LOCAL TRANSPORT PLAN

Health Impact Assessment

Kent County Council
December 2024

Highways and Transport
kent.gov.uk

CONTENTS

1. Introduction

1.1. We have prepared a new Local Transport Plan, called *Striking the Balance*, which replaces the fourth plan the Council adopted in 2017 called *Delivering Growth without Gridlock*. Our fourth plan was intended to last until 2031 and some of the proposals it had have not yet been delivered. Our new plan includes some of those existing proposals as they remain essential to addressing the challenges that affect Kent's economy, environment, and quality of life for its communities. Since adopting the *Delivering Growth without Gridlock* plan, much has changed at pace, affecting how and when people travel, why they travel and also the priorities that we and the government have concerning the outcomes of travel and transport.

1.2. Public health and climate change have moved up the agenda, with the policies that Government has in place to direct our efforts as a Local Transport Authority having changed to reflect these. At the same time, the economic downturn, and changes to how we live mean we have seen an increased focus on re-growing the economy and overcoming the productivity challenge, whilst also having greater concern for local services and facilities given the increased time some people have spent working at home.

1.3. Due to all these changes, we decided in 2021 to begin to develop a Local Transport Plan. Further to that decision, the Government then also requested that all Local Transport Authorities, including our Council, prepare new plans and provide those to Government in 2024. This is our Health Impact Assessment of the Local Transport Plan *Striking the Balance* (henceforth 'LTP').

1.4. It is an update to the assessment we published in 2023 as part of our public consultation on the draft Emerging LTP. Our updated assessment reflects the revised policy outcomes and objectives following the consideration of the feedback we received from the consultation. Our updated assessment considers the proposals we have set out in the LTP. It also recognises that more detailed assessments of the effect of proposals will need to be undertaken as necessary as they are developed and delivered in future.

1.5. Since the last consultation, KCC has also been part of the establishment of the Kent and Medway Integrated Care Strategy[1], produced by NHS Kent and Medway, Kent County Council and Medway Council, and partner organisations, aimed at improving the health and lives of people in Kent and Medway. That strategy emphasises that the most important contribution to the health of populations is made by factors that lie outside of health services, such as the quality of the built and natural environment, employment, transport, housing, and social connectedness.

[1] https://www.kmhealthandcare.uk/application/files/9717/1086/0050/CS56370_Care_Strategy-final-accessible.pdf

1.6. Two concepts run through strategy to make it effective - prevention and the identification and reduction of inequalities in health. Given the strategy, it demonstrates the importance of considering the effect of our plans for transport on the health of Kent's population.

1.7. We have prepared this Health Impact Assessment (henceforth 'HIA') with careful reference to the government's published guidance 'Health Impact Assessment in spatial planning'[2] as the LTP is a spatial plan for transport. In doing so, we have also had regard to and applied the Kent Public Health Observatory'[3] data as appropriate to transport impacts.

1.8. We have also had regard to the policy context, to ensure that the key themes of national, regional, and local policy are considered as part of the assessment. The policy context is covered in Appendix A.

1.9. Our HIA supports the Strategic Environmental Assessment (henceforth SEA). of our new LTP.

[2] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/929230/HIA_in_Planning_Guide_Sept2020.pdf

[3] Available at https://www.kpho.org.uk/joint-strategic-needs-assessment/jsna-health-inequalities/introduction-to-the-health-inequalities-impact-assessment-screening-toolkit

2. Scope and Methodology

2.1. In winter 2022 we consulted Statutory bodies on our Scoping report for our SEA and the objectives that we planned to assess the impact of our LTP against. The SEA Scoping included an objective on Health as follows and has been retained following the consideration of feedback of Statutory bodies.

2.2. Population and Human Health Objective: Improve general levels of health and well-being through increasing active travel, improving access to the natural environment, essential services and by reducing road casualties.

2.3. The assessment criteria for the objective are:

2.3.1. Health criteria 1: Improve the environment to boost levels for walking, cycling and other sustainable transport modes.

2.3.2. Health criteria 2: Facilitate safer journeys by implementing the KCC Vision Zero Strategy.

2.3.3. Health criteria 3: Promote healthy lifestyles by improving conditions for active travel.

2.3.4. Health criteria 4: Achieve an improvement in road-side air quality to reduce instances of asthma and respiratory disease in the population.

2.4. In addition, we have considered the wider determinants of health and how those relate to the impact transport can have. As we described in our Evidence Base to the LTP, transport and movement are related to those determinants circled in the dashed black line in Figure 1. Those determinants circled are Diet / Exercise, Education, Employment, Access to Care, and Environmental Quality and the Built Environment. Transport therefore has a role to play in an estimated 50% of the determinants of our health.

Figure 1 - Transport's role in the wider determinants of public health

SOURCE: Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute in US to rank countries by health status

2.5. Given this, we have supplemented the original criteria for the Population and Human Health objective that was in our SEA Scoping Report, with the following criteria, for the reasons given:

2.5.1. Health criteria 5: Improve access to open space and recreational facilities. *Rationale: Exercise and Built Environment are identified wider determinants of health that transport impacts on.*

2.5.2. Health criteria 6: Improve access to services (e.g. education, health, retail). *Rationale: Employment, education, and access to care are wider determinants of health that transport may have an impact on.*

2.5.3. Health criteria 7: Improve the affordability of transport services. *Rational: Income is a wider determinant of health that will impact on transport choices people can take.*

2.5.4. Health criteria 8: Reduce the disturbance and noise effects of transport operations in Kent. *Rationale: Noise can have a significant impact on public health, disrupting sleep and becoming a nuisance.*

2.6. Collectively, these criteria enable consideration of the effect of the LTP and, given the range of aspects covered by the criteria, help us to understand whether overall the LTP will be likely to have positive impacts, negative impacts or a mix of both.

2.7. To consider the impact of our emerging draft LTP we have applied a standard five-rating scale as follows:

2.7.1. Very beneficial

2.7.2. Slightly beneficial

2.7.3. Neutral or no obvious effect

2.7.4. Slightly negative

2.7.5. Very negative

2.8. The assessment we have conducted includes commentary against the scored scale ratings for the emerging draft LTP policy impacts. We have highlighted in our assessment where there is uncertainty around the potential effects of a policy.

2.9. To assess the potential health effects of our emerging draft LTP policy impacts we have established a baseline against which the effects we consider can be assessed. This has helped us to identify issues and trends that are related to health determinants that our plan may impact. Baseline data collected for the SEA Scoping Report, the Equalities Impact Assessment, and the Evidence Base for the emerging draft LTP have been used and supplemented where appropriate.

2.10. We have attempted to identify those groups which could be considered ‘Vulnerable’ in health terms. We have considered the guidance set out in the Design Manual for Roads and Bridges (DMRB) LA 112 concerning Population and Human Health as our emerging draft LTP focuses on our responsibilities as a local highway authority and how our managed network could change to meet our policy goals.

2.11. Specific baseline elements noted in DMRB include the following:

2.11.1. Percentage of community with increased susceptibility to health issues (vulnerable members, e.g. 65 years over).

2.11.2. Percentage of community with pre-existing health issues (e.g. respiratory disease/chronic obstructive pulmonary disease (COPD)).

2.11.3. Deaths from respiratory diseases.

2.11.4. Percentage of community with long term illness or disability.

2.11.5. General health.

2.11.6. Life expectancy.

2.11.7. Income deprivation.

2.12. In the next section we have established the demographics and health profile of Kent's communities, taking these factors into account where information is available.

3. Kent Demographics and profile of its communities

3.1. Population size and demographics

3.2. Kent has a resident population of 1,589,100 making it the largest non-metropolitan county in England by population. Of the 12 local authority districts within the KCC area, Maidstone is the most populated with 173,100 people, and Gravesham the least with 106,900 people. People living in urban areas make up 73% of the Kent population but only occupy 21% of the total land area. Kent's population grew by 9.4% between 2010 and 2020, which is above the average for both the South East (7.5%) and England (7.4%), the forecast growth rate between 2019 and 2039 is 19%.

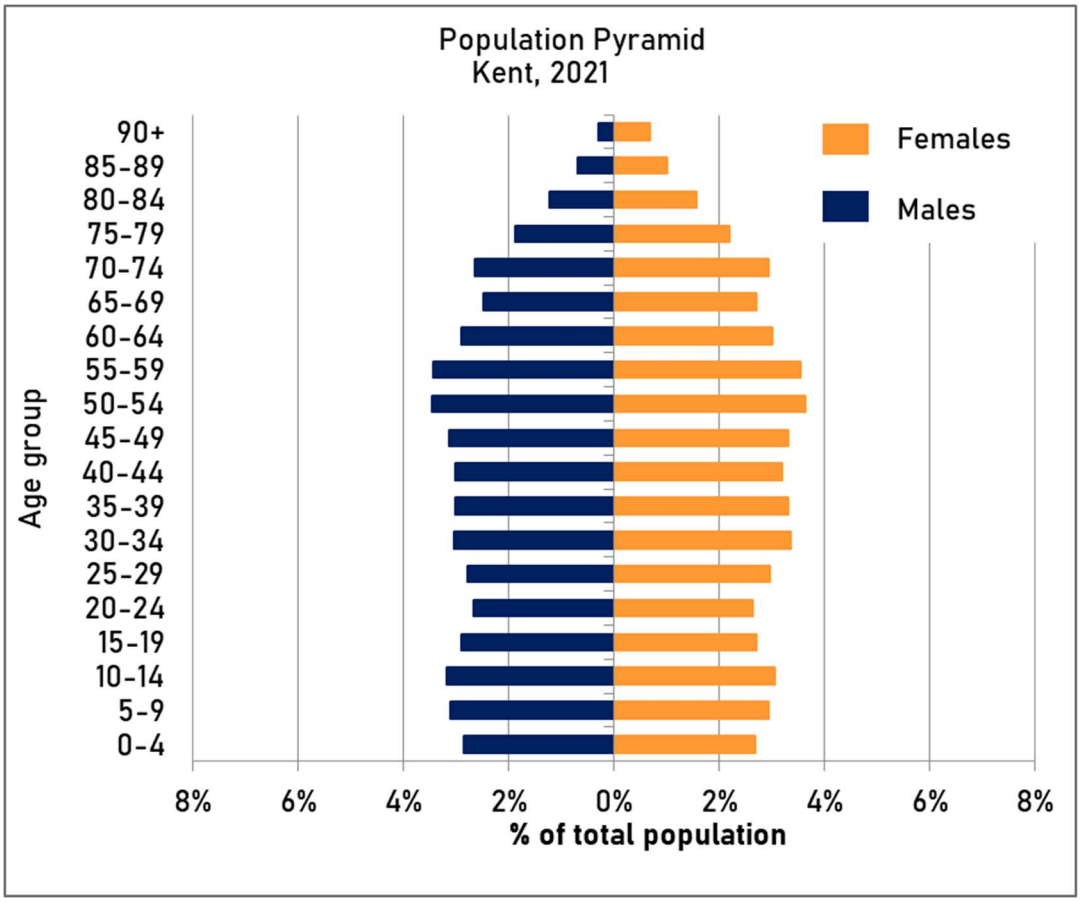
3.3. The proportion of males to females in the County is 49% to 51% as shown in the population pyramid in Figure 2, however, there is a greater proportion of young people aged 5-19 years and people aged 45+ compared to the England average (18% to 15%, and 46% to 39% respectively). Currently, 20.3% of the population is aged over 65, however, with increasing life expectancies this figure is expected to rise by 44.9% between 2019 and 2039.

3.4. In Table 1 the projected population change for the different age groups between 2018-2030 is shown. The pattern of change forecast is broadly similar in Kent to the national projections. Growth in proportion of adults is projected to be greater in Kent (5.1%) compared to England (1%), and there will be significant growth in the share of older and elderly residents in both geographies; a 34.5% increase in the proportion of elderly people in Kent being the greatest predicted area of growth, followed by 32.6% across England for the same age category. Kent is expected to see a slight fall in the proportion of children, a 0.4% decrease, compared to a 4.1% decrease nationally.

Table 1 - Forecast change in population in Kent across age ranges between 2018 to 2030

Age (years)	Kent Percentage	England Percentage
0-14 (children)	-0.4	-4.1
15-24 (young people)	11.6	12.3
25-64 (adults)	5.1	1
65+ (older people)	24.9	24.7
85+ (the elderly)	34.5	32.6

Figure 2 - Kent Population Pyramid



3.5. Natural environment and open space

3.6. Given the extent of Kent's rural area, the county has many natural environment assets which provide opportunities for outside activities that can support physical and mental wellbeing. These assets include:

- Special Protection Areas (SPA's) relating to the protection of birds
- Special Areas of Conservation (SAC) to provide increased protection to a variety of wild animals, plants, and habitats to conserve biodiversity
- Conservation of wetlands the through Ramsar convention
- 6 Marine Conservation Zones (MCZ's) to protect habitats and wildlife in the seas from Medway Estuary to Dover.
- National Nature Reserves
- Biodiversity Opportunity Areas
- 98 Sites of Special Scientific Interest (SSSIs)
- 36 Biodiversity Action Plan priority habitats
- 99 Sites of Special Scientific Interest (SSSI), covering 8.7% of the County
- 466 Local Wildlife Sites, covering 7% of the County
- 154 Roadside Nature Reserves, with a combined length of 89km.
- 2 Areas of Outstanding Natural Beauty:
- High Weald
- Kent Downs
- Ancient Woodland in 13 locations,
- 6 RSPB Reserves
- Woodland Trust Reserves
- 9 Country Parks managed by Kent County Council
- 350 miles of coastline and hundreds of miles more of waterways

3.7. Disabilities

3.8. Disabilities can have a bearing on health. According to the 2021 Census, 280,329 residents (17.7% of the total Kent resident population) had a disability recognised under the Equality Act which limited day-to-day activities either a lot or a little. When referring to disability we mean individuals whose day-to-day activities are limited in some way and have been for a long time; specification on whether these activities are limited 'a lot' or 'a little' may also be provided to highlight inter-district differences. As of April 2022, 5.0% of Kent's population were claiming Personal Independence Payments (introduced in 2013 this new benefit is gradually replacing Disability Living Allowance for people aged 16-64), the highest percentage of claimants were in Thanet (7.6%), Dover (6.3%), and Gravesham (5.0%).

3.9. According to the census, Tunbridge Wells had the lowest proportion (14.5%) of residents with a disability recognised under the Equality Act which limited day-to-day activities either a lot or a little whilst Thanet had the highest (22.0%). In general, districts in the east of the county (Thanet, Dover, Canterbury) had higher proportions of people with disabilities. This coincides, in general, with higher proportions of people on low incomes and experiencing higher levels of deprivation.

3.10. Life expectancy

3.11. Life expectancy is a high-level statistic which gives a broad indication of the health of a population and enables easy comparison with other populations. Life expectancy statistics for Kent have been reported by Kent County Council's Analytics unit on the public website. The results repeated below in Table 2 and Table 3 demonstrate that the Kent area faces challenges on life expectancy relative to the south east region, although Kent sits marginally above the national average. Furthermore, there is substantial difference within the county itself, an aspect further elaborated on in section 3.37 on Deprivation.

Table 2 - Life expectancy in Kent compared to the south east region

County	Male life expectancy (years)	Female life expectancy (years)	Difference between males and females (years)
Hampshire	81.2	84.4	3.2
Oxfordshire	81.1	84.8	3.7
Surrey	81.1	84.7	3.5
West Sussex	80.3	84.2	3.9
East Sussex	79.8	83.4	3.7
Kent	**79.0**	**83.0**	**4.0**

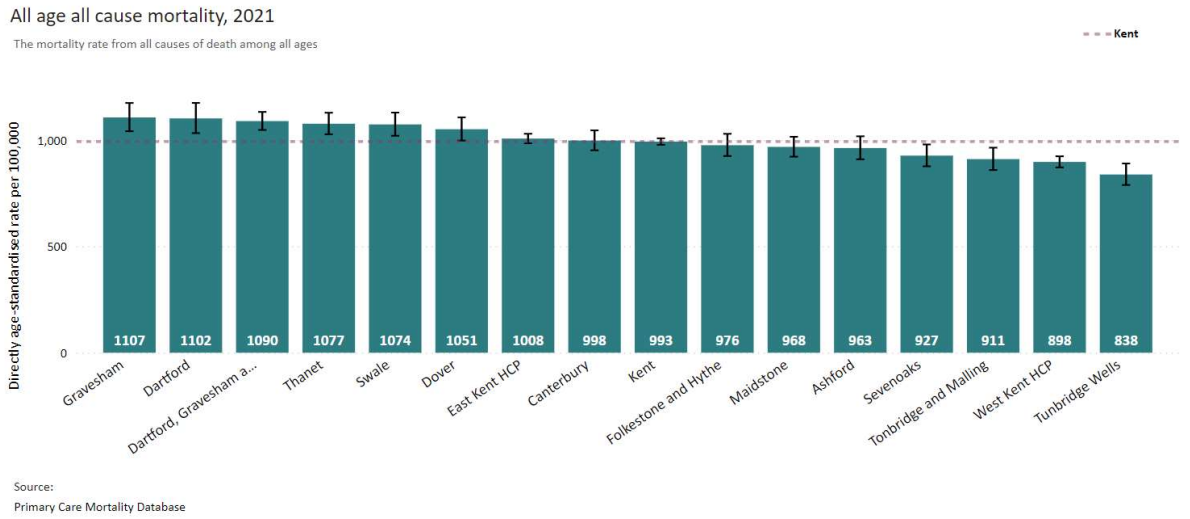
Table 3 - Life expectancy in the different districts of Kent

District	Male life expectancy (years)	Female life expectancy (years)	Difference between males and females (years)
Sevenoaks	81.1	84.4	3.3
Tunbridge Wells	80.6	83.8	3.1
Tonbridge and Malling	80.3	84.4	4.1
Maidstone	79.8	83.3	3.5
Ashford	79.7	83.3	3.7
Canterbury	79.2	83.3	4.1
Dartford	78.6	82.4	3.8
Swale	78.1	82.0	3.9
Dover	78.0	82.5	4.5
Gravesham	77.7	82.7	4.9
Folkestone and Hythe	77.7	82.3	4.6
Thanet	77.0	81.7	4.7

3.12. Public Health

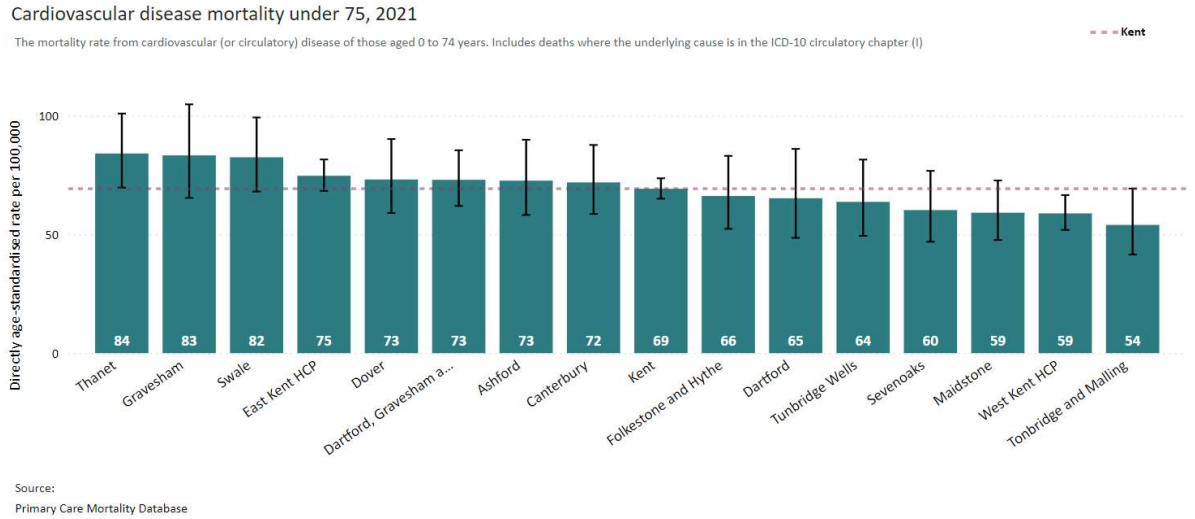
3.13. Public health of Kent's communities is monitored by Kent County Council and reported on the Public Health Observatory online platform. The broadest indicators of public health across the county concern mortality rate from all causes of death among all ages. The latest data for Kent, dated 2021, is shown in Figure 3. Gravesham, Dartford, Thanet, Swale, Dover, and Canterbury are all above the Kent average.

Figure 3 - All age all-cause mortality in 2021 in Kent, by District



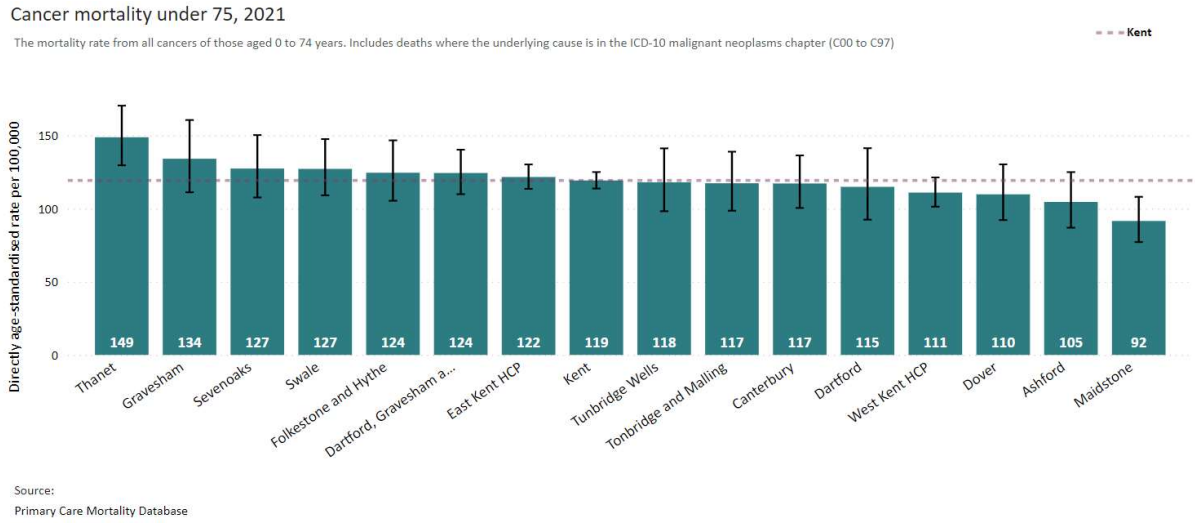
3.14. Underlying all-cause mortality statistics, are statistics for Kent by District across the main categories of mortality. Physical activity, which can be achieved by physically moving as part of a journey such as on foot, or by bike, and can lower cardiovascular disease by up to 35%[4]. Within Kent, the spread of cardiovascular disease deaths is show in Figure 4.

Figure 4 - Cardiovascular attributed mortality in 2021 in Kent, by District



3.15. Similarly, across a range of cancers, physical activity can reduce the risk of developing and dying from them e.g. colon cancer risk by 30%, breast cancer by 20%[5]. Within Kent, the spread of cardiovascular disease deaths is shown in Figure 5. Thanet, Gravesham, Sevenoaks, Swale, Folkestone, and Hythe are above average.

Figure 5 - Cancer attributed mortality (under 75 years of age) in 2021 in Kent, by District



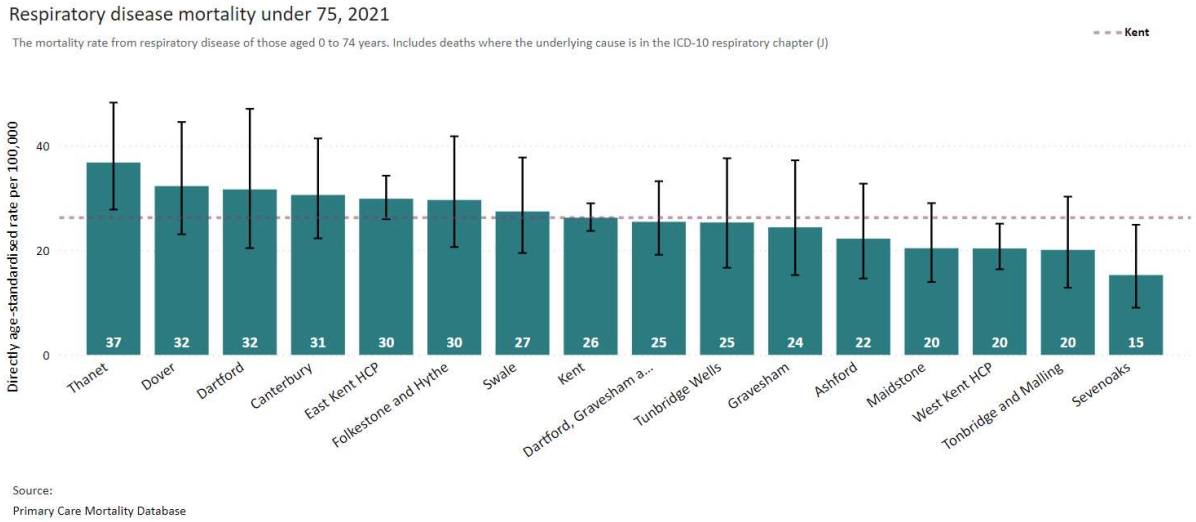
[4] Public Health England (2019), Physical activity: applying All Our Health.

[5] As above

3.16. Transport also can have an impact, both positive and negative on respiratory health. Positive impacts can arise from improved health due to physical activity associated with active travel types like walking and cycling. Negative impacts can arise from the emissions generated by transport vehicle operations or the lack of physical activity and reduced respiratory health that can bring from having to rely on vehicle use.

3.17. More detail on the risks identified in Kent from vehicle emissions is set out further on. Within Kent, the spread of respiratory disease mortality across the Districts is shown in Figure 6. Thanet, Dover, Dartford, Canterbury, Folkestone and Hythe and Swale are all above the Kent average.

Figure 6 - Respiratory attributed mortality (under 75 years of age) in 2021 in Kent by District



3.18. We have considered the most relevant reported public health data to transport and travel below.

3.19. Child obesity levels are reported through the Public Health Observatory, across infants and older children. The percentage of children aged 4 to 5 and aged 11 classed as obese within wards across Kent are shown in Figure 7 and Figure 8.

Figure 7 - Obesity levels across Kent for children aged 4 to 5 over the period 2013/14 to 2017/18 (Source: Kent Public Health Observatory)

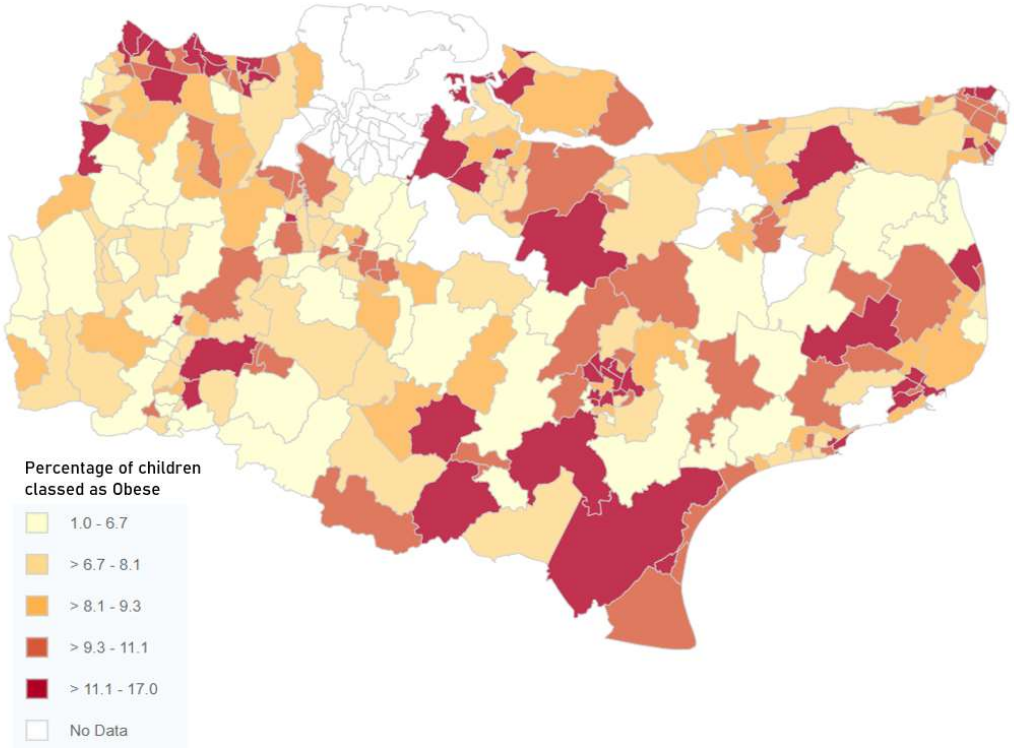
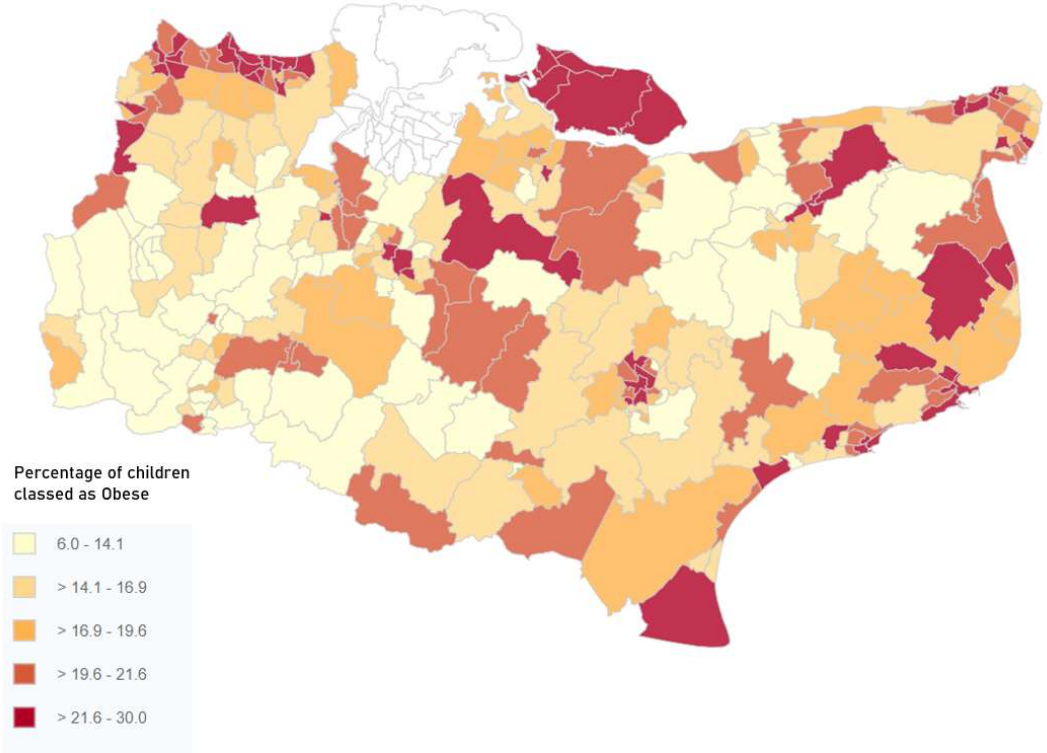


Figure 8 - Obesity levels across Kent for children aged 10 to 11 over the period 2013/14 to 2017/18 (Source: Kent Public Health Observatory)

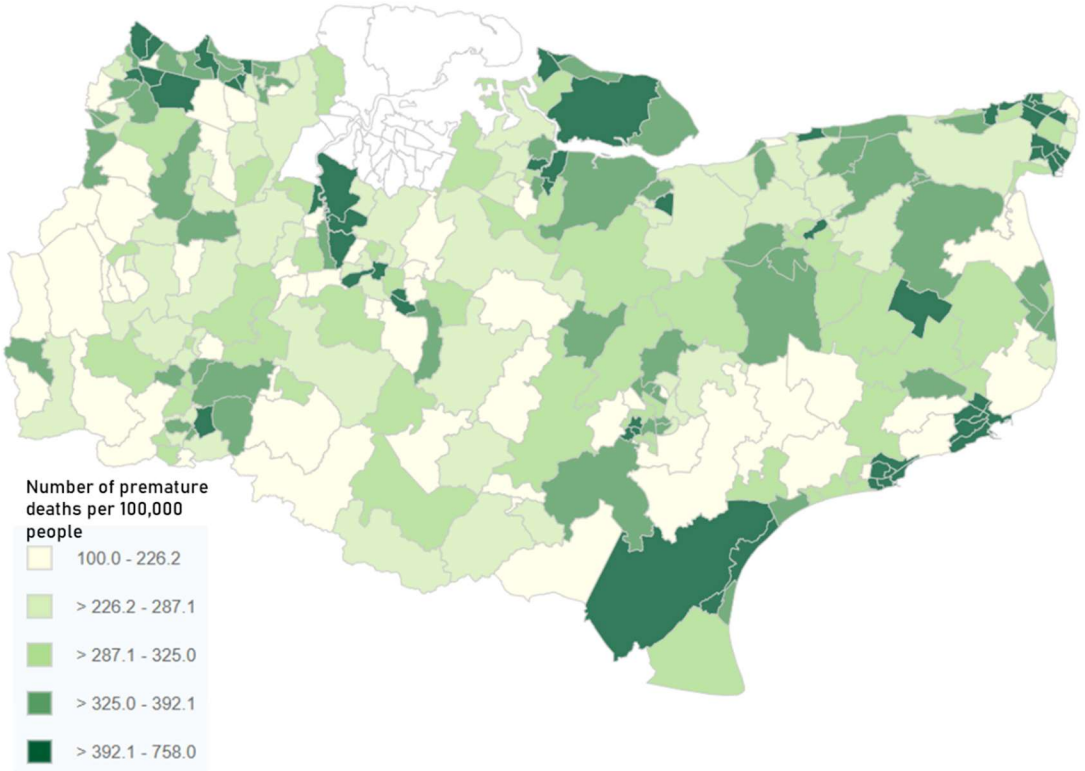


3.20. In parts of Kent there are areas where childhood obesity accounts for almost one in three children of the ages reported. Higher levels are typically in the more populous built-up areas like Gravesend, Ashford, Folkestone, and Dover, amongst others. There is some similarity with where deprivation occurs, however the challenge is not exclusively present in areas that see higher levels of deprivation.

3.21. It is notable that the highest levels tend to be in built up areas where there tends to be a denser street network, lower speed limits than in rural areas, and a concentration of homes, services, retail, and schools which should make for places where active forms of travel such as walking and cycling are easier to do. Therefore, overcoming remaining barriers to enabling children to benefit from physical activity as they travel around their town may help to address the levels of obesity seen.

3.22. The distribution of premature deaths (considering all causes), measured as an Age standardised rate per 100,000 people aged under 75 years, is shown in Figure 9. The spatial distribution of premature deaths in Kent has similar distribution to child obesity.

Figure 9 - Distribution of premature death rates across Kent

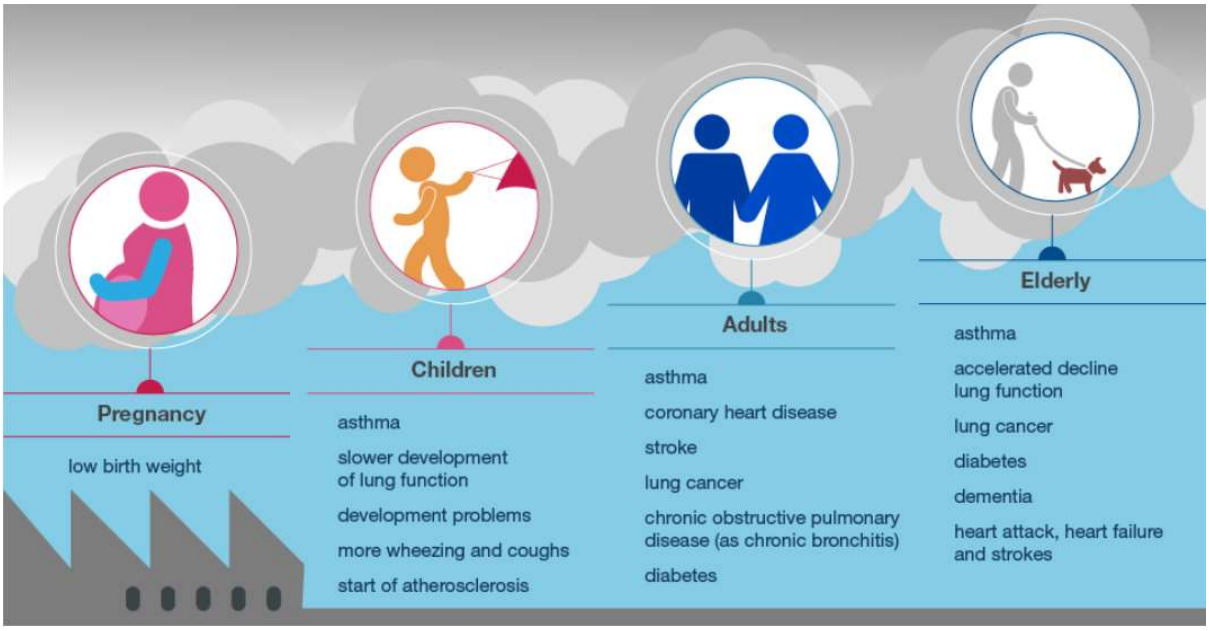


3.23. Air Quality and health

3.24. Transport activity also directly impacts air quality, with road-based vehicles generating pollutants that can enter the respiratory system and cause more widespread health impacts within the body. It affects people throughout their lifetimes, as some groups may be more susceptible to the effects than others, such as pregnant women, those people with pre-existing respiratory disease. Circumstances aside from existing health can also impact susceptibility – for example living in locations such as on streets with high volumes of traffic and a built environment that traps vehicle pollution.

3.25. In our consultation on the draft emerging LTP, the comments we received concerning the published HIA raised air quality as the most common issue. By considering the potential impact of our LTP against Health Criteria 4 concerning air quality, we are ensuring that any risks that proposals could worsen air quality are identified so they can be managed and mitigated, along with those proposals we identify as having potential to improve air quality.

Figure 10 - How air quality affects people through their life time (source: Public Health England)



3.26. Public Health England published data on the correlation of mortality with air pollution across local authorities in England, shown in Figure 11. Coupled with Figure 12, it shows that Kent follows the overall trend (i.e. that there is a likely correlation between air pollution and mortality in Kent) and furthermore has a correlation slightly above the average for England (suggesting the population in Kent is slightly more affected by air pollution, which could be for a wide variety of reasons, than the average of locations in England). This evidence lends

weight to continuing to address road-based pollution to contribute to improving public health outcomes in Kent.

Figure 11 - Correlation of mortality to air pollution from fine particulate matter

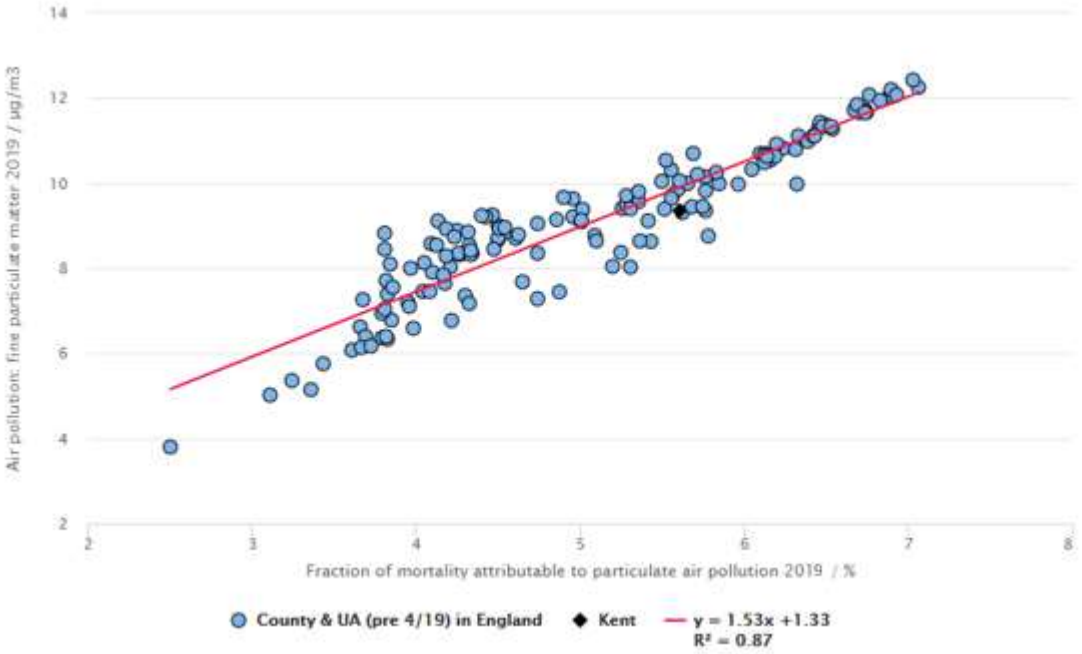
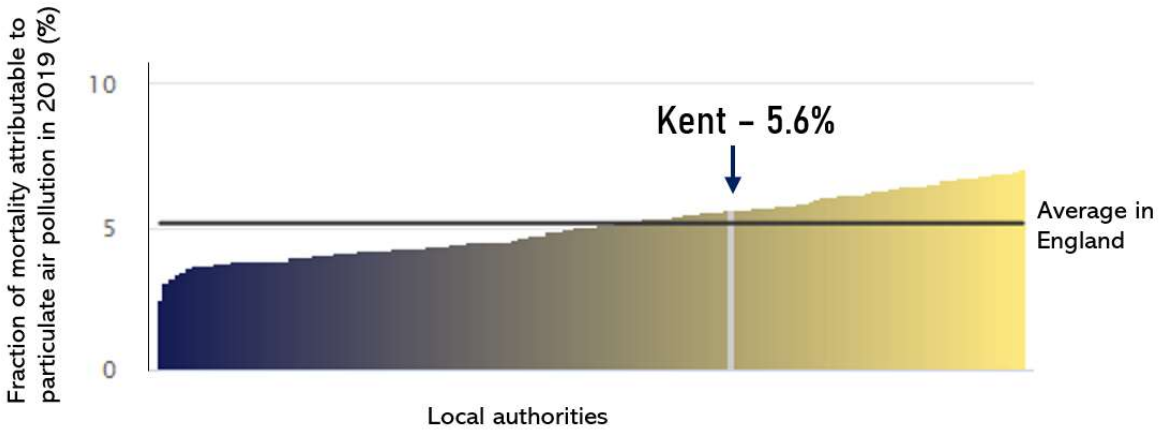


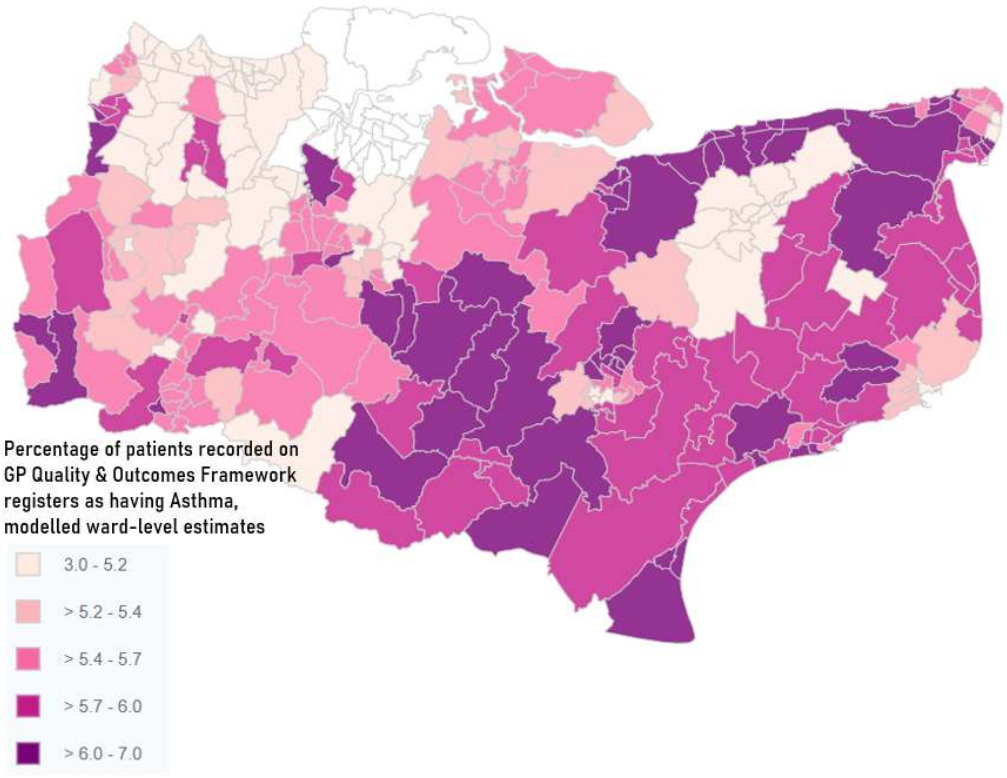
Figure 12 - Kent correlation between air pollution and mortality relative to the national average



3.27. As part of Kent's monitoring of public health, prevalence of Asthma is reported (Source: QOF, compiled on Kent Public Health Observatory) which is proven to be exacerbated by pollutants from roads and may cause development of Asthma. The prevalence of Asthma in Kent is shown in Figure 13. The figure shows a more widespread prevalence especially in the eastern half of the county, though in the western half there are still locations with some of the highest rates.

3.28. The more widespread prevalence likely reflects that there are a wide range of environmental factors that also affect Asthma aside from road pollution. Consideration of the effects of road-generated air pollution are nonetheless important to make and relevant especially in locations where Air Quality Management Areas have been defined due to this cause.

Figure 13 - Recorded Asthma prevalence in Kent



3.29. In Kent the recognised and monitored areas of highest pollution are designated Air Quality Management Areas (AQMAs). There are currently 29 areas in total. Kent has not had any requirement to introduce Clean Air Zones[6] based on the monitored level and spatial extent of pollutants – reflecting in part that Kent's main urban areas are typically relatively small scale compared to those locations elsewhere in England where Clean Air Zones have been declared. The AQMAs identified to date concern monitored levels of Nitrogen Dioxide.

3.30. The AQMAs in Kent include road corridors, both on the National Highways trunk road network and on the KCC managed local road network. The name and location of the Air Quality Management Areas covering road corridors are listed in Table 4 - Air Quality Management Areas in Kent.

[6] Clean Air Zones are required where areas are breaching legal limits of Nitrogen Dioxide (NO_2) Clean air zone framework - GOV.UK (www.gov.uk)

Table 4 - Air Quality Management Areas in Kent

Name of AQMA	Designating local authority	Coverage of AQMA
No.3 Canterbury	Canterbury City Council	Ring road round Canterbury City centre and its adjoining main roads.
No.1 Herne	Canterbury City Council	Junction of School Lane with the A291.
No. 1 Dartford	Dartford Borough Council	A corridor approximately 250m wide along the A282 Dartford Tunnel Approach Road from junction 1a to 300m south of junction 1b.
No. 2 Dartford	Dartford Borough Council	An area encompassing London Road, Dartford.
No. 3 Dartford	Dartford Borough Council	An area encompassing Dartford Town and a number of approach roads.
A20	Dover District Council	An area following the A20 from just west of the Limekiln Roundabout at the western end to a point circa 140m from the Eastern Docks in Dover.
High Street / Ladywell	Dover District Council	An area encompassing roads and properties between the junction of Effingham Crescent/High Street, and Priory Hill/High Street.
A2 trunk road	Gravesham Borough Council	An area extending either side of the length of the A2 within the borough.
Northfleet Industrial Area	Gravesham Borough Council	An area encompassing the Northfleet Industrial Area in Gravesham.
Gravesham A227 Wrotham Road / B261 Old Road West	Gravesham Borough Council	An area encompassing the junction of the A227 Wrotham Road and B261 Old Road West extending south to a point just beyond the Woodlands Restaurant.
Gravesham A226 One-way system AQMA	Gravesham Borough Council	An area incorporating the entirety of the A226 One-way system in Gravesend.

Name of AQMA	Designating local authority	Coverage of AQMA
Maidstone Borough	Maidstone Borough Council	The area follows the carriageways of the main roads passing through the Borough, including the M20, A229, A20, A26, A249, and A274.
No.8 Swanley Town Centre	Sevenoaks District Council	An area encompassing Swanley Town Centre, High Street and London Road.
No.10 Sevenoaks High Street	Sevenoaks District Council	An area encompassing Sevenoaks High Street.
No.13 A25	Sevenoaks District Council	The entire length of the A25 from the border with Tonbridge and Malling in the East to the border with Tandridge on the West.
No.14 Junction of Birchwood and London Roads, Swanley	Sevenoaks District Council	Junction of Birchwood Road and London Road, Swanley.
Newington	Swale Borough Council	An area encompassing those parts of London Road and High Street, Newington where the speed limit is 30mph.
No.2 / 6 Ospringe extended	Swale Borough Council	Area incorporating all Ospringe Street, Ospringe which is a section of the A2 London Road, trunk road near Faversham and extended to take account of the additional tube monitoring results up the hill as far as the Mount.
No.3 East Street	Swale Borough Council	The designated area incorporates the area of East Street, Sittingbourne.
No.4 St Pauls Street	Swale Borough Council	The designated area incorporates the area of St Pauls Street, Sittingbourne.
Teynham	Swale Borough Council	The AQMA has been declared for a strip of the A2 London Road Teynham which is between Faversham and Sittingbourne.

Name of AQMA	Designating local authority	Coverage of AQMA
Keycol Hill	Swale Borough Council	The designated area incorporates the area of Keycol Hill, Sittingbourne.
Thanet Urban	Thanet District Council	An area encompassing several urban areas within Thanet.
M20	Tonbridge and Malling Borough Council	An area extending 39m from the centreline along the M20 motorway between the points where it passes below New Hythe Lane, Larkfield to the west and where it crosses Hall Road, Aylesford to the east.
Tonbridge High Street	Tonbridge and Malling Borough Council	An area incorporating the High Street between Botany and the High Street/Vale Road roundabout, Tonbridge.
Wateringbury	Tonbridge and Malling Borough Council	An area incorporating the Red Hill/Tonbridge Road A26 crossroads in the Parish of Wateringbury.
Aylesford	Tonbridge and Malling Borough Council	Area covering the A20 London Road Junction with Hall Road & Mills Road in Aylesford
Larkfield	Tonbridge and Malling Borough Council	Area covering the A20 London Road Junction with New Hythe Lane and row of houses on approach to this junction from the west on A20 London Road in Larkfield
No.7 Borough Green	Tonbridge and Malling Borough Council	Area covering the A25 Sevenoaks Road and roundabout with Western Road in Borough Green.

3.31. Mental health and Wellbeing in Kent

3.32. Mental health is also reported as part of the public health observatory, and whilst the factors that can affect it are varied, physical fitness and the quality of place in which people live and work can both affect mental health. A lack of

transport can lead to social isolation and loneliness, and reduced physical activity which can impact mental health and wellbeing. In addition, transport can generate noise and cause disturbance which can also have detrimental effects to both physical and mental health.

3.33. Mental health issues were the second most frequent issue raised in response to our consultation on the HIA we published when we consulted in 2023 on the draft Emerging LTP.

3.34. Common to premature deaths and obesity, there is clear evidence to indicate improving choice and quality of transport in towns across Kent, creating better places, and more active lifestyles, can improve public health outcomes. Where to focus efforts on increasing the opportunity for more active lifestyles as part of how people make journeys can be informed by activity levels across the county.

In Figure 14 and

3.35. Figure 15 the prevalence of mental health disorders or reported concerns by patients are shown. The data for depression and anxiety reported by patients is somewhat old, but its regular surveyed level gives an understanding of the scale of the proportion of patients who have concerns about their mental health.

Figure 14 – Proportion of Kent patients with mental health disorder diagnoses (Source: Public Health England)

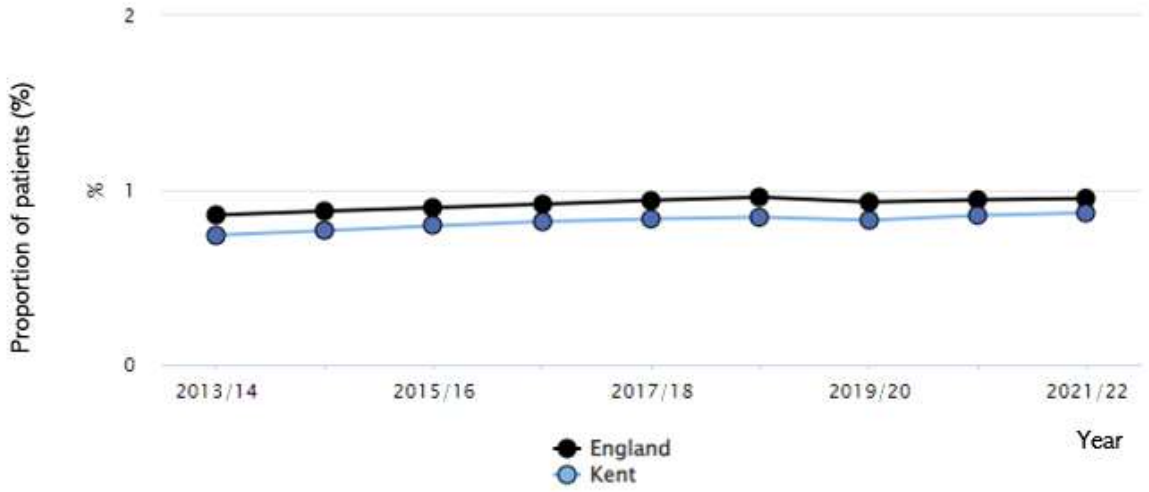
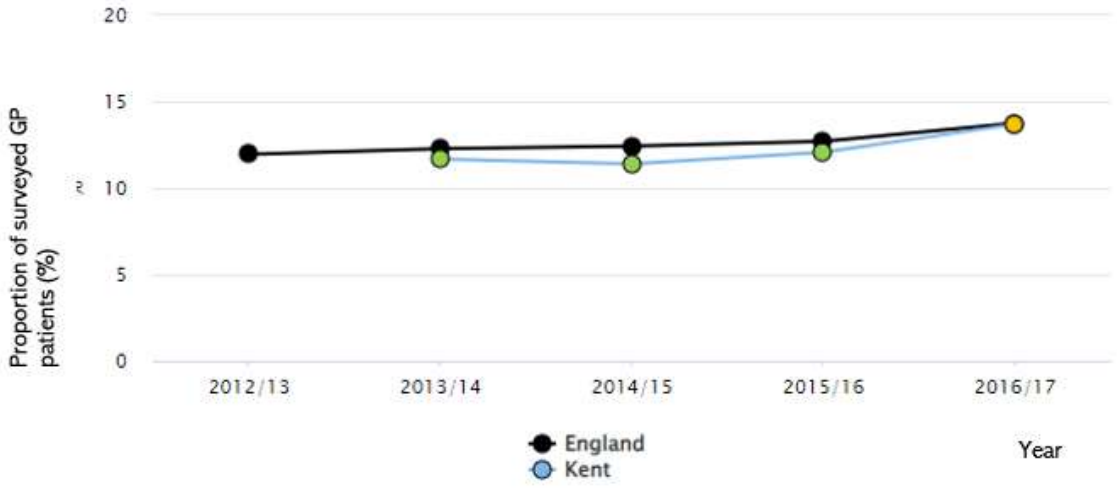


Figure 15 - Proportion of surveyed GP patients in Kent over 18 years old reporting depression and / or anxiety



3.36. Figure 16 shows a measure of wellbeing in Kent. The data shows a slight decline overtime though some improvement more recently. Supporting wellbeing and mental health can be aided by improving the physical activity levels in Kent, shown in Figure 17. These demonstrate that some parts of the county have large portions of the population undertaking less than 30 minutes

physical exercise a week, indicating substantial scope for improvement if the right measures, incentives, and support can be put in place.

Figure 16 - Satisfaction with personal wellbeing as reported through Office National Statistics Surveys (Source Public Health England)

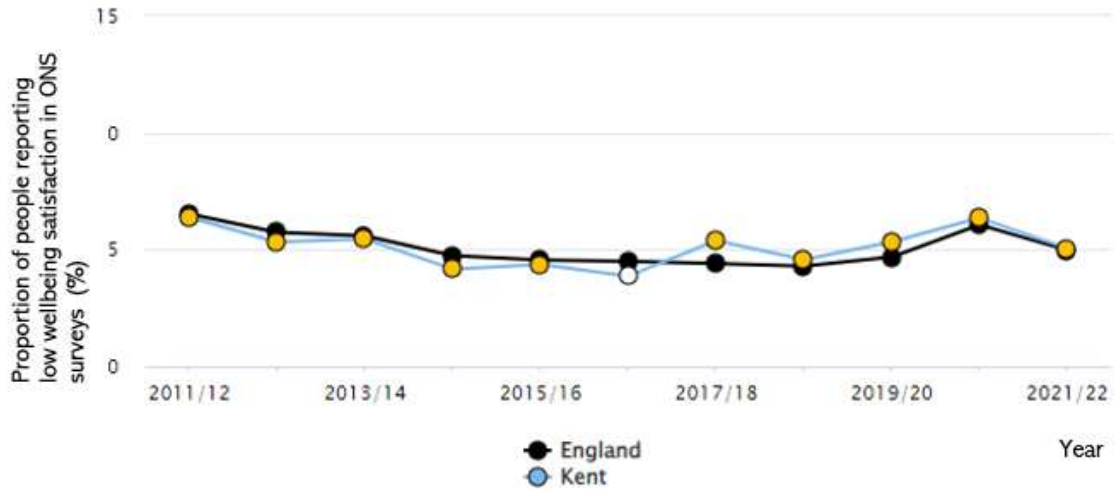
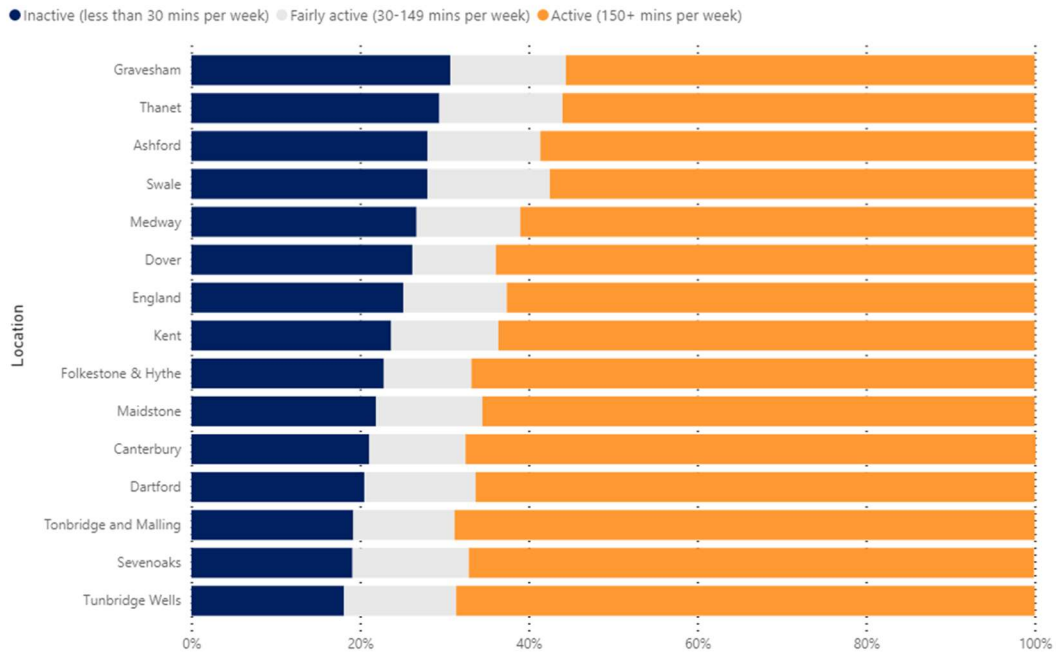


Figure 17 - Physical activity levels within Kent in 2019-20 (Source: Sport England)



3.37. Deprivation

3.38. Deprivation is measured by the 2019 English Indices of Deprivation. This provides an overall deprivation score and rank for Lower Super Output Areas (LSOAs) across England by building upon seven distinct 'domains' of deprivation. These domains are seen as the key indicators which influence a person's level of deprivation, they are as follows:

3.38.1. Domain 1: Income - measures the proportion of the population experiencing deprivation relating to low income. The definition of low income used includes both those people that are out of-work, and those that are in work but who have low earnings.

3.38.2. Domain 2: Employment - measures the proportion of the working age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities.

3.38.3. Domain 3: Education, skills, and training – measures the lack of attainment and skills in the local population. The indicator falls into two sub-domains intended to reflect the 'flow' and 'stock' of educational disadvantage:

- Children and young people sub-domain: measures the attainment of qualifications and associated measures (flow).

- Adult skills sub-domain: measures the lack of qualifications in the resident working population (stock).

3.38.4. Domain 4: Health deprivation and disability – measures the risk of premature death and the impairment of quality of life through poor physical and mental health.

3.38.5. Domain 5: Crime – measures the risk of personal and material victimisation at local level.

3.38.6. Domain 6: Barriers to housing and services – measures the physical and financial accessibility of housing and local services. The indicator falls into two sub-domains:

- Geographical barriers: which relates to the physical proximity of local services

- Wider barriers: which includes issues relating to access to housing such as affordability and homelessness.

3.38.7. Domain 7: Living environment – measures the quality of the local environment. The indicator falls into two sub-domains of 'Indoors' (which measures the quality of housing) and 'Outdoors': (which measures the local air quality and road traffic accidents).

3.39. The overall relative score generated by the combination of these ranks is the Index of Multiple Deprivation (IMD). The Income Deprivation Affecting Children Index (IDACI) measures the proportion of children aged 0 to 15 living in income deprived families. The Income Deprivation Affecting Older People Index (IDAOPI) measures the proportion of all those aged 60 or over who experience income deprivation.

3.40. The scores provided against each domain are a measure of relative deprivation rather than affluence. As such, it is important to recognise that not every person in a deprived area will themselves be deprived and likewise, that there will be some deprived people living in the least deprived areas.

3.41. People experiencing deprivation are more likely to experience poor health, have lower levels of income, or experience barriers to accessible housing, car ownership and access to services. These all impact the wider determinants of health. The poor health and wellbeing outcomes can detrimentally affect the opportunities that people can take advantage of and therefore will find it harder to avoid future deprivation.

3.42. How transport contributes to deprivation and health outcomes will vary from place to place. In some locations, there may be a dense and well used road network, but the impacts that creates in terms of pollution, noise, severance, and safety may disadvantage and worsen the health outcomes for some people. In such circumstances, the solution in these locations is likely to differ from other locations where there may be a lack of accessible transport that leads to different impacts on health such as isolation or higher travel costs.

3.43. At this stage of assessment, review of deprivation at the scale of Kent as a county has been provided. Given deprivation data is only available at LSOA scale, an annotated visual figure of Kent has been provided which allows for areas with high deprivation to be pinpointed such that they may be analysed in more detail, if necessary, as the LTP progresses.

3.44. In Figure 18 the index of multiple deprivation scores across Kent are shown; darker blue shaded areas indicate higher levels of deprivation. There is an evident pattern of deprivation across Kent, with urban coastal areas in the north and east of the county being particularly prevalent with elevated levels of deprivation.

3.45. We know that deprivation is correlated with life expectancy. The KCC Public Health Risk Register states that the average life expectancy in the most

deprived decile areas in Kent is 76 years for men and 80 years in women, compared to 83 years and 86 years respectively in the most affluent areas. The risk register states a consequence could be that these inequalities lead to rising health and social care costs for the council and its partners amongst those groups least able to support themselves financially.

3.46. In Figure 19, the difference in all-age all-cause mortality between the highest and lowest deciles of deprivation in Kent (based on 2019 reported levels) is shown. There is a clear difference that has persisted over time and suggests a strong correlation between deprivation and health. In Figure 20 it can be seen that this correlation exists for both males and females.

3.47. It is clear from this evidence that deprivation is a key component of health inequalities, and can be informative to the planning of future transport proposals across the county.

Figure 18 - Index of Multiple Deprivation across Kent in 2019

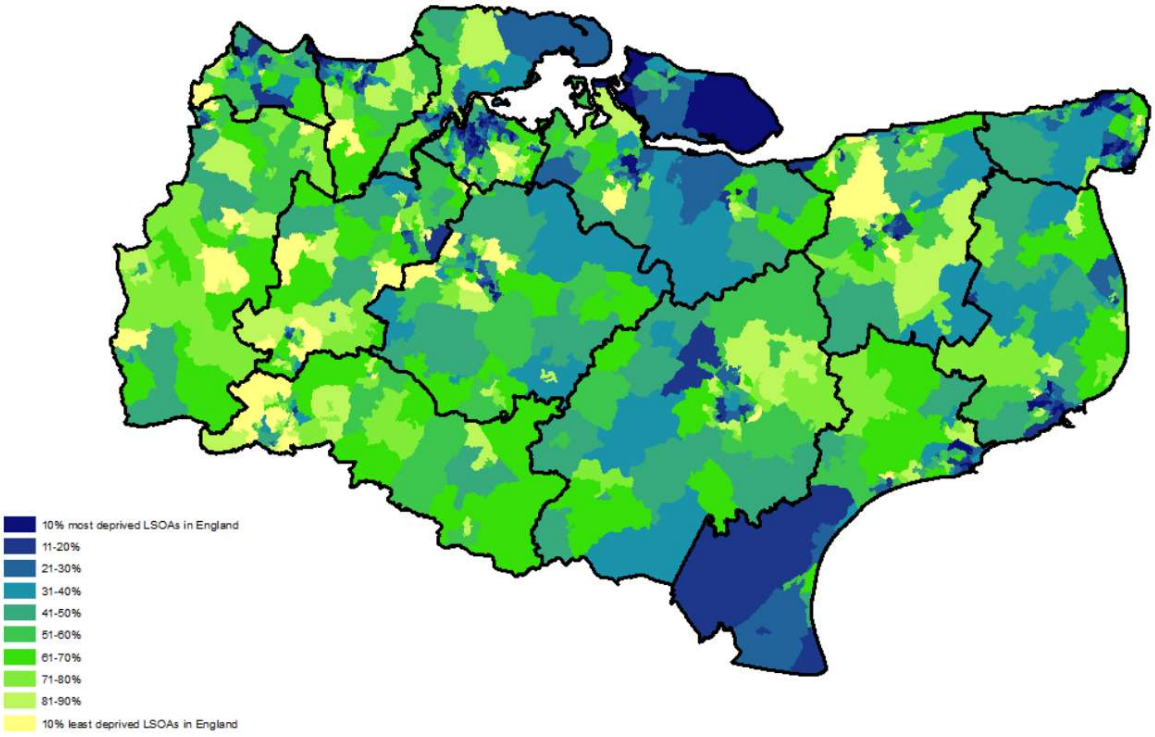
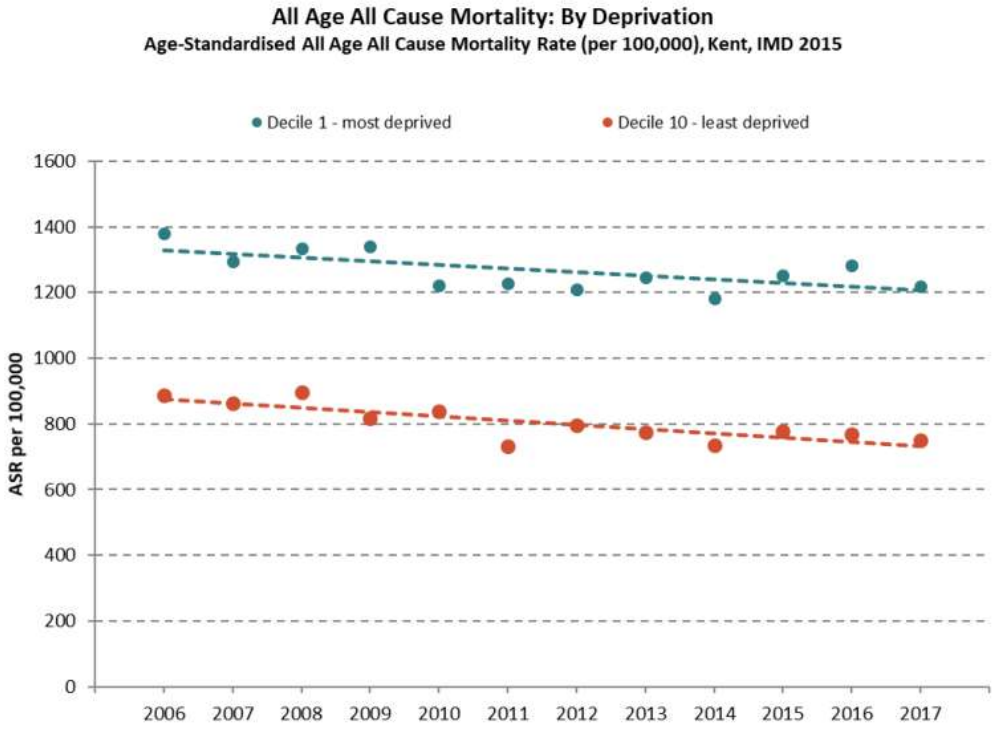
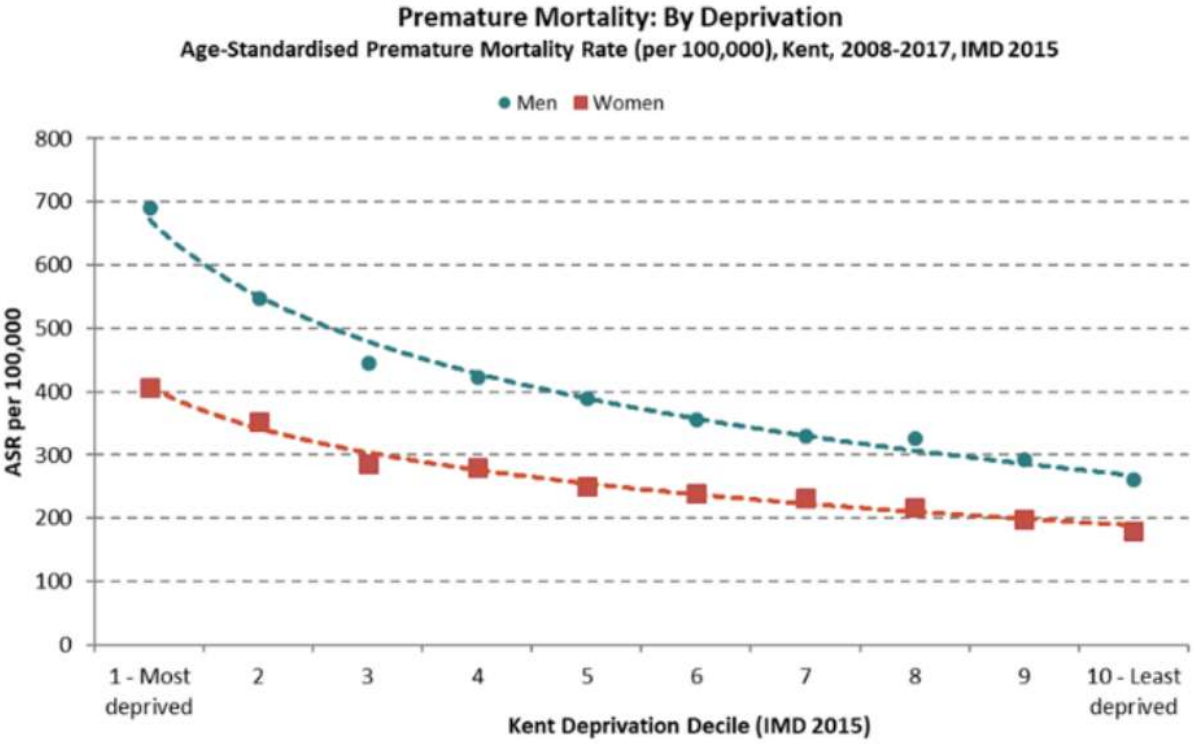


Figure 19 – All-age all-cause mortality by deprivation



Source: PCMD, prepared by KPHO (RK), Jan 2019

Figure 20 – All-age all-cause mortality by gender and deprivation decile



Source: PCMD, prepared by KPHO (RK), Jan 2019

4. Assessment of effects

4.1. The emerging draft LTP has identified an ambition which we plan to deliver with nine Policy Outcomes and their associated Policy Objectives. In this section we have described our predicted effects against the assessment scale and identified any adverse effects that could be mitigated through the remaining development of the LTP. The section ends with an overall conclusion of the net effect of the emerging draft LTP Policy Outcomes and their associated Policy Objectives.

4.2. Policies assessed

4.3. Our emerging draft LTP has set this ambition:

Our Ambition

We want to improve the health, wellbeing, and economic prosperity of lives in Kent by delivering a safe, reliable, efficient, and affordable transport network across the county and as an international gateway. We will plan for growth in Kent in a way that enables us to combat climate change and preserve Kent's environment.

We will do this by delivering emission-free travel by getting effective dedicated infrastructure to electrify vehicles, increase public transport use and make walking and cycling attractive. This will be enabled by maintaining our highways network and delivering our Vision Zero road safety strategy. These priorities will ensure our networks are future-proof, resilient and meet user needs.

4.4. To deliver the ambition, we have proposed Policy Outcomes and Policy Objectives, and it is these that we have assessed. The Policy Outcomes and Policy Objectives are shown in Table 5.

Table 5 - Assessed proposed draft Policy Outcomes and Policy Objectives

Kent Local Transport Plan (LTP) proposed Policy Outcome	Kent LTP proposed Policy Objective
POLICY OUTCOME 1: The condition of our managed highway networks is brought up to satisfactory levels, helping to maintain safe and accessible travel and trade.	POLICY OBJECTIVE 1 A): Achieve the funding necessary to deliver a sustained fall in the value of the backlog of maintenance work over the life of our Local Transport Plan.
POLICY OUTCOME 2: Deliver our Vision Zero road safety strategy through all the work we do.	POLICY OBJECTIVE 2 A): Achieve a fall over time in the volume of people killed or very seriously injured on KCC's managed road network, working towards the trajectory set by Vision Zero for 2050.
POLICY OUTCOME 3: International travel becomes a more positive part of Kent's economy, facilitated by the county's transport network, with the negative effects of haulage traffic decreased.	POLICY OBJECTIVE 3 A): Increase resilience of the road network serving the Port of Dover and Eurotunnel by adding holding capacity for HGVs across the southeast region to support establishment of a long term alternative to Operation Brock.
	POLICY OBJECTIVE 3 B): Increase resilience of the road network servicing the Port of Dover through delivery of the bifurcation strategy including improvements to the M2 / A2 road corridor and its links to the M20 and a new Lower Thames Crossing for traffic towards the north, and utilising further non-road freight opportunities.
POLICY OUTCOME 4: International rail travel returns to Kent and there are improved public transport connections to international hubs.	POLICY OBJECTIVE 4 A): International rail travel returns to Ashford International and Ebbsfleet International stations, supported by the infrastructure investment needed at Kent's stations to ensure they provide secure and straightforward journeys across the UK-EU border within the entry exit system.
	POLICY OBJECTIVE 4 B): There is a reduction in the time it takes to reach international rail stations by public transport compared to conditions in 2023.

Kent Local Transport Plan (LTP) proposed Policy Outcome	Kent LTP proposed Policy Objective
POLICY OUTCOME 5: Deliver a transport network that is quick to recover from disruptions and future-proofed for growth and innovation, aiming for an infrastructure-first approach to reduce the risk of highways and public transport congestion due to development.	POLICY OBJECTIVE 5 A) Strengthen delivery of our Network Management Duty to deliver the expeditious movement of traffic by using our new moving traffic enforcement powers and modernising the provision of on-street parking enforcement.
	POLICY OBJECTIVE 5 B): Reduce the amount of forecast future congestion and crowding on highways and public transport that is associated with demand from development by securing funding and delivery of our Local Transport Plan.
	POLICY OBJECTIVE 5 C): The prospects for the future of transport increase across the whole county, with new innovations in transport services having a clear pathway to trial or delivery in Kent.
POLICY OUTCOME 6: Journeys to access and experience Kent's historic and natural environments are improved.	POLICY OBJECTIVE 6 A): Proposals are clearly evidenced in terms of their contribution to providing new, quicker, or more inclusive access to historic and natural environment destinations in the county, with proposals targeting access to such locations where appropriate.
POLICY OUTCOME 7: Road-side air quality improves as decarbonisation of travel accelerates, contributing towards the pursuit of carbon budget targets and net zero in 2050.	POLICY OBJECTIVE 7 A): Reduce the volume of carbon dioxide equivalent emissions entering the atmosphere associated with surface transport activity on the KCC managed highway network by an amount greater than our forecast "business as usual" scenario. This means achieving a greater fall than those currently forecast of 9% by 2027, 19% by 2032 and 29% by 2037.
	POLICY OBJECTIVE 7 B): No area in Kent is left behind by the revolution in electric motoring, with charging infrastructure deployed close to residential areas to reduce barriers to adoption.
	POLICY OBJECTIVE 7 C): Proposals are clearly evidenced in terms of their contribution to providing lower emissions from transport in Air Quality Management Areas in the county.
POLICY OUTCOME 8: A growing public transport system supported by dedicated infrastructure to attract increased ridership,	POLICY OBJECTIVE 8 A): We will aim to obtain further funding to deliver the outcomes of our Bus Service Improvement Plan (or its successor) beyond its current horizon of 2024/25. We will ensure that our Local

Kent Local Transport Plan (LTP) proposed Policy Outcome	Kent LTP proposed Policy Objective
helping operators to invest in and provide better services	Transport Plan proposals are clearly evidenced in terms of their contribution towards achieving our Bus Service Improvement Plan.
	POLICY OBJECTIVE 8 B): We will identify and support industry delivery of priority railway stations for accessibility improvements and route improvements to reduce journey times and improve reliability.
POLICY OUTCOME 9: Health, air quality, public transport use, congestion and the prosperity of Kent's high streets and communities will be improved by supporting increasing numbers of people to use a growing network of dedicated walking and cycling routes.	POLICY OBJECTIVE 9 A): We will aim to deliver walking and cycling improvements at prioritised locations in Kent to increase activity levels and support Kent's diverse economy, presented in a Kent Cycling and Walking Infrastructure Plan.
POLICY OUTCOME 10: The quality of life in Kent is protected from the risk of worsening noise disturbance from aviation.	POLICY OBJECTIVE 10 A): Where there is evidence of impacts on our communities, we will make representations on airport expansion proposals and argue for measures to mitigate their effects.

4.5. Assessment results

4.6. Policy Outcome 1 and Policy Objective 1 A):

POLICY OUTCOME 1: The condition of our managed highway networks is brought up to satisfactory levels, helping to maintain safe and accessible travel and trade.

POLICY OBJECTIVE 1 A): Achieve the funding necessary to deliver a sustained fall in the value of the backlog of maintenance work over the life of our Local Transport Plan.

4.7. The purpose of this policy outcome and objective is to deliver a better maintained highway network. The network is used by all types of transport. Improving its maintenance can be expected to yield improved health outcomes. Risks that the network's poor condition creates in respect of road safety and confidence to use the network by often more vulnerable road users (that tend to be on foot or cycle) could fall if investment in the condition of the highway network increases.

4.8. Given deprivation is heavily linked to health inequalities and also lower levels of vehicle ownership, and occurs predominantly in built up urban areas in Kent, maintenance of highways including footways and cycle ways, and potentially also the Public Rights of Way network in those deprived areas could be expected to have a particularly positive potential effect on reducing health inequalities by removing barriers to travel overall and especially in supporting easier journeys on foot and by bike.

4.9. The National Highways and Transportation annual survey evidence that we hold shows frequent anecdotal examples of a lack of road maintenance creating issues for road users that want to have active lifestyles. The clear and direct impact of maintenance on these aspects means we estimate a very beneficial impact against criteria one, two and three.

4.10. In the worst case, a lack of road maintenance can lead to significant defects which cause road closures for prolonged periods. If we deliver on the outcomes of our policies, then we will be obtaining increased funding to increase the speed at which defects can be addressed and the volume that occurs across a range of road types around the county. This would help to prevent defects from reducing access to services, leisure, and open space, supporting people's health by addressing some of these important aspects of the wider determinants of public health. The impact of maintenance on these aspects means we estimate a slight beneficial effect against criteria five and six, recognising that there are many other factors affecting access.

4.11. Defects with the highways, such as potholes, can lead to increased noise and vibration generated from the flow of traffic as wheels hit defects and vehicles move about more as a result on the highway. A well-maintained highway, with modern tarmac and removed defects can help to lower noise generated, benefiting those that travel along the road and live or work alongside it. We have rated a slight beneficial impact associated with this health criteria.

4.12. For the remaining criteria we estimate that the maintenance of the network is not significantly impactful and therefore we have recorded a neutral score. We do not foresee any adverse impact arising to public health from a better maintained highway network in Kent.

4.13. Policy Outcomes 2 and Policy Objective 2 A):

POLICY OUTCOME 2: Deliver our Vision Zero road safety strategy through all the work we do.

POLICY OBJECTIVE 2 A): Achieve a fall over time in the volume of people killed or very seriously injured on KCC's managed road network, working towards the trajectory set by Vision Zero for 2050.

4.14. The purpose of this policy outcome and objective is to deliver a safer road network by delivering on the actions in our Vision Zero Strategy. We estimate the effect of this policy outcome and objective is like Outcome 1 and its objective concerning maintenance. A safer road network will have a very beneficial effect on supporting healthier lifestyles and physical activity by removing barriers to people making the journeys they need or want by healthier means. The fulfilment of Vision Zero and the reduced volume of fatalities and very serious injuries would have a substantial effect on those afflicted by such injuries and also on all those involved in the collisions and their aftermath (such as the emergency services, counselling, support, care etc.).

4.15. The barriers that are created by people feeling unsafe on the transport network can lead people to being unwilling to make a journey at all, which can lead to severance and isolation. Alternatively, journeys may switch to means that have higher negative impacts compared to their preferred choice of travel which may be on foot or by rail, for example. Reducing these barriers by realising Vision Zero can support people across Kent with having the confidence and means to make the journeys to the services they need to reach. We recognise that there are a range of other factors that also impact access though, and therefore we estimate Vision Zero will have a slight beneficial impact.

4.16. For the remaining criteria we estimate that the maintenance of the network is not significantly impactful and therefore we have recorded a neutral score. We do not foresee any adverse impact arising to public health from a safer highway network and transport services in Kent.

4.17. Policy Outcomes 3 and Policy Objective 3 A) and 3 B):

POLICY OUTCOME 3: International travel becomes a more positive part of Kent's economy, facilitated by the county's transport network, with the negative effects of haulage traffic decreased.

POLICY OBJECTIVE 3 A): Increase resilience of the road network serving the Port of Dover and Eurotunnel by adding holding capacity for HGVs across the southeast region to support establishment of a long term alternative to Operation Brock.

POLICY OBJECTIVE 3 B): Increase resilience of the road network servicing the Port of Dover through delivery of the bifurcation strategy including improvements to the M2 / A2 road corridor and its links to the M20 and a new Lower Thames Crossing for traffic towards the north, and utilising further non-road freight opportunities.

4.18. This policy outcome and the objectives concern specific impacts of highways traffic associated with the channel crossing points at Folkestone and Dover. The impacts are isolated to the main road network corridors through Kent that carry most of the traffic, and the localised impacts in these towns. These communities are in the lower deciles of the Index of Multiple Deprivation and are areas targeted under the government levelling-up agenda. The transport impacts from international haulage traffic create adverse impacts that compound these existing disadvantages. Although the locations are limited to these communities around the east Kent channel crossing routes, this area is still relatively large, and the number of residents affected significant.

4.19. Improving the flow and management of traffic is expected to lead to a reduction in the extent and frequency of disruption. These impacts should ease access to open space and services in the area and remove a disincentive to residents in Kent that plan to travel to the south east Kent coast and its towns to postpone their journeys. Less congestion and smoother flow of traffic in these areas, which have AQMAs, may provide improvements to road-side air quality.

4.20. Easing the transit of local transport, but also international traffic including passenger services like coaches and private vehicles can help to lower the costs of journeys. This can help to remove a risk to making journeys more expensive, helping to keep them affordable and available to as many people as possible and helping to address the income related determinants of health. Both policy objectives support realising these benefits, with each fundamentally about providing capacity for the transit and the holding of vehicles to reduce those impacts on the smooth flow of traffic on the road network.

4.21. For the remaining criteria we estimate that the impact of the policy outcome and objectives is unlikely to have significant impacts (though any that do arise we estimate are most likely to be beneficial as conditions on the road network would be improved) and therefore we have recorded a neutral score. We do not foresee any adverse impact arising to public health from better management and resilience to the large flows of traffic to and from the Channel crossing terminals in Dover and Folkestone.

4.22. Policy Outcome 4 and Policy Objectives 4 A) and 4 B):

POLICY OUTCOME 4: International rail travel returns to Kent and there are improved public transport connections to international hubs.

POLICY OBJECTIVE 4 A): International rail travel returns to Ashford International and Ebbsfleet International stations, supported by the infrastructure investment needed at Kent's stations to ensure they provide secure and straightforward journeys across the UK-EU border within the entry exit system.

POLICY OBJECTIVE 4 B): There is a reduction in the time it takes to reach international rail stations by public transport compared to conditions in 2023.

4.23. The effect of the policy outcome and objective 4 A) will be the return of access to international rail services at Ashford International and Ebbsfleet International, which provide leisure, recreation and opportunities for business and income-making activity through trade between Kent and Europe. Without these changes, travel is forced to route into and out of London to access international rail services. This adds very significant cost to travel, in some instances increasing the cost by over 50%. Given this, fulfilling the policy objective and outcome will deliver an improvement to the affordability of transport services and so has been scored as Very Beneficial against this criterion.

4.24. It should be recognised however that international travel is typically undertaken most frequently by those in higher income brackets, and therefore this objective may not have a significant impact on reducing health inequalities.

4.25. For the remaining criteria we estimate that the impact of the policy outcome and objectives are unlikely to have any significant impacts given they do not result in change to most of the transport network and services in Kent.

4.26. Policy Outcome 5 and Policy Objectives 5 A) and 5 B) and 5 C):

POLICY OUTCOME 5: Deliver a transport network that is quick to recover from disruptions and future-proofed for growth and innovation, aiming for an infrastructure-first approach to reduce the risk of highways and public transport congestion due to development.

POLICY OBJECTIVE 5 A): Strengthen delivery of our Network Management Duty to deliver the expeditious movement of traffic by using our new moving traffic enforcement powers and modernising the provision of on-street parking enforcement.

POLICY OBJECTIVE 5 B): Reduce the amount of forecast future congestion and crowding on highways and public transport that is associated with demand from development by securing funding and delivery of our Local Transport Plan.

POLICY OBJECTIVE 5 C): The prospects for the future of transport increase across the whole county, with new innovations in transport services having a clear pathway to trial or delivery in Kent.

4.27. Given this policy outcome concerns improving or avoiding congestion on transport networks in Kent, we have estimated that the outcome and its objectives will have a positive impact across a range of the criteria.

4.28. Reduced congestion on the transport network can lead to uninviting and traffic dominated streets that can dissuade those wanting to travel via more healthy means. KCC's own research conducted in 2021 for the development of the LTP and on Vision Zero in 2020 indicated that comfort and a feeling of safety were barriers to higher use of walking and cycling networks.

4.29. Congestion also generates noise and disturbance to those that use, work, and live alongside the highway. On a similar basis, improving congestion on the highway network, including by enforcing the rules of the road, can also improve the conditions for active travel by making roads safer and protecting dedicated space for users. We have estimated a slight beneficial impact, recognising that there are also a wide range of other factors that influence the conditions for active travel.

4.30. The benefits are not limited to highways-based journeys. Congestion on public transport can make journeys less comfortable and convenient and dissuade journeys by active modes switching to private vehicles. We know activities like rail-heading take place in Kent as people bypass their local rail station to catch services from a less congested location. At worst it can lead to making the whole journey by private means than using public transport. These switches due to congestion can lead to worsening health outcomes as use of public transport involves journey legs by active travel such as walking to the bus stop or cycling to the rail station.

4.31. Avoiding or reducing congestion on the highway network, and using enforcement powers to ensure rules of the road are followed, will help to reduce the volume of traffic emissions generated and help to reduce the likelihood of new air quality management areas needing to be established. They can also help avoid worsening air quality in those areas where it is already a problem. A slight beneficial impact has been estimated as we also recognise that there are a range of other factors that also influence road-side air quality.

4.32. These positive impacts must be weighed against the risk that such measures create continued car dependency. This is particularly the risk where wider choice by non-private transport, that is equally well catered for by new development and network connections, is not delivered along with the road network connections for supporting new development sites. Assuming application of the Kent Design Guide as the framework in which transport measures for new development are delivered helps to provide some mitigation against this risk as it works to a vision that "designs will cater for everyone, not just car drivers, and support our county's sustainable future".

4.33. The future of transport can include a wide range of innovations. Some of these innovations we have already been supporting or encouraging in Kent, such as Demand Responsive Transport, or better journey planning tools such as Kent Connected. These tools and new prospects, such as Mobility as a Service, we expect will continue to generate new choices and ease making journeys in Kent. This will aid Kent residents with being able to find and access the most affordable option to make the journeys to access open space, recreational facilities, and services.

4.34. We estimate new innovations could have slight beneficial impacts at this stage. Their effect could be higher, but more development of the potential new innovations will be necessary before that can be assessed.

4.35. Only on the criterion of facilitating safer journeys do we currently expect a neutral impact. The type of innovations we have been developing and the impact of reducing network congestion may have positive safety impacts, but at this stage more development of the specific proposals against this policy outcome and its objectives will be needed before any adverse or beneficial impacts can be identified.

4.36. Policy Outcome 6 and Policy Objectives 6 A):

POLICY OUTCOME 6: Journeys to access and experience Kent's historic and natural environments are improved.

POLICY OBJECTIVE 6 A): Proposals are clearly evidenced in terms of their contribution to providing new, quicker, or more inclusive access to historic and natural environment destinations in the county, with proposals targeting access to such locations where appropriate.

4.37. This policy outcome and objective is designed to support access by all different forms of transport to Kent's wealth of assets for recreation and leisure, many of which are open space sites across towns and in the countryside. The impact of this objective and outcome is therefore very beneficial on health criterion 5.

4.38. By extension, it also supports Kent residents with the opportunity to live healthy and active lifestyles and may entail improving the environment for walking, cycling and other sustainable transport modes through improved or new infrastructure delivered by proposals. On these latter criteria we estimate a slight beneficial effect, recognising that improving journey access to Kent's historic and natural environment would not provide the full extent of change necessary to achieve the health criteria, but nonetheless a positive beneficial impact can be expected.

4.39. For the remaining criteria we estimate that the impact of the policy outcome and objective are unlikely to have any significant impacts given they are targeted on access to Kent's historic and natural environment.

4.40. Policy Outcome 7 and Policy Objectives 7 A), 7 B) and 7 C)

POLICY OUTCOME 7: Road-side air quality improves as decarbonisation of travel accelerates, contributing towards the pursuit of carbon budget targets and net zero in 2050.

POLICY OBJECTIVE 7 A): Reduce the volume of carbon dioxide equivalent emissions entering the atmosphere associated with surface transport activity on the KCC managed highway network by an amount greater than our forecast "business as usual" scenario. This means achieving a greater fall than those currently forecast of 9% by 2027, 19% by 2032 and 29% by 2037.

POLICY OBJECTIVE 7 B): No area in Kent is left behind by the revolution in electric motoring, with charging infrastructure deployed close to residential areas to reduce barriers to adoption.

POLICY OBJECTIVE 7 C): Proposals are clearly evidenced in terms of their contribution to providing lower emissions from transport in Air Quality Management Areas in the county.

4.41. The policy outcome and its objectives would deliver a significant improvement in air quality in Kent were they achieved, by lowering emissions from activity on the highways network. Road-side air quality can dissuade or make difficult travel on foot or cycle for those people who suffer from respiratory diseases that are inflamed / worsened by air pollution, whilst air quality for those in vehicles can be even worse.

4.42. Improving air quality will therefore create conditions across our highway network where everyone who wants to travel by active means can do so. The environment for active travel would be improved and healthy lifestyles could be promoted everywhere including those areas which in the past have had the challenge of road-side air pollution from vehicle emissions. For each of these criteria a slight beneficial rating has been given, recognising that there are a range of other factors impacting those health criteria.

4.43. For health criteria 4, concerning road-side air quality, we consider that the policy outcome and objectives which are targeted on lowering vehicle emissions would have very beneficial effect by enabling more vehicles to switch to emission-free (at their tailpipe) electric vehicles, along with other proposals that could smooth traffic flow, reduce congestion and encourage use of less polluting forms of travel. This is important given air quality issues were the most frequent issue raised in response to our published HIA when we consulted in 2023 on the draft Emerging LTP.

4.44. In general, the creation of emissions generally means the running of combustion engines which generate noise. Electric vehicles are demonstrably less noise generating due to their quiet electric motors. Due to these benefits, our policy outcome and objective should enable widespread uptake of electric vehicles which should therefore deliver a reduction in traffic-generated noise.

4.45. Objective 7 B) could have a very beneficial effect on some of the health criteria concerning access to services, open space, and affordability. Electric vehicles could offer lower cost motoring day to day (excluding up front purchase costs), particularly from lower fuel costs (especially when charged at home). For those people in Kent that want to benefit from more affordable transport or who have already switched, this objective helps to ensure everyone can benefit and no one is disadvantaged from their selection of an electric vehicle as a means for travelling around Kent.

4.46. From a health inequalities perspective, this objective could have a particularly positive impact. Deprivation is heavily correlated with a range of worse health outcomes. Within deprivation are drivers such as income and transport and these result in those in more deprived deciles having lower vehicle ownership due to cost constraints and worse access to vital services. The objective seeks to remove the barriers to on-street electric vehicle charging by providing infrastructure in areas where at home charging is likely to be less prevalent – notably areas where dwellings are smaller and older and have lower levels of off-street parking, such as terraced housing in inner urban areas where deprivation levels can be higher in Kent. By the Council intervening directly in the provision it removes a cost barrier to residents, and helps make the purchase and operation of an electric vehicle more affordable.

4.47. Some sites of open space and recreation may entail longer distance travel and so be more dependent on having widespread access to electric vehicle charging sockets to ensure such vehicle users are not deterred from benefiting from these sites based on range anxiety in Kent for their health and wellbeing.

4.48. For the remaining criteria we estimate that the impact of the policy outcome and objective are unlikely to have any significant impacts given they do not have a set of likely proposals and changes to transport that would have a bearing on road safety.

4.49. Policy Outcome 8 and Policy Objectives 8 A) and 8 B)

POLICY OUTCOME 8: A growing public transport system supported by dedicated infrastructure to attract increased ridership, helping operators to invest in and provide better services.

POLICY OBJECTIVE 8 A): We will aim to obtain further funding to deliver the outcomes of our Bus Service Improvement Plan (or its successor) beyond its current horizon of 2024/25. We will ensure that our Local Transport Plan proposals are clearly evidenced in terms of their contribution towards achieving our Bus Service Improvement Plan.

POLICY OBJECTIVE 8 B): We will identify and support industry delivery of priority railway stations for accessibility improvements and route improvements to reduce journey times and improve reliability.

4.50. Overall, we have rated policy outcome 8 and its objectives as broadly very beneficial across many of the criteria because of the direct link between use of bus services and active travel. Any trip by bus will involve a walk to and from a bus stop and therefore using the bus network in Kent will result in increased numbers of people walking and cycling as part of their journey. With tens of millions of bus trips in Kent, the scale leads to our estimation of a very beneficial outcome against health criteria 1.

4.51. The next effect of increased bus use on healthy lifestyles and travel arises from the benefits of fewer private vehicle trips, lowering total emissions from vehicles. This is in a context where bus fleets and expanding networks are typically utilising modern low or zero emission vehicles which compounds the scale of benefit to air quality from trips being made on bus. As such we have rated this impact as very beneficial – a single bus can replace a large number of private vehicles and their emissions.

4.52. Increased use of buses supports their operation and operators in investing in new routes and growing their networks – increasing the coverage and reach of services to the extent they may benefit more people including those for whom circumstances mean travel is more challenging and impactful on their health and wellbeing. Doing so provides new opportunities to residents in Kent resulting in improved access to open space, services and helps to keep the cost of fares down. These outcomes would directly support the associated health criteria in a very beneficial way.

4.53. On a similar, basis we have scored the effect of improving rail stations in Kent which helps to remove barriers to their use and leads to similar outcomes as with the bus network as discussed above. However, given these impacts may be more marginal given the condition of some of Kent's stations and the investment they have received, we have scored a slight beneficial effect on some of the criteria.

4.54. For the remaining criteria we estimate that the impact of the policy outcome and objective are unlikely to have any significant impacts.

4.55. Policy Outcome 9 and Policy Objective 9 A)

POLICY OUTCOME 9: Health, air quality, public transport use, congestion and the prosperity of Kent's high streets and communities will be improved by supporting increasing numbers of people to use a growing network of dedicated walking and cycling routes.

POLICY OBJECTIVE 9 A): We will aim to deliver walking and cycling improvements at prioritised locations in Kent to increase activity levels and support Kent's diverse economy, presented in a Kent Cycling and Walking Infrastructure Plan.

4.56. This policy outcome is specifically designed to improve public health by focusing efforts on active travel. Across all the health criteria, we have recorded a very beneficial rating from the effect of the proposals that would arise to deliver on the policy outcome and objective 9 A). As our Evidence Base details, we have low levels of active travel in Kent and therefore there are substantial health benefits to be realised from increase walking and cycling.

4.57. Walking is a cost-free form of transport and so removing barriers to undertaking journeys on foot can have a substantial impact on the affordability of travel. Similarly for cycling, where the cost of purchasing and owning a cycle is often lower than purchasing, owning, and operating a private vehicle. These forms of transport are also quiet as they do not involve the operation of combustion engines and are not heavy vehicles generating noise as they move along the highway.

4.58. Walking and cycling are zero emission and therefore schemes can deliver improvements in road-side air quality. It has also been demonstrated in our own Evidence Base that feeling safe on the highway is a major barrier to making journeys by active modes more popular and frequent. Furthermore, elsewhere in England provides evidence that increases in walking and cycling can occur without causing an overall rise in fatalities and serious injuries on the roads.

4.59. Policy Outcome 10 and Policy Objective 10 A)

POLICY OUTCOME 10: The quality of life in Kent is protected from the risk of worsening noise disturbance from aviation.

POLICY OBJECTIVE 10 A): Where there is evidence of impacts on our communities, we will make representations on airport expansion proposals and argue for measures to mitigate their effects.

4.60. We recognise the nuisance and disturbance that can be caused by aviation and how this can impact health. For residents under flight paths on approaches to airports such as Gatwick, there is a risk that the hours of airport operations and the frequency of overhead flights can lead to seemingly continuous disturbance over most of the 24-hour day. The Civil Aviation Authority[7] recognises the risks of disturbance from flight paths on people's cardiovascular health, sleep disturbance, and cognition and mental health.

4.61. If we fulfil our outcome and objective, then we expect it to have a very beneficial impact both improving or avoiding worsening of noise and disturbance from aviation by working through the planning and regulatory system to ensure that any changes to the airport operations do not lead to worsening levels of disturbance.

4.62. Summary of results

4.63. The summary of the results is shown in Table 6.

[7] Civil Aviation Authority (2024), *Aircraft Noise and Health Effects – a six-monthly update* CAP 2963

Table 6 - Summary of Health Impact Assessment (HIA) results of the Local Transport Plan (LTP) outcomes

	Health Criteria 1 [Environment]	**Health Criteria 2 [Safety]**	**Health Criteria 3 [Health & /activity]**	**Health Criteria 4 [Air Quality]**	**Health Criteria 5 [Recreation]**	**Health Criteria 6 [Access]**	**Health Criteria 7 [Affordability]**	**Health Criteria 8 [Noise]**
POLICY OUTCOME 1: The condition of our managed highway networks is brought up to satisfactory levels, helping to maintain safe and accessible travel and trade.	Very beneficial	Very beneficial	Very beneficial	Neutral	Slight beneficial	Slight beneficial	Neutral	Slight beneficial
POLICY OBJECTIVE 1 A): Achieve the funding necessary to deliver a sustained fall in the value of the backlog of maintenance work over the life of our Local Transport Plan.	Very beneficial	Very beneficial	Very beneficial	Neutral	Slight beneficial	Slight beneficial	Neutral	Slight beneficial
POLICY OUTCOME 2: Deliver our Vision Zero road safety strategy through all the work we do.	Very beneficial	Very beneficial	Very beneficial	Neutral	Slight beneficial	Slight beneficial	Neutral	Neutral
POLICY OBJECTIVE 2 A): Achieve a fall over time in the volume of people killed or very seriously injured on KCC's managed road network, working towards the trajectory set by Vision Zero for 2050.	Very beneficial	Very beneficial	Very beneficial	Neutral	Slight beneficial	Slight beneficial	Neutral	Neutral
POLICY OUTCOME 3: International travel becomes a more positive part of Kent's economy, facilitated by the county's transport network, with the negative effects of haulage traffic decreased.	Slight beneficial	Neutral	Neutral	Neutral	Slight beneficial	Slight beneficial	Slight beneficial	Neutral
POLICY OBJECTIVE 3 A): Increase resilience of the road network serving the Port of Dover and Eurotunnel by adding holding capacity for HGVs across the southeast region to support establishment of a long term alternative to Operation Brock.	Slight beneficial	Neutral	Neutral	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial	Neutral
POLICY OBJECTIVE 3 B): Increase resilience of the road network servicing the Port of Dover through delivery of the bifurcation strategy including improvements to the M2 / A2 road corridor and its links to the M20 and a new Lower Thames Crossing for traffic towards the north, and utilising further non-road freight opportunities.	Slight beneficial	Neutral	Neutral	Neutral	Slight beneficial	Slight beneficial	Slight beneficial	Neutral
POLICY OUTCOME 4: International rail travel returns to Kent and there are improved public transport connections to international hubs.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Slight beneficial	Neutral

	Health Criteria 1	Health Criteria 2	Health Criteria 3	Health Criteria 4	Health Criteria 5	Health Criteria 6	Health Criteria 7	Health Criteria 8
POLICY OBJECTIVE 4 A): International rail travel returns to Ashford International and Ebbsfleet International stations, supported by the infrastructure investment needed at Kent's stations to ensure they provide secure and straightforward journeys across the UK-EU border within the entry exit system.	Neutral	Neutral	Neutral	Neutral	Slight beneficial	Neutral	Very beneficial	Neutral
POLICY OBJECTIVE 4 B): There is a reduction in the time it takes to reach international rail stations by public transport compared to conditions in 2023.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
POLICY OUTCOME 5: Deliver a transport network that is quick to recover from disruptions and future-proofed for growth and innovation, aiming for an infrastructure-first approach to reduce the risk of highways and public transport congestion due to development.	Slight beneficial	Neutral	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial	Neutral
POLICY OBJECTIVE 5 A): Strengthen delivery of our Network Management Duty to deliver the expeditious movement of traffic by using our new moving traffic enforcement powers and modernising the provision of on-street parking enforcement.	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial	Neutral	Neutral	Slight beneficial	Neutral
POLICY OBJECTIVE 5 B): Reduce the amount of forecast future congestion and crowding on highways and public transport that is associated with demand from development by securing funding and delivery of our Local Transport Plan.	Slight beneficial	Neutral	Neutral	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial
POLICY OBJECTIVE 5 C): The prospects for the future of transport increase across the whole county, with new innovations in transport services having a clear pathway to trial or delivery in Kent.	Neutral	Neutral	Slight beneficial	Neutral	Slight beneficial	Slight beneficial	Slight beneficial	Neutral
POLICY OUTCOME 6: Journeys to access and experience Kent's historic and natural environments are improved.	Slight beneficial	Neutral	Slight beneficial	Neutral	Very beneficial	Neutral	Neutral	Neutral
POLICY OBJECTIVE 6 A): Proposals are clearly evidenced in terms of their contribution to providing new, quicker, or more inclusive access to historic and natural environment destinations in the county, with proposals targeting access to such locations where appropriate.	Slight beneficial	Neutral	Slight beneficial	Neutral	Very beneficial	Neutral	Neutral	Neutral

	Health Criteria 1	Health Criteria 2	Health Criteria 3	Health Criteria 4	Health Criteria 5	Health Criteria 6	Health Criteria 7	Health Criteria 8
POLICY OUTCOME 7: Road-side air quality improves as decarbonisation of travel accelerates, contributing towards the pursuit of carbon budget targets and net zero in 2050.	Slight beneficial	Neutral	Slight beneficial	Very beneficial	Slight beneficial	Slight beneficial	Slight beneficial	Slight beneficial
POLICY OBJECTIVE 7 A): Reduce the volume of carbon dioxide equivalent emissions entering the atmosphere associated with surface transport activity on the KCC managed highway network by an amount greater than our forecast "business as usual" scenario. This means achieving a greater fall than those currently forecast of 9% by 2027, 19% by 2032 and 29% by 2037.	Slight beneficial	Neutral	Slight beneficial	Very beneficial	Neutral	Neutral	Neutral	Slight beneficial
POLICY OBJECTIVE 7 B): No area in Kent is left behind by the revolution in electric motoring, with charging infrastructure deployed close to residential areas to reduce barriers to adoption.	Neutral	Neutral	Neutral	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial
POLICY OBJECTIVE 7 C): Proposals are clearly evidenced in terms of their contribution to providing lower emissions from transport in Air Quality Management Areas in the county.	Slight beneficial	Neutral	Slight beneficial	Very beneficial	Neutral	Neutral	Neutral	Neutral
POLICY OUTCOME 8: A growing public transport system supported by dedicated infrastructure to attract increased ridership, helping operators to invest in and provide better services.	Very beneficial	Neutral	Slight beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Neutral
POLICY OBJECTIVE 8 A): We will aim to obtain further funding to deliver the outcomes of our Bus Service Improvement Plan (or its successor) beyond its current horizon of 2024/25. We will ensure that our Local Transport Plan proposals are clearly evidenced in terms of their contribution towards achieving our Bus Service Improvement Plan.	Very beneficial	Neutral	Slight beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Neutral
POLICY OBJECTIVE 8 B): We will identify and support industry delivery of priority railway stations for accessibility improvements and route improvements to reduce journey times and improve reliability.	Very beneficial	Neutral	Slight beneficial	Slight beneficial	Very beneficial	Very beneficial	Slight beneficial	Neutral
POLICY OUTCOME 9: Health, air quality, public transport use, congestion and the prosperity of Kent's high streets and communities will be improved by supporting increasing numbers of people to use a growing network of dedicated walking and cycling routes.	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial

	Health Criteria 1	Health Criteria 2	Health Criteria 3	Health Criteria 4	Health Criteria 5	Health Criteria 6	Health Criteria 7	Health Criteria 8
POLICY OBJECTIVE 9 A): We will aim to deliver walking and cycling improvements at prioritised locations in Kent to increase activity levels and support Kent's diverse economy, presented in a Kent Cycling and Walking Infrastructure Plan.	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Very beneficial	Slight beneficial
POLICY OUTCOME 10: The quality of life in Kent is protected from the risk of worsening noise disturbance from aviation.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Very beneficial
POLICY OBJECTIVE 10 A): Where there is evidence of impacts on our communities, we will make representations on airport expansion proposals and argue for measures to mitigate their effects.								Very Beneficial

5. Considering the health impacts of our proposals

5.1. Our proposals are designed to address specific outcomes; however, they may positively or negatively impact other outcomes. We have considered what these range of effects could be and set those out in our LTP. The strategic proposals in our LTP are listed in Appendix B for ease of reference here.

5.2. In this section we have considered what risks and opportunities there are for achieving the positive impacts on the health criteria we have set out. This means we have not assessed each proposal in detail – this is because many of the proposals are not sufficiently developed or designed to enable that. The impact of the proposals can be similar across more than one health criteria and therefore we have grouped the criteria accordingly.

5.3. *Health criteria 1, 2 and 3*

5.4. Health criteria 1, 2 and 3 concern the following:

5.4.1. Health criteria 1: Improve the environment to boost levels for walking, cycling and other sustainable transport modes.

5.4.2. Health criteria 2: Facilitate safer journeys by implementing the KCC Vision Zero strategy.

5.4.3. Health criteria 3: Promote healthy lifestyles by improving conditions for active travel.

5.5. Our proposals to deliver Vision Zero, deliver a further funded Bus Service Improvement Plan, and to develop and deliver improvements to walking and cycling across parts of Kent would have a positive impact on these criteria. The actions we could take given the proposals in our plan would modify and improve the highways and urban environment so that active travel including walking and cycling, as well as other forms of sustainable travel become more attractive.

5.6. Improving bus network infrastructure such as the quality of bus stations, stops, journey comfort and information, and making the journey more reliable, would also help to attract people to this form of transport. This has an inevitable impact in increasing the likelihood of walking journeys in particular, as passengers walk to and from bus stops from their origins and destinations. For the same reasons, this conclusion also applies to our proposals for the improvement of train station access and facilities.

5.7. Our development management principles proposal could also have a positive impact on this criteria. The approach would ensure that walking, cycling and public transport journeys are better catered for to achieve their use within new developments. This in turn has a knock-on effect for wider users from existing communities, as networks are improved and integrated with existing provisions.

5.8. The remaining proposals we have to ensure the local and Strategic Road Network cater for the journeys people need to make in the future and to keep Kent moving will provide opportunities to further deliver on the impacts outlined here, by ensuring new highways provide facilities for pedestrians and cyclists and through modern designs and new assets, are to the highest quality for contributing towards a safe system for all highways users.

5.9. Physical activity can have a positive impact on mental wellbeing and health. Enabling active forms of travel as part of our day-to-day journeys can support achieving increased physical activity. This is an important consideration given mental health issues were the second most frequent issue, and active forms of travel the third most frequent issue raised by respondents to our 2023 consultation on the published HIA of the draft Emerging LTP.

5.10. Our considerations indicate there are no clear negative impacts of our plan on these health criteria. None of the proposals we have would clearly lead to a worsening in the conditions for making journeys by forms of active travel such as walking and cycling, or a worsening in road safety.

5.11. *Health criteria 4*

5.12. Health criteria 4 concerns *achieving an improvement in road-side air quality to reduce instances of asthma and respiratory disease in the population*.

5.13. Our proposal to deliver on-street electric vehicle infrastructure charging infrastructure, to help with the choices people will have about whether to use zero and low emission (at the tail pipe) vehicles, could help accelerate the use of these type of vehicles. This would help to reduce road traffic generated pollutants such as Nitrous Oxides, Cabron Monoxide, Sulphur Dioxide, and particulate matter (fine particles of soot and trace metals) which are dangerous to human health.

5.14. Our proposals to improve the quality and extent of public transport through a further funded Bus Service Improvement Plan, extending Fastrack networks, improving rail services for both passengers and for shifting goods off the road and onto rail can all have a positive contribution on this health criteria. Road-based public transport is typically more efficient in terms of emissions per passenger mile, meaning a potential reduction in emissions compared to private vehicle journeys if those are in conventional petrol diesel vehicles. Both bus and rail users are more likely to walk or cycle for part of their journey too, which can further reduce the amount of mileage undertaken by forms of transport that produce air pollutants.

5.15. Concerning the walking and cycling network, our proposals across the highway and public right of way network should have a positive impact on the health criteria as a substitution of vehicle journeys via walking, cycling, wheeling would produce fewer emissions.

5.16. The local and Strategic Road Network proposals can aim to smooth the flow of traffic on the network, reduce the likelihood of congestion and stop-start conditions, and provide new highway connections for new journey routing. These factors can help to combat air pollution in hotspot areas such as Air Quality Management Areas where the risks of road-based pollution to human health are high.

5.17. There are, however, risks associated with how the proposals concerning changes to the highway network may impact air quality due to potential arising effects on traffic volumes and patterns. A proposal that pushes or encourages more vehicle journeys through a congested area, or an Air Quality Management Area, risks causing an increase in road-based air pollution, unless those vehicles are zero emission at the tail pipe. There is also a risk that changes to the highway network which can affect volumes of traffic, or the performance of the network, could create new areas of high road-based air pollution.

5.18. These risks can be considered in the development and design of highways proposals. Their impacts can also be monitored to understand how they have impacted the performance the highway network and if these impacts warrant monitoring in air quality terms by the relevant local district authority. This approach helps to mitigate the likelihood of proposals in the plan having a negative impact against this health criteria.

5.19. *Health criteria 5 and 6*

5.20. Health criteria 5 and 6 concern the following:

5.20.1. Health criteria 5: Improve access to open space and recreational facilities.

5.20.2. Health criteria 6: Improve access to services (e.g. education, health, retail).

5.21. The Public Right of Way network is an integral feature of open space access, providing routes through green open space for pedestrians, cyclists, and equestrians depending on the designation type of the right of way (e.g. bridleway, restricted bridleway etc). Our proposal for further sustained funding of the network, if delivered, would enable its quality to be upgraded and make journeys to enjoy Kent's open space and recreational spaces easier and more comfortable throughout the year.

5.22. The network is not only vital for access to open space – it provides essential and convenient connections within Kent's towns and villages, enabling trips to be made safely and quickly to reduce the time to access services and town centres for shops, GP surgeries, libraries, schools and so on. Overall, our proposal to get further sustained funding of the public right of way network could have a positive effect on these health criteria.

5.23. Beyond the specifics of the Public Right of Way network, it is also likely that our proposals for improvements to the highway network, rail network and bus network, as well as dedicated infrastructure for walking and cycling journeys, will all make journeys easier and more reliable. Being able to choose from a range of transport options, and the choice of destination to be improved by delivering new networks and new services, will directly impact on improving access to open space, recreational facilities, and services.

5.24. Our proposals are similarly focused on some of the barriers that are particularly pronounced in mid to east Kent owing to the heavy traffic flows arising from the Channel crossings of the Eurotunnel and Port of Dover. These trade and travel links are vital to the health of the nation both in terms of its economy but also for vital goods such as medication and fresh produce from European producers. The traffic and its management can have a significant effect though on the performance of the local highways network around the M20 to A20 corridor in particular.

5.25. Our proposals are designed to further address the need for traffic management by spreading the burden across the Kent road network and improving the approach to traffic management so that the disruptive effects of it are lessened or removed altogether. Doing so would have a positive impact on local communities being able to make their journeys to access open space, recreational facilities, and other services. Local communities would be able to travel when they needed to and be confident of arriving at their destination on time.

5.26. Some of the more innovative proposals, such as mobility hubs, mobility as a service, or cycle hire initiatives have the potential to further supplement local travel choices. Our proposal is to monitor the effectiveness of these innovations where we or other organisations deliver them, so we can determine how they could be adapted to be more successful or rolled out more widely so that more people are able to use them to improve their access to open space, recreational facilities, and services.

5.27. Our considerations indicate there are no clear negative impacts of our plan on these health criteria. None of the proposals we have would clearly lead to a worsening in the ability to access services, open space, or recreational facilities.

5.28. *Health criteria 7*

5.29. Health criteria 7 concerns *improving the affordability of transport services.*

5.30. Our proposals for the public transport network could have a positive effect on this criterion. The proposal concerning getting further funding to deliver our Bus Service Improvement Plan would provide the opportunity to continue to improve the performance of the bus network. This can help to lower the cost for bus operations which may help to keep the cost of fares down.

5.31. More directly, our Bus Service Improvement Plan sets out proposals for potential fare caps, both county-wide and for localized fare zones around Kent's major towns. This could have a direct impact on the affordability of bus services, removing a barrier to people making the trips they need to access services which can have a direct impact on the wider determinants of health.

5.32. Our proposal for the rail network learns from the experience we have had with developing and delivering the Bus Service Improvement Plan so far. We have set out within our proposals the need for local rail services that provide better intra-urban connections via station stops in rural Kent, so that journeys are more convenient to make. We have stated that use of government funding to lower travel costs, including through targeted local initiatives, should be considered and implemented, as has happened through the National Bus Strategy. The effect on this health criteria of achieving this for rail would be the same as the impact from the bus network.

5.33. Our proposals affecting the cost of transport and travel are not limited to public transport. Our proposal for increasing on-street electric vehicle charging infrastructure may also have a positive effect on the affordability of transport services. Without on-street charging infrastructure, some communities would be left with utilising public chargers provided at retail parks, services, and car parks. These chargers may leave some communities either with a higher cost of charging, or potentially unable to afford to switch to those vehicles in the first place because of the cost of parking to access public chargers. Our proposal would provide more choice and may help to reduce the cost of operating and charging a plug-in vehicle, depending on the extent of choice otherwise available in their community.

5.34. Our plan sets out proposals for innovating to improve the way in which people access and purchase transport services. For example, our proposal for Mobility as a Service could ease the way people purchase and order their tickets for transport which may make it easier for people to find the best value choice of transport or ticket to meet their needs.

5.35. Improved choice in the type of transport available will also help people to find methods of transport that meet their needs and match their budgets (for example, improving choice through shared transport mobility hubs or cycle hire schemes). Our proposal to monitor the effectiveness of schemes or pilots delivered by other organisations in Kent will help us to identify future opportunities which could have a positive effect on this health criteria.

5.36. Lastly, our proposals set out ways in which the transport network could improve for people who walk, cycle or wheel. These forms of transport are either free or lower cost than using private or public transport and so can provide a form of transport for those who have lower or no budget for transport. This can be especially important for young people who are not yet of working age, or who tend to have lower earnings in the early stages of their working life.

5.37. Our considerations indicate there are no clear negative impacts of our plan on this health criteria. None of the proposals we have would clearly lead to an increase in the cost of travel.

5.38. *Health criteria 8*

5.39. Health criteria 8 concerns *reducing the disturbance and noise effects of transport operations in Kent.*

5.40. The main proposal in our plan concerns our opposition to the expansion of Gatwick airport because of the risks of increased noise and disturbance from increases in activity along the flight paths. Our proposal seeks to secure either avoidance or mitigations to ensure disturbance does not worsen, in recognition of the adverse health effects that can be caused. If we are successful in achieving the outcome associated with this proposal, then it will have a positive impact on this health criteria.

5.41. We do not have proposals focused on reducing the noise generated by road-based transport, however it is important to recognise that our proposals, which can lead to either an increased use of plug-in electric vehicles or active travel, both have the potential to reduce disturbance from road-based travel. Electric vehicles are noticeably quieter, whilst active travel produces less noise than use of vehicles and their motors. The shifts that our proposals seek to deliver have the potential to contribute to an outcome of reduced road-based noise which may help to contribute positively to this health criteria.

5.42. Our proposals concerning international haulage traffic also have the potential to have a positive effect on this health criteria. Traffic management of vehicles on the approach to the Port of Dover can lead to vehicles queuing nearby to residences, resulting in noise and disturbance. More widely, the approach to traffic management can also encourage routing away from the M20, with informal lorry parking occurring across the county, leading to disturbance to local communities. Our proposals seek to secure a better approach to traffic management by addressing a range of causal factors associated with the international haulage traffic's main corridors.

5.43. We recognise the risk that any new transport infrastructure will create new journeys in places where they may not have occurred before, or in the volume that results from the change. As we plan and develop our proposals we aim to consult and engage at formative stages so that local communities can provide feedback, including any concerns they may have about disturbance during the construction or operation of proposals. Taking this approach should help to reduce the likelihood that network changes have these impacts, however at times impacts may be unavoidable.

5.44. Our recognition of this risk also acknowledges that traffic, congestion and road disruption from road works was the fifth most frequent issue raised by respondents to our published HIA when we consulted on the draft Emerging LTP in 2023.

6. Conclusion

6.1. Our assessment indicates that the policy outcomes and their objectives are not expected to generate adverse impacts on the health criteria. Instead, all health criteria considered are expected to see either slight or very beneficial improvements arising from our policies, should they be delivered.

6.2. We have considered the proposals which our LTP sets out, aimed at delivering on the outcomes. Our consideration of these proposals indicates that broadly their impact is likely to make a positive contribution towards the health criteria. The extent of that positive impact will be dependent on the final design of proposals and what we receive funding to deliver.

6.3. We have also identified some risks associated with some of the proposals in relation to health criteria 4 and 8 owing to how changes to the highway network and its use by vehicles may affect road-based air quality and noise and disturbance. Whether these risks materialise will depend on the impact of the final delivered proposals, whilst the approach we take to develop proposals to that point provide opportunities for identifying and mitigating them.

6.4. Given the range of positive impacts on the health criteria we have identified could be delivered from our LTP proposals, we will seek to complete the adoption of our LTP and deliver the proposals in it. Delivery will require the necessary funding and permissions for proposals or be reliant on other transport providers acting on the basis we have proposed in our LTP. Our HIA of the LTP will help us to demonstrate to decision makers and funders how the LTP can make a positive contribution to health along with the risks that we need to remain cognisant of through future delivery of proposals.

7. Appendix A – Policy context

Our HIA has been prepared in the context of international, national, regional, and local objectives along with health policies. Relevant plans and programmes include those at different levels (international, national, regional, and local) which influence the HIA.

At the national level, legislation considered includes:

National

- Levelling Up White Paper
- Children's Environment and Health Action Plan for Europe (CEHAPE) 2004
- Towards Social Investment for Growth and Cohesion 2014 – 2020
- Health Impact Assessment in Strategic Environmental Assessment (2001)
- A Children's Environment and Health Strategy for the United Kingdom (2009)
- Healthy Lives, Healthy People: Our strategy for public health in England (2010)
- Air Quality Standards Regulations 2010
- Air Quality Strategy for England, Scotland, Wales, and Northern Ireland 2007
- Clean Air Strategy, 2019
- Air Quality Plan for Nitrogen Dioxide in the UK, 2017
- Road Safety Act 2006
- Inclusive Transport Strategy 2018 - A connected society
- A strategy for tackling loneliness, 2018
- Gear Change: A bold vision for walking and cycling

At the regional / local level, the policy context includes:

- Move Together: Kent and Medway's 2023-2027 strategy for sport and physical activity
- Kent and Medway Integrated Care Strategy, 2024
- Kent and Medway Suicide and Self-harm Prevention Strategy
- Kent and Medway Children and Young People Suicide and Self-harm Prevention Strategy
- Kent and Medway Children, Young People and Young Adults' Emotional Wellbeing and Mental Health Local Transformation Plan (2021)
- Kent and Medway Local Transformation Plan for Children, Young People and Young Adults' Emotional Wellbeing and Mental Health (Addendum 2022)

A review of the legislation, plans and policies has identified the following themes for consideration as part of the HIA. The themes are:

- Tackle poor health by improving the health of everyone
- Reduce health inequalities among different groups across the country and lengthening healthy life expectancy (the duration of life spent living in good health).

- Reduce impact of transport on wellbeing by reducing noise, light, and odour pollution
- Support the public to make healthier and more informed choices with regard to their health and improve physical and mental wellbeing such as by adopting physically active lifestyles by creating active environments.
- Address pockets of deprivation
- Reduce the cost and burden on the National Health Service of ailments arising from a lack of physical activity.
- Provide physical access and mobility for disabled people
- Provide or improve access to local health and social care services
- Provide opportunities for increased exercise, thus reducing obesity, particularly in children, and illnesses such as coronary heart disease
- Provide for an ageing population
- Promote healthy lifestyles through exercise, access to green and open space, physically active travel and access to good quality and affordable food, which can assist in reducing both physical and mental illnesses

8. Appendix B – LTP Strategic Proposals

Strategic Road Network	Local Road Network	Public transport network	Walking and cycling network
Lower Thames Crossing M2 Junction 1 capacity enhancement A282 (M25) Junction 1A capacity enhancement M2 Junction 4 capacity and local development connections M2 road capacity enhancement M2 Junction 7 (Brenley Corner) capacity enhancement South Canterbury A2 junction access enhancements A2 Dover Access / Duke of York and Whitfield improvements International haulage traffic management M25-M26-A21 East-facing slips A21 enhancements Trunking: A229 and A249 between M2 and M20 M25 Junction 3 improvements	Maintaining the road network Road Safety Vision Zero A229 Blue Bell Hill North Thanet Link Alkham Valley Spitfire Way junction improvements Sandwich bypass improvements A2 Gravesend local junctions A226 Galley Hill Road A228-A264 corridor improvements – West Malling to Tunbridge Wells Development management principles Supporting the shift to electric vehicles through new charging points Local road freight management	Rail freight gauge enhancement for international traffic Maidstone rail journey time improvements Gatwick rail access improvements Dover / Folkestone High Speed rail journey time improvements International rail passenger services for Kent Sturry and Canterbury West rail corridor improvements Local rail services Improve local access to rail stations Bus Service Improvement Plan (county-wide) Thameside Fastrack network growth Dover Fastrack network growth 'Hoppit' Mobility as a Service platform Cycle Hire trials	Public Rights of Way Improvements Kent Cycling and Walking Infrastructure Plan, including: 15 initial route corridors for focusing improvements on cycling; and 15 initial walking zones for focusing improvements on walking and wheeling

		Shared transport hubs (Mobility Hubs) Elizabeth line extension to Ebbsfleet Opposition to Gatwick expansion	