Solihull Metropolitan Borough Council

Reviewing the Plan for **Solihull's Future**

Solihull Local Plan Review

Health & Wellbeing Topic Paper

October 2020

Issues and Options → Draft Plan → **Submission Plan** → Examination of Plan → Adoption of Plan

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Contents

1. Introduction

What is this topic paper about?

1.0 This Health and Well Being Topic Paper is one of a series that has been prepared as part of the process of evidence gathering to support Solihull's emerging Local Plan. The purpose of this topic paper is to provide background information on the subject of health and wellbeing in relation to the development of borough.

1.1 This topic paper looks at the issues which influence the health and wellbeing of the residents of Solihull and looks at the key drivers for change that will improve the health and wellbeing of Solihull.

1.2 The topic paper also discusses current policies and guidance regarding health and planning. It also has a chapter setting out how representations made during consultation on the previous Draft Local Plan have been used to shape policy in the submission version of the Local Plan.

1.3 There are a multitude of factors that can impact on health and wellbeing but this Topic Paper focuses on those areas where planning policies can have an influence. Solihull faces a number of health challenges and inequalities in which planning and place making has an important role to play.

1.4 The level of some of these health challenges is significant and it is of the utmost importance that the Local Plan includes meaningful policies that can help to influence health outcomes. In addition to this the health and wellbeing of the Solihull's residents should be a consideration in all policy making and in the determination of planning applications.

What do we know about health in Solihull?

1.5 Using the latest JSNA for Solihull we are able to attain an overall view of those health challenges in the borough that planning can assist:

1.6 **Inequalities.** The difference in deprivation between areas is a major determinant of health inequality. People living in the most deprived neighbourhoods are more exposed to environmental conditions which negatively affect health. Access to green space, pollution effects, housing quality, community participation, and social isolation are all measures of social inequality which have an impact on health. These factors underpin both physical and mental health.

1.7 Both males and females born in the most deprived neighbourhoods in Solihull can expect nearly 18 years fewer healthy life expectancy than those born in the least deprived (10% of the population). The inequality in Life Expectancy and Healthy Life Expectancy between the most and least deprived Solihull communities is mirrored by a range of key health, wellbeing, lifestyle and service demand measures.

1.8 Investment in early interventions and investment in the community makes a real difference to the health of the population. The key message is that prevention of health and wellbeing problems demands a holistic and multi-faceted approach, covering interventions in education, employment, transport, housing, green space and leisure and the development of communities, delivered through integrated health and spatial planning and the effective use of public protection and regulation.

1.9 **Lifestyles.** At the most simple level people's lifestyle choices impact significantly on the overall health of the borough. However, evidence shows that people's ability to live healthy lives, perhaps through taking regular exercise or making healthy food choices, is often related to the environment in which they live in and the opportunities available to them.

1.10 Taking part in regular physical activity is a major component of the realisation of a good standard of health, yet not enough people are partaking in a level of physical activity at levels sufficient to stay healthy. This could have significant long-term impacts on the population and increase the need for clinical services.

1.11 The design and layout of where we live and work plays an intrinsic role in keeping us healthy and active, and these are factors which are strongly determined by the planning system. Our local surroundings have a large impact on us and we live in an environment that can inadvertently encourage unhealthy behaviours – eating more and exercising less. Factors affecting our choices can include access to active travel and availability of green spaces, as well as access to affordable fresh food and the density of fast food outlets.

1.12 Childhood obesity is one of the biggest health problems this country faces. Nearly a quarter of children in England are obese or overweight by the time they start primary school aged five, and this rises to one third by the time they leave aged 11. Our childhood obesity rates mean that the UK is now ranked among the worst in Western Europe.

1.13 Although better than the national average, 20.5% of Solihull children are overweight or obese at reception, rising to 32% by the time they leave primary school (2018/19 National Child Measurement Programme data); however, the gap between wards in the North of the borough and the rest of Solihull is widening (increase from 31% to 38% carrying excess weight in regeneration wards compared to an increase from 25% to 27% in the rest of Solihull over the last five years).

1.14 Planning can influence the built environment to improve health and reduce obesity and excess weight in local communities. Local planning authorities can have a role by supporting opportunities for communities to access a wide range of healthier food production and consumption choices. Planning policies and supplementary planning documents can, where justified, seek to limit the proliferation of particular uses where evidence demonstrates this is appropriate (and where such uses require planning permission).

1.15 Given the growing obesity levels in Solihull, and in light of guidance from Public Health England on regulating the growth of fast food outlets, it is considered appropriate to control provision in sensitive locations, particularly around secondary schools. Research indicates that the more overweight and earlier in life a person becomes overweight, the greater the impact on that person's health. It is therefore considered important to support the establishment of healthy eating habits from an early age and minimise the negative impacts of high calorie meals with low nutritional value.

1.16 **Ageing population.** Population projections based on the 2018 population estimates indicate the relative ageing of the Solihull population will continue and by 2036 those aged 65 and over will account for nearly one in four of the borough population, with those aged 85+ numbering over 10,200 (4% of total). The growth in the numbers of those aged 85 and over

represents a significant and growing challenge in terms of additional pressures on the health and care system.

1.17 Social infrastructure. Social infrastructure includes a wide range of services and facilities that meet community needs for education, health, social support, recreation, cultural expression, social interaction and community development. The National Planning Policy Framework (NPPF) requires local planning authorities to ensure that health and wellbeing and the health infrastructure are considered during the development of Local Plans and in planning decision making.

1.18 Engagement with a range of health partners including CCG's and NHS can significantly influence and contribute to improvements in health and reducing health inequalities, as well as assisting future reconfiguration of healthcare services. In respect of larger housing developments or the cumulative effect of a number of small developments, a collaborative approach can enable timely and effective resolution of infrastructure issues to support this growth and avoid overburdening existing health provision. New planned housing should therefore be aligned with health infrastructure planning, and information should be exchanged on the scale of development and timeframe for delivery.

1.19 **Climate change.** Solihull MBC has recognised the climate emergency and have committed to the council becoming carbon neutral by 2030 and the borough by 2041. There is widely accepted evidence that human activity is changing the earth's climate- this change has already started to occur and will have direct and indirect impacts upon the environment and our health. Some of the effects on health will disproportionately affect vulnerable populations including children and the elderly.

1.20 Developments should be designed to address the potential health effects, and to support the transition to net zero using alternatives to fossil fuels, which contribute to both climate change and poor air quality making more use of low carbon energy sources and incorporate technologies that help reduce energy use, and therefore the impact of the built environment on our climate.

1.21 **Air quality.** Poor air quality is recognised as a significant public health issue, disproportionately affecting those who live in more deprived and congested areas, and those who are more vulnerable to the effects such as children, older people, and those with existing medical conditions.

1.22 There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, and exacerbates asthma. Whilst emerging evidence suggests that other organs may also be affected, with possible effects on dementia, low birth weight and diabetes.

1.23 Transport in the UK accounts for around a fifth of all greenhouse gas emissions, mainly CO2, and is globally a significant contributor to climate change, air pollution and health inequalities. According to the Department for Business, Energy & Industrial Strategy (BEIS) Carbon Dioxide Emissions 2018 statistics, transport contributed to 49% of all carbon emissions in Solihull compared to the England average of 37% and West Midlands average of 40%.

1.24 Encouraging the uptake of ultra-low emission vehicles by ensuring that charge points are installed in newly built homes, wherever appropriate, potentially provides a massive opportunity to expand the plug-in network. Electric Vehicles and low emission vehicles are considered a key solution in the drive to improve local air quality, replacing petrol and diesel vehicles with electric vehicles (EVs) will help to improve local air quality by reducing harmful emissions such as nitrous oxide and carbon dioxide.

1.25 Cycling and walking are recognised as important components to reducing congestion, improving air quality and supporting better physical and mental health. There is clear evidence on the links between walking and the physical environment suggesting that people walk more in places with mixed land use (such as retail and housing), higher population densities and highly connected street layouts.

1.26 **Housing.** Housing issues such as affordability, suitability, size, condition and quality can all influence the health and wellbeing of people; indeed these issues are not restricted to existing housing but can also apply to new developments.

1.27 There is increased activity and interest across the West Midlands to ensure the principle of securing improved design quality. The West Midlands Combined Authority Regional Design Charter aims to promote the importance of good design and the Charter sets out to secure high-quality design in housing, civic architecture, urban spaces, parks and transport infrastructure incorporating principles that promote individual and community wellbeing

1.28 Healthy neighbourhoods are just as important as healthy dwellings. The Town and Country Planning Association define healthy environments as those with movement and access; open spaces, play and recreation; healthy food environments; social and neighbourhood spaces; healthier design and layout of homes and commercial spaces; and town centre retail and food diversity.

1.29 Consideration should therefore be given to prioritising the role of streets as ‘places’ rather than movement corridors. Pedestrian routes must be safe, well lit, overlooked, welcoming, and well maintained. It is essential that routes are perceived as being safe in order to encourage their use. Of particular importance to the older person and other vulnerable groups is that detailed design and maintenance measures are introduced to provide level street surfaces, to avoid clutter, to control planting and to promote an attractive high quality environment. Opportunities to re-shape and unlock the potential of existing developments and places should be seized wherever possible. Through good design, both psychological and physical barriers to using spaces can be reduced or removed.

2. Links between health and place

2.1 The built and natural environment and health are inextricably linked. The built environment includes the physical structures engineered and designed by people, including the places in which people work, live, play and socialise. The connection and integration of built and natural features can help to create environments which are unique and interesting enough for people to lead varied and healthy lives.

2.2 Where people live is a significant predictor of health and life expectancy and it is recognised that the causal links between built environment and health are often complex, in that they are influenced by numerous, and on occasion conflicting, factors. A wide range of social, economic and environmental factors, over which individuals often have little control, influences a person's health. This is summarised in the diagram below (reproduced with permission from Barton & Grant). The map is focused on the role of neighbourhood and planning, and emphasises the importance of the built and natural environment's contribution to health and wellbeing outcomes[i].

Fig 1 Social determinants of health and wellbeing

2.3 The 'wider determinants of health' is a term used to acknowledge that a wide range of social, economic and environmental factors including where someone is born, where they are educated, live and work can impact on an individual's health.

2.4 There is substantial evidence to demonstrate the causes of poor health are not simply due to individual lifestyle choices, but exist in the places where we live, work and play, where the food and built environment often makes it difficult to make healthier lifestyle choices. By acknowledging the 'wider determinants of health' it is then possible to influence and alter the environment to influence behaviours and individual actions.

2.5 There are a wide range of publications that discuss the relationship between planning and health:

2.6 'The state of the union –reuniting Public Health with planning in promoting healthy communities'[ii] considers the relationship between health and planning emphasising the importance of preventing ill health and the need to collaborate across sectors to create communities in which it is easier to live a healthy life. The report also sets out recommendations for ensuring effective cross-sector collaboration to create healthier places.

2.7 'Spatial Planning for Health - An evidence resource for planning and designing healthier places'[iii] illustrates the linkages, and strength of evidence, between spatial planning and health presenting findings from a literature review of the impacts of the built environment on health. The review focuses upon five aspects of the built and natural environment:

- Neighbourhood design
- Housing
- Healthier food
- Natural and sustainable environment
- Transport

2.8 These five aspects were identified as the main characteristics of the lived environment that can be designed and shaped, by planners, in order to promote certain health outcomes. The outcomes have been selected to guide the principles of the Solihull Health Supplementary Planning Document

2.9 'Putting health into place'[iv] is the first in a series of four publications which detail 10 Principles for healthy place-making resulting from a review of 10 sites across the country that were developed as part of the Healthy New Towns programme.

2.10 The TCPA, in partnership with the King's Fund and the Young Foundation, were commissioned by NHS England to create a series of practical guides to healthy place-making, based on learning from the Healthy New Towns Programme.The Principles of Putting Health into Place demonstrate the value in healthy place making and the importance of building health and wellbeing into developments and tackling inequalities.

Prevention

2.11 Investing in health-promoting environments which support the health prevention agenda are just as important as investing in traditional healthcare services, if not more so. It is important to note that a high standard of health and wellbeing cannot be delivered through the NHS alone. Traditional healthcare services can largely only treat the symptoms of poor health, whereas planning for healthy environments can help address many causes of health inequality and poor health.

2.12 At the most simple level people's lifestyle choices impact significantly on the overall health of the borough. However, evidence shows that people's ability to live healthy lives, perhaps through taking regular exercise or making healthy food choices, is often related to the environment in which they live and the opportunities available to them.

2.13 Investment in early interventions and investment in the community makes a real difference to the health of the population. The key message is that prevention of health and wellbeing problems demands a holistic and multi-faceted approach, covering interventions in education, employment, transport, housing, green space and leisure and the development of communities, delivered through integrated health and spatial planning and the effective use of public protection and regulation.

2.14 The variety and breadth of these health and wellbeing determinants creates a clear need for a coherent, shared philosophy to be delivered by a multitude of different agencies, and this is something that the planning system can aid in delivering. By taking effective action and

investing in prevention, there will be less demand and cost to our health and social care services which, if left unchecked, are projected to increase dramatically.

3. How is this topic paper informed?

3.1 This topic paper primarily uses information and findings from the 2018/19 Solihull Joint Strategic Needs Assessment and the Public Health Outcome Framework. The topic paper also discusses current policies and guidance regarding health and planning and has a chapter setting out how representations made during consultation on the previous Draft Local Plan have been used to shape policy in the submission version of the Local Plan.

3.2 The Strategic Needs Assessments (JSNAs) describes the current and future health and wellbeing needs and inequalities within our Solihull population. The aim of the JSNA is to improve the health and wellbeing of the local community and reduce inequalities for all ages by ensuring commissioned services reflect need.

3.3 The JSNA is used to help to determine what actions Solihull MBC, the NHS and other partners need to take to meet health and social care needs and to address the wider determinants that impact on health and wellbeing. Alongside the Public Health Annual Report the evidence within the JSNA has also been used to inform the priorities within the 2020/22 Health and Wellbeing Strategy for Solihull.

3.4 The JSNA is a continuous process and additional priorities will be identified. Where possible, the latest available data has been presented in this topic paper and therefore this may differ from the data presented in the original JSNA chapter. The full JSNA and related documents and data can be accessed at www.solihull.gov.uk/About-the-Council/Statistics-data/JSNA

3.5 The Public Health Outcomes Framework (PHOF) sets out outcomes and indicators to help councils understand how well they are improving and protecting their local population's health. Reviewed in 2019 the framework comprises of 161 individual indicators which are grouped into overarching indicators and 4 supporting domains including:

- Wider determinants of health
- Health improvement
- Health protection
- Healthcare public health and premature mortality

Health & Wellbeing Strategy

3.6 Solihull's Health and Wellbeing Board was established under the Health and Social Care Act 2012, and provides a key partnership, where leaders from the health and care system work together to improve the health and wellbeing of their local population and reduce health inequalities. The main purpose of the Health and Wellbeing Board is to provide a forum in which key leaders from the local health and care system work together to improve the health and wellbeing of their local population from pre-birth to end of life.

3.7 The Health and Wellbeing Strategy (2019-22) has been developed using findings from the JSNA, local intelligence and engagement with key stakeholders interested in health and wellbeing.

3.8 The strategy uses a life course approach ensuring that priorities are focused around the stage people are at in their life rather than around organisations, sectors or disease areas. The

different stages start with conception and move through childhood, adulthood, older age through to end of life. Taking this approach brings together different agencies and also allows consideration of the wider determinants which affect people's health.

3.9 Each stage focuses upon a single priority which forms the basis of work for the Health and Wellbeing Board, In addition to this there is a fourth priority that cuts across all ages focussing upon enabling people to increase their social wellbeing and improving social connectedness

The three identified stages and priorities are:

Maternity, Childhood and Adolescence

3.10 To make a marked improvement for the population now and in years to come, this priority focuses upon implementing the changes recommended in a 'critical 1001 days'. 1001 Critical days emerged after compelling evidence demonstrated the impact of brain development from pregnancy, birth and through the first 24 months of life.

Adulthood and Work

3.11 This recognises that the long-term routes to improving healthy life expectancy are through refocusing what we mean by a successful economy so that well-being and the factors that influence this such as the environment, jobs and skills and access to services are a key part of successful inclusive growth. An Economic strategy is in development and within this strategy there is a specific focus on employment and mental health.

Ageing and Later Life

3.12 The Health and Wellbeing Board aim to promote independence in later life. They will support the journey from 'good to great' in this sphere of work, building on the well-established work to strengthen the early intervention offer, supporting people to live at home safely and independently and where possible remain at home through periods of sickness. The Submission version of the Local Plan has a specific policy (P4e) on housing for older and disabled people, as well as promoting a proportion of housing to be built to improved space and accessibility standards. This is set out and discussed in more detail in the Housing topic paper.

3.13 In addition to the four priorities the Health and Wellbeing Strategy also provides a focus upon smoking in pregnancy, childhood obesity, alcohol use, falls, air quality, domestic abuse, housing, and wider determinants of health.

National Planning Policy

3.14 The National Planning Policy Framework (NPPF) (revised February 2019) sets out Government Policy in respect of planning matters and this is supported by Planning Practice Guidance (PPG) which sets out the broad planning framework within which development plans are produced.

3.15 The National Planning Policy Framework (NPPF) is explicit in its support for healthy place shaping. It states that: "Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

3.16 **A.** Promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use

developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;

3.17 **B.** Are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas; and

3.18 **C.** Enable and support healthy lifestyles, especially where this would address identified local health and well-being needs - for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling".

Paragraph 91, National Planning Policy Framework (February 2019) MHCLG

4. Local Plan Review and Sustainability Appraisal

Introduction

4.1 The Solihull Local Plan (SLP) was adopted December 2013. However, due a legal challenge to address the housing shortfall and to plan for the proposed development of the HS2 Interchange station in Solihull, an early review of the Plan was initiated in 2015.

4.2 Sustainability Appraisal (SA) has been carried out at each stage of the Local Plan revision. It is a process for helping Local Plans to achieve an appropriate balance between environmental, economic and social objectives. SA should help to identify the sustainability implications of different plan approaches and recommend ways to reduce any negative effects and to increase the positive outcomes.

4.3 SA gives consideration to health, as government guidance states that it should incorporate Strategic Environmental Assessment (SEA), which requires consideration of a number of specific issues, including Human Health. Many of the other SEA issues have links to health and the SEA Regulations also require consideration of the inter-relationship between these issues. The impacts on health of all policies, allocations and proposals within the Local Plan have therefore been considered through the SA throughout out the Plan process.

4.4 The policies specifically related to health and wellbeing within the Local Plan have been subject to the SA process and this is discussed further within this chapter.

Scope, Issues and Options

4.3 The Scope, Issues and Options was the first stage of the LPR consultation and took place from November 2015 to January 2016. At this stage views were invited on the scope of the review, the issues that ought to be taken into account and the broad options for growth that ought to be considered.

4.4 An Interim Sustainability Report was prepared (November 2015) to support consultation on the Local Plan Review Scope, Issues and Options. The SA Report focused upon whether potential changes to the policy framework may give rise to significant effects that were different to that previously reported in the SA of the adopted Local Plan.

4.5 Since the Plan preparation was at an early stage, there was no proposed revision to many of the policies and the appraisal was carried out on the basis of the anticipated direction of the emerging policy. (In terms of Policy P18 Health and Wellbeing, this included anticipated increased restrictions on hot food outlets in the vicinity of schools and the introduction of Building Regulations 2016). The Interim SA concluded that the emerging policy P18 would generate a highly positive outcome upon the SA framework, delivering six moderate beneficial impacts, five minor beneficial outcomes and no adverse effects.

Draft Solihull Local Plan

4.6 The Draft Local Plan (DSLP) Review document was published for consultation from December 2016 to February 2017. It sought views on a local plan review for the period 2018-2033 and included revised Policies P1-P21 from the adopted Local Plan, a housing requirement figure

of 15,765 homes, including a contribution of 2,000 dwellings to the Greater Birmingham Housing Market Area shortfall.

4.7 The Challenges for the Borough are set out at the start of both the adopted Local Plan (2013) and Draft Local Plan (2016). 'Challenge J' focusses upon Health and Wellbeing and it states that there is:

- Significant health inequalities in the Borough, particularly between the north of Solihull and the rest of the Borough.

- Incidence of unhealthy lifestyles and behaviours, particularly in young people; an ageing older population, and the need to improve the physical and mental health and wellbeing of those who visit, work and live in Solihull, in accordance with the Health and Well-Being Strategy.

4.8 The Objectives of the Plan in this respect are to:

- Promote development that contributes to a healthy and safe population by providing for opportunities to enable people to pursue an active lifestyle and make healthier choices.
- Meet local housing and employment needs whilst facilitating the provision of appropriate health care services to create healthier safer communities.
- Ensure development promotes positive outcomes for physical and mental health and wellbeing through its location, layout and design, inclusion of appropriate levels of open space and the protection and improvement of air quality.

4.9 Chapter 11 of the DSLP is titled 'Health and Supporting Local Communities' and Policy P18 within the chapter sets out the Council's policy regarding Health and Wellbeing.

4.10 Policy P18 of the DSLP sets out the expectations for new development proposals in promoting, supporting and enhancing physical and mental health and wellbeing. It also promotes the use of Health Impact Assessments (HIAs) and states that HIAs should be submitted for large scale housing sites and significant commercial developments. The policy also states that Council will develop a HIA tool to assist developers to assess the impacts of a proposal and recommend measures to address negative impacts and maximise benefits.

Interim Sustainability Appraisal

4.11 An Interim Sustainability Appraisal was carried out on the Draft Local Plan's strategy, policies and Call for Sites/site allocations.

4.12 Sites and policies were appraised against 19 Sustainability Appraisal objectives and 12 reasonable alternative strategies for housing growth and distribution have been appraised using the Sustainability Appraisal framework.

4.13 Policy 18 'Health and Wellbeing' generated a highly positive outcome upon the sustainability framework delivering three major beneficial, seven moderate beneficial impact and five minor beneficial outcomes with no adverse effects.

Draft Local Plan Review Consultation Responses

4.14 The Summary of Representations to the Draft Local Plan were reported to Cabinet Members on 18th July 2017. There were 1,750 respondents to the consultation, comprising over 6,300 representations. A full schedule of responses can be found on the Solihull Council's website.

4.15 The consultation set out a series of questions in order to guide responses. In terms of Health and Wellbeing, Question 21 asked 'Do you agree with the policies for health and supporting local communities? If not, why not, and what alternatives would you suggest?

4.16 There were 98 responses to Q21: 52 representations were objecting and 46 supporting. The key issues were:

4.17 **Health Impact Assessment** (HIA) - The Public Health Directorate gave full support to the proposal to include HIAs in order to maximise positive impacts of the proposed development and minimise potential adverse impacts. Other representations questioned whether HIAs are required for each application for significant development (particularly if an ES is being prepared and covers all relevant issues) Also that the definition of 'significant development' should be made clearer.

4.18 **Design** - Suggested additional wording 'Healthy lifestyles will be enabled by...Supporting safe and inclusive design that discourages crime and antisocial behaviour, and encourage social cohesion...

4.19 **Healthcare facilities** - Different concerns were raised regarding provision of healthcare facilities and pressure on existing services. The Plan should include reference to this provision in relation to the proposed sites.

4.20 **Access to facilities** - Comments were made regarding ability to access local services due to poor transport network. It was felt any proposed housing development should be in accessible places so that travel would not be mainly car dependant.

4.21 **Cycling and Walking** - Comments were made that people will only do more cycling and walking if they are safe and the car becomes a less convenient alternative. Walkers and cyclists need to be separated from motorised transport users and paths need to be well lit.

4.22 **Mental Health** - The policy should state that new development proposals will be expected to promote, support and enhance both physical and mental health and wellbeing.

4.23 **Hot Food Takeaways** - Comment was made that the proliferation of fast food shops and takeaways, in North Solihull should be addressed in the Plan. However, representation was also made that the public should not have 'free will and choice' taken away from them with regard to hot food takeaways. The point was made that similar, if not greater risks, are those from newsagents and off-licences selling cigarettes and alcohol.

4.24 **Natural Assets** - Representations agreed with the inclusion of nature conservation and green infrastructure within this policy, although reference should be made to 'accessible' open spaces, in particular in north Solihull.

4.25 **Wording of Policy** - It was felt that some of the wording of the policy could be stronger and more inclusive. For example by including 'that promote' sport and 'the different needs of the diverse population that may use a development'.

Draft Submission Local Plan & Sustainability Appraisal

4.26 All of the representations made as part of the Local Plan Review consultation have been considered when preparing the submission version of the Local Plan and when preparing the Health Supplementary Planning Guidance.

4.27 Policy P18 has been further amended to include policies to restrict the number of hot food takeaways. Further detail has also been added regarding the use of Health Impact Assessments (HIA) and the requirements for HIA when planning applications are submitted.

4.28 The policies within the Draft Submission Local Plan have again been subject to Sustainability Appraisal. The results are set out in the Sustainability Appraisal (SA) Report (September 2020).

4.29 Policy P18 within the submission version of the Local Plan again generates a highly positive outcome upon the sustainability framework delivering three major beneficial, seven moderate beneficial impacts and five minor beneficial outcomes and no adverse effects. The SA is fully supportive of the policy changes to policy P18 of the Draft Local Plan stating that these changes contribute to the major positive effects recorded against the health inequalities and deprivation objectives within the SA.

5. Health inequalities

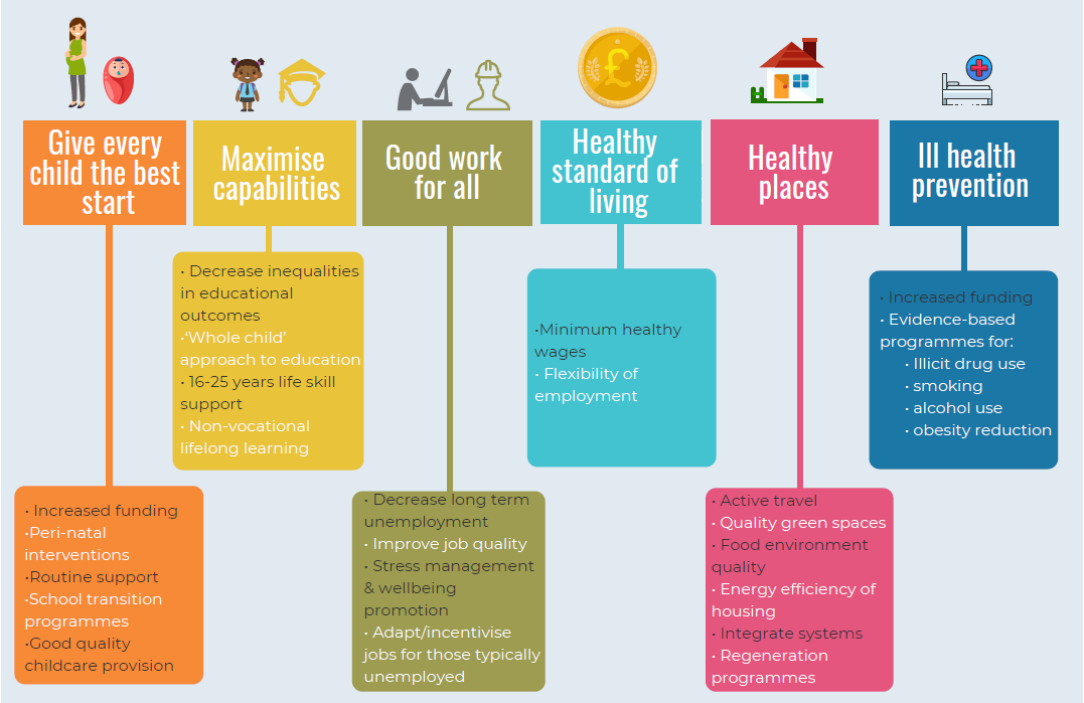
5.1 There is a social gradient in health and generally speaking the lower a person's social position, the worse their health. Currently, in England, people living in the least deprived areas of the country live around 20 years longer in good health than people in the most deprived areas. Moreover, people living in the most deprived neighbourhoods will spend more of their lives living with a disability.

5.2 The Marmot Review into health inequalities in England (2010)[v] proposed an evidence based strategy to address the social determinants of health, the conditions in which people are born, grow, live, work and age and which can lead to health inequalities. The review concluded that reducing health inequalities required action on six policy objectives:

1. Give every child the best start in life
2. Enable all children, young people and adults to maximise their capabilities and have control over their lives
3. Create fair employment and good work for all
4. Ensure healthy standard of living for all
5. Create and develop healthy and sustainable places and communities
6. Strengthen the role and impact of ill-health prevention.

5.3 Action on health inequalities requires action across all the social determinants of health and this is summarised in the diagram below. By addressing deprivation and creating health-promoting environments through appropriate design, we can improve the health and wellbeing of people living within them and subsequently reduce health inequalities.

Fig 2 Tackling Health Inequalities: what works



5.4 In February 2020 the institute of Health Equity and Health foundation published a 10 year review[vi] of the original study. The review concluded that whilst there has been progress in some areas since 2010, there is growing evidence that health inequalities are widening and life expectancy is stalling.

The 2020 report highlighted

- People can expect to spend more of their lives in poor health
- Improvements to life expectancy have stalled, and declined for the poorest 10% of women
- The health gap has grown between wealthy and deprived areas
- Place matters , living in a deprived area is worse for an individual's health, life expectancy actually fell in the most deprived communities outside London for women and in some regions for men'.
- Time spent in ill health for men and women across the England is increasing

Life expectancy

5.5 Life Expectancy (LE) is the average number of years a person would expect to live based on contemporary mortality rates. For a particular area and time period, it is an estimate of the average number of years a newborn baby would survive if he or she experienced the age-specific mortality rates for that area and time period throughout his or her life.

5.6 Health in Solihull is good with above average Life Expectancy. Life expectancy increased in the five years to 2011-13, but has been static in the subsequent five years. Life expectancy at birth in Solihull is around a year longer than the England average for both males and females (life expectancy is the highest in the West Midlands for females and the 2nd highest for males).The life expectancy for males in Solihull is 80.3 compared to 79.6 for England. For females in Solihull the life expectancy is 84.1 compared to 83.2 for England.

5.7 However, good health is not universal and the gap in Life Expectancy in Solihull is high. Solihull has one of the largest gaps in the country between the Life Expectancy of those living in the most and least deprived neighbourhoods and has increased over the last few years for both males and females. On average males in the most deprived 10% of the Solihull population can expect to live for 12.3 years less than those in the least deprived, females in the most deprived 10% of the Solihull population have a life expectancy of 9.8 years less than those in the least deprived.

5.8 The inequality gap among males in Solihull is the 15th highest out of 149 upper tier Local authorities in England and the 14th highest among females. The extent of this inequality gap is largely due to very high levels of Life Expectancy among the least deprived 10% of the Solihull population. For example, the Life Expectancy of Solihull males in the least deprived 10% is the 10th highest in the country (out of 148 Local Authorities), while females have the 9th highest Life Expectancy in the country.

5.9 The gap in Life Expectancy at birth between those born in the most and least deprived 10% of the Solihull population increased for both males and females between 2010-12 and 2014-16, but has decreased in the two years to 2016-18.

Healthy Life Expectancy

5.10 Healthy life expectancy (HLE) is the years a person can expect to live in good health (rather than with a disability or in poor health). It measures the average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

5.11 In 2016-18 the HLE for males in Solihull was 65.3 years compared to the England average of 63.4 years. The HLE for females in Solihull was 64.3 years compared to the England average of 63.9.

5.12 Both males and females born in the most deprived 10% of neighbourhoods in Solihull can expect nearly 18 years fewer healthy life expectancy than those born in the least deprived 10% of the population.

5.13 Disability Free Life is a recently added indicator to the public health outcomes framework and has been designed to provide more information on healthy ageing to complement the existing indicator on healthy life expectancy measuring the average number of years a person would expect to live without a long lasting physical or mental health condition or disability that would limit daily activities.

5.14 The inequality in Life Expectancy and Healthy Life Expectancy between the most and least deprived Solihull communities is mirrored by a range of key health, wellbeing, lifestyle and service demand measures. For example:

- Emergency hospital admissions in Chelmsley Wood are 53% above the England average, but 5% below average in St Alphege;
- Hospital stays for alcohol related harm in Chelmsley Wood are 40% above the England average, but 11% below average in St Alphege;
- The premature mortality ratio is three times higher in Chelmsley Wood than St Alphege;
- 21% of Solihull residents working in routine and manual occupations smoke compared to 6% in managerial or professional occupations.

An ageing population

5.15 The impact of an ageing population is felt across the health and care system. In the Birmingham & Solihull CCG the 65+ age group account for 40% of hospital episodes in 2018/10, and the 65+ age group accounted for 79% of all new requests for Solihull Adult Social Care support in 2019/19.

5.16 The impact of an ageing population with poor health will impact not only on the individuals but on their families, our workplaces and result in increasing pressure on health services and social care. Between 2019 and 2035 it is estimated that:

- The number of Solihull residents aged 75+ unable to manage at least one mobility task will increase by 36% (+2,800 people);
- The number of Solihull residents aged 65+ with dementia will increase by 41% (+1,400 people);
- The number aged 75+ with a severely limiting long-term condition will increase by 40% (+3,000 people).

5.17 Demand for care and support services in Solihull is anticipated to increase significantly over the next decade and beyond. As people are living to advanced years, they are more likely to be living with health needs and conditions associated with an increased risk of disability and limited mobility, especially for those aged over 85.

5.18 We therefore expect over the medium term significantly greater numbers of:

- People living alone with an increasing risk of social isolation, loneliness and depression.
- People with dementia, other long-term conditions, and with multiple and complex needs.
- Unpaid carers, looking after family members, friends and neighbours, many of whom will be older people who may have their own health or care needs.

5.19 These population health pressures increase the importance of managing demand through early identification, access to high quality care and support, health protection and prevention. Evidence shows that prevention and early intervention is an effective approach to supporting communities and enabling people to live independently for longer without the need for formal care services

5.20 As Solihull's ageing population grows the emphasis upon creating environments that support healthy ageing becomes more important. Responding to the needs of older residents will play an increasingly important part in the shaping Solihull as a place embracing the principles and features of an 'age friendly city'[vii].

5.21 An age-friendly city encourages active ageing by optimising opportunities for improved health outcomes, participation and security in order to enhance quality of life as people age. Age friendly cities involve stimulating the development of urban settings to become more accessible and socially-inclusive for older people, improving housing options for people as they age, removing barriers to make neighbourhoods more 'walkable' and exercise more attractive for residents.

5.22 In short an age friendly cities adapts their structures and services to be accessible to and inclusive of older people with varying needs and capacities. These principles require developers to view their proposals from the perspective of older people, in order to identify where and how they can become more age-friendly.

Deprivation

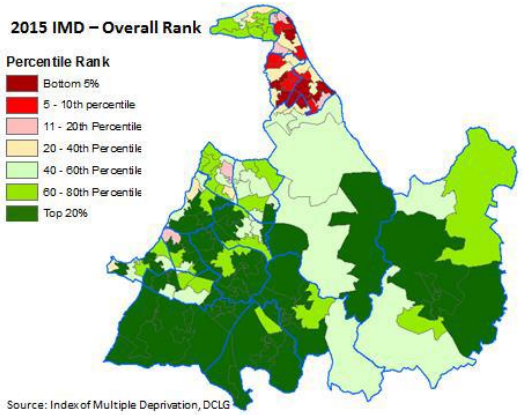
5.23 The difference in deprivation between areas is a major determinant of health inequality. People living in the most deprived neighbourhoods are more exposed to environmental conditions which negatively affect health.[viii] Access to green space, pollution effects, housing quality, community participation, and social isolation are all measures of social inequality which have an impact on health. These factors underpin both physical and mental health, which can be described as the range of material, social, environmental, psychosocial, behavioural and biological factors that shape wellbeing *(Planning Horizons No. 3: Promoting Healthy Cities, RTPI, 2014)*.

5.24 The Index of Multiple Deprivation (IMD) combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for individual neighbourhoods called Super Output Areas (LSOAs) in England. At a Local Authority level the population weighted IMD rank shows that as a Borough Solihull is ranked 216th out of 326 LAs in England (66th percentile). Solihull is therefore among the least deprived 35% Local Authorities in the country on this measure.

5.26 However, Solihull is a relatively polarised borough. This is reflected in the fact that compared with other Local Authorities in England a relatively high proportion of LSOAs are in the most deprived 10% in the country (ranked 77th out of 326, 24th percentile). Among the individual domains Solihull has the highest number of LSOAs in the bottom 20% nationally in the crime domain (36), followed by employment (26), income and education, training & skills (both 24). The borough has at least 10 LSOAs in the most deprived 5% of neighbourhoods in England in each of the crime, employment and income domains.

5.28 All of the LSOAs in the bottom 10% nationally for overall deprivation in 2015 are in the North Solihull regeneration area (Chelmsley Wood, Kingshurst & Fordbridge, Smith's Wood wards and north Bickenhill), the most deprived being The Birds South (Smith's Wood), Chelmsley Wood Town Centre and Bennett's Well which are all in the bottom 3% nationally. In total 20 out of the 29 LSOAs in the wider North Solihull area are in the most deprived 20% in the country.

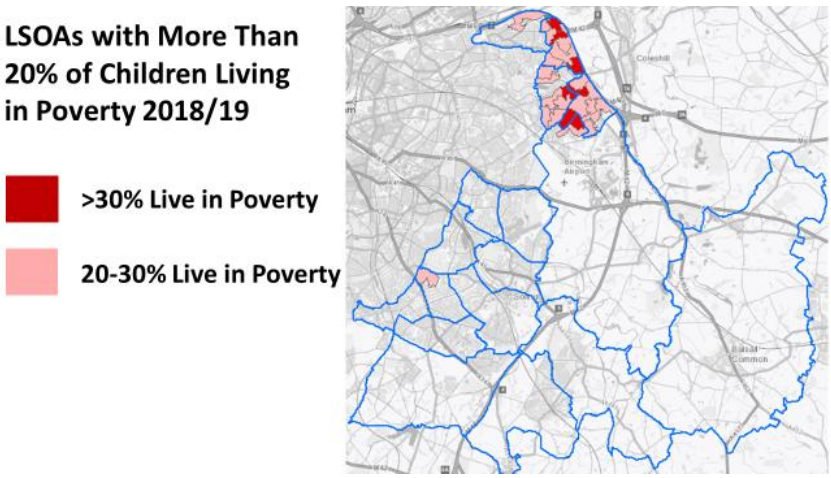
5.29 Green Hill (Shirley East ward) and Hobs Moat North (Lyndon) are the only LSOAs outside of the regeneration area in the bottom 20% nationally, with Olton South, Ulverley East (Lyndon) and Solihull Lodge (Shirley West) also in the most deprived 30% in the country.



Poverty

5.30 Poverty and poor health are inextricably linked. The causes of poor health are rooted in political, social and economic injustices. Poverty is both a cause and a consequence of poor health[ix]. Poverty can affect the health of people at all ages. In infancy, it is associated with a low birth weight, shorter life expectancy and a higher risk of death in the first year of life. Poverty can affect children's cognitive development; children living in poverty are more likely to suffer from chronic diseases and diet-related problems. Poverty has long term implications on children's 'life chances' and health in adulthood, children living in poverty are over three times more likely to suffer from mental health problems.

5.31 The number of Solihull children aged 0-15 in a low income family increased 25% between 2015-2019. However, the rate (13%) is below England's (18%). Over half of all Solihull children aged 0-15 years living in a low income family live in the North Solihull locality (54%). The rate in North Solihull is, at 24% is nearly three times higher than elsewhere in the borough (9%). In some LSOA neighbourhoods in North Solihull more than 30% of children live in a low income family.



5.32 Housing and planning policy can play a key role in reducing or mitigating the risk of poverty. There are five key housing variables that can generate, or exacerbate, housing-related forms of poverty: availability, cost, quality, location and security[x]. Incorporating measures to increase the supply of genuinely affordable housing, improving housing quality in the private rented sector where it is failing, raising energy-efficiency levels to tackle fuel poverty, and providing direct employment opportunities can all contribute to alleviating poverty.

5.33 Economic growth has the potential to reduce poverty by increasing access to jobs and raising household incomes. The economy of Solihull matters to the health and wellbeing of the population, but much depends on the size, shape and type of economy and the growth it experiences. In order to ensure that growth is equitable in Solihull, the new Solihull Economic Strategy focusses upon ensuring a more inclusive approach to growth, ensuring that we are driving economic growth in an inclusive way and capturing the full benefits for local people.

5.34 Inclusive Growth is one of the key priorities for Solihull Together, the SMBC's Council Plan and the Sustainability and Transformation Partnership (STP) which outlines how the NHS can use social value, amongst other things, to address economic, social and environmental objectives across Birmingham & Solihull.

5.35 Inclusive growth reflects the manner through which growth takes place, ensuring that growth and its benefits are shared equally by all in a fair and just manner. Reducing both poverty and inequality is at the heart of the meaning of inclusive growth, reducing the disadvantages and inequalities faced by the poor, both in terms of allowing opportunities for everyone to participate in the growth process while making sure that benefits are shared.

5.36 A key element of inclusive growth is creating environments that enable healthy living. The natural and built environments where people live, grow, work and play have a significant impact on health and wellbeing. The ability to encourage people and communities to make healthier choices will be more successful if our local environment supports, promotes and reinforces healthier outcomes.

Social and health infrastructure

5.37 Social infrastructure includes a wide range of services and facilities that meet community needs for education, health, social support, recreation, cultural expression, social interaction and community development.

5.38 Social infrastructure planning and provision contributes to the development of healthy and sustainable communities by ensuring that population growth is supported by a network of facilities and services that are accessible, affordable and responsive to local community needs. Investment in social infrastructure is considered to be essential for the health, well-being and economic prosperity of communities.

5.39 Planning for social infrastructure should give consideration to what the area's wider needs are and provision should attempt to address existing as well as projected needs. New facilities can encourage existing, surrounding residents into a new area to assist with integration and the breaking down of physical and social barriers.

5.40 Where social infrastructure is considered after residential development occurs, significant inequities can occur. Some of the key challenges with social infrastructure provision include:

- Meeting the needs of a rapidly growing population
- The equity of provision of services and facilities within an area
- The impact on existing services and facilities of growth in demand resulting from population growth
- The adequacy of services for population groups with specific needs.

5.41 The National Planning Policy Framework (NPPF) requires local planning authorities to ensure that health and wellbeing and the health infrastructure are considered during the development of Local Plans and in planning decision making.

5.42 The extensive consultation that influences and informs the development of the Local Plan provides a significant opportunity for a range of health partners including CCG's and NHS to use their expertise to ensure that plans reflect national and local health priorities adequately.

5.43 There are benefits to all parties in joint collaboration; during Local Plan preparation and development decisions, collaboration can significantly influence and contribute to improvements in health and reducing health inequalities, as well as assisting future reconfiguration of healthcare services;

5.44 CCGs and NHS England in conjunction with NHS trusts can provide a strategic overview of NHS services that are required now and how service delivery may change in the future. For example, the movement of more care and specialist services into the local community, which will have spatial planning implications. This will affect NHS service providers in both the primary and secondary care sectors by providing an indication of how this could involve expanding or discontinuing existing facilities and the provision of new facilities.

5.45 In respect of larger housing developments or the cumulative effect of a number of small developments, a collaborative approach can enable timely and effective resolution of infrastructure issues to support this growth and avoid overburdening existing health provision. New planned housing should therefore be aligned with health infrastructure

planning, and information should be exchanged on the scale of development and timeframe for delivery.

5.46 Health partners should also be engaged to discuss how contributions from Section 106 (S106) agreements and Community Infrastructure Levy (CIL) charges can be made available for healthcare facilities or other health-promoting infrastructure such as segregated cycle lanes or leisure facilities, where required, in order to cope with the demands from new developments

Health Impact assessments

5.47 There are a wide range of social, economic and environmental factors that have an impact upon an individuals or communities health and wellbeing. When supported by local health evidence and involvement of local authority public health teams, an HIA can be a useful decision making tool-aiding decision-makers to identify the potential health effects of planning applications, providing a formal assessment for addressing issues and to influence and alter the environment to positively influence health and wellbeing outcomes.

5.48 A Health Impact Assessment (HIA) is a way of identifying and assessing the health and wellbeing impacts of a new development on local people. By undertaking a HIA it is possible to make practical recommendations as to how negative impacts on health can be minimised and how positive health gains can be maximised. HIAs can also be used to consider whether proposed changes will narrow or widen health inequalities. Health impact assessments can ensure that views and needs of local people have been assessed and the recommendations resulting from HIAs can be embedded into site design to create healthier developments/environments.

5.49 The link between planning and health has long been established and almost every planning decision or policy has a potential effect on human health. There is a wealth of evidence that supports the use of health impact assessments in order to ensure that the health impacts of development proposals are assessed and understood[xi]. The planning system already has to take account of impact assessments such as the strategic environment assessment of plans and policies, and environmental impact assessment (EIA) for certain development types, which can specifically address health impacts. EIA regulations, revised in May 2017, now include 'population and human health' on the list of topics that are considered when carrying out an EIA of a proposed development.

5.50 The National Planning Policy Framework 2019 (NPPF) recognises the need to understand and to 'take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community…" *(Paragraph 91)* The National Planning Practice Guidance (NPPG) recognises that, in relation to planning applications, HIAs may be a useful tool to identify where significant impacts on the health of local people are expected.

5.51 Completing a HIA on development proposals enables the applicant to demonstrate their assessment of the health and wellbeing implications. Although on the whole health outcomes are positive with many of Solihull's residents enjoying good health and long lives, Solihull faces a number of health wellbeing challenges coupled with significant health and social inequalities particularly between the north of Solihull and the rest of the Borough.

5.52 The inclusion of a HIA as part of the application process enables developers to ensure the creation of sustainable developments which support communities by:

- Demonstrating that health impacts have been properly considered when preparing, evaluating and determining development proposals.
- Ensuring developments contribute to the creation of a strong, healthy and just society.
- Helping applicants to demonstrate that they have worked closely with those directly affected by their proposals to evolve designs that take account of the views of the community.
- Identifying and highlighting any beneficial impacts on health and wellbeing of a particular development scheme.
- Identifying and taking action to minimise any negative impacts on health and wellbeing of a particular development scheme.

5.53 The built environment has the potential to influence people's physical and mental health wellbeing. HIAs can assist applicants to consider potential impacts and enhance proposals to encourage healthy behaviour achieve healthier outcomes whilst reducing health inequalities, creating sustainable places and spaces where people can live, work and relax

5.54 ***What can planning do?***

- *Ensure policies and planning applications consider and respond to the health and wellbeing challenges facing Solihull and the impact of the wider determinants of health.*
- *Ensure that health and wellbeing has been considered within each of the supporting Topic Papers*
- *Ensure the local planning strategy and policies Include a requirement for the submission of Health Impact assessments when a planning application is submitted*
- *Ensure the local planning strategy and policies take advantage of all available planning regulations for creating health-promoting environments through appropriate design*
- *Ensure the local planning strategy and policies consider the inequalities gap that exists within Solihull between the north and rest of the borough has been considered*
- *Include appropriate acknowledgement of the part that good planning and design can have to influence health and wellbeing outcomes*
- *Ensure the local planning strategy and policies Include references to the health and wellbeing strategy*
- *Ensure the local planning strategy and policies emphasise the importance of preventing ill health*
- *Ensure developments respond to the needs of older residents embracing the principles and features of an 'age friendly city*
- *Ensure that the principles of inclusive growth influence policy development and are considered as part of the application process ensuring that growth and its benefits are shared equally by all in a fair and just manner*
- *Ensure that health considerations are clearly set out in the local plan and policies specifying the type and scale of healthcare infrastructure requirements aligning planning and health systems*

6. Air quality & Climate change

Climate Change

6.1 Solihull MBC has recognised the climate emergency and have committed to the council becoming carbon neutral by 2030 and the borough by 2041. The council has pledged resources to better understand how we can contribute to regional and national carbon reduction targets whilst ensuring that our transition to a low carbon economy is just and fair, ensuring the borough's natural capital is safeguarded and embedding sustainability into our wider approach to place making.

6.2 The climate change topic paper provide the necessary details and evidence for the Local Plan along with the Climate Change prospectus which focuses upon clean growth, clean air, nature gain and engagement.

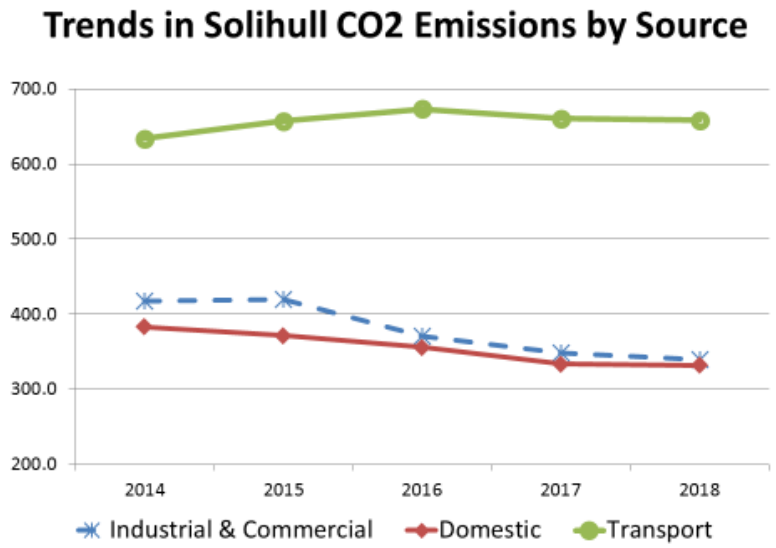
6.3 There is widely accepted evidence that human activity is changing the earth's climate, this change has already started to occur and will have direct and indirect impacts upon the environment and our health[xii]. Some of the effects on health will disproportionately affect vulnerable populations including children and the elderly.

6.4 The impacts on health from climate change can be outlined as follows:

- Overheating, dehydration and heatstroke in very hot conditions can lead to thermal illness. Young children and the elderly are believed to be particularly at risk during heatwaves.
- Respiratory and cardiovascular disease from high levels of air pollution and periods of hotter than average temperatures. Higher temperatures may increase time spent outdoors which would increase exposure to UV radiation which is associated with a higher risk of skin cancer.
- Rising temperatures, increased rainfall and flood events are predicted to increase the incidence of gastrointestinal and insect borne diseases.
- Experience of flooding and disasters that damage property, leading to relocation and loss of possessions can have a huge impact on mental health and wellbeing.

6.5 Carbon dioxide (CO2) is the main greenhouse gas, accounting for about 81% of the UK greenhouse gas emissions. At 6.2 Solihull has the highest level of per capita emissions of any Local Authority in the West Midlands Combined Authority area and above both the West Midlands (5.3) and England (5.0) averages. Between 2005- 2018, Solihull's per-capita emissions have reduced by 26%, less than the reduction of 41% across England. This shortfall is mostly due to the road network in the Borough, particularly motorways.

6.6 Transport accounts for 49% of Solihull CO2 emissions, industrial and commercial for 26% and domestic use for 25%. Solihull emissions from industrial & commercial and from domestic use have trended downwards over recent years. Emissions from transport increased between 2014 and 2016, but have edged down over the last 2 years.



6.7 We know that 20 percent of homes are currently overheating in today's climate, and 90 percent of hospital wards are of a type prone to overheating. With an ageing, growing population and no intervention, these impacts will get considerably worse; for instance, heat-related deaths in the UK are projected to increase by around 250% to over 7,000 by the 2050s.

6.8 New buildings should be designed to address the potential health effects, and to support the transition to net zero using alternatives to fossil fuels, which contribute to both climate change and poor air quality. New buildings should make more use of low carbon energy sources and incorporate technologies that help reduce energy use, and therefore the impact of the built environment on our climate.

6.9 The focus is not just on new homes. It is estimated that 70% of the existing UK housing stock will still be available in 2050[xiii]; so consideration is required to how best adapt existing homes to our future climate, reducing thermal losses through good insulation, ensuring windows can be shaded, ventilate appropriately, and removing indoor sources of pollution.

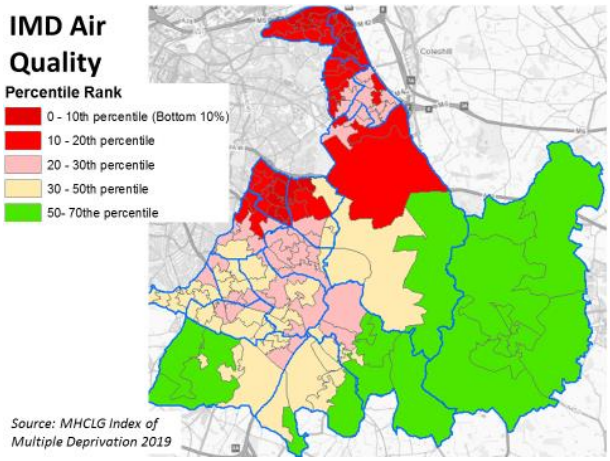
6.10 Sustainable design principles can also be applied to the outdoor environment and mitigate against the impacts of climate change. Green roofs and green walls can have a cooling effect on buildings, as well as the appropriate greening of streets and the provision of shading, which can minimise the impacts of the urban "heat island" effect, in which cities and urban areas are warmer than surrounding rural areas due to human activities.

Air quality

6.11 Poor air quality is recognised as a significant public health issue, disproportionately affecting those who live in more deprived and congested areas, and those who are more vulnerable to the effects such as children, older people, and those with existing medical conditions.

6.12 It is estimated that the effects of human made air pollution result in approximately 28,000 – 36,000 deaths each year[xiv] whilst the costs to society are estimated at more than 20 billion pounds every year.[xv]

6.13 The Index of Multiple Deprivation shows that 30% of the Solihull population live in the most deprived 20% of LSOAs in England from an air quality perspective, with just 13% living in the least deprived 50% of neighbourhoods. Clusters of poorer air quality exist in the North of the borough, particularly in Smith's Wood and Castle Bromwich and in the West Solihull wards of Lyndon and Elmdon due to the proximity to the A45 and motorways.



6.14 Particulate matter (PM) is a generic term used to describe a complex mixture of solid and liquid particles of varying size, shape and composition. Sources of PM can be natural or human-made. The main source of PM is the combustion of fuels (vehicle, industry and domestic) and other human-made activities such as mining, quarrying, industrial processes and tyre and brake wear whilst natural sources include wind-blown soil and dust.

6.15 DEFRAs Clean Air Strategy states that domestic wood and coal burning now contributes up to 38% of PM2.5 emissions (6).[xvi] As well as emissions from local and regional sources, levels of PM are also influenced by emissions from mainland Europe and further afield. Among the common air pollutants, fine particles stay in the air the longest and can, therefore, build up over days and be moved by winds over large areas.

6.16 In 2018 5.2% of deaths in Solihull were attributed to particulate air pollution, in-line with the England average. Within the West Midlands the proportion of mortality attributable to air pollution is highest in the urban metropolitan districts and lowest in the shire counties.

6.17 There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, and exacerbates asthma. Whilst emerging evidence suggests that other organs may also be affected, with possible effects on dementia, low birth weight and diabetes.

6.18 During short-term high pollution episodes, children, older people, and people with chronic health problems are the most vulnerable to air pollution. Short-term (eg, day-to-day) peaks of elevated air pollution are associated with increases in hospital admissions, when individuals with pre-existing cardiovascular and respiratory conditions may experience worsening of symptoms. However, because the health outcomes associated with short and long-term exposure to air pollution have many potential causes, detection and quantification of health effects due to air pollution or specific air pollutants is not straightforward.

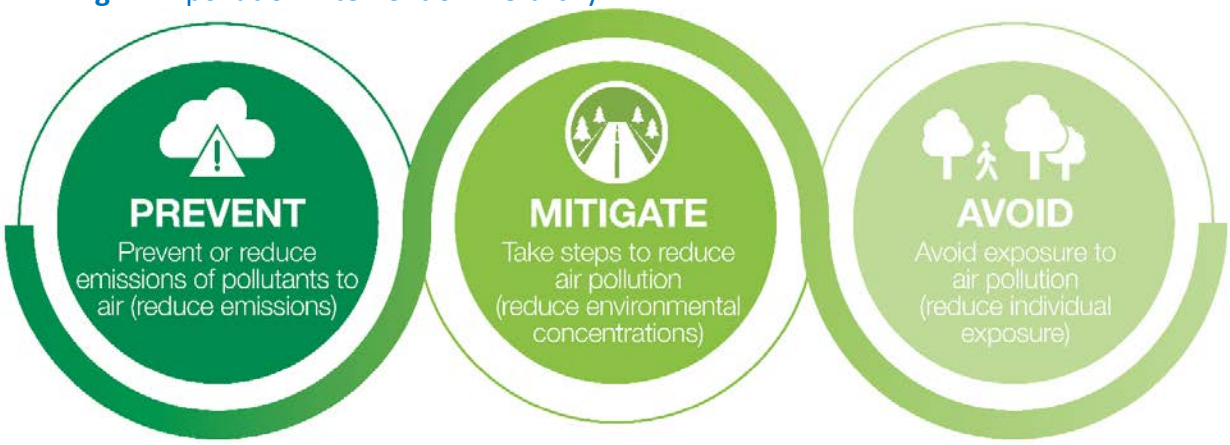
6.19 In 2019 Public Health England published a review of interventions to improve outdoor air quality and the most effective practical actions to reduce air pollution and its impact on our health. The review provided an assessment of a broad range of interventions across 5 main areas:

- Vehicles & fuels
- Industry
- Spatial planning
- Agriculture

- People's behaviour

6.20 The review recommended prioritising the prevention or reduction of polluting activities (emission reduction), in preference to only taking steps to reduce air pollution once it had occurred (concentration reduction) or relying on avoidance (exposure reduction) (Fig ?).

Fig 7 Air pollution intervention hierarchy



6.21 The review proposed a 'net health gain' principle when considering activities that could affect air quality and health ensuring a focus upon improving air quality and public health outcomes. The report recommend action to prevent, mitigate and avoid exposure to air pollution under the intervention hierarchy (Fig 7), prioritising the prevention or reduction of emissions wherever possible.

6.22 The Solihull Clean Air Strategy sets out the case for action and outlines the measures that will be taken within Solihull in order to improve air quality and reduce population exposure to the pollutants recognised as being the most harmful to human health. The plan identifies 'Key Priority Areas' for action including:

- Education
- Transport
- Planning
- Natural environment
- Public Messaging
- Procurement

6.23 **What can planning do?**

- Ensure policies and developments contribute to regional and national carbon reduction targets and the transition to a low carbon economy
- Ensure the health SPD and Local plan supports an increase in the amount of energy generated from renewable sources and the reduction of emissions of greenhouse gases
- Ensure new developments make use of low carbon energy sources and incorporate technologies which help reduce energy use, and the impact on our environment.
- Ensure that sustainable design principles are applied to the outdoor environment as well as buildings
- Encourage the increased use of appropriate green infrastructure in the design of developments

- Incorporate energy efficiency more comprehensively into building design and ensure homes are properly ventilated and account for the impacts of hot and cold weather.
- Ensure the local planning strategy and policies support the step change in the uptake of low emission vehicles - by ensuring developments provide electric car charging points, as well as encouraging low emission fuels and electric cars
- Encourage investment in clean public transport, as well as foot and cycle paths to improve health
- Discourage highly polluting vehicles from entering populated areas
- Ensure the design and construction of buildings minimise the creation of air pollution (indoor and external)

7. Physical activity, healthy eating and obesity

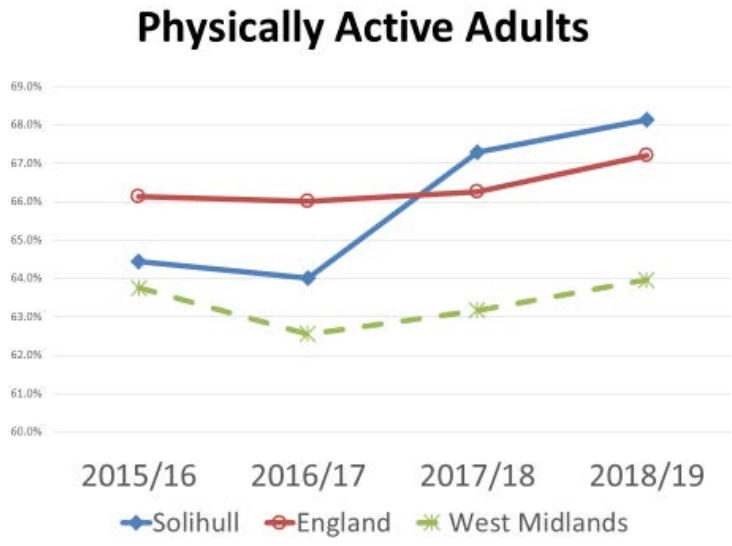
Physical Activity

7.1 The design and layout of where we live and work plays an intrinsic role in keeping us healthy and active, and these are factors which are strongly determined by the planning system. Taking part in regular physical activity is a major component of the realisation of a good standard of health, yet not enough people are partaking in a level of physical activity at levels sufficient to stay healthy. This could have significant long-term impacts on the population and increase the need for clinical services.

7.2 Physical inactivity is the 4th leading risk factor for global mortality accounting for 6% of deaths globally[xvii]. People who have a physically active lifestyle have a 20-35% lower risk of cardiovascular disease, coronary heart disease and stroke compared to those who have a sedentary lifestyle. Regular physical activity is also associated with a reduced risk of diabetes, obesity, osteoporosis and colon/breast cancer and with improved mental health. In older adults physical activity is associated with increased functional capacities.

7.3 Around one in two women and a third of men in England are damaging their health through a lack of physical activity.[xviii] This is unsustainable and costing the UK an estimated £7.4bn a year.[xix & xx] If current trends continue, the increasing costs of health and social care will destabilise public services and take a toll on quality of life for individuals and communities

7.4 In 2018/19 68.1% of Solihull adults aged 19 year and over were classified as being physically active (at least 150 moderate intensity equivalent minutes per week) and 23.2% were classified as being inactive (less than 30 moderate intensity equivalent minutes per week). Across England as a whole 67% were active and 20% were inactive.



7.5 Nationally fewer women are physically active than men (65% compared to 70%), with those from an Asian and Black background also less likely to be active. Activity levels decrease considerably among those aged 75 and over. People living in the most deprived 10% of neighbourhoods in England are the least likely to be physically active and those in the least deprived areas most likely (57% compared to 73%).

7.6 In 2014/15 12.6% of 15 year olds in Solihull reported that they are physically active for at least an hour everyday compared to the England average of 13.9%. Nationally, 15 year olds from the least deprived backgrounds are slightly more likely than those from the most deprived neighbourhoods to be physically active on a daily basis (14.3% compared to 12.3%), with some variations also evident between boys and girls (18.2% compared to 9.3%).

7.7 The Solihull Health Related Behaviour Study (HRBS) 2020 shows that enjoyment of and participation in physical exercise declines among older Solihull school pupils and is lower among girls. 47% of primary aged pupils said that they had been physically active 5 days or more, for over an hour in the previous week. 29% of secondary aged pupils said the same.

7.8 The government's prevention green paper[xxi] highlights that becoming more active is good for our mental and physical health, and reduces our risk of developing a number of health conditions. It also sets out the ambition of getting everybody active in the 2020s, including those of us who are already living with a health condition.

7.9 Sport England is the organisation which provides the strategic lead for sport in the country. The organisation fulfils the function as a statutory consultee for all planning applications which relate to land currently allocated for sport and physical activity, and also provides design guidance for the development of sports facilities.

7.10 Sport England publication entitled 'Planning for sport guidance'[xxii] provides an evidence-based approach to development that identifies both planning and architectural solutions to develop and then support healthy communities. Using the twelve principles of 'Active Design' the publication aims to ensure that new developments are planned with Active Design concepts at the forefront ensuring that physical activity is 'designed in' as plans for development in existing and new settlements take shape

Healthy Eating

7.11 57% of Solihull adults aged 16+ eat the recommended 5 a day on a usual day, slightly higher than the England average of 55%. Nationally, more women eat the recommended 5 a day than men (59% compared to 50%). The proportion rises with age, particularly among over 55s. People living in the most deprived 10% of neighbourhoods in England are the least likely to eat the recommended 5 a day and those in the least deprived areas most likely (44% compared to 61%).

7.12 In 2014/15 57% of 15 year olds in Solihull reported that they eat five portions or more of fruit or vegetables a day compared to the England average of 52%. Nationally, 15 year olds from the least deprived backgrounds are more likely than those from the most deprived neighbourhoods to eat healthily (56% compared to 51%).

7.13 Responses from the 2018 Solihull Health Related Behaviour Survey show that primary pupils are more likely to eat fruit 'on most days' than secondary aged pupils (61% compared to 44%) and for all ages girls and more likely to eat healthily than boys.

Obesity

7.14 Our local surroundings have a large impact on us and we live in an environment that can inadvertently encourage unhealthy behaviours – eating more and exercising less. Factors affecting our choices can include access to active travel and availability of green spaces, as well as access to affordable fresh food and the density of fast food outlets[xxiii].

7.15 Fast food outlets represent a popular, cheap convenient service. They provide an important complementary use in our main and local centres; can attract trade and provide local jobs. Nevertheless, it is also recognised that hot many of our streets can become saturated with fast food outlets, selling food such as chips, burgers, kebabs, fried chicken and pizza. The sheer density of these outlets may make it easier for us to consume too much, too often – and the fact that most outlets have no or limited nutrition information in store can make informed choices difficult.

7.16 Childhood obesity is one of the biggest health problems this country faces. Nearly a quarter of children in England are obese or overweight by the time they start primary school aged five, and this rises to one third by the time they leave aged 11.[xxiv] Our childhood obesity rates mean that the UK is now ranked among the worst in Western Europe.

7.17 While not all fast food is unhealthy, it is typically high in saturated fat, salt and calories. Excess calorie consumption[xxv] is the root cause of the obesity crisis, with overweight or obese children consuming up to 500 extra calories per day, depending on their age and sex. Children with excess weight are much more likely to be overweight or obese as adults, increasing their risk of preventable diseases such as type 2 diabetes, heart and liver disease[xxvi] and some cancers. With a third of children leaving primary school overweight or obese, shaping our food environment is important to supporting healthier lifestyles.

7.18 The growing obesity epidemic was brought to national attention in 2007 with the Foresight project, looking at how we can respond to rising levels of obesity in the UK[xxvii]. This document highlighted the need to embed health considerations in the planning system. In 2011, the Department of Health produced 'Healthy Weight, Healthy Lives – A Call to Action on Obesity in England'.[xxviii] This further emphasised the role that planning can play in shaping healthy environments and advocates the use of supplementary planning documents to restrict the proliferation of hot food takeaways. In February 2020 PHEs publication 'Using the planning system to promote healthy weight environments' focused on the need to create environments that enable healthier eating and help promote more physical activity as the default

7.19 Solihull MBC produced its first Joint Strategic Needs Assessment (JSNA) in 2008 and identified a need to support young people to adopt healthy lifestyles, focussing on preventing and treating obesity as a commissioning priority. The 2012 JSNA identified heart disease, stroke and cancer to be the major causes of ill health, premature mortality and health inequalities in Solihull's population. In addition, obesity and poor quality diets were found to be contributing to increasing levels of poor health and long term conditions such as diabetes. Obesity remains

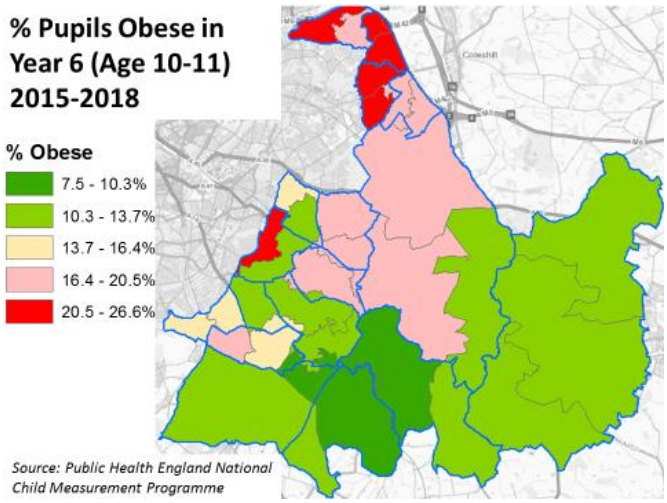
a constant issue in Solihull and has been identified as a key work stream within the 2019 Health and Wellbeing Strategy in addition to featuring in previous strategies.

7.20 Although better than the national average, 20.5% of Solihull children are overweight or obese at reception, rising to 32% by the time they leave primary school (2018/19 National Child Measurement Programme data); however, the gap between wards in the North of the borough and the rest of Solihull is widening (increase from 31% to 38% carrying excess weight in regeneration wards compared to an increase from 25% to 27% in the rest of Solihull over the last five years).

7.21 In 2018/19 the percentage of obese Solihull children at Reception and Year Six was well below the England average and among lowest in the West Midlands.

- In Reception 8.1% are classified as obese (9.7% England);
- In Year Six 18.3% are classified as obese (20.2% England).

7.22 Solihull child obesity is below average, but across the borough the Year 6 rate ranged from 8% to 27%. Levels of child obesity in Solihull have been largely unchanged over the last few years among both Reception and Year 6 children. Aggregate data covering the three years 2015/17 shows that in parts of North Solihull over 10% of Reception class children are classified as obese and over 25% in Year Six.



7.23 The 2019 JSNA identified that Just over 63% of Solihull adults aged 18 and over have excess weight (overweight or obese) compared to the England average of 61%. Nationally, men are more likely to have excess weight than women (67% compared to 55%), with the proportion rising with age (50% 25-34 years, 73% 65-74 years). People living in the most deprived 10% of neighbourhoods in England are also more likely to have excess weight than those in the least deprived areas (67% compared to 57%).

7.24 Hot food takeaways do not directly cause obesity; however, the majority of shops offer food high in calories, fat and salt, which in regular consumption leads to unhealthy weight gain. A 2014 article published in the British Medical Journal[xxix] also shed light on the relationship between access to fast food outlets and obesity levels. Exposure to takeaway food outlets was positively and significantly associated with consumption of takeaway food – and in certain cases the group of people most exposed to takeaway food outlets were more than twice as likely to be obese than be a normal weight.

7.25 Planning can influence the built environment to improve health and reduce obesity and excess weight in local communities. Local planning authorities can have a role by supporting opportunities for communities to access a wide range of healthier food production and consumption choices. Planning policies and supplementary planning documents can, where

justified, seek to limit the proliferation of particular uses where evidence demonstrates this is appropriate (and where such uses require planning permission).

7.26 Given the growing obesity levels in Solihull, and in light of guidance from Public Health England[xxx] on regulating the growth of fast food outlets, it is considered appropriate to control provision in sensitive locations, particularly around secondary schools. Research[xxxi] indicates that the more overweight and earlier in life a person becomes overweight, the greater the impact on that person's health. It is therefore considered important to support the establishment of healthy eating habits from an early age and minimise the negative impacts of high calorie meals with low nutritional value.

7.27 The evidence to support a link between socio-economic status and obesity risk amongst adults in the UK is growing. Research shows that on average there are more fast food outlets in deprived areas[xxxii] Obesity prevalence also has strong links with deprivation, i.e. as deprivation rises so does obesity. This general trend is also apparent in Solihull amongst children and adults.

7.28 It is therefore important that all food providers, including hot food takeaways, play a part in improving the health of the Borough's residents. Any such establishment should aim to make their products as nutritious as possible and are encouraged to provide a range of healthy eating options alongside higher calorie foods.

7.29 Research, has shown that increased exposure and opportunity to buy fast food results in increased consumption[xxxiii]. Research also indicates[xxxiv] that obese children are more likely to be ill, be absent from school due to illness, experience health-related limitations and require more medical care than normal weight children. Furthermore, overweight and obese children are more likely to become obese adults, and have a higher risk of morbidity, disability and premature mortality in adulthood.

7.30 Both the Chartered Institute for Environmental Health[xxxv] and Department of Health[xxxvi] advise that local authorities should limit the opening of new outlets, particularly in sensitive areas such as around schools. Paragraph 17 of the National Planning Policy Framework (NPPF) also advises that planning should "*take account of and support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities and services to meet local needs".*

7.31 A 2008 report from the Nutrition Policy Unit of London Metropolitan University found that food outlets in close proximity to, and surrounding schools, were an obstacle to secondary school children eating healthily.

7.32 Research indicates the most popular time for purchasing food from shops is after school[xxxvii] and many secondary school children may also leave school premises at lunchtime. Research carried out in Brighton and Hove found that the majority of pupils that left school at lunchtime would opt for unhealthy food options[xxxviii].

7.33 **What can planning do?**

- Ensure that local planning strategy and policies require Health Impact Assessments to be undertaken for fast-food planning applications along with restrictions on the number and

location of proposed outlets, using local planning powers to limit access to hot-food takeaways where appropriate

- Ensure that new developments are planned with Active Design concepts at the forefront ensuring that physical activity is 'designed in' as plans for development in existing and new settlements take shape
- Ensure developments promote and provide a range of healthy eating options and foods wherever possible.
- Ensure policies recognise and give significant weight to the benefits of sport and physical activity protecting existing provision and encouraging proposals for new or enhanced provisions and ensure new developments do not prejudice the use of existing provision.

8. Housing

Housing

8.1 Where we live, the homes we live in and the stability of our housing situation can have a profound impact on our health. Housing has the potential to reduce or reinforce health inequalities.

8.2 The relationship between housing quality and health outcomes is a complex one, poor housing conditions often co-exist with other socioeconomic circumstances which are independently associated with poor health, including the affordability of homes, the quality of homes and the role of the home as a platform for inclusion in community life. A number of these wider issues are included within the Housing Topic paper which also informs the Local Plan.

8.3 The national context for planning policies for housing is established in the National Planning Policy Framework (February 2019) and Planning Policy Guidance. A separate topic paper, informed by a Housing and Economic Development Needs Assessment, looks at housing matters in more detail.

8.4 The Housing Topic paper Solihull's Housing SPD has been produced to provide greater detail and additional information to assist with the implementation of Local Plan Policy P4 'Meeting Housing Needs'. It is consistent with both the Local Plan and current national planning policies. The Housing SPD should be read in conjunction with the submission version of the Solihull Local Plan. The other Local Plan policies which are particularly relevant to the SPD are P6 ('Provision of Sites for Gypsies and Travellers'), P15 ('Securing Design Quality') and P18 ('Health and Well Being').

8.5 In addition to the Housing SPD Solihull have developed a strategic housing framework which identifies a number of high level strategic housing policy objectives:

- Accelerating Housing delivery
- Providing Affordable housing that meets meeting local housing needs
- Improving private housing conditions (including an effective response to fuel poverty)
- Improving standards across the Private rented sector
- Improving Wellbeing and effective provision of specialist housing
- Tackling Homelessness

8.6 Housing is a key determinant of health. Poor, 'unhealthy' housing can have serious long-term effects on both physical and mental health and wellbeing.[xxxix] There are risks to an individual's physical and mental health associated with cold and hazardous homes, homes that do not meet the households needs (where the home is overcrowded or inaccessible) and homes that do not provide a sense of security.[xl] Poor quality homes cost the English NHS at least £1.4bn per year and wider society over £18.6bn.[xli]

8.7 Poor housing can result in up to 25% higher risk of serious ill-health or disability during childhood and early adulthood, increased risk of meningitis, asthma, slow growth, mental health problems, lower educational attainment and greater likelihood of unemployment and poverty.[xlii]

8.8 In addition to the Marmot recommendations 2010 and 2020 the NHS have also cited good quality housing as a critical element for supporting wider determinants of health[xliii] by:

- Promoting good wellbeing and helping to combat loneliness;
- Providing a secure and settled place to live which can aid the recovery of people with mental illness;
- Reducing the incidence of respiratory diseases and other conditions;
- Reducing and delaying demand for health services by enabling people to be independent for longer in their own home, meeting their changing needs;
- Allowing people to be discharged from hospital when they are fit to go home;
- Keeping people out of hospital or helping them to return home quicker with the right adaptations and support

Social and supported housing

8.9 15% of Solihull households rent their home from Solihull Council or a housing association. This is a lower proportion than the West Midlands (19%) or England (18%). On a national basis, social tenant households live in more deprived neighbourhoods and the self-reported health and wellbeing and limiting long-term conditions of social tenants are considerably worse compared to the general population.[xliv] Social landlords can promote behaviour change to improve health and wellbeing and could work with local housing partnerships to use their tenant contact to maximise the benefits of a Making Every Contact Count approach.[xlv]

8.10 Providing supported and specialist housing for vulnerable people is an effective way to improve health and wellbeing and reduce health inequality. Supported housing has been cited in Public Health England, NICE and NHS England guidance as a preventative intervention that should be considered as part of local plans for improving health and wellbeing.

Private rented sector

8.11 On a national basis the private rented sector has the highest rates of poorer housing. 10% of Solihull households are housed in the private rented sector compared to 19% nationally. Nationally rent is nearly twice as high as the social rented sector but it has higher levels of damp, one in five households are fuel poor and there are twice as many homes in poor condition.[xlvi]

Impact of insecure housing

8.12 Housing has the potential to reduce or reinforce health inequalities. Housing costs constitute the most important and most direct impact of housing on poverty and material deprivation.[xlvii] Latest evidence focuses specifically on the impact of insecure housing on mental and physical health. Those living in poverty are more likely to live in poorer housing, unstable housing circumstances, or be homeless. Housing insecurity has lead to a dramatic rise in hidden homelessness,

8.13 Studies have shown that being without a stable home is detrimental to health. People who are chronically homeless face substantially higher morbidity in terms of both physical and mental health and of increased mortality. Many homeless people experience traumas on the streets or in shelters, which has long-standing adverse impacts on psychological well-being. These and other challenges can result in persistently high health care expenditures due to emergency department and inpatient hospital use.

8.14 People who are not chronically homeless but face housing instability (in the form of moving frequently, falling behind on rent, or sofa surfing) are more likely to experience poor health in comparison to their stably housed peers. Residential instability is associated with health problems among youth, including increased risks of teen pregnancy, early drug use, and depression. In contrast, providing access to stable housing can improve health and reduce health care costs.

Homelessness

8.15 Homelessness often results from a combination of events such as relationship breakdown, debt, adverse experiences in childhood and through ill health. Homelessness and ill health are intrinsically linked, homeless people are at relatively high risk for a broad range of acute and chronic illnesses however precise data on the prevalence of specific illnesses among homeless people compared with those among non-homeless people are difficult to obtain, but there is a body of information indicating that homelessness is associated with a number of physical and mental problems.

8.16 The Council is under a statutory duty to carry out a review of homelessness in its area. A Homelessness Needs Assessment was done in 2019 and this has informed the Council's approved Homelessness and Rough Sleeping Strategy 2020-23. Both documents are available at www.solihull.gov.uk/About-the-Council/Strategies-policies/housing. The Assessment forms the Homelessness Review underpinning the Strategy and the information which it presents informs both the JSNA and the Health and Wellbeing Strategy.

8.17 The objectives of the Strategy are to:

- Minimise rough sleeping
- Prevent homelessness whenever we can;
- Relieve homelessness when it cannot be prevented;
- Support people to recover from homelessness
- Connect services at the strategic, policy and operational levels.

8.18 The Council established two important strategic groups for this purpose,

- The Tackling Homelessness Delivery Group which involves directors of key providers and partner agencies to oversee strategic development and delivery outcomes, reporting to the Solihull Together Board which is the delivery agency of the Health and Wellbeing Board
- The Strategic Housing Framework Board brings together directors of the Council to oversee the development of policy including planning requirements for affordable housing, wellbeing and supported housing and homelessness.

8.19 Solihull is committed to the NHS Population Health Management project on homelessness through which it is intended that cross-sectoral data and intelligence can help make the case for investment and / or service change at all levels of the health service to prevent homelessness and help those who have become homeless

Standards of new housing

8.20 Housing issues such as affordability, suitability, size, condition and quality can all influence the health and wellbeing of people, Indeed these issues are not restricted to existing housing but can also apply to new developments with growing evidence that new build housing is not

always as good as it should be[xlviii]. Examples of complaints about multiple defects found in brand new houses are growing and issues of poor connectivity and missed place making opportunities

8.21 Housing is a critical part of our national infrastructure. Each year, the UK spends an estimated £40 billion (of which about £21bn is on new build, ONS, 2018) on maintaining, upgrading and building housing. Yet this investment does not always deliver the intended outcomes although the beneficial impacts of a national high quality, healthy housing stock are wide ranging from health to economic development.[xlix]

8.22 There are concerns that some new homes are not meeting the standards to which they are designed (the 'performance gap')[l]; some new homes also exhibit some of failings of existing housing stock with the same resulting problems, for example condensation and mould. The historical shortage of new homes[li] has prompted the need for faster delivery of new housing stock delivered by focussing on stalled sites and offsite manufacturing. This push for rapid delivery of housing at a time when some existing developments are not up to standard increases that risk that a proportion of new housing stock will not be fit for purpose today or into the future.

8.23 A continuing "performance gap" issue will mean that too many homes built today are not meeting basic regulatory standards and will require substantial investment to retrofit them in the near future. New build housing should adopt standards supporting the development of high quality, healthy energy efficient homes that are fit for 2050[lii]

8.24 Future change will present new challenges for the UK housing stock, for example:-

- Increased extreme weather events and the need for cooling as well as heating
- The ability to provide comfortable, healthy accommodation for a changing population (ageing, different household sizes)
- Indoor air quality concerns
- Meeting the needs of an aging population
- Homes that are easy to maintain and affordable to live in
- Homes that can be adapted as new technologies and systems are developed
- The challenge of carbon neutrality and changing energy infrastructure needs

8.25 There is increased activity and interest across the West Midlands to ensure the principle of securing improved design quality. The West Midlands Combined Authority Regional Design Charter[liii] aims to promote the importance of good design, the Charter sets out to secure high-quality design in housing, civic architecture, urban spaces, parks and transport infrastructure incorporating principles that promote individual and community wellbeing.

8.26 The charter focuses upon 6 principles including health and wellbeing. The Health and wellbeing principle seeks to 'Building Active Communities', ensuring that development proposals support healthy living environments and address health inequalities by providing access to nature and spaces for physical activity. The principle also seeks new developments to promote wellbeing and good mental health by fostering community, identifying opportunities to reduce social isolation and minimise loneliness.

Fuel poverty

8.27 The impact of cold housing on health and the stresses brought on by living in fuel poverty have been recognised. There have been several studies that have indicated that living in a cold home, a home without sufficient heating, insulation or one that has higher than average energy needs can have a negative impact on the health of the inhabitants.

8.28 Fuel poverty[liv] is caused by a combination of 'property' factors (including expensive heating systems and poor insulation) and 'people' factors (such as age and income). In England, the definition of fuel poverty was changed following the Hills Review (Department of Energy and Climate Change 2012). Someone is now said to be in fuel poverty using the Low Income High Cost (LIHC) definition if heating their home adequately costs more than average and paying the bill would leave them below the official poverty line.)

8.29 The latest fuel poverty figures published 30 April 2020 (for March 2018)[lv] suggest that there were 7,428 (8.2%) fuel poor households in Solihull, a reduction from 8,315 (9.2%) in March 2017. The average fuel poverty figure across the West Midlands authorities is 11.4% showing a reduction from 12.6% in 2017.

8.30 In 2018, the average fuel poverty gap (the reduction in fuel bill that the average fuel poor household needs in order to not be classed as fuel poor) in England was estimated at £334, a slight increase from £328 in 2017.

8.31 The effects can be both physical and psychological and often impact the most vulnerable people in society more profoundly. The effects include:

- Increased chances of circulatory conditions such as blood pressure, heart attacks and stroke.
- Worsened respiratory conditions such as bronchitis or asthma.
- Exasperated conditions such as diabetes or ulcers.
- A higher risk of falls and accidents for elderly people.
- Depression.
- High levels of anxiety.
- Existing medical conditions can become worse.
- Children's cognitive development can be affected.

8.32 These effects create a significant burden on health services: the many preventable illnesses that result from under heated homes cost NHS England up to £1.36bn annually. Estimates suggest that 10% of excess winter deaths are due to fuel poverty, with 21.5% of excess winter deaths attributable to the coldest 25% of homes.[lvi]

8.33 Long-term exposure to a cold home can affect weight gain in babies and young children, increase hospital admission rates for children. Children in cold homes are more than twice as likely to suffer from breathing problems, and those in damp and mouldy homes are up to three times more likely to suffer from coughing, wheezing and respiratory illness, compared with those with warm, dry homes. Cold homes can also affect children's education – for example, if health problems keep them off school, or if a cold home means there is no warm, separate room to do their homework.[lvii]

8.34 Struggling with high energy bills can also have an adverse impact on the mental health of family members. Fuel poverty can often result in difficult choices, for example having to choose between heating and eating.

Overcrowding

8.35 Overcrowding is defined as where two or more people aged 10 or above and of opposite sexes, not living together as husband and wife, must sleep in the same room. Overcrowding has increased in recent years. Over the period 1992 – 2008, 62% of overcrowded households in a particular year had been overcrowded the previous year. In the period 2010-13 this rose to 70% of crowded households having been overcrowded the previous year.

8.36 Living in overcrowded accommodation can lead to a host of negative health impacts in children such as respiratory conditions, tuberculosis, viral or bacterial infections, and slow growth. There is also evidence of an association between overcrowding and poor psychological health in children.[lviii]

Indoor air quality

8.37 Indoor air pollution may have caused or contributed to 99,000 deaths in Europe in 2012, and action is needed to ascertain the most harmful indoor air pollutants and methods for tackling the issue. The quality of indoor air is dependent on numerous factors including the quality of the outdoor air, the design, materials used during construction and condition of the building, ventilation exchange rates, the furnishings and the occupier's behaviour.[lix]

Household accidents

8.38 Every year in the UK more than 6,000 people die in accidents in the home, and the cost to society of UK home accident injuries has been estimated at £45.63 billion annually.[lx] Poor housing and overcrowded conditions lead to increased numbers of accidents.[lxi] NICE has published comprehensive guidance on avoiding unintentional injuries in under 15-year olds, with a focus on those living in disadvantaged circumstances.[lxii]

8.39 In 2018/19 the number emergency admissions due to a fall among the 65+ population in Solihull was 12% higher than the England average (2,465 compared to 2,198 per 100,000) and at the upper end of the spectrum for the West Midlands. A breakdown of the data shows that:

- In Solihull, admissions were more common among women than men (2,822 compared to 2,002 per 100,000);
- In Solihull admissions are nearly six times higher among those over 80 years of age than among those aged 75-79 (6,422 compared to 1,100 per 100,000);
- Nationally, the admissions rate is 14% higher for people living in the most deprived communities than in the least deprived.

8.40 Projections suggest that the number of hospital admissions due to falls among Solihull people aged 65+ is predicted to increase by 37% between 2019 and 2035 (+571 individuals). The majority of this is due to an increase in emergency admissions among those 75 and over.

Neighbourhoods

8.41 Healthy neighbourhoods are just as important as healthy dwellings. The Town and Country Planning Association defines healthy environments as those with movement and access; open spaces, play and recreation; healthy food environments; social and neighbourhood spaces; healthier design and layout of homes and commercial spaces; and town centre retail and food diversity.[lxiii]

8.42 Effectively designed pedestrianised streets[lxiv] and areas not only encourage active travel, but they have significant positive impacts on the general sense of mental health and wellbeing of communities. These mental health and wellbeing benefits are accrued when residents feel comfortable navigating their communities on foot

8.43 Consideration should therefore be given to prioritising the role of streets as 'places' rather than movement corridors. Pedestrian routes must be safe, well lit, overlooked, welcoming, and well maintained. Pedestrian routes should be designed such that visibility is maintained and blind corners or areas that are not well lit or over-looked are avoided. It is essential that routes are perceived as being safe in order to encourage their use. Of particular importance to the older person and other vulnerable groups is that detailed design and maintenance measures are introduced to provide level street surfaces, to avoid clutter, to control planting and to promote an attractive high quality environment

8.44 Opportunities to re-shape and unlock the potential of existing developments and places should be seized wherever possible. Through good design, both psychological and physical barriers to using spaces can be reduced or removed. For example, an assessment of the need to provide street furniture in existing areas such as benches and toilets unlocks the opportunity for more vulnerable groups to utilise spaces and links between those spaces.

8.45 **What can planning do?**

- Ensure that the local planning strategy and policies acknowledge and promote the health and wellbeing benefits of good design in developments.
- Ensure the local planning strategy and policies adopt an holistic perspective on the wider neighbourhood, ensuring that new developments and schemes wherever possible deliver health and wellbeing benefits to existing communities, including community integration with accessible routes between old and new.
- Increase provision of affordable housing for vulnerable groups and people with specific needs
- Ensure that local planning strategy and policies focus upon prevention, reducing and delaying demand for health services by enabling people to be independent for longer in their own home and meeting their changing needs
- Ensure that developments embrace new technologies which improve health and wellbeing outcomes
- Ensure that the local planning strategy and policies encourage improve standards of new build housing, adopting standards that support the development of high quality, healthy, energy efficient homes that are fit for 2050 incorporating principles and standards from initiatives such as the West Midland Combined Authority Regional Design Charter, age friendly cities and NHS Healthy New Towns
- Ensure the local planning strategy and policies promote wellbeing and good mental health by fostering community connectivity, identifying opportunities to reduce social isolation and minimise loneliness.
- Ensure effectively designed pedestrianised streets, prioritising the role of streets as 'places' providing pedestrian routes that are safe, well lit, overlooked, welcoming, and well maintained.

9. Open spaces and green infrastructure

Green Infrastructure

9.1 Green infrastructure is not simply an alternative description for conventional open space. It includes parks, open spaces, playing fields, woodlands – and also street trees, allotments, private gardens, green roofs and walls

9.2 There is significant and growing evidence on the physical and mental health benefits of green spaces. Research shows that access to green space is associated with better health outcomes and income-related inequality in health is less pronounced where people have access to green space.

9.3 Access to good quality green space is associated with a range of positive health outcomes including better self-rated health; lower body mass index scores, overweight and obesity levels; improved mental health and wellbeing and increased longevity in older people.

9.4 Increasing access to planned green space has a positive influence on physical activity levels (Croucher *et al 2007*), particularly for those from lower socio-economic groups (Mitchell and Popham *2008*). But well-planned green space also has wider effects, including reducing the heat island effect (which can protect vulnerable people from heat stress), reduction in skin damage due to tree shading, lower risk of flooding and risk of related psychological distress, reductions in noise, and reductions in air pollution (Faculty of Public Health with Natural England 2010).

9.5 Research has also found that people keep exercising longer in natural surroundings and that this effect is particularly marked in children. Children who have easy access to safe green spaces (parks, playgrounds, kick-about areas) are more likely to be physically active than those who are not so close. Establishing physical activity patterns in early years can set a precedent for the rest of a person's life. Further, when children are engaged in physical activity it can encourage the wider family to get involved in activities too, bringing intergenerational benefits through activity that extends beyond the children through to parents, grandparents and a wider circle of family and friends.

9.6 New developments should provide appropriate well-designed green space as an attractive and accessible setting which enhances the built form whilst also providing a high quality resource for people to utilise. Consideration will however be required to be given as to how the open space relates to any adjacent residential uses, whereby measures may need to be taken to minimising disturbance from noise, but such proximity also maximises the opportunity for natural surveillance which will positively impact on the perception of the area being safe.

9.7 At its largest scale, the principles of green infrastructure can be used to create multi-functioning parks incorporating biodiversity priority habitats, river corridors, ecological networks and provide routes to connect these spaces. Even at the smallest scale of provision, an early consideration of green infrastructure can enhance the opportunity for improved health and wellbeing outcomes.

9.8 The delivery of green space as part of a development should not be seen simply as providing an area free of development. The more effective the design and the increased functionality that can be offered as part of that design, the more reason there will be for people to use that space and the greater the holistic benefit that can be realised.

9.9 What can planning do?

- Ensure the local planning strategy and policies provide opportunities for open space, play and recreation
- Ensure that the local planning strategy and policies increase the use of appropriate green infrastructure, ensuring that green infrastructure is built in the right places and is accessible for everyone – whether play areas for all ages, walking and cycling networks, or places to sit.
- Ensure that existing communities and older developments which may struggle to access green infrastructure or open space are considered within new developments and that health inequalities are addressed.
- Ensure that the delivery of green space as part of a development is not seen simply as providing an area free of development At its largest scale, the principles of green infrastructure should be used to create multi-functioning parks incorporating biodiversity priority habitats, river corridors, ecological networks and providing routes to connect these spaces. Whilst at the smallest scale of provision, an early consideration of green infrastructure can enhance the opportunity for improved health and wellbeing outcomes.

10. Transport and access

Transport

10.1 The effects of transport on health are varied and complex. Transport can impact both positively and negatively on health and are experienced differently by different groups in society.

10.2 Transport can:

- Provide access to employment and services
- Provide opportunities to be physically active
- Contribute positively to lively communities and reduce social isolation

10.3 However, transport can contribute to:

- poor air quality and noise
- road traffic collisions
- community severance
- physical inactivity

10.4 Transport in the UK accounts for around a fifth of all greenhouse gas emissions, mainly CO2, and is globally a significant contributor to climate change, air pollution and health inequalities. According to the Department for Business, Energy & Industrial Strategy (BEIS) Carbon Dioxide Emissions 2017 statistics, transport contributed to 49% of all carbon emissions in Solihull compared to a national average of 37% and a West Midlands average of 40%.

10.5 Although there has been a declining trend in road transport emissions since 2005 due to vehicle fleet technology improvements, more fuel efficient vehicles and a shift to diesel, there is a risk of an increase in emissions as the economy improves through promoting growth.

10.6 There are three main mechanisms that link transport and health and wellbeing:

10.7 **Transport and access:** Transport plays a key role in improving access to health services, particularly for vulnerable groups like older people.

10.8 **Mode of transport:** Mode of transport affects physical and mental health. Cars can have a positive impact on physical health when they facilitate access to healthy food suppliers, leisure/recreational activities, education and employment; however cars are more likely to reduce physical activity and create pollution therefore having a negative impact. Active travel (walking and cycling) and Increased use of public transport reduces reliance on the car could therefore mitigate these negative impacts.

10.9 **Wider effects of transport and infrastructure:** Transport can facilitate social interactions and promote social inclusion. Transport allows access to non-healthcare activities that are beneficial for physical and mental health and for social connection and general wellbeing.

10.10 The overall costs to society from road transport are substantial. For example, it has been estimated that half of the UK's £10bn cost per annum of air pollution comes from road transport[lxv]. The Government has estimated that excess delays, accidents, poor air quality,

physical inactivity, greenhouse gas emissions and some of the impacts of noise resulting from motorised road transport costs English urban areas £38-49 billion a year[lxvi].

10.11 The increasing affordability and convenience of car travel has had huge impacts on the design of our towns, cities and rural communities, for example leading to the decentralisation of urban activities (such as out-of-town shopping centres and business parks).

10.12 This has led to an increasing need for people to travel by private car to access employment and services[lxvii] . Car travel has replaced many journeys formerly made by walking or cycling, as people travel longer distances more frequently. Along with the use of cars for short journeys, this is a key factor in the decline of physical activity levels over the past 40 years.

10.13 Physical inactivity directly contributes to 1 in 6 deaths in the UK and costs £7.4 billion a year to business and wider society, the growth in road transport has been a major factor in reducing levels of physical activity and increasing obesity

10.14 There were 115,662 cars or vans in Solihull in 2011, an average of 1.43 for every household in the borough, compared to the England average of 1.26 and the West Midlands average of 1.28. The number of cars and vans has increased by 11% between 2001 and 2011, less than the increases of 14% and 15% for England and the West Midlands.

10.15 20% of households in Solihull have no car or van, less than the England average (26%). Nearly 41% of households in Solihull have two or more cars or vans significantly more than the England average (32%). Car and van ownership is much lower in North Solihull than elsewhere in the borough.

10.16 77% of Solihull residents who travel to work do so in a private vehicle, with 14% using public transport and 8% walking or cycling. Private vehicle use is much higher than the England average and public transport use and walking and cycling much lower. Commuting by private vehicle is less common among North Solihull residents than those from elsewhere in the borough and public transport use higher. A far higher proportion of those who travel to work do so either by public transport or by walking or cycling in the North Solihull regeneration wards than elsewhere in the borough which is consistent with the lower levels of private vehicle ownership in this area and levels of disposable income.

10.17 In 2018 the government launched its Road to Zero[lxviii] strategy with the aim to ensure that at least half of new vehicles were ultra low emission by 2030. The strategy set out plans to enable a massive expansion of green infrastructure across the country, reduce emissions from the vehicles already on the UK's roads, and drive the uptake of zero emission cars, vans and trucks. In addition to this the governments Air quality plan[lxix], seeks to end the sale of new conventional petrol and diesel cars and vans by 2040 across the Uk.

10.18 Both initiatives set the stage for the mass uptake of ultra-low emission vehicles by ensuring that charge points are installed in newly built homes wherever appropriate, and new lampposts that include charging points, potentially providing a massive expansion of the plug-in network. Electric Vehicles and low emission vehicles are considered a key solution in the drive to improve local air quality, replacing petrol and diesel vehicles with electric vehicles (EVs) will help to improve local air quality by reducing harmful emissions such as nitrous oxide and carbon dioxide.

Cycling & Walking

10.19 Cycling and walking are recognised as important components to reducing congestion, improving air quality and supporting better physical and mental health. Integrating walking and cycling as part of the daily routine can inspire active travel as a recreational pursuit, and perhaps encourage participation in sporting endeavours. Such provision can be made as part of the same routes as those facilitating a daily routine through using appropriate signage to create named routes or routes of a particular distance, including looped routes, which may encourage park runs.

10.20 Health and Care Excellence (NICE) in 2011 found that the financial savings in terms of healthcare of improving active travel infrastructure significantly outweighed the costs of its provision, by 60:1 for walking and 168:1 for cycling. As such, the provision of walking and cycle paths translates into benefits of both a health and financial nature.

10.21 A household travel survey in 2011 suggested that half of households in the Borough have access to a bicycle; the highest in the West Midlands. The same survey suggested that 57% of all daily trips made by Solihull residents are shorter than 5km in length, a total of 320,000 trips every day which are a short walk or cycle distance.

10.22 If 10% of residents' switch commuter journeys to cycling, based upon conservative estimates of how many could switch at various distances, this could raise cycling participation from around 6,300 now to over 55,000 trips per day across the Borough.

10.23 There is clear evidence on the links between walking and the physical environment suggesting that people walk more in places with mixed land use (such as retail and housing), higher population densities and highly connected street layouts. These urban forms are associated with between 25% and 100% greater likelihood of walking[lxx].People can be encouraged to walk more by interventions tailored to their needs, targeted at the most sedentary or at those most motivated to change, and delivered either at the level of the individual or household or through group based approaches[lxxi].

10.24 Walking can often be combined with public transport, and this can provide a significant boost to physical activity levels while reducing congestion, pollution and road danger. Access to public transport can be facilitated by providing affordable ticket prices, flexibility in stops, drop-steps to assist getting on and off buses, high-quality travel information, and regular and reliable services[lxxii].

10.25 In order to ensure cycling and walking are a widely used form of daily transport across the Borough we must plan for it in the same way we would plan for any other mode of transport. The Walking and Cycling Implementation Strategy presents the Council's overall approach to active travel in the borough. The strategy sets out our vision for delivering cycling and walking infrastructure, improving the capability and confidence of our residents to cycle and walk more often ensuring new developments cater for cycling and walking.

10.26 **What can planning do?**

- Ensure that travel plans are an intrinsic requirement for new developments providing safe, convenient, inclusive access for pedestrians and cyclists, securing the facilitation of active travel as part of planning design and layout for each new development
- Encourage new developments (and retrofits) to maximise opportunities for active travel with appropriate infrastructure (eg cycle lanes, cycle parking)
- Ensure that the local planning strategy and policies encourage more people to use public and active transport modes supporting behaviour change marketing and promotion to ensure that people understand the benefits of using alternative modes to cars.
- Ensure that developments are more sustainable and planned in such a way that reduces the need to travel ensuring that local amenities are within easy reach.
- Ensuring that the local planning strategy and policies improve the health of the population through the use of travel plans ensuring that active travel is enshrined in transport policies and plans for new developments
- Ensure that the local planning strategy and planning policies demonstrate how maximising active travel can benefit health, the economy and the environment
- Ensuring access to services and that public transport is accessible and in place at new developments
- Advocating provision of safe pedestrian paths and cycleways across the county, particularly near schools, care facilities and town centres (in response to local resident views)
- Ensure the local planning strategy and policies contribute to improving air quality and carbon reduction targets and the transition to a low carbon economy.
- Ensure the local planning strategy and policies support the step change in the uptake of low emission vehicles by ensuring an effective EV charging infrastructure
- Encouraging the increase in low emission fueled and electric cars, lorries and buses.
- Encourage investment in clean public transport, as well as foot and cycle paths to improve health
- Discourage highly polluting vehicles from entering populated areas

11. References

[i] Spatial Planning for Health: An evidence resource for planning and designing healthier places, Public Health England. 2017
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf

[ii] The state of the union –reuniting Public Health with planning in promoting healthy communities *Town and Country Planning Association © January 2019 Michael Chang, TCPA*

[iii]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf

[iv] Putting health into place. NHS Healthy New Towns Programme (2019)
https://www.england.nhs.uk/wp-content/uploads/2019/09/phip-executive-summary.pdf

[v] Marmot Review report – 'Fair Society, Healthy Lives' institute of health equity. marmot etal. 2010.
http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review

[vi] Marmot Review 10 Years On' Institute of health equity. 2020 http://www.instituteofhealthequity.org/

[vii] Global Age-friendly Cities: A Guide. World Health organisaation. 2007.
https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf

[viii] Health inequalities: Income deprivation and north/south divides. 2019 Baker
https://commonslibrary.parliament.uk/insights/health-inequalities-income-deprivation-and-north-south-divides/

[ix] Health at a price- Reducing the impact of poverty. British Medical Association. 2017.
https://www.bma.org.uk/media/2084/health-at-a-price-2017.pdf

[x] Tackling poverty through housing and planning policy in city regions. Joseph Rowntree Foundation etal.2016.
https://www4.shu.ac.uk/research/cresr/sites/shu.ac.uk/files/tackling-poverty-housing-planning-city-regions.pdf

[xi] NICE Evidence base accessed 5.06.20. https://www.evidence.nhs.uk/search?q=health+impact+assessment

[xii]UK Climate Change Risk Assessment 2017 Evidence Report. Committee on climate change.
https://www.theccc.org.uk/uk-climate-change-risk-assessment-2017/ccra-chapters/people-and-the-built-environment/

[xiii] Stock take-Delivering improvements in existing housing. 2006. Sustainable Development Commission.
http://www.sd-commission.org.uk/data/files/publications/Stock_Take.pdf

[xiv] Long-term exposure to air pollution: effect on mortality (final report - June 2009). 2009. Committee on the Medical Effects of Air Pollutants (COMEAP). Accessed 14/10/15.
www.gov.uk/government/uploads/system/uploads/attachment_data/file/304667/COMEAP_long_term_exposure_to_air_pollution.pdf

[xv] Every breath we take: the lifelong impact of air pollution. Report of a working party. Royal College of Physicians (RCP). 2016.: www.rcplondon.ac.uk/file/2914/download?token=qjVXtDGo.

[xvi] Clean Air Strategy 2019. Department for Environment Food and Rural Affairs (Defra).
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf..

[xvii] Everybody active, every day. Protecting and improving the nation's health An evidence-based approach to physical activity. Public Health England. 2014.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/374914/Framework_13.pdf

[xviii] Health and Social Care Information Centre (2013) Health Survey for England 2012. Volume 1: Chapter 2 – Physical activity in adults. Leeds: Health and Social Care Information Centre.

[xix] Scarborough P, Bhatnagar P, Wickramasinghe KK, Allender S, Foster C, Rayner M (2011) The economic burden of ill health due to diet, physical inactivity, smoking, alcohol and obesity in the UK: an update to 2006–07 NHS costs. Journal of Public Health 33 (4): 527-535.

[xx] Ossa D and Hutton J (2002) The economic burden of physical inactivity in England. London: MEDTAP International.

[xxi] Advancing our health: prevention in the 2020s – consultation document. 2019. https://www.gov.uk/government/consultations/advancing-our-health-prevention-in-the-2020s/advancing-our-health-prevention-in-the-2020s-consultation-document

[xxii] Planning for sport guidance. Sport England. June 2019. https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2020-01/planning-for-sport-guidance.pdf?V91Twg6jajoe7TpardJDn9h6s9AiSqw0

[xxiii] Putting healthier food environments at the heart of planning https://publichealthmatters.blog.gov.uk/2018/06/29/putting-healthier-food-environments-at-the-heart-of-planning/

[xxiv] National Child Measurement Programme - England, 2016-17 https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2016-17-school-year

[xxv] The things you need to know about calorie reduction https://publichealthengland.exposure.co/the-things-you-need-to-know-about-calorie-reduction

[xxvi] Healthy weight, healthy lives: one year on (2009) Department of Health
[xxvii] 'Tackling obesity – future choices.' https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287937/07-1184x-tackling-obesities-future-choices-report.pdf

[xxviii] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213720/dh_130487.pdf

[xxix] Associations between exposure to takeaway food outlets, takeaway food consumption, and body weight in Cambridgeshire, UK: population based, cross sectional study. BMJ2014; 348 doi: http://dx.doi.org/10.1136/bmj.g1464

[xxx] Obesity and the environment: regulating the growth of fast food outlets (March 2014) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296248/Obesity_and_environment_March2014.pdf

[xxxi] http://www.noo.org.uk/NOO_about_obesity/obesity_and_health/health_risk_child

[xxxii] Obesity and the environment – the impact of fast food. PHE 2016 https://publichealthmatters.blog.gov.uk/2016/10/21/obesity-and-the-environment-the-impact-of-fast-food/

[xxxiii] Burgoine T, et al. Associations between exposure to takeaway food outlets, takeaway food consumption, and body weight in Cambridgeshire, UK: population based, cross sectional study. *British Medical Journal* 2014; 348:g1464. Website: http://www.bmj.com/content/348/bmj.g1464

[xxxiv] Wijga A, Scholtens S, Bemelmans W, de Jongste J, Kerkhof M, Schipper M, et al. Comorbidities of obesity in school children: a cross-sectional study in the PIAMA birth cohort. *BMC Public Health* 2010; 10(1):184. As reported on Public Health England website: http://www.noo.org.uk/NOO_about_obesity/obesity_and_health/health_risk_child

[xxxv] Policy briefing note – fast food outlets (2010) Chartered Institute of Environmental Health

[xxxvi] Healthy weight, healthy lives (2008) Department of Health

[xxxvii] The school fringe: from research to action. Policy options within schools on the fringe (2009) Sinclair, S; Winkler JT. Nutrition Policy Unit, London Metropolitan University

[xxxviii] 'Hot-food takeaways near schools; an impact study on takeaways near secondary schools in Brighton and Hove' (2011). Source: http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/downloads/ldf/Healthy_eating_Study-25-01-12.pdf

[xxxix] Shelter, *The impact of housing problems on mental health* (2017)

[xl] Public Health England, *Improving health through the home* (2017)

[xli] BRE, 'New BRE Trust report shows poor quality homes in England cost the NHS £1.4bn per year, and wider society £18.6bn'. https://www.bre.co.uk/news/New-BRE-Trust-report-shows-poor-quality-homes-in-England-cost-the-NHS-14bn-per-year-and-wider-society-186bn-1161.html

[xlii] Shelter, *Chance of a lifetime – the impact of bad housing on children's lives* (2006)

[xliii] Why housing matters to health and care. Welsh NHS confederation. 2018. https://www.nhsconfed.org/-/media/Confederation/Files/Wales-Confed/Joint-Briefing-Health-and-Housing-November-2019.pdf

[xliv] Sitra and Public Health England*, Public health: housing workforce is the key* (2015)

[xlv] NHS Health Education England, 'Making Every Contact Count'. http://makingeverycontactcount.co.uk/

[xlvi] Public Health England, 'Public Health Matters: bringing together housing and public health'. https://publichealthmatters.blog.gov.uk/2015/10/21/bringing-together-housing-and-public-health/

[xlvii] Joseph Rowntree Foundation, *The links between housing and poverty* (2013)

[xlviii] Home Owners Alliance. 2018. https://hoa.org.uk/advice/guides-for-homeowners/i-am-managing-2/fix-problems-in-a-new-build-home/

[xlix] Delivering Healthy Housing' published in May 2018 https://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/SPSW/Housing/2018/delivering-healthy-housing.pdf

[l] http://www.zerocarbonhub.org/current-projects/performance-gap, https://buildingdataexchange.org.uk/bpe-final-domestic-report/

[li]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/590464/Fixing_our_broken_housing_market_-_print_ready_version.pdf

[lii] Future homes standard consultation.2019. https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings

[liii] Regional Design Charter. West midlands combined authority. 2020. https://www.wmca.org.uk/media/3647/wmdesigncharter.pdf

[liv] https://www.gov.uk/government/statistics/fuel-poverty-factsheet-2020

[lv] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/882404/annual-fuel-poverty-statistics-report-2020-2018-data.pdf

[lvi] Public Health England, *Local action on health inequalities: fuel poverty and cold home-related health problems* (2014)

[lvii] http://www.poverty.ac.uk/report-child-poverty-fuel-poverty/'severe-effect'-fuel-poverty-children

[lviii] Evans GW, Saltzman H and Cooperman JL (2001). Housing quality and children's socioeconomic health, Environmental and Behaviour, 33 (3), 389-399.

[lix] Royal College of Physicians, *Every breath we take: the lifelong impact of air pollution* (2016)

[lx] Royal Society for the Prevention of Accidents, 'Facts and figures in home safety'. https://www.rospa.com/home-safety/advice/general/facts-and-figures/

[lxi] Royal Society for the Prevention of Accidents, 'Accidents to Children'. https://www.rospa.com/home-safety/advice/child-safety/accidents-to-children/

[lxii] NICE, *Unintentional injuries in the home: interventions for under 15s* (2010)

[lxiii] Town and Country Planning Association, *Planning healthy-weight environments* (2014)

[lxiv] Healthy High Streets - Good place-making in an urban setting. PHE. Institute of health equity. 2018 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/699295/26.01.18_Healthy_High_Streets_Full_Report_Final_version_3.pdf

[lxv] European Environment Agency (2014) Health and environmental costs. Copenhagen: EEA.

[lxvi] Cabinet Office (2009) The wider costs of transport in English urban areas in 2009. London: Cabinet Office Strategy Unit.

[lxvii] Faculty of Public Health (undated) Transport and Health Briefing Statement. London: FPH

[lxviii] Reducing emissions from road transport: Road to Zero Strategy. 2018. https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy

[lxix] Air quality plan for nitrogen dioxide (NO2) in UK (2017) https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017

[lxx] Sinnett, D et al. (2012) Creating built environments that promote walking and health: A review of international evidence. Journal of Planning and Architecture 2012: 38.

[lxxi] Ogilvie et al (2007) Interventions to promote walking: systematic review. BMJ.9;334(7605):1204

[lxxii] Broome K, McKenna K, Fleming J & Worrall L (2009) Bus use and older people: A literature review applying the person-environment-Occupation model in macro practice. Scandinavian Journal of Occupational Medicine, 16: 3-12.

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