

Local action to mitigate the health impacts of cars

A briefing statement

▶ Introduction

The UK Faculty of Public Health (FPH) recommends a “major shift away from cars in favour of active travel: walking, cycling and public transport” in order to reduce the health harms of road transport and improve the health of the population and individuals.¹ The general public are concerned about the negative impacts of car use on congestion and the environment as well as health.² Sixty-eight percent of people make a journey of less than two miles by car at least once a week and 40% say they make a journey by car that could be done by active travel.³ This public health imperative and public support for change provides an opportunity for local authorities to take action. As local authorities face financial challenges this is an area which delivers a wide range of co-benefits for health, the environment, the economy and communities.

This short document provides some evidence-led practical advice for policy makers and planners in local authorities, particularly those covering urban areas and towns.

▶ What role do local authorities have in reducing the health impacts of cars?

Local authorities are responsible for improving the health of their residents under the Health and Social Care Act 2012. The progress of English local authorities is assessed against 68 Public Health Outcome Measures in Public Health England’s Public Health Outcomes Framework (PHOF).⁴ The following measures in the PHOF can be improved through improving street environments and public transport:⁵

Wider determinants:

- Rate of people killed or seriously injured (KSI) on the road
- Sickness-absence rate
- Percentage of the population affected by noise
- Percentage of the population using outdoor space for exercise/health reasons
- Social connectedness
- Older people’s perception of community safety

Health improvement:

- Childhood overweight and obesity
- Hospital admissions due to injuries in children and young people
- Adult overweight and obesity
- Physical inactivity
- Prevalence of recorded diabetes
- Self-reported wellbeing
- Injuries due to falls in people aged 65 and over

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Healthcare and premature mortality:

- Premature deaths from preventable cardiovascular disease
- Health-related quality of life for older people
- Hip fractures in people aged 65 and over

Health protection:

- Fraction of mortality attributable to particulate air pollution

Local authorities also have responsibility for the economic, social and environmental wellbeing of their area.⁶ Local Air Quality Management (LAQM) legislation gives local authorities the responsibility to improve air quality.

It is recognised that healthy streets are streets that are also good for the local economy.⁷ People who arrive at shops on foot spend the most over the course of a week or a month.⁸ This has been demonstrated by studies in a range of cities and towns across the UK. In Gloucester, people who walked to the city centre spent an average of £104 per week compared to £52 spent per week by those arriving by car or van. In Cheltenham, people who walked to the town centre spent an average of £91 per week compared to £52 spent by those travelling by car or van.⁹ In a large study of 14 town centres across London people who walked to the town centre spent an average of £86 per week compared to £62 spent by those travelling by car.¹⁰

► What do we need to do?

There is a clear and well established medical evidence-base from the National Institute for Health and Care Excellence (NICE) for the effective measures needed on streets to improve health.¹¹ These measures include:

1. re-allocating road space to support active travel, eg. by reducing on-street parking, widening pavements and introducing cycle lanes

2. restricting motor vehicle access, eg. by closing or narrowing the carriageway
3. introducing road-user charging schemes
4. introducing traffic-calming schemes to reduce vehicle speeds, eg. 20mph limits and zones, enforcement and narrowing the carriageway
5. providing a comprehensive network of routes for walking and cycling to offer everyone (including people whose mobility is impaired) convenient, safe and attractive access to workplaces, homes, schools, shops, play and green space and social destinations.

► What do health experts say about the health impacts of cars?

The Academy of Medical Royal Colleges (AoMRC) has recently recommended that “a change in culture is needed so that it is no longer considered ‘normal’ to spend a large amount of time sitting in cars”.¹²

The AoMRC’s report *Exercise: The miracle cure and the role of the doctor in promoting it* highlights the need for changes in infrastructure to support more active travel. The AoMRC recommends that NHS organisations, including clinicians on Health and Wellbeing Boards, should be advocates for action at local government level to improve facilities for active travel and improve health through changes to the built environment.¹³

The Town and Country Planning Association’s (TCPA) report *Planning Healthy-Weight Environments* describes a healthy-weight environment as one which prioritises walking, cycling and public transport use, and minimises private car use.¹⁴

The Chief Medical Officers of England, Scotland, Wales and Northern Ireland have advised that:

“For most people, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life. Examples include walking or cycling instead of travelling by car.”¹⁵

The British Medical Association has stated that:

“Walking and cycling are also effective ways of integrating, and increasing, levels of physical activity into everyday life for the majority of the population, at little personal or societal cost.”¹⁶

Public Health England (PHE) has recognised that tackling physical inactivity is crucial in order to achieve its priorities which include reducing levels of obesity and dementia, and giving every child the best start in life. PHE’s evidence-based approach to physical activity aims to build incidental activity into everyone’s daily life, for example through creating safe and attractive environments that enable anyone of any age or ability to travel actively.¹⁷

► **What can local authorities do to mitigate the health impacts of cars on their residents?**

Local authorities are operating under increasing financial pressure and therefore need to ensure that their budgets are spent on the most cost-effective measures that deliver a range of co-benefits to all residents.

There are seven main categories of measures that local authorities can use to reduce the health harms of cars to their residents. These include policies on street design, traffic management, reducing vehicle emissions, planning, parking, active travel, and public transport. These measures are cost-effective transport interventions which will deliver a wide range of health, environmental and economic benefits to residents and communities and therefore provide a win-win opportunity for local authorities.

Street design

There are a range of design measures that local authorities can introduce to reduce the health harms of cars. These include:

1. Reallocating road space to support active travel, for example, by:

- converting on street parking spaces to parklets (public seating areas) and cycle parking
- widening and improving pavements
- introducing cycle lanes

2. Restricting the through flow of motor traffic, for example, by:

- closing or narrowing the carriageway
- introducing filtered permeability, where a road is blocked to through traffic, except cycles

3. Designing for slower speeds.^{18,19,20}

Traffic management

Local authorities can introduce a range of traffic-management methods which include:

1. Traffic-calming schemes to reduce vehicle speeds, including 20mph zones, enforcement and narrowing the carriageway
2. Area-wide 20mph speed limits
3. Reducing delivery traffic, through consolidation of deliveries for offices and services (freight consolidation centres)
4. Developing a ‘play streets’ policy which temporarily closes off a street to through traffic allowing children to play safely outside and neighbours to get to know each other better
5. Car-free days
6. Road-user charging schemes.

Low-emission policies

A range of low-emission policies can be introduced by local authorities to reduce the health harms of cars. Policies include:

1. Using low-emission vehicles in the local authority’s own fleet and using procurement to ensure suppliers use low-emission vehicles. This also demonstrates the capabilities of low-emission vehicles to a wider audience as well as reducing emissions
2. Anti-engine-idling campaigns and enforcement of engine-idling laws²¹

3. Introducing car-sharing schemes or car clubs in areas of high car ownership and poor public transport²²
4. Increasing plants and trees on streets. This can act as psychological traffic calming and help to reduce air pollution as well as being attractive and providing shade.

Planning policies

Local authorities can introduce planning policies to enable more journeys to be made by walking and cycling and discourage unnecessary car trips.²³ Methods include:

1. Promoting car-free residential developments/low parking ratios
2. Requiring direct desire lines for walking and cycling, for example, through filtered permeability
3. Requiring high levels of well-thought-out cycle parking in developments
4. Encouraging developments with a mix of uses, for example residential, retail, leisure and/or commercial uses to reduce the need to travel by car
5. Optimising development density, taking into account public transport accessibility and access to services
6. Encouraging higher density development near public transport links
7. Protecting local high streets through, for example, not permitting the conversion of retail to residential premises and resisting car-based out-of-town retail developments
8. Zero car parking in commercial developments (apart from accessible parking for Blue Badge holders)
9. Use of Community Infrastructure Levy (CIL) and Section 106 funding (s106) for investment in street measures
10. Creation of lifetime neighbourhoods. There are three principles of lifetime neighbourhoods which include neighbourhoods:
 - that are well-connected and walkable
 - where people, as far as possible, have a choice of homes, accessible

infrastructure and services, places to spend time and to work, with a mix of accessible and adaptable uses, and

- where people can belong to a cohesive community which fosters diversity, social interaction and social capital.^{24, 25}

Parking policy and management

Local authorities in England, Scotland and Wales have powers²⁶ to:

- apply for areas to be designated as controlled parking zones (CPZs) and
- control on-street pay and display parking and some off-street parking.

CPZs enable the restriction of parking to permit holders, usually residents, business and visitors. They are important tools to 'lock in' car free/low car developments, and for improving the street environment to encourage more walking and cycling, for example, by preventing parking at junctions and obstruction of footway crossovers.

Some local authorities vary the fee charged for parking permits according to the CO₂ emissions of the vehicle. Charging higher fees for vehicles with lower CO₂ emissions can lead to an increase in the number of diesel vehicles which have higher emissions of NO_x and particulate matter than petrol vehicles. As a result, some local authorities have introduced diesel surcharges to offset this.

Local authorities can use parking policies to increase walking and cycling and reduce unnecessary car trips by:

1. Introducing more CPZs, particularly in development areas prior to new residents moving in
2. Extending the hours or days of operation of CPZs
3. Regulating the number of parking permits issued to discourage multiple car ownership, eg. through increasing the cost of second and third permits or restricting the number of permits to one per household and/or preventing new residents from receiving permits

4. Ensuring that parking spaces are sold separately to houses and flats
5. Introducing emissions-related charging for residential permits and for pay-and-display parking
6. Reallocating parking space for car club bays, cycle parking and electric-vehicle charging points
7. Reducing car parking at destinations and providing cycle parking, particularly in areas of good public transport accessibility and/or a large walkable/cycleable catchment, to discourage car use
8. Working with leisure services and service providers to reduce/manage parking at destinations
9. Working with clinical commissioning groups on NHS staff and patient engagement to increase active travel

Promotion of active travel

There are a range of additional measures that local authorities can use to support active travel. These include:

1. Supporting nurseries, schools, colleges and academies to adopt safer and more sustainable ways of travel to and from school
2. Maintaining cycle lanes in good condition
3. Providing free cycle training for children through school²⁷
4. Providing free 1:1 cycle skills training for adults
5. Promoting the use of active travel plans in workplaces
6. Providing cycle parking for residents, including cycle hangers
7. Providing free cycle maintenance checks and advice
8. Providing a subsidised bike loan scheme²⁸
9. Supporting opportunities to combine cycling with public transport in order to provide people with a transport mode that can match the speed and flexibility of private car use²⁹
10. Supporting walking and cycling

routes to and from major events venues to promote active travel as part of a venue's overall travel strategy.³⁰

Public transport

Local authorities can increase the use of public transport and as a result discourage unnecessary car trips by:

1. Focusing spending on increasing the provision of public transport instead of supporting major road schemes

Disadvantages of new road schemes:

- they create fewer jobs than spending on public transport schemes
- they create fewer jobs in their supply chain than public transport schemes
- they are expensive and not possible to deliver in the short term
- they fail to cut congestion
- they often stop the delivery of small-scale investment in road safety and traffic measures eg. junction improvements.³¹

2. Making public transport more attractive to use by making it:

- more affordable
- easier to use
 - improved information, eg. real-time information online and on mobile phone apps
 - integrated ticketing, eg. smartcards for multi-operator and multi-mode travel³²
 - improved integration between different modes of public transport and different operators
- quicker and more reliable, eg. by giving priority to buses over other traffic
- safer, eg. through staff supervision of stations and CCTV
- a higher frequency service
- more accessible for people with restricted mobility

Bus services

Examples of improvements to bus services include:

1. bus priority initiatives
 - bus lanes
 - traffic signal bus priority using Selective Vehicle Detection (SVD)
2. use of smartcards or tickets purchased at stops or from conductors (not drivers)
3. road-user charging schemes
4. rapid-transit services³³
5. guided bus services
6. real-time bus information – available online, using mobile phone apps, and at bus stops
7. new interchanges and stations.

Local rail services

Examples of improvements to local rail services include:

1. refurbishing and upgrading existing trains
2. station upgrades – these can also be used to improve the public realm
3. improving cycling and walking routes to stations
4. providing adequate quantity of secure cycle parking at stations
5. increasing cycle carriage on trains, eg. through the addition of a cycle van
6. introducing cycle hire at rail stations.

Benefits of investment in local public transport

There are many benefits of investment in local public transport. These include:³⁴

1. promoting economic growth
2. improving access to employment
3. increasing productivity due to reduced congestion and improved journey time reliability
4. promoting regeneration of areas around the transport networks
5. higher returns on investment (ie. better value for money) than road building projects

6. creating more jobs than road building projects
7. improving equity, because local public transport investment enables more social groups and areas of the country to benefit
8. improving connections and communication between firms (agglomeration).

There are many additional benefits of public transport compared to private motorised transport in urban areas. Public transport:

1. is more sustainable because it produces lower carbon emissions
2. contributes to lowering air pollution
3. contributes to increasing the physical activity of the population. (The health benefit of the additional physical activity can be monetised using the World Health Organisation Health Economic Assessment Tool³⁵ and incorporated into the transport business case.)
4. contributes to developing a more inclusive society
5. improves the quality of the public realm by reducing the volume of car traffic in urban areas and therefore reducing noise, congestion, road danger and the volume of space required by private vehicles.

FPH supports the recommendations made in the Royal College of Physicians report *Every breath we take: the lifelong impact of air pollution*³⁶ which address the impact of exposure to air pollution across the course of a lifetime. FPH's manifesto, *Start Well Live Better*, also calls on the Government to implement a cross-national approach to meet climate-change targets³⁷ and, as part of this, to reduce the need to use cars.

For further information on FPH's position and recommendations on transport and health, visit:

<http://bit.ly/18G6aYj>
<http://bit.ly/29Hu3XF>

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Appendix 1: Public health measures used in Scotland, Wales and Northern Ireland that can be improved through improving street environments and public transport

Scotland

The Scottish Government has chosen 55 National Indicators³⁸ to track progress towards achievement of Scotland's National Outcomes.³⁹ The following indicators can be improved through improving street environments and public transport:

- Increase the proportion of healthy weight children
- Increase physical activity
- Improve self-assessed general health
- Improve mental wellbeing
- Reduce premature mortality
- Reduce emergency admissions to hospital
- Reduce deaths on Scotland's roads
- Reduce traffic congestion
- Improve people's perceptions of their neighbourhood
- Improve access to local green space
- Increase people's use of Scotland's outdoors
- Reduce Scotland's carbon footprint
- Increase the proportion of journeys to work made by public or active transport.

Wales

The Welsh Government published the *Public Health Outcomes Framework* for Wales in March 2016.⁴⁰ Many of the indicators can be improved through improving street environments and public transport. These are shown in Table 1.

Table 1: Indicators in the *Public Health Outcomes Framework* that can be improved through improving street environments and public transport

Outcome	Indicator
Years of life and years of health	Life expectancy at birth Healthy life expectancy at birth
Mental wellbeing	Mental wellbeing among children and young people Mental wellbeing among adults
A fair chance for health	Gap in life expectancy at birth between the most and least deprived Gap in healthy life expectancy at birth between the most and least deprived Gap in mental wellbeing between the most and least deprived
Natural and built environment that supports health and wellbeing	Quality of the air we breathe
Healthy actions	Adults meeting physical activity guidelines Physical activity in adolescents
Health in the early years and childhood	Children age five of a healthy weight Adolescents of healthy weight
Good health in working age	Working-age adults in good health Working-age adults free from limiting long-term illness Life satisfaction among working-age adults Working-age adults of healthy weight
Healthy ageing	Older people in good health Older people free from limiting long-term illness Life satisfaction among older people Hip fractures among older people
Minimising avoidable ill health	Premature deaths from key non-communicable diseases Deaths from road traffic injuries

Northern Ireland

In 2014 the Northern Ireland Government published *Making Life Better*, a 10-year strategic framework for public health, to provide direction for policies and actions to improve the health and wellbeing of the people of Northern Ireland and reduce inequalities in health.⁴¹

The *Making Life Better* strategic framework includes many indicators that can be improved through improving street environments and public transport.⁴² These are shown in Table 2.

Table 2: Indicators in the *Making Life Better* strategic framework that can be improved through improving street environments and public transport

Theme	Indicator
Key overarching indicators	Life expectancy Healthy life expectancy Disability-free life expectancy
Empowering healthy living	Adult obesity Childhood obesity Mental health and wellbeing Blood pressure/hypertension
Creating the conditions	Air quality
Empowering communities	Road collisions

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