School of Architecture and Cities
University of Westminster

Mental Health and the Built Environment

Exploring the role of planning practice in delivering mentally healthy places.

This dissertation is submitted as part of a Masters (MA) in Urban and Regional Planning.

Samantha Simmons
Student Identification: 175634681
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Abstract

This research explores the extent to which planning practice considers and implements theories, on how the built environment can be shaped to be conducive to mental health.

Using the GAPS (Green, Active, Pro-Social and Safe Places) framework to aid discussion (UD/MH, 2021a), six public sector planners in Kent were interviewed on how they perceived their role to be delivering mentally healthy places. The six practitioners interviewed were also asked for their views on how the town planning profession, as a whole, could deliver mentally healthy places into the future – and whether this could, and should, be within the remit of the profession. The GAPS framework was further utilised to assess how planning policy currently considers mental health impacts from the built environment (if at all).

This research found that mental health concerns are not explicitly considered in planning practice today, nor do planning practitioners deem an explicit policy on mental health to be necessary. Implicit benefits to mental health are occurring in planning practice.

It was further identified that public sector practitioners feel able to positively influence the delivery of mentally healthy places in their decision-making role, and feel uninhibited by a lack of explicit policy on mental health. However, public sector practitioners also feel constrained in their influence. In particular, the practitioners interviewed felt their influence on the design and delivery stages of the planning process to be limited, and reliant on private planning practice. A silo mentality within planning practice prevails, as highlighted in health and planning literature.

The research concludes by highlighting positive areas where planning practice is overcoming barriers to delivering mentally healthy built environments.

This research hopes to build on, and add value to, the existing body of research around how the planning profession can shape mentally healthy built environments (Halpern, 1995, Barton, 2017, RTPI, 2021, and UD/MH, 2021a).

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List of abbreviations and acronyms

CPED - Crime Prevention through Environmental Design

GAPS - Green, Active, Pro-Social and Safe Places

LDP - Local Development Plan

LPA – Local Planning Authority

MHCLG – Ministry of Housing, Communities and Local Government

NHS - National Health Service

PHE – Public Health England

RTPI – Royal Town Planning Institute

SBD - Secured by Design

SPD - Supplementary Planning Document

UD/MH - Centre for Urban Design and Mental Health

WHO – World Health Organisation

1. Introduction

"What is the purpose of town and city planning?...it has been about the health, well-being and the quality of life of citizens"

- Barton, 2017, p6.

"promote planning in the long term public interest"

- RTPI, 2020a, p3.

Planning as a profession is acknowledged within planning literature to have emerged in the UK within the 19th century, in response to public health concerns over the ill effects of living in increasingly populated industrialised cities (Greed with Johnson, 2014, Cullingworth et al., 2015, Barton, 2017, and Lennon, 2017). There is also a general consensus that the purpose of planning is to serve a 'public interest' or 'common good' (Slade et al., 2019 and RTPI, 2020a), as suggested in the quotes above.

Despite its public health origins, academic literature has highlighted a marked divergence between health and planning since the 19th century (Freestone and Wheeler, 2015). This divergence has seen the substantive 'objects' and remit of planning in the 'public interest' (RTPI, 2020a) evolving to cover a broad range of topics including: the aesthetic quality and design of the built environment, economic prosperity, housing delivery, climate change mitigation and adaptation, and an over-arching commitment to 'sustainable development' (Fainstein, 2016). British planning has been supported by increasing legislative powers to form the current 'plan-led' and policy-oriented planning system which is used today, to plan and shape the built (both urban and rural) environment (MHCLG, 2021).

The retreat of the planning profession from its historic health focus is further observed in planning theory to consist of debates which moved away from the objects or 'ends' of planning, to discourse on 'how' planning was undertaken as a 'process', to achieve such objects and ends (Klostermann, 1985, and Taylor, 1998). Subsequent debates

centred around whether the 'common' good is best achieved from state-led (government) intervention in society, or is best achieved by the private-market (Sager, 2009) - or a combination of both (Klostermann, 1985). Further debates arose, around whether planning should be a technocratic exercise, or should directly involve those communities affected by planning decisions, in the decision-making process itself, as a better way of "actualizing the public interest" (Fainstein, 2016, p259).

Despite the retreat of health concerns within the planning profession, it has remained evident across a wide range of professions and disciplines that shaping the 'planned' or built environment influences the mental and physical health of those who inhabit such environments (Halpern, 1995, Montgomery, 2013, Ellard, 2015, Barton, 2017 and Pykett et al., 2020).

In particular, an increasing body of literature has begun to analyse the mental health effects of living in built environments (Pykett et al., 2020) and the ways in which the built environment can be 'planned' to be conducive to mental health (Halpern, 1995, and Barton, 2017). Furthermore, in February of this year (2021), the Royal Town Planning Institute (RTPI, 2021) launched its first dedicated training module on 'mental health and town planning'. The module was designed with the specific objective to "recognise the impact of the built environment on mental health" (RTPI, 2021). The module endorsed a specific framework for consideration in planning policy, called GAPS (UD/MH, 2021a). This framework centres on the creation of Green, Active, Pro-Social and Safe (GAPS) places to influence positive mental health outcomes within the built environment (UD/MH, 2021a). This suggests that the planning profession (the RTPI) is beginning to re-focus and explore its role in achieving positive public health outcomes. This is further evident in Central Government's recent White Paper, seeking to reform the planning system, where the British Government state: "Planning matters. Where we live has a measurable effect on our physical and mental health" (MHCLG, 2020, p16).

Many studies have sought to understand the attitudes and perceptions of UK planners on a range of topics including sustainable development (Jepson and Edwards, 2010) and the UK planning system itself (Black and Sonbli, 2019). However little is known

about the local appetite for considering mental health more explicitly within the planning process (RTPI, 2020b).

As a consequence, the literature on mental health and planning highlights a number of opportunities to contribute to the emerging research on the role of planning, as a profession, in delivering positive mental health outcomes through the built environment Barton, 2017, and RTPI, 2021).

Based on the opportunities arising from the emerging literature on mental health and town planning, this research aims to:

1.1 Research aims

- To evaluate the role that UK planning policy currently plays in creating healthier built environments.
- To explore UK planners attitudes and perceptions of the role of town planning in creating mentally healthier built environments
- To identify what limitations or barriers may exist to delivering mentally healthy environments within the UK planning system, or areas of good practice which could provide inspiration for planning practice.

1.2 Research questions

1. To what extent are good mental health principles currently considered in planning practice?
2. How, if at all, do planning professionals view their role in delivering mentally healthy built environments?
3. What are the barriers to delivering mentally healthy built environments?
4. What role could the planning profession play in promoting mentally healthy environments into the future? And is there any added value in making mental health policy ‘explicit’ rather than ‘implicit’ in planning practice?

The scope and limitations of this research are outlined further in chapter 4.

2. The dynamic relationship between town planning and public health (a literature review)

"Despite the common historical origins and interests of urban planning and public health, only minor overlaps between the 2 fields exist today"

– Corburn, 2004, p541.

Further to the literature highlighted in chapter 1, this chapter highlights the historic emergence of town planning - also known as 'town and country' or 'urban' and 'city' planning (Cullingworth et al., 2015, and Barton, 2017) – and its dynamic relationship with health (Freestone and Wheeler, 2015). The chapter concludes by highlighting the emerging literature on mental health and the built environment, which includes a specific framework called 'GAPS' (UD/MH, 2021a). GAPS has been developed to embed theories on delivering mentally healthy places into planning practice, and its use is explored further within the scope of this research.

2.1 The 'emergence' and 'convergence' of town planning and public health in the UK

Many theorists within planning literature (Hebbert, 1999, and Barton, 2017), including popular introductory texts on urban planning (Greed with Johnson, 2014, and Cullingworth et al., 2015), have cited the historical emergence of urban planning in the UK as responding to a perceived need for social reform in response to public health issues facing urban areas. These social health issues have been cited to provide justification for a series of planning interventions and types of planning or 'planner' (Sager, 2009).

Cullingworth et al. (2015) highlights the emergence of modern urban planning within the late 19th century, where there was a growing recognition that (an increasingly industrialised) built environment could influence the physical health of urban citizens. Public attention focused on unsanitary conditions and overcrowding leading to poor

health (Greed with Johnson, 2014, and Barton, 2017). Less implicit, but still apparent within 19th century concerns over public health, was a recognition that unsanitary conditions affected the mental and emotional health of urban inhabitants (Chadwick, 1842). For example, Edwin Chadwick, in his influential report on the 'Sanitary Conditions of the Labouring Population of Great Britain' (1842), remarked on the misery of urban inhabitants:

> *"I am constantly shocked almost beyond endurance at the filth and misery in which a large part of our population are permitted to drag on a diseased and miserable existence. I consider a large portion, if not the whole, of this accumulation of dirt and filth is caused by the bad and inefficient sewerage of the metropolis."* (p45).

Subsequent legislation emerged in the form of a series of by-laws and building codes and the first planning legislation (the 1909 Housing and Planning Act) which introduced minimum standards for housing, street widths and natural lighting (Cullingworth et al., 2015). In this context, planning was endorsed as a state-led, as opposed to a private sector-led, intervention, with a focus on improving working class living conditions as the UK moved from a feudal land system to a capitalist system (Cullingworth et al., 2015). Cullingworth et al., (2015) highlights that, at this time, planning became "the necessity for interfering with market forces and private property rights in the interest of social well-being" (p17). As a consequence, there grew – and remains today - a general consensus in planning literature that the purpose of planning is to serve a 'public interest' or 'common good' (Slade et al., 2019, and RTPI, 2020a).

This impetus for planning and public health interventions was further influenced in the 20th century as Cullingworth et al. (2015) observes "the gradual development and the accumulated experience of public health and housing measures facilitated a general acceptance of the principles of town planning" (p19). Influential publications such as Ebenezer Howard's 'Garden Cities of Tomorrow' called for 'planned' settlements with a blend of town and country (Wheeler and Beatley, 2004); whilst the 1942 Beveridge Report called for planning at a national scale to tackle 'squalor' within urban environments. The early 20th century saw the emergence of the Town Planning Institute, and planning as a profession (Cullingworth et al., 2015). Planners were perceived to be 'professional experts' or 'rational planners' (Taylor, 1998) who could

solve the 'ills' of city living, by focusing on the physical design and layout of the built environment (Lennon, 2017).

Hall and Tewdwr-Jones (2011) highlight the subsequent confusion in distinguishing urban planning from 'urban design'. An increasing focus on achieving the aesthetic quality of the built environment as the substantive 'objects' or 'ends' of planning resulted in what Lennon (2017) remarks to be an increasingly "aesthetically centred view" (p148) of the discipline - or 'architecture writ large' (Taylor, 1998). In tandem, the procedural 'process' of achieving such ends, was observed to have become increasingly concerned with the designing of blueprints and the spatial layout of land uses (Lennon, 2017), as s 'technocratic' professional exercise (Fainstein, 2016).

2.2 The 'divergence' of town planning and public health in the UK

Planning theorists note a divergence between planning and public health from the late 20th century onwards (Freestone and Wheeler, 2015)/. There was mounting criticism of large scale planning schemes and their focus on the physical environment, at the expense of the social environment (Fainstein, 2016). This was perceived to induce social inequality and injustice (Jane Jacobs 1961a, and Fainstein, 2016).

This sparked criticism of the traditional view of a planner as an 'expert' and subsequent debates in planning theory moved away from the objects or 'ends' of planning, to discourse on 'how' planning was undertaken as a 'process', to achieve such objects and ends (Klostermann, 1985, and Taylor, 1998). Paradigms of planning thought subsequently shifted away from the views of the profession a technocratic exercise, to involving the communities affected by planning decisions directly within the decision-making process itself (Healey, 1992). Popularity rose for obtaining a mutual consensus with communities through a 'communicative planning' process (Taylor, 1998, Alexander, 2000, Healey, 1992). This mechanism for undertaking planning was perceived to be a better way of "actualizing the public interest" (Fainstein, 2016, p259).

In parallel, academics observe health disciplines became increasingly insular and focused on medical practices and clinical health matters, rather than preventative

interventions to health issues, through shaping the physical environment (Freestone and Wheeler, 2015).

In planning theory, the retreat of the planning profession from its historic health focus is further evident in the dynamic 'politics' of planning and subsequent debates centred around whether the 'common' good is best achieved from state-led (government) intervention in society, or is best achieved by the private-market (Sager, 2009) - or a combination of both (Klostermann, 1985). The retreat of state-led planning was pronounced within political rhetoric in the 1980s, following election of the Conservative Party in 1979 under mounting criticism that the government-led planning system was unable "to deliver 'the speed certainty and responsiveness that businesses need' and pointed to various specific problems, particularly in the delivery of infrastructure." (Nadin, 2007, p53). Planning theorists note the neoliberalist political stance of the time, which postulated that issues of jobs and housing supply could be better delivered by a free market, with the subsequent 'dwarfing' of state-led planning interventions (Nadin, 2007, and Cullingworth et al., 2015).

Subsequently Hebbert (1999) remarked on the inertia of planners, observing "town planning experts became reticent and incurious about the contribution of urban form to public health" (p445). The substantive objects and remit of planning in the 'public interest' further evolved to cover a broad range of topics which gained wide-spread political attention (Fainstein and DeFilippis, 2016). Topics included the aesthetic quality and design of the built environment, economic prosperity, housing delivery and urban renewal, climate change mitigation and adaptation and an over-arching commitment to 'sustainable development' (Greed, 1999, and Fainstein and DeFilippis, 2016). In conjunction, the planning system was supported by increasing legislative powers to form the current 'plan-led' and policy-oriented planning system which is used today, to plan and shape the built (both urban and rural) environment (MHCLG, 2021).

The divergence of planning from public health, and the planning inertia, became so pronounced, not only within the UK but internationally, that by the end of the 20th

century, health theorists as well as planning theorists commented explicitly on the separation (Corburn, 2004). One theorist in the 'Journal of Public Health' remarked:

> *"Although public health and urban planning emerged with the common goal of preventing urban outbreaks of infectious disease, there is little overlap between the fields today. The separation of the fields has contributed to uncoordinated efforts to address the health of urban populations and a general failure to recognize the links between, for example, the built environment and health disparities facing low-income populations and people of color*" (Corburn, 2004, p541).

By the 21st century, the silo mentality prevalent in many professions, including health and planning, received political attention (Nadin, 2007). A central theme within the New Labour government's introduction of 'Spatial Planning' in 2004, as a mechanism to reform the British planning system, centred around the need for 'policy integration' and 'intersectoral working' (Nadin, 2007). As a consequence, this presents an opportunity for this research to explore to what extent the planning profession and planning professionals consider their role to be concerned with the delivery of health outcomes within the built environment today. This may help shed light on whether the objectives of spatial planning, to integrate these sectors, has been realised in practice (Nadin, 2007).

Despite criticisms of state-led planning (Cullingworth et al., 2015), the UK planning system remains a public-led and policy-led system (MHCLG, 2021). Both national and local planning policies provide a framework for Local Planning Authorities (LPAs) and public sector planning officers to make decisions on where, and how, development takes place across geographical areas (Cullingworth et al., 2015).

2.3 Mental health and the built environment

In this context of the contemporary divergence of planning and public health (Freestone and Wheeler, 2015), there remains limited information on how the role of urban planning considers mental health issues, with the RTPI remarking "UK and Irish planning policy contains little direct mention of mental health" (2020b, p9).

In considering mental health within this research proposal, the World Health Organisation (WHO) defines mental health as:

> *"A state of well-being in which the individual realises their abilities, can cope with the normal stresses of life, work productively and fruitfully, and is able to contribute to their community"* (2018).

Despite a lack of research in planning literature on the influence of planning on mental health impacts (RTPI, 2020b), there are some emerging bodies of research attempting to bridge the gap (Ellard, 2015). Research, chiefly within the fields of psychology, neurology and public health (Halpern, 1995, Ellard, 2005, Pykett et al., 2020), highlights the interdisciplinary nature of analyzing, and addressing, mental health issues in the built environment.

For example, psychologists such as David Halpern (1995) have specifically situated their research on mental health within the context of the built environment. Halpern (1995) identified a causal link between the built environment and mental health in four areas, citing environmental stress and the planning process itself as being two of the four causal factors. Further research on how built environments affects mental health and emotional wellbeing has included research on neurological stress (Ellard, 2005), as well as perceived levels of happiness in built environments (Montgomery, 2013). For example, Ellard (2005) discovered higher production of cortisol levels (typically associated as a hormonal response to stress) in participants who walked down streets with blank, unvaried facades, than in the same participants who walked down more diverse and varied street scenes.

Further studies have focused on urban environments as both a source of mental health concerns, such as stress, anxiety and depression (Pykett et al., 2020), as well as a solution to mental health concerns that arise through living in isolated rural environments (Godfrey and Julien, 2005).

Research has given rise to a variety of new terms in planning and psychology discourse including 'Neurourbanism' and 'Neuroarchitecture' (Pykett et al., 2020), 'Psychogeography' (Ellard, 2005) and 'Urban Stress' (Ellard, 2005). What remains

evident amongst these debates is that the influence of the built environment on mental health is gaining increasing recognition across a variety of sectors (Halpern, 1995, Barton, 2017).

More recent research as of this year has seen the RTPI (2021) launch a dedicated course on 'mental health and town planning'. The course has the specific objective to "recognise the impact of the built environment on mental health" (RTPI, 2021), and "to identify the principles of urban design that can be used to promote good mental health" (RTPI, 2021). This is with the principle aim, to "understand the relationship between the built environment and mental health, and the role that town planning plays in creating healthier environments" (RTPI, 2021). This re-focus on the profession and planning system in achieving positive public health outcomes is further evident in Central Government's recent White Paper seeking to reform the planning system, where the British Government state: "Planning matters. Where we live has a measurable effect on our physical and mental health" (MHCLG, 2020, p16).

This suggests there is a growing appetite in professional planning discourse to understand the role that the planning profession can play in creating mentally healthy urban environments. As such, there is a good opportunity for this research to explore the extent to which planning practice is considering theories on mental health and the built environment, that are being highlighted in the emerging literature (Barton, 2017).

A review of planning literature has identified previous studies which have sought to understand the attitudes of UK planners on their role within the UK planning system, covering aspects including sustainable development (Jepson and Edwards, 2010) and the UK planning system itself (Black and Sonbli., 2019). However, little is known about the local appetite for considering mental health within the planning process (RTPI, 2021). There is therefore an opportunity to further this perception-based research, to understand UK planners views on a possible emerging role for town planning in delivering mentally healthier urban environments, as suggested by the RTPI (2021).

In identifying planning principles that 'can be used to promote good mental health' (RTPI, 2021) the RTPI makes specific reference to an emerging framework of

principles developed by the Centre for Urban Design and Mental Health (UD/MH, 2021a). This framework, called 'GAPS' (shown in Figure 1), is promoted by the UD/MH as being ready to apply "to any urban plan or project to help integrate some of the key ideas presented" (2021b), with the UD/MH remarking: "Mental health and wellbeing is within the remit of urban planners, managers, designers and developers, so mind the GAPS" (2021a).

Green places – There are important relationships between accessible green spaces and mental health and wellbeing. Access to natural settings in neighbourhoods and in the course of people's daily routines is likely to improve and maintain mental health and wellbeing.

Active places – Positive, regular activity improves mood, wellbeing and many mental health outcomes. Embedding action opportunities from active transport to outdoor gyms into places helps integrate exercise, social interactions, and a sense of agency into daily routines.

Pro-Social places – Urban design should facilitate positive, safe and natural interactions among people and promote a sense of community, integration and belonging. This includes potentially vulnerable groups like refugees, migrants, young and older people, with multi-faceted engagement from passive observation to active participation. Creating interesting, flexible public places should involve citizens at each stage of design and development.

Safe places – A sense of safety and security is integral to people's mental health and wellbeing. Urban dangers include traffic, getting lost, environmental pollutants, and risks posed by other people. Appropriate street lighting and surveillance, distinct landmarks, and people-centric design of residential, commercial and industry routes are important. A balanced approach is necessary: a safe environment improves accessibility but risk-averse city design can reduce action opportunities and people's sense of agency and choice.

Figure 1: the GAPS framework (UD/MH, 2021a).

This suggests a good research opportunity to apply the GAPS framework to such urban plans, known within the national planning system as local plans or development plans – and hereafter referred to as 'Local Development Plans' (LDPs) – to explore and understand how good mental health principles are being considered within planning practice currently (if at all).

Using the GAPS framework to analyse LDPs, and as a mechanism for discourse with planning practitioners, may also yield insights into any areas of good practice or any gaps and barriers to the role that urban planning as a profession could play in

delivering mentally healthy urban environments. This could help to further existing research on how the built environment influences mental health (Barton, 2017, and RTPI, 2021). The research could further contribute to discourse on how the professions' remit can attain a 'common good' (Slade et al., 2019, and RTPI, 2020a).

The next section of this literature review (chapter 3) focuses on the theoretical underpinnings of the GAPS framework, to understand how it can be operationalised to assess how mental health is considered in planning practice, for the purposes of this research.

3. Planning for 'GAPS': operationalising a framework for planning and mental health (a literature review)

Further to discussion of the GAPS framework in chapter 2, the theoretical underpinnings of the GAPS framework have not been explicitly outlined nor evidenced by the UD/MH (2021a). Despite this, a review of mental health and urban planning literature reveals prolific discussion of the associations between mental health, wellbeing, and the presence of Green, Active, Pro-social and Safe (GAPS) places (WHO, 2016, and Barton, 2017).

Key theories and examples of research undertaken in each area of the GAPS framework is explored in this chapter, to illuminate the ways in which the GAPS framework can be operationalised to consider mental health in urban plans/policy, as endorsed by the UD/MH (2021b).

3.1 Green places

In defining green places or spaces, the World Health Organization (WHO, 2016) focuses on the 'planned' or urban environment (as opposed to naturally occurring unplanned green space and open countryside). WHO (2016) further observe there is no universally accepted definition of 'urban green space', but that such places include 'natural surfaces' or 'natural settings' as well as specific types of urban greenery (such as street trees, public parks or children's play areas).

The UD/MH, within their GAPs framework (2021a), makes explicit reference to the 'accessibility' of such green places, so that people are able to access natural settings in the course of their daily lives (see Figure 1).

Two prevailing distinctions in 'access' to green places have emerged in health and planning literature: firstly the importance of 'visual exposure' to green settings – also

referred to as ‘green infrastructure’ (PHE, 2020); and secondly, the importance of physically experiencing the natural environment through the enjoyment of dedicated areas of green space close to where people live and work (WHO, 2016).

3.1.1 ‘Viewing’ nature through provision of green infrastructure

With regards to visual exposure, several influential works across both health and urban planning literature have highlighted the benefits of *viewing* nature to mental health (Ellard, 2015, and Barton, 2017). For example, in a landmark study by Roger Ulrich (1984), the restorative effects of viewing nature were highlighted within medical and psychological fields. In the study, 23 patients, who had a window with a view of a natural setting, were found to require lower doses of pain medication, and required shorter hospital stays post-surgery, when compared to 23 patients who had a view of a brick wall (Ulrich, 1984, and Ellard, 2015).

Within urban planning literature, the concept of counteracting the perceived physical and mental ‘ills’ of living in industrialised cities, through living in greener environments, gained popularity through influential thinker’s such as Ebenezer Howard (Wheeler and Beatley, 2014). Howard, in his seminal work during the 20th century, postulated a blend of ‘town-country’ settlements, which included ‘easy access’ to fields and parks; and visual access to the ‘beauty’ of nature (see Figure 2) (Wheeler and Beatley, 2014).

Further studies exploring the associations between mental health and visual exposure to green or natural settings have identified a range of positive mental health outcomes. These include reduced stress and anxiety (Grinde and Patil, 2009), improved attention spans (Kaplan and Kaplan, 1989) and aiding physical and mental health restoration (Kuo and Sullivan, 2001).

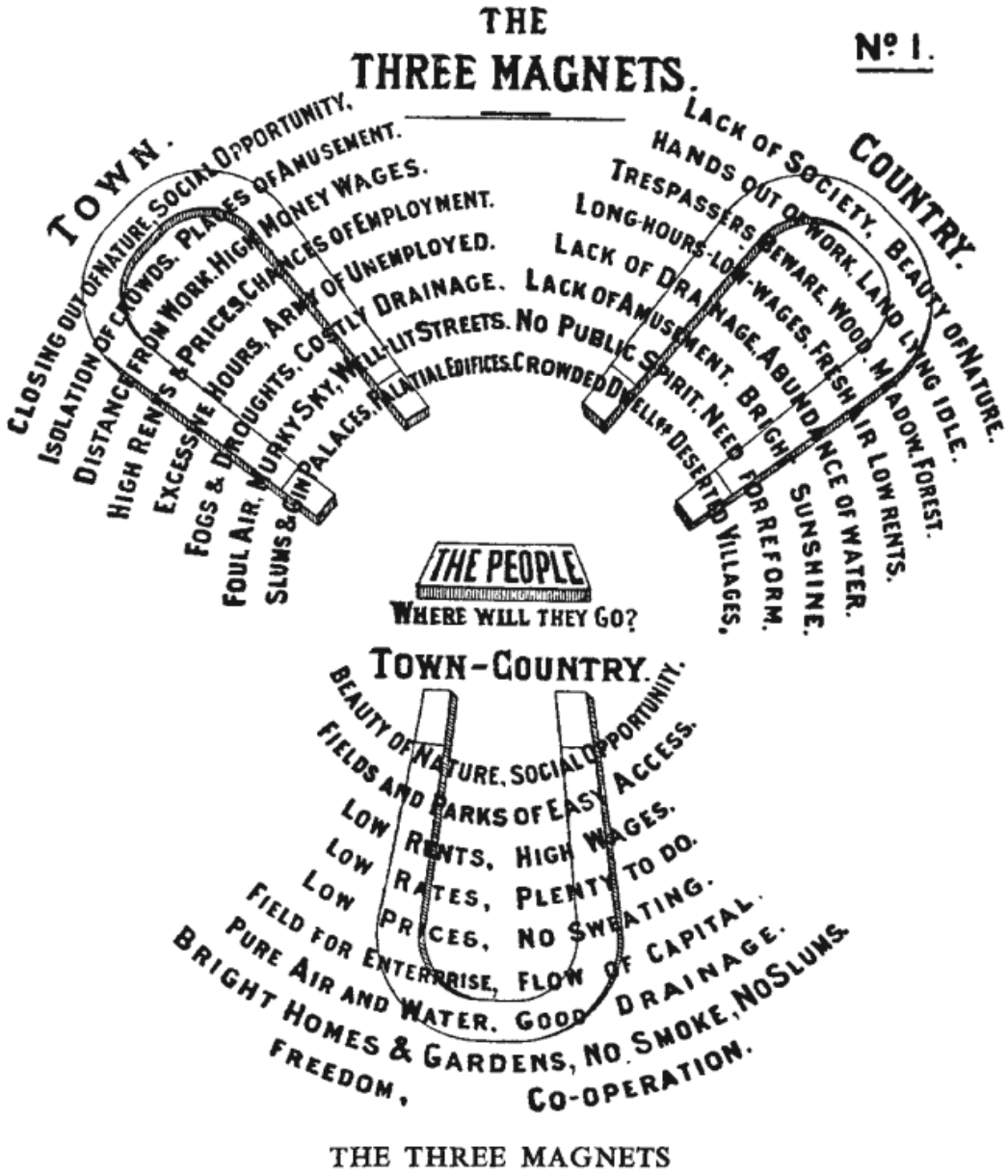

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Figure 2: a visual depiction of town-country living by Ebenezer Howard (source: Wheeler and Beatley, 2014).

Whilst health disciplines have focused attention on the physiological and evolutionary responses to nature – such as human's innate inclination to affiliate with nature termed 'biophilia' (Gullone, 2000), urban planning studies have sought to quantify the associations between the amount of greenery within built environments and perceived mental health outcomes (Kuo, 2001, and De Vries et al., 2003). For example, De Vries et al. (2003) concluded that people reported fewer health symptoms and better mental

health in 'greener', less urban environments. Kuo (2001) identified that residents of inner city social housing were better able to cope with the stresses of life where they had even a small exposure to nature - in this instance views of 'a few trees and some grass outside a 16-story apartment building'. Practical applications of the theory, in seeking to make urban environments 'greener', has been colloquially termed 'green infrastructure' (PHE, 2020), to distinguish it from dedicated areas of green space, as indicated in Figure 3.

Green infrastructure	A network of multi-functional green space, urban and rural, which can deliver a wide range of environmental and quality of life benefits for local communities. References to green infrastructure in this guidance also apply to different types of blue infrastructure where appropriate.
Greenspace	Any area of vegetated land, urban or rural. This includes both public and private spaces such as parks, gardens, playing fields, children's play areas, woods and other natural areas, grassed areas, cemeteries and allotments, green corridors, disused railway lines, rivers and canals, derelict, vacant and contaminated land which has the potential to be transformed.

Figure 3: a definition of green infrastructure and greenspace (source: PHE, 2020).

3.1.2 'Experiencing' nature through provision of green spaces

In addition to *viewing* green spaces and nature, a substantial body of literature has highlighted the benefits of *experiencing* nature (WHO, 2016). This is observed to be encouraged via the creation of dedicated areas of green space (such as urban parks, gardens, sports fields and allotments) (WHO, 2016) and highlights the interdependencies between different areas of the GAPS framework.

For example, with regards to 'Active' places, numerous studies have highlighted physical activity in outdoor natural environments, termed 'Green exercise' (Barton & Pretty, 2010), to produces specific mental health benefits when compared to exercising in more urban environments (as opposed to natural settings) (WHO, 2016). For example, Thompson Coon et al. (2011) found exercising in natural environments, as opposed to indoor environments, resulted in improved self-reported mental health,

with study participants experiencing decreased tension and depression. Barton and Pretty (2010) found 'green exercise' improved both self-esteem and mood. Other studies have shown exercise in specific types of green space, both encourage incidences of physical activity (Liu et al., 2017), can lead to more sustained physical activity (Sugiyama et al.,2013), and lead to a more mentally restorative experience than exercising in urban areas (Bodin and Hartig, 2003).

This suggests the creation (and protection) of dedicated areas of green space, alongside increased exposure to natural settings (green infrastructure), is an important aspect of operationalising theory into practice, when assessing how urban plans consider 'Green Places' within the GAPS framework, in planning practice.

3.2 Active places

> *"Physical activity has been shown to improve cardiovascular health, mental health, neurocognitive development, and general well-being"*
>
> - WHO, 2016, p6.

As with Green places, health and urban planning literature is prolific on the benefits to mental health and wellbeing, from being physically active (as illustrated above in the quote by WHO, 2016 and the quote by Barton, 2017, in section 3.2.1).

The GAPS framework outlines 'action opportunities' as ways of operationalising the creation of 'Active Places' in planning practice (UD/MH, 2021a). Two distinctions in action opportunities are identified in the literature: firstly, that of promoting 'active travel' to other destinations (Barton, 2017), and secondly, that of creating specific destinations or 'places' where people can be active recreationally (Paluska and Schwenk, 2000, WHO, 2016, and Barton, 2017)

In distinguishing the two types of action opportunity, Barton (2017) defines 'Active Travel' as referring to:

> *"walking and cycling journeys for practical purposes – to get to school, work, shops, bus stops, friends, etc. It does not include*

> *walking/cycling specifically for pleasure, exercise or the dog, which count as recreational."* (p83).

The following sections explore the literature around active travel and active destinations.

3.2.1 Active travel

"If people are to walk and to cycle rather than rely on the car, then it is not just a matter of private preference. It is about shaping the city and its environs so that walking and cycling are easy"

- Barton, 2017, p83

The momentum for more active travel – or what has also been termed 'pedestrian orientated', as opposed to 'automobile-orientated', urban planning and design (Handy et al., 2002) – is highlighted to have gained popularity within urban planning literature following the works of influential social commentators such as Jane Jacobs (1961a).

Jacobs (1961a) attributed the demise of American cities to be, in part, due to the design of cities around the use of the car - at the expense of the pedestrian. Other influential works, such as Kevin Lynch's (1960) *The Image of the City* further focused on the importance of how urban environments were perceived by people – at a distinctly 'pedestrian-scale', adding momentum to ideas of 'New Urbanism' which embraced the idea that "communities should be designed for the pedestrian and transit as well as the car." (Handy et al., 2002, p65). Literature observes a wider shift of focus within town planning on social sustainability and equitable mobility, where walking and cycling are promoted as the most economically affordable travel option for many people (Barton, 2017).

A substantial body of literature has subsequently highlighted several aspects of planning the built environment which are viewed as critical to active travel: firstly that of spatially creating walkable and cycle-able 'pedestrian-oriented' neighbourhoods (Barton, 2017); and secondly, as with 'Green' places (discussed above) and 'Safe' places (discussed below), that of ensuring a high quality built and natural environment which is perceived as safe and attractive to use (Kuo et al., 1998).

With regards to the first 'spatial' dimension of the built environment, there is a wide consensus in urban planning literature that more 'pedestrian-oriented' development – as opposed to 'car-oriented' development – influences active travel (Bond et al., 2013, and Barton, 2017). For example, in what is identified as a 'vicious cycle' of travel choice, Barton (2017) observes certain land uses (retail, office and suburban and exurban housing) have been increasingly designed in dispersed, motor-dependent locations. Barton (2017) states this has led to a self-perpetuating 'vicious circle' whereby the location of land uses and services dictate use of the car, which in turn dictates future land use on cheaper land where car parking and car access is available (Barton, 2017).

Barton (2017) suggests that designing more pedestrian-orientated environments rather than environments reliant on car use can promote a 'virtuous' cycle of active travel behavior (see Figure 4).

In particular *shorter travel distances* between places where residents live, work, and access day-to-day needs (for example food shops, health services), is seen to 'nudge' or encourage active travel (Bond et al., 2013). The connectivity and permeability of streets to enable easy' access to facilities outside of the home, as well as creating mixed land uses to reduce travel times, is also deemed critical to this (Barton et al., 2012). For example, Barton (2012) found in a study of 12 English suburbs, that the median distance for walking and

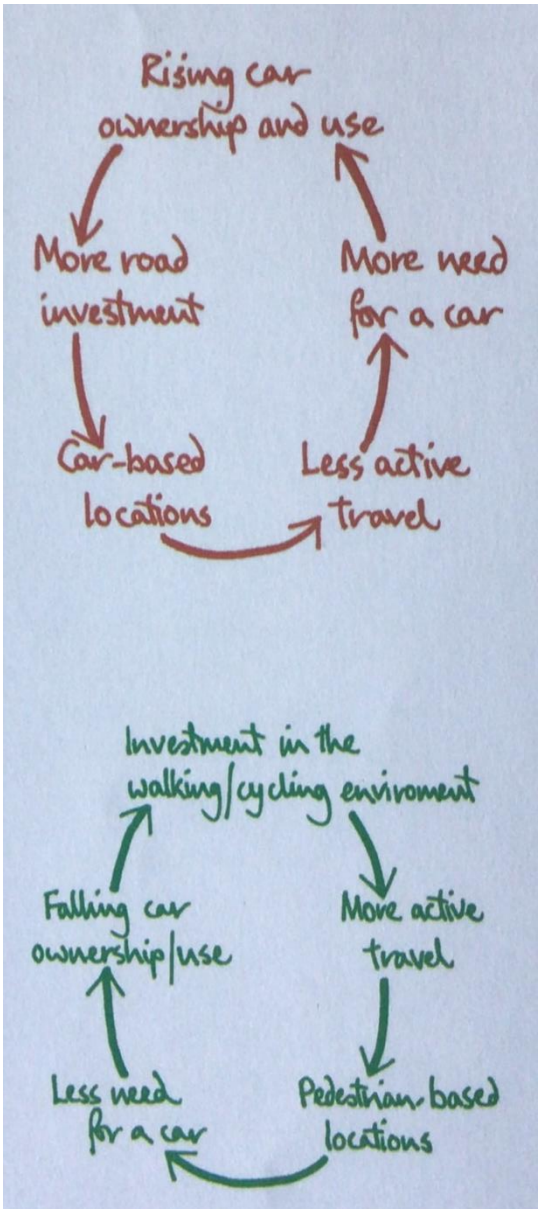

Figure 4: the vicious and virtuous cycles of travel choice (source: Barton, 2017)

cycling to superstores was 600m. Other studies have postulated the benefits of creating ’15-minute’ neighborhoods, where most people’s daily needs can be met within a 15-minute walking or cycling journey time (Weng et al., 2019).

3.2.2 Active destinations for recreation

Finally, as already discussed in relation to accessible ‘Green’ spaces, research shows the importance of providing dedicated places where people can be physically active (WHO, 2016). These include children’s play parks, as well as dedicated areas of hard surfacing, such as tennis courts and leisure centres (WHO, 2016). As discussed above, particular benefit is seen to mental wellbeing when people exercise in natural settings such as urban parks (Bedimo-Rung et al., 2005, and Liu et al., 2017). Studies have further shown the interdependencies between active travel and the use of both active destinations and accessible green space (WHO, 2016). For example, Sugiyama et al. (2013) observed the proximity of active places to be a factor in their use, identifying that green space within 1.6km of a home was linked to the maintenance of walking. This highlights the importance of facilitating both active travel and providing and safeguarding active destinations within planning practice.

3.3 Pro-Social places

> *“We are social creatures…Social ties – especially to family and close friends – and social interactions more generally, provide the sense of identity, practical and emotional support that enable us to feel positive and happy.”*
>
> - Barton, 2017, p99.

As the above quote by Barton (2017) suggests, social interaction with others is perceived to be conducive to mental wellbeing. For example, several authors highlight the importance of social interaction to build feelings of trust (Putnam, 1995, Montgomery, 2013, and Ellard, 2015) in others, and ameliorate negative mental impacts such as anxiety and fear associated with living ‘in close proximity with strangers’ (Ellard, 2015).

Neurologists have further commentated on the importance of 'mirror neurons' (Ellard, 2015) and how positive mental states can be stimulated from seeing positive patterns of mental behaviour in others, i.e. seeing someone smile can make another person smile and feel happy (Ellard, 2015). Thus, social contact with others is imperative to enable such mirroring and mood contagion to occur (Ellard, 2015).

Health and planning literature (Halpern, 1995, and Barton, 2017) further highlights how social factors have a significant influence on mental wellbeing, chiefly the quality of a person's social relationships and their sense of belonging to a place or *community* (Barton, 2017). Social support is noted to be particularly beneficial for older and vulnerable people to combat feelings of loneliness (Barton, 2017).

Ideas of social norms and social interactions gained popularity within urban planning literature through the research of Robert Putnam (1995) who, in his seminal work 'Bowling Alone', introduced the term of 'social capital'. Putnam (1995) linked the decline of social capital directly to the spatial features of the built environment. Chiefly Putnam (1995) attributed urban sprawl to increasing private car use, and subsequently diminishing social interactions between neighbors and the wider community.

Although subject to several interpretations within the literature – and subsequently problematic conclusions in its definition and measurement (Häuberer, 2011), Putnam defines social capital within an urban planning context to comprise "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (1995, p156). In particular Putnam observes "life is easier in a community blessed with a substantial stock of social capital" (1995, p156) and focuses his research on loss of social capital through formal community-oriented interactions in what he terms 'civic' society (for example membership to formal groups such as sports clubs, faith groups, etc.).

As such, creating and safeguarding social places and infrastructure (for example, sports clubs and churches) is highlighted as an important aspect of fostering social interaction (Putnam, 1995), to attain the positive mental, emotional and neurological effects cited in the literature (Ellard, 2015, and Barton, 2017).

Putnam's (1995) observations on the loss of social capital through increasingly mobile communities (specifically increasing car ownership) also highlights the important loss of enabling what the UD/MH (2021a) distinguish as 'passive' as opposed to organised or 'active' forms of social interaction. Barton (2017) further distinguishes between these two forms of social interaction, stating:

> *"People meet by arrangement or accident and relationships develop."*
>
> - (p100)

In urban planning literature, an attractive and accessible public realm is viewed as integral to allowing such 'accidental' social occurrences to occur (Barton, 2017). For example, Jacobs (1961b) highlights the importance of having safe sidewalks (see 'Safe Places' below) in fostering vibrant and bustling communities, whilst Madanipour (1998) remarks on the social exclusion that urban planning can induce by privatizing the public realm. For example, Madanipour (1998) observes the erection of physical barriers such as gated communities, walls to privatize business space, and enclosed shopping malls exclude and marginalise many social groups.

Related to the above observations of social exclusion, two further nuances to planning for 'Pro-social' places have been highlighted as critical within urban planning literature and within the definition provided by the UD/MH (2021a) (see Figure 1). Firstly, that of the need to ensure social interaction is 'equitable' to all (Barton, 2017). Secondly, to ensure that those affected by planning decisions are involved in the decision-making about their area (Fainstein, 2016).

As discussed in Chapter 1, ideas of ensuring the communities affected by planning decisions are involved in decision-making, is tied to ideas of social equity, social sustainability and social justice (Fainstein, 2016). Halpern (1995) observes the planning process to have a direct impact on mental health by way of social exclusion, stating:

> *"If architects and planners impose their preferences on residents, and particularly if the preferences of the residents are very different, then residents are likely to feel themselves as powerless, frustrated and without control over their environment. The feelings of powerlessness and frustration which result from the exclusion of residents from the decision-making process (either from the original design or the ongoing management of the their environment) could have a negative impact on residents' mental health even if the resulting environment is of an objectively excellent physical quality."* (p163).

In addition, literature highlights the importance of all places within the GAPs framework fostering social interaction (such as green places and active places) and highlights the need to ensure such places are accessible to all members of a community (Aspinall et al., 2010). Both actual and 'perceived' access to these places is important (WHO, 2016). For example, studies indicate that a lack of resting places (Chastin et al., 2014) and facilities (such as seating and toilets) (Aspinall et al., 2010) can deter older people from using green space (Aspinall et al., 2010, and WHO 2016).

As a consequence, the literature suggests two important indicators of social places when reviewing urban plans through this research. Firstly, it is important to ensure 'equitable' access to both passive (public realm) and actively organised (social infrastructure) forms of social interaction. Secondly, there is a need to ensure those affected 'unjustly' by planning decisions (Fainstein, 2016) are actively engaged in the planning process and decisions about where they live and work.

3.4 Safe places

> *"Crime, or the fear or crime, can lead to feelings of isolation and low self-esteem"*
>
> – Barton, 2017, p100.

As with the literature on 'Active' places, a number of influential works have highlighted the importance of creating places that are safe and secure (Jacobs, 1961b, Ellard, 2015). Literature delineates two important dimensions of safety within urban planning: firstly, that of Crime Prevention through Environmental Design (CPED) (Haider and Iamtrakul, 2018), and secondly the social prevention of crime (White, 1999). The

former is associated with reducing 'fear' or 'perceptions' of crime (Ellard, 2015, and Barton, 2017), whilst the latter is typically associated with preventing actual incidences of crime within crime and planning theory (White, 1999).

3.4.1 Crime Prevention through Environmental Design (CPED)

Influential thinkers such as Jane Jacobs (1961b) and Oscar Newman (1972) are considered to have popularised consideration of planning safe streets and towns within urban planning literature (Ellard, 2015, Barton, 2017, and Reynald and Elffers, 2009). For example, Jacobs (1961b) dedicates a chapter of her influential book called 'The Death and Life of Great American Cities' on the use of sidewalks and safety. In this chapter, Jacobs (1961b) stresses three aspects to ensuring pedestrians feel safe walking along the streets of urban areas: 1) a clear demarcation between private and public space, 2) the importance of the surveillance of areas by having "eyes on the street" (p152), and 3) that streets must be used fairly continuously, to add to the levels of surveillance to deter crime and fear of crime.

Such perceptions and fear of crime are seen as important determinants of mental health (Ellard, 2015, and Barton, 2017). Jacobs' (1961b) first two points have been linked to a perceived lack of defensible space and a lack of ownership for the environment, as highlighted in other influential works. For example, Oscar Newman (1972), in his work '*Defensible Space'* studiedthe social decline of the Pruitt-Igoe social housing complex in America. In the study, Newman attributed a rise in criminal activity within the complex, to a lack of ownership of the designed shared spaces within the complex (Ellard, 2015).

This lack of ownership, tied with the aesthetic, physical, qualities of the built environment, is seen as an essential determinant of how places and spaces are used, as highlighted in Jacobs (1961b) third aspect of safety above. Much research has highlighted a reliance on 'Safe' places in enabling the mental health benefits associated with other areas of the GAPS framework to be realised. For example, several studies have identified that providing aesthetically attractive green space can determine the amount of time spent in the green space and the associated levels of activeness within that space (Bedimo-Rung et al., 2005, Giles-Corti et al., 2005, and

Sugiyama et al., 2010). Conversely, a lack of perceived ownership of green space, e.g., unmanaged overgrown vegetation (Kuo et al., 1998), and graffiti and litter (McCormack et al., 2010), was seen to negatively impact the mental health and wellbeing of those using such greenspaces through heightened anxiety and fear of crime (Kuo et al., 1998).

This suggests that the intrinsic aesthetic qualities of a place are an important indicator for mitigating perceptions of crime, even if actual incidences of crime do not occur (Bogar & Beyer, 2015). Several studies have further highlighted how perceptions vary in different categories of people. For example, Aspinall et al. (2010) observes maintenance as an important association with usage of green space by older adults.

CPED theory has led to applications within UK planning practice, termed 'Design out Crime' (Design Council, 2021) or 'Secured by Design (SBD)' (Police Crime Prevention Initiatives Limited, 2021). These applicatoins include many of the design principles (e.g. well lit places and surveillance) outlined by the UD/MH's (2021a) definition of safe places (see Figure 1) to deter crime and fear of crime.

3.4.2 Social crime prevention

Finally, further crime prevention and reduction theories have highlighted the interdependencies between actual incidences of crime, and lower levels of social and economic opportunity (White, 1999, and Ellard, 2015).

For example, Ellard (2015) observes critics of the CPED theory suggest that crime reduction in New York City was attributed to an increase in the standard of living and decrease in unemployment rates, rather than environmental design. White (1999) suggests social prevention approaches centre on the underlying causes of crime and issues of social equity. Under this 'social planning' approach, crime reduction efforts are invoked by enhancing "opportunities to partake in community life as fully as possible" (White, 1999, p302) in which social, as well as economic opportunity, is seen as a 'promising' area of emerging research on strategies to reduce and prevent incidences of crime.

3.5 A framework of indicators for operationalising GAPS theory in planning practice

In summary, the plethora of literature available on the mental health benefits attributed to Green, Active, Pro-Social and Safe places, illuminates a number of ways that the GAPS theoretical framework can be operationalized. Eight indicators for operationalising the GAPS framework, to analyse how mental health is considered within planning practice, for this research, are outlined below in Figure 5.

GREEN	1. **GREEN INFRASTRUCTURE:** increase and protect exposure to green and natural settings in the course of people's daily lives e.g. through street trees, grass verges, and views of natural settings from people's homes.
	2. GREEN SPACE: provide dedicated areas of publically accessible green spaces, close to where people live e.g., public parks and gardens.
ACTIVE	**3. ACTIVE TRAVEL:** design 'pedestrian-oriented' places where walking and cycling is a safe, attractive and convenient travel option to other destinations e.g. through local facilities and mixed land uses.
	4. ACTIVE DESTINATIONS: provide publically accessible spaces as dedicated 'destinations' where people can be physically active (e.g., green space, hard surfaces, sports courts, gyms, leisure centres)
PRO-SOCIAL	**5. SOCIAL INFRASTRUCTURE AND EQUITABLE ACCESS TO PUBLIC REALM:** provide 'equitable' access to the public realm as well as dedicated places where people can socialize, to foster both casual and organised forms of social interaction, e.g., places of worship, community halls, libraries, street furniture.
	6. MULTI-FACETED ENGAGEMENT: undertake multi-faceted engagement to involve individuals and communities in planning decisions about where they live and work – to ensure socially equitable places and spaces are planned for and realised.
SAFE	**7. HIGH QUALITY REALM AND OWNERSHIP:** design public spaces and routes which are legible and of a high aesthetic quality, that shows clear signs of management, for prevention of crime and 'fear of crime' e.g., well-lit, natural and artificial surveillance, free from litter, and not overgrown.
	8. SOCIAL CRIME PREVENTION: Provide equitable access to a variety of social and economic opportunities to aid the prevention of actual crime incidence. e.g., education facilities and skills, a choice of jobs, and a range of housing options.

Figure 5: indicators to operationalise the GAPS framework for considering good mental health principles in planning practice.

4. Research design, methods and scope

This chapter outlines the methods employed to answer the research questions and aims posed in chapter 1. These methods sit within a wider research design and research strategy for conducting the exploratory nature of this research (Farthing, 2016). Critically, the limitations and scope of this study are also outlined, to acknowledge that this research forms only one approach and stance to discourse around the role of town planning, mental health and the built environment (Farthing, 2016).

As such, this chapter identifies where there may be opportunities to improve on this research and expand the existing body of research on mental health and the built environment. These recommendations for further research are then summarised in the final chapter (see chapter 6).

4.1 Research design

> *"Planning researchers start their research with different conceptions of what the social world is like."*
>
> - Farthing, 2016, p3.

This research is primarily concerned with exploring within the social world, whether planning practitioners perceive shaping mentally healthy built environments to be within the scope and remit of their profession. Or to put it differently, is mental health considered as a social problem of 'public interest'? (RTPI, 2020a). Do planners feel it should be solved by them, as part of the professions wider attainment of the 'common good'? (Sager, 2009, and RTPI, 2020a).

To situate this research within the broader context of epistemological theory (Dieronitou, 2014), this research subscribes to the common beliefs and values, held

in the literature, that the profession should aspire to achieve a 'common good' (Sager, 2009). Or as Campbell (2003, p461) remarks:

> *"In many respects to plan is to conceive of the future; a future, hopefully, rather better than the present but at least no worse"*

As such, this research is grounded in the views held by the RTPI (2021), and those emerging in planning literature (Halpern, 1995, and Barton, 2017) – chiefly that the planning profession can influence how the built environment effects mental health (Halpern, 1995), and therefore is a topic worthy of further attention and consideration in planning practice (RTPI, 2021).

Subsequently, the researcher subscribes to a 'post-positivist' stance for conducting research. This stance largely accepts that:

> *"values help shape the research process; that knowledge is socially constructed rather than given by the facts of observation…that research findings are 'at best' provisional and that there is scepticism about the validity of expert knowledge ."*
>
> - Farthing, 2016, p5-6.

The research does not therefore claim that any of the findings, discussed within this research, are factual proof of the theories discussed in the literature reviews (chapters 2 and 3). Rather, this research offers one exploration, and interpretation of how planning theory is perceived and operationalised in planning practice (Farthing, 2016), to contribute to current debates and discourse around mental health and the built environment (Barton, 2017, and RTPI, 2021).

The assumptions made within this research, and the methods employed to limit research bias, are further detailed below.

4.2 Research strategy

With the literature review highlighting relationships between mental health, the built environment, and the planning profession as an 'emerging' area of research, this research employs an inductive, exploratory approach to answer the research questions raised (Campbell and Marshall, 1998, Farthing, 2016, and Denscombe, 2017).

This approach is deemed appropriate over 'deductive' approaches to research, where research aims to test specific hypotheses about established views or paradigms of thought on a particular subject (Farthing, 2016). It is acknowledged however, that there are numerous strategies to approaching research (Farthing, 2016). Therefore the findings of this research could be enhanced through future research which may seek to compare or contrast with the research methods employed here, as with wider planning research (Dalton, 2007, Sager, 2009, and Fox-Rogers and Murphy, 2015).

4.3 Research methods, scope and limitations

To answer the research questions posed in this study (see Figure 6), a mixed method approach was utilised, as advocated by Denscombe (2017) to enable a variety of data to be collected and triangulated. These methods are described below.

1. To what extent are good mental health principles currently considered in planning practice?
2. How, if at all, do planning professionals view their role in delivering mentally healthy built environments?
3. What are the barriers to delivering mentally healthy built environments?
4. What role could the planning profession play in promoting mentally healthy environments into the future? And is there any added value in making mental health policy 'explicit' rather than 'implicit' in planning practice?

Figure 6: the four questions posed in this research.

4.3.1 A framework for comparative analysis

As introduced in chapters 1-3, the GAPS framework (UD/MH, 2021a) was used to evaluate the presence of good mental health principles within national and local planning policy, as well as to frame discussions with planning practitioners, to answer all research questions (see Figure 6).

The adoption of frameworks, to enable the content and comparative analysis of documents (such as policies and plans), has been highlighted as an appropriate method in planning literature (Denscombe, 2017).

The UD/MH (2021a) do not expand on the concepts or theory behind the framework, and as such an 'umbrella review' (PHE, 2017) of the literature on mental health and Green, Active, Pro-Social and Safe (GAPS) places was undertaken to identify eight indicators through which the GAPS could be operationalized in planning practice (see Table 1). These eight indicators were then used to undertake a content and comparative analysis of planning policy, and to frame interview questions with planning practitioners (Denscombe, 2017) (see section 4.3.4 below).

This research was largely conducted over a period of nine months (December 2020 to August 2021). The literature review to identify eight framework indicators was front-loaded (Farthing, 2016), to enable the subsequent content and comparative analysis of planning policy to occur. As such, umbrella reviews have been highlighted as advantageous over traditional systematic reviews of literature, to enable a 'rapid review' of the literature to be synthesised in short time-frames (Khangura et al., 2012, and PHE, 2017).

As such, a clear limitation of this research is that the eight indicators used to operationalise the GAPS framework offer only one interpretation of how the GAPS framework can be readily applied "to any urban plan or project to help integrate some of the key ideas presented" (UD/MH, 2021b). Without standardisation in how the GAPS framework is interpreted, this could limit the transferability of the findings

presented, or limit opportunities for future comparative studies (Farthing, 2016, and Denscombe, 2017).

Operational Indicators		N	I
GREEN	1. **GREEN INFRASTRUCTURE:** Increase and protect exposure to green and natural settings in the course of people's daily lives e.g. through street trees, grass verges, views of natural settings from people's homes.		
	2. **GREEN SPACE:** Provide dedicated areas of publically accessible, green spaces close to where people live, as well as private green space, e.g. public parks, home gardens.		
ACTIVE	3. **ACTIVE TRAVEL:** Design 'pedestrian-oriented' places where walking and cycling is a safe, attractive and convenient travel option to other destinations e.g. through local facilities and mixed land uses.		
	4. **ACTIVE DESTINATIONS:** Provide publically accessible spaces as dedicated 'destinations' where people can be physically active (e.g. green space, hard surfaces sports courts, gyms, leisure centres).		
PRO-SOCIAL	5. **SOCIAL INFRASTRUCTURE AND EQUITABLE ACCESS TO PUBLIC REALM:** Provide 'equitable' access to the public realm as well as dedicated places where people can socialise to foster both casual and organized forms of social interaction and develop cohesive communities e.g. places of worship, community halls libraries and other civic infrastructure, street furniture to improve access for elderly.		
	6. **MULTI-FACETED ENGAGEMENT:** Undertake multi-faceted engagement to involving individuals and communities in planning decisions about where they live and work – to ensure socially equitable places and spaces are planned for and realised.		
SAFE	7. **HIGH QUALITY REALM AND OWNERSHIP:** Design public spaces and routes which are legible and of a high aesthetic quality that shows clear signs of management, for environmental prevention of crime and 'fear of crime' e.g. well-lit, natural and artificial surveillance, free from litter, not overgrown.		
	8. **SOCIAL CRIME PREVENTION:** Provide equitable access to a variety of social and economic opportunities to aid the prevention of actual crime incidence. e.g. education facilities and skills, a choice of jobs and range of housing options.		

Key
N = Normative aspects of plans (objectives, targets, policies, goals)
I = Instrumental aspects of plans (actions, timelines, identified delivery partners, funding)

Measurement Tool	
0	Not present or minimal detail
1	Some detail present
2	Detailed consideration provided

Table 1: GAPS framework used to evaluate national and local policy (expanded from UD/MH, 2021a).

Finally, to measure 'the extent' to which good mental health principles are currently considered in planning policy, a simple scoring mechanism was overlaid onto the GAPs framework (see Table 1). This was used to understand the extent to which each indicator of the framework was 'present' and the level of consideration or 'detail' given to each indicator with planning policy, using a 3-point scale (0-3). This follows similar scales within planning research, for example by Garau and Pavan (2018) who used a 5-scale points system to determine the presence of indicators of sustainable smart cities.

4.3.2 Semi-structured interviews

To understand the perceptions of UK planning practitioners in answering research questions 1-4 (see Figure 6), a semi-structured interview technique was utilised, as used in other exploratory research and perception studies (Fox-Rogers and Murphy, 2015, and Black and Sonbli, 2019). The list of interview questions devised is shown in Appendix 1.

An advantage of using semi-structured interviews is in promoting an honest and relaxed face-to-face exchange between the researcher and interviewees, which can assist in obtaining further contacts to interview (Denscombe, 2017). The structured elements of the interview were devised to aid comparison and potential insights into commonalities in the views or attitudes expressed by interviewees, as with other perception-based studies of planning practitioners (Kaufman and Escuin, 2000).

The interview questions which were devised to illicit responses for research questions 1-4, predominantly comprised 'open-ended questions' (Fox-Rogers and Murphy, 2015, and Denscombe, 2017). This gave an 'inductive' orientation to the research, in line with the exploratory nature of the research strategy, outlined in 4.2 (Farthing, 2016). The open-ended questions were also utilized, to keep an open mind about how planning practitioners feel about the subject matter, irrelevant of the values and beliefs subscribed to by the researcher (as explained in section 4.1), to limit researcher bias (Farthing, 2016).

A 'Likert scale' was used to understand the extent to which interviewees may agree or disagree with particular 'closed' statements (Kaufman and Escuin, 2000, and Cox et al., 2018), accompanied by open-ended questions to enable interviewees to explain their reasoning for each score (Denscombe, 2017). The use of 'Likert scales' and statements to explore practitioners' perceptions is a commonly employed method in perception-based research (Sager, 2009, Fox-Rogers and Murphy, 2015, and Cox et al., 2018), to introduce quantitative validity to results and aid comparisons across interview results (Kaufman and Escuin, 2000). Again, to limit research bias, the closed statements (see questions 8 and 15 of Appendix 1) were worded both positively (e.g. 'positive impact on…') and negatively (e.g. it is difficult to…) to avoid leading questions and statements, as deliberated in other perception studies of planning practitioners (e.g. Kaufman and Escuin, 2000).

4.3.3 Data sampling, results and the validity of knowledge

To limit the scope of the study within the time constraints of the research, a snowball sampling method was enacted to gather interview responses (Fox-Rogers and Murphy, 2015, and Denscombe, 2017). This sampling method is recognised to be an effective technique within small-scale research projects, to obtain a reasonable-sized data sample within relatively short time-scales (Fox-Rogers and Murphy, 2015).

The method involves asking participants to nominate another person to be included in the study and is identified as being an effective sampling method for exploratory research looking at the perceptions and attitudes of participants (Fox-Rogers and Murphy, 2015, and Black and Sonblil, 2019).

With the researcher working in public sector planning practice for Sevenoaks District Council, Kent, the snowball sampling method was enacted in this organisation to capitalise on established contacts with potential interviewees, and thereby improve opportunities of gathering interview responses via the snowball sampling method (Fox-Rogers and Murphy, 2015, and Denscombe, 2017). As such, this research enacts a purposive sampling technique, as opposed to a random sampling technique (Denscombe, 2017), and resulted in a natural geographic bias to sampling results in the form of a Kent case study for local research findings (in addition to the review of

national policy – the NPPF). This highlights a further (geographic) limitation of the study and highlights opportunities for the research to be expanded to other geographic contexts.

In addition, it is acknowledged that interviewees may naturally be interested in the topic under investigation via the snowball sampling method, and more willing to participate as a result (Denscombe, 2017). There are therefore opportunities to expand this research by enacting more targeted sampling of harder-to-reach groups (for example via a sampling frame or stratified sampling methods) (Denscombe, 2017).

Potential interviewees were contacted by email up to three times (one introductory email, and two follow-up emails if the initial email failed to illicit a response). This resulted in the snowball sampling method naturally terminating with a total of six interviews held with public sector practitioners, across four Local Planning Authorities (LPAs) in Kent (see Table 2).

A total of 6 out of 11 interviews were obtained via the snowball sampling method (54.5% response rate). Three out of the five practitioners who did not participate in the study, cited work pressures as the reason that they were unable to participate in the study, with no response elicited from the remaining two contacts. As above, there are geographical limitations as a result of the research methods employed which merit consideration for future research. The interviewee sample is also limited and cannot claim to be statistically significant, or representative of planning practice as a whole, as raised in other perception studies (e.g. Campbell and Marshall, 1998).

Planning Authority	**National Policy and Local Development Plan documents reviewed** *Core policy documents are outlined in* ***blue***
Ministry of Housing, Communities and Local Government (MHCLG)	• National Planning Policy Framework (2021)
Ebbsfleet Development Corporation	• Dartford Core Strategy (2011) • Development Policies Plan (2017) • Statement of Community Involvement (2021) • Ebbsfleet Implementation Framework (2017)

	• *Also see Gravesham policy documents below*
Gravesham Borough Council	• Gravesham Local Plan Core Strategy (2014) • Gravesham Local Plan First Review - Saved Policies (2014) • Statement of Community Involvement (2019) • Advertisement Control Policy Guidelines (2020) • SPG2 Residential Layout Guidelines including Housing Standards Policy Statement (2015) • Security Measures for Shopfronts and Commercial Premises April (2020) • Conservation Area Maintenance/Replacement Windows and Doors Guidance SPD (2020) • Conservation Area Appraisals (dates vary. Web page accessed: 15 July 2021) • Kent County Council Supplementary Guidance (dates vary. Web page accessed: 15 July 2021) • Kent Downs AONB Planning and the Management Plan (date unknown. Web page accessed: 15 July 2021)
Maidstone Borough Council	• Maidstone Borough Local Plan (2017) • Infrastructure Delivery Plan (2020) • Statement of Community Involvement (2021) • Neighbourhood Plans (dates vary. Web page accessed: 15 July 2021)
Sevenoaks District Council	• Sevenoaks Core Strategy 2011 • Sevenoaks Allocations and Development Management Plan 2017 • Statement of Community Involvement – June COVID-19 Review (2020) • Addendum to the Statement of Community Involvement – June COVID-19 Review (2020) • Sevenoaks Residential Character Area Assessment Supplementary Planning Document (SPD) (2012) • Affordable Housing SPD (2011) • Countryside Character Assessment SPD (2011) • Residential Extensions SPD (2009) • Village Design Statements and Parish Plans SPDs (dates vary. Web page accessed: 15 July 2021) • Conservation Area Appraisals (dates vary. Web page accessed: 15 July 2021) • The Sevenoaks District Strategy for Transport 2010 - 2026

Table 2: summary of the policy documents and supplementary planning documents reviewed in this research.

Furthermore, the interviews held consisted of practitioners working solely for Local Planning Authorities in Kent (see Table 2). The subsequent content analysis of local planning policy was then restricted to reviewing the adopted policies across the five Local Development Plans (LDPs) of the six practitioners who were interviewed (see Table 2).

This limitation in the scope held both advantages and disadvantages to the research findings. The advantages were, that by focusing on reviewing the policies of the practitioners being interviewed, this enabled mutually reinforcing data returns and triangulation of findings and analysis wherever possible (Denscombe, 2017). For example, in understanding interviewee responses to research question 1, it was possible to understand if the planning professionals *perceptions* of their impact on delivering mentally healthy built environments, coincided with the extent to which good principles were embedded in reality, through the independent review of local planning policies (LDPs) undertaken.

There are also advantages to interviewing public sector practitioners, and this research applies a similar justification to that of other research, such as Fox-Rogers and Murphy (2015, p81-82) who argue:

> *"Whilst it was acknowledged that gaining insights from planners working in other sectors (namely private practitioners and community-based planners) would be desirable in order to compare and contrast their views, it was considered important to firmly establish the views of the vast majority of planners who work at the 'coalface' of planning before exploring how their role orientations may differ from planning practitioners working in other sectors".*

The disadvantages of this approach are evident in the key findings (chapter 5) where all six of the public sector practitioners interviewed, cited private sector planning actors (planning agents, land owns and land developers) as integral to achieving mentally healthy places (see chapter 5). This suggests expanding the research to seek the views of private sector practitioners could add value to the research findings (Fox-Rogers and Murphy, 2015).

Furthermore, the content and comparative analysis focused on the adopted national planning policy – the National Planning Policy Framework' (NPPF) (MHCLG, 2021) and at the local level consisted of reviewing the five Local Development Plans (LDPs) of the six planning practitioners interviewed. As such, there are clear opportunities to broaden the scope of future research to evaluate good mental health principles across a wider range of policies and plans, than has been considered in the scope of this research (Denscombe, 2017).

4.3.4 Analytical framework

As referenced in section 4.3.1, the GAPS framework of the UD/MH (2021a) was expanded to comprise eight indicators as a mechanism for 'categorising' good mental health principles, to aid the content and comparative analysis of the planning policies reviewed (Denscombe, 2017). A 3-point scale (0-2) was overlaid to measure the extent to which planning policies considered the GAPS principles (as amended from Garau and Pavan, 2018).

Findings were presented by overlaying a Red-Amber-Green (RAG) rating (Iwami et al., 2017) onto the 3-point scoring system, to readily visualise where local and national policy may be performing well – or not so well - against areas of the GAPS framework. The analysis of national and local policies was then presented in the form of a series of tables (see chapter 5, and Appendix 2). Alexander and Faludi (1989) highlight the importance of plans demonstrating mechanisms for implementing their intended policies. As a result, two columns (normative and instrumental) were proposed to assess the practical deliverability of the GAPS framework within the policies reviewed (Alexander and Faludi, 1989) (see Table 1).

To organise data responses from the semi-structured interviews, a 'Likert scale' was used for a series of closed statements, to draw quantitative conclusions about the number of respondents who expressed a certain view or opinion (Denscombe, 2017).

In addition to the above, 'open coding' (such as the frequency of occurrence of particular terms), followed by 'selective coding' (to categorise the emerging themes), was undertaken across the LDPs and interview responses to the unstructured

questions (Denscombe, 2017). This research technique enabled identification of commonalities in the perceptions of interviewees, and highlighted themes across the LDPs and NPPF (MHCLG, 2021), to help draw the conclusions and insights discussed in chapters 5 and 6 (Denscombe, 2017).

4.4 Research conduct and ethics

To address the ethical implications of this research, various steps were undertaken at different stages of this research, to ensure the research was conducted in an ethical and transparent manner. (Farthing, 2016).

Interview questions, and methods of data collection, were designed to enact anonymity in the results, so that the views could not be linked back to any one individual (Farthing, 2016).

A participation information sheet was issued to all potential interviewees, to outline how interviews would be conducted and to provide transparency over how data would be collected and used, with clear timescales for data retention (available online via University of Westminster Ethics Panel). Importantly, participants were asked to consent to their interviewees being recorded virtually, due to restrictions in meeting face-to-face during the international Covid-19 pandemic. Participants were also given the opportunity to withdraw at any stage in the research, and provided details with an independent complaints procedure.

Written consent was obtained from each interviewee and the ethical approach to this research was reviewed and discharged by the University of Westminster Ethics Panel, prior to any data being collected.

4.5 Personal reflections on the limitations of the researcher

Finally, in addition to the limitations of the research design, strategy and methods highlighted above, a number of challenges occurred in undertaking this research.

4.5.1 Conducting interviews

Firstly in collecting data, the researchers' own personality traits and actions required careful management to avoid biasing data returns from interviewees in what Denscombe, (2017) highlights as the 'interviewer effect'.

For example, avoiding verbal and non-verbal affirmation to interviewees responses, was particularly challenging (Denscombe, 2017). This was due to the natural desire to build rapport between interviewer and interviewee by the researcher (Denscombe, 2017). This was overcome by verbally giving affirmation to the fact that the interviewee had answered a question, i.e. "thank you, it's really helpful to understand why you feel that way", rather than affirmation to the content of the answer, i.e. "I agree with your view on this" (Denscombe, 2017). This enabled the researcher to remain as neutral as possible when conducting interviews, to avoid 'leading' or biasing' the discussions (Farthing, 2016).

A second personal challenge for the researcher was the ability "to tolerate silences" (Denscombe, 2017, p211). To overcome personal discomfort, some pre-prepared 'prompts' and 'probes' to questions where used (Denscombe, 2017, p211), within the structured parts of the semi-structured interviews. This was so that the researcher could remain comfortable that the interview would continue to flow, following gaps and silences, as well as assist in gathering responses to questions (Denscombe, 2017).

Finally, due to the snowball sampling method beginning in the researcher's own Local Planning Authority (LPA), the researcher knew the Sevenoaks interviewees in a professional capacity and has a more casual discourse and rapport outside of this research project (Denscombe, 2017). To ensure the interviews were all conducted with the same professional tone, and avoided deviating away from the subject matter, a pre-prepared script was used to introduce the interview, as well as a series of 'structured' interview questions,to add formality and consistency to the way the interviews were conducted (Denscombe, 2017).

4.5.2 Analysing and synthesising data

Finally, the review of large quantities of journal articles, books and documents (e.g., see Table 2) was a time-consuming activity (Denscombe, 2017). Time management and project management techniques (such as Gantt charts and cataloguing reading material) helped reduce the time-intensive elements of the work (Farthing, 2016, and Denscombe, 2017). The volume of qualitative data also meant detailed analysis of the LDPs was not undertaken. Subsequently, future research may benefit from undertaking more comprehensive review techniques (such as 'systematic' reviews), as opposed to the 'umbrella' review utilised in this research (PHE, 2017).

5. Key findings, results and discussion

Clear themes emerged in reviewing the responses of the six interviewees, together with the GAPS review (UD/MH, 2021a) of planning policy.

These highlighted:

- Mental health is not explicit across planning practice, and the extent to which good mental health principles are considered, varies both nationally and locally.
- Planning practitioners do not feel an explicit mental health policy is required into the future to deliver mentally healthy places, but feel wider training, awareness and championing of how the profession already considers mental health, can lead to better delivery of positive mental health outcomes.
- Planning practitioners agree that the planning profession should take a leading role in achieving positive mental health outcomes, but this role varies between the public and private sector.
- Mental health and planning practice remain in silos, but practitioners are beginning to bridge the gaps.
- Barriers to delivering mentally healthy places varied by geographical area, and by the particular role and seniority of planning professionals.
- The GAPS framework provides a useful mechanism to ensure good mental health principles are embedded into planning practice, however wider good practice can also add value to how the profession considers mental health.

5.1 Assessing mental health principles in planning practice

5.1.1 Implicit benefits to mental health: health terminology

The GAPS review (outlined in chapter 4) revealed that mental health is not explicit within national nor local policy. The term 'mental' health was used only twice within the NPPF to provide a definition of people with disabilities (MHCLG, 2021), and only once, by one LPA, in relation to the positive mental health benefits of green environments (Ebbsfleet Development Corporation, 2017). This echoes the prevailing observations in academic literature (Hebbert, 1999, and Freestone and Wheeler, 2015) that "UK and Irish planning policy contains little direct mention of mental health" (RTPI, 2020b, p9).

This was further echoed by planning practitioners, who when asked how they would define mental health under question 7 of the interview process (see Appendix 1), struggled to clearly articulate what the term meant to them. Common phrases, such as it is 'difficult', 'tricky', or 'hard to understand', alongside hesitant pauses in providing an answer to the question, occurred across all of the six interviews held.

Despite this, the terms 'well-being' and 'health' were used explicitly across both national and local policy with many direct associations made between health, wellbeing and specific indicators of the GAPS framework (as shown in Figure 7). As a result, planning policies generally performed well, normatively, within the assessment against the GAPS framework (as illustrated in Tables 3 and 4).

More detailed reviews of each LDP and the NPPF are available in Appendix 2.

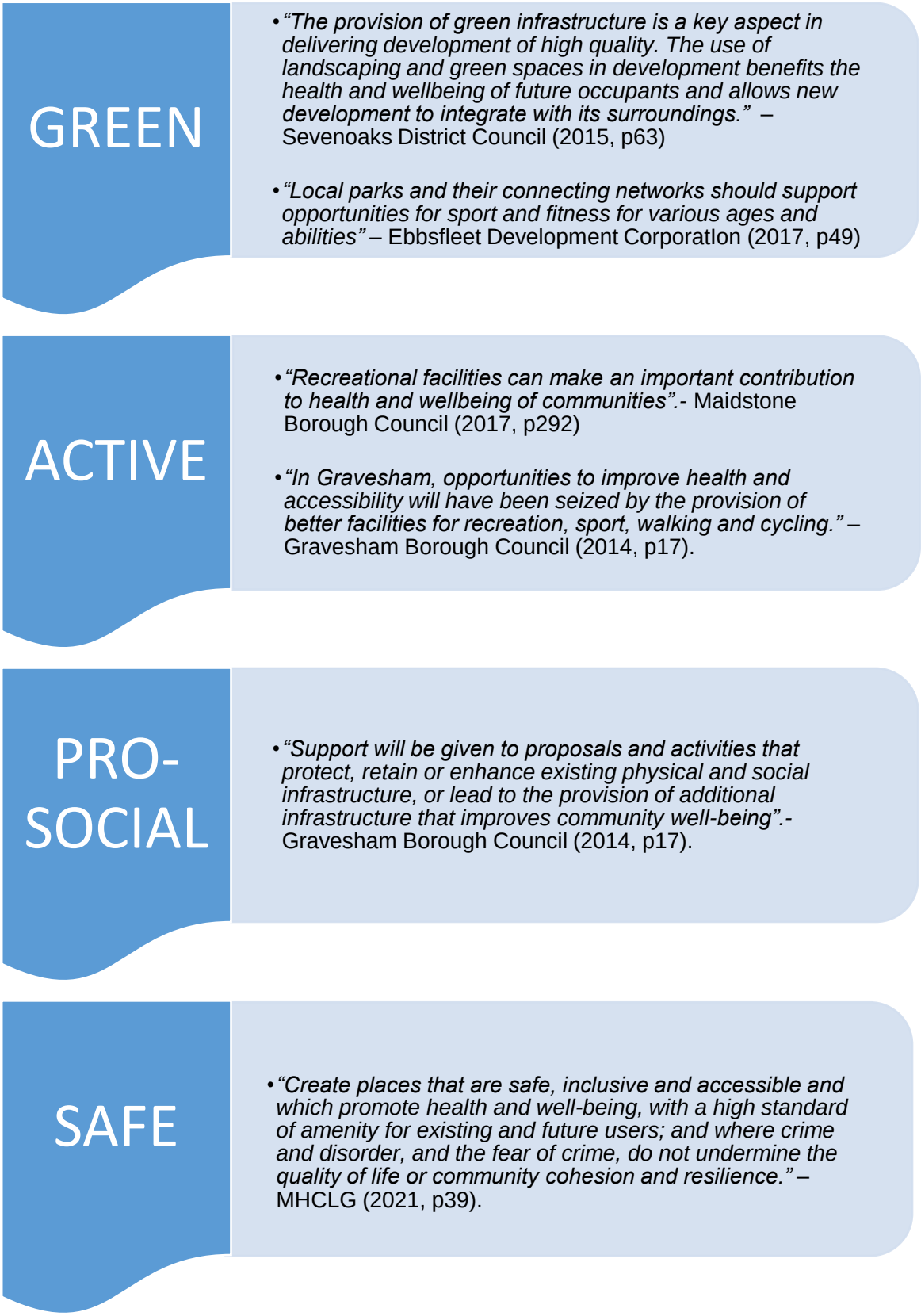

Figure 7: references between health and the GAPS framework within the NPPF and Local Development Plans (LDPs).

Planning practitioners also used the word 'wellbeing' in attempting to define mental health under Question 7 of the interviews (see Appendix 1), and highlighted many examples where they felt their LDPs performed strongly against specific indicators of the GAPS framework (interview questions 7, 8a and 9 – see Appendix 1). For example, this included dedicated policies to protect green spaces (such as parks), in proximity to homes (see indicator 2, Table 3); and through delivery and safeguarding of open spaces and active destinations (e.g. leisure centres, gyms and play parks) (see indicator 4, Table 3).

In further acknowledging that policies often did not specifically mention mental health, but still enabled many of the GAPS indicators to be considered, one Strategic planner in Maidstone stated:

> *"We may not specifically say mental health but there is scope for the officers to work up really good schemes, and actually they may not consciously think that they are doing it for mental health, but in reality they actually are…"*

This positive consideration of good mental health principles was evident in the review of national and local policy against the GAPS framework, as shown in Tables 3 and 4, where the NPPF and LDPs performed strongly in both the normative and instrumental extent to which several indicators across the GAPS framework were considered.

In particular, the GAPS analysis revealed that green and active indicators were well considered across both national and local planning policy (see Tables 3 and 4). This is not surprising, given the expansive literature on the links between health and green and active places, as demonstrated in the literature review (see chapter 3).

As such there were clear areas of both national and local policy where good mental health principles, and their associated benefits, are embedded 'implicitly' into planning policy, despite little 'explicit' references to mental health, as highlighted by the RTPI (2020b).

Indicator	LPA	N	I	Comments
1. Green infrastructure	N	1	0	• Nationally, some normative links between health and green infrastructure made. Positive reference to Garden City principles. A lack of description on how this can be realised instrumentally. • Normatively, local policies and visions positively highlight the links between green infrastructure and health improvements. • Instrumentally, local policies included specific examples of delivery in Gravesham (proving verges, planting, embankments, green roofs and walls), Ebbsfleet (Garden City design principles), Maidstone (policies and funding obs) and Sevenoaks (protecting the verdant character of residential areas). • Consideration of exposure to natural settings varied across LPAs with areas of improvement including: a lack of consideration of some natural settings (e.g. trees in Gravesham), ambiguity in terminology, and a focus on safeguarding existing greenery rather than increasing exposure to natural settings (e.g. Sevenoaks and Ebbsfleet)
	E	2	2	
	G	2	2	
	M	2	2	
	S	2	2	
2.Green Space	N	0	0	• Nationally, a focus on open space without any indication that such space needs to be green or natural. A focus on protecting open countryside (to limit urban sprawl with Green Belt land) and designated habitats, rather than recognition of providing and protecting dedicated areas of green space in proximity to people's homes. • Many LDPs contained specific policies to protect green space, however some LDPs lacked detail on how this would be instrumentally delivered in proximity to people's homes (Gravesham) or lacked definitions of green space (as with national policy), to understand what green space – as opposed to open space – would be safeguarded or created (e.g. Sevenoaks). Some barriers to achieving private green space were also highlighted (e.g. loss of private gardens due to housing pressure in Maidstone)
	E	2	2	
	G	1	1	
	M	2	2	
	S	2	1	
3. Active Travel	N	2	1	• Nationally, strong normative coverage of providing pedestrian-oriented routes which are safe and attractive to use, and some instrumental examples of delivery (e.g. funding contributions and promoting mixed use developments to encourage active travel). • Locally, Ebbsfleet and Gravesham have a strong strategic focus on promoting walking and cycling for health improvement, along with clear instrumental examples of delivery (mixed use developments within design policies, connected streets and designing places to reduce car use in transport and design policies) • Normatively, plans in Maidstone and Sevenoaks stated a commitment to promoting cycling and walking and reducing car dependency. However travel policies and separate strategies for transport and active travel maintained a focus on creating developments and places convenient for cars and focused infrastructure investment on roads.
	E	2	2	
	G	2	2	
	M	1	0	
	S	1	0	
4. Active Destinations	N	2	1	• Both national and local policy contained a strong normative focus on safeguarding and creating a variety of destinations where people can be active, with direct associations made to health (e.g. policies to protect and deliver open space in proximity to people's home, polices and funding to deliver sports fields, leisure centres, gyms etc.). • National and Gravesham policy lacked specific examples of the open space or sports space, which would be delivered.
	E	2	2	
	G	2	1	
	M	2	2	
	S	2	2	

Measurement Tool	
0	Not present or minimal detail
1	Some detail present
2	Detailed consideration provided

Key:

N = Normative E = Ebbsfleet S = Sevenoaks

I = Instrumental G = Gravesham

Na = National M = Maidstone

Table 3: analysis of national and local policy, against 'Green' and 'Active' indicators of the GAPS framework.

Indicator	LPA	N	I	Comments
5. Equitable public realm and dedicated social places	Na	2	1	• Nationally, there is strong normative coverage of the need to provide equitable access for social cohesion, and a focus on creating communities , including in the second core objection of NPPF (social objective), with detail provided in a dedicated chapter on promoting healthy and safe communities (chapter 8). Some instrumental details on provision of social/civic/community infrastructure outlined. • Locally, positive strategic focus on safeguarding and providing accessible social infrastructure and facilities close to people's homes across many LDPs, with dedicated policies, funding and delivery examples (permeability of design, street furniture). • Locally, many plans lacked details on how equitable access would be ensured instrumentally to cater to a variety of groups within society. E.g. groups with low mobility, elderly, groups with specific heath needs, and a lack of examples of creating accessible permeable, connected places.
	E	2	1	
	G	2	1	
	M	2	1	
	S	1	1	
6. Multi-faceted engagement	N	1	0	• Positive statements endorsing engaging with communities to develop LDPs and neighbourhood plans. However engagement is proposed to be 'proportionate' with no advocacy of engaging harder-to-reach or vulnerable groups. • Statements of Community Involvement by all LPAs consist of general, blanket engagement methods which focus on reactive contact from communities, and lack reference or detail on how harder-to-reach groups or vulnerable groups will be contacted.
	E	0	0	
	G	0	0	
	M	1	0	
	S	1	0	
7. High quality public realm design and ownership	N	2	1	• Nationally and locally, there is a strong normative and intrumental focus on designing attractive and safe places of a high aesthetic quality with some local policies referencing 'Secured by Design', and 'Crime Prevention through Environmental Design' principles. • Nationally and locally, a lack of normative awareness, or instrumental detail, on how the public realm and specific places and spaces need to be 'managed', 'owned' and monitored through natural and artifical surveillance.
	E	2	2	
	G	2	2	
	M	1	0	
	S	1	0	
8.Social crime prevention	N	1	0	• A normative focus within the NPPF and LDPs on providing a choice of homes and jobs in proximity to each other, facilitated through strategic and locally specific policies. • Both national and local policy lacked detail on what types of jobs and homes would be delivered and how. For example, there was a lack of detail on how low-skilled/low wage jobs would be catered for and a general focus on office space provision, and catering to knowledge-based sectors. • Some LDPs positively referenced quotas for affordable housing in their policies, whilst other plans lacked detail on how groups with specific housing needs would be catered for (e.g. vulnerable, elderly)
	E	1	0	
	G	1	0	
	M	1	1	
	S	1	0	

Measurement Tool	
0	Not present or minimal detail
1	Some detail present
2	Detailed consideration provided

Key:

N = Normative E = Ebbsfleet S = Sevenoaks

I = Instrumental G = Gravesham

Na = National M = Maidstone

Table 4: analysis of national and local policy, against 'Pro-Social' and 'Safe' indicators of the GAPS framework.

5.1.2 Gaps in coverage of good mental health principles

Despite implicit coverage of good mental health principles across many areas of the GAPS framework, the review of policies (as shown in Tables 3 and 4) and the discussions across the six interviews held, revealed clear gaps in both the normative and instrumental extent to which good mental health principle were considered in planning practice. Examples are highlighted below.

5.1.2.1 'Green' gaps

In relation to 'Green' places, despite the positive references to 'green infrastructure' and health within the NPPF (MHCLG, 2021) and Sevenoaks LDP (Sevenoaks District Council, 2015), these documents subsequently focused on protecting specific habitat designations or open countryside from urban sprawl (via Green Belt land designation). Providing and safeguarding dedicated areas of green space close to people's homes (Sevenoaks District Council, 2015 and MHCLG, 2021) lacked focus or attention.

5.1.2.2 'Active' gaps

In relation to 'Active' places, the NPPF and several LDPs made positive commitments to promote active travel and reduce reliance on the car. Despite this, subsequent policies within the LDPs (for example, Sevenoaks District Council, 2011 and 2015, and Maidstone Borough Council, 2017) outlined commitments to ensure car travel, and car parking, should remain 'convenient' in highly accessible locations (such as town centres). Furthermore, the travel policies and strategies of Sevenoaks (2011, and 2015) and Maidstone (2017) focused financial investments on local road and highway infrastructure. Furthermore, the NPPF suggested maximum parking standards "should only be set where there is a clear and compelling justification" for restricting vehicular parking MHCLG, 2021, p31). As such, there remains a clear risk that both national and local policy could perpetuate a 'vicious' as opposed to a 'virtuous cycle' of active travel as highlighted by Barton (2017). This provides a clear recommendation for improving policy which fosters active travel (Barton, 2017). This was echoed by planning practitioners in Sevenoaks who highlighted the council as being a 'car-driven

authority' and stated this as a clear are for improvement against the GAPS framework (see Question 11 of Appendix 1).

5.1.2.3 'Pro-social' gaps

As shown in Table 4, multi-faceted engagement to target those who live in, or are affected by development in an area, was given minimal consideration within both national and local policy. For example, the NPPF (MHCLG, 2021) referred to 'proportionate' engagement with communities, whilst all Statements of Community Interest (see Table 2) lacked detail on how harder-to-reach groups or individuals would be targeted. Engagement methods within the Statements relied predominantly on reactive engagement from the community and via established channels of feedback from existing groups who are already engaged in the planning process. This suggests a more selective approach to engagement associated more with traditional 'comprehensive rational planning', rather than advocacy and collaborative planning approaches identified in the literature, to ensure 'equitable access' to places and services within the built environment (Fainstein 2016).

5.1.2.4 'Safe' gaps

In reference to 'Safe' places, across all local policy, a focus on job creation failed to stress the importance of providing both unskilled/low skilled jobs. This raises issues of equitable access in relation to indicators 5 and 8 of the GAPS framework (see Table 4), as raised to be of concern by Fainstein (2016) within the academic literature. A distinct lack of awareness in the need for 'ownership of the public realm' and 'surveillance' as highlighted by Ellard (2015) as important deterrents of crime, also prevailed across the policy review, demonstrating clear areas for improvement in planning policy.

5.1.2.5 Terminology and instrumental delivery of policy

Finally, it is interesting that within the glossary of terms provided in the NPPF (MHCLG, 2021), the word 'deliverable' is defined specifically in relation to housing (see Figure 8).

Deliverable: To be considered deliverable, sites for housing should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years.

Figure 8: definition of 'Deliverable' in the NPPF (source: MHCLG, 2021, p66).

This focus on housing delivery, as opposed to the instrumental delivery of Green, Active, Pro-Social and Safe places, may provide some explanation for the lack of instrumental actions and methods, and subsequently lower scores ('0' and '1') assigned to the majority of national and local policies when assessing policy against the GAPS framework (see Tables 3 and 4).

Furthermore, terminology across planning policy lacked clear definition or consistency. For example, references to 'green infrastructure' and 'green spaces' did not always relate to natural surfaces or natural spaces (e.g. included hard surfaced areas or a focus on 'open' as opposed to 'green' space) as per the definitions of green exposure within planning literature (WHO, 2016).

This suggests that good mental health principles are considered in planning practice to some extent, but there remain clear areas where terminology and coverage of the good mental health principles advocated via the GAPS framework can be embedded more explicitly in planning practice. This further highlights the potential value of the GAPS framework in planning practice, as advocated by the RTPI (2021) and UD/MH (2021a, 2021b), to ensure places and spaces are designed to foster positive mental health outcomes.

5.2 Perceptions of the current role of planning in delivering mentally healthy places

In exploring how planning practitioners felt their role currently influenced the delivery of mentally healthy built environments, coding of interview responses and analysis of Likert scores (see Tables 5 and 6) revealed some common themes in the perceptions of the Kent public sector planners interviewed.

The first prevailing theme was that planners' felt their role involved making places better, with one Interviewee stating “as planners we are doing work for the public good” (Ebbsfleet, Strategic Planner). This echoes the prevailing notion in planning theory that the profession is perceived to serve a ‘public interest or ‘common good’ (Slade et al., 2019, and RTPI, 2020a), despite explicit references to mental health being absent within national and local policy as highlighted in section 5.1.1.

Despite all interviewees unanimously confirming that had received no training on mental health links to planning within their careers (see question 5 of Appendix 1) - and the majority of interviewees stating they did not agree that they understood how good mental health outcomes could be achieved in their role (see Table 5, statement 8b) - the majority of those interviewed stated they would ‘agree’ or ‘strongly agree’ that their role had a positive impact on the mental health of individuals and communities (see Table 5).

Furthermore, in detailing how their role influenced mental health (in response to question 7 of the interviews – see Appendix 1) many interviewees associated their role with elements of the GAPS framework, before the framework was explained and discussed in the second section of the interview. This further illustrates how the planning profession is currently assisting in considering mental healthy places, as discussed in section 4.1. Indeed, one interviewee commented on what they perceived as integral elements of the profession to mental health. Stating:

> *““…looking at a hierarchy of needs, planning delivers all of the stuff that we need to actually live our lives so thinking about housing and employment. Those uses are pretty fundamental to how we live in a capitalist society…And I suppose, those sort of fundamental land uses are essential to mental health and how we feel, because if we can't work or housing is not meeting our needs, then that's going to have a knock on impact on our mental health on a very basic level”*
>
> – Sevenoaks Strategic Planner.

Furthermore, interviewees highlighted aspects of their role which they felt delivered mentally healthy environments, outside of the good practice highlighted in the GAPS framework. For example, several interviewees described their role as delivering

essential health infrastructure. Interviewees also highlighted the role out of high-speed internet connections, as an important contribution to people's wellbeing and quality of life. This suggests that although the GAPS framework is a useful aid in helping to frame discussions around how mentally healthy places can be operationalized in practice, there remain other good practice principles and mechanism which may merit further investigation and consideration.

Statements	Rating of statements, where '1' is strongly agree, '3' is neither agree nor disagree, '5' is strongly disagree.				
	(1)	(2)	(3)	(4)	(5)
8a. My role as a planner has had a positive impact on the mental health of individuals and communities	II	II	II		
8b. I understand how good mental health outcomes can be achieved in my role as a planner		II	I	I	II
8c. I can personally influence good mental health outcomes in my day to day role	I	IIII		I	
8d. It is difficult to consider mental health outcomes in my role as a planner.		III		III	

Table 5: Likert scores in answer to statements concerning planning professionals current influence on mental health.

5.3 Key barriers to delivering mentally healthy places

Two further themes emerged in discussions with planning practitioners around their role in delivering mentally healthy places. These were that planners' perceptions of their influence: a) changed with the seniority of their role, and the geographical scale of their day-to-day work; and b) was limited and reliant on private sector planners and developers to physically implement such places and environments.

For example, although no statistically significant conclusions can be drawn due to the small number of interviews held, it is interesting that of the six planners interviewed,

the two planners with the least experience in planning (under 3 years) – referred to here for the purposes of analysis as *Graduate Planners* - felt the least able to understand (question 8b), consider (question 8d) and influence (question 8c) good mental health outcomes in their roles, as shown across the quotes within Figure 9.

These newer entrants to the planning profession described their day-to-day roles as encompassing small-scale planning applications in which they 'recommended' how a planning application should be decided, with their senior colleagues working on larger, more strategic or 'major' planning schemes and being the 'decision-makers'. As such, both Graduate Planners interviewed, felt their influence on mental health (both positive and negative impacts) was more limited than their colleagues.

Conversely, the remaining four interviewees all described their roles to be more strategic in nature (as shown in Figure 9), either through working on large-scale planning applications, or in having a managerial role or overview of projects and policy development. These interviewees - referred to as *Strategic Planners* for the purposes of analysis - tended to 'agree' or strongly 'agree' that they could consider and influence mental health outcomes in their day-to-day roles (see Table 5).

Several interviewees also stated different roles within planning teams, posed different barriers to considering mental health in day-to-day work. For example, both interviewees in Ebbsfleet and Sevenoaks commented that planning officers with less senior or strategic roles had to juggle a high volume of planning applications and as a consequence had more time restrictions and less 'thinking time' to consider delivering mental health outcomes in their work.

"I haven't really considered it before as such"
– Gravesham, Graduate Planner, statement 8d

"With it being small scale, I don't think it's going to have that much of an impact, obviously it will have some impact on neighbours, but thinking wider in terms of communities and what I do…probably not."
- Sevenoaks, Graduate Planner, statement 8a

"I've probably got slightly more of an overview of planning than maybe if you take day-to-day officers who have an application in front of them…they have lots of applications in front of them that they are concentrating on... I'm thinking more strategic."
– Sevenoaks Strategic Planner, statement 8d

"Because I'm the decision-maker and all the decisions we make affect people"
– Ebbsfleet, Strategic Planner, statement 8c

"In my role I'm able to put thoughts and ideas foreword to suggest things and to make changes to schemes"
- Maidstone Strategic Planner, statement 8c

"Again, it's small scale in terms of what comes to me, extensions things like that. I think major applications would be more likely to have an impact on mental health, and there would be more opportunities to integrate things that would improve people's mental health, whereas an extension…you are pretty limited on what you could add to that, to help improve mental health."
– Sevenoaks, Graduate Planner, statement 8c

Figure 9: explanations for rating statements 8a-d by public sector planning practitioners in Kent.

Other barriers cited (alongside those related to planners' roles and remit, discussed above) included a lack of training on the links between mental health and the role of planning. Geographical constraints were also cited, such as the rural nature of certain development areas which made promotion of active travel less achievable. Pressures for affordable housing delivery were also highlighted to impact on consideration of some areas of the GAPS framework, for example, where housing would ultimately be prioritised over the creation of green space (in response to question 10 of the interviews – see Appendix 1).

However amongst the barriers discussed, the response of one Strategic Planner highlighted a prevailing barrier which interviewees highlighted as limiting their influence on the delivery of mentally healthy built environments:

> *"I think it's probably a case of yes we should be involved but it's very much an aspect that we can't actually deliver unless the actual developers think about it before they even come to us. So this includes the developers, the applicants, the agents. It should be very much we are all in it together to deliver the best we can, because if they don't think about it, we are always going to be reacting to their poor solutions and we are trying to retrofit stuff rather than them actually starting off with how can we achieve this."*
>
> – Sevenoaks Strategic Planner

All six planning practitioners interviewed, worked for public sector Local Planning Authorities (LPAs). These consisted of district and borough councils as well as one Development Corporation set up by Central Government). All six interviewees made similar statements in their interviews to highlight that both the design of schemes, and the subsequent physical implementation of mentally healthy environments, was led by the private sector. The reactive nature of the public sector (as highlighted in the quote above) was further echoed by newer entrants to the planning profession, with one Graduate Planner highlighting the reactive nature of determining application in the UK planning system, stating:

> *"it'd be quite interesting to speak someone from the private sector because they have more say on what's actually being produced, and we just say yes or no. You can tweak something a few times but*

> *especially in the current climate, if something's largely decent you will probably permit it because it won't stand up at appeal."*

This indicates the sense of 'planning inertia' highlighted by Hebbert (1999) whereby planners accept the status quo rather than push for best practice. This suggests that highlighting best practice, or ways in which mentally healthy places are being delivered, could have value in overcoming such barriers, as discussed further in section 5.4.

5.4 Perceptions of the future role of planning: overcoming barriers to delivery

Several statements (see questions 15a-e, Appendix 1) and open questions (questions 16 and 17, see Appendix 1) were used to explore planners' perceptions on the role that the profession could play in delivering mentally healthy places into the future. Interview responses revealed several key findings:

- The health and planning sectors remain in silos, but some good practice in partnership working is emerging.
- As illustrated in Figure 10, a specific mental health policy would not be useful, nor is it needed by Kent public sector planners to deliver mentally healthy places, however:
- 'Badging' and 'championing' what good mental health principles are already being delivered, and what principles can be achieved by the planning profession, can ensure mental health remains an important consideration in planning practice - and overcome issues with delivery in the private sector.

When asked whether public sector planners should take the leading role in delivering mentally healthy places, over other sectors and professions (see statement 15b, Table 6), the planners' interviewed explained that they felt the public sector could lead by example where they owned their own land, or through planning policies to demonstrate what mentally healthy places could look like. However, the planners interviewed explicitly felt the private sector needed to be involved due to their current role in designing schemes, submitting planning applications and implementing the developments approved by the public sector planners.

Interestingly, when asked to expand on who the partners should be in delivering mentally healthy places, all interviewees named partners within the existing planning profession, including land developers, applicants of planning applications, and the planning agents who represent them.

Statement	Rating of statements, where '1' is strongly agree, '3' is neither agree nor disagree, '5' is strongly disagree				
	(1)	(2)	(3)	(4)	(5)
15a. Delivering mentally healthy places is a core role of a planner	I	I	IIII		
15b. public sector planners should take the leading role in delivering mentally healthy places, over other sectors and professions		III	I	II	
15c. planners require more training to ensure positive mental health outcomes are delivered	IIIII	I			
15d. planners cannot deliver mentally healthy places without a specific planning policy on mental health		II		III	I
e. planners should deliver mentally healthy outcomes, even if there is no specific mental health policy within their Local Plans	I	IIIII			

Table 6: interviewees responses to statements about the role of the planning profession in delivering mentally healthy places, based on a 'Likert' rating system.

Identifying partnerships within the fields of health and social care, medicine and neurology - who provide much of the theories on mental health and the built environment (e.g. Halpern, 1995, and Ellard, 2015) - were noticeably absent from all responses to questions about working in partnership.

Only when specifically prompted by the interviewer on how they saw the role of working with health practitioners and other sectors, did interviewees cite specific examples of where they had worked with health practitioners (e.g. to consult on

delivery of health infrastructure such as GP surgeries) or considered working with them into the future.

This illustrated, as with the prevailing themes highlighted in the literature review, that the health and planning disciplines remain in 'silos' and are not achieving the 'intersectoralism' and 'policy integration' advocated during the rise of 'the spatial planning approach' in 2004 (Nadin, 2007).

Despite this, when prompted on working with other sectors and professions, both strategic planners in Sevenoaks and Ebbsfleet highlighted positive examples of sector and policy integration, as advocated in planning theory (Nadin, 2007).

Firstly, the Strategic Planner in Sevenoaks described a forthcoming trial called 'the Policy Exchange'. This trial, to begin in summer 2021, was described by the Strategic Planner as follows:

> *"…so it will be a series of three discussions with academics who are related to the centre of urban wellbeing at the University of Birmingham… it is looking at the sort of more practical nuts and bolts around, how can we make the policies in the plan, in broad terms, reflect the health and wellbeing agenda."*

Such an exchange could address issues of silo mentality within the health and planning professions, as highlighted in planning literature (Nadin, 2007). Furthermore, this trial could provide a practical example of policy integration (Nadin, 2007) to the other planners' interviewed, who suggested engaging and consulting with health practitioners (such as clinical care commissioners around delivery of health infrastructure) was 'tricky'.

In discussing another positive example of where planners' are working with health practitioners, as well as private developers, to deliver mental health benefits, the Ebbsfleet Strategic Planner highlighted the importance of 'badging', 'labelling' or 'championing' places as mentally healthy, to encourage engagement from other sectors. For example, Ebbsfleet has been designated as the first government-endorsed 'Garden City' in the UK since the initial Garden Cities were created in the

early 20th Century (Cullingworth et al., 2015). Ebbsfleet is also one of 10 national pilots areas designated as a 'Healthy New Town' through the UK's National Health Service (NHS). The Ebbsfleet Strategic Manager explained the importance of recognisable names or badges to raise the profile of 'health actions' within the planning process, stating:

> *"There's a lot of focus in terms of what we're doing. And that in itself, I think, gives us a good negotiation negotiating position [with developers and national Government]".*

These examples may serve as good practice for other LPAs, in considering working with other sectors and professions, to deliver mentally healthy built environments, into the future.

The responses to statements on the future role of planning and mental health (see Table 6), alongside the coding of interview responses, also revealed several references to the need to 'badge' what planners' are already doing around the mental health agenda, rather than create an explicit policy on mental health, as indicated in Figure 10.

"I would actually say that it would be incredibly difficult to formulate a policy, one policy that actually covers mental health because it's got such a wide ranging list of issues to think about…I don't think that you can expand the remit of planning to cater for it [mental health]. So I think there's something about the fact that it can be done within the existing parameters." – Ebbsfleet Strategic Planner

"I think it has to trickle down from the top. Because the NPPF kind of governs where the local plan policies can go. So, I think it has to come down from the top, and it will influence us to the bottom…I don't think needs to be explicit…But yeah, something to be in there, as more of a consideration – Gravesham Graduate Planner

"I think that the challenge for us moving forward is to make sure that we continue to remember that [mental health] is one of our badges" – Ebbsfleet Strategic Planner.

Figure 10: perceptions by Kent planners on whether an explicit planning policy is needed on mental health.

The majority of interviewees further stated they would 'disagree' or 'strongly disagree' that a specific policy on mental health is needed (see Table 6 responses to statement 15d). They further stated they could not envisage what an explicit mental health policy would look like. Instead, interviewees suggested examples of good mental health principles (such as GAPS) (UD/MH, 2021), as well as explicit references to the term 'mental health', could be included within existing national and local polices, in order to keep mental health considerations at the 'forefront' of both public sector and private sector practice. The Gravesham Graduate Planner suggested the following:

> *"I think there's only so much you can push back in terms of design, with developers and architects. You can to a degree but yeah I don't know whether the mental health side of that would be at the forefront, I think it's just kind of fitting it in appropriately."*

Whilst the Maidstone Strategic Planner suggested:

> *"I suppose if we were to have it more at the forefront of our minds, in terms of what is good for mental health when we're allowing [development schemes] I think that'd be better, we could probably achieve a better outcome."*

This suggests that although an explicit policy is not needed, the Kent planning practitioners interviewed, felt that raising the profile within policy - whether this be via policy guidance, terminology, or 'badges' to champion what is already being done - could provide a future solution to how planners can better consider mental health. The planners interviewed also unanimously agreed the profession had a role in delivering mentally healthy places, within their qualitative responses to questions 15a-e, 16 and 17 of the interview process (see Appendix 1).

Finally, in relation to the GAPS framework, many interviewees suggested the framework itself was a useful mechanism or tool to mobilise how mental health can be considered in planning practice, as advocated by the UD/MH (2021a, 2021b), with the Maidstone Strategic Planner suggesting:

> *"to tie all those elements in that you previously discussed under the GAPS profile. I think that'd be helpful and it would put mental health*

> *at the forefront of, particularly DM [Development Management] officers, minds when they're determining applications."*

This suggests, further research exploring mental health and the built environment, could have value in framing the research within the context of the GAPS framework.

A summary of the discussions within this chapter, along with concluding remarks on the research, and recommendations for future planning theory and practice, is outlined in chapter 6.

6. Concluding reflections and recommendations from this research

6.1 Reflections on the key findings from this research

In reflecting upon the intended aims and questions posed in this research (see chapters 1, 4 and 5), a number of conclusions can be drawn about how theories surrounding mental health and the built environment are considered, and delivered, in planning practice today.

Firstly, the research highlights that despite planning policy lacking explicit reference to mental health (RTPI, 2020b), existing planning policies are implicitly shaping built environments that are conducive to mental health, when assessed against the 'GAPS' indicators highlighted (UD/MH, 2021a).

In utilising planning policy, planning practitioners have shown to value the role the profession can play in delivering mentally healthy built environments, both now and into the future. But barriers exist.

Amongst these barriers, the practitioners interviewed felt both freedoms and constraints in how their role shaped mentally healthy places. On the one hand, the public sector practitioners interviewed felt unconstrained by a lack of explicit policy on mental health. The reasoning for this stance was based on the public sectors role as the decision body within the planning process (MHCLG, 2021); and the role of most interviewees as the 'decision-makers' within their respective planning authorities (see chapter 5). This role enabled practitioners to influence both the creation of policy, and the interpretation of policy day-to-day, to shape mentally healthy places.

Despite this, public sector decision-makers feel constrained in the design and delivery stages of the planning process, citing the reactive nature of the public sector in deciding planning schemes; where the decisions on the design and delivery of these schemes are decided upon by private land developers and architects (see section 5.3 of chapter 5).

The research further highlighted areas of good practice to overcome this contradiction. Chiefly, the importance of 'badging' and championing what the profession is already doing to deliver mentally healthy environments was highlighted, so that mental health remains at the forefront of competing agendas and policies. Clarity and consistency amongst the terminology used in policies is also needed (e.g. green infrastructure). Distinguishing the mental health benefits more explicitly from the physical benefits, may further assist planning practitioners in delivering mentally healthy built environments.

Reflections on the emergence, convergence and divergence of town planning and health, have illustrated that health and planning disciplines remain divorced from one another within their respective theories and practices (Corburn, 2004, and Freestone and Wheeler, 2015). Consequently, this suggests the aspirations for policy integration envisaged by spatial planning practice, have yet to be attained (Nagy, 2007).

Despite this, hopes of reintegration remain, with the policy integration and Healthy New Town pilots (see chapter 5), highlighting potential areas of good practice in re-establishing the links between planning and public health, from which the planning profession originally emerged (Cullingworth et al., 2015).

Finally, the GAPS framework is demonstrated to be a useful tool in planning practice. The framework could help to 'badge', frame, and embed, good mental health principles into planning practice, as envisaged in planning literature (UD/MH, 2021b, and RTPI, 2021); and as desired by public sector planners to overcome barriers in private practice. The GAPS review of planning policy and practitioners' discourse (outlined in chapter 5), has further highlighted a number of areas where planning policy can be strengthened to better shape mentally healthy built environments.

6.2 Recommendations for planning theory and planning practice

The GAPS review (see chapter 5) and limitations in the research design (see chapter 4), highlight a number of recommendations for planning theory and practice. These are separated into two sections below:

6.2.1 Recommendations for improving the delivering of mentally healthy places in planning practice

1. **Consider ways in which terminology can be more explicit and consistent in existing planning policy.** For example, distinguishing between mental and physical health; and obtaining consistency in defining key terms (e.g. green infrastructure).
2. **Utilise frameworks such as the 'GAPS' to identify and address gaps** in delivering mentally healthy places, in planning practice. In particular the GAPS review has highlighted gaps in how vulnerable communities and groups are engaged with, to ensure equitable access to the built environment. The social prevention of crime may also warrant further consideration.
3. **Utilise frameworks such as the 'GAPS' to 'badge' and 'champion' the role of the town planning profession** in shaping mentally healthy environments. Linked to this:
4. **Seek ways to work proactively with private sector planning practitioners and health practitioners.** The Healthy New Towns pilot highlighted in this research may serve as a good practice example.

6.2.2 Recommendations for further research, to contribute to planning theory on mental health and the built environment

1. **Undertake further perception-based research with planning practitioners** outside of Kent, and with private-sector practitioners, to enable commonalities and comparisons of planning practice to be made
2. **Explore and seek further clarity on the terminology** surrounding mental health and the built environment

3. **Seek more integration between planning theory and planning practice.** The ‘Policy Exchange’ pilot, highlighted in this research, may provide inspiration.
4. **Future research may benefit from co-partnership** (co-authorship) by urban planning, psychology and health theorists, to join up existing bodies of research, as illustrated in some literature (Ellard, 2015, Barton, 2017 and RTPI 2021).

In summary, this research offers insights into how planning theories around the built environment and mental health are considered in planning practice today. It is hoped that the reflections and recommendations from this research may add value to the current discourse on the role of the planning profession in delivering mentally healthy built environments (Halpern, 1995, Barton, 2017 and RTPI 2021).

It is further hoped this research may contribute to ongoing conversations and debates around what, and how, the planning profession serves ‘the public interest’ and attains a ‘common good’ (Sager, 2009, Slade et al., 2019 and RTPI 2020a).

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Appendix 1: Semi-structured interview questions

Section 1: About you and your role in planning

1. What is the structure of your team?

   <*Prompt: e.g., do you have graduate planners, senior planners, managers? Is your work separated by project scale or the topic of work? Or geographical area*?>

2. What is your job description/job title within the team?

3. What does your day-to-day role typically involve?

4. How many years have you worked within the planning profession?

5. The Royal Town and Country Planning Institute (RTPI) has launched training this year highlighting the ways in which planners can deliver positive mental health outcomes in their work. Have you attended any training about the role of mental health and planning in your career so far?

   YES/NO?

6. Finally, what does the term mental health mean to you? How would you define it?

   <*If unsure, read out WHO definition of mental health. This definition is used as the basis for this interview.*>

Section 2: About Your Role and influence in delivering mental health outcomes

7. In what ways would you say your role as a planner influences mental health outcomes, if at all?

   …..why is that?

8. To what extent do you agree with or disagree with the following statements (Where 1 is strongly agree and 5 is strongly disagree):

Statement	Strongly Agree (1)	Agree (2)	Neither Agree or Disagree (3)	Disagree (4)	Strongly Disagree (5)	Why given this score/rating?
8a. My role as a planner has had a positive impact on the mental health of individuals and communities						If 4 or 5, do you feel your role has had a negative impact?
8b. I understand how good mental health outcomes can be achieved in my role as a planner						
8c. I can personally influence good mental health outcomes in my day to day role						
8d. It is difficult to consider mental health outcomes in my role as a planner.						

Please explain why you have provided this rating for each statement.

Section 3: About your Local Planning Authority /Planning Department in delivering mental health outcomes

*Planning Literature suggests that planners can influence positive mental health outcomes in four areas called the GAPS framework. This involves creating **G**reen places, **A**ctive places, **P**ro-Social places and **S**afe places. The next series of questions will consider the creation of these places within your Local Planning Authority.*

9. Are there any local policies or projects you have worked on across these four areas (Green, Active, Pro-Social and Safe) that you see your Local Authority as providing Good Practice in?

   If yes, what might these be? (including contacts to speak to)

   If no, why might this be?

   ….if not already covered, prompt for policies: are there any specific policies within your local plan which cover these areas>

10. Do you think there are any barriers or issues which prevent your local authority from achieving Green, Active, Social or Safe places?

    If yes, what might these be?

    If no, why do you feel there are no barriers?

11. Are there any areas of the GAPS framework you feel your Local Authority could improve delivering in?

    How do you think this could be achieved?

12. Are there any policy areas you feel your Local Authority prioritises over the creation of Green, Active, Pro-social and Safe places? (…prompts could include housing delivering, economic growth etc.).

If yes, what are these areas and why are they prioritised?

13. Outside of the GAPS framework, are there any other projects, policies or areas where you feel your Local Planning Authority has considered mental health outcomes?

14. As well as designing places and spaces, research suggests the way we design and construct the built environment can impact people's mental health. For example the colour and texture of surfaces, the sharpness of angles, and even how boring a street scene is to look at. Research also suggests colder poorly insulated homes can result in poor mental health. Does your Local Planning Authority consider any of these aspects in its building and design?

Section 4: The role of Town and Country Planning (as a sector) in delivering mental health outcomes

15. To what extent do you agree with or disagree with the following statements (Where 1 is strongly agree and 5 is strongly disagree):

Statement	Strongly Agree (1)	Agree (2)	Neither Agree or Disagree (3)	Disagree (4)	Strongly Disagree (5)	Why given this score/rating?
15a. Delivering mentally healthy places is a core role of a planner						
15b. public sector planners should take the leading role in delivering mentally healthy places, over other sectors and professions						
15c. planners require more training to ensure positive mental						

health outcomes are delivered						
15d. planners cannot deliver mentally healthy places without a specific planning policy on mental health						What type of policy needed? Or, why is policy not needed?
15e. planners should deliver mentally healthy outcomes, even if there is no specific mental health policy within their Local Plans						Do you feel restricted by policy in your decision-making?

Please explain why you have provided this rating for each statement.

16. What role do you think planners could have in delivering mentally healthy environments into the future?

17. What would be needed to achieve this?

< Prompts if needed e.g. funding, planning policy, financial sanctions training, greater partnership working, something else?>

18. Do you feel there are any other barriers or issues (not already discussed) which prevent you from considering mental health outcomes in your role?

19. Finally, do you have any other comments about the interview and the questions we have discussed?

*****Thank you for your time. *****

*****Can you recommend anyone else who I could interview? *****

Appendix 2: GAPS analysis of national and local policy

Measurement Tool	
0	Not present or minimal detail
1	Some detail present
2	Detailed consideration provided

Key:

N = Normative

I = Instrumental

NATIONAL Indicator	N	I	Comments
1. Green infrastructure	1	0	• Some normative links between health and green infrastructure made. • A lack of description on how this can be realised instrumentally, or normatively, however a brief reference to development contributions for green infrastructure suggests potential instrumental delivery of policy. • Green Infrastructure and natural settings such as trees are linked more specifically with combatting climate change, rather than raising awareness of the positive benefits to mental health. • Reference to Garden City principles shows positive promotion of greener environments.
2. Green Space	0	0	• Protecting natural environments is specifically mentioned under the third core objective (environmental objective) of the NPPF, however: • Lack of both normative and instrumental presence of the need to provide dedicated areas of green space. Focus is on open space without any indication that such space needs to be green or natural. Focus is also on protecting open countryside (to limit urban sprawl with Green Belt land) and designated habitats rather than recognition of providing and protecting dedicated areas of green space *within* built settlements and making these accessible and close to residents.
3. Active Travel	2	1	• Strong normative coverage of providing pedestrian-oriented routes which are safe and attractive across several areas of the NPPF. • Some instrumental detail provided to ensure implementation of routes (e.g. development contributions to fund infrastructure and ensuring mixed use developments to reduce journey times and encourage active travel through proximity of land uses.
4. Active Destinations	2	1	• Strong coverage of the need to create and protect destinations where people can be active, including recommendations to retain open space, community facilities, and other places for physical activity. • Some instrumental detail provided to ensure implementation (developer contributions).
5. Equitable public realm and dedicated social places	2	1	• Strong normative coverage of the need to provide equitable access for social cohesion and a focus on creating communities, including in the second core objection of the NPPF (social objective). Further detail provided in a dedicated chapter on promoting healthy and safe communities (Chapter 8). • Instrumental safeguarding and promotion of civic, community and social infrastructure and facilities (e.g. through development contributions for education facilities).

6. Multi-faceted engagement	0	0	• Reference to the need for engagement with communities, as well as other consultees; and for plans to be accessible to assist public involvement. However, this engagement is proposed to be 'proportionate', indicating that LPAs can be selective in their engagement process. There is no specific encouragement of equitable engagement (for example with vulnerable groups. • Endorsement of neighbourhood planning, however restrictions on how they are developed and the level of priority given to these plans, compared to the LDP.
7. High quality public realm design	2	1	• Strong normative coverage of the need for legible, safe, places which are of a high aesthetic quality (visually attractive). • Some details on implementing safe areas however lack of focus on the need for 'managed' and 'owned' public spaces as well as surveillance.
8.Social crime prevention	1	0	• Focus on providing a variety of homes to meet the different socio-economic needs of people; and strong coverage of how affordable housing should be instrumentally delivered and monitored. • Some reference to education facilities, however a lack of focus on equitable access to jobs (e.g. providing unskilled/low skilled jobs as well as knowledge-based skills sector).

EBBSFLEET Indicator	N	I	Comments
1. Green infrastructure	**2**	**2**	• Positive advocation of Garden City principles. A focus on the links between green infrastructure and health and wellbeing forms a central theme of the Ebbsfleet Implementation Framework 2017. • Good outline of how green infrastructure will be embedded through area based and borough wide policies, but a lack of details on exposure to green settings/infrastructure, within Dartford policy.
2. Green Space	**2**	**2**	• Positive advocation of Garden City principles. A focus on the links to local green space for health and wellbeing benefits forms a central theme of the Ebbsfleet Implementation Framework 2017. • Clear policies for delivering and safeguarding green space instrumentally, in both Dartford and Gravesham.
3. Active Travel	**2**	**2**	• A distinct focus on promoting walking and cycling, and pedestrian oriented environments, through mixed use places. This is also a central theme of Ebbsfleet Implementation Framework 2017. • Good coverage of delivering cycling and walking, and 'local' neighbourhoods to reduce car use, across both Dartford and Gravesham policies. • There remains a focus on supporting car use, which could be detrimental to active travel opportunities.
4. Active Destinations	**2**	**2**	• Distinct focus on promoting active places within policies. • Funding obligations to ensure delivery.
5. Equitable public realm and dedicated social places	**2**	**1**	• Creation of a civic community, with provision of accessible social infrastructure, is a core delivery theme within the Ebbsfleet Implementation Framework 2017. Funding outlined in Dartford and Gravesham local policies, to support instrumental delivery. • Lack of detail on how access will be ensured for different groups (e.g. those with low mobility, those with specific mental health conditions) .

6. Multi-faceted engagement	**0**	**0**	• The Ebbsfleet Implementation Framework 2017 does not include details of how hard-to-reach/vulnerable groups have been engaged in the process. • Both Gravesham and Dartford's Statements of Community Involvement lack normative and instrumental detail on how hard-to-reach or vulnerable groups will be engaged with.
7. High quality public realm design and ownership	**2**	**2**	• Dedication to creating legible routes and attractive and safe places within two delivery themes of the Ebbsfleet Implementation Framework 2017. • Both Dartford and Gravesham have policies to secure safe environments e.g. 'Secured by Design', 'Crime Prevention through Environmental Design', and 'Safe' principles.
8.Social crime prevention	**1**	**0**	• There are commitments to provide a range of homes and jobs within the delivery themes of the Ebbsfleet Implementation Framework 2017, however subsequent policies within Dartford and Gravesham lack detail on how a variety of jobs will be secured to cater to different needs (e.g. low wage/skill, affordable homes).

GRAVESHAM Indicator	N	I	Comments
1. Green infrastructure	**2**	**2**	• The spatial vision directly focuses on provision of green infrastructure, to improve health and accessibility; with dedicated policy on green infrastructure for instrumental delivery. • Green infrastructure policy contains specific examples of green infrastructure delivery, recognizing the importance of, for example, verges and planting, embankments, green roofs and walls. • A lack of consideration for trees as provision of green infrastructure.
2. Green Space	**1**	**1**	• Dedicated policy on green space which seeks to provide, protect and enhance green space. • A lack of detail to outline the specific green spaces being secured, or policy wording, to ensure green space is delivered in new development. • A lack of attention on the private realm.
3. Active Travel	**2**	**2**	• The spatial vision, and two strategic objectives, focus on the importance of creating cycling, walking, recreation and sport opportunities; as well as increasing accessibility and reducing the need to travel by car and commute out of the district - with 10 policies for instrumental delivery. • Transport policy contains specific examples of how walking and cycling will be encouraged, whilst design policies highlight the importance of mixed uses and connected places to people.
4. Active Destinations	**2**	**1**	• The spatial vision, strategic objectives, and local policy, advocate instrumental delivery of active destinations. • Dedicated policy on open space and sport, seeking to provide, protect and deliver active places. • A lack of detail to outline the specific open and sports space being secured or delivered.
5. Equitable public realm and dedicated social places	**2**	**1**	• Two strategic objectives to improve accessibility, and to retain and improve services and facilities. Three policies for instrumental delivery. • Instrumental delivery is unevenly distributed across the district, with cultural facilities focused on Gravesend Town Centre rather than even distribution across the district. • A positive recognition between community well-being and social infrastructure within policy, to ensure retention and creation of social infrastructure. However, there is limited detail on how this can be delivered and monitored instrumentally.

			• Design policy specifies the need to ensure accessible new development to all members of the community, however there is a lack of specific examples, aside from reference to street furniture.
6. Multi-faceted engagement	**0**	**0**	• The opening foreword states local residents and business have been central to the preparation of the Local Plan. • The Statement of Community Involvement contains no specific details (when and who will be targeted) on how hard-to-reach or vulnerable groups will be engaged with.
7. High quality public realm design and ownership	**2**	**2**	• There is a strategic objective focusing on aesthetic qualities and the design of development, including to minimise risk of crime; with five policies to aid instrumental delivery. • Design policy cites specific ways of creating safe places, and a sense of place for ownership, including surveillance and lighting. Policy requires applicants to use Secured by Design" and "Crime Prevention through Environmental Design" principles.
8.Social crime prevention	**1**	**0**	• A Strategic objective includes providing local jobs, with several policies for instrumental delivery. However employment policies focus on office and industry and recognise many employment uses will not be immediately brought forward in the plan. • There is recognition of jobs and skills shortages, and a dedicated policy on employment and skills. However, the detail of the policy focuses on office and industry uses, and contains minimal details on how skills development will be realised either normatively or instrumentally. • Dedicated policies for a range of housing (including affordable), but lacks specific details on how different individuals/groups are catered too and how this will be delivered.

MAIDSTONE Indicator	N	I	Comments
1. Green infrastructure	**2**	**2**	• Targeted policy on green infrastructure, which directly highlights importance to health. • High profile links between provision of green infrastructure are made, within the over-arching spatial objectives for the plan. • Clear instrumental safeguarding and delivery of green infrastructure, via policy and funding obligations.
2. Green Space	**2**	**2**	• Targeted policy to provide and safeguard publically accessible green space (through open space policy), which specifically outlines a range of natural/semi-natural open space provision and sizes (in hectares). • The opening foreword shows a strategic focus on providing green space. • Clear instrumental safeguarding and delivery of green open spaces via policy and funding obligations. • A risk of losing private green space (residential gardens) through housing pressure under one local policy.
3. Active Travel	**1**	**0**	• A positive focus on spatial and employment policies, to enable local, mixed use areas, and local employment to reduce car dependency. • Travel policies and separate travel strategy, focuses on improving travel infrastructures for cars, and public transport, with less focus on active travel. • Normative references made to a separate walking and cycling strategy, however instrumental delivery is unclear and not well integrated into the LDP policies (nor detailed).

4. Active Destinations	**2**	**2**	• Dedicated infrastructure and open space and recreation policies, which describe the provision and safeguarding of active places. • Clear instrumental safeguarding and delivery of active spaces and infrastructure, via policy and funding obligations.
5. Equitable public realm and dedicated social places	**2**	**1**	• Improving accessibility included throughout the LDP, including examples of street furniture and neighbourhood permeability. However, a lack of examples to target accessibility to specific groups. • Dedicated policy on providing community infrastructure and funding to support delivery of social infrastructure. • Unclear how equitable access is being delivered instrumentally.
6. Multi-faceted engagement	**1**	**0**	• The Statement of Community Involvement outlines clear methods of engagement and normatively refers to targeting of hard-to-reach groups, but doesn't encompass several important groups including those with physical and mental disability. • No instrumental detail on how hard-to-reach or vulnerable groups and individuals are being targeted.
7. High quality public realm design and ownership	**1**	**0**	• Dedicated design policy and supplementary planning documents to ensure the high aesthetic quality of the public realm. • Reference to ensuring safe and secure environment, however minimal detail on how this could be realised and no instrumental indications of delivery.
8.Social crime prevention	**1**	**1**	• A choice of employment is facilitated through strategic and local employment policies. References to the low wage economy are made within descriptive text, but employment policies do not focus on retaining low skilled/low wage jobs. • There are policies seeking to provide a range of homes (affordability and size of house), however delivery of housing to meet a variety of needs is less clear. • Some monitoring indicators for housing and employment are included to monitor instrumental delivery.

SEVENOAKS Indicator	N	I	Comments
1. Green infrastructure	**2**	**2**	• A dedicated strategic policy on green infrastructure/open space is outlined. • Instrumental delivery demonstrated by designating specific areas of open/green space and preventing development on these, as well as development contributions being sought for green infrastructure, • Other sporadic natural settings retained as part of Conservation Area Appraisal SPDs and the Residential Character Area Assessment SPD, to prevent removal of vegetation. • A lack of actively trying to introduce/increase exposure to green settings, with a focus on safeguarding existing infrastructure. • Some ambiguity in defining green infrastructure and green corridors, i.e. not all related to natural settings.
2. Green Space	**2**	**1**	• Dedicated strategic policy on green infrastructure focuses on providing green space as well as open space. • Instrumentally, green space lacks a definition within policy and therefore its implementation is ambiguous. Some financial obligations referenced to aid delivery of green space.
3. Active Travel	**1**	**0**	• Some normative commitment to enhance walking and cycling infrastructure, but unclear how being delivered instrumentally. • The Travel strategy has a small section on cycling and walking and recognises active travel is lowest compared to all other Kent districts, however the strategy has a large focus on car and public transport.

			• Strategic policy focuses on promoting active travel within developments rather than connecting up routes across the district to facilitate active travel. Policy remains car-dependent. • Focus on retaining local town/neighbourhood/rural centres in local policies to foster proximity of land uses.
4. Active Destinations	**2**	**2**	• Dedicated strategic and local policy for open space, sport and recreation provision, which highlights the links to health and wellbeing. • Instrumentally some funding/planning obligations to support the provision/safeguarding of open space, as well as safeguarding recreation and sports sites within local policy.
5. Equitable public realm and dedicated social places	**1**	**1**	• Strategic policies focus on safeguarding social infrastructure, as well as ensuring social infrastructure is funded. • Local strategies focus on making new development easy to access for those with disabilities, but there is no focus on the public realm and it is unclear how equitable access is to be instrumentally delivered.
6. Multi-faceted engagement	**1**	**0**	• The Statement of Community involvement positively outlines how communities can become involved in the planning process and input to policy, however communication methods are largely based on reactive contact from the community. • Targeted engagement focuses on existing groups who are already interested in the planning process, rather than efforts to engage vulnerable or hard-to-reach groups.
7. High quality public realm design and ownership	**1**	**0**	• Strategic and local policies focus on maintaining a high aesthetic quality to the built environment. • Positive recognition of limiting noisy and polluting environments in amenity policies, e.g. noise pollution impacts on health and quality of life. • No focus on creating safe places that are clearly owned and managed, well lit, or monitored (surveillance).
8.Social crime prevention	**1**	**0**	• Strategic and local policies focus on providing affordable housing on-site, with specific criteria to outline levels of affordable housing; and to provide housing to cater to different needs (e.g. elderly, special needs). However, policy lacks instrumental indicators for delivery e.g. outlining partners to deliver housing sites and no time-bound restrictions on when housing is delivered. • Strategic and local policies to create and safeguard employment land and business uses. However a lack of focus or assurances for creating and protecting low-paid/unskilled labour or jobs. • Local policy to protect and enhance education facilities.