuals was seen as an important factor in emergence, support and resourcing of food policy. Sandwell in particular demonstrated value of strategic leadership from the DPH over two decades. However, leadership across the system, and at different levels was also important.

The role of food policy groups was also important in providing an environment to foster collaborative and integrated thinking. Food policy groups enabled new perspectives, learning and development of shared vision, across diverse stakeholders. Individual interests within the group were also seen to impact on policy emphasis and support. There was an indication of emergence of understanding of food environment focus, through negotiation of shared agendas, and within the policy making process.

Having set the scene for understanding the emergence of food policy vision, the following chapter 9 moves to explore narratives of food policy actors on emerging spatial

understandings of food. It reveals viewpoints on aspiration and realisation of upstream food environment change - via mechanisms, opportunities and pathways.

Chapter 9: Integrating factors 9.1. Introduction

This chapter moves on to explore narratives of food policy actors on emerging spatial understanding of food. It explores views on aspiration and realisation of upstream food environment change - via *mechanisms, opportunities* and *pathways*. Previous chapters cited examples within literature of approaches to food environment change and gave insight into how each case study area established aspiration for this within food policy aims. This was set against a background of emerging links between planning and health with reference to food. Chapter 8 examined interviewee perspectives on development of initial food policy vision, and steps towards integrated approaches.

Aspiration for integrated work towards upstream food environment change was seen within food policies, planning and public health documents and food policy group discussions. Policy documents identified aspirations to *support healthy food* and *restrict unhealthy food* environments, through use of planning tools, built and green environment infrastructure, and urban agriculture. Healthy planning principles were seen to influence *structural and spatial understanding of food* and provide a platform to explore the role of healthy food environment in tangible ways.

9.2. Developing a spatial understanding of food

Conversations with public health, planners and other food policy actors, illuminated emergence of a spatial understanding of food, revealing different extents to which this supported collaborative work around food environment change.

Sandwell in particular had long fostered a view of food as embedded in place, underpinned by recognition of the physical environment as a determinant of health. This view was demonstrated in its work on food mapping, healthy planning, retail and urban agriculture.

Framing food spatially was seen as significant, in that it could reflect the fabric of people's lives, and everyday experiences of food:

the work has always had a spatial element ... in the sense that if spatial planning is looking at everyday life, if we are looking into the future about more sustainable cities, and urban environments ... what you can get within walking distance of where you live, your everyday life, when you go out of the door and return at night - that's the core of the work (SAPH1)

Public health officers reflected on the role of food to create "aspirational" healthier food environments:

... changing environments in which people are making those choices ... one of the biggest impressions was Geof Rayner (of Centre for Food Policy, City University), took photographs of people's aspirational environment ... what to do with your kids on a Friday night? All the McDonalds, meal deals ... (SAPH2)

Understanding reality of people's lives in Sandwell led to a push to define food as essential social infrastructure, right and service, beyond focus on individual choice:

... the conversation tends to think of "services" as preventative health care ... to me that remains a small proportion of what 310,000 people actually interact with ... most people probably go to a food shop, takeaway or eating out ... (SAPH1)

Building visible food infrastructure "images" in the environment, could promote powerful messages as grounded manifestation of policy aspiration:

For people in civil society to truly see and know that, not by saying, "we have this policy, these programmes" but to be able to see images in their everyday, in their education, their work, their estate ... in the end it comes back to simple affirmations of all these images in their everyday life ... (SAPH1)

Tangible "imprints" of healthier food infrastructure could indicate evidence of upstream change - beyond projects and programmes:

What you expect to see in the built environment isn't yet what we are seeing ... in the end, if there was not proof, the built environment is what you see, whereas all the other things are not. You can go to programmes, cooking classes, Five a Day, it isn't what you see in the everyday, it's what you did ... there are still shops, takeaways, adverts, other things in the built environment, so that's the ultimate measure isn't it ... something about it being real, spatial, being in the environment ... visible, tangible (SAPH1)

The strategic drive for urban agriculture was seen as just this, in that food production could provide physical "puncturing" of an unhealthy food environment:

Those things are becoming more visibly real, because they have to keep "becoming themselves" ... a market garden will become a market garden that will be used by people and seen, the real, imagined thing (SAPH1)

Planners noted influence of the longstanding public health food access worker in supporting spatial view of food:

the issues are understood ... the constant through all of this, (food access officer) has been here a long time, the food landscape that she has developed herself or had to work within is well understood (SAPlanner7)

For Dudley, whilst general links between health and planning were well understood, when questioned about a spatial view of food, planners were less certain:

We're there with the unhealthy eating element of food, but food is a lot more than unhealthy choices, and the other elements of food - supply and that side of things, I'm not sure a lot of policies have taken that on (DPlanner1)

They expressed desire to understand more about what healthy food environments might look like in wider healthy planning considerations:

... although it's part of our job to consider that in planning for health, it's probably not as obvious to planners as the physical, or jobs bit, and there's probably more we could learn in that respect - how subtle nudges in an environment, scheme, might actually tip something a bit nearer - what that might look like, what does a healthy, sustainable food environment look like in a community? (DPlanner2)

Food certainly should be a visible priority, but in terms of physical evidence, of what you can see on sites at this time, it's still in its infancy ... but in terms of becoming part of everyday policy and decision making, I am not sure we are there yet with food ... it's early days (DPlanner1)

When asked questions about consideration of food, some used the interview to explore the issue in their own minds- rather than revealing experience of this in practice:

There are also opportunities from an ecological bent aren't there? Because if there's a focus, if we were to look at a number of ecologically sound houses ... an element of food growing in that environment, ecological environment as well as health, as a way of packaging the whole concept up, there's an opportunity there ... (DPlanner 3)

Dudley as a predominantly urban borough, made some planners unsure as to where food could sit, viewing it as a rural concern:

It's difficult, with the type of borough we have got, as we are quite an urban borough ... we don't have a lot of rural settlements, it's difficult to argue the sustainability argument on that side because of where we are ... I don't really know our stance on the food side of things (DPlanner1)

Wider concepts of healthy place, including impact of greenspace on health, and physical activity, were better understood by planners, than food:

We know spaces for wellbeing, connectivity, we need open spaces, nature, all of the other things we now expect to be incorporated into developments ... but I'm not sure food has come along as quick as the rest of it, I think it's lagging a few years behind, so you might find in four or five years it's started to pick up, but ... it's very early days to see much (DPlanner 1)

For Solihull, as discussed later, the cross-cutting Health Development Group, (established 2013), was significant for emerging spatial consideration of food. Endorsed under the Health and Wellbeing Board, the group drew in collaboration of public health, economic development, regeneration, spatial policy, planning, parks, and housing.

The Food Sub Group under this group, was established to develop Food Strategy. Here, *Aim 6* specifically noted; "*Local planning and policy decisions to take into account food issues*" (Solihull MBC 2015:6). One public health consultant on the Health Development group reflected:

My role most relevant to this is working with planning directorate, to help shape healthy environments. That takes a number of forms- housing, active travel, food growing ... involvement in the food aspect at a high strategic level (SPH2)

Understanding spatial aspects of food was related to environments for healthier choices and access:

as well as growing ... it's about some of our deprived areas, we would struggle to say they have easy access to healthy food ... So it's about yes, you can grow food if you want to grow food, but it's also about having something that is cheap and easily accessible as well ... being able to walk to it (SPH2)

In summary, the case study areas indicated different journeys to and extent of understandings of spatial elements of food. For Sandwell, this was embedded in experience of its long food policy journey, and understanding of environmental drivers of ill health. For Dudley, whilst there was understanding of environmental aspects of health in general, understanding of the place of food in this was less clear. Solihull showed emerging understanding, linked to the work of the Health Development Group and Food Strategy.

9.3. Processes for realising implementation of spatial nature of food

Having explored some of the emerging spatial understandings of food, the next section explores *mechanisms, opportunities* and *pathways* for this to happen. It focuses less on

content and implementation per se, but on insights into how these processes have fostered integrated policy making and action.

Whilst the three processes are in reality not clear cut, with considerable cross over, for the purposes of this chapter each has been separated to bring forward particular narrative and theme more clearly (Figure 9 below).

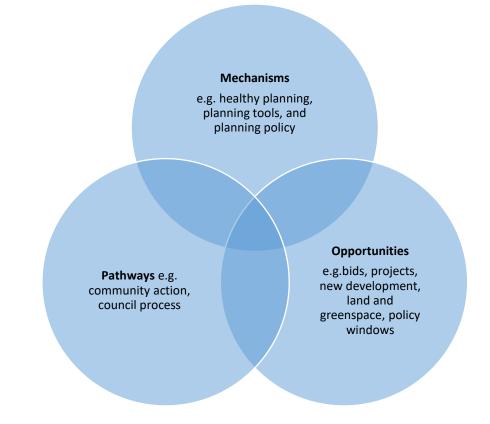


Figure 9: Overlap of mechanisms, opportunities and pathways to realise upstream food environment change

9.3.1. Mechanisms⁵ to influence food environment change

Mechanisms, or processes for realising integrated food policy for upstream change acted as one way through which food could become visible. Here, the role of three mechanisms healthy planning, planning policy, and use of planning tools - came to the fore. Interviews revealed governance, specific job roles and relationships were key features supporting consideration of food in this way.

⁵ <u>https://www.thefreedictionary.com/mechanism</u> (Mechanism - here described as an "instrument or process by which something is done or comes into being")

9.3.1.1. Healthy Planning and healthy place making

Across the case studies, healthy planning, influenced by concepts outlined in wider policy, supported both emergence of structural and spatial understanding of food and development of an integrated approach.

For Sandwell, (member of U.K. and European WHO Healthy Cities Networks) healthy planning, with emphasis on collaborative, cross disciplinary practice, was seen as an important vehicle through which food policy work could be imagined spatially.

A spatial view of food and links to healthy planning emerged early 2000s supported by public health's membership of Sandwell Regeneration Partnership. By 2009 Sandwell Health Urban Development Unit (SHUDU) supported deeper exploration of these links. SHUDU, albeit un-resourced, focused discussion between spatial and transport planners, public health, economic regeneration, food policy and community agriculture. The group met regularly, continuing after public health transition to the council (2013). Food related discussions included SPD for Hot Food, Health Impact Assessments, community agriculture, and healthy planning input into regeneration and development.

Healthy planning debates in SHUDU provided a vital platform for consideration of spatial elements of food:

Healthy planning is significant because the food work wouldn't exist in the way it did for example being able to imagine it in this way - in the general healthy planning work, not just about food but green space, physical activity, transport and so on ... if that had not strengthened, I don't think the food work would have had the chance and visibility to do the work it is doing now ... it did give that chance (SAPH1)

... looking at healthy urban planning in Sandwell, food was in there quite early on, around hot food takeaways ... the "Lessons to Takeaway" conference (2010), and then from that came the SPD, so a lot of the focus was... around food environments (SAPH4)

Healthy planning gave food work more visibility, in places where upstream structural and policy change could be effected:

I think it's critical, both for visibility and showing the food work is part of the healthy urban planning work as a whole ... there is no doubt that healthy urban planning has brought the food work into visibility and closer to creating the policy change or changes in the built environment (SAPH1)

Sandwell's Public Health Officer for healthy urban environments was significant in remit to support health and planning conversations:

it's to look at how its spatially planned, and whether it's being considered at all...what you don't want to see is large retail developments that are inaccessible and unsustainable in that there's no food growing mechanism there, and that people have to drive miles to get food often by car ... it's the accessibility, the spatial element that is the main area (SAPH4)

Informal relationship between public health food policy officers and individual planners also supported understanding of the place of food in healthy planning policy in Sandwell and wider Black Country:

closer relationship with public health has been a driving factor for us in changing our thinking, and the officers ... have tried to ... change the way the other people think within the office ... public health and planning should go hand in hand, we should be discussing how we create environments for healthy living, and the food focus ... looking at developments ... there are mutual benefits of talking with each other (SAPlanner4)

She (senior planner) was probably the most significant person in identifying where the work fitted in Black Country Core Strategy social infrastructure policy and understanding access to services and the food access; there was a clear space that she identified at a high level (SAPH1)

For Dudley, healthy planning was built on longstanding strength of experience in the borough. This ran throughout planning policy (e.g. Planning for Health SPD, 2013, Borough Development Strategy, 2017), green infrastructure, consideration of urban design and connectivity. Significantly, Dudley, unlike Sandwell, won its £5m bid to Healthy Towns (2008). This work established strong collaborative relationships between planners and public health, building a platform for consideration of food environment.

Speaking to planners and public health in Dudley illuminated collaborative relationships fostered through healthy planning approaches:

Yes, we've got receptive colleagues over in planning ... I never got the impression we are dragging people along with us, generally they are very open, and it's about embedding it into all aspects ... asking them to look at a broader definition of health (DPH3)

Relationship and understanding between planners and public health had grown over timedemonstrated by synergy between areas of work:

I was very pleased ... to go through our Dudley Town Centre area action plan (AAP), (I'm the representative of public health, I always book off 5 hours to read or make recommendations, and since we have had our SPD, and been working with planners, I spend less and less time working on changes to the plans - because they are putting it in. So when you read about the public realm, or green space, activity and connexion, it's all there (DPH2)

Again, specific roles supported this approach, for example, one public health officer had remit for environment change, including food and physical activity, and by 2017 a new post for a healthy places officer was created:

If you have someone who ... understands some of the issues we might put forward in terms of healthy places as well, speaks their language as well as ours, having a consistent voice, championing the agenda and working with all the planning team ... (DPH3)

Solihull Health Development Group, provided a strategic forum to consider development of "healthy and sustainable places" with input into Local Plan, and Blythe Valley developments.

Positioning and strategic endorsement of public health consultant facilitated focus in the group on determinants of health, health and planning:

the ultimate aim is that every decision they make will be embedded in public health ... and it's going towards that, within the whole way the organisation is being structured - my role is embedded within managed growth directorate, I will sit in public health, but a very clear role there, written in and agreed by the directors so it's being taken very seriously (SPH2)

Strategically, collaborative plan-making brought potential to address cross-cutting issues like unhealthy food environments:

As the local planning authority, we take a development team approach ... a consultant approach, we meet with the whole team, at that point we have planning, architecture, landscaping, urban design, and if public health are available we will have them at the table to try and inform (SPlanner2)

These collaborative relationships in the Health Development Group enabled public health to access plan discussions at an early stage, key in supporting effective action:

We've a group looking together at more major planning applications coming through and headed up by urban design team ... we sit there - the planner comes and describes the application ... for 20 houses, "this is what we want to do"... and if you've got all these people in the same room, then I can say from a public health point of view, "what can we do about access?" transport can say, "well the reason why it wouldn't work in that area?", rather than us all coming at it separately in isolation (SPH3)

9.3.1.2. Planning policy making

During the research, both Solihull and Dudley undertook renewal of their Local Plans. This presented a significant opportunity and illustrated mechanisms by which health and food can be embedded through policy making, and integrated work. Policies embedded within statutory documents marked intent, and if food could be included at this level, it gave strength and endorsement.

Solihull Public Health, convened a Local Plan workshop through the Health Development Group (December 2015), engaging planners and others including Public Health England. This enabled focus on integrated approaches to healthy planning, shared agendas, with strategic endorsement:

brilliant because our head of regeneration gave the closing remarks ... it was almost a consultation for the Local Plan ... I wanted the planning department ... in the broad sense to think about health. So it was win-win, we both came with different agendas, and I worked with them to create an agenda that worked with our different objectives, at the end he said, "This will of course go into the Local Plan ... it's led me to believe P18 (Health and Wellbeing) needs to be looked at more deeply" (SPH2)

Policy P18 (Health and Wellbeing) within Solihull Local Plan rewrite (2011-28) strengthened healthy environments, including reference to improving food access, allotments and food growing, and interaction of unhealthy food, obesity and deprivation (Solihull MBC, 2013a, 2016e).

Dudley similarly, developed its Borough Development Strategy (BDS) (2017-25) during the period of research (Dudley MBC, 2017a). A significant opportunity, the journey of aspects of this policy process will be explored more in the next section.

The Dudley BDS saw consideration of food environments. Policies PS2, "Planning for a Healthy Borough", Hot Food Takeaways (D9, PS14) and Green space, Allotments (S30; S34) included reference to healthy food access, hot food restriction and protection of green space and allotments respectively (Dudley MBC, 2017a). (See Appendix 1, Box 1 and Appendix 3, Tables 29 and 30 for more detailed exploration).

Development Strategy within Dudley's gift has a policy in relation to allotments, we don't necessarily have a policy in relation to identification of other types of food growing but the policy does look ... should there be a need for new allotments, these are the most suitable locations within a criteria based policy (DPlanner1)

9.3.1.3. Use of planning tools

Along with planning policy, interviews focused on tools to support food environment change including promotion of healthy food, food growing and restriction of unhealthy foods. Use of Health Impact Assessments (HIA), Supplementary Planning Documents (SPD), Section 106 or Community Infrastructure Levy (CIL) were noted as tools to guide development decisions or embed food. Again, this section does not explore the content of the documents, but illustrates narratives around food environment change and integrated work. Realities of implementing such measures within the case study areas, will be explored in the following chapter 10.

• Supplementary Planning Documents (SPDs)

SPDs underpin planning policy, as material consideration, setting aspirations for direction of travel. Development and use of SPDs supported interactions between food policy and planners, and wider food stakeholders, such as schools, retailers and developers. SPDs to restrict hot food saw different forms and varied success. Challenges of implementation are explored in the following chapter - here the focus is on integrated work.

Whilst Sandwell developed a standalone Hot Food SPD (Sandwell MBC, 2012b, 2016b), Dudley instead built on healthy planning experience to establish a far-reaching *Planning for Health* SPD (Dudley MBC, 2013c). Within this, promotion of food growing, healthy food and limitation for hot food were set as "guiding principles" for food environment and health. Development of this broad document, built on relationships between public health and planners from Healthy Towns, to set aspiration of healthier food environments:

The difference between ours and (SPDs) ... around the country is a lot of them are just about hot food, whereas ours is a "Planning for Health" SPD which happens to have a section about HFTs ... just one element of guiding principles that we have to try and improve the food environment - there's also a focus on food growing opportunities, access to food, not just takeaways ... providing alternatives and access to other ways so the takeaway isn't the only option, or the most obvious option, there are other choices (DPlanner2)

Sandwell's specific Hot Food Takeaway SPD (SMBC, 2012b, 2016b) developed by SHUDU, aimed to tackle obesity, poor diet, and reduce environmental impact. It established thresholds for concentration, and restrictions of takeaways within walking distance of secondary schools.

As a tool, Hot Food Takeaway SPD could generate collaboration and engagement with stakeholders at pre-application stage, around the food environment Sandwell wanted. Local schools for example, were one route by which arguments against new hot food outlets and

the implementation of the SPD could be supported. Efforts made by public health officers to engage with schools, identified those with healthy eating policies and encouraged comment on applications for hot food within vicinity of their schools. Whilst primary schools were not covered in the SPD, they could still comment on planning applications, using their healthy eating policies as a basis for objection:

If there's an application for a HFT near a primary school ... I look at the application, I'll do some investigations with the school and see if they have a healthy eating policy, and then I'll encourage the school to either put in an objection or write to the planning officer (SAPH6)

Following an appeal in 2015, resulting in legal costs to Sandwell, planners subsequently encouraged pre-application dialogue with hot food retailers (LGA, 2015). This helped build awareness of the SPD, highlight potential impacts, with effort to discourage unfavourable applications before they reached planning stage:

They have enshrined it in policy and that gives us ability to discourage applications to say "your application will be refused". Or refuse them when they come; we ask people to have pre- application discussions before they open a HFT, so they are not caught out by the policy, it seems responsible for us to do that, have a dialogue (SA Planner 3)

There was a feeling this dialogue could support Sandwell to pitch for a better food environment:

Before we go through a planning application, to tell them what it is that Sandwell wants ... a place that is offering people choice for food, but healthy options for food, we want our food to be good quality, so we are trying to set our precedents about what it is we want ... not saying "that is all you are offering and we are happy to take it" ... no, actually we want the best for our residents (SAMBC2)

In 2013, Solihull began its own journey to develop an SPD for Hot Food. This was tabled by councillors following high profile local opposition to proposals for Kentucky Fried Chicken drive-through in Shirley (Solihull Borough Conservatives, 2013). By 2017, following a challenging journey, the SPD was shelved and not implemented (explored in the next chapter). However, despite this, the process of draft policy making, was seen as beneficial in bringing greater understanding between planners and public health:

It certainly improved our understanding so that there's a possibility of solving problems ... some commitment to try and work in that sort of way ... "this is the issue, the problem or proposal, this is the community, this is the planner, this is the local politician, this is the developer, this is the health service", ... "how can we best take that forward, what are your issues, concerns, and how can we identify an optimum solution for this?" it secured a commitment to that way of working (SPH3)

Solihull public health through this learning realised need to understand wider "system" perspectives in developing an approach to hot food:

It's about improving understanding ... identifying common objectives, looking for other benefits, planners often don't seem interested in other benefits, certainly local councillors are, and the classic one around hft is identifying benefits of reducing litter and smell, particularly around local communities ... not quite why we are wanting to introduce hft policies, our objectives are more around health ... (SPH3)

• Tools to support good design

Use of design SPDs and guidance documents such as Landscape Evidence Base, also served to underpin planning policy, setting aspiration for green or healthy development across the case studies. This represented potential to support consideration of food, enable integrated thinking, and create a platform for including developers, with real impact on physical place-making.

Sandwell's Dudley Port housing development in Tipton, for example, saw a design SPD (2017), building on Garden City principles, with reference to food growing space, communal gardening and foraging, and creation of cohesive communities and liveable places (Sandwell MBC, 2017:12). (See Appendix 1 Box 4).

Ideas behind this document, emerged in part from long standing relationships between food policy, key planners and public health. This- stimulated collaborative design discussions between "likeminded" individuals:

officers around the table in project meetings are all likeminded individuals where we have understood and recognised an opportunity for more of a Garden City approach, to our work as planning officers, urban design officers and planning regeneration officers, so to start linking it to the food side of things, we have already started to look at how on a spatial plan, when we do a spatial and a design framework, we can have these elements of food growing and food and healthy living into how we design an area (SAPlanner 4)

Aspirations for developmental thinking of this design SPD could support shaping of environments for behaviour change:

We're seeing whether, when we put a design code, a design framework together, we can have things ... rather than your usual bedding plants, just put food in there - any opportunities to put in food plants, bee attracting plants, a row of herbs, it's a nice

environment to live in, but also someone looking out of their window, they will see the plants ... and it's going to shape their thought process (SAPlanner 4)

In Dudley, landscape designers developed a Landscape Evidence Base, to inform plan making in the Borough Development Strategy - intended to mark aspiration to developers (Dudley MBC, 2016 b, e). One of its authors was Food Growing Strategy group member where discussion acted to embed food growing in this document, as "*opportunities for food growing areas set aside within larger residential and other layouts for community projects for healthy lifestyles*" (Dudley MBC, 2016e:21).

This urban designer was keen to demonstrate how food growing could be incorporated as multifunctional space - across health, sustainability, green infrastructure and community resilience - food growing could be:

Cross-referenced against all of them, it's multi-functional ... you need to remember it's only meant to be a higher level guiding point. (DMBC3)

This type of document was seen as the first step in realisation of aspiration, and landscape designers saw their role as "brokering" relationships in preparation within complexities of integrated work:

The task is then to make that work within the local place, understandable by people, and that's where the hard work is, it's very easy to have ideas - not very easy to have them delivered. You have got to have them delivered through a grid like process of other peoples' policies, all sorts of other people's interest, or lack of interest, enthusiasms or none, and therefore as landscape architects ... we are brokering ways forward, working with colleagues, in different disciplines (DMBC3)

Solihull's strong focus on sustainable development, and green space, endorsed experimentation with innovative Natural Capital Planning Tool (NCPT), with Birmingham Green Commission (Holzinger et al., 2015). Grounded in ecosystems services and "natural capital" debates, this tool could support developers' recognition of value of integration of green and blue infrastructure into development. Solihull noted its application within Blythe Valley Business Park, HS2 Garden City and U.K. Central Zone Hub 1 (Solihull MBC, 2016e). Whilst not overtly considering food, the officer working on this - also on Food Strategy Sub Group - recognised its potential for NCPT including food, under wider health and wellbeing benefits:

... one of the things we have faced is having things on a level playing field rather than having just GDP and pounds, shillings and pence ... it's been very hard to say "well, what value does a bit of greenspace have ... and what value does an allotment have?" I think we have got to get better, and use the same language, the natural capital balance sheet is something we are particularly keen about using (SMBC2)

The aim was to dialogue with developers to demonstrate immediate and longer term benefits gained through green infrastructure, in terms of financial viability and sustainability - where food growing could feature:

... We're going to have to be clearer about which (sites) to focus on, and what would you like to see, that isn't going to make the place unviable, and is integrated with other aspects. For example, there is already an aspiration to have a linear park through that contemporary garden city ... mixed use, you have got the businesses and the station, and within that food ... there could be an element of food growing within the park or business units (SMBC2)

• Health Impact Assessment (HIA)

Use of HIA was another way in which aspirations about the place of food could be supported, informing development, and enabling integrated work between planners and public health. HIA was used to different extents within each area, with some only just starting to explore their potential application.

Whilst Dudley embedded HIA in the new Borough Development Strategy Policy PS2, Solihull noted aspirational exploration of HIA in its obesity and food strategies and Health Development Group (Dudley MBC, 2016a, 2017a; Solihull MBC, 2015). HIA in Solihull was seen as giving potential for bringing local public health evidence to bear in a nuanced approach to working with developers:

We've been looking at ... (using) HIA as part of that planning process, if a developer does come along and wants to build in an area where we are saying there is an obesity issue, we are going to say, "there's evidence that your use would potentially contribute to that", and we would need the evidence if that is the case in this location, then you would need to address that as part of the planning process (Splanner2)

In Sandwell SHUDU however had actual experience of using "mini HIAs" on prospective development plans, including West Bromwich Town Centre, and new Midland Metropolitan hospital (SHUDU, 2010, 2011a,b,c) (see Appendix 1, Box 4). The use of HIA enabled SHUDU, to comment on restriction of unhealthy food, access to healthy food and food growing space - visible manifestation of the collaborative work for food environment change:

these (HIA) are still relevant and you can track efforts to embed in policy and changes to the built environment through that, and you can also see the attempts at community engagement ... The HIAs it's very clear, if you want a "food systems" approach, it's perfectly adequate, to use that (SAPH1)

9.3.1.4. Considering healthy retail

Despite reference to support of healthy retail within policy, it was difficult for the researcher to trace who, where and if discussions, provision of and access to healthier foods and retail mix took place within councils.

Solihull's Food Strategy (Aim 6) for example noted aspirations for a thriving, vibrant local food economy, including work with planning to "Investigate ways to give preference to food businesses with healthier options built into their business plans" (Solihull MBC, 2015:13).

Certainly Public Health officers were only beginning to understand how and where these retail decisions might be influenced. There seemed to be no clear consideration of healthy retail balance per se in planning and development. In fact, apart from debate about potential restriction of unhealthy foods through SPD, or HIA, and allocation of broad "use classes" for retail outlets, there seemed to be little evidence of integrated consideration of the impact of planning decisions on the food retail environment. The narratives about the implications of this will be discussed in more depth in the next chapter.

In summary, three mechanisms were identified through which food environment change could be influenced - healthy planning, planning policy and use of planning tools. For Dudley, experience from healthy planning, and work on Healthy Towns had established collaborative relationships, providing foundation for development of planning tools and policy. Both Sandwell and Solihull, at different times, benefited from cross cutting healthy planning groups, supporting integrated development of mechanisms.

9.4. Opportunities⁶ to influence food environment change

Whilst written food, planning policy and tools noted culmination of integrated work underpinning food environment change, actors within case study areas took advantage of openings within policy as a way to realise this on the ground. Again, acknowledging crossover of themes for the purposes of this section, and from interview narratives; opportunities can be grouped under four themes: Planning policy, bids and projects, regeneration and development, land and green infrastructure.

9.4.1. Planning policy

As noted in the previous section, both Dudley and Solihull grasped opportunity presented by renewals of their Local Plans - Dudley Borough Development Strategy (BDS) and Solihull

⁶ Opportunity defined here as 'an occasion or situation that makes it possible to do something that you want to do' <u>https://dictionary.cambridge.org/dictionary/english/opportunity</u>

Local Plan respectively (N.B. opportunity not available to Sandwell at the time of research) (DMBC, 2017a; Solihull MBC, 2016e). These did not arise as "quick" opportunities to be grasped immediately, but were drawn out over many years, as plans were developed and worked their way through statutory processes.

From 2010 onwards, Dudley began development of the Borough Development Strategy, to replace Unitary Development Plan (2005), with formal consultation, 2014, inspection, 2016 and adoption in 2017 (Dudley MBC, 2016a, 2017a). Challenges of the journey from draft to final plan with relevance to food are discussed in the next chapter.

For Dudley, public health and planners built on established relationships, grasping the opportunity to work closely on the plan review to ensure health was embedded including policies on food environment noted previously:

I said we'd got an opportunity to influence the review, by being proactive rather than waiting ... I said we need to identify a "golden thread" through our plans, have some core things through every strategy and every plan ... the public realm for planting for carbon for example, why can't we say that should be edible? (DPH2)

Building trust and understanding between public health and planners to influence planning policy was not always a smooth "process":

It's been a process, frustrations on both parts, each of us couldn't understand why the other couldn't do something at first, but I think we have a much better understanding of public health, and x (PH officer) now has a much better understanding of using planning ... both a good understanding of what each other does and how we can mutually benefit from that relationship (Dplanner2)

It was a stormy ride, because I used to ask really kind of naïve but belligerent questions ... "why can't we do this, why can't we do that"? (DPH2)

In Solihull, similarly, Local Plan Review, both built relationships between public health and planners, facilitating insight into each other's approaches, and supporting consideration of food. Solihull's Local Plan, originally adopted 2013, underwent review in response to legal challenge - based on failure to indicate five year strategic housing land supply, need to consider HS2, and housing demand within the wider Birmingham area. The rewrite and consultation process, coincided with Public Health relocation in 2013, gave new insight into how planning could alter upstream factors. It was seen by public health as a unique opportunity to influence a statutory document guiding development for at least 25 years:

Local Plan is the key legal document, we're required to follow what is in it, and equally the opposite, we can't do things that are not in it, I think we have learned the critical importance of that policy document, it's ... where we are focusing our attention, rather than on SPD, or tackling some of these local issues, local projects we're focusing on Local Plan, facilitating developments in the future at a wider level (SPH3)

Again, both planners and public health recognised this process enabled understanding of each other's perspectives. Initially both had "narrow" views of how the other worked; one planner noted initial overestimation of public health understanding about what planning could achieve:

... I thought naively - because I do planning all the time, I don't think it's that complicated ... - I've had to learn how to explain the process; where they can get involved and actually where, no, there is not much point getting involved (S Planner 2)

Public health, shifted to a deeper understanding of operation of the planning system:

The objective is satisfying the planning system, and one version of that is ensuring "fairness" and all parties' rights are considered, probably in total opposition to a pure public health approach where some people's rights are not being heard, and other people's rights are overriding, that does start to give you some common ground - then you start that conversation (SPH3)

9.4.2. Bids and projects

Realisation of policy aspirations depended on funding opportunities - through local, regional or central government support for specific projects as noted in chapter 6. Here, interviewees gave examples of bids and project development, as windows of opportunity for testing and embedding innovative practice, relationship building and collaborative work.

Dudley for example, as noted in chapter 6, years of successful public health and council led project and infrastructure bids provided foundations for emergence of integrated approaches between public health, green space and planners (NSMC, 2008 a, b; Big Lottery Fund, 2010; Local Trust, 2014).

Most significantly, was Dudley PCT and Council's successful bid for £4.5M Healthy Towns Programme in 2008, under Department of Health's Healthy Challenge Fund (Peters and Jones, 2011). This enabled focus beyond project on environmental infrastructure with remit to tackle obesogenic environments. It supported "systems wide" initiatives tackling both food and physical activity environments, encouraging healthy choices (Butland et al., 2007; Cummins et al., 2016; Dalton et al., 2013; Sautkina et al., 2014). For Dudley, this catalysed new working relationships between public health, planning, parks department, and community, to bring about infrastructure changes to support healthier lifestyles (Goodwin et al., 2013, 2014). Whilst nationally pilots saw elements of focus on food environment, through for example allotments, Dudley, took a prime focus on physical activity. Five "healthy hubs" were created across parks with significant infrastructure and connectivity improvements, "active travel corridors", and additional healthy eating and food growing programmes (Dudley MBC, 2016 a, b; Peters and Jones, 2011).

For the Healthy Towns public health lead, this grounded opportunity to experiment on common goals:

We presented it to planning ... they all jumped on the thing that will give them a tactile programme to showcase how influential planning is on health, so theory and policy is all very well, but seeing programmes and products emerging ... we coauthored it, hit it off really well, could see how we could scratch each other's backs and there was genuine honest collaboration (DPH2)

Funding for Healthy Towns enhanced learning about integrated and systems approaches, and food environments:

planning saw, I did a lot of presentations to try and get stakeholders round the table, some didn't know they were stakeholders in obesity, the police, had no indication that ... how safe people felt, had an impact on weight through stress or access to services (DPH2)

Healthy Towns was a catalyst for binding relationships, giving impetus for future collaborative work on Planning for Health SPD (2013), draft Food Growing Strategy (2015) and Borough Development Plan (2017):

Healthy Towns was probably a bit of a catalyst ... previously you try and foster those relationships, but there's nothing like a £5m project to get everyone round the table ... funding was probably the catalyst that created relationship, and people have seen the benefits of it, that's created a head start (DPH3)

For Sandwell realisation of innovative food policy activities, owed success to opportunities for revenue and capital funds (as noted in Chapter 6). Public health was a key partner of Sandwell Partnership in early regeneration programmes during 1990s and 2000s, with DPH noting collaborative healthy planning was, "*for those of us who have been trying to follow the WHO "health for all" philosophy, "regeneration" is health for all with money*" (Middleton 1996:1). The Joint Policy Unit (2004 onwards), fostered strategic cross sector partnership working to address underlying determinants collaboratively.

From 1990s on, government funds focused on economic, social, health and physical infrastructures, including Estates Renewal Funds, Single Regeneration Budgets, and City Challenge. Later, during the 2000s, under Labour's Blair Government - Health Action Zone, Healthy Living Networks, Greets Green, and Surestart funding all offered further chance for

partnership work to improve conditions underlying health (Middleton, 1996; SHA, 2001; Middleton, 2004).

This wider supportive environment, funding and partnership presented opportunities for Sandwell's community agriculture programme for example, enabling food policy vision to progress in supporting joined up approaches:

it was really enabling ... the money that was coming through, the NOF, Five a Day and Health Action Zone, at the time it was a great enabler I think ... it started us on the road to more systems thinking ... There was trust money, SRB money, regen money and that was why we decided to do it because that support and opportunity was there (SACS1)

Funding "packages" from statutory and charitable sources, enabled opportunity for significant input for complex land reclamation and urban agriculture project costs:

nobody else had done that, tackled that legacy of urban land blight in the way we did and it was enormously challenging ... that initial transformation of those pieces of land, bulldozers, all the complex issues that came with that ... putting those packages of funding together to make it doable ... that opportune moment when thinking had changed, when funding had changed and if you were smart you could tap in on those opportunities where possible ... I absolutely don't think it would be possible now (SACS1)

it was amazing what we did with those crumbs off the table, how we used ... opportunities when a door opened just a crack, and we were always ready and primed to get in there and take opportunities (SACS1)

Beyond urban agriculture, financial "incentive" was also seen as integral to progressing policy aims and "push" to realisation of joint planning initiatives:

if you were awarded some money with a specific purpose, then it would happen but without that financial incentive it is difficult to see how you're not going to let market forces, and the reliance on planning controls, design and encouragement input that we do to improve quality, to run the same course as it has anywhere else, it has to have some kind of push behind it (SAPlanner1)

In 2016, Sandwell's bid development to NHS Healthy New Towns, (although unsuccessful), supported discussion around place-shaping where food growing might be supported:

If under the Healthy New Towns banner create genuinely mixed communities of affordable and private, maybe we can create genuinely integrated communities, so you can have a culture where people do grow, and aspire to take exercise (Sandwell regen1) A bid to Wolfson Prize in 2014 under MADE, saw Sandwell public health food officer collaborate on a visionary entry "*Albion; a Black Country Garden City*" interpreting garden city principles within an inner city, post-industrial setting (MADE, 2014). Food growing and enterprise was a connecting thread: "*food growing will be a prominent feature of Albion life*" (MADE, 2014:5). Whilst unsuccessful, the MADE bid was again significant in influencing discussion with adoption of Garden City principles by Black Country Local Enterprise Partnership (BCLEP) and Dudley Port developments:

The idea came through government intervention, but also through a Black Country perspective, the Albion bid, it's for us to carry it on ... it's a good document and a good vision for Sandwell, we saw that as an opportunity for focus ... we're going ahead looking at it in Sandwell, it's the direction we want to take our planning frameworks (SAPlanner 4)

9.4.3. Green infrastructure and land use

Land also presented opportunity to realise integrated policy aims and joint work for food growing on the ground. Potential land and green infrastructure – seen in parks, gardens, allotments and other spaces was noted as opportunity for food growing within policies. Sandwell's urban agriculture programme, manifested in Salop Drive and Barlow Road market gardens, arose in part as response to Sandwell's legacy of blighted post-industrial land, noted in early feasibility and public health reports, and later *Growing Healthy Communities* strategy 2008-12 (Barry, 2017; Booth et al., 1996; Davis and Middleton, 2012; Sandwell PCT and Sandwell MBC, 2008). Derelict land, and disused allotments, seen as a liability, presented opportunity and potential for upstream action:

We sat down with maps, with senior planner and head of parks - exploring all the derelict spaces, unused allotments, estates, parks and farmland in the borough ... potential places to start ... it was almost "take your pick" (SACS5)

it was our greatest challenge that we were starting with these truly awful land parcels and the reason we were able to start is because in a sense nobody else knew what to do with them ... (SACS1)

During 2000s the strategically driven community agriculture programme was embedded within food policy action, under the then Food Policy Board:

that was the great thing about the food policy board, it was thinking across these different things and we were always strong in understanding we were part of a raft of action; we never stood alone - that was the great thing about working with Public Health and Local Authority - we never stood alone, that's what set us apart (SACS1) Development of complex, derelict, often contaminated land parcels took many years, and brought in planners, drainage experts, allotment and landscape officers, environmental and public health with community agriculture officers. Consistent strategic support was essential in sustaining vision and commitment over many years development:

people don't understand how long it takes to develop a derelict site; you might have on paper a five year plan, but that plan can bring anything from soil contamination to building problems, it took way over ten years to get it to an established site, and even after that probably another five years to get all the buildings ... so to get it to where it is, a ten to twenty year job. In the first years, PH support was absolutely there ... I think (without) it would have taken longer (SACS4)

Dudley's saw different opportunities in its consideration of land, within documents including the Parks and Green Space and draft Food Growing Strategies, Planning for Health SPD and BDS (Dudley MBC, 2009a, 2013c, 2015a,c, 2017b). Here, austerity, cuts to green space budgets post 2010, drive to community asset control, combined to bring need for new models for land use and management, (DCLG, 2007b; Dudley MBC, 2013d). Dudley brought parks into community management during 2000s and saw opportunity to build on this, experimenting with asset transfer of land for food growing within traditional park spaces:

We're now in a position with austerity measures that we need to look at managing our land differently, there are many more opportunities that there were in the early days for looking at our spaces and saying "how can we manage them differently?" and learn from how we developed community ownership to our parks (DMBC3) Staffing in parks is probably under threat, so we're thinking we need to find some

way of sustaining what we have already achieved in parks, our focus is on how we can continue our activity - whether this is through developing the food aspect or some other ... (DMBC3)

Finding alternative and multi-functional use for land posing increasing council maintenance burden was noted by officers within the Food Growing strategy group, as opportunity to secure collaborative interests:

There's lots of spaces, tiny plots, old allotments left to grow wild...We've a lot of councillors ... saying "there's a bit of housing land here, it used to be allotment site, but has been allowed to grow wild" ... there are plenty of opportunities to take those on, that wouldn't relieve us of our maintenance burden though (DMBC3) we've got a fair bit of greenspace that was underutilised and was causing ... a financial pinch point, maintaining it for no purpose, so it was a multifaceted approach to say "who are the beneficiaries for this internally in the council, as well as the

public, who would get the recognised outcomes in terms of access to healthy food, satisfaction and self-esteem, physical activity from growing?", that was the consensus (DPH2)

Increasing demand for allotments and new ideas combined to provide potentially opportune solutions for maintenance of "meanwhile" land parcels, with softening attitudes towards some of the local experimentation of Incredible Edible approaches:

We ... have significant council assets we are not using as well as we could ... if you look at Todmorden's Incredible Edible, we have all the bits of land over the borough, why don't we put apple trees on them? (DMBC1)

five or ten years ago, that would have been an absolutely no chance from majority councils, but now, I don't know whether the council might think, "You know what, what we don't know can't hurt us", so people might just want to grab a bit of land and develop it and thinking then, fine ... (DPH2)

We've started to try and get some spaces that housing services were not using, because we have a huge waiting list for allotments, (allotments officer) had tried to get some spaces developed ... a couple of garage spaces redundant space ... looked at those, tried to develop them ... almost derelict land (DMBC3)

In Solihull, reference to land reflected aspirations developed in the Food Strategy (Solihull MBC, 2015), Green Spaces Strategy (Solihull MBC, 2006, 2014d) and revised Local Plan to support development of community gardens and food growing (Solihull MBC, 2016e). Food sub-group discussions included support to develop potential community gardens, for example on Meriden Park's disused bowling green (Talk about North Solihull, 2016).

Whilst Solihull, unlike Dudley and Sandwell, had been largely protected from cuts to parks budgets, green space officers on the Food Sub Group anticipated this would change, and new land management approaches would need to be found:

We don't have capacity or budgets to keep taking on new spaces to maintain, we need to look after what we have got in new ways...we do have the financial pressures ... changed mowing schedules, frequencies of bin emptying, weeding, edging of paths has gone up to once every three years, so there are changes ... (SMBC6)

Discussion in the Food Sub-group supported new ideas, highlighting connections and opportunities for these spaces:

... positive to have discussions with other people about it rather than just within our team ...the whole healthy development group looking at food and all other elements

of it has brought everyone together, who were trying to achieve things separately in isolation, which is a huge benefit (SMBC6)

For allotments officers (15 of which were under local authority control), changing demography, declining interest and revenue, and empty plots was also noted as a driver for exploring new uses (2016):

A lot of the older people in plots have multiple plots as well, so we're seeing plots become available as people are dropping them, there are not always the people to fill them, so some sites have no waiting lists for periods of time, and we've had to cover plots to keep the weeds down, it does cause a problem (SMBC6)

One food sub-group member, working at neighbourhood level, was keen to grasp opportunity to use marginal land parcels, inspired by Incredible Edible:

... what you have to do is identify a range of sites that are not being used for anything, that nobody minds if you grow stuff on them, and just grow stuff! I would always say, "put the plants in, see what happens!" that's the approach we should be taking. What you want is for the community to say "we want to do that" so you can say "here are some plants, some seeds, and you can put them in" so I think it's just a question of giving people the green light to do it (SMBC7)

Links made supported community use of these land parcels:

What we (community group) do is phone x (council officer) and say "there's a piece of land" and we would have to identify who owns it ... she would come and assess ... it's usually not the land they are bothered about, it's the maintenance (SCS3)

9.4.4. Regeneration and development

Chapter 6 noted regeneration, development, housebuilding opportunities and pressures. As alluded to in narratives throughout, new development and regeneration were seen as opportunity to support food environment change. Improving healthy retail mix through "use class" within new development as noted above, was difficult to track, and will be discussed in the following chapter. Potential to embed food growing spaces in new development, either at plan making stage, working with developers, or in opportune use of SLOAP ("Space left over after planning") could be identified within regeneration. Realities of this are considered in the following chapter.

As noted previously, in Sandwell, public health comments on pre-planning applications and forthcoming housing development plans, enabled focus on food environments:

I get involved in pre-application discussions ... when a major development comes forward, prior to a planning application ... I get consulted by the various case officers for that development ... the way I would see bringing ... a food strategy into a major development would be to look at it through a master planning exercise ... (SAPH6)

Building on relationship and discussion within SHUDU, community agriculture, food policy, and Garden City emphasis, one planner noted work to embed aspirational thinking within early development plans for 500 houses at Dudley Port:

We've already started to look at how ... when we do a spatial and design framework, we can ...have those elements of food growing, food and healthy living into how we design an area ... and Garden City, access to nature (SPlanner4)

Buy in from developers was seen as important, appealing to values of aspirational development potential profit and added value from healthy and sustainable design, including food growing:

We're looking at how we can bring housing developments of a much higher quality ... we are seeing how we can create a vision document, whereby likeminded developers may see it and think, "well that's actually part of our business model", (SAPlanner4) We've looked at orientation of buildings and how we can have developers thinking about putting in simple things as a greenhouse, ... planting something ... a row of food, herbs, or fruit trees, ... then the residents themselves will take it over, ... informal space within the urban environment that people can use, food growing opportunities, harvesting and in the domestic gardens (SAPlanner 4)

Development of the new regional Midland Metropolitan Hospital⁷ in Smethwick, as part of NHS "Right Care, Right Here" and associated Grove Lane development, enabled stakeholders across health, planning, local authority and community, to shape regeneration in its broadest context, in tackling determinants of health (SWBH NHS, 2021). (See Appendix 1, Box 4). Integrated healthy planning visions for the surrounding area included this development being, as one consultant reflected:

Like Cadbury's for Bournville⁸ ... if Cadburys could do this sort of thing about 200 years ago, why can't the hospital do it in Smethwick? (Sandwell regen1)

SHUDU undertook HIA on hospital master plan along with working groups on quality of life, where multifunctional aspects of food was considered within the hospital: (SHUDU, 2011c).

the (hospital) group is working on is healthy eating ... largely driven by Sandwell PH ... food was pushed up the list because of its multi-functional aspect; it's a

⁷ Partnership with Sandwell and West Birmingham NHS Trust and local authorities. Started construction 2016, stalled 2018 following collapse of contractor Carillion, recommenced 2019 and due to complete 2022 <u>https://www.swbh.nhs.uk/midland-metropolitan-university-hospital/</u> Time of interview was 2017.

⁸ See: Bentley (2017)

determinant of health, healthy eating ... acknowledged there's much unhealthy eating going on, it has an environmental impact; with local growing and recycling, it has potential economic impact; with opportunities for social enterprise, small business, and job creation, and it has a social cohesion impact; it's an activity that communities can meet and congregate around, and as a therapeutic intervention (Sandwell regen1)

Plans for integration of food into the hospital site included community gardens, salad production, International Food Market, local procurement and waste- initial practical examples of "hospital as food system" thinking:

... the challenges of this food systems approach, how difficult it is to think about...and pin it down ... and a hospital is a great place to look at this, it's like a living organism and a huge consumer... the planners are up for the conversation, they are excited about these ideas (Sandwell regen1)

In Solihull, regeneration and housebuilding opportunities, were made possible through Blythe Valley, HS2 Interchange and North Solihull Regeneration Partnership, supporting collaborative thinking on healthy place. Food growing was considered to some extent, where land opportunities arose.

Regeneration of Chelmunds Cross, brought community upheaval through relocation of families and demolition of old housing. The council saw establishment of a community garden, *Victory Garden*, as a way of supporting community reintegration into the new development (See Appendix 1 Box 6):

We had been involved with the residents as part of the consultation for the regeneration, but this particular site was a bit of space left over ... the houses had been built around it, there were houses that had not been developed because the money had run out, space had been left ... used for drug dealing and littering ... so that was a site we identified something needed doing ... (SMBC7)

This section focused on opportunities arising for collaborative work, and realisation of aspiration for food environment change - varied across the case studies depending on local conditions. Significantly for Dudley for example, the Healthy Towns bid and funding had a huge impact on development of collaborative relationships and catalysing future consideration of food environments through healthy planning. Dudley and Solihull also grasped opportunity for contribution to Local Plans, and embed aspects of food environment and health within this. Regeneration and land also presented opportunities for urban agriculture.

9.5. Pathways⁹ to food environment change

Having explored narratives inductively developed and drawn from themes and identified as *mechanisms* and *opportunities* supporting integrated action on food environment change, this section briefly focuses on *pathways* by which aspirations might be achieved. Two pathways were identified: engagement of community, and use of council processes - as ways of moving forwards food environment and food policy aspirations.

9.5.1. Galvanizing community

Much academic literature focuses on strong civil society drives for food policy development and food environment change, including food growing and retail. This drive was not so evident in some of the case studies, as will be explored in the next chapter. Whilst each case study area saw public health initiating and leading food policy action, creating pathways for community to support and inform that process, was seen as key to grounding aspirations, building legitimacy, informing and realising food policy aims.

Sandwell, during 1990s and 2000s public health actively took a community development approach, facilitating contribution to food and health policy making (Kyle and Blair, 2007). "Food Interest Groups" (FIGS) a core of Eatwell food policy work, engaged residents to guide policy making , and develop programmes built from grounded experience (Kyle and Blair, 2007). *Growing Healthy Communities Community Agriculture Strategy* (2008 - 12), was also informed by community engagement, and embodied in development of food growing sites (Ideal for All, 2021; Sandwell PCT and Sandwell MBC, 2008).

Post 2012 however, whilst on the ground food policy activity continued at "project" level strategic drive to support pathways to integrated food policy was increasingly lost. By 2014, a "fragmented" food system approach was noted (F3, 2015; Sustain and Sandwell MBC 2014:6).

Re-establishing meaningful engagement with community, post 2012, following loss of operational food policy group, huge organisational change and austerity, was a question that occupied some council and public health officers at the time of interview. Reinstating visibility of food policy making and outcomes was seen as a first step:

The civil society thing in Sandwell is difficult, at the moment it's not obvious ... if we were brave enough, we would find it in every corner ... that's where Milan Urban Food Policy Pact, or saying the draft strategy food map is now a policy ... makes a

⁹ Pathway- defined as a 'path, course, route or way' <u>https://www.dictionary.com</u>

difference, because it becomes visible and formal ... if you want to have a party, you have to invite people, you don't just sit and wish they were there (SAPH1)

the state is decreasing, and we desperately need ideas to be strengthened and to exist, and if that is to be through voluntary or private sector, the public sector needs to learn that it is not at the centre of change, it can collaborate, it can transfer knowledge, it can joint commission, it can co-produce, but it cannot and should not control (SAPH1)

Solihull, food sub group established a local "Food Forum" in 2014 with residents to build ownership of the *Food Strategy (2015-17)* develop ideas and deliver on actions.

Realisation of aspirations, within food, green space and Health and Wellbeing strategies, was seen as achievable through community pathways, with local council encouraging, facilitating and supporting (Solihull MBC, 2015; Solihull MBC, 2016b). Officers in public health expressed a strong sense that whilst initiating the Food Strategy was one thing, its success and sustainability depended on community buy in and leadership:

Once we had finished the strategy, we realised we couldn't do anything without the support of the community ... I have my own ideas about what I think will work ... if you don't have it led by the community, then you will have a whole load of projects set up that will work for me...and I am not trying to target me! (SPH1)

Victory Gardens in Chelmunds Cross, and Meriden Park bowling green were initiated by food sub-group Appendix 1, Box 6). Food sub-group saw multifunctional benefits of food across health, community development, skills, regeneration and greenspaces. As noted above, Incredible Edible had inspired use of informal land spaces, and spontaneous activity, which the council was able to endorse:

It's about growing these local solutions, and how do you get that sense of local ownership? I think we need to start small with the gardens here, but you need people going on about it all the time, and for people to start seeing it as normal (SCS2)

Dudley had long experience of facilitating community management within its parks, since early 2000s. However, from 2010 in Dudley, motivations towards deeper collaboration with communities in policy making and action were set against considerations driven by political change and austerity:

Dudley is setting up as a Community Council, ... taking on board the needs of the local community rather than people in ivory towers making decisions ... they are getting the community involved and listening to community needs (DMBC4)

Public health, developing local aspirations to "connect communities through food" felt this needed new skills, supporting a "bottom up" approach to policy making action:

It will be about letting people come up with their ideas and solutions, and for me to almost to have the skills to facilitate and support that ... the time taken to run something like this will be far longer, it's much easier to put a package together and set something on its way ... Not doing things for people, but with people, so taking on a whole new approach (DPH1)

Community management and asset transfer, bringing land forward for food growing as identified in the draft Food Growing Strategy, was seen as a way of meeting some policy aims (Dudley MBC, 2015c). The draft Food Growing Strategy (2015) was developed with community through asset mapping workshops. Council support of emerging and existing community gardens was seen as one way forward by community groups to realise shared aims:

Because we applied to the council for planning permission, they have become a lot more interested in us, we tick a lot of their boxes ... we want some kind of management relationship with the area around, we have ambitious plans, but they are interested in us from the point of view of promoting healthy living (DCS3)

Food growing set within traditional park space through land asset transfer also brought insight to inform policymaking, as a green space officer reflected on one food growing group:

They have been doing brilliantly ... the fact that they are there and doing that work helps us to prioritize and focus our minds, what the priorities are, and where we need to focus our funding, so that has been really helpful (DMBC3)

Whilst not formally endorsed by the council, there was interest in Incredible Edible approach, informed by community and influencing planning thinking, as one landscape architect noted:

I would love to know about exactly how the Todmorden planners responded to this daring challenge of the people ... was it pressure from elected members that persuaded? Because you have to talk about individuals, you know you've got to run through the people with power (DMBC2)

Dudley CVS, for example, with council support to build community resilience, saw Incredible Edible approach as an opportunity for participatory planning (Dudley CVS, 2016, 2017) – It was seen as a "movement" to connect people - with benefits of food growing:

If by ... doing a big planting thing, more people come along and they add to what this thing is, rather than coming and just disappearing again, you are kind of growing a movement, and you are connecting people who haven't been connected before (DCS2)

9.5.2. Working with council processes

Council processes were also highlighted by interviewees as providing pathways to support progression towards integrated food policy. This was particularly relevant post 2013, following public health relocation to local authority, post Health and Social Care Act, a transition still embedding by time of research, against a background of continued restructuring and budget cuts (Gov. U.K., 2012).

All three case study areas acknowledged whilst positioning under one organisational umbrella supported relationship building, learning was steep for public health staff in particular, to understand pathways, cultural and political processes within new democratic systems.

A public health officer in Solihull, described facilitation of conversation and joint working through being physically in one organisation, was easier than when under the Primary Care Trust:

It's happening much more through lots of things ... (not) just the food strategy, because we also have a health development group which planning sit on, they also sit on the obesity -healthy weight strategy group, and as part of the food strategy are interested in that as well, ... because we are sitting within the council now you find out about meetings and groups ... because you are sitting with all these people who realise who you are and realise they need to invite you to these things ... (SPH1)

Whilst new relationships emerged, real understanding took time to arise, as a Solihull public health officer noted:

I think things have been enabled and facilitated, conversations, pieces of work have been facilitated by actually being in the same organisation ... that being said, of course in itself doesn't solve some of the barriers ... in the way of some of those conversations and decisions, I think it's easier ... but there is still a lot further to go in ... having good understanding on the part of the council around wellbeing and public health (SPH3)

This was echoed by one Dudley planner, reflecting that change, discussion and learning – was not always easy - with new colleagues:

It's different now public health has come into the council because it's a very different world we work and operate in and there is a bit of adjustment that needed to happen ... we have had conversations with public health colleagues and had to say, "well just because you have got evidence doesn't mean it will be agreed", when it comes to political decisions in decision making, so you can prove it but it doesn't mean this is what actually happens at the end of the day (Dplanner2) Sandwell, similar to Dudley was experiencing ongoing organisational change and budget reduction at the time of research. One public health officer described needing time to understand where and how issues like food policy might sit within the council environment. They noted need to "tactically" align outcomes within wider council departments against drive for savings:

We're still tactically trying to lodge that in the right place...in the initial rounds that was around understanding and badging and reallocating budgets so we could make the savings ... and now that sort of trading and understanding is done its easier... in our second and third years, to say we have an understanding about how our outcomes align ... how to do that (SAPH2)

Officers in Solihull and Sandwell noted challenges of presenting reports and materials to council committees in a way that would ensure support. This was particularly important in Solihull, where there was a fine political balance. One councillor noted behind the scenes work needed by and with officers before a report hit a committee, in order to garner support:

I would say the decision makers are not just the councillors and members but are the people writing these reports ... chief officers as well, because at the end you only get the report shoved in front of you, you might get a steer and that's it - help them understand what is actually going on here, helping them understand all those issues, and how they can actually influence and win that argument (SMBC1)

This sentiment was echoed by a Sandwell public health officer, noting that learning about how to present reports in a council setting took skill; and understanding of wider context and priorities,

It's not always about the fact that you can't write the report in the way that you want it, it's actually about the fact that you can't play the tactical game ... I think some of it is about when the door gets opened, it's about whatever opens that door, it's about being able to move stuff through, that you think, "this is the stuff that will move through" (SAPH2)

Sandwell public health also noted challenge of persuading councillors, a new role for them as officers, with removal of decision making powers:

The main challenge is managing political objectives and desires against what you think is right for public health, sometimes they are aligned and sometimes not, that's the hardest thing, persuading councillors on a right course of action, I don't make any decisions anymore, it's the councillors who do, so my role is to influence, and provide evidence, and they are not always interested in evidence, its what's going to get them the most votes ... (SAPH5)

Work by public health, for example in 2015 to try and get council to become signatory of Milan Urban Food Pact, was a lesson in working in this political and democratic space. They recognised a "right time" to gain councillor support- not successful in this case:

We did a lot of work to get the councillor to sign up, and so you try and see what stamp the council wants to take, you try and see what agenda the councillor wants, so it's their agenda, so you brief them on the possibilities ... you go through the democratic process ... (SAPH2)

Officers also had to understand pathways within political, budgetary cycles, and timescales, as noted by both Solihull and Sandwell public health:

council works on a very much shorter timescale, from a political point of view, with the short cycles of elections ... some of the financial aspects, issues that need resolving within a shorter timescale, if not within the financial year, within the financial medium term strategy, which is three to five years, so getting any sort of discussion or any decision on impacts outside that timescale isn't an easy one (SPH3)

9.6. Summary

This chapter explored narratives of food policy actors on emerging spatial understanding and aspiration and realisation of upstream food environment change – through identification of mechanisms, opportunities and pathways. Narratives helped to illuminate some ways in which integrated working and relationships developed, in particular between planners and public health. There was varied understanding of spatial nature of food across the case study areas, with Sandwell actors indicating more in depth understanding of the issue, arising from long held views on environmental drivers of health.

Case study actors took advantage of varied opportunities presented at the local level, in order to advance food policy aims. Healthy planning was a significant mechanism, vehicle and learning opportunity for advancing understanding of environmental drivers of health, into which food could be inserted. For Sandwell, healthy planning was an important vehicle for enabling upstream food policy advancement, and in Dudley, Healthy Towns supported learning and skills for integrated work. Case study actors alluded to varied use of planning policy and tools, again Dudley and Solihull were presented significant opportunity for work through their Local Plans. Land use opportunities, also enabled food growing aspiration to be reached in different ways across the case studies. Sandwell particularly saw opportunity with urban agriculture, Dudley in seeking new models for green spaces, and in Solihull presented through significant regeneration opportunities.

Pathways to support progression of integrated food policy were also identified. Actors across the case studies expressed some of the challenges and ambivalence to galvanising

community buy in to food policy aims. Working within council processes, were also noted, with public health officers in each area grappling with work within a time bound, political and democratic system to navigate food policy aims.

The next chapter focuses on some of the realities and barriers of embedding integrated food policy action.

Chapter 10: "Dis-integrating factors" 10.1. Introduction

This chapter moves on to focus on what could be described as "dis-integrating factors" which act as barriers or challenges to food environment change through integrated action. The previous two thematic chapters explored narratives on aspirations, opportunity and pathways behind integrated action for food environment change. Exploration of dis-integrating factors, highlight the interconnected complexities acting as barriers to embedding policy aspirations into reality. Emerging and developed through inductive development and identification of themes, these can be grouped as follows:

"change" - organisational, policy, leadership change, austerity - opening and closing windows of opportunity

"constraints"- control and reach of action through land use and planning "contradictions"- obfuscating moves towards integrated action and undermining realisation of policy aspirations

10.2. Change

Whilst change - organisational, political, fiscal, and leadership - is a constant backdrop to policy making, this research took place within a period of unprecedented change. All three case study areas experienced change in different ways, exposing both vulnerability and opportunity for food policy aspirations and integrated work. As noted previously, change following Health and Social Care Act (Gov.UK, 2012) and NPPF (DCLG, 2012), brought dissolution of primary care trusts (PCTs), migration of public health into local authority, and reform of planning policy respectively. In addition, by 2010, politically driven austerity measures, change of government, and new political and economic environment, starkly contrasted with relative stability of the 2000s. Narratives of interviewees reflected on this new environment, and shifting sands affecting realisation of policy aspirations.

For Sandwell, impact of change on long established food policy activity was particularly profound, amplified by confluence of factors over a short period of time. This included breakup of the food team post 2010 into commissioner-provider functions, disbanding of PCT, public health absorption into council in 2013, organisational restructure, staff loss, and austerity measures. At the same time, and most significantly, this coincided with the retirement of longstanding Director of Public Health in 2014 who had been in place almost three decades, building and implementing the vision of food policy. These circumstances

contributed to loss of strategic visibility, and use of Sandwell's Food Policy and underlying work, including withdrawal of public health funding to community agriculture in 2017 (F3, 2014). These factors also meant weakened cohesion and strategic drive. Sandwell's formal food policy and food policy board architecture ceased to be visibly operational post 2013 (Sustain and Sandwell MBC, 2014).

Whilst Dudley experienced similar rapid change with budget constraints and "Community Council" priorities, there remained continuity in relationships between planning and public health. For Solihull, as an authority initially buffered from deep budget cuts, these changes had less profound impact, bringing opportunity for closer work within the council around food policy aims.

10.2.1. Change as loss

Conversations with Sandwell's food policy actors indicated a sense of loss of "old world", and of entering an almost unrecognisable landscape. Despite best efforts by Director of Public Health to document and preserve two decades of food policy structure, coherence and activity, the focus moved from visibility to loss of strategic support, as public health entered the council (F3, 2014; Middleton, 2010a,b 2011; Sustain and Sandwell MBC, 2014). Pondering loss of food policy board, gave a sense of impact of profound change, and unravelling of underpinning conditions and factors which had supported and enabled Sandwell's unique food policy vision. As one community agriculture officer reflected:

day after the general election, I remember thinking "everything has changed" ... trajectory was set ... there's been regime change, and for people like us, very often the opportunities to do something different comes at those pivotal moments, but it can be the opposite, we came in on that regime change with Labour government and in on the crest of that wave (SACS1)

This loss occurred despite backdrop of increasingly visible international, national and urban food policy work, within which Sandwell was acknowledged:

I'd have difficulty showing the longer term impact of any of the work, beyond nutrition and healthy eating behaviour change, because a lot of the key people ... have gone, and the people left are the ones who have survived multiple culls and have been keeping their heads down (SAPH4)

Of course, people in Sandwell were getting older and moving on ... and there was a ripping up of the rule book, abolition of PCTs, restructure and reorganisation of local authorities, it was a disaster, ... affecting us, but also the political vision (SACS1)

Sandwell's community agriculture programme, experienced loss of strategic public health support and funding from 2017 (F3, 2014):

... real shift in public health ... big culture shock for us in an organisation ... they supported the work ... strongly evidenced, in national and international case studies ... but in Sandwell, it seems to be slipping into the background (SACS2)

One public health officer noted loss of public health staff during local authority transition - through retirement or redundancy - impacting on scope to innovate:

... social determinants, vision, innovation, trying new things ... there's no scope for that any more ... it's more managerial public health (SAPH4)

10.2.2. Change as restructure

Solihull's public health transition, restructure and refocus, although challenging, initiated advantage of closer working and focus on integrated food policy development. In Dudley, however, public health relocation (2013), brought rapid organisational change, distracting from previous foci. At the time of research, restructuring was ongoing, and public health capacity was absorbed in understanding where environment and health would sit in new council priorities. Inevitably, aspects of previous work would be lost:

a new chief exec, three new strategic directors and chief officers, lots of people come from outside with the primary function of saving money ... people moving on ... we mapped our existing work against matrix headings, so it won't all go, but it will be consolidated and restricted down (DPH2)

10.2.3. Changing leadership and support

For food policy innovation, protection and drive, as noted in previously, advocacy and leadership was key.

Again, significant for Sandwell, moving to council coincided with retirement of Director of Public Health in 2014 as longstanding visionary, advocate and driver of food policy (1988-2014). The DPH had attempted to protect the "upstream" foci and roles in restructuring negotiations with the council (Middleton, 2011):

It's associated with them as well ... the danger if it's about a person then there's weakness ... because if that person goes, you see it all the time, things just stop ...(SAPH2)

Not only were political structures and leadership changing but related "constellations" of people key to food policy work breaking up:

changes of political regime drive social change, not just about the money, it's about the people ... those constellations of people where you get a break up and scattering of people, ideas and vision that come with them, and then you get the new people, they don't get it and it's not important to them ... it's like constellations of stars that brighten up the firmament and then disappear (SACS1)

Combined with organisational changes, loss of leadership impacted on strategic support for food policy associated activity; for example to urban agriculture (F3, 2014; Sustain and SMBC, 2014).

It's gone, gone away completely really, the previous DPH, that was bread and butter for him, a key integral part of his vision ... the new director now, doesn't see that as an integral part of the job role really, so it's just dropped by the wayside (SAMBC1)

Leadership change led to loss of historical understanding of community agriculture's place in food policy context:

it's not right for our population right now, and plus we haven't got the land, we are an urban area, we haven't got vast tracts of land we can use ... it's just too alien for our culture, our population at the moment (SAPH5)

Planners reflected overall loss of strategic drive:

I'd like to see those ideas, that kind of drive ... proactive role - we are with less resources, quite reactive, and those jobs to promote things and encourage people, get partnerships and enthuse ... they have largely disappeared (SAPlanner1)

Continuous change affected leadership and vision at other levels, with loss of people and knowledge. Developing, embedding and enacting policy, required stability and commitment of individuals over time:

all these things ... they do take an extraordinary amount of time to develop, and therefore you find yourself trying to persuade different people, if you leave it more than two years, you find different people, so with aspects of food development, it's difficult to say it made much difference at all really (SAPH3)

Role change or loss was also noted by each case study over this period, impacting on ability to drive integrated food policy work, and for food to be visible in its own right.

Re-organisation and disruption to roles also affected ability for policies to be adopted formally. By 2017 for example, Dudley, public health leads, lost specific food and nutrition remits, moving to generic roles; meaning Dudley Food Growing Strategy remained in draft:

It hasn't happened, the final draft has been done, but not helped because of the restructuring changes, so that work hasn't been prioritised ... I'm concerned the food and nutrition agenda is being whittled down, who is picking it up capacity wise, with knowledge and expertise in that area?... We don't have that specialism attached to

us anymore, we're attached to life-course, healthy places, healthy ageing, we've all been split off in that way ... (DPH1)

Solihull saw similar changes, following staff cuts by 2017, to key officers active in Food Sub group, impacting on ability to realise food strategy goals:

... the group diminishing in what we were doing - parks has gone from 3 posts to just one post in that role, so it's meant the person left, a new person, is trying to catch up with everything, and not got time for meetings ... it's meant projects we were going to do jointly ... a large chunk of the food strategy was around parks ... you lose quite a lot when one person leaves (SPH1)

10.2.4. Austerity - driving change through multiple impacts

Austerity measures and cuts within local authority post 2010 also had significant impact on food policy aims. Whilst Solihull was initially more protected from cuts, Sandwell and Dudley undertook far reaching policy and organisational changes as a way of reducing budgets. Cuts worked both ways; they could initiate integrated work to save resources, but also push officers into silo working. Cuts could mean greater workloads, less capacity for innovation, collaboration, risk and experimentation. They also brought focus on value for money, short-term gain, away from longer-term thinking. In some cases austerity impacted on land use - with reduced parks maintenance and feared loss of greenspace.

10.2.4.1. Austerity and risk taking, innovation and autonomy

The Sandwell public health officer noted the impact of austerity on visionary thinking:

It's austerity, reduction in capacity and money, it's pushed focus on what we can do on cost savings and reductions, bigger vision stuff tends to get pushed to one side, because its longer term, unclear, and you can't demonstrate savings in the same way (SAPH4)

Despite ring-fencing of public health funds post 2012, cuts did take place, disproportionately affecting more deprived authorities, with job insecurity hampering innovation (Kings Fund, 2015), noted in Sandwell:

reduction in resource ... staff ... capacity across the whole system means the focus is much more on what to deliver, visible ... there's probably a degree of protectionism in it, in that people have to be seen to deliver something if they want a job, and there are so few jobs ... (SAPH4)

Move away from risk taking and experimentation was also noted by Solihull:

One thing we've seen massively change is the amount of work that went into new things, risk taking, preventative stuff, stopping, we've got to take a slice off the

sausage this year, where? ... no extra money for innovation, since (2010) it's been a case of cutting (SMBC1)

Solihull public health officers experienced big changes from time within PCT, where there was more autonomy and resource:

not just about reductions to public health grant, it's reductions to the whole spend, the starting point for many councillors, cabinet members and officers is "well, the council has experienced significant reductions in spend", that's the context in which we have conversations about the public health grant ... isn't a lot of sympathy (SPH3)

Similarly to Sandwell, Solihull noted need for justification of food policy aims with pressures to move away from social determinants approaches to health:

The challenge to those of "are they efficient, exactly how cost effective are they?" and more importantly, how much are they focused on narrow aspect of wellbeing, how much they are supporting other council objectives? (SPH3)

10.2.4.2. Austerity and its impact on realisation of policy adoption and aims

For Dudley, austerity pressures, restructure and political complexities combined to impact on progress of Food Growing Strategy adoption. Navigating governance process towards formal adoption was challenging, against competing agendas. By 2017 remaining in draft form; food growing no longer seen as a priority.

One councillor noted the strategy, although "*close to my heart*" was set aside under pressures to balance council budgets:

can have as many strategies as you want, but if they're not embedded they're not going anywhere ... I've spent most of my time in meetings in this council, looking through every line of the budget ... making sure council stays solvent, fighting as a small minority administration, working our way round political complexities of getting it ... through the system ... the things we really care about ... get side-lined (DMBC1) (Food Growing Strategy) happened at a bad time, during the same time, and with the same capacity issues, other things had gone through the processes of governance and adoption, and that hasn't, and it was ahead of them ... indication of how much people in the system have driven it as a priority (DMBC3)

Wider cuts in Dudley impacted on delivery of draft food growing strategy activity - including funding cuts to food growing groups:

One voluntary sector groups which was going to be one of the delivery mechanisms for establishing some priorities in the food growing strategy ... now shut down (DPH1)

For Solihull, cuts direct impacted fulfilment and continuity of Food Strategy:

We've lost money in our budgets ... to fulfil the food strategy ... the knock on effect isn't just money ... it's that it's unlikely we will ever get that money again, and once you've done a strategy, you can't just say after three years, "ok, we've done that, we don't need to do anything anymore, it will just do itself" ... need money to continue building (SPH1)

For Sandwell, austerity meant critical appraisal of its urban agriculture programme by new leadership, coinciding with other factors, including loss of Director of Public Health, lack of buy-in and understanding within the council, as described in other sections; all of which impacted on loss of emphasis on food policy. This led to removal of core funding in 2017, within more immediate budgetary decisions, where urban food growing seen as low priority (F3, 2014):

You've got to have the political support and vision to make it happen, but then that changes ... soon as there's a reshuffle ... if they're looking to make cuts it's a very easy place to take money because it's difficult to show it delivers any front line service that makes a big difference ... have to show you've saved money, reduced acute delivery into hospitals (SAPH4)

10.2.4.3. Impact of austerity on integrated work

Budget cuts also removed additional flexibility, resource and glue so important in supporting relationships, integrated action towards emerging systems approaches, within food policy groups, and between departments:

Staff capacity narrowed to fulfil statutory functions, as noted by Sandwell planners, meaning less appetite for wider work:

lot of things we couldn't do that we would like to do, we're down to core functions, there is stuff that is non statutory that is shrinking more rapidly than the pressures on the statutory stuff, we have to show results ... grants obtained, stuff on the ground being achieved (SAPlanner1)

For Solihull, there was a sense of "unravelling" emerging systems links impacting the food sub-group and actions:

... because it's a whole systems approach we're taking and because its impacting on other budgets, as well as ours, there's been cuts to parks budgets, communications

and events ... everyone is cutting back, pulling back ... and its constantly pulling out of the structures that we're building (SPH1)

trying to do more work with less people, I was struggling to keep the work going and couldn't make it sustainable ... when we lost parks representative we were really struggling, public health were still supporting food growing initiatives, but parks and open spaces were unable to respond, with reduced budget and staff ... a lot of our plans have been scuppered by austerity (SPH1)

Dudley's parks officers on the food growing strategy, noted similar loss of joint working relationships:

We used to work very successfully with planners, but now with funding constraints we've been hit very hard, planners are now focused on getting developments off the ground ... we're losing all our good contacts (DMBC3)

Whilst austerity restricted integration, some saw it as an opportunity to increase joined up work. This was particularly clear in Dudley, where realignment of council pushed people to move out of traditional ways of working:

I can't see any change to austerity ... it's going to be a tough next few years, that's a barrier but not insurmountable, and you have got to be more flexible about the way in which you work (DMBC4)

I don't know how we could cope in these climates with the cuts we've had, if we weren't looking at new ideas, and pulling on the strengths and weaknesses we have got internally and externally (Dplanner1)

10.2.4.4. Austerity and land

Previous chapters noted Dudley envisaged asset transfer of land for food growing as a potential pathway for new land use management. Realities of this are explored in more depth under "constraints" later in this chapter. Concern was noted in the case study areas on impact of austerity on ability to manage green space and potential pressure to dispose of land. Sale of land, meeting regional demand for housing, could generate much needed capital receipt and rates:

(councillors) are aware of financial pressures, most understand the situation we're in ... but would like to see benefits for the community, so it means when we're identifying potential asset transfer land, the chances are it won't be valuable land, it will be smaller pieces ... we can't get much commercial return on, but you could have a group managing it, getting benefits (DMBC4)

Dudley's Green Space asset review identified surplus land, for potential change of use, or disposal (Dudley MBC, 2015a). Whilst allotments, and parks remained protected under law and BDS, the expense of managing Dudley's land parcels was a concern:

tensions are there, people are going to say, "why don't we just sell off the land for housing, generate capital receipt that will help balance the books?" that's the argument going on when we're looking at those sites (DMBC4)

the way the government are going ... desperate to put housing on land, we might lose (land), certainly some of the smaller, scrappier bits, incidental in council housing estates ... there is going to be more than likely questions asked about how land could be better used (DMBC3)

Dudley parks officers were keen to support Food Growing strategy aims in parks, as cuts to staff, and maintenance affected ability to manage greenspaces:

Where austerity is beginning to hit in terms of place-making generally and not just food specific, is cuts to other colleagues' budgets ... maintenance budgets potentially undermines much of the work ... if areas are poorly maintained it will have a negative impact (DPH3)

Officers in Solihull and Sandwell also recognised similar tensions, similarly driven by budget considerations and pressure for housing land:

Allotments owned by parish councils ... under pressure to sell some off to raise funds, but also ... everyone is saying "do something with this field, stick something on it because the council will try and force you to sell it for housing" ...(SMBC1)

10.2.5. Knowledge loss

For Sandwell in particular, impact of change, meant loss of institutional memory and knowledge of much food policy history and work (F3, 2014; Sustain and SMBC, 2014). Knowledge transfer into council, 2013 onwards was left to few remaining actors working hard to "carry" the story. However, pragmatically, food policy story was simplified to make it palatable within the council. Officers faced challenges to communicate the historical legacy:

the trick's been trying to capture all the expertise and earlier work ... so the good stuff goes forward in a world where there is much less interest in evidence based - so you say "we're doing this and there is a reason why", and then "it's because it's based on the legacy of all this work that's been done, we're not just saying it" ... that was a real struggle for us (SAPH2)

... I think knowledge transfer, collective memory or interest in it, that is the strongest thing you can have than even a policy document ... programme of funding ... job

description for a food policy officer. I don't know how, it sounds so simple, now that we can't demonstrate it ... (SAPH1)

Overall there was a sense of fragility in the way forward, need to protect learning and knowledge, with loss of formal food policy board:

At the moment we're struggling to organise ourselves without having a food ... policy board. That's not to say that these are the only vehicles that can create change ... interesting to look at Sandwell, and think that without a food policy board, how is it going to organise and understand how to make improvements? (SAPH1)

Loss of knowledge and institutional memory was reflected by some council officers, for example, knowledge of Community Agriculture Strategy (2008-12) seemed vague:

... (I) vaguely remember ... it didn't have an impact (SAMBC1)

Conversations with council interviewees sometimes saw food growing as a "new idea" to Sandwell, revealing no awareness of legacy and presence of the community agriculture work:

I would say (community agriculture) *is not something on the radar, in the way that it could be … it's definitely something we ought to look at … you've given me an idea there …* (SAMBC2)

In absence of formal food policy, one officer commented how the work had become preserved through activities on the ground:

I think it's ideas that have the strength now, ideas like International Food Market, holiday kitchen, summer activities in parks ... I think those things are becoming more of a pathway ... becoming more visibly real.. (SAPH1)

10.3. Constraints

Whilst change - had significant impact on food policy adoption and knowledge transfer, constraints meant "reality checks" for integrated and upstream food policy making and action. Here, constraints are grouped into:

Expectation, remit and role - in particular of planners and public health

Bargaining power and politics - acted out by developers, and within local authorities.

Realities - in attempts to bring in community buy-in - for food policy actions.

10.3.1. Expectation, remit and role

As noted previously, integrated work between public health and planners was key in grounding upstream food policy aims for food environment change. Conversations with

planners and public health revealed need to navigate differences in approach in order to facilitate effective integrated work.

The two disciplines came up against realities of expectations and constraints to reach and role of planning to impact health - particularly seen in use of planning tools to restrict hot food outlets. The difference in approach summarized below in Table 24.

Planning approaches	Public health approach
Public health as one of many considerations	Public health as priority
Pragmatic limitation of planning	Unrealistic expectation of planning?
Planning tools as blunt instruments	Planning tools as 'panacea'?
Legislative/ statutory	Non-statutory (not consultee)
Case history based	Evidence based
Process and target driven	Outcomes driven/ experimental pilot
Subject to legal challenge	Not subject to challenge
Consideration of all parties involved- equity	Population focus but consideration of inequalities

Table 24 Difference in planning and public health approach - from narratives with interviewees.

10.3.1.1. Planners: "Already doing it anyway"

Conversations with planners across the case studies revealed initial reticence in responding to public health overtures to "consider health" in planning, particularly following council relocation (2013) and NPPF (2012). Some planners expressed views that health was *already* considered by planners within sustainability, and place shaping. As one Sandwell planner commented:

There's concern that the agenda coming from public health is stuff we're already doing anyway ... we embed into planning, principles of health and sustainability anyway ... we don't want to ... stand in their way, ... a lot of what we're doing is what we've always done (SAPlanner 6)

For Dudley, links between health and planning were well established through Healthy Towns work; some of these issues had been ironed out at an earlier stage. One planner noted learning from development of Borough Development Plan:

It's been a process, you know there's been frustrations on both parts, each couldn't understand why the other couldn't do something at first, but I think we've a much better understanding of public health, and x (public health) now has a much better understanding of using planning (Dplanner2) One Solihull public health officer working with planners on the Health Development Group echoed this early naivety:

when we came to the council, I presumed naively that they (planners) would welcome our input and say "that's brilliant, we really didn't know any of this" but the response was "actually we do know about health"... eye opener for me, actually "not everyone wants public health to go in and tell them what they think"... relationships are very good now, but it's taken a while for both sides to establish (SPH2)

10.3.1.2. "Something else we have to think about"

Some planning officers expressed apprehension or a certain degree of defensiveness about "extra burden" of work coming from public health. This was noted in both Solihull and Sandwell, reflecting the emerging relationships:

there's resistance to new things from planners, "oh no, something else we have to think about ... not just flooding, air quality and transport ... now they want us to worry about how many people have asthma, obesity ..." (Solihull Planner 1)

A public health officer in Sandwell, working to develop HIA, within SHUDU noted similarly:

It's in danger of being seen as another hurdle to jump ... you can take a horse to water, you can't make it drink ... although in strategic and policy terms the links between planning and health are well understood, I think if you're dealing with case workers they look at things in a very black and white perspective (SAPH6)

Consideration of health was not always a priority in day to day decision making in the planning application process. Solihull and Sandwell planners noted, bringing planning development officers on board was key in considering health within applications:

For (development management) to be taking notice of your agenda, you've made a big step forward ... that they should consult you, like they would think to consult environmental health or transport ... that's a big step in itself (Solihull Planner 1)

It depends on the case worker you're working with, some have more lax ways of working with these things and don't read our own policy we've had many years, and others are very careful ... it depends on the person who is dealing with the application. (SAPH6)

Development managers worked within a target driven environment, under pressure to push applications through quickly, impacting on willingness to consider additional factors:

If planning permissions come and designs are already in, it's so much more difficult to change things, seen as an extra burden, rather than something that helps the process along, we tried HIA for a while, but I don't think development managers really bought into those, they're under pressure, a numbers game, they have to meet targets ... keep statistics high, don't want delays (SAPlanner 1)

10.3.1.3. Expectations of and limits of planning

Differences in understanding of planning - highlighted tension around contrasting frameworks by which planning and public health operate, and expectations about what planning could achieve.

For planners, health was just one of many competing factors to weigh up within planning decision making. Comments in Solihull allude to perceived raised expectations of what planning could achieve:

the council has aspirations in terms of delivering healthy communities, I fully get that, but quite often what I see as a planner is "oh the planning system is a vehicle to deliver this, that and the other", and it's a very blunt planning tool, people think it has the power to control x, y and z ... (Solihull planner 2)

Public health could comment, but without being a statutory consultee, inclusion was not always central:

public health isn't a statutory consultee, we don't necessarily have influence ... until we are, I don't think we will be taken seriously nationally, so it depends ... on building relationships to encourage your local planners to listen to you and involve you (SPH2)

This lack of leverage was echoed in Sandwell:

In our consultation process, we have a lot of statutory consultees, but I don't think public health is (statutory) ... it's kind of left to the officers ... to remember, "oh yeah, we should consult public health" (Sandwell Planner 3).

Limits and realities of planning to tackle health issues were also exposed in comments:

x (public health officer) would probably say they were in that camp thinking planning was the great panacea ... to ... stop hot food takeaways springing up ... I have to take them carefully through that whole conversation, "well, you need to be able to demonstrate planning harm, yes, there is obesity, but how do you relate the directly to this development?" (Solihull Planner 2)

The idea that you can systematically change people's behaviours or even their knowledge through the planning system is ... a little bit tenuous, because the planning system only works at the margins (SAPH3)

10.3.1.4. Limit of tools to tackle unhealthy food environments

Tensions around health were highlighted in discussions around unhealthy food environments and the ability of planning to intervene. Sandwell and Dudley, using Supplementary Planning Documents (SPDs) to restrict hot food, this highlighted obstacles, with perceived "purist" view of public health in contrast to planners "real world" decisions. In addition, evidence presented by public health could not always support planning decisions.

A comment from both Sandwell and Dudley planners highlight need for "balanced approaches":

It's very difficult, in terms of what's achievable through planning ... a councillor or public are asking you to look at health as determining factor ... It's a sticking point where planning and public health don't go hand in hand, we look at use ... from an amenity point of view - public health want us to look at it from health point of view which we couldn't really do (SAPlanner3)

public health can be more pure in terms of health ... we also have to have the planning balance as well in relation to - "well, we need homes, we need economic development, what is the best thing for that unit?" ... we have to balance, whereas the purist ...would say "that's not right" ... (DPlanner2)

Finding robust evidence for local decisions was challenging - health arguments did not always carry strength, when comparing longer term determinants to economic factors for example:

that's where evidence base comes, if we could demonstrate that this particular business would be bad for health ... then it will be easier both in terms of getting political support but also getting it through planning regulation at a local level. It's not always easy to produce evidence that's sufficiently robust (SPH3) the challenge is ... proving the worth of it ... there's been various studies carried out of health benefits attributed to good development ... but I think the wider determinants are difficult to put a figure... how many lives have you saved, what gap have you closed in the healthy life expectancy? (SAPH6)

10.3.2.5. "Not an exact science"

Even though SPDs were seen as tools in armoury to tackle unhealthy food environments, they were recognised as a blunt instrument. Decision making process within SPDs, was not "exact science" but subject to interpretation. This could be frustrating for public health as noted by responses from both Sandwell and Solihull:

I know public health were keen to get 400m buffer zone around primary schools ... but it's just not practical, because we would literally obliterate the whole borough, and that's not what planning is about (SAPlanner3)

It's got to be approved by those trying to enforce it, that's the difficulty, so public health would always say "from a population point of view we think this is best" and then the planning team will say "how are we going to enforce that?" (SPH2)

Retail Use Classes operational at time of research also illuminated policy loopholes, limits to planning control and complexities of unhealthy food environments (Gov. U.K. 1987). Many hot food outlets were exempt from SPD policies aimed at A5 outlets (takeaways), being classed as A3 (cafes):

Greggs is classed as a café (A3), even though it produces food for consumption off premises, it should be classified like an A5 if you think about it ... and that's how proliferation of those businesses has pretty much gone unchecked ... there are nuances in the planning system that are totally taken advantage of by developers or major corporations to get around council and plonk their business in the area ... (SAPH6)

we have broad use classes, you could have a healthy takeaway, but it's the same use class as an unhealthy takeaway, we don't get to control end user ... (Dplanner 2)

One Dudley public health officer echoed complexities in trying to limit outlets on what he called "death row":

can only implement national grading system, whether it's A1 - A5 ... and all the big companies have got ways around that ... so McDonalds puts tables and chairs in it and it goes from being a takeaway (A5) to a restaurant (A3) ... what (SPD) gives us if all the circumstances are in line, we can't have any more in these settings, but if one is existing we can't stop it being reapplied ... (DPH2)

Solihull public health also found themselves unable to influence decision for a Greggs shop opposite a school in Smithswood, with impact on children's eating patterns: (See Appendix 1 Box 5).

a lot of confusion about the Greggs near the school, I had to explain that it was not an A5 anyway, and therefore we couldn't do anything about it, and we can't single out a business, operator ... (Solihull planner 1)

10.3.2.6. Fear of legal repercussion

Planning is subject to legal and case based decision making - impacting on willingness to enforce food environment regulation. Planners took a conservative approach to decision making, underpinned by fears of legal repercussions, challenge and potential cost implications to councils. This was noted in Solihull, where attempts to support an SPD for hot food around 2015 did not progress at council, for a number of reasons, including economic priorities, but also previous experience of and fear of legal challenge¹⁰:

The main challenges are around getting planners to see (health) as their responsibility and that's due to the way the planning system is set up across the country ... they know they will end up in court having to explain their decisions and it might cost us money and reputation (SPH3)

we have local evidence but I think ultimately people are not in a position to use that as a tool against developers, if you have a strong developer who wants to open a KFC or burger bar, they know their stuff, their case law inside out, so they'll bat it back ... a case in Solihull ... with KFC ... it went to planning inspectorate and was rejected ... we've been bitten and people are very cautious about being bitten again (SPH2)

Sandwell had similar concerns, having incurred costs through a challenge in Hilltop (2015). Comments embedded within consultation on the "refreshed" SPD (2016) revealed powerful challenges lodged by agents of national hot food retailers, in ongoing attempts to undermine the strength of the SPD. Legal costs, meant planners were cautious, ensuring the SPD was not used alone but strengthened within a raft of wider non-health related policies:

You couldn't object to something just because you didn't like it, so the fact it could be appealed against and planning inspectorate would be involved, would make an independent judgement ... on planning legislation grounds, and if the authority loses they obviously pay all the costs, so I think there's a nervousness moving outside the strict planning field (SAPlanner 2)

10.3.2 Bargaining power and politics

Other constraining factors to achieving policy aspirations for food environment change, highlighted aspects of bargaining power and politics.

10.3.2.1 Developer power

Aspiration to embed food growing into development sites, was noted across the case studies - as part of healthy urban development and place making. However, prevailing influence in

¹⁰ Having faced legal fees in 2013 from challenge by Kentucky Fried Chicken on appeal, subsequent attempt to bring in an SPD was not adopted in 2015. Report to cabinet cautioned the proposed SPD was 'too vague' and could be vulnerable to legal challenge. (Grant, G. 24th September 2015, Birmingham Kings Chambers)

land development, limited NPPF drive, and strong developer power, were key factors in how much leeway councils had. Food growing visions would rarely be seen through to fruition in new development. Austerity and added pressures to meet ambitious house building targets also gave developers the upper hand.

Planners acknowledged whilst some developers recognised the value of healthy "place shaping" and enhanced environments, relationships could make the difference in acceptance of new ideas:

If it's with a developer we have worked with for a long time, it's far easier, if it's a new developer to the area, that's harder (SPH2)

All cases recognised, that without statutory guidance, or "policy strength", food growing would be difficult to convince developers to integrate:

dilemma is, is it material consideration for the planning application? What's the Development Control Officer going to write in that report? "We've asked the developer for it, and the developer said 'No'" So, what do we do, turn it down? They are never going to turn down a development because it hasn't got an allotment in it ... (DMBC2)

When push comes to shove, an applicant knows they're doing it to keep us happy, but they will do it to a point when they probably don't actually have a requirement to provide some of this stuff ... (SPlanner 2)

For Sandwell and Dudley in particular, a confluence of austerity, limited ability to raise council tax and generate capital, and complex contaminated land, contributed to limited bargaining power for aspirational policy aims. In addition, compared to more affluent areas - and pressured by budgets, there was little political appetite to "*scare developers away*" as one Sandwell public health officer noted:

(council official) said ... "forget about more green spaces, let's build more houses" ... developers won't even need planning permission to build so you can guarantee they will not be ... high quality urban spaces ... Bristol's approach to work with developers to build food growing into everything is just never, ever going to happen in Sandwell (SAPH4)

It's a tricky situation, land is at a premium, and there is such a national and political push for housing, whilst we as planners on the ground ... can see the benefits ... say you're talking about a plot that could be ... a garden, you can have these ideas, but at a higher level, these ideas do not wash, it will be "well, we can have more council tax if we put housing there" and unfortunately it's about the numbers (SAPlanner 6)

"Developer viability" was also raised in interviews, highlighting limited bargaining power local authorities had when developers held the cards in delivery of housebuilding targets. Requests to consider allotments or food growing were seen as added pressure on "viability", as both Sandwell and Dudley planners commented:

We've enough issues in trying to make development viable, so adding food production into the mix puts pressure on viability. Whilst I think it's relatively cheap and easy to do this, this isn't the case from developers (SAPlanner4)

... Those things start to get chipped away, all of our sites are contaminated, all have viability issues, so I think the issue is not that we can't sell the idea to them, it's that we can't sell it financially (Dplanner3)

A Dudley planner, describing Wordsley Hospital development, where food growing plans dropped off the agenda as plans progressed (see Appendix 1, Box 2):

there needs to be some sort of mind-set around food, if it's ever going to mean something, unfortunately developers see everything via a £ sign, viability, you know, but by the time they have put affordable housing on site ... SUDS, greenspace and all other things that go with it, the viability of that scheme, completely changes, in that they are beginning to think "is that even viable any more"? (D Planner 1)

Similarly in Solihull, one planner commented food growing might be seen as last on a list of other demands for developers to deliver; trade-offs would be made:

developer is only going to deliver a nice allotment site if you know they've got enough value out of the rest of it, if they are going to put something in that is nil value, that's always the trade-off (SPlanner2)

For Solihull, capital investment, better site opportunities, and bigger budgets gave the borough slightly more bargaining power, although similar constraints were noted. Pressure to demonstrate five year housing land supply, again meant compromise:

Perhaps you see applications coming forward that aren't 100% of what you wanted in an ideal world ... we don't operate in that ideal world and in absence of a five year land supply, we don't have the control we would want (SPlanner2)

Planners across the case studies recognised that until councils had more control over land not favoured by government policy at the time - they would not have power to insist on more enlightened healthy planning. This view was summed up by one Sandwell planner: You can only have those sorts of influences when you have some real control. Real control in that situation would be the Local Authority retaining land ownership and willing to drive that type of development forward¹¹ ... (SAPlanner1)

10.3.2.2 Council politics

Whilst internal politics influenced overall ethos of local authority policy, it also impacted on consideration of food policy aims. This was clear in Solihull, where juxtaposition of Conservative majority and Green opposition could create contention around perceived "green issues":

A lot of issues around environmental sustainability, food issues, do tend to be looked at through a party political lens, and so can get in the way ... of genuine debate about food and environmental sustainability ... more sophisticated discussion around the issues, because the system doesn't allow (SPH3)

Some expressed concern that public health officers compromised working in a new political system:

They've found it difficult ... because they've come from the NHS where ... it's politics with a small "p" ... now suddenly, they have written these reports and the cabinet member has said "No, I'm not selling that, write it again and say this" and you're thinking that the evidence doesn't say that ... I've seen them change; they're reluctant now to challenge, they play the game, the party political line, they write things in certain ways (SMBC1)

Sandwell's public health officers acknowledged without political buy-in, almost at expense of evidence - no aspirational food agendas would be met:

The main challenge is managing political objectives and desires, against what you think is right for public health, sometimes they're aligned and sometimes not, that's the hardest thing, persuading councillors on a right course of action ... my role is to influence, provide evidence, and they're not always interested in evidence, it's what's going to get them the most votes (SAPH5)

can't do anything without political buy in and if you had a politician ... driven by this, you might be able to make something happen. There's no shortage of ideas ... there's just no real ability to make it happen (SAPH4)

¹¹ Perhaps this chance was presented to Sandwell. In March 2018, the council announced it would be building 500 council homes, with £70m investment. https://www.expressandstar.com/news/local-hubs/sandwell/2018/03/02/500-council-homes-to-be-built-across-sandwell/

This was echoed in Dudley - emerging strategies were strengthened if aligned to political aims:

I think the food growing strategy sits squarely with health ... it's having the levers and political clout that make it an issue (DPH3)

10.3.3. Realities of involving community

As previously discussed, community involvement was seen to support integrated food policy aims, through endorsement and action. Whilst each case study sought to involve community and had successful relationships and initiatives, they also encountered challenging realities.

10.3.3.1. Time, willingness and capacity

Solihull's food forum facilitated community engagement in food strategy vision. However, officers perceived realities and challenges of developing community "buy in":

What you tend to get is the best practice, everyone throws you, "well, Worcester is doing this, Brighton this" I often think "yea, so what?" If you haven't got keen groups and networks... (SMBC2)

... people just want to suggest stuff and then be able to walk away, they don't actually want to do anything, that has been a big problem, because we've been trying to launch this so its sustainable ... driven by community ... but getting that to happen, is very difficult (SPH1)

There was recognition of the time and resources needed to work with more vulnerable communities, as noted in Solihull's attempts to gain community input, in the North:

We've talked about food coops in the strategy, and food growing. We underestimate investment required to deliver these projects ... it's all well and good saying "they will spring from the community" but in reality, they often spring in communities that don't need it too much (SMBC2)

Community members revealed scepticism about food strategy involvement:

I'm reluctant to get involved with that as it's a lot of meetings, lot of time, and basically nothing comes back and there are no resources, it's just the strategy, and we have to survive here ... a more effective response would be "here are some resources, let's do it" (SCS2)

I think people have got too much going on in their lives ... people are interested and want to get involved, but when it comes to it, no one has got the time ... disenfranchised from everything, and food in particular (SPH1)

Despite Dudley's *Community Council* focus, saw officers similarly sceptical about the willingness of community - as volunteers - to take on management of assets, such as parks:

people didn't want to do that, Friends groups have their own agenda that didn't want to go any further than what they were committed to do, it's their own time, and own life (DPH2)

This translated onto the ground. One Dudley planner commented community gardens visions in Wordsley Hospital development (see Appendix 1, Box 2), were scaled back, meeting lack of community enthusiasm:

... people in the flats were not really geared up or interested in taking on food growing projects ... (DMBC3)

One community growing group summed up reservations about council pressure to take on increasing management roles:

... very mixed feelings about the community involvement and community management, because they feel more and more is being dumped on them ... beginning to think, "whoa, how much is coming our way?" ... (DCS1)

Recognising democratic benefits of community control, some saw the shift of expectations on communities as indicative of a shrinking state agenda, or neoliberal policy:

knowing people in the council who came forward, and understanding government drift, its Dudley's reaction to telling people they've got to manage on less, and are going to have to look after themselves a bit more ... it's the hollowing out of the state (DMBC1)

belief ... from government ... that communities can deliver all these things to a required standard ... they can be part of it, deliver parts of it, but they can't do it all, and need a lot of support (DCS4)

10.3.3.2. Underlying determinants

Case study narratives noted in areas of deprivation - community capacity, energy and time was constrained. Some commented this experience was different in comparison to food policy exemplars, driven by active, empowered civil society. Discussions in Sandwell in particular, often reflected a wider view that as uniformly deprived, underlying determinants and environment imposed significant constraints, impacting on community capacity and health (Middleton and Saunders, 2015):

Areas more affluent you'd have far more people in community willing to come forward, because of the different social context, whereas in Sandwell, you have a lot of families struggling to survive people haven't got the energy, understanding, health, capacity to do it ... (SACS4)

People have got to be empowered, and generally life in Sandwell is so hard that it doesn't produce those kinds of people, or if it does, not for very long ... they might have their moment, and their lives move on or other problems come into their lives (SACS1)

There was recognition that communities needed resourcing and support, not volunteerism. For example in community agriculture:

we were clear to expect communities experiencing the levels of deprivation ... was unreasonable, and I still think passionately it's unreasonable to expect that people who were most affected by - to the point of having their health ruined - the physical circumstances they live in, and their mental health - to suddenly spring forward and be volunteers, and think it's all going to be wonderful ... it's an insult to people to expect that somehow an army of volunteers will come out and tackle that type of dereliction ... you've got to invest ... it would have failed if it had been a "pull yourself up by your bootstraps" project (SACS1)

Similar issues were raised in Dudley, and North Solihull:

There isn't always the drive within these communities, because people are dealing with other issues, poor health, unemployment and drugs (DCS3)

In Solihull, some questioned Food Strategy focus and relevance, to the more deprived communities in the North:

I'd rather you spend this money to stick on a free minibus every night, which would go to Asda, Lidl as the reality is they do cheap food for people who haven't got much money, that will do more to solve food poverty and health issues than putting on a gleaning course (SMBC1)

10.3.3.3 Cultural issues and stigma

Some discussion emerged on cultural and perceptual barriers of food policy ideas such as food growing. Again, whilst successful food growing and urban agriculture initiatives were seen across the case studies, these were in the main, resourced multifunctional sites, offering wider wellbeing, mental health, and education benefits with food as an entry point.

Whilst food growing was encouraged under Solihull's Food Strategy, some expressed reservations as to whether there was latent interest for food growing more widely in the community:

It's difficult, because I think food does play an important role in society, but because we are so distanced from food now, I think when you talk about growing food, it's not that that brings people together any more ... what brings people together is going out and eating out, or going down to the supermarket and buying food, I don't know if its growing (SPH1)

I think culturally it's not the norm here, there are a few sub cultures like the allotments, really good, and you would think looking at allotments everyone was interested, but they are not (SCS2)

Reservations were expressed at strategic level as well. Despite national and international recognition of Sandwell's community agriculture programme, the new public health leadership 2014 showed scepticism of its relevance:

Growing, you know if you are looking at a population approach to changing behaviour, it's too far away, too removed from people's experience, they are not cooking, and they are not going to grow if they are not cooking, so I think it's ... just too alien for our culture, our population at the moment (SAPH5)

There is a "sell" to be done in terms of our communities ... what (DPH) was looking at - being over-simplistic here - ... middle class, aspirational stuff, and the kind of evidence base maybe, so people have a perception in their head, they come with a view that this only works in certain types of areas (SAPH2)

Some seemed to view food growing as a "middle class" pursuit - and hence stigma, as officers in Solihull noted:

if you look at who shops in charity shops its mainly middle class people, because for others it's a bit shameful, it's a stigma, and so for gleaning it's very exciting to go and glean, but for people in my ward, if you've got the time, it's very different doing it from necessity, rather than doing it for the good life ... people aren't going to do that (SMBC1)

It's very fringe at the moment, and it can be quite "foody" seen as middle class, people who do it to become "eco-friendly", it's not seen as driven by need but by lifestyle choice ... so that's interesting as to why certain groups are looking into this, whereas others might be looking at food banks (SMBC2)

Knowledge and skills were also recognised as a barrier to food growing. There was recognition that if food growing were to embed, there would need to be a resourced approach, building skills, potentially costly and time consuming.

One Sandwell planner noted - whilst keen to see food growing embedded in new developments - the realities experienced were different:

We put in brand new beautiful accommodation, small back and front gardens ... The front gardens are all overgrown - so we have a brand new residential district - but people are not taking pride in their houses, so we're walking around thinking, "we've built this but the area looks deprived because you're not cutting your front lawn" (SAPlanner4)

Loss of skills was also noted in Solihull, reflecting on Chelmunds Cross regeneration:

They've done this regeneration now which caused quite a few problems to start with, because when you're taking people from a tower block into a house, their garden just ends up being a dumping ground, because you've never had that space ... you won't know what to do with it (SCS3)

10.4. Contradictions¹²

All case studies alluded to moves towards joined up systems thinking, where interconnections were clear, and decisions made beyond silos. Whilst aspects of food policy and healthy planning supported this, policy makers also encountered overt and covert contradictions to achieving food environment change.

Examples of contradictions were seen in different ways:

- Influence of economics contradictions between public health aspiration and market forces
- Thinking like a system? contradictions within and across pathways to food environment change
- Planning policy decisions Inconsistencies of inspectors and planning

10.4.1. Influence of economics - market forces

All case studies highlighted contradictions between public health aims and dominant market forces. Market forces manifested in contradictions in decisions about retail and implementation of SPDs for hot food. Pressure to encourage viable retailers to fill up empty units, in order to increase revenues was clear from all councils facing cash restrictions.

Political drive for economic development was particularly strong in Solihull:

Solihull the economic rationale, it's about growth, we will pursue growth ... the officers have learnt ... the ones who are more cynical ... "you know the rule in Solihull, it's as long as we make money, who cares?" (SMBC1)

¹² 'combination of statements, ideas or features which are opposed to one another' <u>https://www.lexico.com/</u>

I think the economic aspect comes into play when an area is being developed, and there is an invitation to businesses to come into that area, then I think the view is that a) any business is better than none because of the income it generates, and b) is it really our business to influence the businesses that are coming in? (SPH3) In this context, public health priorities had to be balanced within competing silos: people talk about "well we're looking for economic growth, so we don't want to stop developers coming in, so if it's to open up a fish and chip shop, then so be it", at least it's better than an empty shop in that respect … public health argument would be, "but what about the cost and the public health issues?" the answer would be "that doesn't matter because it's the NHS budget" (SPH2)

Solihull's economic growth drive was seen as contributing to its refusal to adopt Hot Food SPD:

It's the economic arguments, they were saying they won't put forward an SPD because it is not fair on the businesses that want to expand, and that there are too many schools and it would rule out too many places ... (SPH1)

One planner noted until there was clearer national guidance in favour of health, local authorities would have limited impact - and economic priorities would override health evidence:

(NPPF) is economic growth, to the point where a hot food takeaway, I would suggest, even with evidence of health impact, it's a bit like a game of top trumps, economic development's your top card. That's what's winning and that's what government requires us to do (SPlanner2)

In Sandwell and Dudley, as more deprived boroughs, economic and market considerations influenced implementation of SPDs around Hot Food, with pressure to "fill up empty frontages":

we have high rates for our shop fronts, and we'll get anything in as long as the shop is occupied, be it a £1 bucket of fried chicken, it doesn't matter, as long as we have a shop front occupied ... so regeneration and food? Well, regeneration and health don't make happy bedfellows ... but then again public health would be naïve to say that it's not important to have people employed (DPH2) The only way Sandwell's SPD was adopted is because it wasn't very tough on takeaways ... if it's tighter, it may have problems because there are empty shop fronts¹³ (SAPH6)

10.4.2. Freedom of choice and "nanny state"

Freedom of choice emerged in consideration of food environments in the case studies, reflecting wider "individual" versus "structural" narratives. Planners in particular expressed a level of discomfort, noting both "personal choice" and "market" influenced type of retail.

This narrative was clear in Solihull, where some felt healthier outlets would only thrive with demand for healthy food from community. Discussions highlighted the complexities of drivers and pathways of unhealthy eating, and extent to which people can make informed choices:

planners will also say, "well, if you don't build a chip shop there, they can just as easily go to a Sainsbury's local and buy a five pack of doughnuts and a big bottle of drink" (SPH2)

... no-one's forcing anyone to walk and buy fish and chips, forcing anyone to be obese ... if someone really wants to eat unhealthily, then they will. I agree you can have policies and they will work ... there's definitely some merit in that, but the obesity solution is much bigger (SPlanner1)

Within a planning framework, some planners were guarded against taking a "moral stance", or holding what might be seen as undue influence on the free market. Planning decisions were set within wider policy considerations:

We're being asked to judge a use, but not necessarily restrict people's choice, it's akin to saying you would restrict a shop because it had ability to sell alcohol, or refuse a McDonalds because of the detriment caused to health by hot food takeaway (SAPlanner 3)

The hot food debate and use of SPDs, highlighted some of these debates – as planners acknowledged:

¹³ Despite the contradictions, clear here also is the recognition noted in other chapters about the role of economic development as an underpinning determinant of health. This led Sandwell in particular to explore its 'retail offer' with food industries to build economic development through healthy food product development ("Food and Drink Sector Innovation and Growth" Action research project. Sandwell MBC, 2015c internal document)

personally, it's maybe a slippery slope in terms of what we're doing, again its limiting freedom of choice, it's not really down to planning, we basically look at things from a planning perspective, not necessarily to limit freedom of choice (SAPlanner 3) we looked at ways they were planning to control new HFTs as obviously you get into all sorts of "nanny state" issues, if it was attempted, with loss of jobs and everything else, interfering with the market, it just isn't where planning is able to exert any influence (SAPlanner 2)

10.4.3. Does community drive healthy food environments?

Other debates focused on extent to which communities and consumer demand can drive healthy food environments, particularly in areas such as Sandwell noted as a "fat swamp" "saturated" by hot food (Saunders et al., 2015). One retail consultant reflected interconnections between consumer demand, and challenges faced to establish healthy retail under "Shopwell" (Davis et al., 2006):

... it's chicken and egg, the pressures from supermarkets and fast food outlets has gradually driven down the demand ... I hadn't imagined how hard it was to change people's habits, and pressures from the other food groups like McDonalds, from fast food and cost (SA retailer1)

One Dudley planner noted role of consumer demand:

if you go back to market forces, if the community doesn't want it and doesn't shop there, it won't stay there ... a shop won't come as there is no market demand, so it is about educating or supporting that community to make the right choices, or have alternatives so they can make a different choices ... (Dplanner 3)

Debates about consumer choice were illustrated in Solihull over a new retail unit in the Chelmunds Cross Centre (See Appendix 1, Box 5). Here, the local community posed challenges by establishing a fish and chip shop as a social business in 2017, in an A5 allocation (CAF, 2021). Public health, saw contradictions with community establishing a hot food outlet against the backdrop of the food strategy:

Here, regeneration had displaced the original chip shop, a valued community hub:

One of the things that brought a lot of people together in N. Solihull is when they flattened land in Chelmund's Cross, there was a fish and chip shop there, they wanted to keep it open ... that brought people together more than any of the growing projects have done ... it brought them together because that is what people want ... you know the fish and chip guy, someone you are seeing regularly, you wait in a queue with all your neighbours (SPH1)

The community was keen to avoid what they had seen in Smithswood development:

it's a response to what we've seen happening in Smithswood and what they've got there, they've got Greggs and the kids are going to school eating sausage rolls, and we thought "we don't want this" but there's no point campaigning about it, if Greggs want to open up a shop, it will, the only way of dealing with it is taking it and saying "we are going to open a shop" (SCS2)

The council recognised contradictions, but also potential influence through promoting healthy options, given that it being a fast-food outlet was inevitable:

it's a very difficult one ... we would rather some form of healthy food shop ... because we don't need more people eating fish and chips, but the reality ... it's going to be (A5 outlet) so if it's going to be one anyway, then I'd rather it run by local people, and we could add some pressure, have healthy options ... to mitigate it, otherwise it's going to be a Greggs or whatever else (SMBC1)

Further comments shed light on "free choice" within unregulated food environments. One public health officer reflected on the lessons of Smithswood:

it demonstrates that it isn't so much about personal choice, these people are being influenced by advertising, they're vulnerable people, and children ... and they're not able to be accountable for their decisions to the same extent. It affects all of us, but the extent it affects them is much higher ... (SPH1)

This sentiment was also noted in Sandwell counter arguments to the hot food SPD:

it's tackling people's freedom of choice, which are stupid arguments, because people don't have a choice when there are 20 takeaways within a mile radius of each other and nowhere is selling fresh fruit and veg (SAPH6)

10.4.4. Thinking like a system?

Narratives of interviewees brought to light "blind spots" in systems consideration of food environments and ability to make visible, joined up decision making across pathways, from policy to practice, without creating "negative feedback".

10.4.4.1. Influencing the retail environment

• Blind spots

Dis-jointure in the system was seen in challenges to track where food retail environments were overtly discussed. Whist planned regeneration was seen by public health as a potential point to influence food retail and food environment choice, in practice, this was not clear. Planners acknowledged they had lack of influence on new retail, and whether an outlet would be healthy or unhealthy, other than in implementing broad "use classes". Both

seemed unclear as to where and how broader discussion about healthy retail might take place.

Aside from using SPDs, planners saw influencing healthy retail in new development outside their power:

I don't think you could insist, when we are discussing developing master plans or dealing with specific applications we could point people towards the guiding principles, we could encourage people to do these things but ultimately we couldn't refuse it because it wasn't there (DPlanner2)

We have broad use classes, so you could have a healthy takeaway, but it's the same planning use class as an unhealthy takeaway, we don't get to control the end users and we don't get to influence market forces and market competition, so there's degrees to which we control, but after that it is either somebody else's law, or its market economics and that's nothing to do with us (Dplanner2)

One Dudley public health officer noted that Dudley Town Centre regeneration, contradictions between desire for retail, and public health, came to the fore:

draft regeneration strategy ... there's a strong paragraph around how much Dudley had been regenerated ... how we're getting high street national brands to populate the units, and yes we are!...KFC, McDonald's, Costa, Nando's ... but the point is that regeneration in that sense is looking at the jobs it's creating, and impact on economy ... the fact that every time they make a sale it adds to our obesity levels or litter, or high cholesterol, it shows you where we are in the pecking order. (DPH2)

This food environment "black hole" was also illustrated in North Solihull aforementioned Smithswood Village Centre (Appendix 1, Box 5), which although seen as an exemplar of healthy planning, also revealed systems contradictions:

The school itself asked us if there was anything we could do ... what happened in Smithswood is that with Greggs' arrival they've seen a massive decline in take up of school dinners, and an increase of children coming in just having had their breakfasts from Greggs on their way to school (SPH1)

Public health had not been involved in planning discussions, recognised limited influence, especially as the outlet was classed A3:

haven't actually been able to do anything ... a very complicated situation, Greggs donates money to the school as well, they have set up a breakfast club... it doesn't give the school much leverage, and because it's a national company, you can't really negotiate with them and say "oh in that case you cannot sell your sausage rolls until this time of day" they set rules from head office (SPH1) There was a lot of confusion about Greggs near the school, I had to explain it was not an A5 anyway, and therefore we couldn't do anything about it, we can't single out a business (Solihull planner1)

One Sandwell retail consultant noted that to attract healthy retailers and support viability of smaller shops in new developments, would need proactive engagement at the start of planmaking:

... planners should talk to retailers to find out what the demographic would need to support a reasonable sized store that would be profitable, and try and design developments that would support a store ... so you haven't got a development of 150-200 houses without any thought about whether it is enough to sustain a store (SAretailer1)

• Licencing

Discussion of licensing of hot food also revealed sensitivities, revealing silos contradicting limits to joined-up thinking, as noted in both Sandwell and Dudley:

if councils think (SPD) the only thing they've got to do when the market is saturated anyway ...if you say, "well we are living in a fat swamp" - the only way all these places can survive is through a race to the bottom in terms of competition ... that then points to something maybe so far off the resource radar, but nevertheless should think about, and that's licencing ... (SAPH3)

One Dudley public health officer also noted reticence around licencing discussions for unhealthy food:

SPD represents what planning can do around health agenda. When you come to a point where planning agenda stops and it becomes an agenda with licensing, they say "I don't want to get involved in talking to licensing about that..." (DPH2)

• Siloed budgets

Both Solihull and Dudley identified a siloed approach to decision-making encouraged short term view, undermining longer-term planning needed to tackle determinants of health:

People have a siloed approach to budgets, so we can maximize our receipt, "we don't care if the health service have to pay twenty years down the road, it's not our problem" (SMBC1)

until we have shared budgets, people aren't going to be thinking of the systems. As much as PH try to say "but the cost of that is that to the NHS, or to people," but actually, what is the cost to us as a borough if we aren't building and developing? (SPH2) Departmental boundaries presented conflicting agendas, and budgets sticking points to tackling food environments:

If you got one element of the council that does one thing and it's contradicting another, that just makes no sense ... it's all because council departments have a revenue or capital stream that's attached to the budget, and their agenda is their agenda (DPH2)

10.4.4.2. Planning policy decisions - inconsistencies and inspectors

Further contradictions to integrated policy making were highlighted in examples of interactions with planning inspectors, both around use of SPDs and in inspection of Local Plans.

Appeals to decisions on hot food outlets, noted in Dudley and Sandwell reflected inspectors' consideration of gaps in wider policies, context, evidence or lack of strength. Inconsistency of decisions by planning inspectors at appeal were commented on by planners in Sandwell:

lots of questions about the inconsistencies in the planning inspectors ... planning decisions around HFT, some they uphold and some they don't - there doesn't seem to be any rhyme or reason (SAPH4)

Whilst there was a feeling among planners that some inspectors did understand wider arguments around health, obesity and environment ... this was seen as variable:

I think they do (understand), but it's very variable within the service, and will depend on who the inspector is and what their viewpoint is (SAPlanner 1)

In Dudley, despite the Planning for Health SPD (2013) being used, and HFT applications refused, there was limited evidence that the SPD had been *the* deciding factor leading to refusal. Other factors - amenity and nuisance - were also cited. One planner commented, inspectors seemed "dismissive" of SPD considerations:

... none were refused on this (SPD) ground alone and although the resultant appeals were ... dismissed, none were dismissed on this ground – in fact Inspectors were either dismissive or silent on the issue. Therefore we've not been able to claim the policy succeeded to prevent such uses alone (D Planner 2, email correspondence)

As discussed in previously, food was present within Dudley's Borough Development Strategy (BDS). Planners' attempts to strengthen regulation of hot food by embedding it within BDS policy, and away from SPD were largely unsuccessful (Dudley MBC, 2013c; 2016a, d; 2017a). By adoption of BDS in 2017, detail relating to hot food takeaways had been significantly watered down, following consultation and inspection, leaving planners and public health with a much weakened SPD. (see Appendix 1 Box 1, and Appendix 3, Tables 29 and 30).

One challenge at consultation and inspection stage was to marry evidence with sound planning arguments. Planners noted despite strong strategic support, broad academic and national international evidence was not often clear enough to make robust local case:

Proponents to counter argument were HFT operators ... consultant working on behalf of KFC. One thing that hampered us was nationally there's a lot of evidence ... of broad context of obesity and hot food ... a lot of contradictory advice nationally, it put us in a very difficult position - we didn't have anything to put on the table ... again the inspector didn't seem to appear be that keen to look at that (DPlanner1)

At inspection, the Inspector removed all reference to *siting* of hot food, and link to schools, in favour of *concentration*:

It's interesting health and planning, are getting on the same page but the inspectors have got a totally different concept of what evidence is ... it's not consistent, it's down to the person's interpretation (DPH2)

Removal of clauses around hot food concentration by inspector within the BDS left weakened powers for planning and public health. Years of integrated and strategic work to develop the policy was significantly undermined to the point of almost being toothless and with limited legal standing:

It's been completely turned on its head from the inspector's point of view, so that it is virtually non-existent ... the SPD will continue to exist, but the physical policies we were intending won't be there ... (Dplanner 1)

We're not really in a position now where we've got a strong policy that allows us to carry these ideas forward. So we are back in the position now where it is supplementary, and therefore it can be appealed (Dplanner 1)

10.5. Brief synthesis of findings across the three narratives chapters

Table 25 below sets out a brief synthesis of key themes emerging in chapters 8-10, from narratives and, seen to different extents across the cases studies. It draws Walt and Gilson's Health Policy Triangle (Context, Process and Actors) to provide structure with focus on research Objectives 1 and 2.

Research objective	Key themes		
Objective 1	Context	Process	Actors
Examine policy process behind development of integrated food policy	Driving concerns: - food, health, obesity Food security/access - food and green environment/land use -health inequalities -Wider context of influence and timing of policy development	 'Problem' framing building vision developing policy positioning food building consensus Interpretation and framing by key individuals - contested Holding food policy 'story' through time and change Long view needed- of policy development role of key individuals in knowledge transfer 	- Public health as driver of urban food policy - Key leadership, individual advocates and 'constellations'
and factors which have led to emergence and understanding of links between food, public health, planning and land use	 External models and policy influence (e.g. determinants, 'systems' and food policy 'flagships') Role of deep and embedded knowledge and grounded learning vs recently gained 	 integrated groups learning and sharing wider views arriving at shared goals growing understanding of environment, determinants and systems views around food - visibility of physical food environment change marking policy intent and spatial view 	 -Food policy groups- integrated, cross- departmental- building shared/ wider vision and learning -Interactions between green space, planning and public health officers bringing new themes and agendas - individual interest impacts policy emphasis and support - galvanising community (limited)

Objective 2	Context	Process	Actors
To examine contextual factors, facilitators, barriers for integrated food policy with reference to food environment change through planning and land use	Opportunities, mechanisms and pathways: -Planning policy, bids, planning tools, funding, regeneration and new development - land use opportunities - role of Healthy Planning - NPPF (2012) and other policy and practice drives		
facilitators	- Collaborative planning practice - Move of PH into Local Authority (Post 2013)	 'Integrating factors' relationships between departments (esp. planning and PH) Using policy 'windows' or aligning/ embedding with broader policies Move towards systems 'skills' through learning and collaborative discussion Reference and endorsement of food environment aims through policy Engaging civil society support and endorsement? 	 Healthy planning groups- bringing in wider planning and regeneration views Planners and public health working together - Key actor drive and strategic support (e.g. tackling obesity) Green space interest
barriers	-Austerity and cuts -Market forces and economic drive -Housebuilding and land pressures	<i>'Dis-integrating factors'</i> -Policy loss, not adopted or change- strength or weakness? -Knowledge loss and transfer	'Visible' and invisible' factors - Planners and public health different viewpoints/ remit/ capacity and influence -Loss of leadership, support and advocacy

-Political factors & other agendas	-Time taken (e.g. urban agriculture sites, policy	-Contested views of food- individual and
contradictions	development)	structural
-Organisational change	-Systems limitations and 'blind spots'	-Developer power and viability barrier to
- complexities of understanding food	-Joining up the dots difficult through complex	realisation of healthy planning
environment change and long term nature	pathways	-private food sector challenge
of determinants of health change	-Physical activity understood more than food in	-Planning inspector consistency and
	environment change	understanding
	-urban agriculture and SPDs for hot food as	-Limits to planning reach and challenge
	'talismans'	-Invisibility of retailers and ability to influence
		upstream change
		-Role of civil society-
		Limiting factors and extent of civil society drive
		for food environment change?

Table 25 Summary of key findings related to research objectives, (with reference to aspects of Walt and Gilson Health Policy Triangle).

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Objective 3 set out to identify policies and practices at a local level which considered links between food and planning for food environment change (reference to the "content" element by Walt and Gilson, 1994). The case study overview and results chapters answered this by indicating the breadth of policy and other documents with reference to upstream food environment change. Chapter 8) and figure 8 also highlighted overlapping pathways, mechanisms and opportunities through which upstream food environment change could be realised. Narratives explored the different avenues within planning and food policy, by which case studies realised links between food and planning. This is summarized below in Table 26.

Policy or tool	Solihull	Sandwell	Dudley
Local Plan (inc. health and food)	\checkmark	n/a	\checkmark
НА	developing		
SPD hot food specific	Rejected 2017		
Wider SPD for health inc. food/ hot food			\checkmark
Design SPD		\checkmark	
Design evidence base			\checkmark
Food Policy standalone		√ (2005-12)	
Food growing/ Urban ag policy		\checkmark	$\sqrt{(draft)}$
Miscellaneous	NCPT (supporting pilot)	-Contribution to MADE (Albion –Garden City) -Midland Metropolitan Hospital development	Healthy Towns (2008-11)

Table 26. Summary of policies and practices linking food and planning for food environment change – (based on narratives from case study actors).

Whilst food policy aspirations identify goals of food environment change, in practice, narratives revealed elements of "disjoint" between aspiration and ability to realise this on the ground. Both "integrating" and "dis-integrating" factors emerged, which either support, or undermine the journey towards levers of food environment change, and integrated work being adopted and enacted. This has been summarised in Figure 10 below which draws on findings to provide a simplified visual image of some of the processes at play.

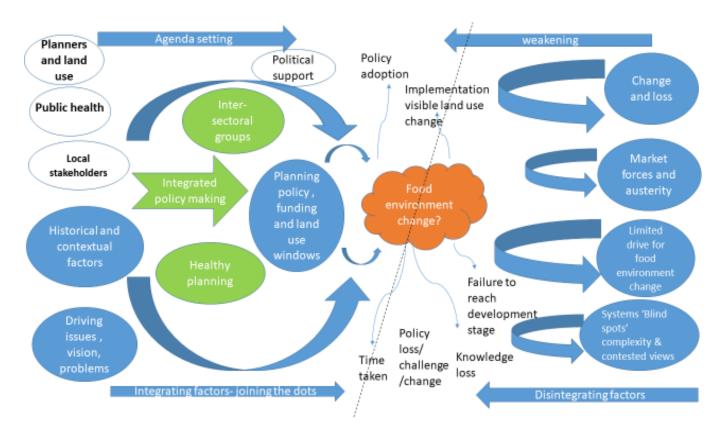


Figure 10. Integrating and disintegrating factors in achieving food environment change

Chapter 11: Discussion 11.1. Introduction

This study set out to explore multi-sectoral perspectives on integrated food policy with reference to food environment change through planning and land use. The main findings of the research (summarised in chapter 10 table 25 and figure 10) reveal that, despite the local authorities' policy aspiration and willingness to use planning and land use levers to support food environment change, in practice, there is a disconnect between this aspiration and pathways, with integrating and dis-integrating factors affecting ability to realise change on the ground. This chapter will reflect on findings in the light of exploration of case studies, wider literature and narratives of actors. In so doing, it will attempt to identify empirical and conceptual contributions along with lessons for policy and practice. These concluding points will be summarised in chapter 12 along with methodological insights.

The study has addressed some of the gaps noted in urban food planning literatures at the intersections of urban food policy, public health and healthy planning. Firstly, that in conditions of complexity, there is need for greater understanding of nuanced motivations, discussions, processes and barriers at play behind integrated policy making. Secondly, there is more to be learnt about views and motivations of actors behind the scenes including planners and public health towards achieving food environment change, and thirdly, there is a need to move beyond examination of individual exemplars or projects, on which much of the literature has focused, and provide insight into ways in which integrated food planning might become institutionalised in practice (Bagnall et al., 2019; Cabannes and Marocchino, 2018; Carmichael et al., 2019; Ilieva, 2016; Lake et al., 2017; Mattioni, 2021; Morgan, 2015; Mui et al., 2018; Pothukuchi, 2019; Santo and Moragues-Faus, 2019; Shill et al., 2012). Numerous approaches and lenses could be used to discuss the findings - for example "integrating" and "dis-integrating" factors, or Walt and Gilson's 1994 Health Policy Triangle (context, content, process and actors). However, as narratives demonstrate, the topic is complex, multifactorial and interconnected: so, in order to avoid repetition, the following discussion acknowledges crossovers between these factors whilst exploring key themes.

This chapter firstly reflects on integrated food policy development, including the role of public health, food policy groups and healthy planning groups and exploring moves towards upstream action on food environments. It will also examine the role of actors, advocacy and leadership – with brief reflections on Kingdon (1984), Lang's Food Policy Triangle, and the role of civil society activity. The next section examines emerging relationships between public health and planning around food environment change. It seeks to identify the key role of relationships in embedding understanding of food, and opportunity presented through

collaborative work and planning policy. It highlights the dis-integrating aspects, where conflicting views and attitudes continue to present barriers to change. Next, the chapter will draw on wider systems approaches, and examine this in the light of public policy and health pathways, systems "blind spots" and focus on knowledge transfer. The chapter will conclude with reflections on emergence of spatial views of food, and where food environment attention could be placed. It concludes with reflections on the complexity of the policy making processes, making suggestions for realignment of "dis-integrating" factors. Chapter 12 will move on from this to briefly summarise the main conclusions from the research, suggest pointers for policy and practice, ending with reflection on the research process and areas for future research.

11.2. Drivers for integrated food policy making

11.2.1. Role of public health and Food Policy Groups

Emphasis on integration and cross sector work as a route to tackle complex "wicked" problems such as food is seen as a key feature of the policy making process (Cabannes and Marocchino, 2018; MacRae et al., 2016; Sonnino and Mendes, 2018). This research contributes to and reflects the wider literatures on the drivers for integrated food policy making where cities are emerging as players in the new urban food planning community (Ilieva, 2016; Mendes, 2008; Moragues-Faus and Morgan, 2015; Morgan, 2009; Wiskerke, 2015). Here, public health emerged as the key leader in development and drive to bring food onto the policy agenda, acting as an integrating influence to engage wider stakeholders towards action. Motivations reflect literature where "problem formulation" around food is focused on health inequality, diet related ill health, obesity, food access and security, sustainability and climate change as well as opportunity presented by land use development and greenspace (Cummins and Macintyre, 2006; Hawkes, 2012; Lang and Heasman, 2004; Seed et al., 2013; Sisnowski et al., 2016; Wegener 2011).

The study sheds light on timelines and context of food policy development in response to diverse and rapidly changing policy and practice examples. Sandwell as an early pioneer in integrated food policy development demonstrated deep roots, forging its way with limited international and national policy exemplars but in response to strong local contextual factors around environment and health. Solihull, in contrast, developing its 2015 food strategy, could draw "off the peg" examples from diverse models (Coulson and Sonnino, 2019; Lang et al., 2009).

Public health was key in initiating and driving for integrated food governance through establishment of dedicated food policy making groups - advocating, building political support and consensus. This reflects international studies, also focusing on the brokering role of public health in food policy making, and wider literature on food policy groups placed "within" local government (Gupta et al., 2018; Hawkes and Halliday, 2017; Seed et al., 2013; Wegener et al., 2012 a,b, 2013).

In this study, the food policy groups represented were those embedded within, driven and initiated within local authority or health settings (here PCT and local authority) and, as such, contrasted to the overriding focus in literature on groups grappling for influence and located from "outside" the state (Halliday, 2015). However, whilst dedicated food policy groups established within local authorities, clearly played a pivotal role in initiating visibility of food and progressing action, there was some evidence that their reach and influence was limited. Their effectiveness could vary over time, with consequent effects on their ability to gain strategic recognition of food more widely. Food policy might be hindered if remaining associated with, or responsibility of, public health or perceived as holding agendas marginal to more pressing "real life" concerns - thus failing to gain purchase into core decision and policy making priorities. As noted by others, influence of groups depended on both who was in them, and how much strategic support, structural autonomy, resource and influence they held (Gupta et al., 2018; MacRae and Donahue, 2013). They also wax and wane in influence - and as groups - over time as noted by Santo and Moragues-Faus, 2019.

When integrating factors such as political support, wider policy and resourcing were maximized and aligned, groups were significantly more able to lever influence. On its 2005 initiation, Sandwell's Food Policy Board, for example had cross-organisational endorsement and influence from influential key strategic players. As a result, it was able to gain influence, taking advantage of cross-sector partnership policy making and regeneration opportunities at the time. Solihull's integrated Food Sub-group, established 2015, was successful in leading development of a standalone Food Strategy adopted by its Health and Wellbeing Board. However, the influence and reach of groups over time was also eroded by dis-integrating factors - limited resources, organisational and leadership change, lack of strategic purchase and competing political priorities acting to marginalise or focus attention elsewhere. Sandwell's Food Policy Group ceased to be active as a formal group after 2013, following the move into the council; Solihull's stand alone food strategy and group was set aside and not refreshed after 2017, as agendas shifted to a broader whole-systems focus. Dudley's Food Growing Group met only a few times, remaining marginal, only to be overshadowed by organisational changes and impact of austerity, with the strategy failing to be adopted.

11.2.2. Pivotal role of healthy planning

It could be argued the study indicated that healthy planning (concepts, levers and groups) might provide a greater opportunity than dedicated food focused fora – lodging food into a broader arena and offering a more pivotal and focused vehicle influencing spatial and

structural levers of food environment change (as suggested by the work of Kent et al., 2011). Healthy planning groups, both formal, such as Sandwell's SHUDU and Solihull's Health Development Group, along with informal collaborations around Dudley's Healthy Towns, provided a platform into which food could be lodged. These had potential to forge essential links between the stated food policy aspiration for involvement of planners and land use, and possibility of practical realisation. Here, levers of change could be seen to operate at potentially higher strategic levels, with wider, less "niche" buy in, bringing in planners, regeneration, economic development and public health into a collaborative endeavour. Such groups provided opportunities to broaden integrated discussions around food, marrying broader green space, sustainability, spatial planning and development aims, through healthy planning and exploration of food environment levers (Cabannes and Marocchino, 2018). Both Sandwell's SHUDU and the Health Development Group in Solihull as formal healthy planning groups, and collaborative work around Healthy Towns in Dudley, exerted potentially more strategic reach over land use than food policy groups, embracing regeneration and spatial planning alongside public health. Whilst concern for food was not overt, or at early stages of recognition, these platforms could provide links through early collaborative healthy place-making approaches. In the same way that Kent and Thomson (2012) noted a need for a "healthy built environment professional", it could be that there is opportunity for "healthy food environment professionals": a lens through which to hold, understand negotiate and steer structural elements of food, straddling both food policy and healthy planning collaborations more broadly across these forums (Kent and Thompson, 2012:1). Whilst this was only emerging within such groups in the case studies, and was still reliant on informed public health officers moving across from food policy, this might be a step towards an embedded "food in all policies" aligning with "health in all policies" (HiAP) approaches as opposed to working through standalone food policy groups which, although multi-sectoral, were in themselves sometimes challenged in seeking to gain influence at the heart of policy and at loci of change. This insight endorses recent comments by Cohen and Ilieva (2021), arguing for expansion of the boundaries of food policy to embrace broader domains.

11.2.3. Leadership and advocacy

Consistent with other research investigating urban food planning, leadership and advocacy emerged as key factors in developing, supporting, driving food policy goals (Hawkes and Halliday, 2018).

This research identified not only the leadership and advocacy of key strategic actors, but the collection of "constellations" of individuals dispersed across a networked web as essential for "joining the dots" across pathways to food environment change. It also noted the significance of the loss of leadership, breaking continuity and policy.

11.2.3.1. Individual leadership and key advocacy

Some authors note the importance of individual political leadership in driving food policy innovation, for example mayoral input as "policy entrepreneur" to introduce food, define the "problem" and strategically drive the agenda taking advantage of policy windows over time (Freudenburg and Atkinson, 2015; Kelly et al., 2016; Kingdon, 1984; Mendes, 2008; Reynolds, 2009; Sisnowski et al., 2016). This type of leadership was clearly demonstrated within this research, in the role of Directors of Public Health (DPH) - strong in both Sandwell and Solihull. For Sandwell in particular, leadership over two decades was critical in formulating an initial vision, securing consistency and framing food within a structural approach. For both areas, this leadership brought support, resource, drive and profile to food policy, as well as building key relationships, collaboration and opportunity across sectors at strategic levels. For Dudley, whilst the DPH did not show clear drive behind food, they did set the scene through endorsing development of healthy planning approaches, recognising the intrinsic links between health and environment.

However, the research also brought to light the vulnerabilities of food policy approaches being too closely connected with specific individuals, as distinct from roles. Whilst visionary leadership could protect and nurture food policy work, and build a committed and informed workforce, Sandwell's experience also indicates that it can be a factor in their loss. Despite decades of food policy development, a change of leadership can quickly shift agendas, remove support, understanding and drive for programmes and priorities. For Sandwell this change came at a critical time. The retirement of the DPH, coupled with other dramatic political, organisational changes, represented significant removal of supportive environment and opportunity - "regime change" as one Sandwell actor noted - reflecting wider organisational, political and fiscal changes after 2013. Whilst the DPH tried to ensure knowledge transfer and protect the legacy of food policy work, reflected in maintenance of some officer roles, in reality, leadership and drive towards a coherent, systems-based approach was all but lost. The change indicated that when policies and programmes become associated with an individual, they may lose support once that individual leaves; unless firmly endorsed and owned more widely across systems. Addressing legacy is key in ensuring continuity and development of long-term approaches to wider determinant of health, including food environment change, which - as has been identified - often takes many decades to come to fruition.

As noted above, the research also identified that not only is individual leadership and drive needed, but "constellations" of key individuals at "pivotal" points and different levels across the system are critical to enabling policy vision to be enacted on the ground. This is essential in bringing forward policy aspiration into physical land use change, for example

navigating the complexities over time of urban food growing sites from idea to developments. Guidance, leadership, expertise, buy in and knowledge across multiple departmental skills sets, levels and long timescales is all needed, as well as a clear understanding of the institutional, legal and practical complexities of achieving physical land use change. These interlinked and fragile constellations need to include advocates across political support, public health officers, planners and land use officers, but also individuals with expertise, understanding and influence over levers of physical environment change. Active support of informed people to leverage of decision making on the ground is key, including planning development and land use officers, as well as those within civil society.

The realisation of policy is fragile and dependent on these multiple factors within the food environment web - and leadership and advocacy needs to reflect their systemic nature - with development of "systems skills" and a move away from the usual linear and vertical policy making process (De Savigny and Adam, 2009). Without this, policy aspiration will fail to become embedded in environmental or upstream change. Cabannes and Maroccino (2018) note challenges to "connect the different dots" translating food policy into spatial terms in a systematic way. Murphy et al. (2018), exploring government action on Australian local food environments, indicate two types of leadership, also reflected here: -political leadership, and leadership that is distributed or shared across government and other sectors. This study reinforces the insight that food environment change brings to light a wider need for leadership through and across multiple levels, consistently and over long periods of time.

A temporal aspect to this leadership and support is also clear. How to ensure this type of "holding" leadership across change and time with relation to creating food environments, taking into account the long -term nature of planning and land use development, is key. This is seen especially in relation to the long-term planning needed for tackling social determinants, within a context of constant change as others have alluded to (Exworthy, 2008). For urban agriculture or housing sites, development of land can take decades (or more) to come to fruition, accentuating the need for long-term planning, consistent support, resourcing and leadership which can continue to pull together, engage and map complex aspects, despite wider change. Holding and managing this complex picture as a whole and through time is not easy. This was seen both within Sandwell with urban agriculture officers, working over 15 years to collaborate, develop and deliver complex food growing sites against a background of change, and in attempts over many years to negotiate green space development of Wordsley hospital site in Dudley, with differing results (See Box 2 and 3). Here, joining the dots required someone over time, with consistency to hold, interpret and understand policy, resource, people, and land based infrastructures - along with maintaining a view on food policy goals. Otherwise efforts may fail. These pivotal "holding" roles tend

not to be clearly visible within the processes of land transformation, and need to be better understood and protected against loss.

11.2.3.2. Civil society as driver of food policy and environment change

The case studies demonstrated food policy initiation, action and leadership from public health, with emergence of cross sector Food Policy Groups. The study highlights varying challenges to engagement of and participation by civil society in this process. Firstly, a sense of civil society "activism" was not clear: relationships with individual local projects, such as food growing were present, but there was limited evidence of grassroots civil society articulation, voice or coherent collective activism for food system change. Unlike current debates on food justice, and climate change taking place, at the time of research this focus and its galvanizing potential - was only just emerging. Most food policy and practice literature emphasises the role of aspirational civil society or grassroots "activism" in pushing policy development and driving food environment or food systems change. This "bottom up" /"top down" debate about food policy groups such as Food Policy Councils, is often situated "outside" or as partners "within" the state, as well as driving grassroots initiatives such as urban agriculture and alternative food networks (Halliday, 2015; Lohrberg et al., 2016; Schiff, 2008; Seed et al., 2013; Tornaghi, 2014). Ilieva (2016:316) notes that strategic integration of food planning is "more exception than the rule" and that, in the main, groups remain located outside local government at the level of civil society, pushing for change. This research sheds light on some of the factors at play where strong civil society drive is not present.

Different efforts, approaches and pathways were demonstrated to bring in community input and endorsement to food policy development. Sandwell, for example, early on in its food policy journey, saw public health leadership prioritise "listening" exercises to inform policy development. This built on lived experience, using a community development approach, through Food Interest Groups (FIGS). However, these were lost through ongoing change, and by 2013 public health was grappling to find new pathways to reach community from within the council (Kyle and Blair, 2004). Dudley, with historical development of Friends of Parks groups for green space management, alongside land asset transfer and drive towards a Community Council, showed contradictory pressures. New relationships with its citizens reconfigured expectations of local authority against the backdrop of austerity, shrinking state and what some would describe as "neoliberal" drives (Meegan et al., 2014). Solihull public health officers described expectations of community to take on food policy leadership in order to ensure that it was "sustainable" as public health stepped back, limited by capacity and resource. Both Dudley and Solihull encountered reservations and barriers about and from civil society actors, to taking on food policy responsibilities and leadership as well as land. Lack of time, energy, perceived "willingness" (interest or priority) and capacity were

cited, as well as recognition that to bring communities to this point requires significant time, resource and investment. Sandwell's experience led food policy actors to clearly question the ethics of asking residents to take on responsibilities for addressing profound food systems challenges and land reclamation, instead strategically supporting a more structural strategic approach - recognising that when people were experiencing daily impact of structural, economic, health and environmental inequalities seen over generations, volunteerism without support and resource was not justified.

These aspects shed new light on, and echo, wider debates about the need to understand nuances behind uneven geographies of food policy, and explore beyond more visible, often celebrated exemplars of civil society activism to more ordinary settings where this is not forthcoming (Santo and Moragues-Faus, 2019). It also reflects more established critiques of expectations that individual consumer demand, "choice" and grassroots - or volunteer-led "food projects" - will be enough to challenge deep rooted food systems and unhealthy food environments, in the face of "market failure" (Dowler and Caraher, 2003). The question remains how and who must drive food policy and food environment change in areas like Sandwell or Dudley where "alternative" visions have little purchase, daily landscape of food choice is restricted and structural factors against change towards healthier food environments are profound.

Again, the case studies illustrated differential acceptance of external models of food policy activity. These were not always welcomed, presented barriers or could be perceived as "middle class" culturally inappropriate, or lacking relevance to these settings. Areas like Sandwell face multiple deprivation and challenges to health along with deeply established, intransigent unhealthy food environments and limited leverage for change. Here, intervention from a proactive state and supportive policy over time must be present to protect its citizens and provide policy leadership in tackling food system change. Whilst it was noted by some food policy actors that visible changes such as urban agriculture might, to a limited extent, "punctuate" and create visibility of food environment change, they remained realistic that in areas where population level food "choice" is undermined by dominant unhealthy food environments, the citizen as individual and consumer will be unable to drive or effect real change. This echoes comments by Roberto et al. (2015: 2404) on limits to change, where "people have some personal responsibility for their health, and environmental factors can affect the ability of people to exercise personal responsibility".

These findings support others who question laissez-faire national food policy leadership and the predominant (and continuing) focus on individual responsibilities and choice (Lang, 2022; Lang and Barling, 2009; Roberto et al., 2015). It also endorses comments by Hawkes (2018) and others (Raja et al., 2018a) that food policy must be real world, relevant and built

from clear understanding of the actual lived experience and struggles of citizens. However, there is more to be done to move away from the noisier articulations of often more privileged, "alternative" food system visions, to hear hidden voices and build diverse food policy activity relevant to the local "ordinary" setting. For Solihull, a different aspect of this - again illustrating need for local contextual insight - is seen in the disjoint between aspirational food policy aims (e.g. gleaning) and lived experience of more deprived areas of the borough (e.g. lack of liveable income). Discussions around community efforts to establish the Chelmunds Cross Fish and Chip shop were seen in some ways to be in opposition to public health food policy aims, but also highlighted more pressing but perhaps less recognised community aspirations for income generation, self-determination, removal of stigma and desire to retain valuable social elements of food outlets lost during regeneration.

11.2.4 Reflections on Kingdon, agenda setting and policy process

As described, Kingdon's multiple streams framework (MSF) has been used within food policy and health literatures to explore the agenda setting stages of policy making (see for example, Exworthy, 2008; Freudenberg and Atkinson, 2015). Kingdon identifies three streams of policy making - problem, policy, and politics, whereby policy can change when two or more streams converge. Whilst streams may converge as a result of crises, or events like budgets or elections, they may also be brought together through the actions of a policy entrepreneur who puts in time, effort and resource. As previously discussed in chapter 4, Exworthy (2008) alludes that examining policy making through frameworks such as Kingdon, for complex issues such as determinants of health, is challenging. However, some factors within the case studies might usefully draw on aspects of Kingdon's framework to illuminate some elements of the initial stages of policy making, at a local level.

This research noted the clear role of advocates including political councillors and key officers acting to give drive and focus for food policy development, across the system. Kingdon highlights a more explicit role – that of the "policy entrepreneur" working both to bring problems and solutions into the policy stream. Within Sandwell, it could be argued that Dr Middleton, as Director of Public Health, demonstrated some of the features of a "policy entrepreneur". From the start of his role in the 1980's he developed vision, focus and commitment to bringing forward the "problem" of food - linked to health inequality and wider determinants of health – into cross sectoral policy making arenas (See Table 19) (Middleton, 1989, Booth et al., 1996). At a time when there were few prominent examples in the U.K., much of his understanding and interest was drawn initially from direct observations of connections between food, environment and health locally. From this time onwards, he worked to "soften up" and build a picture of the problem of food, building evidence, visibility, commissioning reports and research, and forging wider cross sector collaborative

relationships. In this way, food was brought forward as a "problem", becoming more visible within local debates, and gradually moving ownership into wider agendas beyond health and into planning, land regeneration and economic development. In addition, working through Food Interest Groups in the 2000's brought local level insights and perspective further highlighting the problems faced around healthy food access for example.

Dr Middleton was also able to influence the policy stream through bringing forward strategies and concrete proposals. He represented public health on early regeneration partnerships, for example, and later as part of the Joint Policy Unit (2004), which supported cross sector decision making and action around tackling underlying determinants. These groupings provided a forum for problems to be highlighted, and potential solutions to be presented. For example, for a time, community agriculture was suggested as one policy solution to cross cutting problems of derelict land, health inequality, rising obesity and poor health. It was framed to support community regeneration and as an approach pulling together policy interests across food, green space, planning and regeneration health (Booth et al., 1996; Dowler et al., 2001; Sandwell PCT and Sandwell MBC, 2008). The Sandwell Food Policy was also lodged under the Joint Policy Unit (Sandwell PCT, 2005). In addition, wider "politics" moved to become more supportive during the 2000's with key guidance from the Blair government, around health, opening up policy development opportunities at a local level around food and wider determinants of health.

Kingdon (1984) notes that issues only become seen as problems when they are defined as such, gaining attention more widely among populations, pressure groups, administrators or politicians. In addition, possible solutions to problems will only be selected and progress into policy if two or more of the streams are "coupled" and "windows of opportunity" present themselves to move forward. It was difficult to identify if there were examples of this happening within the case studies, perhaps endorsing Exworthy's (2008) view that the complexities of social determinants of health challenge such clear insight, and indicating that in reality it is always challenging to tease out the aspects of policy making clearly. Sandwell however, could be seen to indicate a possible convergence of streams, and opening of windows. Whilst Sandwell's public health had developed a wider systems perspective on food, along with local evidence and policy solutions, during 1990's and onwards, politics at the time did not support wider endorsement.

From the early 2000's however, the problem of obesity, began to emerge at the forefront of national and local concern. Reports such as Foresight Obesity (Butland et al. 2007) provided impetus to drive problem formulation locally around this issue, along with local insights from evidence and reports, and rising concern among political councillors. Acceptance of obesity as a problem, combined with possible policy solutions, and political

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support – perhaps can be described as an example of convergence of streams, and providing the focus through which local policy solutions could be framed at the time. Obesity, although noted by some public health officers as only "part of the picture", did however provide a "way in" for focus on broader food issues and wider determinants underpinning food environments. Later, at the time of research in 2017, councillors in both Dudley and Sandwell, also noted awareness of local level concerns among their constituents, around obesity and some pressures around hot food takeaways, acting to focus their attention on the problem, and bring political appetite to adoption of policy solutions such as use of planning SPDs to restrict hot food outlets – described by officers as a "popular" policy. Exworthy and Powell (2004), argue that successful policy implementation is more likely when the three streams align across both vertical and horizontal dimensions. With obesity they perhaps did, but the limited civil society drive for food systems change can perhaps be seen as one factor contributing to a lack of ability to embed some of the more ambitious food policy proposals across the case studies.

More generally, the case studies demonstrated examples of both how policies can thrive or fail, and how actors behind the scenes worked to exploit opportunities to frame food and bring it into policy. It is debateable as to whether officers acted as entrepreneurs as described by Kingdon (1984), or simply demonstrated ability to seek out opportunity as part of their normal function of policy making. Each actor played a role, with members of groups showing creativity and investment in "trial and error", describing how they constantly reframed food to "fit" or "redesign" its focus and relevance in response to opportunities as they arose. This process occurred both in finding opportunity to shift thinking in interactions with individuals in the policy making process, and with lodging food within policy and practical opportunities. Sandwell, for example, enjoyed over two decades where food policy demonstrated a confluence of supportive underpinning factors; funding, land and regeneration opportunity, strong leadership, and broad political and policy support aligning to support adoption of food policy actions on multiple levels. This support dramatically ended with following the 2010 financial crash and subsequent political and organisational changes in health and local government, and retirement of the Director of Public Health. More specific time-limited and thematic opportunities also emerged, seen for example in Solihull and Dudley, aligning food policy aspirations towards a once in two-decade opportunity to influence Local Plan Policy, or Sandwell's input into Dudley Port development and design. Dudley's experience with the Food Growing Strategy also revealed how policy aspirations were not able to gain a secure footing, political attention and support- against a backdrop of organisational change and austerity.

11.2.5 Reflections on Lang's Food Policy Triangle

This research suggests that Lang's Food Policy Triangle - whilst useful as a starting point for exploring the tensions and contested nature of food policy, identifying different actors and relationships - nevertheless presents a static view. The model does not allow for portrayal of either different levels of actor visibility (overt and covert), influence, or presence, or portray a sense of the dynamic and constantly changing "dance" between them over time. It also presents the three players as relatively solid and uniform entities, albeit contested and in tension: whereas, in reality, the research identified sometimes dynamic, changing and competing agendas. This was seen for example within and between elements of the local "state" itself, as well as between local and national state. Narratives revealed differing extents to which economic and political forces (e.g. public health food policy aims vs. austerity and economic regeneration objectives, or tensions between planning inspector and developers vs. local planners and planning policy aims) undermined aspects of local policy action to bring about food environment change.

To capture some of these nuances, noting differential influences of the actors, a more complex visual "web" image is presented developing Lang's Food Policy "triangle" further (Figure 11 below). This seeks to portray differential presence and actor roles of those involved in food policy for food environment change, as well as the sense of dynamism within those relationships. (Numbers on Figure 11 show an indicative scale with scoring of 0-20 to demonstrate strength of influence of actors, where 0 indicates "no influence" and 20 "strongest influence"). Sandwell showed limited civil society influence indicated by a score of 2 and Dudley had stronger influence indicated by a score of 8, reflecting varying levels of community involvement or activity as alluded to in previous discussions. It incorporates "civil society", opposing internal agendas within the "state", and the observed virtually "invisible", or "covert" role of retail (absence of fast-food operators and developers in food environment discussions, explored in the next section), identified in each case study. In so doing, it facilitates a visual understanding and comparison of the varying strength of influence and engagement of or absence of actors on food policy for food environment change, within each case study area. Significantly, as noted previously, it indicates different extents of civil society drive, public health leadership, and extent to which it is contested or undermined by opposing state led economic forces, or covert influence of retail sector and developers. It picks out different forces acting as contradicting, involving, challenging and driving moves towards food environment change.

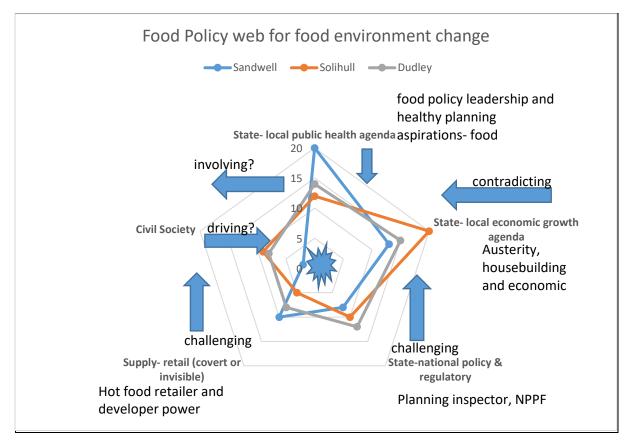


Figure 11 Building on Lang's Food Policy Triangle to create nuanced and dynamic view of food policy 'web'.

11.3. Engaging planning in food environment change

More broadly, the study identifies the scale and nature of the interactions between food policy, public health and planners in progressing food environment change aspiration. It notes both positive progress and knowledge gaps, attitudinal and practical barriers for planners and public health to embrace food in planning terms.

11.3.1. Integrating and dis-integrating factors for aligning planners and public health

This study illustrates that food is no longer what Pothukuchi and Kaufman (2000) described "a stranger" to the planning field, but also supports the view that opportunities for closer working exist, and that there is still a way to go in practice (Ilieva, 2016). Factors both within and outside the remit of local planning and public health authorities were seen to exert influence on food environments and the ability to bring about integrated change. Individual relationships were important in supporting integrated work, forged through grasping opportunity for collaborative work presented through developments, funding bids and planning policy. However, internal and external factors including differing attitudes, expectations and practical and procedural approaches of planners and public health exerted disintegrating effect. These are coupled with pressures within national and local planning policy, including strong drives for economic growth, housebuilding and land use, and impact of institutional change and austerity.

The research gave deeper insight into the growing relationship between, and motivations of, planners and public health for joint work and thinking behind the scenes in policy development towards use of planning and land use for food environment change. There was certainly willingness and appetite among planners to embrace these approaches and learn. The previous section has noted the key role played by healthy planning approaches in bringing planners and public health together around food policy. In practice, the research showed the use of a variety of planning and land use levers and tools, including emerging or some early use of HIA, SPDs to restrict hot food or support design, urban food growing within land use and design, along with development of broad-based healthy planning policy. This reflects national and international literature, where planners are seen increasingly using a palette of tools to impact food environments, including planning policy, regulatory, developmental and land use levers, in support of healthier food retail, urban agriculture and restriction of unhealthy in support of "upstream" food environment change (Cabannes and Marocchino, 2018; Ilieva, 2016; Kent et al. 2011; Kent and Thompson, 2012; Lake et al., 2017). However, action across all case studies also indicated the limitations of change through policy levers, and indicated choice of pathways, was influenced by local political and economic contexts. Solihull for instance with a strong economic drive, proved less willing to endorse standalone SPD for hot food, whereas Sandwell's SHUDU group pioneered both HIA and SPDs as a result of strong food policy and clear understanding of environmental drivers of health. Often, however, relationships between interested planners and public health determined, when and how effectively to bring this forwards - there was often an absence of clear remit and pathways for influence, particularly once austerity impacts increased planning officers' workloads.

11.3.1.1. Relationship building

As noted above, this study indicates that individual relationships between planners and public health were a key integrating factor in advancing food within healthy planning. These served to give consistency over time and create an environment where planners and public health could explore interactions and links. Positioning of public health officers with a remit for "healthy environments" (see Marmot Report, 2010, DCLG, 2012) was an important factor in building bridges, along with personal interest and aspirations shown among individual planners. Relationships could coalesce to take advantage of windows and opportunities presented by funding, planning and land use development and policy such as Local Plan development. There was evidence of shared growth in mutual understanding through these interactions, bringing increased literacy, pragmatism and practical application both ways

about planning and public health, as well as identification of meeting points to move forwards on shared agendas. Murphy et al. (2018) noted action to address food environment change across Australian government was subject to time-limited partnerships with lack of on-going coordination across sectors. This study indicates that even with limited strategic level leadership for this approach, individual committed planning and public health officers played a vital role in carrying aspiration through change and across time, as seen in both Sandwell and Dudley.

Relationships between planning and public health saw definite benefits from being under one organisational umbrella following NHS reform 2012, underpinned by wider aims in the National Planning Policy Framework (NPPF) to bring planning and health closer (DCLG, 2012; Gov. U.K., 2012, 2022). This was noted by others as providing more potential for integrated work and indicates this may be the case (Carmichael et al., 2018; Lake et al., 2017). For public health, as seen in input into local plans for the next 25 years in Dudley and Solihull, this change brought realisation that this represented a unique chance to embed long-term visions for health (and thus food) within a long-term statutory, structural and spatial legacy. This had not been clearly understood or accessed prior to 2013 when public health was under the PCT. Again, opportunities for input into land use planning could take place over long time frames, in "slow motion" over many years or even decades. Opportunities including bringing complex land forward for urban agriculture, development of Local Plans, or housing development emerged slowly, needing consistent threads of input and tracking over long time periods, if they were to be successfully realised, with often many years of behind-the-scenes planning.

Here, as noted previously, practical opportunity and embedded knowledge were key factors: with Dudley, for example, showing the evolution over time of long-term work and a consistent relationship between planners and health, catalysed through Healthy Towns, building in strength and effectiveness. Planners also provided routes into wider land use agendas, such as green space planning. Again, as previously noted, however, these relationships were fragile, and liable to be lost if officers moved or reorganisation brought changed roles. The impact of austerity was felt and increasingly restricted joint, innovative, experimental work, with shrinking budgets and limited capacity. There was also some indication that public health was more constrained when working within the political environment of local councils: as officers having to learn to advise, compromise, make "political" judgements and fit within decision-making timeframes. Whilst there were indications that healthy planning approaches were moving to become more embedded strategically through people and process, indicating more alignment in the future, there is still inconsistency and more to do before these approaches are adopted clearly within

operational process, and beyond individuals. Both planners and public health need to value each other's expertise and insight, to avoid planners in particular feeling that public health is teaching them to "suck eggs"- recognising that planners *do* consider health, albeit within constrained circumstances. Planners and public health can in reality be allies, through dialogue, pushing together for higher level policy change to remove the significant barriers to healthy place-making.

11.3.1.2. Resolving conflicts

The research echoed the wider literature pointing towards the dis-integrating factors: conflicts inherent within a planning and food system where market forces are strong, national policy and leadership weak and limited in appetite to tackle core issues, leaving regulatory influence of the real drivers of health and food environment change is limited at a local level (Lake et al., 2017; Lang, 2022; Lang et al., 2009; Stuckler and Nestle, 2012). Pressures to support economic growth and generate revenue were seen to different extents across the case studies, echoing local political and socio-economic contexts: as Greenhalgh (2020:12) notes, a "complex system has tensions and paradoxes that are impossible to resolve". This supports wider studies exploring the role of planning in influencing health including food environments - planners and planning policy can have limited influence over these wider drivers. The economic growth imperative is strong and this suggests that focus for change needs to shift to a national level such as in the National Planning Policy Framework, stronger regulation, possible licencing, and land use control (Carmichael et al., 2019; Lake et al., 2017; Lake, 2018). Use class redefinition has occurred since this research took place, closing to some extent some of the loopholes around hot food, and cautiously welcomed by some (Footprint, 2020; Gov. U.K., 2020)

There are tensions and inconsistencies between local decision making and national level forces. The case of hot food is a useful example. Despite local sympathy towards public health aims and tackling obesity, popularity among councillors for using planning regulations, and planning and public health policy alignment, market pressures acted as constraining factors on policy development and food environment change particularly seen in Solihull. This supports wider studies, but also sheds new light on some of the on-the-ground decision making behind the scenes, and insight into contextual constraints and stakeholder views as to the acceptability of such measures - a gap in knowledge noted by Keeble et al. 2019 (see also Dr. Foster Intelligence, 2011; LGA 2016; Nixon et al., 2015; PHE, 2014). Pro-growth, political concerns with stringent restrictions to hot food, austerity and need to "fill up empty shop frontages" and prevent income loss, in practice acted to weaken strength of policy implementation, or, in as in the case of Solihull, policy adoption. Those authorities most constrained by austerity had less leverage to enact aspirational change around healthy

planning. Concerns were also noted with challenge and influence of policies both by fast food operators, and also planning inspectors, which could be costly for local councils if leading to fines. Planners spoke of using a "balanced" mixed policy approach, where health was not the overriding or standalone argument used. This echoes views found in the U.S. based study by Nixon et al. (2015) indicating that hot food policy framed in broad terms beyond simply health was more successful. This approach was, in the end, favoured by Solihull, dropping a dedicated draft SPD for hot food, and moving towards a broader planning for health agenda within the local plan, similar to that used by Dudley.

11.3.1.3. Evidence

Carmichael et al. (2019) noted that evidence was seen as an area of congruence between public health and planning approaches; identifying that despite public health use of and access to data, there was lack of joined up approach to use of evidence between the two disciplines. These challenges have also been noted in relation to evidence around determinants of health approaches- which can be difficult to prove, traditionally linear, and hard to track against long-term impact (Blas et al., 2008; Carey and Crammond, 2015a; Marmot, 2010). It is interesting here to note how little discussion of evidence emerged as a strong theme in narratives of interviews in the study. Perhaps this is because it was not overtly raised in the interviews. However, when it was mentioned, it was noted only in passing, in relation for example in Dudley to planning inspectors questioning evidence supporting restriction of hot food in the Borough Development Plan. There is no doubt that evidence was used to build a case for local policy - documents such as JSNA, local obesity or food mapping data, and Public Health England intelligence, along with case studies and some academic literature, were clearly referred to in supporting documents.

However, it was less clear how and if planners and public health garnered and worked together to create a case, use and bring this type of evidence forwards together in supporting food environment interventions, or arguing for "evidence based" change. In passing, comments acknowledged the challenges of finding credible evidence around food and determinants of health, such as impact of hot food on health, along with comments on the mismatch of raised public health "expectations" that evidence would simply justify planning to tackle health. When it came to planning decisions, there seemed to be a credibility gap or mismatch between *local* evidence or literature available nationally and internationally. This also points to the question of practical usefulness of the complexity of academic literature which as noted uses heterogeneous measures, scales and data sources, making it difficult to use in supporting policy decision making. The gap between planners and public health in approaches, for example in Solihull's Smithswood development,

suggested in hindsight the need for more joint work at early stages, in gathering nuanced local evidence and picture to support local planning, before developments were agreed. This would require closer alignment between public health and planning in jointly gathering intelligence and presenting robust evidence. These findings support the view of Carmichael et al. (2019) that there is still work to do in ensuring that public health and planning practice come together effectively around use of evidence, and challenges remain with translating the complex nature of evidence around determinants of health.

Overall, the study demonstrates the complexities of evidence use, sources and sharing and points to the need for clearer understanding between public health and planners, in generating evidence for food environment change, to gather and use fine-grained local evidence, along with wider studies. There is also room to build on and recognise the "embedded" evidence, intuitive learning and observation demonstrated by actors in this study, from many years of experimentation and food policy learning. Carey and Crammond (2015 a, b) note that policy making for social determinants is not in reality the smooth linear flow of evidence into practice, but needs to reflect the messy complexity of policy making, and the iterative learning processes that take place within that. The view of "practitioners" and of "lived experience" as well as information and evidence from those "blind spots" identified within that process is key (Hawkes, 2018; Greenhalgh, 2020). Room for experimentation and trial and error is also noted by Rydin (2012) as a way of developing systems responses to healthy planning; and this kind of "evidence" also needs to be captured over time.

11.4. Thinking like a system?

11.4.1. "Emerging" systems approaches

Literature and policy notes the growing advocacy (now more well established) for systems thinking and skills, across food systems change, environmental drivers of health, and collaborative planning for healthier environments (Ericksen, 2008 a, b; Glouberman et al., 2006; Parsons et al., 2019; Public Health England, 2019; Rydin et al., 2012; Sautkina et al., 2014). Exploration of the different case studies highlighted varied extents of confidence and understanding of systems approaches at the time and gave insight into the conditions and factors which may support a deepening of this in practice. Whilst rhetoric of systems approaches was evident, the findings indicated that there was varied understanding of this in practice - and rather than being established, this could at best be described as "emerging". This study gave some insight into how actors within integrated food policy might gain systems skills and insights. Three factors were clear in supporting its emergence - the role of "embedded" learning over time; rich historical, environmental and contextual factors in

giving depth; and the potential of systems *healthy policy* approaches to engage broader stakeholders. In contrast, the findings also revealed systems "blind spots" as disintegrating factors which hindered ability to see food environment change clearly. Also significant was the role of integrated policy making and cross sector groups in developing systems skills, as was noted in the previous section.

Much of the literature focuses on describing "what" a systems approach looks like or involves, but there is less insight into nuances of how actors negotiate, learn, gain skills and understanding and sources of knowledge for this work on the ground (Ericksen, 2008b; Parsons et al., 2019; PHE, 2019 a, b). Factors identified in the research reflect common discussions in literature, where barriers are noted to realising the potential of embedding a systems approach, including individual agendas, limited project focus, budgetary silos, and lack of time, influence or strategic buy-in of actors (Bai et al., 2016; NHS England, 2019c). However, this study also revealed that this systems approach was also hampered by "dis-integrating" impact of austerity, budget cuts and organisational change. These were seen to "unravel" established relationships, interconnections and ability to act across areas of influence - fragmenting previously established and emerging systems links - for example, across public health, green space and land use. Other authors note similar barriers to systems approaches, including silo working, budgetary constraints, lack of ownership, influence and understanding of systems concepts (Bai et al., 2016; Public Health England, 2019c; Shill et al., 2012).

11.4.2. Embedded learning - grounded experience forging systems skills over time

The case studies revealed diverse routes, timescales, influences and depths of knowledge about systems approaches. Some actors had been exposed to the concept through external policy narratives and others through embedded, experiential and contextual learning over time. Despite this, on the ground, whilst rhetoric might be present, there was varied understanding of the approach. In Solihull, for example, one public health officer indicated that although initially systems thinking was an abstract external concept, it was pragmatically inserted into its food strategy in 2015, with superficial understanding. It was not until workshops with Leeds Beckett in 2017 around "whole systems obesity" that clearer understanding began to emerge.

In contrast, public health officers in Sandwell demonstrated a grounded, complex understanding of systems drivers on health and food, built up over many years of direct observation, experience, experimentation, and reflection. This partly stemmed from a deep understanding of contextual factors for the socio - ecological drivers of ill health, witnessed through the legacy impact of Sandwell's industrial history on health. The role of rich context, and embedded dynamic learning and knowledge gained over the two decades of food policy making was key in bringing maturity of understanding of relevance or potential of systems approaches - and deeper understanding of the routes to change. The interplay of external theory and experiential learning was important. Critical points in time were noted as "sense making" by public health officers involved in food policy. For Sandwell, wider influences such as Foresight obesity systems map (Butland et al., 2007), and Hawkes et al. (2015) reflected legitimacy and made sense of previous covert or grounded learning. Similarly, for Solihull, one public health officer acknowledged their own learning, gained from both practical exposure to the food environment lessons of the Smithswood development and early collaborative food strategy development. This meant that once Leeds Beckett was involved, this experiential grounding enabled deeper understanding of the concepts encountered, which a purely theoretical input would not have provided. Embedded learning was thus seen to provide a seed bed for building systems skills; supporting what De Savigny and Adam (2009) describe as "forest thinking", complex, supporting knowledge of rich context and relationship, preparing the ground for making use of emerging policy drives for systems approaches.

This raises the question as to who within a system needs to "hold" or have knowledge of the system view - is it all of the actors involved, or is it enough to have key actors acting as guides and interpreters to highlight and make connexions at critical points? This sheds some light onto issues highlighted by both Greenhalgh and Papoutsi (2019) and Lanham et al. (2013) considering factors for the spread of practice in the context of complexity and change applied within the health sector - where local actors must be empowered to act and "self-organise" in response to context, adapting to local circumstances. This selforganisation and locally grounded reflexive approach is essential to moving forwards for the complexity of food systems planning. Grounded learning, less visible, indicates the nuanced, reflective, and intuitive role and experiences of individual actors within the system that take place over long periods of time - a process that cannot be rushed. Key actors, especially those carrying a food remit, could be seen to embody dynamic thinking skills, with ability to respond and interpret food within changing agendas and circumstances. In Sandwell, for example, the public health officer with a longstanding role and responsibility for food could be seen as a "knowledge holder" connecting relationship building, agenda setting, and "carrying" the wider systems view of food forwards through periods of upheaval, change and loss.

Some of the literature notes a practice-policy gap, where actors on the ground lack clear understanding and guidance for systems approaches, despite increasing policy advocacy (Hamm, 2009; Sautkina et al., 2014). There is, increasingly over the last decade, exploration of the use of frameworks or toolkits to support systems approaches and indicate steps to be taken towards building system approaches to policy making (Public Health England, 2019a). For Solihull, coming to food policy relatively late, this type of input from Leeds Beckett was invaluable in garnering support and shifting practice towards whole systems approaches - achieving something which the Food Sub-group had not managed. However, "step by step" approaches for systems policy making can seem like an underestimation of the realities of messy, unclear, disrupted and incomplete journeys to emerging systems approaches. Findings from this study indicate that where the foundations of embedded learning were present, an understanding, receptivity and use of systems approaches were more advanced. Perhaps such toolkits underestimate the importance of the temporal aspect, where often decades-long and ongoing processes, reflection and adaptation taking place over time enhance embedded learning. Systems policy making, relationship building and depth of understanding are not always easy to "package" up over snapshot periods of time. Whilst in an ideal world, although practical steps such as, for example, those identified by Public Health England (2019a) from "set up" and "build local picture" to "reflect and refresh", are ideal, they perhaps oversimplify the realities of grasping, understanding, identifying and influencing change. In addition, they might be seen as in danger of presenting a reductionist view of the complexities of what remain multiple messy, ever changing and unpredictable systems. The skill also lies in embracing this mess within policy making, adapting, experimenting, and risk taking in ongoing and dynamic ways. This is reflected by Greenhalgh and Papoutsi (2019:2) who noted that "complexity can be hard to square with spread strategies that seek to replicate a blueprint". It is important that the recognition of non-linear, complex learning, risk taking and experimentation over time is not lost or reduced in moves towards breaking down and simplifying systems approaches for practice.

11.4.3. Food systems approaches - or wider healthy public policy vehicles?

The wider food planning and policy literature and practice advocates the use of specific "food systems approaches" (see for example, Ericksen, 2008a). This research suggests that within these local authority settings (and similar to the previous discussion above about the role and value of healthy planning), emerging systems approaches within "healthy public policy" might be valuable. These approaches might be more amenable and effective as a concept and route for supporting integrated discussions and ownership of food across local authorities in that they identify the role of public policy in creating environments which support health: recognising that health, in its broadest sense, is under the influence of many

sectors (De Leeuw et al., 2013; Milio, 1981). Socio-ecological models were understood theoretically by most actors as context to identify determinants of health and understand need for "upstream" action (Barton and Grant, 2006; Stokols, 1992). Moving beyond this, emerging agendas of "whole systems" approaches and Health in All Policies (HiAP) were becoming increasingly recognised and endorsed across public health, planning and local authority settings; giving potentially more leverage to identify shared agendas, complex connections and interactions between food policy and underlying determinants of health.

Across the case studies, there was a sense that emerging systems thinking - found within healthy public policy approaches - might be more effective in galvanizing cross-sectoral action than a "food systems" lens. Firstly, this approach could take the agenda of food beyond perceived "obesity", attribution of public health "responsibility" or contested "food" concerns and embed it within wider cross-cutting healthy policy making. Secondly, this approach could potentially bring wider ownership and buy-in, as health is increasingly encouraged to become "everyone's business". Whilst the loss of Sandwell's operational Food Policy Board and Food Policy was a huge blow, in effect it meant that public health officers in the new council setting had to adapt. They had to work creatively to articulate, build relationship and embed food within broader healthy public policies and cross-cutting agendas. Whilst food was arguably less directly "visible", there were early indications that moving away from an overt food policy focus might, over time, strengthen ability to embed food as part of health more securely in response to diverse agendas, bringing in greater "buy-in" and responsibility beyond public health. Solihull, for example, did not renew its standalone Food Strategy in 2017, but instead moved towards strategically adopting a "whole systems approach" across the council, again gaining potentially broader and more strategic leadership and cross council ownership of the issue.

However, whilst healthy public policy approaches might be a useful delivery vehicle, there was still a strong role for food systems to be used by key actors as a lens to recognise the place of food more clearly. This remained important in highlighting the place of food as an interconnecting theme on the table of these wider cross cutting healthy public policy approaches. The danger being that, without clear understanding of interconnection and relevance, food remains marginalised and limited to one-off projects or individual behaviour change approaches. However, confidence in and understanding of a "food systems" approach remained less clear, associated with varied underlying perceptions, conceptual and cultural barriers to activity and rhetoric around "food". There was also some scepticism towards external well-rehearsed food systems exemplars, hence indicating that this could make it perhaps less likely to engage broader planning and public health thinking. In Dudley, for example, public health and planners both spoke of lack of confidence with "food"

systems" approaches, and questioned the relevance of what was perceived to be more suited to "rural" than urban settings. These approaches were often understood by only some of the more involved food policy actors - perhaps food systems approaches were somewhat limited in reach, and perceived as "niche" - linked to those aware of wider food policy debates and vocal exemplars, but not so accessible to wider audiences. Cohen and Ilieva (2021) have recently noted similar need to broaden out boundaries of food policy.

11.4.4. Illuminating the "blind spots" and challenges of systems

Systems approaches are acknowledged as being useful in revealing both overt and hidden influence, relationships and points of change, and identifying potential avoidance of negative "feedback" (Rydin, 2012). Whilst food policy literature advocates the value of food policy groups in supporting "systems change", there is also recognition that real change is often enacted at levels outside the jurisdiction and influence of these groups, and influenced by other actors (Lang, 2022; Lang et al., 2009; Stuckler and Nestle, 2012). Clearly as Ericksen (2008a) notes, "trade-offs" occur within competing agendas. In this study, less visible actors were seen to exert "pushback" to policy aspirations for healthier planning and food environment change.

This study indicated clear systems "blind spots" and disconnections acting as a weakening and dis-integrating force, even when policy aspiration was clearly aligned, supported and in place across councils towards food environment change. Planners, public health and other actors all revealed to some extent a lack of reach, understanding, ownership or ability to "see" who and where real drivers of food environment change lay. Understanding influences and levers of food environments can present a challenge to policy makers if not clearly articulated, acknowledged or visible, impacting on their ability to bring about real change. Whilst it is clear that many food environment levers fall beyond the influence of both planners and public health, these systems "blind spots" must at least be acknowledged in debate in order to really understand whether, where and how change may happen.

The research sought to portray the realities of the policy making space "as is" rather than as it 'should' or 'could' be within an ideal food system view where all parts and actors within that system would be made visible. The researcher interviews and links revealed the picture of food policy making from the viewpoint of actors at local authority. In doing so, it revealed these gaps and blind spots across actors, interactions, and extent of influence. The research revealed "hidden" or unacknowledged actors who played a covert and often powerful role in influencing food environment decisions and policy enactment. Actors such as retailers and developers were absent in the main from policy making process discussions at the time, a situation reflected in the wider literature including Lang et al. (2009) and Chang (2018). Whilst Sandwell demonstrated past involvement and innovative engagement with

retailers, outlined in some of the reports and documentation from the 2000's, at the time of research they were not overtly visible in the food policy process. Solihull's collaborative food sub-group, whilst holding representation from public health, green space, sustainability and community development officers, had limited strategic influence and no route or representation from either retail or developers. Its Health Development Group had more strategic potential - with representation across more influential levels - including economic development, regeneration, spatial planning and public health with a remit to focus on collaborative healthy planning. However, again this did not focus explicitly on examining these wider food environment levers. Level of influence and ability to affect the real locus of change is important. Stakeholders who hold the "real" influence on food environments must be brought to the fore of discussions.

Systems "blind spots" were seen in the form of invisibility or impact of retailers, developers and planning inspectors. Firstly, fast-food operators exercised a restraining impact on planning policy formulation and decision making around hot food takeaways, with representatives challenging both evidence and policy robustness both at consultation and planning policy decision stage. As described by planners in Sandwell and Solihull, there was a reluctance on the part of some of the local authorities to push back, fearing real concerns of financial penalty, economic impact and a "watering down" of policy strength. A lack of both planner and public health influence, understanding of limits and points of change and visibility of routes to influence was noted. Planners, in particular, indicated some reluctance to take a broader view, or impinge on what was seen as more "political", legislative or economic decisions. For example, representations of food, as noted previously, were embodied within urban agriculture along with use of hot food SPDs, and were favoured above engaging with more complex, controversial issues of licencing or rates incentive. Beyond initial "use class" allocations, food retail was clearly seen as being beyond influence and subject to "market choice" or consumer demand (choice). This contributed to unintended negative feedback in healthy planning approaches, which was particularly clear in discussions around retail. For example, the emergence of retail outlets allocated in both Solihull's exemplar healthy development in Smithswood village centre and Dudley Town centre regeneration, in effect undermined wider healthy planning goals, representing a disjoint between aspiration and "real world". It was also echoed in relation to developers holding the power over aspirations for healthy planning in development incorporating urban agriculture and food growing space. Here, strengthening local evidence and intelligence might more effectively anticipate and help to challenge dominating external interests, and start rebalancing the issues at stake.

Discussion about developers also illustrated the constraints under which planners were working in trying to bring healthy planning forwards. Again, even when aspiration for healthy place-making was aligned across a local authority, had political support and was embedded in policy, this was often significantly watered down in the planning process. Discussions reflect wider literature indicating that most economic and planning decisions are made well before health is considered (Chang, 2018). In boroughs such as Sandwell and Dudley, with limited "bargaining power", developers were perceived to dismantle elements of aspirational healthy planning through the planning process, for example for food growing space within housing development, arguing viability and profit issues. Planners (for example in Sandwell) noted local authority fears of "scaring developers away" with too many demands on often compromised and contaminated sites. This supports findings by Lake (2018) and Carmichael et al. (2019) noting this mismatch with health aims and viability of sites, where developers appear to hold the upper hand.

Planning inspectors were felt to show variation and inconsistencies in decision making and consideration of health, both in dealing with development plan approvals and at planning application appeals. Again, even where policy, officer engagement, political support, were clearly aligned *towards* healthy planning and tackling underlying determinants within food environment - as seen in Dudley's Borough Development Plan Policy (Dudley MBC, 2017a) – planning inspectorate decisions on this seemingly undermined this, in effect *opposing* what was the culmination of years of integrated work, in part through challenges to evidence, or refusal to take a broader health view. Until health is more clearly defined as a statutory consultee in planning policy decision making frameworks, levers will remain weakened. There is, perhaps, some value to planning inspectors being more informed and educated as to systems and determinants views of drivers of food environment, obesity, and poor health. Again, it also reflects on the wider inability to think clearly about underlying health determinants such as food environment in a systemic way, when parts of the system are beyond the influence, understanding and control of local decision makers (Lake, 2018).

Engaging both developers and retailers and planning inspectors in food policy debates across the system, around healthy planning, place-making and clear understanding of food environments, however hard, must be the way forward to address some of these problems. There is need for a broader view and understanding of barriers and solutions. Chang (2018), for instance, has begun some of this work with TCPA, exploring developers' views in healthy place-shaping debates. Similarly, there needs to be more honest recognition of, appraisal and engagement of the big players in shaping food environments, at both policy and practice levels; bringing retailers and developers to the table, as this is still not common within food policy groups. Planners, economic development and regeneration officers, rather than public health, hold the key to this. In the case study examples some planners did acknowledge need to engage developers in discussions at early stages, in order to begin to tease apart the viability and potential market value issues around healthy places, but this was not embedded in policy and had limited effect.

Similarly, the one fresh produce retailer interviewed in Sandwell noted that engagement with healthy food retailers (such as fruit and vegetable sellers) could take place with planners at the earliest stage of development site decisions. This might support input of food into *design* approaches that explore how developments could enhance and support small retailer viability; for instance considering systems interactions and the role of integrating transport, parking, space, access, footfall and catchment, rates, retail mix and so on. In reality, they noted new designed shop spaces, although offered, were often perceived as unviable by smaller retailers. Some of these findings reflect the views of Bai et al. (2016) who highlight barriers which hinder adoption of systems approaches to urban policy making and action, including lack of incentive to move beyond individual sectoral work, and a tendency for managers to search for simple solutions. They also shed light onto the "unintended consequences" identified by Rydin et al. (2012) and Lawrence and Gatzweiler (2017), where poor understanding of complexity and narrow actions in planning can end up exacerbating adverse health outcomes.

11.5. Knowledge: learning, loss and transfer

11.5.1. Institutional storytelling

Against the backdrop of organisational and leadership change and the long-term nature of food environment policy making, the role of "knowledge transfer" was revealed as critical. As previously noted the research exposed some of the vulnerabilities inherent within policy making to loss of institutional and individual knowledge, but also across time in relation to complexities of land use; seen clearly here at a period of multi-level and unprecedented change. How is it that Sandwell, for example, which had been an early pioneer of food policy, recognised nationally and internationally, was, two decades on, struggling to demonstrate effective institutional memory of that work? Here, the significance of physical, land based manifestations and symbols of policy "intention" were important in times of change. These physical sites - including urban agriculture - had value in demonstrating, preserving and representing as "lasting architecture" the embodied knowledge in grounded ways, even if written policies and policy groups were no longer endorsed. As noted previously, at the time of research, retention of "institutional memory", for example in Sandwell, rested on individual food policy actors, with the burden of acting as carriers of "*the* food policy" against the backdrop of critical change, and in addition to their everyday role.

Here these officers acted as ongoing policy "entrepreneurs", with a creative and ongoing search for new ways of inserting food policy lessons into current policy environments (Kingdon, 1984). The value of institutional "storytelling" and importance of capturing the rich histories of food policy developments over the long term are essential for learning, if cycles of innovation and collapse are not to be repeated, and progress made for upstream change. Blay-Palmer et al (2016) acknowledge the role of knowledge and the potential of learning and sharing knowledge between geographic communities of food practice. Supporting knowledge exchange can build sustainability and resilience beyond the local, and provide "imprints" that survive change. Santo and Moragues-Faus (2019) also note the value of this exchange of practice across food networks nationally and internationally. However, here, knowledge exchange and legacy within and across all levels of local government and local food policy over time was also seen as critical, and more attention needs to be placed on how this can happen, through whom and by what means to ensure that learning is not lost. Alongside this, there was some indication of sharing knowledge and approaches both across the three case studies, and within discussions of the West Midlands Strategic Food and Planning groups. Of note also were comments about the use of case studies and wider food policy exemplars in supporting food policy activity. Dudley, adjoining Sandwell, was closely aware of Sandwell's urban agriculture work for example, with relationships between public health and planners of the two boroughs. Solihull drew on wider national examples such as Brighton for its food policy development. Whilst case studies, for example, individual urban agriculture projects, or networks such as Sustainable Food Cities and Public Health England exemplars, were acknowledged and used to build local support, some scepticism was also shown. Planners, public health, council officials and civil society actors showed a mix of attitudes to using case studies or joining networks involving well-known food policy pioneer areas, such as Bristol or Brighton. Some views, particularly from civil society, were based on motivation for "localism"; but local authorities also indicated uncertainty about the transferability of ideas into very different local contexts (see also Born and Purcell, 2006). Views indicated, allusions to cultural, attitudinal and socioeconomic factors presenting barriers, noting lack of relevance or "fit". There were some tensions seen between wider advocacy-based initiatives, with preference for examples from known areas with similar profiles, or neighbouring examples. Some questioned the relevance of wider alternative food network narratives, which almost acted as a block or barrier to receptiveness to and consideration of ideas. McGill et al (2015) noted similar attitudes in built environment professionals where using case studies as evidence was more likely to be considered when coming from similar areas. These comments also throw light on the discussions by Santo and Moragues Faus (2019) and Coulson and Sonnino (2018) about challenges to the

potential for learning between diverse food policy groups within networks across scale, where "pioneer" cities can dominate, and more nuanced view of "uneven geographies" at play demand attention. The celebration of "success" or outstanding exemplars perhaps needs to be balanced with better understanding and representation of struggles and seeming "failures" or loss of food policy initiatives, ensuring that stories from a wide variety of settings and "ordinary" contexts come to the fore. In addition, focus on outward representation of documented, visible, operational "food strategies" and "food policy groups" as proving food policy "success" may also miss the depth of action and learning to be had from areas like Sandwell, where food groups and policies are currently no longer overt, but knowledge, activity and experience remains deep. There is more to be learnt from areas which do not have operational "food policies", and yet understand how integrated food policies are enacted.

11.5.2. Understanding of food environment and emerging routes to spatial views of food

As a whole, the study revealed that there is more room for across actors in food policy, public health and planners to arrive at shared understanding about what exactly is entailed by upstream food environment change. This was seen as varied and lacking clarity, thus hindering policy making action and problem formulation. Contextual factors supported the emergence of a spatial and environmental understanding of food; including, visible proliferation of unhealthy food outlets, rising obesity, opportunities presented through greenspace and land development and insight from mapping of healthy and unhealthy food access. For Sandwell in particular, longstanding insight of the environmental drivers of ill health had informed policy making and attention on upstream levers. The work reflects growing literatures exploring emerging views on determinants of health, including food environment pathways, "socio-ecological" and emerging "systems" approaches (Butland et al., 2007; Glanz et al., 2005; Glouberman et al., 2006; Neff et al., 2009; Rydin et al., 2012). It was clear that both Sandwell and Dudley, and parts of North Solihull, echo challenges seen in the wider literature associating the proliferation and concentration of fast food outlets with deprivation and poor healthy food access (Cummins et al., 2005a; Lake, 2018; MacDonald, 2007).

However, contested viewpoints about the justification, meaning and place of upstream action on food were noted both within and beyond food policy groups, reflecting varied attitudes and understanding, "individual" and "structural" approaches: for some, food elicited deeply personal and emotional views (Lang et al., 2009). There was some indication that upstream levers were perceived by some planners as interference on "personal choice" or "nanny state", noting some reticence to interfere with the "market". The study also indicated that physical activity was seen as a clearer and preferred pathway than food by which planners could tackle obesogenic environments; also noted by Lake et al. (2017). Food was seen as more complex, less understood and often more personal. For food policy to really engage with these issues in an integrated way, clearer analysis needs to be made of definitions, drivers, levers and realities of modern urban food environments, and where, how and who is responsible for change. This discussion needs to take place at the outset, with elements of education as to approaches and conceptual lenses, and clear definitions of terms.

11.6. Is food environment attention focused on the right place?

It seems that the rhetoric of aspirational "food systems change" noted in the literature, against the realities of people's daily experience of and interactions with food environments within "ordinary" often deprived, post-industrial landscapes, do not always match (for example, the reality of Sandwell's "saturated" foodscape). Favoured approaches - urban food growing and use of planning regulations on unhealthy fast-food outlets - outwardly reflect support for food environment change seen in wider literature and policy documents (Chang and Ross, 2012; Ilieva, 2016; Mui et al., 2018; Public Health England, 2017a). There is however a need to move beyond what can perhaps be described as "talismanic" symbols in food policy intent towards addressing and identifying the underlying roots and more fundamental aspects of food environment change. The question could be asked "is food environment attention focused in the right place?"

Urban agriculture activism remains a vocal and dominant advocate in food policy debates and literature - often claiming contribution to food system or food environment change, in opposition to conventional food systems. A body of literature focuses on analysis of yield, scaling up and mapping potential of productive land space in cities. Urban agriculture often appears in food policy documents and aims almost as a "proxy" indicating food environment or food systems change. It could be argued that this deflects attention from dealing with the real upstream issues at stake. This study indicates the time taken to develop sites and that there are real barriers to urban food growing being scaled up. Resource and time hungry, questions remain about if and how urban agriculture could shift to realistically contribute to food environments at a population level, including who would do the work, where interest would lie, how skills would be developed, and if it would be both practical and culturally acceptable. Findings here indicated that in some cases, there is perhaps more openness to thinking about alternative land uses, potentially presenting an opportunity for urban food growing, as shifts taking place with austerity present a "problem" of public land use and maintenance for local councils with constrained budgets. However, impact of urban agriculture as a food environment response to the profound challenges within the food system and at population level nutrition remain minimal, limited usually at grassroots level and often dependent on volunteerism.

This is not to undervalue the significance of urban food growing, but simply to note that seeing it as a food environment response, and stopping at this point, needs to be carefully interrogated. Whilst the contribution of urban food growing to food literacy and wider health and wellbeing benefits were recognised by food policy actors it was also seen as significant in its role as providing a "gateway" to wider food environment discussions. For example food policy actors in Sandwell, noted food growing sites provided physical, visible evidence and "lasting architecture" of food policy aspiration and intention. This echoes a point where urban agriculture has been similarly noted by Cabannes and Marocchino (2018:37) as a providing a "trigger" and Morgan (2014) as a "visceral" representation of food. However, whilst not undervaluing urban agriculture's important wider social and health benefits, its impact on food consumption and effect on alleviating some of the huge pressures on citizens of dominant food system remain small, echoing emerging debates indicating the social and environmental benefits are more significant (Kirby et al., 2021). This must not divert attention and honest debate about the real loci of food system change. Until there is opportunity and understanding to "upscale" urban agriculture, as a significant food producer, it perhaps signals an element of distraction situated as claiming to address "food" under food policy. Its place, value and progress might more effectively rest within agendas for green infrastructure planning, sustainability, climate mitigation, health and wellbeing. Here, food production is acknowledged as a *pathway* or a means to an end for social and environmental benefits, rather than about productivity per se. This could shift attention from more idealised views of food environments and systems towards facing the more pressing realities faced by populations in their daily lives in post-industrial, "ordinary" settings.

A way forward might be identified drawing from the way Sandwell demonstrated early moves to interpret healthy food environments as a "right" for its citizens. Here it was noted some public health actors aspired towards defining healthy food as an "essential service" within overarching planning policies, alongside other basic services and infrastructures, in the context of perceived "market failure". Sandwell had begun this investigation of wider levers of food environment change, early on in its journey, with its food environment focus, food access mapping, and recognition of the historical, social, environmental and health related drivers of food (Saunders, 2013; Saunders and Saunders, 2014). At the time of research Sandwell's public health officer was continuing efforts, despite significant challenges, to focus on food environment upstream. *Food Sector Growth and Innovation* focus involved strategic influence on food industry levers, through planning, product reformulation, and

engagement at scale across the Local Enterprise Partnership - seen as potentially more effective ways to begin to alter food environment impact at the wider scale.

11.7. Reflection on complexities of capturing the policy process

Briefly, it is worth noting that insights from this study reveal the messy process of real-world policy making, characterised by Lindblom (1959) as "muddling through". It also adds to more recent reflections on the emerging narrative around the call for new paradigms to capture and describe policy processes taking place within real world, systemic and complex factors; for instance, those underpinning determinants of health (Bagnall et al., 2019; De Leeuw, 2017; Exworthy, 2008; Greenhalgh and Papoutsi, 2019: MacRae and Donahue, 2013).

For actors on the ground, it is not surprising that some struggled to see the bigger picture, and track policy aspiration across ever changing, shifting sands, and long-term timeframes with both intentional and unintentional consequences. It also indicated, as previously mentioned, the need for a grounded, flexible and creative approach where individuals across the system had skills to reach out, adapt, innovate and be creative within context of ongoing change - not always easy or possible within tightly monitored and constrained budgets, targets, linear processes and timescales.

Walt and Gilson's Health Policy Triangle, for example, initially provided a useful format to tease apart elements of the policy making process, and to structure the research. However, it could be noted that the model was limited in its use, and less effective for capturing and teasing apart dynamic change, and examining elements of such complex policy making, where development often spanned decades. The complexities of identifying elements of integrated policy that influenced food environment change left the researcher with a constant feeling that they were "missing something", bringing to the fore the "messy" nature of real world policy making, and interconnections taking place across multiple levels over often long periods of time. The model lends itself to well defined, shorter scale, policy issues and problems, but was challenging when teasing apart multiple factors, often not overt or clear.

11.8 Concluding remarks

Whilst the research did not seek to identify definitive recommendations for the individual case study boroughs and was not focused on assessing *effectiveness* of policy or action to bring about food environment change, it did seek to contribute initial pointers for policy and practice.

Figure 12 below attempts to draw together the research insights to illustrate and visually capture a possible way forward for a more integrated and dynamic approach to policy

making around food environment change at a local level. (This builds on Figure x.10 in the previous chapter which depicted the "dis-integrating" factors, "blind spots" and pressures at play which frustrated efforts to achieve integrated policy making for food environment change). Here the dis-integrating factors have been "turned round", acknowledged, made visible and brought into consideration. Whilst addressing these barriers and blind spots may be beyond the influence of local policy, engaging and bringing in previously hidden actors into the debate and dialogue, (for example developers and retailers) is still important(as illustrated on the right of the picture). This could both strengthen and support policy makers to focus on making visible the real levers and barriers to food environment change. However, it must also be acknowledged that without strong central government food policy leadership, and some levers to rebalance power, local authorities continue to be limited in their ability to act.

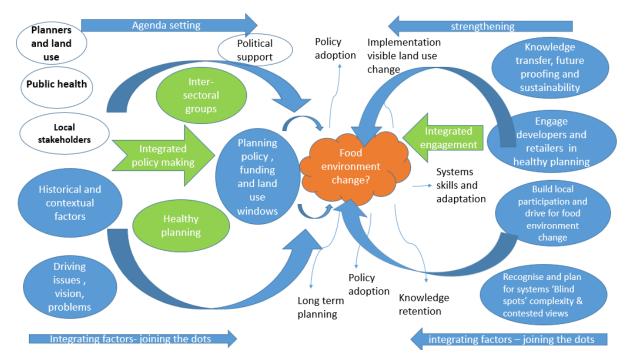


Figure 12 Towards integrated and dynamic approaches food environment change.

Chapter 12 and Table 27 attempt to build on this and to summarise some of the main conclusions of the research and identify potential lessons for policy and practice. They draw on conclusions identified and laid out in this discussion and previous chapters. Potential lessons identified span the themes of: definition and visibility, process and governance towards integrated action, sharing knowledge and building legacy, with relation to achieving integrated policy making towards food environment change. This leads onto the final section

of chapter 12 which reflects on methodological insights, gaps, strengths and limitations, and identifies pointers for future research.

Chapter 12: Conclusion and reflections

12.1. Introduction

This research sought to gain an understanding of integrated policy making towards food environment change through planning and land use, through exploration of the multi-sectoral perspectives of those involved. Throughout the thesis, attention was paid to the policy making processes behind the scenes within local authority settings, whilst drawing on insights from health and social policy approaches. The study has attempted to address some of the gaps noted in broad urban food planning literatures in giving greater understanding of nuanced motivations, discussions, processes and barriers at play behind integrated policy making, with insight into motivations of actors towards achieving food environment change. It has also contributed to insight into "ordinary" settings, beyond food policy exemplars, and into the impact of austerity at a time of profound and far-reaching change. Whilst the findings are of particular use to urban food policy they also provide insight on broader non -food related efforts across healthy planning, healthy public policy and integrated efforts to tackle "wicked issues" and systemic problems, such as underlying determinants of health and the climate emergency.

This chapter briefly summarises research conclusions revealed within the discussion and previous chapters. It then draws on these to identify some lessons and pointers for policy, outlined in Table 27. It moves on to undertakes a brief reflection on methodological lessons and insights from undertaking the research process, including identification of gaps, strengths and limitations. Finally, it identifies potential ways forward and areas for future research.

12.2. Concluding remarks and pointers for policy and practice

Whilst this research has reflected commonly identified themes to urban food policy making, including insight into food policy groups, and use of planning and land use levers to realise food environment change, it has also shed light on less understood dynamics taking place behind the scenes. Conclusions drawn from previous chapters can be grouped into three overarching themes: firstly, policy making process and governance towards integrated action; secondly, definitions and visibility of food environment factors, pathways and actors; and thirdly, knowledge transfer, systems skills and building legacy through change.

12.2.1. Policy making process and governance towards integrated action

On the first point, the research demonstrated that integrated policy making processes are inherently messy, complex and dynamic, vulnerable to change and unintended consequences. The research suggests that although there may be willingness, interest, political support and policy alignment for integrated upstream action on food environments, the ability and momentum to see this through to tangible or land use change is often lost. In addition, long time frames and complexity of underlying factors on the ground can mean failure to recognise, track and connect the dots across change, time, process and levels. Knowledge transfer is key to protection of legacy vulnerable to change and loss, along with distribution of leadership and responsibilities across "constellations" of actors across all levels of the system. Findings also suggest that within these local authority settings, broader systems approaches within "healthy public policy" and healthy planning might provide a greater opportunity than a dedicated or stand-alone food policy focus - offering a pivotal vehicle for embedding focus on spatial and structural levers of food environment change, at the same time as including wider and more influential stakeholders.

Even when integrated action was aligned for success, as for example in the case of Dudley's efforts to upgrade the SPD on hot food into the local development plan, efforts could be undermined. Findings reveal the presence of significant dis-integrating factors, highlighting need for recognition, and proactive actions to mitigate systems and policy making "blind spots". However, hidden often powerful actors, agendas and competing tensions are at play within the policy making process. Bargaining power at local level is weakened by austerity and change. This research revealed the limited reach, knowledge and influence of actors at local authority level have on interests of food retailers and developers, and subsequently a somewhat narrow insight and a reticence for engagement in the issues.

The differential overt and covert presence, dynamic tensions and roles of actors involved in policy for food environment change was suggested in a development of Lang's Food Policy triangle. Findings suggest that within these local authority settings, there is still room to enact broader systems approaches with closer alignment between planners, public health and wider actors with influence such as economic development. A coordinated approach to ironing out competing policy interests across local authority, and between health and economics, at the same time as strengthening local evidence and intelligence for example, could perhaps help more effectively anticipate and challenge dominating external interests. This also sheds light on the need for a rebalancing of power, something seen as beyond the leverage of local level policy and as some point out, indicating the need for stronger national food policy leadership and food environment regulation (Lang, 2009, 2022).

12.2.2. Definitions and visibility of food environment factors

Secondly, the research highlighted varied definitions and concepts in use by food policy actors – with differences in understanding of food environment, individual and structural factors, and food systems. Whilst this may reflect varied ideological or philosophical stances, it however indicates that greater clarity among food policy groups and wider actors about these concepts would help illuminate responsibilities, actors, levers and pathways to change. A lack of such clarity may contribute to the tendency towards "talismanic" symbols of food environment and food system change, such as urban food growing, at the expense of identifying and addressing the real levers of change. Profound structural factors exist against food environment change where civil society drive is weak, consumer demand low and poor food environments and underlying determinants of health restrict landscapes of food choice. This raises the question as to where to address and identify loci of responsibility for food environment change moving beyond a focus on individual "choice", with implications for both local and national policy. Defining food, or access to healthy food as an "essential service" alongside other basic infrastructures, drawing on determinants of health and rights - based approaches could be a way forward.

12.2.3. Knowledge transfer, systems skills and building legacy through change

Thirdly, the research indicated the importance of supporting knowledge transfer and legacy. Building system skills across constellations of policy actors at all levels is key to protecting against change and loss. The research took place at an unprecedented moment of change, with loss of leadership, impact of austerity, and organisational changes taking place to different extents across the case study areas. These factors impacted on the ability to realise food policy and enact food environment change. Food environment change on the ground involving planning and land use takes place within long timeframes – often decades – and tracking of progress, people and action can be lost over time. To avoid this, ideas, activity and actors need to be tracked across time to "join the dots" across food environment change on the ground. This could help to protect against institutional knowledge and memory loss, and ensure long term projects can be seen through to fruition.

The research revealed that understanding and working within a systems approach at the time was emerging but nascent. Development of systems skills takes time. Knowledge and progress is supported by integrated working in joint policy groups, through collaborative planning, grounded learning and risk taking. Time and investment in this work of building and sharing knowledge is important, both to gain real embedded understanding of systems and skills for working in this way and to protect against institutional memory loss.

Broadening the local evidence base of impacts of local food environment can also help to build this broader picture and evidence, including through collecting local data, lived experience and qualitative intelligence.

Finally, the research demonstrated the value of focus on both activity and historical development in places where food policy may be perceived as dormant, "failing" or no longer visible. This can bring valuable insight into policy making within "ordinary" settings. It revealed a richness of insight into circumstances beyond national and international food policy exemplars, and within the uneven geographies of food policy (Santo and Moragues-Faus, 2019).

Drawing on the previous chapters and discussion, Table 27 further summarises the main conclusions, and highlights suggested pointers for policy and practice at the level of urban food policy making for upstream food environment change.

Summary of main research conclusions	Lessons for policy and practice - towards integrated food policy making for upstream food environment change				
Theme: Policy	Theme: Policy making process and governance towards integrated action				
 Integrated food policy making at local level complex and vulnerable to change Pathways between vision and reality remain unclear Leadership and advocacy key at all points of system 	 Build vertical and horizontal leadership investing in 'constellations' of individuals at key points across system and time "Join the dots" across system pathways to support long term planning and clear routes to achieving policy vision on the ground Track actors and activity across the system to ensure against loss and change – recognising role of pivotal 'holding roles' 				
 Systems "blind spots", hidden actors, agendas and tensions act as 'disintegrating' pressures bringing unwanted health impacts and unintended consequences 	 Expose, challenge and identify systems "blind spots" Bring hidden actors into food policy and healthy place making debates - including developers, retailers, regeneration and economic development Establish public health as a statutory consultee in planning Build awareness of food and health within planning inspectors and development managers Coordinated approach to iron out competing policy interests across local authority Strengthen local evidence and intelligence to more effectively anticipate and challenge dominating external interests, and start rebalancing the issues at stake 				
 Stand-alone food policy and food policy groups may not achieve adequate 'buy in' or influence "Healthy public policy" and healthy planning can widen responsibility and embed focus on systemic, spatial and structural levers of food environment change 	 Expand reach and responsibility beyond food policy niches - embed "food in all policies", and within healthy planning and healthy policy vehicles e.g. HiAP Build shared understanding and better alignment around food environment action within planners and public health Use levers within collaborative planning and policy to embed food environment change 				
Theme: Definitions and visibility of food environment factors, pathways and actors					

Varied understanding, definitions and concepts around food environment in use by actors	Clarify definitions, concepts and understanding in use at outset within food policy actors – including concepts of 'upstream', structural and systems approaches
Tendency to use "talismanic" symbols of food environment and food systems change - at expense of addressing real levers change	 Identify and address the real levers of food environment change beyond "talismanic" symbols Clarify and define role and function of urban food growing/ urban agriculture within food policy to avoid its use as a "proxy" for food environment/ food systems change Clarify best 'fit' and place of multifunctional urban agriculture within policy e.g. green infrastructure, climate, health and wellbeing or food
 Embedded poor food environments and underlying determinants of health profoundly restrict landscape of food choice Profound structural factors exist against food environment change where civil society drive weak, consumer demand is low 	 Address and identify loci of responsibility for food environment change moving beyond individual "choice" Define healthy food as an "essential service" alongside other basic infrastructures - drawing on determinants of health and rights-based approaches Stronger national policy direction and appetite to address and regulate food environment influences at structural level including tackling powerful interests and austerity
Theme: Knowledge transfe	r, systems skills and building legacy through change
 Change, austerity and leadership loss impacts on ability to realise food policy and enact food environment change Knowledge transfer essential to protect against loss and change Food environment change on the ground involving planning and land use takes time – often decades – and focus can be lost over time 	 Develop routes for knowledge transfer, future proofing and sustainability, and build resilience to change Align and track activity and actors across time to "join the dots" across food environment change on the ground to ensure not lost Develop "healthy food environment professionals" or champions across the system, to hold knowledge and steer upstream change across time Broaden local evidence base to capture picture of food environment impacts through local data, lived experience and qualitative intelligence
 Understanding and working within systems approach was emerging but nascent Systems skills, knowledge and understanding is developed through integrated policy making, collaborative planning, and through grounded learning and risk taking 	 Support actors in innovation, creativity and experimentation - recognise value of collaborative, grounded, intuitive knowledge gained over time in supporting development of systems skills Embrace "mess", imperfection, risk taking and pragmatic approaches to develop local systems knowledge and skills

Focus on places where food policy may appear dormant, 'failing' or r longer visible brings valuable insight into policy making within "ordina settings"	 y "ordinary" settings More focus on insight and learning from areas where food policy not overt, or no longer active/ visible, or civil society weak Explore and draw on long term historical "stories" of food policy development over time, particularly within contexts of uneven impacts of austerity and socio-economic challenges 		
Table 27. Summary of main conclusions and pointers for practice and policy in addressing integrated policy making towards food environment change			

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12.3. Reflections on the research process - strengths and limitations

This section steps back to reflect on the research process, and identify in retrospect what worked well, where there were gaps in the research process, and how it could have been improved.

As noted throughout the previous chapters, the researcher struggled to grapple with the size, scope and constantly changing environment in which this work took place. There were a number of aspects to this. Firstly, the research took place during a period of unprecedented and dynamic change, spurred most significantly by the impact of austerity and budget cuts, combined with ongoing political and organisational change impacting local authorities, planning and health. As a result, there was a constant sense of unravelling for food policy actors, and a sense that institutional memory was being lost or eroded. Food issues and food policy were increasingly not key issues for the vast majority of the stakeholders studied at the time.

Secondly, the researcher also had to process personal impacts of this, as at the time, Sandwell's innovative food policy work was struggling to retain its place in the borough's priorities. The personal impact of this came from the researcher's direct involvement in developing and delivering food projects in the borough over a period of 15 years. This required attention to "boundaries" within the research beyond the acknowledged ethical issues relating to the avoidance of personal bias.

Thirdly, however, the messy and constantly changing environment of the study did provide deeper insight into the methodological and conceptual issues at stake when trying to understand complex systems. Was the struggle a failure of the researcher themselves, in not clearly setting out clear parameters of the study, taking on "too much", or was it more to do with the inherent nature of such research? Throughout, the researcher had to live with "discomfort", resist the temptation to reduce the research towards simple linear or project based foci, and instead to continually trust and intuitively "feel" for the broader connections and picture, across time and space. This was an iterative and ongoing process, but it was also perhaps a reflection that, at present, there is only a newly-emerging understanding of the skills, language and approaches needed to carry out research of this type (Greenhalgh and Papoutsi, 2019; MacRae and Winfield, 2016). Most research still takes place within more linear, narrow bounds or predictable formats.

This brought greater reflection during and through the research process on wider emerging literatures calling for a "paradigm shift" in understanding of what research means within situations of complexity. This notes that research needs to become "methodologically

pluralistic, flexible and adaptive", and draw from numerous approaches and insights (De Clavier and De Leeuw, 2013b; Exworthy, 2008; Greenhalgh and Papoutsi, 2018, 2019; Lanham et al., 2013; MacRae and Winfield, 2016). In hindsight, whilst the research itself may show weaknesses from a lack of clarity at the start, perhaps just as valuable were the skills and insights developed by the researcher through the course of the work - particularly in terms of flexibility, adaptation, and reflection. The work attempted to explore the spaces in between, understand relationships, connections, networks and historical timelines which would not be overt or clear with a narrow, bounded approach.

The research did not set out to compare success of the different approaches or interventions taken within the case studies. Use of an explorative case study approach has enabled a rich, complex topic to be explored, within a messy, real world setting. Bounding the parameters of the case studies was a challenge and the scope at many times seemed "too big", but the researcher felt that it was important to reflect the historical roots of food policy, and its effect on thinking in the present. In practice, this was not easy, partly due to the aforementioned rapid change and loss of institutional memory, but this was supported by tracking documentation. In Dudley, the initial focus on the emergence and development of the "food growing strategy" also was challenging, in that in practice, the group and work never really got off the ground. However, this enabled a real world opportunity to witness how policy making happened in practice, amidst constraints of austerity and change. In addition, the researcher faced challenges similar to other interdisciplinary research spanning disciplines and departments, in accepting that it is almost impossible to find where the work neatly "fits". The researcher is neither an expert in public health or planning, but perhaps their own career background - of almost "bricolage" - helped in this approach, in that they were more comfortable than some in the "not knowing" spaces in exploration of the gaps inbetween.

Interviews and documentation became the main sources of data gathering. Whilst the researcher did attend some food policy group meetings, for instance in Solihull and Dudley, in practice these groups seldom met, apparently affected by the nature and scale of organisational changes taking place. This meant that the opportunity to observe integrated group working was limited, and greater reliance was therefore placed on interviews with individual actors about the policy making and group processes. Whilst the researcher had prior relationships with some of the actors, particularly in Sandwell, this was not necessarily a weakness - perhaps enabling more detailed insight to be shared, and provide a richer insight and depth into policy making processes which may otherwise not have been achieved.

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Using an open interview style was important for drawing out perspectives from actors from diverse backgrounds and understanding their view on food policy work. However, as a result, some themes, such as "evidence", only came up in passing, and could perhaps have been explored more explicitly through direct questions: there was a balance to be struck between missing themes due to not asking the questions and narrowing down interviews by having narrowly set questions. The main contacts were with public health officers with a coordinating remit for food, and therefore interviews inevitably reflected their leadership role and deeper knowledge and insight. Again, some of the actors had many decades of involvement, others were relatively new to the work whereas others were no longer available. This was reflected in the richness of narrative and insight within the case studies: but, as a result, the research needs to be understood as a snapshot view at a particular time, of those who were present. However, balancing the study with documentary evidence also helped to give a clearer historical and contextual picture, itself endorsing views within the varied depth of interview narratives.

In terms of relevance of the work to other settings, it certainly has shone a light on, and given deeper insight into views of actors involved in the complexities of behind-the-scenes policy making and integrated work towards food environment change. Firstly, it offers what could be described as both "thick description" and "thick interpretation" in giving rich contextual, social, historical and other descriptions, bringing actors' views to the forefront, and hence providing greater understanding into the area of focus (Lincoln and Guba 1985; Denzin and Lincoln, 1998, 2008). Secondly, this provides those who might read the work with an opportunity for both "naturalistic generalisation" and to understand and make judgements as to how the insights might be "transferable", thus offering a clearer view into other settings and situations (Lincoln and Guba, 1985). In so doing it can deepen and add to current knowledge, and help highlight gaps in current and future research.

As noted previously, the research attempted not to portray "what could be" in terms of food systems and policymaking, but "what was". This meant that "blind spots" in reach and awareness of food policy actors were revealed and hence illuminated the impact on this on subsequent reach and thinking of integrated food policy. Use of "snowballing" by the researcher to gather informants and interviewees from initial food policy actors within public health resulted in the picture portrayed in the thesis, from the actors' perspectives as identified in this process. This however reflected the extent of real-world food policy links with these groups and absence of both reach and dialogue with wider, powerful actors. For example, as illustrated in discussions in chapter 10, there was a sense that for some planning officers, taking a broader view of food environment levers, beyond a narrower silos, budgets and professional boundaries, was complicated with a reticence to "go there". This

was seen particularly around thinking about challenging issues such as licencing and impact of retailers and market forces. Some comments for example noted that thinking about this is "somebody else's law" and "off the resource radar" (See 10.4.4.1). This echoes Freudenberg and Atkinson's (2015) comment that the hidden presence of such actors, and reticence to address, makes it difficult to identify the opponents of health-related policies.

The researcher did initially consider and try and find both retailers (for example hot food or fresh produce) and developers but failed with the exception of one retailer with links to Sandwell. Trying to find and represent these actors proactively via direct contact through other routes (e.g. searching planning consultation comments) would certainly have added insight into the constraints faced by planners and public health. Similarly, whilst interviews did take place with civil society actors, these provided limited insight, reflecting the lack of real engagement in the policy making process within the case studies: the concerns noted were more related to specific projects and funding issues. As described throughout, the researcher set out to shed light onto the policy making process as it stood. Whilst the researcher felt that this approach was justified within the process and rationale of the research, in retrospect, engaging and representing view of hidden actors in these "blind spots" might have added stronger insights into the constraints, challenges and views of these hidden actors behind enacting food environment change. This could be a focus of future research.

12.4. Areas of future research

This research gave insight into the messy, real world, changing elements of the policy making process within local authority settings, with aspirations to address some of the upstream complexities of food environment change. In so doing it indicates that there is room for future inquiry.

Firstly, as described above, it identified system "blind spots" including the absence of both developers and food retailers both within food policy and healthy planning debates. Although this is acknowledged above, and some authors, for instance Chang (2018), have begun to address this, there is need for greater understanding both of developer views on viability and healthy place-making, and attitudes to, for instance, provision of green space for food growing. Little is also known about the views of retailers, for instance about contributing comment and knowledge at pre planning stage to help create viability of locations within retail allocation for providing healthier foods. There is more opportunity to open up this debate and to better identify and reveal the powerful forces behind food environments. More focus and research on the attitudes and understanding of planning inspectors towards health, and underlying determinants could also be important for

identifying how seeming inconsistencies within planning policy can be alleviated. Whilst these actors remain outside the involvement of food policy groups, the food environment focus may continue to be frustrated, dis-integrated or focus on the wrong levers. More research - broadly within what might be termed "healthy planning" - is needed to understand how food policy, public health and planners can engage, understand and involve these actors in early planning discussions in order to shape future healthy developments and ensure that food environments, and levers to change are visible and understood. In addition, there is still need for greater analysis and understanding about exactly what food environment change might mean and look like in practice, when involving planning and land use: the common focus on "talismanic" interventions like urban agriculture might divert from really investigating what and where the levers of action and change lie, within dominant food systems.

Another area of research potential is in the broader exploration of the historical stories of food policy development towards upstream change, and the examination of factors for effective knowledge holding, transfer and legacy in the midst of ongoing change. More widely, this research showed that whilst rhetoric of food systems and wider systems approaches are increasingly prevalent, in practice challenges remain in effectively embedding these on the ground. Clearer understanding among both public health and planners in relation to systems involving food is still needed. More work is needed to give insight about how systems skills and knowledge are defined, understood, developed, transferred and maintained over time in complex settings, along with the role of "embedded" covert knowledge in supporting actors in this across the system. Conceptually, there is also more to be contributed towards researchers in these examples, in gaining insights into the potential "new paradigms" to be used in research, including methodologies, skills and approaches of researchers as noted by Greenhalgh and Papoutsi (2019) and others (De Leeuw et al., 2014; De Leeuw, 2018; Exworthy, 2008; MacRae and Winfield, 2016). Greater insight would be useful across food policy, healthy planning and determinants of health foci.

There is also scope for moving attention away from more well-known and visible food policy exemplars, to explore the elements of food policy making within ordinary settings. This could include settings with less "outward" indication of activity, or where food policy is not overt or may have ceased to be active - what routes do they use to focus and bring about change? Without insights into these types of "ordinary" settings, there is a danger that focus is placed on more vocal alternative, or well established food policy arenas. It is important to understand factors at stake and influencing decision making within ordinary local authorities grappling with austerity, limited resource, and legacy of poor environment and health, as well as learning more about the cultural and conceptual barriers at play in creating "uneven"

geographies of food policy as noted by Coulson and Sonnino (2019). Similarly, there is a need for focus on areas where civil society activity is weak, and better understanding of where, who can and should drive improvement to food environments, beyond relying on consumer demand and choice. This might involve more exploration of rights-based views and how this might be interpreted into action, and be embedded in upstream economic, regeneration and planning policies. It is important, if sustainable and longer-term change is to be achieved, that this is addressed both within local food policy making, and between wider food policy networks.

Finally, there is room for exploration of the role of standalone food policy groups and strategies as a vehicle for change, in contrast to approaches where food is owned more broadly and embedded within other agendas. This research noted that healthy policy, health in all systems and healthy planning approaches might be more effective vehicles than food policy focus, for gaining acceptance and embedding reach of food beyond and across local authorities - more understanding the different strengths and weaknesses of the different approaches might be of use in understanding how food can be embedded more broadly, a point recently acknowledged by Cohen and Ilieva (2021). Food policy research has strength to draw from embracing these perspectives from wider disciplines.

Appendices

Appendix 1: Examples from practice to embed food.

Box 1: Dudley- Restricting Hot-Food Takeaways- journey to policy.

In 2013 Dudley Council developed and adopted SPD *Planning for Health*, with reference to restriction of hot food outlets and support of food growing space. In 2016, long term collaborative work between planners and public health officers resulted in proposals to insert **Policy D9 Hot Food**, within **Policy S2**, into the new *Borough Development Strategy* (Dudley MBC, 2017a). This would strengthen and embed food environment restriction into planning policy, including use of 400m exclusion zone around schools, and further support agreed policy aspirations for healthy planning, and tackling obesity. Despite alignment and support across the council for this policy, challenges during the consultation and policy making process led to the final reference in the BDS being significantly weakened.

Challenge by hot food retailers: Challenges were made during the consultation process (2016) by planning agents acting on behalf of major fast-food chains (Dudley MBC, 2016d- BDS6 Publication Consultation Responses). These focus on soundness of policies, evidence

for links between obesity and proximity of They question the role of planning to influence assumptions" about takeaways providing Publication Consultation Responses). In proposals were in keeping both with guidance in with health, and support council's aspirations to JSNA. No changes were proposed at this stage.

Challenge by the planning inspector: Further following public examination in June 2016 and November 2016. He found references to hot *the test*^{*}. He argued for *deletion* of references to (Bridgewater, 2016:3).

In the 2016 BDS Publication (Dudley MBC,



takeaways, and proposed exclusion zones. dietary choices, and use of "blanket unhealthy foods (Dudley MBC, 2016d- BDS6 response, the Council argued that the the NPPF for planners to consider and work tackle childhood obesity, as identified in the

comments raised by the planning inspector assessment of the BDS for soundness in food in S2 and D9 in his view did not "*stand* the *siting* of hot food in proximity of schools

2016a), on which his comments were based,

Policies S2 and P9 make reference to the restriction of hot food takeaways on the basis of *siting* and *density*, proposing 400m exclusion zones around all secondary schools, along with percentages for density in line with the Planning for Health SPD (Dudley MBC, 2013c). However, at adoption, following amendments made during the examination by the inspector, control of hot food takeaways was set on the basis of *concentration*, and all reference to exclusion zones around schools removed. In his report the inspector commented, "*It was common ground that obesity is a national problem in relation to health and that the control of childhood obesity can result in long term health benefits*", however, "*whilst the Council set out clear evidence in relation to issues of overconcentration of A5 uses, there was no local evidence that demonstrates a causal link between A5 uses and childhood obesity in relation to the proposed 400m zone around secondary schools. Moreover, whilst there is some limited international research that recognises some causality between A5 uses and negative health outcomes this was at a considerably shorter distance of 160m and therefore would not be comparable to the Council's proposed policy. Consequently, the restriction of A5 uses within 400m of secondary school boundaries is not justified by the available evidence"* (Bridgewater, 2016:10).

Dudley planner responses (from interviews) "We had a number of objections to the HFT policy in terms of the nature of the policy that said 400m close to a school, what was the evidence base behind it? When clearly we went to the examination and said "well actually, these are our plotted schools, these are our plotted takeaways these are our plotted issues in terms of propensity to obesity across a map in terms on the hot-spots, and we clearly have a lot of data like that from PH, so there is a correlation". The other side argued, that, "yes there may well be but in an area as densely populated like Dudley borough you are going to have those types of issues not just because they can walk to a chip shop or walk to a takeaway but because of a whole host of other socio-economic issues". "The proponents to the counter argument were HFT operators. Now clearly one of the things that hampered us slightly was nationally there is a lot of evidence that talks in terms of the context of the broad context of obesity and hft, obviously if you have fish and chips every night it's not going to be good for you, no one can argue with that, but there was a lot of contradictory advice nationally and it put us in a very difficult position, we didn't have anything to actually put on the table and say well despite the fact that we have these heat maps, despite the fact that you can see these correlations mapped, there was so many, the most compelling evidence was an American paper (Curry et al., 2015) who put forward the argument in terms of correlation...but again the inspector didn't seem to appear be that keen to look at that, and was much more focused, and understood the concept in terms of its not very good, not very healthy to have that type of food near to schools, but we couldn't get a planning argument in terms of that link. So ultimately what we are left with is a policy that is somewhat watered down which talks much more about hft and bunching, clustering of the HFT with other takeaways, so it removes the link, for the school link and therefore the child link'

Key points: Despite availability of clear "policy window" in the BDS and strategic support, readiness and alignment for this policy, the role of *evidence*, and *interpretation by planning inspector* undermined the policy, along with challenge from fast food operators



photo © rightmove.co.uk

Wordsley Hospital site was identified for new residential development within the initial Unitary Development Plan in 2004. Development brief 2005 outlined council aspirations, with up to 325 homes. Initial planning approval was gained by a property developer in 2006, sold to

another developer, 2007 (Dudley MBC, 2005. Wordsley and Ridge Hill Hospital Sites, November 2005). Consideration of green and public open space, and outdoor amenity space was set within the design. Initially land was offered to the developer to create green space - for nature, environment and community, but soon passed back to the council to lead. It took until 2012 for Dudley Council development control committee to formally approve freehold transfer from developer to the Council, with Section 106, and funds agreed for sites remediation, and 23 years maintenance funds.

Landscape Architect as member of Food Growing strategy group, by 2015 was keen to see development of food growing and community gardens on this site. Conversations with new residents showed limited appetite for food growing, but plan was to integrate food growing into consultation plans once the land became available. Over the three years of research, (2015 -17) the handing of the land from developer to council was delayed over four years. By 2017, the landscape architect, who had driven ideas had retired, and key advocate lost. With lack of community support, and drive, plans were scaled back to explore potential for community orchard site instead.

'This is a nice piece of land which could be developed like a village green, and the back of this is the growing space so ... they could look out at their patch of green, see their veg growing .the people in the flats were not really geared up or interested in taking on growing projects ... our colleagues in green care, the maintenance guys are very mindful they might get left with it, and don't want to even go there. ...our maintenance guys are saying...can we do something that is very much low key, and hardly needs maintaining at all' (DMBC3)

One of the very early iterations had a kitchen garden a communal food growing area, to utilise a bit of land that was harder to develop and had less value, but by the time you have worked through all the constraints of the site, and you had to get a certain number of houses onto it to make it viable, that had disappeared (DPlanner2)

Key points: Long timescales and complexities of making land available within new developments (from 2005-17 in this case), stakeholder interest and engagement, site viability, and maintenance concerns works against establishment of food growing infrastructures, along with loss of key advocate driving it through.

Box 3. Sandwell Community Agriculture.



Salop Drive Market Garden, Sandwell © Ideal for All,.

Sandwell-Community Agriculture Strategy (2008-12) Over three decades of food policy development, vision and action supported both Sandwell's Food Policy and Sandwell's Community Agriculture Strategy and action. By 2017 however organisational upheaval, leadership change and austerity had meant that these were no longer operationally functional.

"Sandwell as the garden of England is a bit far-fetched, but it is not impossible for Sandwell to increase the food we can supply to ourselves." (Dr John Middleton, in Regenerating Health: a challenge or a lottery? The 8th Annual Report of the Director of Public Health, 1996).

In 1996 a feasibility study for developing community agriculture across Sandwell,

was commissioned by Sandwell Partnership, with strong leadership from public health- identifying opportunities for food growing including land (Booth et al., 1996). Between 1999 -2017, three garden sites had been developed from derelict land, including Salop Drive Market garden established as an award winning local food scheme, providing fresh vegetables to over 200 households on a weekly basis. Led by local disabled people's user-led organisation Ideal for All, the sites offered food growing, social, education and health and mental health benefits (Barry, 2017). *Growing Healthy Communities- A Community Agriculture Strategy for Sandwell 2008-12 (Sandwell Council and Sandwell PCT, 2008)* set out plans for building on lessons learned and expansion of food growing across the borough including aims to support food growing opportunities within land and new development. Sandwell's Community Agriculture programme sat within wider Sandwell Food Policy aims, and was strategically driven and supported through Food Policy Board and SHUDU until 2015. With move of public health into local authority in 2013, combined with financial crash, austerity, and retirement of the DPH, strategic support urban agriculture and wider food policy was much weakened- and the significant "window" of opportunity which had been open for over a decade suddenly closed. Public health funding for community agriculture ceased, the strategy buried – and the Food Policy Board was no longer operational. Community agriculture projects continued locally with Ideal for All bringing in funds for employment skills, health and wellbeing, but moving away from strong focus on food production, and loss of wider food policy context and strategic perspective.

As one urban agriculture officer noted: "The great thing about the food policy board, it was thinking across these different things and we were always very strong in understanding that we were part of a raft of action, and that was the great thing about working with PH and LA we never stood alone, and that was what set us apart...(Community Agriculture Strategy) was adopted formally at council, it was a useful fundraising tool, but it didn't get embedded into council policy, maybe at that time it was a step too far, it coincided with the catastrophic political, economic and regime change, it came at the same time" (SACS1)

Key points: Development of land parcels on often contaminated and complex sites takes decades- needing strategic support, drive, funds, and linking up expertise and community consistently over time and across domains. Strategic drive and support was essential to



take the work beyond "project focus" and support continuity and for embedding the programme in wider food policy aims. Loss of strategic drive led to removal of the underlying and emerging food systems framework, loss of relationships and fracturing of institutional memory.

Box 4. Sandwell incorporation of food into new developments.

Sandwell - Incorporation of food into new developments: Dudley Port Design SPD, and Midland Metropolitan Hospital.

Dudley Port Design SPD (Sandwell MBC, 2017) Dudley Port in Sandwell provided opportunity for development of brownfield land, with over 500 houses. A confluence of influences came together to support development of a design SPD, embedding reference to creation of food growing space within the new sites. Influence for this can be traced to long standing relationships between key planners and interactions across SHUDU, Sandwell Food Policy and community agriculture. In addition, inspiration came from MADE 'Albion- A Garden City' and LEP vision for Black Country Garden City principles (MADE, 2014). Planners on the project initially brought these ideas to explore embedding edible landscapes and food growing into the concept designs. Planners held a workshop on the potential for the site, and the Garden City vision for developers in 2015- aiming to start dialogue and set out principles.



Ownership and enterprise – Promoting opportunities for the local community to own, part own, lease or age land and generate income or provide for need ugh sustainable food growth. Photos © Sandwell Council/ Carillion

The subsequent SPD set out the aims for the sites, with reference to food growing, with hopes that developers would begin to see the

enhanced market value of healthy and sustainable places.

"The priority for this project has shifted from 'right let's deliver housing, let's deliver this, to well, let's deliver better housing, let's deliver better infrastructure, let's improve on what we already have'. The food growing elements are going to be referred to within the design code...not the drawings as of yet, so when the developers come forward to us, we will be saying you need to put some element of food growing, whist they may not because it is not set within full policy stage, everyone who comes forward will be aware of the vision and aspirations, as we will be stating it from the beginning" (SAPlanner4).

https://www.sandwell.gov.uk/downloads/file/25935/dudley_port_spd_november_2017

http://made.org.uk/media/files/Albion-A Garden City-Wolfson Prize 2014 entry -Copyright MADE.pdf

Sandwell - Midland Metropolitan Hospital development (Sandwell and West Birmingham NHS Trust, 2021), and local organisations with significant investment from 'Right Care, Right Here' NHS programme, had the opportunity to embed healthy regeneration benefits both within construction of the new regional hospital site in Smethwick and across the surrounding local communities. Health impact assessment for Grove Lane development had identified food access issues. A regeneration consultant was employed to join up the dots across the site, incorporating healthy planning principles- with links to SHUDU, Sandwell Food Policy and public health. This included exploration of the role of food through proposals for development of international food market, local food procurement, food growing, and 'food systems' thinking, identifying the multi-functional aspects of food (Goff, 2017).

"One of the six objectives the (Right Care, Right Here) working group is working on is healthy eating, largely driven by Sandwell PH. This captures why food was pushed up the list because of its multi-functional aspect, it is a determinant of health, healthy eating particularly at the moment when it is acknowledged there is so much unhealthy eating going on, it has an environmental impact, with local food growing and recycling, it has potential economic impact, with opportunities for social enterprise, small business, and job creation, and it has a social cohesion impact, it is an activity that communities can meet and congregate around, and even as a therapeutic intervention... We are badging this whole thing under the title of 'Like Cadbury's for Bourneville' if Cadburys could do this sort of thing about 200 years ago, why can't the hospital do it in Smethwick?" (Sandwell regen 1) However in 2018 construction firm Carillion went into liquidation, leaving the hospital site mothballed until 2020 when Balfour Beattie took over. It remains to be seen if these aspects will have survived the transition. Key Points: Long standing relationships across public health, healthy planning and food policy manifest in attempts to integrate aspects of food within new development visions. Embedding aspiration into SPDs is a first step in a long road to bringing sites to reality, and attempting to influence developers. Midland Metropolitan Hospital site represented an opportunity with funding and control over land to have more direct influence over site development-however, aspirations for food systems planning were threatened when the site construction ceased again illustrating the fragility of these initiatives.

Box 5. Solihull. Food retail in new developments.

Solihull- Smithswood and Chelmunds Cross Village Centres food infrastructures in new developments. Regeneration in North Solihull - created two new village centres; Smithswood and Chelmunds Cross. Both improved lifestyles with demolition of old tower blocks, run down shopping centres and creation of new homes. Planners considered principles of healthy place-making, including walkability, green spaces, and connected living environments - a complete transformation for the local community (see: http://www.northsolihull.co.uk/village-centre-progress-slides/).

Food retail: The issue of food access and retail provision was considered by planning to in the normal process to secure retail mix. In Smithswood, this was identified as supporting "day to day convenience shopping needs" and allocation of retail use classes, A1, A3, and A5 (www.eservices. Solihull.gov.uk Report to head of planning 2008/765 North Arran Way Village Centre Smithswood 1/5/2008). Whilst greeengrocer from demolished old Arran Way shopping centre, were offered relocation opportunity in the new centre, this did not happen. **Smithswood - impact of new food retail on local communities**: As Smithswood opened eight new retail units in 2016 on Burton's Way/Arran Way, attention of public health officers was drawn to potential impact on health of some new outlets. Of the final retail mix in the new centre - all legitimately designated and opened in 2016 - one was SPA (A1) selling a mix of foods, whilst the other outlets included a Greggs (A3), a chip shop and pizza outlet, (A5), along other existing takeaways in walking distance, both of a primary school, residential area, and two sheltered accommodation units. (The Primary School had "Food for Life" (Food for Life, 2021) standard school meals and Healthy Schools' status). By the time the centre was built, public health could exert little influence in this area. By time of opening, Solihull had adopted its *Food Strategy* (2015-17). Anecdotally, clear impact of new outlets could be seen on reduced uptake of school meals, and on increased unhealthy choices being made by vulnerable residents of supported accommodation: "*It would be nice to have had "useful shops" a convenience store, fruit and veg shop, a chemist, things like that. If you are going into the town centre, everyone has treats, you are there and you have treats, but here, it's a daily thing, they can get it whenever they go out now...it seems like common sense, why would you open a Greggs and a chip shop opposite a primary school?" (SCS1)*



Chelmunds Cross: Residents of new Chelmunds Cross estate acted to make a bid for a proposed new A5 outlet on the estate- to establish a community run fish and chip shop. Loss of previous chip shop during regeneration - seen as loss of valuable social meeting point on the estate. It was also in response to Smithswood, with negative impact of A5 outlets. The new community owned shop opened in 2018, with local church and community groups, ploughing profits back into the community (CAF, 2021). Whilst recognised as not ideal in terms of healthy eating policy, Public Health worked with the community shop to support healthier menus and health education: "*Partly it's a response to what we have seen happening in Smithswood and what they have got there, as they have got a Greggs and the kids are going to school eating sausage rolls, and we thought "we don't want this" but there is no point campaigning about it, if Greggs want to open up a shop, it will open a shop, the only way of dealing with it is basically taking it off and saying "we are going to open a shop" "(SCS2) Move towards whole systems approaches: By 2017 Solihull worked with Leeds Beckett on 'Whole Systems Obesity', and the Food Strategy was superseded by 'Health in Every System' draft obesity strategy, to begin to address food from a systems approach*

(https://www.solihull.gov.uk/Portals/0/Consultations/Draft Health In Every System strategyfor consultation.pdf). In addition, in 2017 a newly formed Public Health Managed Growth and Communities Forum replaced the Health Development Group, acting at a more strategic level, to build '*health in every policy*' (HIAP). The example of disconnect between health and planning in Smithswood was noted at the first workshop held by Leeds Beckett with Solihull Council.

Key points: Despite healthy planning principles in new development, weak understanding of systems levers for healthy food environment, retail drivers and limited consultation with public health led to "negative feedbacks" resulting in impact on local food choices. Way forwards towards "whole systems" approaches and closer alignment between planning and public health may alleviate this in the future- but only if issues of retail are addressed. Local ownership of A5 outlet indicated opportunity for community to provide local solutions and potential for public health input into tailored local approaches to improve dietary

Photos ©North Solihull Regeneration Partnership/ Birmingham Mail.

Box 6. Solihull establishing community gardens in new development.

Chelmunds Cross - establishing Victory Gardens in new development http://www.northsolihull.co.uk/looking-good-in-the-garden/

Following new village development in Chelmunds Cross spare land was identified. Local council officers, public health and local community enterprise Gro-Organic developed the space into a community garden to be used by local residents for food growing. Other parcels of "space left over after planning" (SLOAP) were also taken on, and fruit trees planted. The garden supported new residents through building community capacity and social networks, following many years of upheaval during regeneration. Food growing was a main aim identified in Solihull's Food Strategy and Action Plan (2015-17) and working in partnership with community to develop and deliver was seen as the way forward, linking into other local food based initiatives.



"We had been involved with the residents as part of the consultation group for the regeneration, but that particular site was a bit of space left over, basically the houses had been built around it, and there were houses that had not been developed because the money had run out, and that space had just been left, and was used for drug dealing and littering. So that was a site we had identified that something needed doing to it, so Gro-Organic took the funding to take it further, it's been a terrific project"(SMBC7) (Gro-Organic, 2021)

"North Solihull regen partnership who are trying to invest money into, not just improving the aesthetics of this area, because that is done and has been brilliant- but building community, because you have had so many people that have been moved out of tower blocks, that have been neighbours for years and houses, they have all gone, and new houses have been built and new people moved in, so it has seen a complete shift in the community, so we have now got to try and support the residents in rebuilding that" (SCS1)

Key points:

Window of opportunity presented with "space left over after planning" in major regeneration enabled local stakeholders with support of council and public health to develop land for food growing- supporting multiple aims of community development,

regeneration and inequalities agendas along with food strategy aims.

Photo © Gro-Organic

Case study area	Specific reference to upstream food environment factors	General references with to links to environment and health	Source/ document type
Dudley	Dudley PCT (2007) and Dudley MBC (2014) ref and mapping of health profiles and links to allotments, unhealthy eating, hot food takeaways and healthy food access. Links urban planning and health 2012 – Ref: obesity, fast food outlets and aim for SPD for Health 2014 - Ref: food growing, food access, diverse food outlets and food access, density of fast food	A sense of Place. An atlas of health in Dudley. Annual Report of the Director of Public Health. Dudley PCT. Mapping environmental impact on health- recommend HIA (Dudley PCT, 2007) Passing the Baton. Annual Report of Director of Public Health 2012. (Dudley MBC and Dudley Public Health, 2012). Landscapes of Inequality. Director of Public Health for Dudley Annual Report 2014. Dudley: Dudley MBC. Dudley Office for Public Health (2014) Healthy Ageing in Dudley. The Director of Public Health Annual Report. 2015-16. (Dudley MBC 2015b)	Annual Report
	Living Well West Midlands (2009) Dudley Healthy Retail. (CLES, 2011) http://www.livingwellwestmidlands.org/projects2.aspx?id=19 and report http://www.cles.org.uk/wp- content/uploads/2011/01/Case-Study-Dudley-Healthy-Retail.pdf NSMC (2008a) An initial rapid social marketing scoping report- Happy and Healthy in Dudley. Explore links to access to healthy food and consumption including work with transport planners. http://www.thensmc.com/sites/default/files/Dudley%20Scoping%20 Report%20Final.pdf NSMC (2008b) <i>"Bostin Value"</i> Showcase. Intervention to support healthier access and healthy retail. Available at: http://www.thensmc.com/resources/showcase/bostin-value	Dudley MBC (2009a) <i>Dudley Parks and Green Space Strategy background</i> <i>Technical Document.</i> Information supporting Dudley's Parks and Green Space Strategy (PPG17 Audit). Peters, D., Jones, C. (2011) <i>Dudley Healthy Towns. Programme Evaluation.</i> <i>Executive Summary.</i> December 2011. University of Worcester.	Report
		Cummins, S., Ogilvie, D., White, M., Petticrew., Jones, A., Goodwin, E., Sautkina, E., Mapp, F. (2016) <i>National Evaluation of the Healthy</i>	Journal papers

		 <i>Communities Challenge Fund: The Healthy Towns Programme in England.</i> Final Report to the Department of Health. LSHTM Research Online, London. Dalton, A., Jones, A., Ogilvie, D., Petticrew, M., White, M., Cummins, S. (2013) Using spatial equity analysis in the process evaluation of environmental interventions to tackle obesity; the healthy towns programme in England. <i>International Journal for Equity in Health.</i> 12:43. Goodwin, D., Mapp, F., Sautkina, E., Jones, A., Ogilvie, D., White, M., Petticrew, M., Cummins, S. (2014) How can planning add value to obesity prevention programmes. A qualitative study of planning and planners in the Healthy Towns Programme in England. <i>Health and Place,</i> 30 pp. 120-126. Goodwin D, Cummins S, Sautkina E., Ogilvie, D., Petticrew, M., Jones, A., Wheeler, K., White, M. (2013) The role and status of evidence and innovation in the healthy towns programme in England: a qualitative stakeholder interview study <i>J Epidemiol. Community Health</i> 67: pp. 106-112. Sautkina, E., Goodwin, D., Jones, A., Ogilve, D., Petticrew, M., White, M., Cummins, S. (2014) Lost in translation? Theory, policy and practice in systems-based environmental approaches to obesity prevention in the 	
Sandwell	 1994 Sandwell under the scope Highlight links health and diet . Food Policy Officer recruited to 'tackle the issues around food and health' and work with other organisations (public and private sector) to develop 'healthy food policies', seconded to Sandwell MBC environmental services department, building on their expertise and access to Sandwell food outlets (Middleton,1994:54) 1995 Safer Sandwell. Sets out feasibility study for community agriculture 'The idea is to turn over existing land to collective use for food production for local consumption Local distribution could be through Sandwell food coops' (Middleton 1995:31). 	 Healthy Towns programme in England. <i>Health and Place</i> (29) pp. 60-66 1989 <i>Life and Death in Sandwell</i> links environment and public health (Middleton, 1989) 1992 <i>Sustainable Sandwell</i> focus on sustainable development, and links between town planning and health (Middleton, 1992) 1995 Safer Sandwell frames health as a sustainable development issue. Notes 'global warming'. Ten point plan sets out aim to 'promote healthy communities, settlements and environment' (Middleton, 1995:2) Planners and health to work together on development, and use HIA 	Annual Reports- Director of Public Health

1996 Regenerating health - a challenge or a lottery? Frames	1996 Regenerating he
health as an 'economic problem' not a 'health service problem';	opportunities to unite h
reference to role of Sandwell food coop, providing 'work, affordable	regeneration 'For those
food and enables people to 'buy local'. (Middleton, 1996,61)	Health Organisation "H
Reference to community agriculture 'What we are looking at in	all with money'. (Middle
Sandwell is using available land, allotments, gardens, derelict plots	2000/2001 "Days of o
big and small as well as other urban settings, to grow food for local	Living Networks by Sar
consumption' (Middleton, 1996:17). 'Sandwell as the garden of	opportunities to marry I
England may be a bit far-fetched, but it is not impossible for	2002 What works? Fo
Sandwell to increase the food we can supply to ourselves'	'consistent and system
(Middleton, 1996:17)	sustainable developme
2001 Neighbourhood Health Sandwell Pilot site 'Give me 5'	Development Goals (M
(DOH) but ref local health needs assessments indicating-poor	
healthy food access, low consumption of and choice within walking	2007-8 Annual Report
distance for fruit and vegetables, and need to increase fruit and	2008a) Launch SHUDL
vegetable provision was linked clearly to reducing cancer risk within	approach, focus on obe
the report (Rex et al., 2001)	and visible environmen
2002 What works? For Sandwell. (Middleton, 2002) Systemic	Three Greens for Hea
work including partnership moves to create 'resilient' communities,	(Middleton, 2010b) Fra
with a focus on food security (Middleton, 2002:54) 7 major priorities	and environmental just
outlined including: 'Food secure Sandwell- growing as much as we	Annual report. Public
can locally and creating partnerships with nearby growers to keep	Anticipates move of pu
them in business and us in health' (SHA, 2002:3). Highlights food	and continued protection
security and way forward for expanded urban agriculture	environment. Opportui
2003 Public Health Annual report 'WMD found in Sandwell'	create 'healthy and sus
<i>(Middleton, 2003)</i> 'Weapons of mass diseases' including high fat	determinants of health
and sugar diet and low consumption of fruit and vegetables.	
Highlights food environment and access. Calls for investment on	

996 Regenerating health- a challenge or a lottery? Focus on pportunities to unite health and planning, through urban and land egeneration 'For those of us who have been trying to follow the World lealth Organisation "Health for All" philosophy- "regeneration" is health for II with money'. (Middleton, 1996:1)

2000/2001 "*Days of our lives*" (Sandwell Health Authority, 2001) Healthy Living Networks by Sandwell Health Partnership, bringing significant funding opportunities to marry health and regeneration and green space

002 *What works? For health in Sandwell* Sandwell's role in creating consistent and systematic action' to support its work as a 'champion of ustainable development' aligned to Agenda 21 and Sustainable Development Goals (Middleton, 2002:54)

2007-8 Annual Report "*Crunch time for Health in Sandwell*" (Middleton, **2008a)** Launch SHUDU and focus on healthy planning and joined up approach, focus on obesogenic environment, social determinants of health and visible environment change, links with town planning

Three Greens for Health. Public Health Annual Report 2009/10 (Middleton, 2010b) Frames inequalities of environment and health as social and environmental justice issue

Annual report. *Public Health- A new asset 2010/11.* (Middleton, 2011) Anticipates move of public health into LA and argues for ring-fenced budgetand continued protection of work on environment and health and food environment. Opportunity for integrated work across council on planning to create 'healthy and sustainable environments' and focus on underlying determinants of health and tackle inequalities in health

food policy infrastructure including action on retail and urban	
agriculture	

Sandwell	'In Search of the Low Fat Pork Scratching' (Maton et al., 1988) focus on food environment	Report
	sustainable footing (Middleton, 2013)	
	council builds on legacy of community agriculture and to set it on a	
	Public Health - A life Course. Annual Report 2013 Recommends	
	continued food environment change- including urban agriculture and restriction of fast food and improved quality of food	
	Annual report Public Health- A new asset 2010/11. Recommends	
	urban agriculture, healthier retail,	
	Ref to unregulated fast food and development of SPD to restrict Links food environment to health, resilience- focus on expansion of	
	Three Greens for Health. Public Health Annual Report 2009/10 Bof to uprogulated fast feed and development of SPD to restrict	
	access	
	on role of Sandwell's food industry in driving health and economy Promote healthy physical environment including healthy food	
	'growing as much of our own food as we can locally' (p.3) and focus	
	security, resilience Consolidation of community agriculture approach	
	(Middleton, 2008a). Impact of credit crunch on health and food	
	2007-8 Annual Report 'Crunch time for Health in Sandwell'	
	environment remains	
	school etc.) Butcontinued underlying focus on retail and food	
	of healthy eating programmes more focused on food choice (whole	
	'Choosing Health' (DOH,2004) Focus on obesity and development	
	and 2005 'Where's well?' (Middleton, 2005) following govt. policy	
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Conference on Sustainable Food Planning. Newcastle: Cambridge	
Scholars Publishing.	

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Solihull	(Solihull NHS Care Trust 2008) all ref. to food about obesity, lifestyle and individual change, with ref. to community food projects to support healthy food choice. However ref 'ensure access to healthy food choices in the North of the borough particularly through links with the Regeneration programme' (43). (Solihull MBC, 2014a) Ref access to healthy food	Director of Public Health Annual Report 2007/08. <i>Tackling Health</i> <i>Inequalities in Solihull</i> . Solihull NHS Care Trust. Ref; North Solihull inequalities, and improved living environment (Solihull NHS Care Trust, 2008) <i>Fair Solihull. Healthy Lives One Year On</i> . Solihull Director of Public Health Annual Report. 2013/14. Solihull MBC. Ref Healthy Communities and Healthy Place, health promoting environments, and Health impact assessment, links to planning (Solihull MBC, 2014a)	Annual Report
	Ref access to healthy food and work with spatial planning	Solihull Public Health Three Year Strategy and 2017-18 Commissioning Intentions. (Solihull MBC, 2017b). Ref: whole systems and integrated work to support healthy and sustainable places and communities. Health Development Group Terms of Reference (Solihull MBC, 2014b) cross sector group to embed healthy planning- accountable to Health and Wellbeing Board	Report

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	West Midlands healthy planning group (2017)
	http://www.lfphwm.org.uk/our-networks/wm-handpg (accessed
	10.5.17) Minutes and reports.

Table 28. Additional case study documentation

Appendix 2: Additional case study documentation with reference to food environment, and links between health and planning.

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Appendix 3. Dudley Borough Development Strategy - the journey of Policy D9 to restrict hot food -

The journey of Dudley's Borough Development Strategy from draft publication document, to adoption, and consultation and examination, give insight into challenges faced in trying to strengthen ability to restrict unhealthy food environments. In the final document significant changes were made to aspects of the plan dealing with hot food (Dudley MBC, 2016a; 2016d; 2017a). The aim was to embed restriction of hot food within the new Borough Development Strategy, taking it into policy and beyond the Supplementary Planning Document "Planning for Health" (Dudley MBC, 2013c).

In relation to Policy D9 Hot Food, and its reference within Policy S2, within the BDS, challenges were made during the consultation process (2016) by planning agents acting on behalf of major fast-food chains, including Kentucky Fried Chicken (KFC). Comments were made in response to the BDS Publication Document (January 2016) (Dudley MBC- BDS6 Publication Consultation Responses no date). Stakeholder comments (in a summary report by the council), indicate a range of challenges. These focus on soundness of policies, question the evidence for links between obesity and proximity of takeaways, and the use of 400m exclusion zone around schools. They also question the role of planning to influence dietary choices, and the use of blanket assumptions about takeaways providing unhealthy foods (Dudley MBC- BDS6 Publication Consultation Responses no date). In response, the Council argued that the proposals were in keeping both with guidance in the NPPF for planners to consider and work with health, and support council's aspirations to tackle childhood obesity, as identified in the JSNA. No changes were proposed at this stage of the process as a result of these comments (see table x below)

BDS Comment	Summary of comments from stakeholder;	Dudley MBC comments;	No changes proposed
Rep ID; 002/1 Policy D9 Hot Food Takeaways	Argues that Policy D9, by restricting proposals for hot food takeaway shops located within 400 metres of a boundary of an existing secondary school and restricting the concentration of hot food takeaway units in all boundaries of all the borough's centres and retail parades, is unsound He argues that by way of overview, the framework provides no justification for using the Development control system to seek to influence people's dietary choices and that restricting the concentration and the location of hot food takeaways proposals within the borough is not a positive approach to planning. He also argues overall there is a lack of evidence to demonstrate the link between fast food, school proximity and obesity, and that food purchased outside schools tends to be in non A5 properties. He finally argues that there is a lack of evidence to suggest or demonstrate that purchases in fast food outlets are no more or less healthy than purchases in other A class premises	Previously raised at Preferred Options Stage. The policy was devised in conjunction with Dudley's Public Health and Well Being Team and essentially gives effect to the adopted Planning for Health SPD (September 2013) and articulates the needs to curb childhood obesity set out in the Council's Joint Strategic Needs Assessment. This is in line with the <i>National Planning Policy Framework</i> identifies that the planning system can play an important role in creating healthy, inclusive communities (paragraph 69) and in drawing up local plans, local planning authorities should pursue policies to support the vitality and viability of town centres (paragraph 23).Planning policies and decisions should take account of and support local strategies to improve health and wellbeing for all (paragraph 17) and local planning authorities should work with public health officers and health organisations to understand and take account of the health status and needs of the local population and the barriers to improving health and well- being when preparing Local Plans	

Table 29 Summary of comments from consultation on Dudley BDS relating to hot food.

Source: Dudley MBC (no date) BDS6 Publication Consultation Responses. http://www.dudley.gov.uk/resident/planning/planning-policy/local-plan/devstrat/susapp/ However, further challenges were to come. Comments raised by the inspector following the public examination of the plan in June 2016 and in his report published in November 2016 assessed the BDS for soundness and found the references to hot food in S2 and D9 in his view did not stand the test. He argued for deletion of references to the *siting* of hot food in proximity of schools (Bridgewater, 2016:3). In the 2016 BDS Publication, on which his comments were based, Policies S2 and P9 make reference to the restriction of hot food takeaways on the basis of *siting* and *density*, proposing 400m exclusion zones around all secondary schools, along with percentages for density in line with the Planning for Health SPD (2013) (Dudley MBC, 2016a). However, at adoption, and following amendments made during the examination by the inspector, control of hot food takeaways was set on the basis of *concentration*, and all reference to exclusion zones around schools removed (see table below). In his report the inspector commented, "It was common ground that obesity is a national problem in relation to health and that the control of childhood obesity can result in long term health benefits", however he went on, "whilst the Council set out clear evidence in relation to issues of overconcentration of A5 uses, there was no local evidence that demonstrates a causal link between A5 uses and childhood obesity in relation to the proposed 400m zone around secondary schools. Moreover, whilst there is some limited international research that recognises some causality between A5 uses and negative health outcomes this was at a considerably shorter distance of 160m and therefore would not be comparable to the Council's proposed policy. Consequently, the restriction of A5 uses within 400m of secondary school boundaries is not justified by the available evidence" (Bridgewater 2016:10). Changes implemented as a result of inspector's comments can be seen below.

Policy	2016 BDS Publication (DMBC 2016a)	2017 Adopted BDS (with changes from inspector's comments) (DMBC 2017)
Policy S2 Planning for a Healthy Borough; measures to support health related sustainable development	"controlling the <u>siting</u> of hot food takeaways and promoting greater access to healthy food, including the creation and protection of allotments" (p1-3)	"controlling the <u>concentration</u> of hot food takeaways and promoting greater access to healthy food, including the creation and protection of allotments" (p13)
Policy D9 Hot Food Takeaways	No more than two A5 uses will be permitted adjacent to one another within the boundaries of all the Borough's centres and retail parades. <i>Outside designated centres and local</i> <i>parades, hot food takeaways will be resisted where the</i> <i>proposal will fall within 400m of the boundary of an existing</i> <i>secondary school (p10-8)</i>	No more than two A5 uses will be permitted adjacent to one another within the boundaries of all the Borough's centres and retail parades. <i>Elsewhere, hot food takeaways will be permitted where they do not create or exacerbate a concentration (typically 3 or 4) of those uses (p82)</i>
Policy D9 Hot Food Takeaways Supporting Text	The proliferation and proximity of hot food takeaways to schools is also of concern for health reasons and childhood	Removed altogether

	obesity as the food they serve is often high in fat, salt and sugar(p.10-7) Similarly there is a need to take a co-ordinated approach alongside the Council's Licensing service to ensure that street vending of unhealthy foods is also restricted in close	There is a need to take a co-ordinated approach to public health to tackle obesity (particularly childhood obesity). There are also other interventions that can contribute to the improvement in public health
	proximity to school premises (p 10-7).	including the Council's Licensing service to ensure that street vending also provides a healthy balance in terms of the location of food choices across the Borough (p 82).
Policy D9 supporting text.	The introduction of a policy to control the numbers of hot food takeaways in the Borough will assist not only to reduce the levels of obesity, but it may also reduce school children being exposed to unhealthy food choices. It will also help to counteract the over concentration of hot food takeaways in certain localities (p.10-7)	The introduction of a planning policy to control the numbers of hot food takeaways in particular locations will assist in providing a healthy balance of food choices for all communities across the Borough It will also help to counteract the over concentration of hot food takeaways in certain localities (p 82)

Table 30: Showing changes made from Draft Dudley BDS 2016 to adopted BDS 2017 on basis of inspector's comments.

Source: Dudley MBC, 2016a. And: Bridgewater, J (2016) Report to Dudley Council. November 1st 2016. Appendix Dudley Borough Development Strategy Main Modifications. The Planning Inspectorate.

					VIS	ION					
A healthy, sa	ife, sustainable a	nd fair				a population se healthy c		njoys all aspec	cts of	f food and feels e	nabled and
					Air	ms					
Aim 1: Food is at the residents have better	heart of the commu access to safe, hea	nity and Ithier, a	d is used as a r ffordable, susta	nechanisr ainable foo	n to reduce od.	health inequa	alities, soo	cial isolation and	crisis	s in the most vulnera	ble, so that all
are networking opportunities to encourage linksborough has a vibrant, diverse, sustainable foodprivate organisations have healthy, ethical, safe and environmentallygenerated by the food system is reduced, redistributed, reusedand planning decisions take into account food issuessustainable food is promoted and information, redistributed, reused and recycledand planning decisions take into account food issuessustainable food is promoted and safet, foodawareness is through high 							Aim 8: Public awareness is raise through high-quali information, suppo and training on foc safety, food fraud, sustainable food and nutrition				
					Outc	omes					
1. Reduction in the number of people with diet- related ill health (Aim1, 2, 3, 8)	2. Increased joint partnership work influencing factors associated with food poverty (Aim 2, 7)	enga peop all life in col activi food a hea cultu	munities ging le across e stages mmunal ties around to develop althy food	that con	mically with skills tribute to t, diverse tainable onomy	5. Reduction i waste gene by the food system thro increases in people eati portions of and vegetal redistributio of food exc and increas recycling	rated ugh ng 5 fruit bles, n	6. Increase in public and private organisations with recognise food and health related accreditation (Aim 1, 3, 5, 6 7)		7. The impact of food is considered as part of the planning process (Aim 6)	 Improved understanding of and access the healthy food an increased skills in the communi to prepare it (Aim 1, 3, 6, 7,

Appendix 4: Figure 13 Solihull Food Strategy 2015-2017. (SMBC, 2015)

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Appendix 5. Sandwell Food Policy

Sandwell Food Policy aims to protect and enhance the health of the population and contribute to tackling health inequalities. Evidence and practice in Sandwell shows the need for an integrated approach, underpinned by community involvement. The policy will be delivered through strong, effective partnerships between food, health, regeneration of the economy and the environment. It will also demonstrate the goals of sustainable development.

Improving the food system in Sandwell is a powerful way to:

- 1. Tackle health inequalities
- 2. Increase educational achievement
- 3. Create healthy local environments and economies
- 4. Promote health and reduce death and illness from diet related disease
- 5. Promote social cohesion through community involvement

This policy sets out a framework for public, private and voluntary sector partnership working and community involvement. There are nine policy goals, each of which is illustrated by evidence and good practice in Sandwell. The nine goals are each supported by yearly action plans. These action plans ensure that the policy will remain dynamic. It will be responsive to new knowledge and changing needs generated by work with Food Interest Groups in the community. Action plans will be implemented, evaluated and reviewed annually.

The central principles of the Sandwell Food Policy are to create:

- a healthier food economy,
- a healthier food environment,
- a healthier food culture, and
- a safe and accurately labelled food supply.

These principles are consistent with those embedded in the themes of the Sandwell Plan i.e. Safer Sandwell, Children and Young People, Health and Well-Being, Skills and Economic Regeneration, Environment and Housing. Improving the supply of, and increasing the demand for healthier food provides a robust focus for action across all five partnerships.

(Sandwell PCT, 2005)

Appendix 6. Example of initial literature search

An initial literature review aimed to gain a broad understanding of the academic literature through exploring the links between *planning/land* use, *public health and food/ urban food policy*.

Below summarises example of Boolean search terms used, developed from using key terms sourced from other reviews. The terms were applied in different combinations in the chosen databases. Searches were carried out 'in text', title and abstracts.

Built environment / land terms		Health terms		Food terms	Catch phrases
'built environment' OR 'urban form' OR 'spatial plan*' OR 'planning' OR 'plan*' OR 'urban design' OR 'access' OR 'land use' OR 'land use planning' OR 'land' OR 'open space' OR 'green space' OR 'new urbanism'	AND	'health' OR 'public health' OR 'obesity' OR 'obese' OR 'weight' OR 'overweight' OR 'obesogenic' OR 'non communicable disease' OR 'social determinants'	AND	'Food system' OR 'foodscape' OR 'healthy food' OR 'healthy eating' OR 'hot food' OR 'fast food' OR 'health* food environ* OR 'urban garden*' OR 'urban ag*' OR 'urban food' OR 'urban food grow*' OR 'community food grow*' OR 'community garden' OR 'health* retail' OR OR 'food policy' OR 'food charter'	('healthy places OR 'healthy communities' OR 'healthy built environments'

Table 31 Example of Boolean search terms

The following inclusion and exclusion criteria were used: **Inclusion:** All research study designs considered including qualitative and quantitative analysis: Journal articles; Study had to have been completed and published results; English Language; Material from 1999 to Nov 2017 initially, then narrowed down. Updated 2018 Dec; Urban settings; Literature from the global north. **Exclusion**: Material from developing world or 'South' Non English language papers; Non-academic literature; Rural

Initially, search terms brought up unmanageable 'hits'. Many were not relevant and did not include the full terms in key words, showing terms not relevant to the topic. This could be scanned relatively quickly. An example of the search process can be seen below, indicating how the topic was refined so as to produce manageable results.

Search	Database	Keywords	comments
1 (24.10.17)	summon	built environment or land or planning AND health	Too many results (430,490)
2	summon	Built environment or land or planning AND health AND food	Too many results (115,376) Took relevant
3	summon	('built environment' OR 'urban form' OR 'spatial plan*' OR 'planning' OR 'plan*' OR 'urban design' OR 'access' OR 'land use' OR 'land use planning' OR 'land' OR 'open space' OR 'green space' OR 'new urbanism') AND ('health' OR 'public health' OR 'obesity' OR 'obese' OR 'weight' OR 'overweight' OR 'obesogenic' OR 'non communicable disease' OR 'social determinants') AND (Food system' OR 'foodscape' OR 'healthy food' OR 'healthy eating' OR 'hot food' OR 'fast food' OR 'health* food environ* OR 'urban garden*' OR 'urban ag*' OR 'urban food' OR 'urban food grow*' OR 'community food grow*' OR 'food policy' OR 'food charter')	1,318 took relevant
4		 ('built environment' OR 'urban form' OR 'spatial plan*' OR 'planning' OR 'plan*' OR 'urban design' OR 'access' OR 'land use' OR 'land use planning' OR 'land' OR 'open space' OR 'green space' OR 'new urbanism') AND (Food system' OR 'foodscape' OR 'healthy food' OR 'healthy eating' OR 'hot food' OR 'fast food' OR 'health* food environ* OR 'urban garden*' OR 'urban ag*' OR 'urban food' OR 'urban food grow*' OR 'community food grow*' OR 'community garden' OR 'health* retail' OR OR 'food policy' OR 'food charter') 	395 took relevant
3	Science direct	Built environment or land or planning AND health AND food	Too many results (173,599) Selected relevant
4	Science direct	urban agriculture OR community gardening OR public health OR food policy OR Obesity OR food system AND land OR built environment OR land use OR planning	30,368 found for pub-date results> 1998 -2016 Selected relevant

5	Science direct	for pub-date > 1998 and (urban agriculture OR community gardening OR public health OR food policy OR Obesity OR food system) and (land OR built environment OR land use OR planning) AND LIMIT-TO (yearnav, "2016 to 1999") AND LIMIT-TO(Landscape and Urban Planning, Land Use Policy, Geoforum, Cities, Environmental Science & Policy, Health & Place") AND LIMIT-TO(topics, "unite state,health,urban,social,city,environmental,europe,land,community,food,local") AND LIMIT-TO (Journal").	1,065 Selected relevant
6	Science direct	results found for pub-date > 1998 and (urban food policy) and (planning OR health)	Search results: 35,114 selected relevant
7	Google Scholar	Set up ongoing alerts on themes to highlight new literature	
8 2018 Dec	summon	Built environment OR land OR planning AND health AND food Between Nov 2017-nov 2018	62 results sorted by relevance
9	'Grey literature'	Policy and practice documents. E.g. Public Health food policy, social determinants, urban food strategies, healthy planning. etc	

 Table 32. Literature search results (November 2017)

Emergent themes

Themes	Key reference examples
Public health approach to food and social determinants of health, and 'upstream' factors	Rayner and Lang (2012), Bentley (2014), Caraher (2013a) Dahlgren and Whitehead (1993), Barton and Grant (2006). WHO (1986,1998, 2008), Hawkes (2012)
Urban food policy, urban food governance, food system.	Ilieva (2017), Hawkes et al., (2015), Lang et al., (2009), Morgan (2015), Sonnio (2009), Morgan and Sonnio (2010), Mansfield and Mendes (2013), Blay-Palmer (2009), Roep and Wiskerke (2010), Tornaghi (2014), Clayton et al (2015), Mah and Thang (2013) Wegener (2011), Story et al (2009)
Planning Food and planning Healthy planning (including sustainability, GI, UA, obesogenic)	Viljoen and Bohn (2014), Hodgson (2011), Carmichael et al (2016), Pothukuchi and Kaufman (2000), Viljoen and Wiskerke (2012), Kent and Thompson (2012), Swinburn et al (1999), Kent, Thompson and Jalaludin (2011), Rydin et al., (2012), Barton et al. (2009)
Food environment definitions and concepts	Glanz et al (2005),
Food environment interventions and evidence (including fast food, urban food growing, retail)	Cummins and Mackintyre (2006), Cummins et al (2005a,b, 2007, 2014) Burgoine (2010,), Burgoine and Harrison, 2013; Lake et al (2010), Wrigley et al., (, 2003, 2004), Thornton et al., (2016), Currie et al., (2010), Ross (2013),

Table 33 Appearance of themes in the literature with examples of key references

Refined searches. Whilst the literature review above identified broad landscape of the themes, focus was also taken on gaining an understanding of conceptual themes underpinning this research. In addition to the general search above and in order to gain an understanding of overarching themes, more specific searches were undertaken on the basis of findings and wider knowledge of the debates. This was carried out in an iterative way throughout the research period as the work developed. The aim of this was to identify overarching conceptual frameworks in order to support research approach and make a selection to guide analysis of data. Some of the themes were also identified within the above search. These included more specific searches of literature on:

Theme	Key reference examples
Policy processes	See above plus:
Policy making	Kingdon (1984)
Food policy makingHealth policy making	Walt and Gilson (1994)
Inter-sectoral working:	Hoeijmakers et al., (2007)
Health: inter-sectoral health, integrated health, healthy public policy	Exworthy (2008)
 Planning: collaborative planning, healthy planning Food: food systems planning, food policy 	Kent and Thompson (2012)
	Carmichael et al., (2013)
	Lang and Ingram (2013)
Urban Food Policy	See above plus:
Governance	Moragues Faus and Morgan (2015), Santo and Moragues Faus (2018), Sonnio, Tegoni and De Cunto (2018), Sonnio (2017), Coulson and Sonnio (2018), MacRae and Donaghue (2013)
Exploration of overarching concepts and frameworks including:	See above plus:
 systems thinking, ecological public health food systems Transitions theory Governance and policy making processes 	MacRae and Winfield (2016), Eriksen (2008), Allen-Prosperi (2016), Loorbach (2010), Geels (2002)

Table 34. Emerging conceptual themes.

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Appendix 7. Research permission and overview.



A place for food: a critical exploration of the role of food in healthy planning in the UK

Information sheet for research participants

Researcher: Veronica Barry. PhD Student, Birmingham City University

Aims of the project: To gain a critical understanding of the collaborative working between planners, public health and others in healthy planning through food based work

Your role in the research: As a key person with relevant knowledge of the topic, I will seek to undertake semi structured interviews with you at several points throughout the research project, between now and mid-2017. Interviews will be arranged at your convenience, and at a suitable place and time. In addition, I will be attending some meetings and events within your organisation relevant to the research topic, and hope to gain an in depth understanding of the work you are doing in this field. I have gained formal permission from the relevant person within your organisation to carry out the research, and access you and others for interview etc.

Confidentiality: For convenience of managing information and accurate note taking I propose, with your permission, to record interviews. Recordings will not be shared with anyone and will be destroyed at the end of the project. Recordings will be transcribed accurately for ease of analysis. Although the case study area will be identified in name, individuals will not be identified in person, unless with their specific permission, and only where relevant to the research. All information will be handled according to the University's ethical research guidelines. I will share information with participants for comment before the research is written up.

Consent. You will be asked to sign a consent form agreeing to participate in the research. However, you are free to withdraw at any point during the duration of the work.

Benefits of the research. It is hoped that the research will help to bring a deeper understanding of the role of food and food growing within public health and healthy planning. It is hoped that the case studies will provide valuable lessons on good practice, and act to support understanding of policy and practice.

Contact details:

Researcher: Veronica Barry. Birmingham City University. <u>veronica.barry@mail.ac.uk</u> Supervisors: Prof. Peter Larkham, Birmingham City University <u>peter.larkham@bcu.ac.uk</u> Dr David Adams Birmingham City University. <u>david.adams@bcu.ac.uk</u> Appendix 8. Publications output: list of researcher's publications, papers, conferences and films.

Reports, journal articles and book chapters:

Barry, V (2015) COST Action Urban Agriculture Europe: STSM- End of mission report: Developing a joined up approach to food growing: the case of Cork, Ireland. Available at: <u>http://urban-agriculture-europe.org/files/veronica_barry_cork_stsm_report.pdf</u> [Accessed 12.9.21].

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