

September 2018

Why 20's Plenty for Faversham: Policy Context

Kent County Council has a responsibility for public health and this needs to be viewed in as wide a context as possible. This paper sets out to demonstrate how a 20mph limit can help KCC deliver improved policy outcomes in three (connected) key priority areas of public health:

1. Road Casualty Reductions
2. Air Quality
3. Health problems arising from lack of activity.

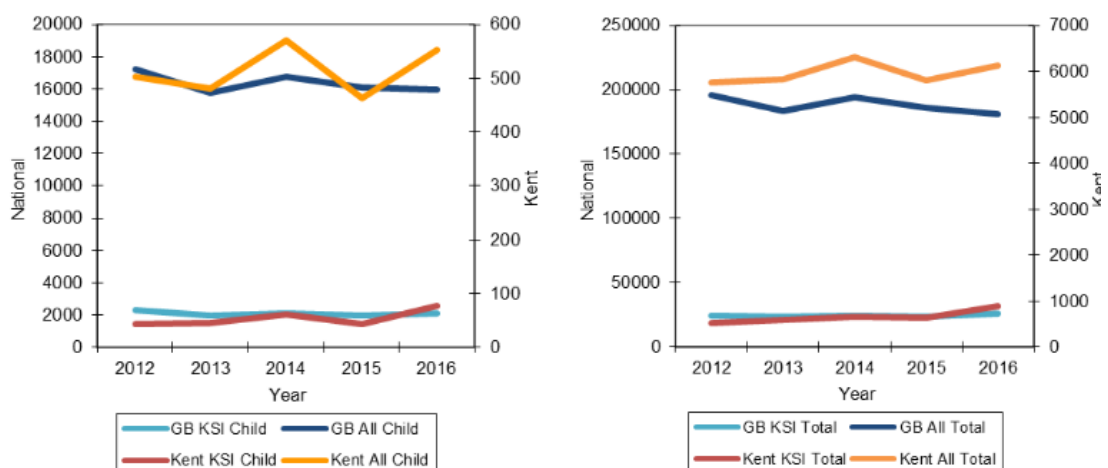
The following provides some background on these priorities and places them within the context of Swale and Faversham specifically (where possible, depending on statistics available.), and shows how KCC's own policies should facilitate the implementation of mandatory 20mph limits as a long term sustainable solution to the aforementioned interdependent, inter-related triad of public health concerns.

1. Road Casualty Reductions

1.1 Background

As the following graphs show, Kent has an urgent need to reduce road casualties as both child casualties, and 'all casualty' statistics are on the increase. This increase is noticeable in particular among pedestrians and cyclists, and in Swale, the majority of these occur in 30mph zones

Figure 8 All casualties and child casualties, National compared to Kent, 2012 to 2016



(Source: Road Casualties in Kent Annual Review, 2017 - Road Casualties in Kent, 2005 – 2016 (Analysis from Adrian Berendt).

This graph shows the different categories of road users killed or seriously injured on Kent's roads, including showing the percentage changes in different categories of road users over time: essentially car occupant casualties are reducing, whilst pedestrians and cyclist casualties are increasing.

Road Casualties in Swale, 2016 (Analysis from Adrian Berendt). This graph shows the 2016 data for pedestrians and cyclists for all categories of injury, showing how the vast majority of each of these casualties happen in 30mph zones.

2016 data							
Row Labels	20	30	40	50	60	70	Grand Total
Cyclist		24	1	1	9		35
Fatal		1					1
Serious		6	1		2		9
Slight		17		1	7		25
Pedestrian	5	58		1	1	1	66
Serious		10		1	1		12
Slight	5	48				1	54
Grand Total	5	82	1	2	10	1	101
Row Labels	20	30	40	50	60	70	Grand Total
Cyclist	0%	69%	3%	3%	26%	0%	100%
Fatal	0%	100%	0%	0%	0%	0%	100%
Serious	0%	67%	11%	0%	22%	0%	100%
Slight	0%	68%	0%	4%	28%	0%	100%
Pedestrian	8%	88%	0%	2%	2%	2%	100%
Serious	0%	83%	0%	8%	8%	0%	100%
Slight	9%	89%	0%	0%	0%	2%	100%
Grand Total	5%	81%	1%	2%	10%	1%	100%

NB We do now have the data for Faversham wards, which requires further analysis. Within Swale, Abbey Ward comes out as 7th worst (out of 24 wards) for pedestrian and cycling, so in the top worst third. The other wards are in the best third within Swale, but I haven't yet been able to do this ranking within Kent as a whole.

1.2 How can road casualties be reduced?

Adopting a 20mph approach is in line with KCC's own strategy for reducing casualties; the following quotes are all taken from their 'Road Casualty Reduction Strategy for Kent' (reviewed September 2017).

Kent has targets to reduce the number of killed and seriously injured (KSI) by 33% and the number of child KSI by 40% by 2020. New targets are proposed based on reducing risk for all casualties as well as for vulnerable road users within the context of a wider approach to improving health...

A programme of engineering is planned, where these measures can have an impact on reducing the risk of crashes from occurring in the future. Funding is prioritised to schemes where the most serious casualties have occurred alongside work to better define risk. It is envisaged this will include more low cost mass action measures in line with the systems approach **and the introduction of further 20mph zones in residential areas to encourage active travel and address public health issues.**

The introduction of more 20 mph limits and zones is being pursued in urban areas and built-up village streets that are primarily residential, to ensure greater safety for pedestrians and cyclists. The County Council recently reviewed its policy towards the implementation of further 20mph schemes and agreed to support the introduction of 20 mph limits and zones:

- where they would assist with delivering targets set out in Kent's Joint Health Wellbeing Strategy by encouraging walking and cycling.

2. Air Quality

2.1 Background

New housing developments will bring an estimated 2,000 plus, new dwellings to Faversham, and with them more vehicles, more congestion, more pollution.

Kent County Council's Strategic Environmental Assessment – Local Transport Plan 4 (LTP4) CO04300448 June 2017 states:

"The key pollutants which affect human health and are of most relevance to the SEA of the LTP4 are Nitrogen Dioxide (NO₂) and PM₁₀ (Particulate Matter up to 10 micrometres in size). Poor air quality as a result of these pollutants may result in more than 32,000 premature deaths in the UK per year. These figures demonstrate the importance of good planning to help bring about improved air quality. Kent, despite recent improvements, still contains some of the worst air pollution in the UK."

In 2011 a section of Ospringe Street/A2 was declared an Air Quality Monitoring Area for failing to meet safe standards for Nitrogen dioxide NO₂ emissions. In 2016 levels were still dangerously high and the decision was made to continue monitoring and also extend the area of monitoring.¹

In September 2018 The Faversham Society, led by Professor Chris Wright in conjunction with Professor Stephen Peckham, Director and Professor at the Centre for Health Services Studies at The University of Kent, set out to monitor air quality data and measure pedestrian

¹ https://uk-air.defra.gov.uk/airquality/details?aqma_ref=687

exposure times within the Ospringe AQMA and across Faversham. As well as NO₂ emissions, PM_{2.5} and PM₁₀ pollutants were also measured. This is the first and currently the only study to measure these specific particulates in Kent. They are of particular concern because of how small they are and the ease with which they are absorbed through the wall of the lung. There is a mounting body of evidence to show that they permanently and considerably restrict lung growth in children, culminate in brain damage and act as a catalyst for diabetes and obesity². There is no level at which they are considered safe and it is not known what length of exposure is necessary before harm is done. Most worryingly, this section of Ospringe street is a main walking route for two Faversham schools, Ospringe Primary School and Abbey Secondary school.

2.2 How can air quality be improved?

Outdoor air pollution is responsible for 20 times more early deaths than the number of people killed on our roads. The cost to public health has been calculated at £27bn every year.³ NICE, the National Institute for Health and Care Excellence, strongly supports 20mph limits it advises that authorities set

“20 mph limits without physical measures to reduce speeds in urban areas where average speeds are already low (below around 24 mph) to avoid unnecessary accelerations and decelerations... Where physical speed reduction measures are used to reduce road danger and injuries, consider using them to encourage drivers to maintain a reduced, steady pace along the whole stretch of road, rather than road humps that may increase acceleration- and braking-related emissions”

(Source: Air pollution: outdoor air quality and health. NICE guideline [NG70] Published date: June 2017.)

When the City of London Corporation evaluated a city-wide 20mph limit, they commissioned the respected Imperial College London to evaluate emissions effects. They found that for diesel vehicles there is a substantial reduction in harmful Nitrogen Oxides (NO_x) and Particulates (PM₁₀) emissions from implementing 20mph limits. Key figures are:-

Vehicle Type ^[2]	Drive Cycle speed limit	NO _x (g/km)	PM ₁₀ (g/km)	CO ₂ (g/km)
Petrol 1.4 – 2.0 litre, EURO IV	20mph	0.0726	0.00218	271.95
	30mph	0.0673	0.00237	266.35
Impact of 20mph drive cycle		+7.9%	-8.3%	+2.1%
Diesel 1.4 – 2.0 litre, EURO IV	20mph	0.7437	0.01758	201.58
	30mph	0.8104	0.01917	203.48
Impact of 20mph drive cycle		-8.2%	-8.3%	-0.9%

² <https://friendsoftheearth.uk/clean-air/what-are-health-effects-air-pollution-children>

³ <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmenvfru/479/479.pdf>

(Source: An evaluation of the estimated impacts on vehicle emissions of a 20mph speed restriction in central London Transport and Environmental Analysis Group Centre for Transport Studies Imperial College London FINAL REPORT April 2013.)

Public Health Wales examined the case for 20mph speed limits in the context of the Well-being of Future Generations Act and produced a table assessing the range of benefits:

Table 5: The case for 20mph speed limits

Road traffic casualties	Decreases in injuries, crashes, pedestrian and child pedestrian injuries of 17 to 70%
Air pollution	12% reduction in gear changes, 14% in braking and 12% in fuel use; transport emissions reduced in residential areas by 12% 32% reduction in NO _x when average speeds drop from 31 to 19mph 48% reduction in NO _x emissions with a calmer driving style Acceleration accounts for 35-55% of pollutants Decrease in NO _x emissions of 24-31%
Active travel	12-25% increase in walking and cycling (Bristol) Three fold increase in cycling to schools (Edinburgh)
Noise	2dB reduction in traffic noise
Inequalities	Narrowed, differences across areas equalised
Social inclusion	Improved and enhanced
Community cohesion	Increased, communities improved
Local business viability	Improved; people using active travel to visit shops spend more money

(Source: Safeguarding the health and wellbeing of future generations by introducing Wales-wide 20mph speed limits. By Sarah J Jones, Huw Brunt. Public Health Wales, 2018.)

In Leeds, 20mph was already part of the Best Council Plan to make it a Child Friendly City. Previously it used traffic calming, which would have taken another four years at a much greater cost to implement. They are now implementing signed 20mph speed limits on an 'installation and review' basis. "Physical traffic calming measures will only be provided where monitoring shows them necessary to supplement the speed reducing effect of signed regulations."

(Source: LEEDS AGREES AND FAST TRACKS ITS 20MPH ROLL-OUT 20's Plenty for Us Press Release 2018.)

As we can see, many local authorities have justified their wide area 20mph limits both on health grounds from fewer casualties, and improved air quality; due to reduced acceleration and an encouraging modal shift away from car use towards non-polluting methods.

Swale's Strategic Air Quality Action Plan 2018-22 recommends **that there be 20mph zones where necessary**".

KCC's own planning guidelines state **"Designing for Pedestrians and Cyclists Developments should be 'permeable' (easy to move through in all directions) and linked to the surrounding network, allowing safe, direct routes for pedestrians and cyclists."**

(Source: 'Kent Design Guide' and 'Making it Happen' documents, section 2.3 Designing for Movement.)

Swale Borough Council's Local Plan 2017, Bearing Fruits 2031, states:

30. Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion...

124. Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, **taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.**⁴

3. Reducing health inequalities – especially adult and child obesity

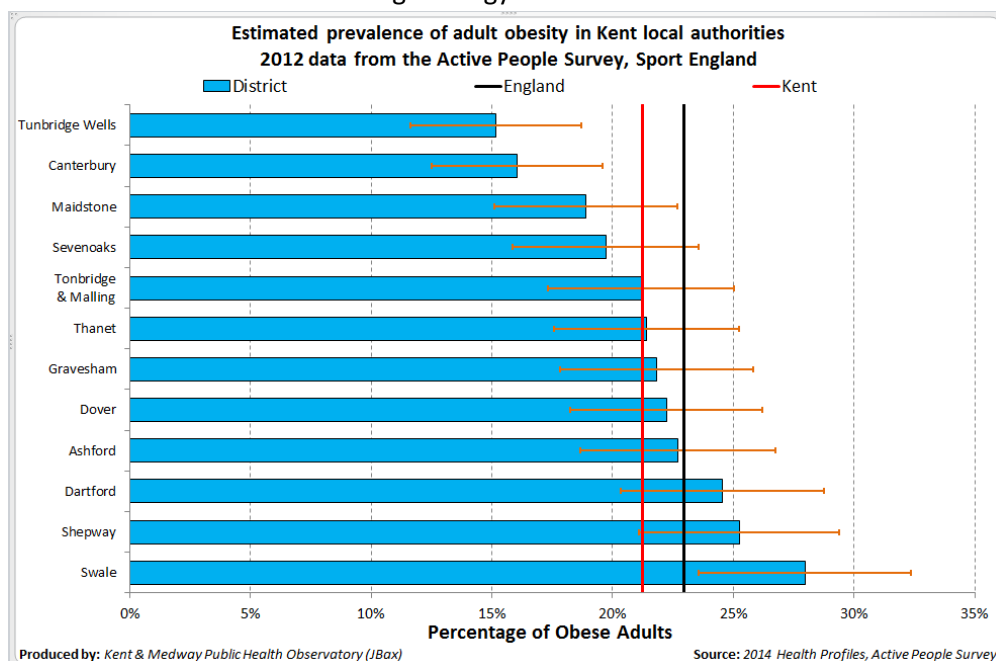
3.1 Background

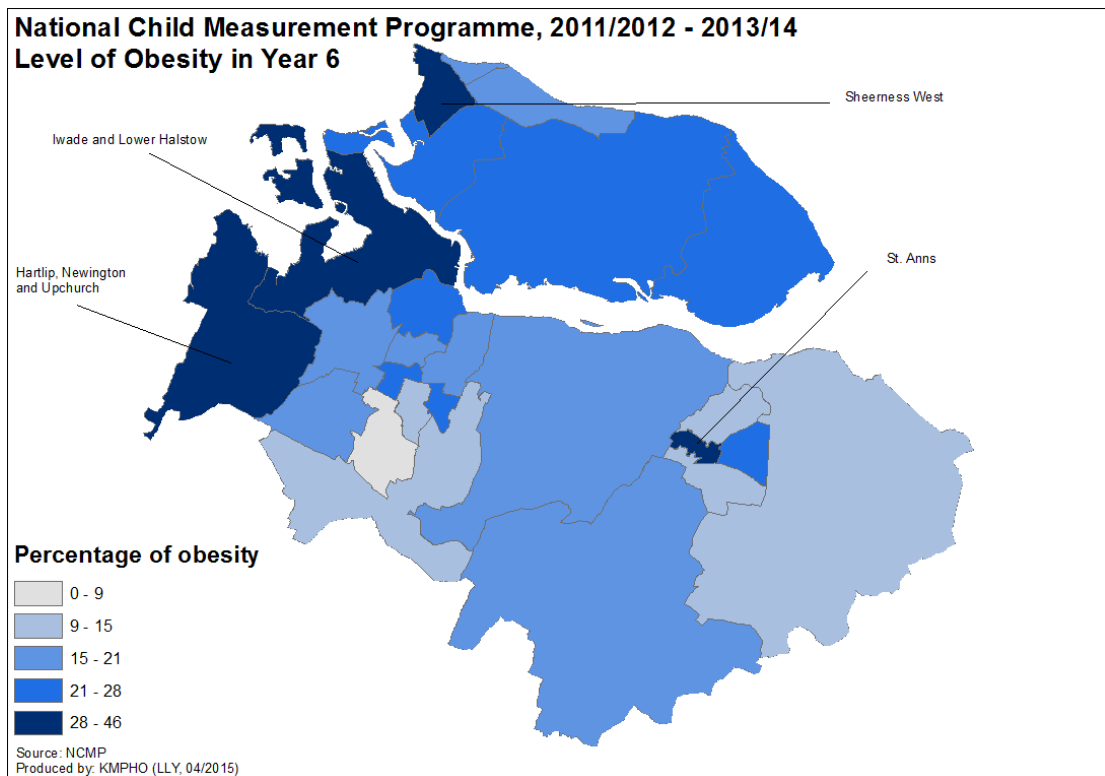
As the statistics that follow show, Kent, and in particular Swale, has serious issues with adult and childhood obesity. More specifically:

- Kent has some of the highest levels of overweight and obese adults and children in SE England, and Swale is one of the worst districts within this
- Both overweight and obesity levels amongst reception year pupils in Kent are now higher than the England and South East averages
- Swale sits within three highest districts in Kent for reception year obesity and adult obesity
- There has been no significant improvement in tackling childhood obesity in Swale between 2010/11 – 2016/17

(Source: Kent Public Health Observatory, Local Childhood Weight Data)

- Reducing childhood obesity (at Reception and Year 6) sits within Priority One of Kent's Joint Health and Wellbeing Strategy





(Source: Kent Public Health Observatory, showing Davington Ward and childhood obesity)

Within Faversham, two out of the four wards have particular issues with poor public health, that could be addressed with a shift to active travel:

- Priory Ward: has high levels of both adult and childhood obesity; in the upper quartile (ie worst quarter) of wards for Excess Weight in Year 6; high levels of circulatory, coronary and respiratory diseases; identified as priority for Mind the Gap health inequalities interventions
- Abbey Ward: high levels of adult obesity, high levels of circulatory, coronary and respiratory diseases

These wards should qualify for 20 mph on public health grounds in KCC policy.

3.2 How should public health problems arising from a lack of activity be addressed?

20mph limits can play a key role in bringing about a shift to active travel including walking and cycling. A 20mph environment makes possible other interventions to support walking and cycling, such as informal crossings and pathways which would not be possible in a 30mph environment, and allows a range of authorities to work together to encourage eg walking to school and other walking and cycling schemes.

KCC's Active Travel Strategy recognises worldwide evidence that walking and cycling improves transport, health and economic outcomes. In April 2017, the UK Government published advice to Local Authorities on implementing local cycling and walking plans. 20mph is the cheapest and most effective way of increasing active travel and reducing serious injuries and fatalities:

A 20mph speed limit allows highway authorities to implement cost-effective measures which might not be allowed at 30mph, such as:

- a. informal road crossings, which are cheaper to implement and maintain;
- b. reduced widths at junctions, making it easier for pedestrians to cross; and
- c. implementing cycle routes with less (expensive) physical segregation.

(Source: DfT Local Cycling and Walking Infrastructure Plans, April 2017.)

The following are taken from Kent Public Health Observatory Needs Assessment around obesity:

NICE guideline (CG43) states 'It is unlikely that the problem of obesity can be addressed through primary care management alone. More than half the adult population are overweight or obese and a large proportion will need help with weight management...The clinical management of obesity cannot be viewed in isolation **from the environment in which people live**'

NICE recommends that local authorities should work with local partners, such as industry and voluntary organisations, **to create and manage more safe spaces for incidental and planned physical activity, addressing as a priority any concerns about safety, crime and inclusion. They should provide facilities and schemes such as cycling and walking routes, cycle parking, area maps and safe play areas making streets cleaner and safer, through measures such as traffic calming, congestion charging, pedestrian crossings, cycle routes, lighting and walking schemes ; ensuring buildings and spaces are designed to encourage people to be more physically active**

(Source: Kent Public Health Observatory Health Needs Assessment, 2015)

The following is taken from the Kent Joint Health and Wellbeing Strategy 2017:

Shaping the physical environment of the community so that it can promote healthier lifestyles is central to borough/city/district councils' regulatory health improvement role. The new National Planning Policy Framework highlights the role of the planning system in facilitating social interaction and creating healthy, inclusive communities. This includes measures aimed at reducing health inequalities, improving access to healthy food and reducing obesity, encouraging physical activity, improving mental health and wellbeing, and improving air quality to reduce the incidence of respiratory diseases.

Road traffic injuries, air pollution and health problems arising from lack of activity form an inter-related, inter-dependent triad of public health problems. The challenge facing local authorities today is to identify robust interventions that will have positive effects on all three as a minimum. Default 20mph limits are the long term, sustainable solution to that challenge.

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http://www.favershamtowncouncil.gov.uk20s_Plenty_for_Faversham_10030.aspx

<http://www.20splentyfortunbridgewells.moonfruit.com/>