London Boroughs
HEALTHY STREETS
Scorecard

July 2019

Contents

A. The scorecard and indicators

The way we plan transport in London has an enormous impact on Londoners' health:

- **Air pollution** Around half of London's air pollution is caused by road transport. Toxic fumes from vehicles cause thousands of premature deaths every year and lead to young Londoners growing up with stunted lungs and suffering from asthma.
- **Inactive lifestyles** Adults need just 20 minutes of moderate activity every day to stay physically and mentally healthy. Yet only 34% of adult Londoners are achieving this. This is partly because nearly 5 million daily journeys in London that could be walked or cycled are currently made by car.
- **Noise pollution** Traffic is a major source of noise pollution in London. Environmental noise is the second largest environmental health risk in Western Europe behind poor air quality.
- **Road casualties** In 2017, 3,881 people were killed or seriously injured (KSI) on London's roads, including 131 fatalities. A further 28,000 people sustained what were classified as 'slight' injuries.

More detail on the link between inactive lifestyles and transport as well as on road casualties, is set out in the discussion of the Scorecard indicators at Annex 1. For more on the health impacts of noise and air pollution, please see Annex 3.

The Mayor's Transport Strategy sets targets to deliver 'healthy streets'.
Transport for London and the Mayor of London's *Healthy Streets* approach acknowledges research that shows if streets are safe and comfortable to walk, cycle and use public transport on, if they feature less car use and are greener, they result in better health outcomes. The Mayor's Transport Strategy has three key targets.

1. To increase the trips made by 'sustainable mode of transport' (walking, cycling, public transport) from 63% to 80% by 2041.
2. For everyone to undertake the daily 20 minutes of active travel they need to stay healthy by 2041
3. Vision Zero for road danger: the elimination of all deaths and serious injuries on London's transport system by 2041

London's boroughs control 95% of London's roads so the measures they implement are critical to whether the Mayor's targets will be met or not. But what specific measures should boroughs be taking? And are they doing all they can?

Our new *London Boroughs Healthy Streets Scorecard*, which will be updated annually, aims to help answer these questions and promote action.
A coalition of environment and transport NGOs (see About Us) has come together to help councils and residents understand better where and how they can make an impact. Our aim is to update the scorecard site on an annual basis to track progress and change (the metrics used in the scorecard should be available updated annually). We also want to promote this approach beyond London to other cities and towns across the country.

We acknowledge that in the first edition there will be shortcomings and encourage feedback about the scorecard so that subsequent editions will be as valuable as possible. Not all key metrics (e.g. air pollution) are covered in this edition but the scorecard can be developed with help from those using the scorecard and modified and improved in future.

Also, this is not intended to be a measure of borough performance against the 10 indicators set out in the Mayor's healthy streets model. Rather, it reflects key Mayoral targets and interventions which the coalition believe provide a strong basis for improvement.

Our scorecard sets out data to show (A) the health of each borough's streets through 'ouput' indicators but also (B) the extent to which councils are putting in place four key measures which can make a real difference.

(A) Output indicators The Scorecard shows the health of each borough's streets by looking at four key 'output' indicators:

i. the proportion of trips made by 'sustainable modes' (walking, cycling, public transport)
ii. active travel rate (the proportion of residents walking or cycling more than five times a week)
iii. collisions resulting in serious or fatal injuries for active travellers, per million journey stages
iv. car ownership rates, to ascertain the level of reliance on cars.

(B) Input indicators The Scorecard also shows to what extent councils are putting in place four key measures (or 'input' indicators) which can help to deliver *Healthy Streets*, often with dramatic results:

v. Low Traffic Neighbourhood schemes
vi. 20mph speed limits
vii. Controlled Parking Zones (CPZs)
viii. Physically protected cycle track

These four key measures have been chosen because they can have a big impact, and because it is realistic to expect all boroughs to be able to implement them. They are not currently being used routinely by London Boroughs so there is a huge opportunity to achieve dramatic results in a short space of time.

The organisations in the London Boroughs Healthy Streets Scorecard Coalition, and the local groups we are associated with, are committed to supporting councils to implement the key measures.

It is recognised that not everything is under boroughs' control, most notably public transport, and that boroughs face financial constraints. It is also recognised that residents are often concerned that the proposed measures might make their lives harder rather than easier. Part of our job in supporting councils to implement these measures is to demonstrate more clearly to the public why they will be healthier and better off with the measures in place.

WHERE TO FIND THE DATA

- A spreadsheet with the data is published alongside this report. Each tab on the spreadsheet shows the detail for each indicator including the source. The summary page shows how the overall scores were reached.
- Annex 2 sets out summaries and graphs of the data for each indicator.

We hope the scorecard helps boroughs to compare how well they are doing in relation to other boroughs and to identify areas for future action. As London is only just beginning the 'Healthy Streets' journey, our aim is to provide a benchmark or baseline for future action. It in no way seeks to criticise previous approaches.

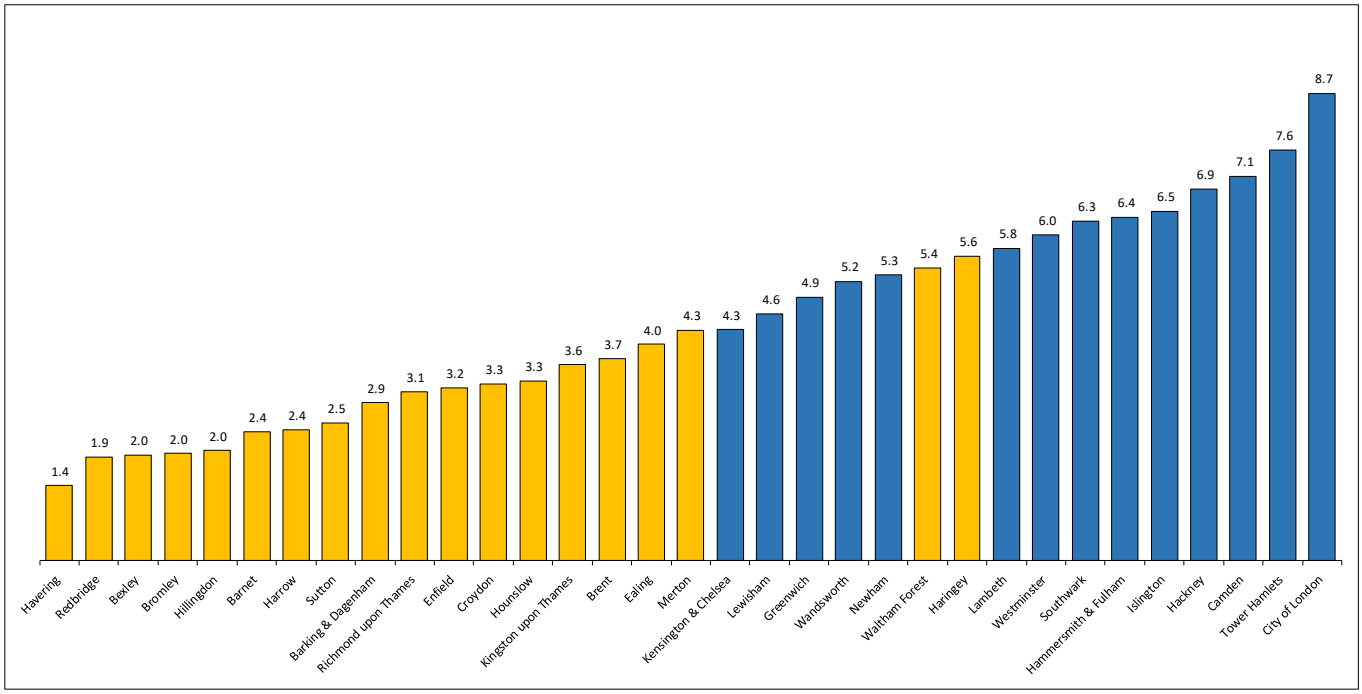
B. Scorecard results

One of the key aims of the project was to use publicly-available data that can be collected annually, with the aim that the scorecard data will updated regularly to allow us to track boroughs as they progress, year on year.

NOTE: The City of London scores well in many indicators but it is not primarily a residential borough and it was felt that comparisons with the other London Boroughs may be unhelpful. So while the City's scores are set out in the data and graphs and reflected in the commentary for all Inner London, this commentary does not always reflect the results from the City for individual indicators.

OVERVIEW and SUMMARY

The chart below shows the London Boroughs Healthy Streets Scorecard – OVERALL SCORES FOR 2019 (YELLOW = Outer London borough, BLUE = Inner London borough)**.** The overall scores were derived by combining scores from the eight individual indicators. ***See Annex 2 (see p21) for charts, data sources and methodology for individual indicators and overall Healthy Streets Scorecard.***



If we exclude the City of London, Tower Hamlets achieves the highest overall score followed by Camden and Hackney (with scores of over 6.5). The lowest scoring borough was Havering, Redbridge, Bexley, Bromley and Hillingdon (with scores of 2.0 and below).

The range of results is very wide for all indicators even when looking just at Inner or Outer London boroughs (see Annex 2 for details)

- The proportion of trips made by 'sustainable mode' (i.e. public transport, walking or cycling) is just 41% in Hillingdon but 85% in the highest scoring borough Hackney. (The Mayor's target is 75% in Outer London and 90% in Inner London by 2041.)
- The proportion of people walking or cycling more than five times a week varies between 27% in Barking and Dagenham and 56% in Hackney. (The Mayor's aim is, by 2041, for all Londoners to do at least the 20 minutes of active travel they need to stay healthy each day.)
- The highest number of serious injuries for active travellers per million journey stages was in Hackney and was roughly three times the lowest rate in Greenwich. (In 2018, TfL launched its Vision Zero Action Plan to meet a target that, by 2041, no one would be killed or seriously injured on the road.)
- There was a dramatic difference in reliance on cars with three and a half times more cars registered per household in Hillingdon (1.27) than in Islington (0.35). Though there is no Mayoral target for car ownership, this score reflects the extent to which people are reliant on cars

In terms of the key measures that boroughs can implement to help reach the targets, the 'input' measures:

- 20mph speed limits are widespread in some boroughs with nearly 100% of streets covered in Southwark, Hackney and Islington but only 10% of streets covered in many other boroughs including Bromley, Barnet and Kensington & Chelsea.
- 'Low Traffic Neighbourhood' schemes are where through-traffic is blocked from back streets and where streets are filtered. The most are in Hackney (84) and the fewest in Kensington & Chelsea (2).
- The proportion of streets with controlled parking varies between 100% in Camden and Kensington & Chelsea to below 10% in Bromley, Enfield and Sutton.
- There are also wide differences in the amount of existing protected cycle track: Westminster, Tower Hamlets and Enfield had the most; Croydon, Brent and Kensington & Chelsea the least.

Inner London tends to score better than Outer London, which is not surprising given their lower housing density and lower public transport accessibility, but some Outer London boroughs are bucking the trend.

In Inner London people use public transport, walking and cycling much more. However, there is considerable variation and some key exceptions. Kensington and Chelsea is one, with just 0.9% of its roads covered by 20mph speed restrictions, 2.8km of protected cycle track (or 1.4% of its road length) and just two modal filters across the whole borough. It also has lower active travel rates and higher car ownership rates than a number of other Inner London boroughs.

There was also a wide range of results for Outer London and again lots of room for improvement despite lower public transport provision and some Outer London boroughs have bucked the trend in particular Waltham Forest and Haringey.

- Waltham Forest's mini-Holland scheme has delivered 55 Low Traffic Neighbourhood filter schemes, exceeded only by Tower Hamlets (69) and Hackney (84) who have been installing theirs over a much longer period of time.

- Enfield comes second across London for length of protected cycle track with 91.6km or 14.4% of its road length.
- Haringey easily exceeds Outer London averages for proportion of roads covered by 20mph speed limits (90.1%) and controlled parking (72% of roads).

Casualty rates per million journey stages
Unfortunately, the results show that, where active travel rates (walking and cycling) are higher, casualty rates are sometimes higher too, even taking account of the overall number of journey stages by these modes. Hackney is a clear leader on active travel rates, for example, with 14% regularly cycling, two or three times higher than in neighbouring boroughs. But it also has high rates of serious or fatal collisions for active travellers per million journey stages. This will be something for boroughs and the Mayor to reflect on as they aim to deliver the Mayor's vision of zero fatalities or serious injuries by 2041 – that simply boosting walking and cycling rates does not result in "safety in numbers". Indeed, the more walking and cycling there is, the more there will be a clear need to deliver more and better safety measures too.

Strengths and weaknesses in many boroughs
All boroughs have strengths. Every borough has areas it can and could do far better on. For the Inner London leaders, more Low Traffic Neighbourhood schemes are needed and even Tower Hamlets and Islington only score highly due to action from decades ago.
We hope the scorecard helps boroughs to compare how well they are doing in relation to other boroughs and to identify areas for future action.

OUTPUT INDICATORS – more detailed results (see Annex 2 for graphs and data)

The Scorecard looks at four key 'output' indicators that broadly indicate how healthy a borough's streets are:

Mode share - One of the most important of the London Mayor's ten Healthy Streets indicators is "People choose to walk, cycle and take public transport." Mode share measures the proportion of overall journeys made in a borough by transport mode, for example public transport, private car, bus, taxi, walking or cycling.

- The proportion of trips made by 'sustainable modes' (that is, public transport, walking or cycling) varies between 41% and 93% across London
- Over 90% of journeys in the City of London are made sustainably, but Hackney, Islington, Camden and Westminster also score very high.
- Perhaps unsurprisingly, a higher proportion of trips are taken by sustainable modes in Inner London than in Outer London. But Inner London borough Greenwich has a low score for trips by sustainable mode (under 60%) and Outer London boroughs Haringey and Newham have high scores (both over 70%). Overall, the picture is very mixed with a wide range of scores across all boroughs.

Regular active travel - The proportion of people who regularly walk or cycle (over five times weekly) is again a strong indicator of healthy outcomes and of streets healthy enough to enable those outcomes.

- The proportion of people walking or cycling more than five times a week varies between 27% and 56% depending on the borough.

- While overall share of journeys by sustainable mode is notably higher in Inner than Outer London, the proportion of those regularly walking and cycling by borough is more mixed. For example, the walking rate in Waltham Forest, an Outer borough, is higher than all others bar the City, and Wandsworth and Bromley as well see over 40% of residents walking regularly.
- The walking rate in Greenwich is the lowest of the Inner London boroughs, while Enfield, Havering, Hounslow and Barking & Dagenham, all see regular walking rates below 30%.
- On cycling, trip rates in Inner London borough Hackney outstrip all other boroughs (over 14% of people cycle over five times a week or more) and cycling rates in Waltham Forest in Outer London are higher than in many Inner London boroughs. London boroughs where fewer than 1% of residents cycle five or more times weekly include Brent, Barnet and Croydon.

Serious and fatal collisions - Rates of serious or fatal pedestrian and cyclist casualties (Killed or Seriously Injured or KSI) per 1,000 walking and cycling trips give a measure of the risk to those walking and cycling in a borough.

- The highest borough road casualty rate for pedestrians and cycles is treble the lowest rate.
- A notable result was that Hackney has high walking and cycling rates but also high KSI rates for pedestrians and cyclists, even when taking into account the fact that more people are walking and cycling.
- The other boroughs where there are high KSI rates for pedestrians and cyclists are Tower Hamlets and Islington. Of all the Inner London boroughs, walking and cycling appears safest in Greenwich, followed by two Outer London boroughs, Merton and Croydon.
- The results show that some boroughs with high walking and cycling rates also have high pedestrian and cyclist casualties per 1,000 trips. This study does not extend to explaining why this may be. But it seems that in many boroughs where much has been done to boost walking and cycling rates, more now needs to be done to reduce danger and boroughs will need to consider where, how and why such high numbers of collisions are happening.

Car ownership - Car ownership, or the number of cars per household, gives an indication of how reliant people are on cars and instead use public transport or walk or cycle.

- The data varies significantly with more than three and a half times more cars per household in Hillingdon (1.27) than in Islington (0.35). This chimes with statistics which show that roughly two thirds of households in some Inner London boroughs are now getting along without owning a car. 2011 Census data identified the proportion of households per borough without a car or van. Though relatively old data, it seems likely that, if anything, car ownership per household will have decreased somewhat since 2011.
- Again, there is a great deal of variation within the Inner and Outer London boroughs. In Inner London, Greenwich has the most at over 0.6 cars per household but Tower Hamlets, Islington and Hackney all have fewer than 0.4 cars per household. In Outer London Sutton, Bromley, Bexley, Harrow and Hillingdon all feature more than 1 car per household whereas Haringey and Newham have the lowest rates of car ownership at below 0.6.

INPUT INDICATORS – more detailed results (see Annex 2 for graphs and data)

The Scorecard measures four 'input' indicators, which are observed to boost active travel and deliver Healthy Streets.

Low Traffic Neighbourhoods - This measures the number of modal filters per kilometre of a borough's road length. Modal filters, such as bollards, barriers or planters, prevent through motor traffic from passing through residential streets and can be used to create 'low-traffic neighbourhoods' where more people want to cycle, walk, play and spend time.

- As the low figures for this measure indicate, modal filters are not being routinely used across London. But there are some notable successes. Hackney has 84 modal filters (or 0.3 per km of road length) and City of London has 18, or 0.33 per km of road length, four or five times the London average of 0.065.
- High scores in some boroughs build on historic work. Hackney and Islington (0.16 filters/km of road) and Tower Hamlets (0.24) started installing modal filters decades ago.
- Waltham Forest stands out in Outer London following the installation of 55 modal filters since 2015 to prevent local streets being used by through motor traffic.
- At the other end of the scale Kensington and Chelsea have just two filters, Bexley have four and Redbridge have seven filters across their entire road networks.
- While scores on this measure are still low, this is a useful baseline to measure future work. Many boroughs across Greater London are now considering or consulting on low-traffic neighbourhood schemes.

20mph speed limits - 20mph limits are shown to reduce road casualties; help boost levels of walking and cycling by making streets feel safer; reduce air pollution; and make neighbourhoods quieter, nicer places to be.

- London boroughs are making solid progress extending the coverage of 20mph limits on their roads. But there is still a long way to go, especially in Outer London. Just 31% of borough-managed roads in Outer London have 20mph speed limits, compared to a 43.5% average across Greater London and 72.3% in Inner London.
- Nine councils have almost complete (90%+) coverage. These are all in Inner London, apart from Haringey with 90.1% of borough roads covered by 20mph speed limits.
- The Inner London exceptions are Kensington & Chelsea, where just 0.9% of roads have 20mph restrictions and Westminster with just 10.7% coverage. Additional boroughs at the bottom of the scale are Barnet (4.2%), Bromley (4.9%), Richmond Upon Thames (6%), Hillingdon (7.4%), Havering (9.1%) and Bexley (9.2%). NB however that Richmond-upon-Thames is planning to introduce a default 20mph limit on its roads in the near future.

Controlled Parking Zones (CPZs) **-** This measures the proportion of a borough's roads where on-street parking is controlled during specified times to manage demand for parking spaces. CPZs reduce traffic and pollution by discouraging commuter parking and 'switchable car trips' (short trips which could readily be made by other transport modes). Fewer cars on local roads means less congestion, noise and air pollution. Streets are safer because CPZs designate where it's safe to park and create better visibility for drivers, pedestrians and cyclists at junctions.

- Controlled parking is becoming the norm on roads within Inner London, where 71.5% of the road length is now covered by a controlled parking zone, compared to a 39.2% average across Greater London and 25.2% in Outer London.
- Eight boroughs, all in Inner London, have almost compete (90%+) coverage, including three (City of London, Kensington & Chelsea and Camden) with 100% coverage. At the other end of the scale, there are parking restrictions on just 9% of roads in Bromley, Enfield and Sutton.
- Haringey breaks the trend for Outer London with 72% of its roads now covered by a CPZ, showing how parking restrictions are becoming more common in Outer London too.
- The exceptions in Inner London are Lewisham and Greenwich with just 23% and 30% of their roads covered by a CPZ respectively.

Physically protected cycle track - This measures the length of cycle track physically separated from motor vehicle traffic and pedestrians. Evidence shows that more, and a wider range of, people cycle where there is a network of safe, protected routes – and London's main cycle tracks are extremely successful at boosting cycling numbers where they are installed.

- Across London there is a total 734.2kms of protected cycle track, including 239.2kms of protected track on the carriageway in addition to off-carriageway tracks, for example through parks.
- The Scorecard measures the length of all protected track – on and off carriageway - per kilometre of road length in order to demonstrate the scale of coverage in each borough. The actual percentage of coverage of protected tracks on carriageways, however, will be much lower.*
- Just a handful of councils have made significant progress installing segregated cycle lanes, often in conjunction with TfL, including City of London (16.2% of road length*), Enfield (14.4%), Tower Hamlets (13.3%), Westminster (12.4%) and Greenwich (10.1%).
- What stands out is that protected cycle track amounts to just 5% of road length across Greater London (again, that doesn't mean 5% of London's roads feature tracks*). Of course, not all streets need them, but the figures show there is a long way to go to create a comprehensive network of safe cycle routes.
- This score measures protected track on both TfL and borough-managed roads which means some boroughs, such as Westminster City Council, score highly as a result of work carried out by Transport for London. But, given councils must work in consultation with TfL on protected lanes, this is still a useful indication of a council's intent on active travel. The Royal Borough of Kensington & Chelsea for example (where just 1.4% of roads have protected lanes for cyclists) recently withdrew support for a segregated cycle lane on Holland Park Avenue and Notting Hill Gate.
- There is more of an even split between Inner and Outer boroughs on this measure. The Outer London borough of Enfield, for example, has the second longest stretch of protected cycle lanes in London with 14.4% coverage. Waltham Forest has 9.1% and Hounslow 8.7%.
- Conversely, London boroughs including Hackney, Islington and Haringey, that score well on other inputs are lagging behind on protected cycle track. Just 2.3% of roads in Hackney, 2.5% in Islington and 3.5% in Haringey have protected cycle lanes.

** The score is given as a km of cycle track as a percentage of overall borough road length. However, it is important to note that the cycle tracks can be delivered both on borough-controlled roads and TfL-controlled "TLRN"/ Red Route roads, as well as off-road, for instance in parks. So while the percentages reflect the overall scale of cycle tracks each borough is delivering compared to how much roadspace there is in the borough, it doesn't reflect a "true" percentage of road use and should not be quoted as such.*

C. What happens next?

We hope the scorecard helps boroughs to compare how well they are doing in relation to the indicators and to identify areas for future action in the short, medium and longer term.

The London Boroughs Healthy Streets coalition aims to publish the scorecard annually to establish how much progress is being made year-on-year. The organisations in the coalition are committed to

- raising the profile of the data and the Scorecard
- developing the Scorecard to improve it where possible
- encouraging boroughs to implement the key 'input' measures
- supporting boroughs to implement the key 'input' measures.

ABOUT US

The London Boroughs Healthy Streets Scorecard Coalition
In 2018, a core group of "active travel" campaigners started working together to develop the London Boroughs Healthy Streets Scorecard. The coalition has now grown to include the following organisations:

- London Living Streets, the campaigning arm in London of Living Streets, the national charity for everyday walking, was formed in 2016 to give London's walking campaigners a single voice.
- London Cycling Campaign is an 11,500-strong membership charity, making sure that everyone who cycles, or wants to cycle, has a voice in Greater London.
- RoadPeace, UK's national charity for road crash victims, provides information and support and engages in evidence-based policy and campaigning to fight for justice and reduce road danger.
- CPRE London, the London branch of the national membership charity Campaign to Protect Rural England, campaigns to reduce traffic-related noise and car-dominant planning and make the city a better place for everyone.
- Sustrans is the national charity making it easier for people to walk and cycle. The London team works to create a healthier and happier city where people choose to leave their car at home and walk or cycle instead."
- The Campaign for Better Transport, London Group - The Campaign for Better Transport is the independent national body that seeks to put people and the environment first in transport decisions and to find sustainable transport solutions. The London group aims to apply these principles to London.

Coalition adviser: Dr Rachel Aldred. University of Westminster's Architecture and Cities Department's Rachel Aldred has published research on a range of active travel issues.

CONTACT

You can contact any of the organisations involved in the project via their websites. If you would like to know more about the Healthy Streets Scorecard campaign or would like help to make changes in your neighbourhood please contact alice@cprelondon.org.uk in the first instance.

Annex 1 – the indicators – detailed commentary on each indicator

The Scorecard shows the health of each borough's streets by looking at four key 'output' indicators and four key 'input' indicators. This section explains why we have chosen these eight indicators. As appropriate, we will aim to add other robust indicators in future editions.

OUTPUT INDICATORS

Four 'output' indicators are used in the Scorecard to show how healthy a borough's streets are currently.

1. MODE SHARE

This indicator measures the proportion of trips made by different transport modes, that is, by motor vehicle, walking or cycling, or by public transport. A key Healthy Streets indicator is: "People choose to walk, cycle and take public transport" rather than use a car or taxi. Public transport is included because people walk or cycle as part of every trip on public transport. Half of all walking in London is carried out as part of trips by public transport.

Also, public transport trips are more sustainable than car trips because they mean fewer vehicles on the road and lower carbon, Nitrogen Dioxide and dangerous particulate emissions.

A shift away from the private car towards more active travel will have numerous benefits:

- tackle air quality
- increase physical activity and reduce the risk of premature death and chronic diseases
- reduce road danger
- reduce congestion and reallocate limited road space to more efficient modes
- ensure sustainable growth for the city
- bring life back to residential neighbourhoods
- reduce the impact of noise disturbance.[1]

The Mayor's Transport Strategy sets a target of 80% of all trips in London to be made by active, efficient and sustainable modes (walking, cycling and public transport) by 2041. Central London is set a target of 95% of all trips, Inner London 90% and Outer London 75%.

Where are we now? TfL's Travel in London annual reports[2] explore the extent to which trips made by motor vehicles could reasonably be made by another mode that contributes to achieving the Mayor's targets. The analysis shows that on an annual average day, London residents make approximately 19 million trips. Some 6.8 million of these are made by private vehicle and, of these, 71% could feasibly be made by an alternative 'sustainable' mode (walking, cycling or public transport).

[1] https://www.london.gov.uk/sites/default/files/health_impact_of_cars_in_london-sept_2015_final.pdf
[2] http://content.tfl.gov.uk/travel-in-london-report-11.pdf

Potentially walkable trips are defined as shorter than 2km; made between 6am and 8pm; made without a heavy or bulky load; made by someone aged 5 to 74 without a disability; trips made by van, dial-a-ride, plane and boat are excluded.

Potentially cyclable trips are defined as shorter than 8km; take less than 20% longer by bike; made between 6am and 8pm; made without a heavy or bulky load; made by someone aged 5 to 64 without a disability. Trips made by van, dial-a-ride, plane and boat are excluded.[3]

Key information and research

- By 2041, there are forecast to be about 1.3 million more people working in the capital than there are today. This growing population simply cannot fit in private cars on London's roads.[4]
- Most people in London do not use cars regularly but car-use impacts on everybody's health.[5]
- For more information see *London Travel Demand Survey*[6] and *Health Impacts of Cars In London, Greater London Authority, 2015.*[7]

2. ACTIVE TRAVEL RATE (and INACTIVE LIFESTYLES)

This measures the proportion of residents making at least five journeys by cycling or five journeys by walking, weekly. These are considered vital to ensure residents reach recommended daily activity levels.

If exercise were a pill, everyone would want to take it, say the health experts. It keeps hearts healthy, keeps blood pumping to organs and makes people feel good. Physical activity is proven to reduce the risk of colon cancer and type 2 diabetes by up to 50%, breast cancer up to 20%, heart disease and stroke up to 35%, and the risk of early death by up to 30%. It is also a boost for mental health, helps people sleep well, improves self-esteem and reduces risk of depression and dementia (NHS). Physical activity is particularly essential in childhood to help bodies grow and strengthen bones.

The Mayor's aim is, by 2041, for all Londoners to do at least the 20 minutes of active travel they need to stay healthy each day. Children aged five to 18 are recommended to do at least 60 minutes of moderate intensity activity (brisk walking or cycling) each day, while adults are recommended to do 150 minutes each week (two ten-minute periods of moderate activity) or more. Everyone should be active every day and minimise the amount of time they spend sitting.[8]

The easiest way to achieve this is by building exercise into daily travel routines: the walk to school, a walk to a station or bus stop, or a cycle to work. Walking is free, it is open to everyone regardless of income or employment and does not require specialist equipment.

[3] https://www.london.gov.uk/sites/default/files/health_impact_of_cars_in_london-sept_2015_final.pdf
[4] https://www.london.gov.uk/what-we-do/health/health-publications/transport-and-health-london
[5] https://www.london.gov.uk/sites/default/files/health_impact_of_cars_in_london-sept_2015_final.pdf
[6] https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/consultations-and-surveys/london-travel-demand-survey
[7] https://www.london.gov.uk/sites/default/files/health_impact_of_cars_in_london-sept_2015_final.pdf
[8] Mayor's Transport Strategy p44

With the right infrastructure and environments, walking and cycling are also important for the health of disabled people.

By contrast, car journeys involve less than one minute of physical activity, compared to the 8-15 minutes of physical activity on the average public transport journey, the 17 minutes if the journey is made by foot and the 22 minutes if cycled.[9]

- If Londoners walked or cycled for 20 minutes a day it would save £1.7 billion in NHS treatment costs over 25 years.[10]
- Each additional hour spent travelling in a car per day is associated with a 6% increase in the likelihood of becoming obese. Each additional kilometre walked per day is associated with a 4.8% reduction in the likelihood of becoming obese.[11]

Where are we now? Just 34% of adult Londoners achieve the recommended level of activity and just three in ten children reach the recommended 60 minutes of moderate activity a day.[12] More than one third of all car trips made by Londoners are less than 2km so there is huge potential to switch more journeys to walking or cycling. It is estimated that almost 5 million journeys per day that could be walked or cycled are currently made by car.

3. ROAD COLLISION CASUALTIES

This indicator shows the number of pedestrians and cyclists killed and seriously injured (KSI) for each borough (average over last three years), when compared to the overall level of walking and cycling journey stages[13] originating in the borough. This reflects the actual road danger in an area. But the real and perceived risk of motor traffic also means people are discouraged from walking and cycling and achieving the health benefits they bring. Road danger is the most often cited reason why people do not walk or cycle more.

In 2018, TfL launched its Vision Zero Action Plan to meet a target that, by 2041, no one would be killed or seriously injured on the road in London.

Where are we now? In 2017, 3,881 people were killed or seriously injured (KSI) on London's roads, including 131 fatalities. A further 28,000 people sustained 'slight' injuries (not serious or fatal) roughly 2 or 3 every day in every borough.

While safety has increased amongst car occupants, the risk on London's roads has shifted towards those walking and cycling (as well as those riding motor cycles). These groups now make up almost two-thirds (64%) of fatalities and over half (54%) of serious injuries in London's roads, despite making up the minority of journey stages. In 2017:

- pedestrians accounted for 36% of serious injuries, 56% of fatalities (27% mode share)
- cyclists accounted for 18% of serious injuries, 8% of fatalities (3% of modal share)

[9] *Physical activity benefits for adults and older adults: Mayor's Transport Strategy*, GLA, 2018
Health Impact of Cars in London, 2015 https://www.london.gov.uk/what-we-do/health/health-publications/health-impacts-cars-london
Transport and Health in London, 2014 https://www.london.gov.uk/what-we-do/health/health-publications/transport-and-health-london
[10] https://www.london.gov.uk/what-we-do/transport/our-vision-transport/mayors-transport-strategy-2018
[11] https://jech.bmj.com/content/69/8/753
[12] Health Survey for England 2015, NHS Digital, www.gov.uk (via Mayor's Transport Strategy)
[13] This indicator reflected 'journey stages'. See Scorecard Spreadsheet for definition.

- but car occupants accounted for only 13% of serious injuries and 11% of fatalities though car journeys represent 42% of modal share.[14]

It is important to understand that KSI collision statistics do not include minor collisions and those where emergency services are not contacted. It is also worth remembering that streets with low KSIs might also be an indication that an area is so dangerous, so hostile to walking and cycling that few try to walk or cycle so are not put at risk. Nonetheless, this measure gives an indication of how safe a borough's streets are.

Vision Zero
A number of policies contribute to reducing deaths and serious injuries. In London these have been grouped under the umbrella of Vision Zero, a target for no one to be killed or seriously injured on London's roads by 2041. Policies include:
Reducing Traffic Volumes. Reduces road danger at source by removing opportunities for collisions between vehicles and vehicles and people walking and cycling. Examples of this might be Low Traffic Neighbourhoods.
Reducing Vehicle Speeds. Research shows that there are potential casualty savings of up to 40% if maximum vehicle speeds can be reduced to 20mph in built-up areas/places where people and vehicles mix.
Safe Streets. Designing streets that encourage people to walk, cycle and take public transport, keep vehicle speeds low, allow people to cross the road safely and easily,
Safe Vehicles. Reducing the risk that vehicle pose, for example introducing a Direct Vision Standard on HGVs and installing Autonomous Emergency Braking and Intelligent Speed Assistance/Adaptation (ISA) on motor vehicles.
Safe Behaviours. Improving the behaviour of people using our roads.
Post-collision learning and criminal justice. Understanding the causes of collisions is fundamental to learning from them and preventing their reoccurrence. The link between collisions and their criminal justice outcomes needs to be more transparent.
Embedding & Promoting Vision Zero. It takes enormous effort to put these policies at the heart of a Highway/Transport Authority and actions will be needed through the Transport and Administrative Authority more widely. Significant effort is also needed to promote Vision Zero to communities and their representatives.

4. CAR OWNERSHIP RATES

This shows the number of cars registered per household and indicates the extent to which people are able to live without owning a car, reflecting both the availability of suitable alternative modes of transport as well as Londoners' willingness to shift to other modes and perhaps make occasional use instead of car clubs, car rentals or taxis.

Though not one of the London Mayor's targets, car ownership rates tell us a lot about the extent to which people are willing and/or able to live entirely without owning a car.

Where are we now? In Inner London, around two thirds of households already do not have a car. Even in Outer London one third of households do not have a car. We rely on census

[14] https://tfl.gov.uk/corporate/publications-and-reports/road-safety (Collision data extracts)

data from 2011 to know how many car-free households there are. As this data is rather old and not collected annually, for the Scorecard, the data used is the average number of cars registered per household, which is up to date and available for year on year comparison.

Car ownership is also linked to how much walking and cycling Londoners do. As outlined in *Health Impacts of Cars in London,* walking levels decrease significantly as household car ownership increases. Children living in households without access to a vehicle are 2.3 times more likely to walk to school than children living in households with vehicle access.

This is also an important indicator because, as London becomes more densely populated, the ratio of cars per household will need to reduce. Between 30,000 and 50,000 new homes are being built per year in London and this figure is set to increase and it is becoming more common for new developments to be 'car free' (where tenants or owners are not allowed to have a parking permit) to avoid more cars being registered to London addresses.

Thinking about those who do not have access to a car is also an important consideration. They are more likely to be older people, younger people and people on low incomes.

INPUT INDICATORS

The Scorecard also shows to what extent councils are putting in place four key measures (or 'input' indicators) which can help to deliver "Healthy Streets" outcomes. **Why were these four specific measures chosen?**

- Primarily they were chosen because they are among the most important actions that councils can take to reduce air pollution, increase active travel rates and improve safety. They are shown to deliver healthy streets outcomes.
- Rapid progress on these measures is possible for every borough, regardless of demographics, public transport provision, health indicators or income: they are mainly low cost and easy to put in place, in particular relative to many other transport schemes.
- They require political leadership and indicate additionally where a council is working successfully with residents to make change happen.
- They align closely to the ten key indicators of the Mayor's Healthy Streets approach and particularly those that are key to delivering health outcomes.
- Data is publicly available and updates are likely to be available in future so that the Scorecard can be published year-on-year to measure progress.

5. LOW TRAFFIC NEIGHBOURHOODS (or 'Modal Filters')

This indicator measures the proportion of a borough's roads which have been 'filtered' (using bollards, barriers or other means) to prevent through motor traffic from passing through residential streets. The idea is that residents, emergency services, deliveries and services can still drive onto streets (albeit potentially via longer routes), but it is no longer possible to drive straight through from one main road to the next. People cycling can still pass through these filters.

Groups of streets where through traffic has been reduced or removed create "low-traffic neighbourhoods". These very quickly result in healthier lifestyles because they encourage

more walking, cycling, play and community activity and because air is cleaner and the roads are safer, quieter and more attractive. More widespread Low Traffic Neighbourhoods would make a major contribution to achieving healthy streets targets.

One concern with low-traffic neighbourhoods is that motor traffic displaced onto main roads may lead to increased congestion and air pollution. Experience reveals that predictions of traffic problems caused by low-traffic neighbourhoods almost always fail to materialise, and that significant reductions in overall traffic levels across an area (including on nearby main roads) can happen as a result of people making a wide range of behavioural responses to the new traffic configurations.

One of these behaviour changes is a shift to more walking and cycling. Just one year after the implementation of low-traffic neighbourhood schemes in Waltham Forest in Outer London, residents were walking 32 minutes, and cycling on average 9 minutes, more per week.

This demonstrates that if councils improve the conditions for walking and cycling (and make driving just a little more inconvenient), people do change their behaviour. And as time goes on, as active travel becomes embedded in lifestyles, more will follow leading to long-term change over an entire area.

Key information and research

- London Living Streets and London Cycling Campaign have produced two pamphlets including a short Introduction and a detailed guide for council officers.[15]
- London Borough of Waltham Forest has installed 40 modal filters and 15 new pocket parks, turning nearly a third of its residential areas into Low Traffic Neighbourhoods.[16]
- People are living longer, are less exposed to air pollution and getting more exercise as a result of the traffic filtering in Waltham Forest.[17]
- More people walk or cycle in suburban neighbourhoods where through-traffic has been removed or reduced.[18]
- Evidence suggests that low traffic neighbourhoods do not have dramatic impacts on main roads either in terms of congestion or air quality.[19]

6. 20 MPH SPEED LIMITS

The scorecard measures the proportion of a borough's road network (excluding the TfL-managed TLRN or Red Route network) which is subject to a 20mph limit. 20mph limits are shown to reduce road casualties; help boost levels of walking and cycling by making streets feel safer; reduce air pollution; and make neighbourhoods quieter, nicer places to be.

Lower maximum vehicle speeds reduce the number and severity of road casualties. Streets with lower speed limits also seem safer so encourage a wider range of people to

[15] https://londonlivingstreets.com/low-traffic-liveable-neighbourhoods/
[16] https://www.enjoywalthamforest.co.uk/about-mini-holland/
[17] https://walthamforest.gov.uk/content/independent-studies-find-people-waltham-forest-are-living-longer-and-getting-more-exercise
[18] https://www.sciencedirect.com/science/article/pii/S0965856417314866
[19] http://londonlivingstreets.com/2019/06/12/evaporating-traffic-the-impact-of-low-traffic-neighbourhoods-on-main-roads

cycle or walk. Vehicles traveling at lower speed limits are also quieter, less intrusive and pollute less. Neighbourhoods with 20mph limits therefore tend to be nicer, cleaner places to be.

Key information and research

- People hit by a vehicle travelling at 30mph are four times more likely to die than those hit at 20mph.[20]
- Reducing the speed limit from 30mph to 20mph typically results in more than 20% fewer casualties.[21]
- For people cycling, the introduction of 20mph limits (alone) is linked to 21% lower injury odds compared to 30mph roads.[22]
- Even small reductions in speed make a difference. Each 1mph reduction in average traffic speed is associated with a 6% reduction in collisions. [23]
- Lower speed limits improve public health by encouraging more people to be active or to walk and cycle.
- Fear of motor traffic is one of the biggest reasons why people choose not to cycle, with 44% of people saying they would cycle more if the roads were safer and 26% who would travel less by car if the conditions for walking locally were better.[24]
- Trials of 20mph limits in Edinburgh found that the proportion of children cycling to school rose from 4 percent to 12 percent in 20mph zones.[25]
- Lower speed limits cut noise and air pollution.[26]
- The introduction of 30kph zones in Germany led to drivers changing gear less, braking less, and requiring 12 percent less fuel.[27]
- Excessive traffic noise is linked to a number of health effects including stress, cognitive impairment in children, disrupted sleep and even heart disease.[28]

7. CONTROLLED PARKING ZONES (CPZs).

The scorecard measures the proportion of a borough's roads that are under some form of Controlled Parking (data supplied by Appy Parking). CPZs are areas where on-street parking is controlled during specified times. They are the most effective way of managing parking demand and are commonly used in busy areas across the UK.

Parking permits do represent a new cost for car-owing residents (though this can be kept low). But CPZs bring significant benefits to all Londoners.

- **CPZs reduce traffic and pollution** by discouraging vehicles from driving through or to the borough, for example to park and commute. Fewer cars on local roads means less

[20] https://visionzeronetwork.org/10-stats-that-show-the-promise-of-safety-cameras-to-manage-speed/
[21] http://www.20splenty.org/20mph_casualty_reduction
[22] https://www.sciencedirect.com/science/article/pii/S0001457518301076#!
[23] http://www.rospa.com/road-safety/advice/drivers/speed/inappropriate/
[24] https://publications.parliament.uk/pa/cm200506/cmselect/cmenvaud/981/981we57.htm
[25] http://www.niassembly.gov.uk/globalassets/documents/regional-development/road-traffic-speed-limits-bill/research-papers/final-20mph-after-study-report-v6-190913.pdf
[26] http://www.20splenty.org/airandnoisepollution
[27] https://www.thebritishacademy.ac.uk/sites/default/files/Danny%20Dorling%20-%2020mph%20Speed%20Limits%20for%20Cars%20in%20Residential%20Areas%2C%20by%20Shops%20and%20Schools.pdf
[28] https://www.who.int/sustainable-development/transport/health-risks/noise/en/

congestion, noise and air pollution. CPZs reduce commuter parking and discourage 'switchable trips' (short trips which could readily be made by other transport modes).

- **Less nuisance parking and better access for emergency and utility vehicles** like rubbish and recycling trucks. CPZs reduce nuisance and dangerous parking, for example parking on pavements or blocking access.
- Where visitor and commuter parking is particularly pressured, CPZs mean **it's easier for residents, and their visitors and delivery drivers, to park near their homes**.
- **Streets are safer** because CPZs designate where it's safe to park and create better visibility for drivers, pedestrians and cyclists at junctions.
- **Streets are more attractive**. CPZs reduce the dominance of parked cars on a street and create space to introduce attractive or useful features like 'parklets' or bicycle hangars.
- **CPZs also help local business**. Parking controls can help prioritise on-street parking spaces for residents who might rely on a vehicle for their work such as people regularly carrying heavy equipment. This can be done through issuing business parking permits.
- There will be **less impact from nearby new-build housing because CPZs** enable 'permit-free' planning conditions to be placed upon future developments, so reducing the impact on existing communities, particularly drivers, of additional cars on local roads.

In areas where the majority of people do not own a car, where street space is limited or the environment is poor, providing car owners with private use of public space for no charge may be seen as unfair to residents who do not own a car.

Car parking still remains uncontrolled in the streets around many train stations in Outer London. This encourages people to drive to the station and continue their journey by train. To reduce this type of car trip and encourage people to start their trip with a walk or a cycle, it is particularly important that at the very least councils control parking around stations.

Key information and research

- Cars are parked 95% of the time: *Donald Shoup, The High Cost of Free Parking* [29]
- On average two thirds of households in Inner London boroughs don't have a car. In Outer London one third of households don't have a car.[30]
- It's around 50x cheaper to rent a parking space than to rent a home. For example, in Westminster, the space needed for a single parking space would cost £8,000 a year to rent as housing. It costs just £145 to park there for a year.[31]
- There is a clear link between providing parking and resulting car use [32]

8. PHYSICALLY PROTECTED CYCLE TRACK

This indicator measures the proportion of roads with physically protected cycle track in each borough. High levels and a wide range of people cycling are almost universally solely found where there is a network of physically separate or protected cycle tracks, largely on main roads. London's new cycle tracks/routes have all been very successful in terms of the numbers of people cycling along them.

[29] https://www.researchgate.net/publication/235359727_The_High_Cost_of_Free_Parking
[30] Table KS404EW 2011 Census
[31] https://www.theguardian.com/world/video/2018/oct/30/why-we-should-be-paying-more-for-parking-video-explainer
[32] https://www.london.gov.uk/sites/default/files/london_plan_evidence_base_-_residential_car_parking.pdf

Cycle tracks are physically protected space for cycling, separated from motor vehicle traffic and pedestrians by kerbing, level differences, intermittent barriers (such as small planters or rubber "armadillos" – these are called "semi-segregated") where the cycle track runs parallel and adjacent to a street or is a clearly delineated and segregated path through a park.

The cycle tracks installed in London have all seen high levels of growth in cycling along them, from a mix of those new to cycling and those who have detoured from existing routes specifically to use the facilities. Where they are high quality and continuous, TfL says "compliance" (i.e. use of them, adherence to light controls) is over 90%.

There is clear evidence that more people cycle where there is a network of safe, protected routes in a city; and that women and children are disproportionately affected by the lack of such infrastructure.

Key information and research

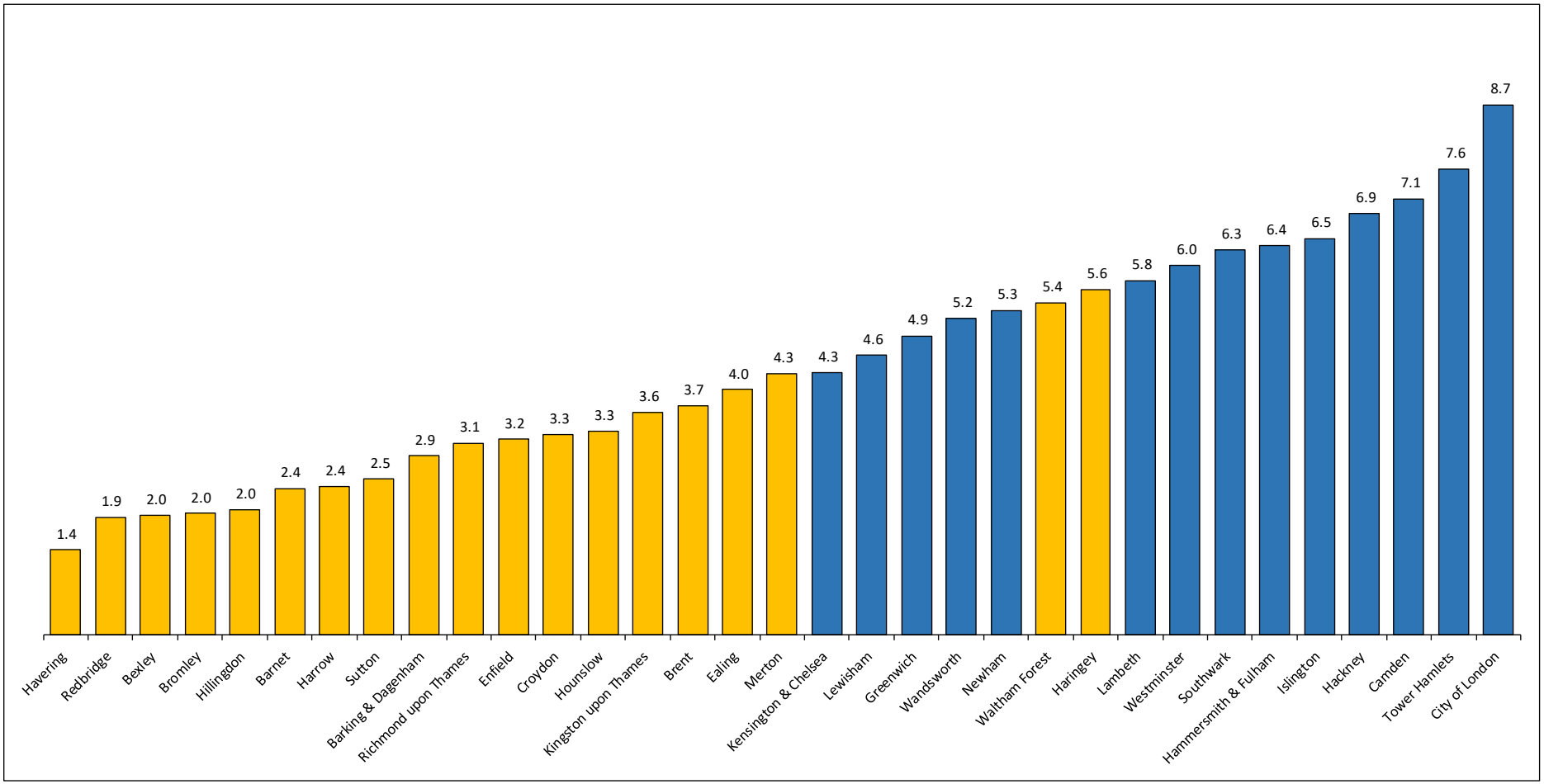
- Physically protected cycle tracks reduce road danger for those cycling and increase cycling rates[33]
- There are clear health benefits to cycling[34]
- Physically protected cycle tracks reduce collisions at junctions[35]
- Cycle paths, lanes and networks increase cycle rates[36]
- Physically protected cycle tracks enable more people and more women specifically to cycle[37]
- The overall health benefits of cycling far outweigh the risks[38]

[33] https://injuryprevention.bmj.com/content/17/2/131.full
[34] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757756/Cycling_and_walking_for_individual_and_population_health_benefits.pdf
and https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/485349
[35] https://injuryprevention.bmj.com/content/19/5/303
[36] https://link.springer.com/article/10.1007/s11116-011-9355-8
[37] https://trid.trb.org/view/920636
[38] https://journals.lww.com/epidem/Fulltext/2011/01001/Do_the_Health_Benefits_of_Cycling_Outweigh_the.205.aspx

ANNEX 2 – OVERALL SCORES and scores for each indicator

London Boroughs Healthy Streets Scorecard – OVERALL SCORES FOR 2019 (YELLOW = Outer London borough, BLUE -= Inner London borough)

SEE PAGES 33-34 for more detail on how these scores were arrived at.



SECTION X. The Component Indicators. In this section, the data that has been used to construct the index is identified, the sources are referenced and a graph/chart is provided of the component data (i.e. before it is later normalised for use in the index itself).

Background Information.

1. Inner/Outer London Boroughs

The definition of the inner and outer London borough is that used for the London Plan[39]. Of the total of 33 London boroughs (ie includes the City of London), 14 are defined as Inner London and 19 as Outer London.

Inner London	Outer London
Camden	Barking & Dagenham
City of London	Barnet
Greenwich	Bexley
Hackney	Brent
Hammersmith & Fulham	Bromley
Islington	Croydon
Kensington & Chelsea	Ealing
Lambeth	Enfield
Lewisham	Haringey
Newham	Harrow
Southwark	Havering
Tower Hamlets	Hillingdon
Wandsworth	Hounslow
Westminster	Kingston upon Thames
	Merton
	Redbridge
	Richmond upon Thames
	Sutton
	Waltham Forest

[39] https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/draft-new-london-plan/annex-two-inner-and-outer-london-boroughs

2. Road Length

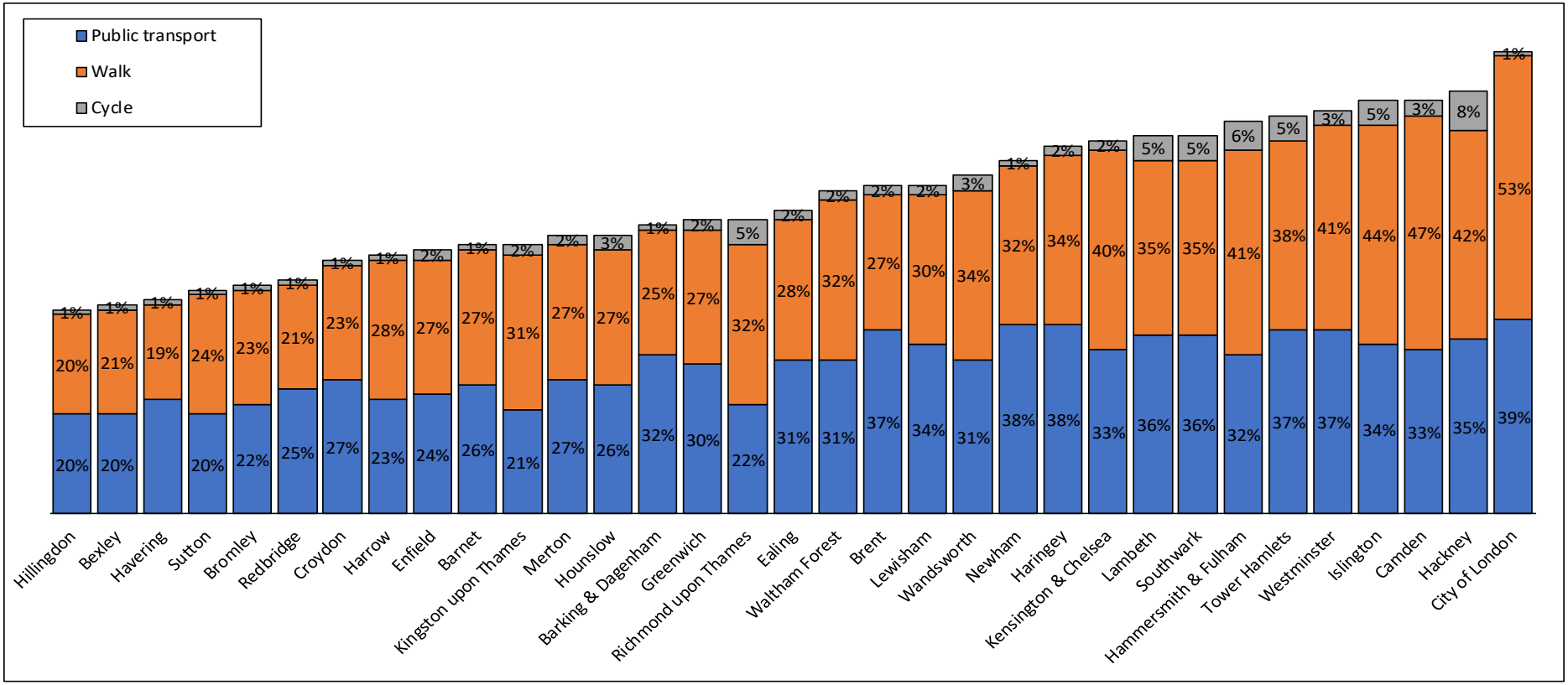
In relation to the length of protected cycle tracks and the number of roads and streets in each borough which have been filtered, each of these elements of component data have been adjusted to take into account the total road length in the borough (as these lengths of road differ so significantly between the 33 London boroughs). The data is, therefore, adjusted to create a ratio that reflects the road length of the borough.

Below is a table of the road length of each London borough. The source of this data comes from the Department for Transport and is Total road length (kilometres) by road type and local authority in Great Britain, 2017; https://www.gov.uk/government/statistical-data-sets/road-length-statistics-rdl - Worksheet - RDL0202a_(2017). Road length in London (in 2017) totalled 14,842.0 kms

Borough	Road Length (km)		Borough	Road Length (km)		Borough	Road Length (km)
Barking & Dagenham	340.3		Hackney	277.1		Lewisham	457.0
Barnet	762.8		Hammersmith & Fulham	220.8		Merton	376.4
Bexley	560.1		Haringey	356.7		Newham	426.8
Brent	487.4		Harrow	474.1		Redbridge	533.0
Bromley	906.2		Havering	660.7		Richmond upon Thames	415.0
Camden	282.5		Hillingdon	757.6		Southwark	393.4
City of London	55.2		Hounslow	499.3		Sutton	432.2
Croydon	778.1		Islington	238.0		Tower Hamlets	285.1
Ealing	587.8		Kensington & Chelsea	204.9		Waltham Forest	425.6
Enfield	640.5		Kingston upon Thames	344.8		Wandsworth	437.4
Greenwich	502.6		Lambeth	383.1		Westminster	339.7

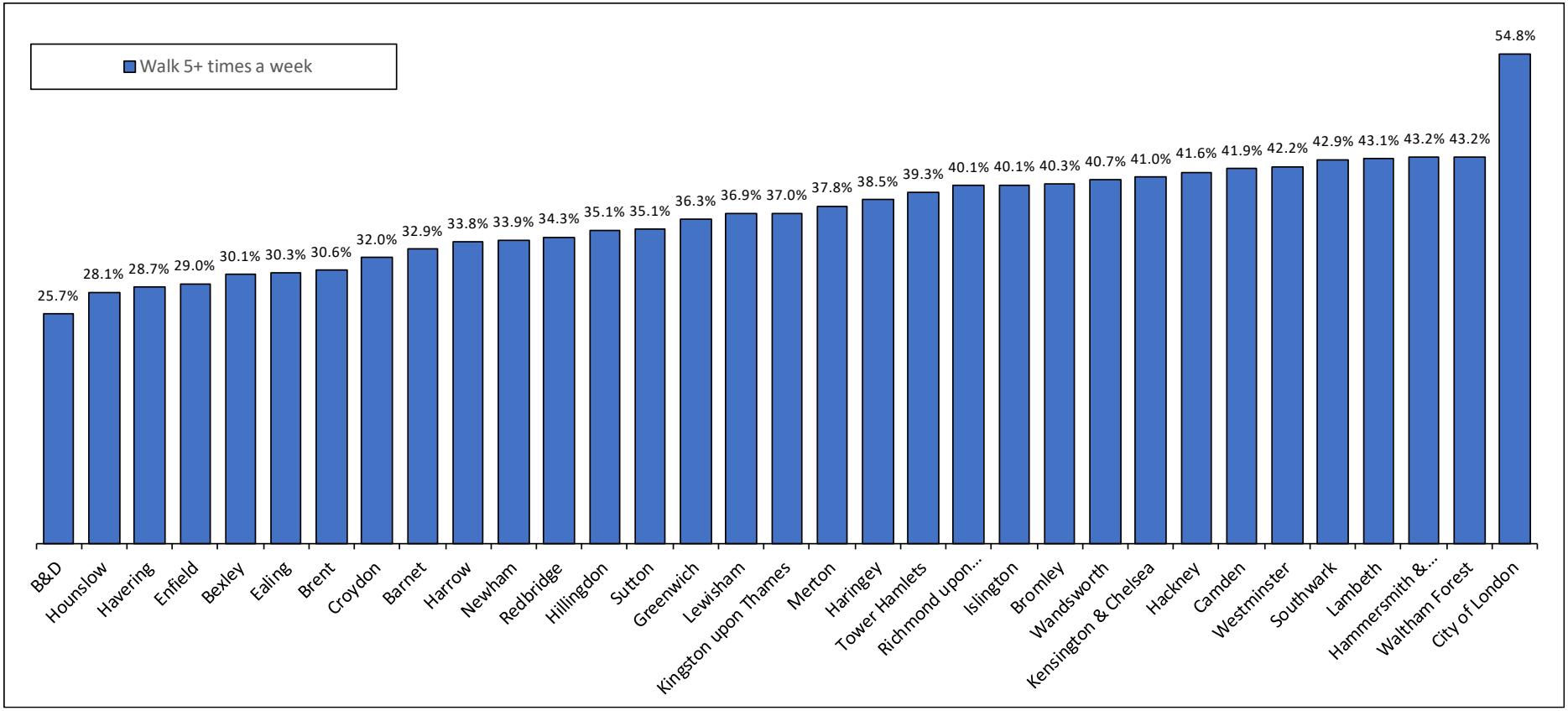
The Indicators - 1. Modeshare.

Purpose of Measure	To assess the levels of travel by Sustainable Modes in each borough – where Sustainable Modes are defined as public transport, cycling and walking. This is how it is assessed in the Mayor's Transport Strategy and in Healthy Streets.
Data Sources	Travel in London Report 11 data, https://tfl.gov.uk/corporate/publications-and-reports/travel-in-london-reports
Measurement	**Trip-based mode share for Walking, Cycling & Public Transport**, by borough of residence, London Travel Demand Survey (LTDS) 3-year average, 2015/16-2017/18. Latest data released in December 2018.



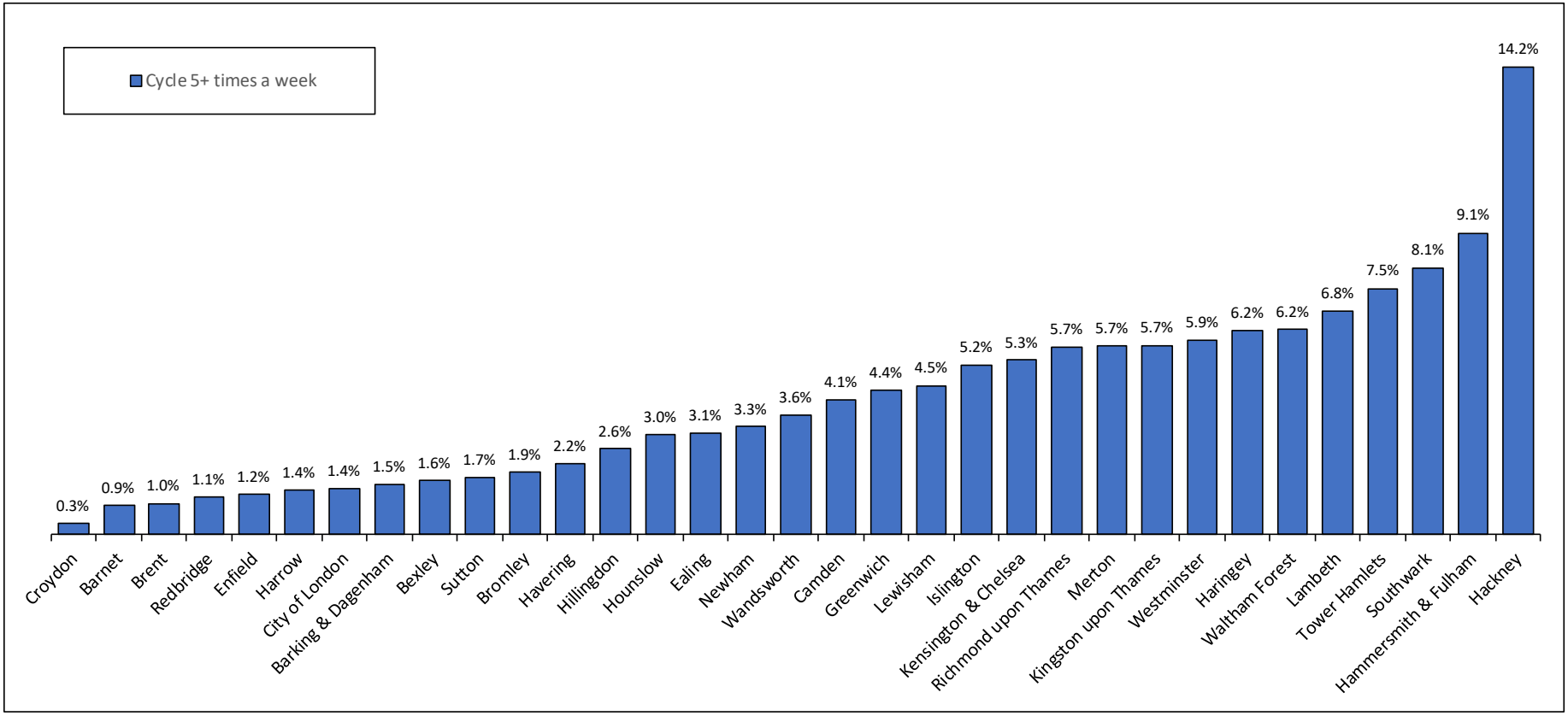
The Indicators - 2. Active Travel – Walking. (NB Each of the two component elements in this indicator are given a weighting of 0.5)

Purpose of Measure	To assess the levels frequent walking in each borough as defined by walking 5 or more times per week.
Data Sources	https://www.gov.uk/government/collections/walking-and-cycling-statistics. Table CW0303 (walking)
Measurement	**Proportion of adults that walk at least 5x pw, England, 2016-2017.** Latest data released in Released Aug 2018.



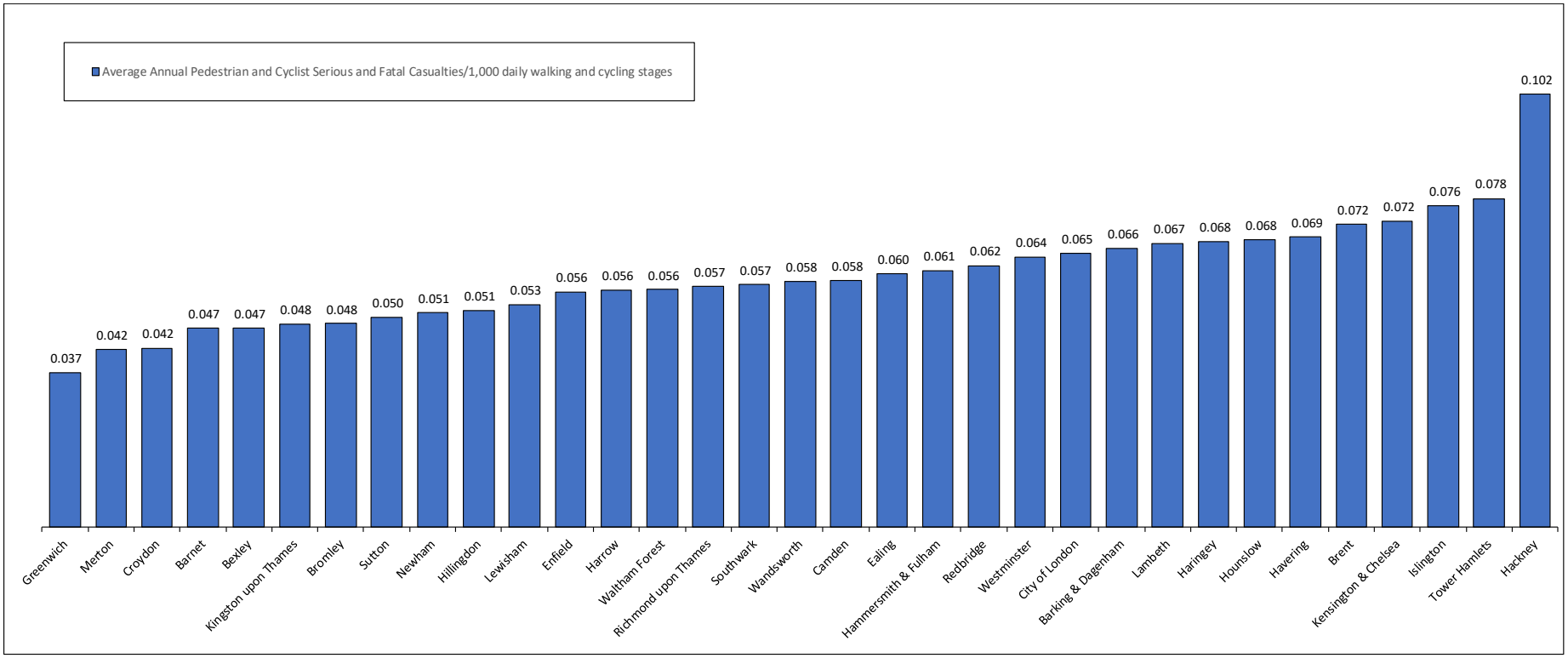
The Indicators - 2. Active Travel – Cycling. (NB Each of the two component elements in this indicator are given a weighting of 0.5)

Purpose of Measure	To assess the levels frequent cycling in each borough as defined by cycling 5 or more times per week.
Data Sources	https://www.gov.uk/government/collections/walking-and-cycling-statistics. Table CW0302 (cycling)
Measurement	**Proportion of adults that cycle at least 5x pw, England, 2016-2017.** Latest data released in Released Aug 2018.



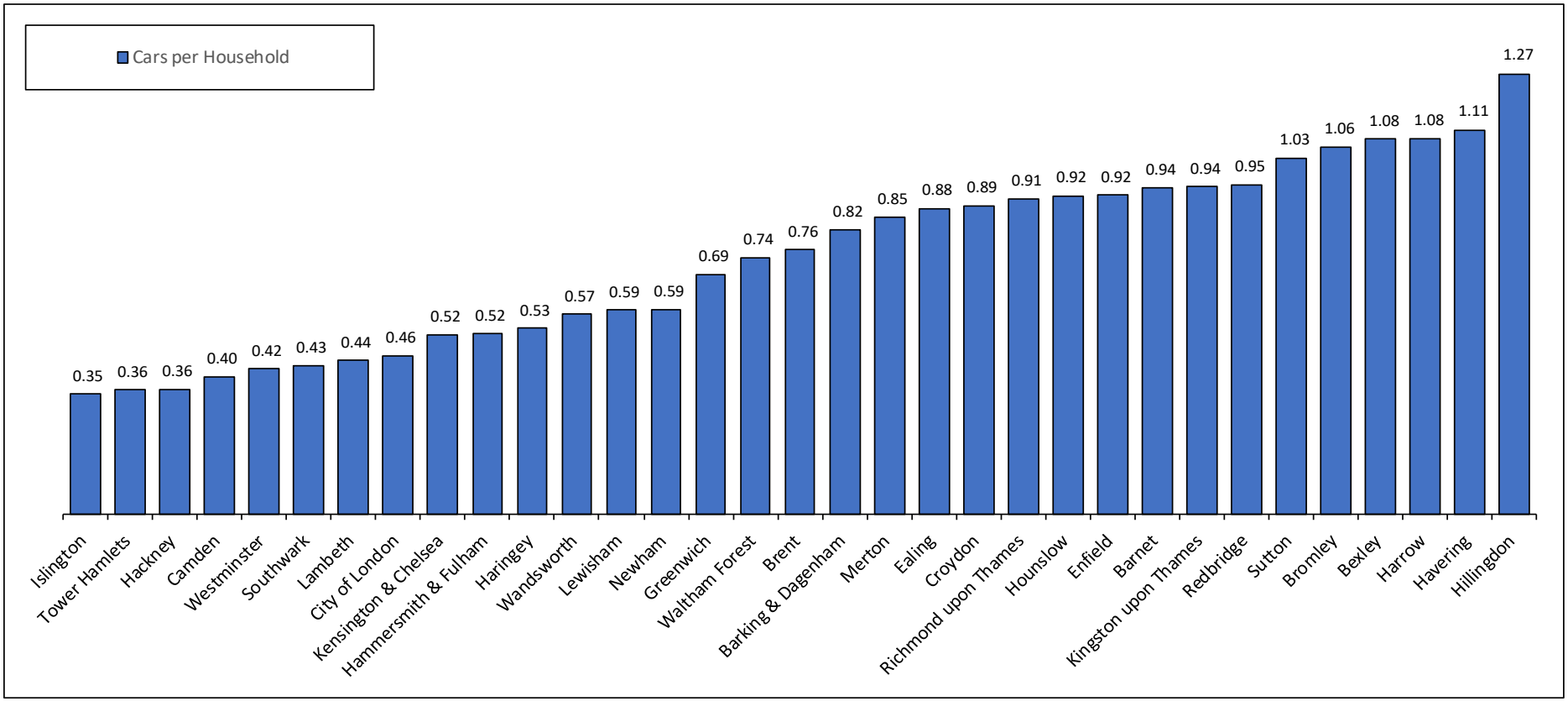
The Indicators – 3. Road Casualties

Purpose of Measure	To assess the numbers of people walking and cycling who are killed and seriously injured in road collision in relation to the number of journeys that are made on foot and by bicycle in that borough.
Data Sources	1. Casualties. Transport for London Road safety data – Total number of pedestrians and cyclists killed and seriously injured 2015 to 2017. https://tfl.gov.uk/corporate/publications-and-reports/road-safety - SEE Either Factsheets or Collision Data Extracts (Casualty) 2. Daily Trip Stages. Stages per day by mode and borough of origin, 3-year average 2014/15-2016/17
Measurement	**Total number of pedestrians and cyclists killed and seriously injured 2015 to 2017 (divided by three to create an annual average) as a proportion of the number of total number of daily walking and cycling trip stages (divided by 1,000)**



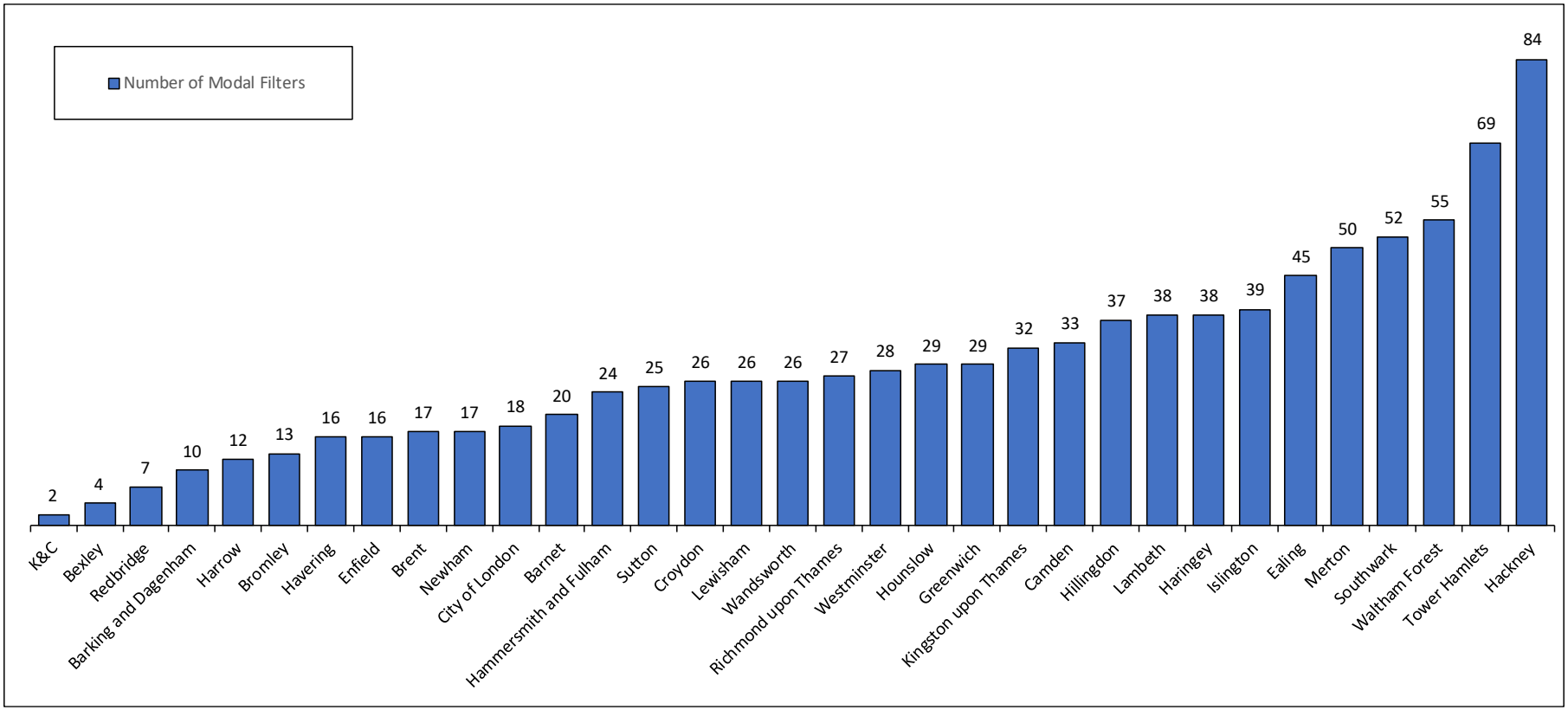
The Indicators – 4. Car Ownership

Purpose of Measure	To understand the numbers of cars registered to each household by borough.
Data Sources	1. Cars Registered. London Datastore from DfT data. https://data.london.gov.uk/dataset/licensed-vehicles-type-0. Original data: http://www.dft.gov.uk/statistics/series/vehicle-licensing/ Numbers of cars only used. Data indicates the numbers of licensed vehicles at year end. Data covers the year 2018 and was published in June 2019. 2. Households. GLA Datastore projections on Households 2017: https://data.london.gov.uk/dataset/london-borough-profiles
Measurement	**Number of cars per household. The total number of cars registered to a keeper with a postcode in that borough divided by the number of households in that borough.**



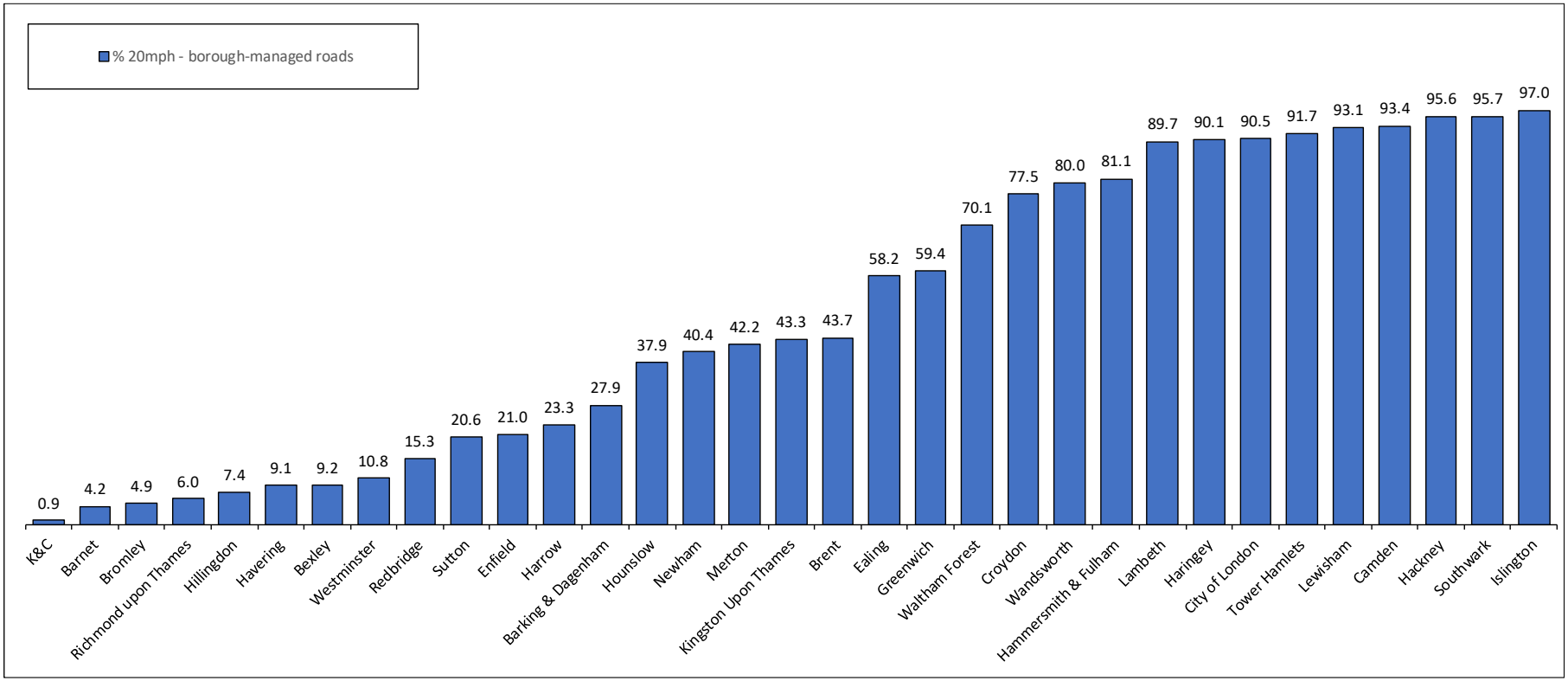
The Indicators – 5. Filtering

Purpose of Measure	To assess the use of filtering/modal filters to help reduce through-traffic and create Low Traffic Neighbourhoods
Data Sources	1. Transport for London. TfL Number of Modal Filters (Source: CID. Data collected 2017-2018). 2. Length of Roads. See above for data in details but Department for Transport data for 2017.
Measurement	**Measurement used for the index itself is: Number of modal filters as a proportion to total borough road length. Data shown in graph below is total number of modal filters.**



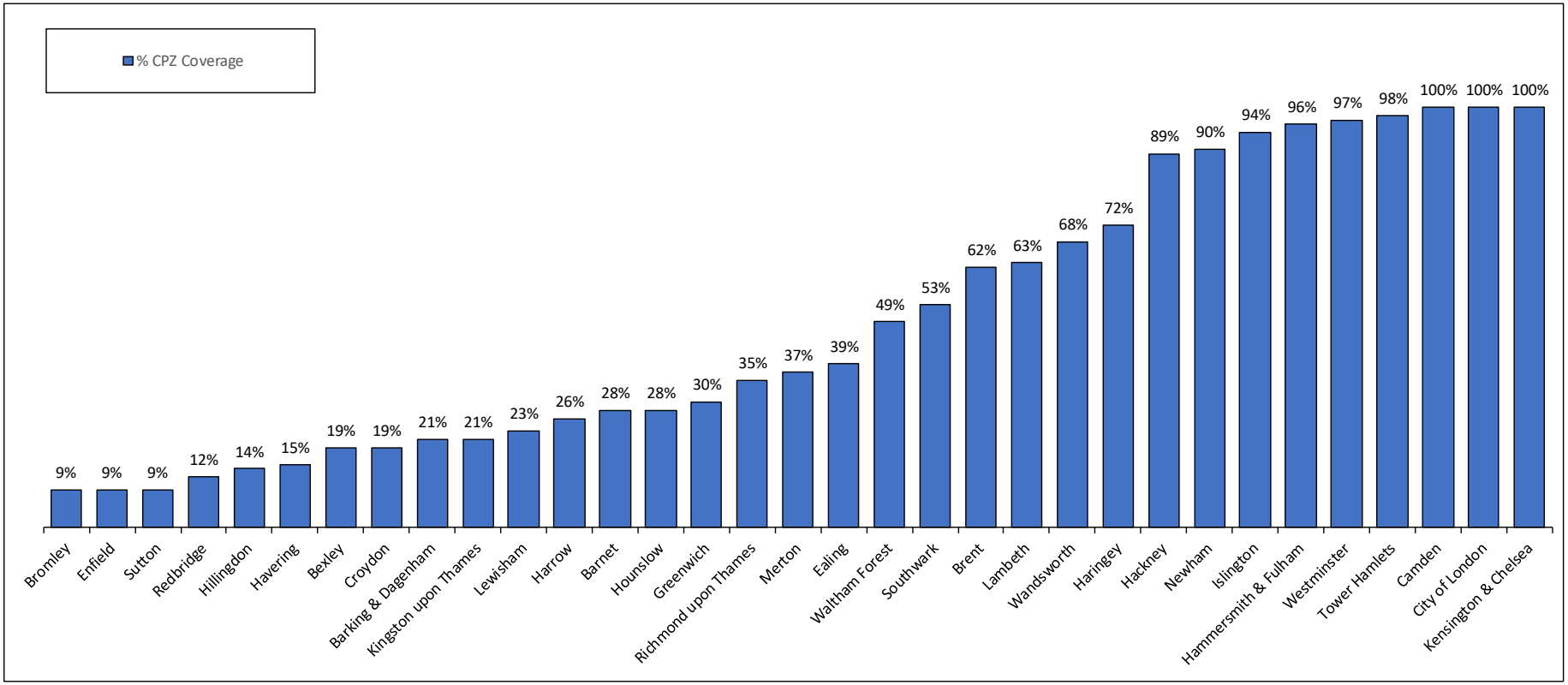
The Indicators – 6. 20mph Speed Limits

Purpose of Measure	To assess the prevalence of 20mph speed limits on borough-managed roads.
Data Sources	1. Transport for London. Assessment to April 2019 of the proportion of borough-managed roads by length with 20mph limits (NB TfL managed Red Route network/TLRN has been excluded from this data).
Measurement	**The proportion of borough-managed roads with 20mph speed limits.**



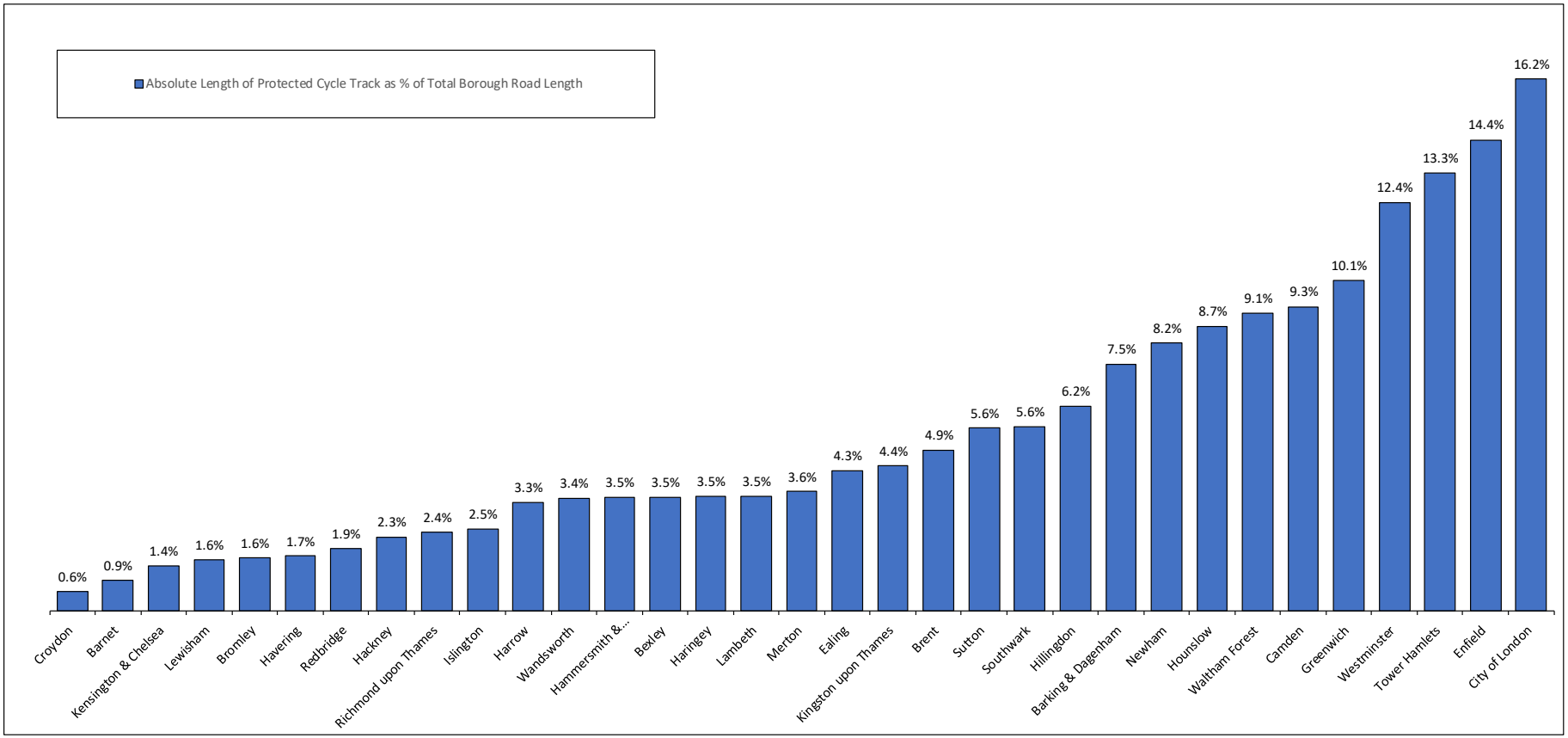
The Indicators – 7. Controlled Parking Zone (CPZ) Coverage

Purpose of Measure	To assess the usage of controlled parking zones by the boroughs.
Data Sources	Appy Parking (https://appyparking.com/) estimates of the coverage of the borough-managed road network that is under some form of controlled parking. Data from February 2019. The London Borough of Havering is not covered in the Appy Parking estimates; as a result an estimate has been made from the Havering Existing CPZ Coverage Map (http://democracy.havering.gov.uk/documents/s34695/Parking%20Strategy%20FINAL%20dec18.pdf)
Measurement	**The proportion of borough-managed roads which are under some form of controlled parking**



The Indicators – 8. Length of Protected Cycle Track

Purpose of Measure	To assess the provision of protected cycle track by the boroughs.
Data Sources	1. Length of Cycle Track: TfL estimates of protected cycle track March 2019 2. Length of Roads. See above for data in details but Department for Transport data for 2017.
Measurement	**Absolute Length of Protected Cycle Track as % of Total Borough Road Length**



The Index Methodology

- The Index has been calculated in the following way.

- The raw data from each of the component indicators has been gathered together by borough and appears below. In a number of cases (eg modal filtering and protected cycle track, the original data has been modified to take account of the length of roads of each borough.

- In this description of the methodology, the boroughs are shown in alphabetical order.

Indicator	1. Modeshare: Sustainable Modes (PT+W+C)	2A. Active Travel-Walking	2B. Active Travel-Cycling	3. Casualties (Tot % P&C)	4. Cars per Household	5. Filtering	6. 20mph	7. CPZ Coverage	8. Provision of Protected Cycle Track
Barking & Dagenham	58.0%	25.7%	1.5%	0.066	0.82	0.03	28.0%	21.0%	7.5%
Barnet	54.0%	32.9%	0.9%	0.047	0.94	0.03	4.2%	28.0%	0.9%
Bexley	42.0%	30.1%	1.6%	0.047	1.08	0.01	9.2%	19.0%	3.5%
Brent	66.0%	30.6%	1.0%	0.072	0.76	0.03	43.7%	62.0%	4.9%
Bromley	46.0%	40.3%	1.9%	0.048	1.06	0.01	4.9%	9.0%	1.6%
Camden	83.0%	41.9%	4.1%	0.058	0.40	0.12	93.1%	100.0%	9.3%
City of London	93.0%	54.8%	1.4%	0.065	0.46	0.33	90.6%	100.0%	16.2%
Croydon	51.0%	32.0%	0.3%	0.042	0.89	0.03	77.5%	19.0%	0.6%
Ealing	61.0%	30.3%	3.1%	0.060	0.88	0.08	76.9%	39.0%	4.3%
Enfield	53.0%	29.0%	1.2%	0.056	0.92	0.02	21.0%	9.0%	14.4%
Greenwich	59.0%	36.3%	4.4%	0.037	0.69	0.06	59.4%	30.0%	10.1%
Hackney	85.0%	41.6%	14.2%	0.102	0.36	0.30	95.7%	89.0%	2.3%
Hammersmith & Fulham	79.0%	43.2%	9.1%	0.061	0.52	0.11	81.0%	96.0%	3.5%
Haringey	74.0%	38.5%	6.2%	0.068	0.53	0.11	90.1%	72.0%	3.5%
Harrow	52.0%	33.8%	1.4%	0.056	1.08	0.03	23.3%	26.0%	3.3%
Havering	43.0%	28.7%	2.2%	0.069	1.11	0.02	9.1%	15.0%	1.7%
Hillingdon	41.0%	35.1%	2.6%	0.051	1.27	0.05	7.4%	14.0%	6.2%
Hounslow	56.0%	28.1%	3.0%	0.068	0.92	0.06	43.6%	28.0%	8.7%
Islington	83.0%	40.1%	5.2%	0.076	0.35	0.16	96.9%	94.0%	2.5%
Kensington & Chelsea	75.0%	41.0%	5.3%	0.072	0.52	0.01	0.9%	100.0%	1.4%
Kingston upon Thames	54.0%	37.0%	5.7%	0.048	0.94	0.09	43.4%	21.0%	4.4%
Lambeth	76.0%	43.1%	6.8%	0.067	0.44	0.10	89.5%	63.0%	3.5%
Lewisham	66.0%	36.9%	4.5%	0.053	0.59	0.06	93.2%	23.0%	1.6%
Merton	56.0%	37.8%	5.7%	0.042	0.85	0.13	44.8%	37.0%	3.6%
Newham	71.0%	33.9%	3.3%	0.051	0.59	0.04	40.8%	90.0%	8.2%
Redbridge	47.0%	34.3%	1.1%	0.062	0.95	0.01	15.3%	12.0%	1.9%
Richmond upon Thames	59.0%	40.1%	5.7%	0.057	0.91	0.07	6.0%	35.0%	2.4%
Southwark	76.0%	42.9%	8.1%	0.057	0.43	0.13	95.6%	53.0%	5.6%
Sutton	45.0%	35.1%	1.7%	0.050	1.03	0.06	20.6%	9.0%	5.6%
Tower Hamlets	80.0%	39.3%	7.5%	0.078	0.36	0.24	92.0%	98.0%	13.3%
Waltham Forest	65.0%	43.2%	6.2%	0.056	0.74	0.13	70.1%	49.0%	9.1%
Wandsworth	68.0%	40.7%	3.6%	0.058	0.57	0.06	79.9%	68.0%	3.4%
Westminster	81.0%	42.2%	5.9%	0.064	0.42	0.08	10.7%	97.0%	12.4%

- For each of the indicators, the maximum and minimum data point has been identified and then a figure in the range of 0 to 1 has been apportioned to the performance of each borough in terms of where it sits in the range between 0 and 1 where 1 represents the “best” performance by a borough for that indicator in terms of Healthy Street performance and 0 the least good performance by a borough for that indicator.
- This method of where each borough sits in a range from 0 to 1 has been selected so that no borough can perform hugely well or poorly in relation to any single indicator. This was a danger where, for example, variation from the average was chosen as the way of developing the index.
- In the case of the 6 of the 8 indicators (Modeshare, Active Travel, Filtering, 20mph, CPZ Coverage and Length of Protected Cycle Track), the higher the raw data score the better the performance and thus the higher the resulting index score. In the case of 2 indicators (Road Casualties and Cars per HH), a lower score in the raw data has been deemed as a better score in relation to the Healthy Streets Scorecard. For these indicators, therefore, we are looking at the lowest raw data scores gaining the highest Index score.
- For the Active Travel Indicator, the indicator score has been divided equally between the Walking score and the Cycling score so that each has a weighting of 0.5.

- The chart below shows the resulting Index scores for each borough for each indicator where 1 is score of the borough performing best for that indicator in relation to Healthy Streets and 0 is the score of the borough performing the least well on this occasion:

Weighting Value	1.0	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0
Indicator	1. Modeshare: Sustainable Modes (PT+W+C)	2A. Active Travel-Walking	2B. Active Travel-Cycling	3. Casualties (Tot % P&C)	4. Cars per Household	5. Filtering	6. 20mph	7. CPZ Coverage	8. Provision of Protected Cycle Track
Barking & Dagenham	0.33	0.00	0.09	0.555	0.488	0.07	0.28	0.13	0.44
Barnet	0.25	0.25	0.04	0.841	0.357	0.06	0.03	0.21	0.02
Bexley	0.02	0.15	0.09	0.841	0.205	0.00	0.09	0.11	0.18
Brent	0.48	0.17	0.05	0.468	0.550	0.09	0.45	0.58	0.28
Bromley	0.10	0.50	0.11	0.825	0.228	0.02	0.04	0.00	0.07
Camden	0.81	0.56	0.27	0.671	0.945	0.34	0.96	1.00	0.56
City of London	1.00	1.00	0.08	0.573	0.881	1.00	0.93	1.00	1.00
Croydon	0.19	0.22	0.00	0.913	0.413	0.08	0.80	0.11	0.00
Ealing	0.38	0.16	0.20	0.645	0.421	0.22	0.79	0.33	0.24
Enfield	0.23	0.12	0.06	0.710	0.379	0.06	0.21	0.00	0.88
Greenwich	0.35	0.36	0.29	1.000	0.628	0.16	0.61	0.23	0.61
Hackney	0.85	0.55	1.00	0.000	0.984	0.93	0.99	0.88	0.11
Hammersmith & Fulham	0.73	0.60	0.64	0.633	0.811	0.32	0.83	0.96	0.18
Haringey	0.63	0.44	0.42	0.529	0.795	0.31	0.93	0.69	0.19
Harrow	0.21	0.28	0.07	0.704	0.202	0.06	0.23	0.19	0.17
Havering	0.04	0.10	0.13	0.513	0.175	0.05	0.08	0.07	0.07
Hillingdon	0.00	0.32	0.16	0.778	0.000	0.13	0.07	0.05	0.36
Hounslow	0.29	0.08	0.19	0.522	0.381	0.16	0.44	0.21	0.52
Islington	0.81	0.50	0.35	0.402	1.000	0.49	1.00	0.93	0.12
Kensington & Chelsea	0.65	0.53	0.36	0.457	0.816	0.01	0.00	1.00	0.05
Kingston upon Thames	0.25	0.39	0.39	0.827	0.354	0.27	0.44	0.13	0.24
Lambeth	0.67	0.60	0.47	0.536	0.896	0.29	0.92	0.59	0.19
Lewisham	0.48	0.39	0.30	0.757	0.738	0.16	0.96	0.15	0.06
Merton	0.29	0.42	0.39	0.919	0.450	0.39	0.46	0.31	0.19
Newham	0.58	0.28	0.21	0.786	0.736	0.10	0.42	0.89	0.48
Redbridge	0.12	0.30	0.06	0.616	0.346	0.02	0.15	0.03	0.08
Richmond upon Thames	0.35	0.49	0.39	0.692	0.392	0.18	0.05	0.29	0.11
Southwark	0.67	0.59	0.56	0.684	0.911	0.39	0.99	0.48	0.32
Sutton	0.08	0.32	0.10	0.801	0.264	0.16	0.21	-	0.32
Tower Hamlets	0.75	0.47	0.52	0.375	0.988	0.74	0.95	0.98	0.82
Waltham Forest	0.46	0.60	0.43	0.703	0.575	0.38	0.72	0.44	0.54
Wandsworth	0.52	0.51	0.24	0.674	0.752	0.16	0.82	0.65	0.18
Westminster	0.77	0.57	0.40	0.585	0.921	0.24	0.10	0.97	0.76

- The sum of these scores is then totalled. The resulting score for these 8 indicators has then been multiplied by 10/8 to give a score out of 10. We have thought that this is prudent in case other indicators are added in the future but the final index will always be a score out of 10.
- The original score out of 8 and the resulting score when factored to be out of 10 appear below.

	RESULTING HEALTHY STREETS SCORECARD INDEX (Sum of component index scores - max 8)		FACTORED TO 10 RATHER THAN 8
Barking & Dagenham	2.34	Barking & Dagenham	2.93
Barnet	1.92	Barnet	2.40
Bexley	1.57	Bexley	1.96
Brent	3.00	Brent	3.74
Bromley	1.59	Bromley	1.98
Camden	5.70	Camden	7.12
City of London	6.93	City of London	8.66
Croydon	2.62	Croydon	3.27
Ealing	3.20	Ealing	4.01
Enfield	2.56	Enfield	3.20
Greenwich	3.91	Greenwich	4.88
Hackney	5.51	Hackney	6.88
Hammersmith & Fulham	5.09	Hammersmith & Fulham	6.36
Haringey	4.51	Haringey	5.64
Harrow	1.94	Harrow	2.43
Havering	1.12	Havering	1.40
Hillingdon	1.64	Hillingdon	2.05
Hounslow	2.66	Hounslow	3.33
Islington	5.18	Islington	6.47
Kensington & Chelsea	3.43	Kensington & Chelsea	4.28
Kingston upon Thames	2.91	Kingston upon Thames	3.64
Lambeth	4.63	Lambeth	5.79
Lewisham	3.65	Lewisham	4.57
Merton	3.41	Merton	4.27
Newham	4.24	Newham	5.30
Redbridge	1.54	Redbridge	1.92
Richmond upon Thames	2.51	Richmond upon Thames	3.13
Southwark	5.03	Southwark	6.29
Sutton	2.04	Sutton	2.55
Tower Hamlets	6.08	Tower Hamlets	7.61
Waltham Forest	4.34	Waltham Forest	5.43
Wandsworth	4.14	Wandsworth	5.17
Westminster	4.83	Westminster	6.03

ANNEX 3. Other actions boroughs could take to help meet healthy streets targets

- To reduce vehicle numbers it is important that the borough implements a **car-free and permit-free development policy** so that new housing developments do not add to car trips in the borough. This should be explicit in their Local Implementation Plan and be adopted as part of the Local Plan.
- To promote town centre regeneration the borough should reduce car dominance to make the area more attractive by **introducing more pedestrianised areas**. This approach has proven to increase trade as people stay longer when shopping streets are more pleasant places to be.
- To stop cars parking on yellow zig-zags outside schools and to halt inconsiderate and dangerous parking around other relevant destinations, the borough should implement **strong parking enforcement measures**.
- To reduce the number of people driving their children to school the borough should implement **modal filtering schemes and parking restrictions around schools.**
- To demonstrate its own commitment to delivering 'healthy streets' (more active travel, better air quality) the borough should **reduce or remove car parking for council employees**
- To promote sustainable journeys to work, the borough should **introduce a Workplace Parking Levy** and this should apply to public sector and council property as well as privately owned property.
- To demonstrate its support to non-car owners and to make streets more pleasant environments which are less dominated by car-parking, the borough should **offer the opportunity to residents to use on-street car parking spaces for other purposes, for example a bicycle hangar or a 'parklet'**

Boroughs can also take the following actions

- actively encourage School Streets and Play Streets schemes
- implement a programme for street clutter removal
- provide charging and incentives for electric vehicles as a shared, communal resource, with equivalent resources for non-motorised traffic such as cargo bikes.
- ensure all EV charging infrastructure is installed off street as a priority; on carriageway if that is not possible; and on pavements as a last resort and only if 2.5m is left for sociable walking.

On crossings and junctions boroughs can take the following actions:

- Crossings should be direct and single stage
- Signalised junctions should have a pedestrian phase on all arms of the junction.
- At side road junctions, pedestrian priority should be emphasised by maintaining the level of crossings at footway height; continuing the footway surfacing and width across the junction mouth, to give clear visual priority to pedestrians; creating 'tighter' junctions, protected by street furniture; and moving 'Give Way' road markings and signs behind the inner line of the footway.
- Infrastructure such as guardrails, roundabouts and gyratories, that speed up motor traffic, but slow down people walking, should be removed.

ANNEX 4: more on the links between transport and health

AIR POLLUTION

The health impacts of air pollution are significant at all life stages from the womb to the end of life. The World Health Organization has estimated that one third of deaths from stroke, lung cancer and heart disease are due to air pollution. Children are at particular risk, with air pollution now proven to adversely affect asthma and lung development. Air pollution is also associated with reduced foetal growth. Evidence is also accumulating on the impact of dirty air on the brain, causing dementia, depression, autism and psychosis.

The majority of air pollution in London and the UK comes from road transport. Diesel vehicles are particularly relevant, accounting for the largest proportion of NOx emissions. But evidence suggests that the most dangerous form of air pollution comes from PM emissions, the fine particles that are inhaled deep into the lungs

The whole of London, even the outskirts, exceed the WHO limit for fine particles. Every school in London is exposed to an annual average higher than 10 micrograms per cubic metre, the level recommended by the World Health Organisation. [40]

Research by GLA has estimated that by 2030, an estimated 90 per cent of PM emissions from road transport will be from tyre and brake wear. This means that reducing air pollution cannot be a case of switching to electric vehicles, but of reducing the number of cars on roads and the distance they travel. (London Environment Strategy, 2018)

NOISE

The impacts that noise can have on health may not be obvious, but they can be significant. As the London Mayor says in his Environment Strategy (March 2018): "As a world city, sound is an inevitable part of everyday life for Londoners… The impacts that noise can have on health may not be obvious, but they can be significant… There are a number of widespread adverse effects of noise, most common of which are annoyance and sleep disturbance. In cases of prolonged exposure to excessive noise, health impacts include cardiovascular and physiological effects, mental health effects, hearing impairment, reduced performance and communication and learning effects. The World Health Organisation (WHO) recognises environmental noise as the second largest environmental health risk in Western Europe behind air quality."[41]*

The Chief Medical Officer's Annual Report 2017 also dealt with the issues of noise pollution. It states that: "The annual social cost of urban road traffic noise in England is estimated at £7-£10bn. There is good evidence that transport related noise is associated with sleep disturbance, cardiovascular morbidity, cognitive impairment in children and chronic annoyance."[42]

[40] London air pollution mapped: how does your child's school compare?
[41] Extract from Mayor's Environment Strategy p384
[42] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/690846/CMO_Annual_Report_2017_Health_Impacts_of_All_Pollution_what_do_we_know.pdf (Ch. 7 p.10)