Streetspace for London
Appendix Six (B):
The Strategic Neighbourhood Analysis

Vl .0 June 2020

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The Strategic Neighbourhoods Analysis (SNA) intro

The following analysis has divided London into a series of residential neighbourhoods. These act primarily as a common geographic basis for comparing data across different areas of London.

This analysis should help boroughs to:

- Understand the challenges schemes may seek to address

- Gauge the potential for LTNs in their area

- Identify different options and prioritise between them

- Provide a basis for evidence-led discussions with stakeholders

The neighbourhoods have been created by removing open space, industrial land and railway land. The remaining area has then been divided using roads with a high or medium movement score under the Street Types Framework, as well as low-movement B-roads where neighbourhoods would otherwise be over 1.5 square kilometres (referred to here as 'dividing roads').
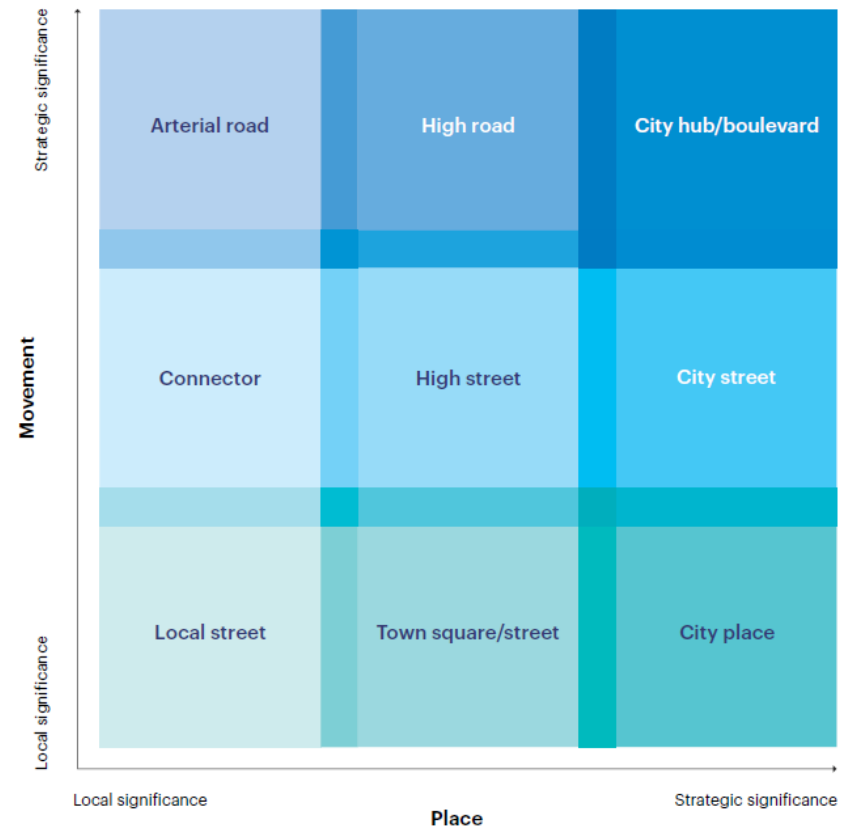
Understanding the neighbourhood boundaries

Splitting London into neighbourhoods by high and medium movement streets means the areas analysed in this deck should broadly align to potential LTNs as boroughs may decide to implement them. However, the SNA is based on London-wide strategic data, so is only intended as a means of comparing different areas rather than for necessarily being the basis of scheme design. At the local level, the preferred scheme boundaries may instead:

- **Split an SNA neighbourhood** in two e.g. along a bus route. In these cases, additional care should taken if applying SNA data to both areas, as it may not be representative of both

- **Filter across a larger neighbourhood** or include a perimeter road within the filtered areas. In some cases data can be aggregated to give an indication of potential, but it will not include information on the dividing road that has been included.

- **Better reflect local characteristics** where they are not captured by the London-wide data e.g. local crossings over a railway track joining either side together in one neighbourhood

It should be noted that some neighbourhoods are excluded from some analysis due to a lack of data at that scale, low population or large or very small size. Others may already be filtered but are included in the analysis for the sake of completeness (depending on when an area was filtered, this may not be reflected in some of the data due to the year it was collected).

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SNA Overview

This is the SNA overview map, intended to show a snapshot of the potential for low traffic neighbourhoods (LTNs) across London, and where the greatest need* may be.

Neighbourhoods are allocated two scores, a traffic filtering score and a general score. These are combined on the map with the former having more weight.

The traffic filtering score is based on:

- Modelled through traffic
- Recorded walking and cycling casualties
- Modelled potential cycling flows

The general score is based on:

- The social distancing challenge (pavement widths and population density)
- The number of schools
- Levels of deprivation
- Total population and low car ownership
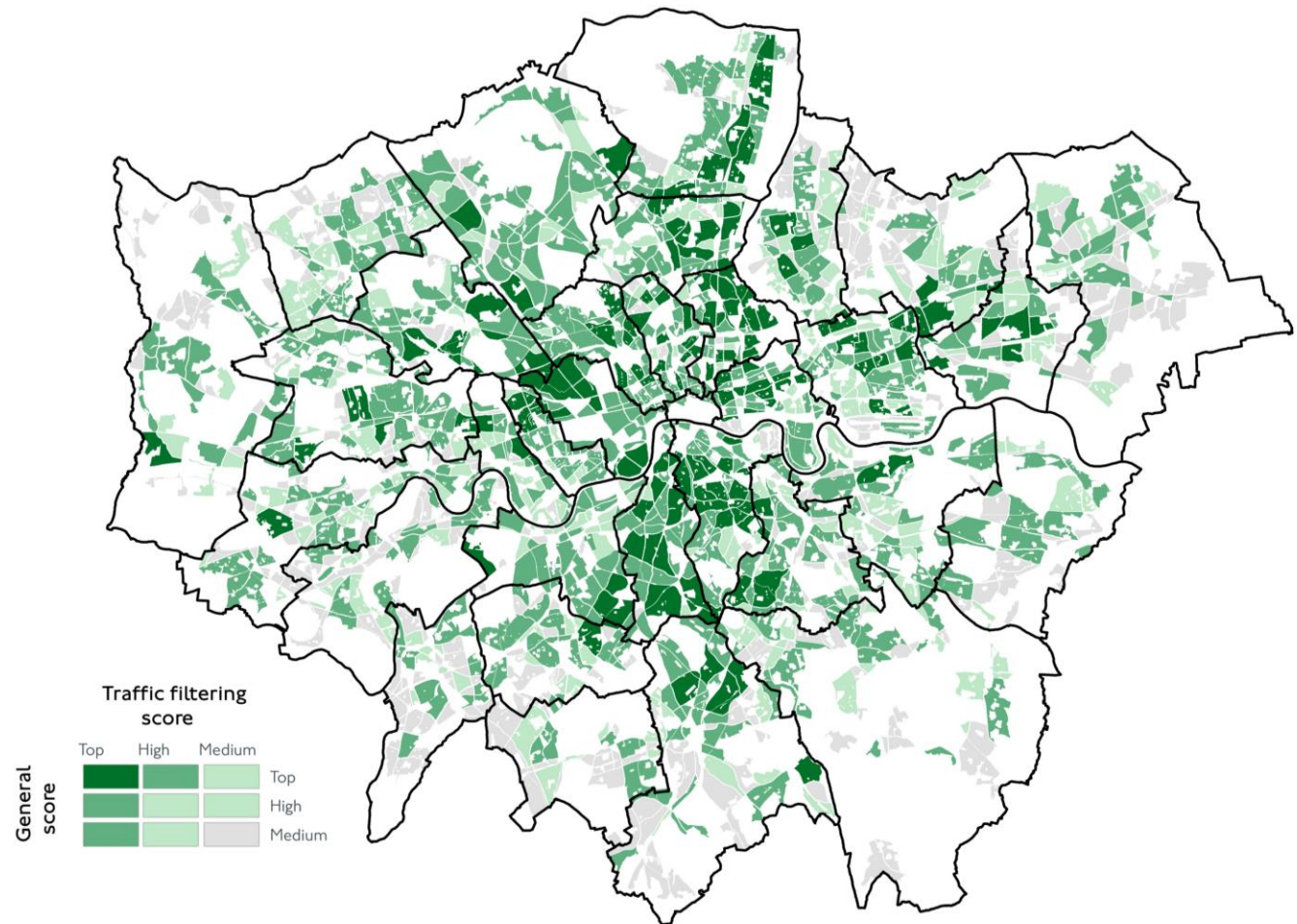
Some areas will already have traffic filters but are included in the analysis for the sake of completeness. Neighbourhoods less than 0.1 or greater than 2 square kilometres have been excluded for the purposes of this analysis to ensure robustness of the data presented, but may still be suitable for filtering.

How the SNA should be used at a local level

- The SNA overview map provides a broad indication of where LTNs may be most suitable and a starting point for boroughs to explore the potential for LTNs in their area. This can help identify the scale of potential for LTNs in a borough, prioritise between areas within a borough and add to the evidence based for interventions that have already been identified.

- This provides a broad estimation of potential for LTNs at the London-wide level. However, an strategic-level overview must necessarily summarise the various metrics it is based on, the details of which are likely to be relevant. Certain metrics are also based on strategic transport models, which by their nature cannot capture everything that is relevant at a local level.

- Boroughs should therefore use the maps set out in the following section to build a fuller understanding of the challenges and opportunities in their area. This can also help inform scheme design.

- The analysis should be treated as a guide rather than a rule, as there will likely be instances where a neighbourhood does not score highly at a strategic level, but has strong case based on local evidence.

The following section breaks the SNA down and provides additional analysis for each neighbourhood:

- **General context:**
  - The size in square kilometres, not including open space, railway land and industrial land (additional context not in overall SNA)
  - The estimated population (2018)
  - The proportion of residents who do not have household access to a car and therefore may be more reliant on public transport, walking and cycling

- **Traffic and road danger reduction:**
  - An estimate of through traffic based on TfL's strategic highway models. Note in some cases this may not fully reflect rat running particularly for smaller neighbourhoods, and should be complemented with local knowledge where possible
  - An estimate of road danger based on pedestrian and cycle casualties between 2016 and 2018

- **Cycle connectivity:**
  - An estimate of cycle connectivity benefit based on potential cycle flows (using the same methodology as the Strategic Cycling Analysis)

- **Enabling social distancing:**
  - Average pavement width
  - Population density

- **Safe access to schools:**
  - The number of schools per neighbourhood

- **Demographics:**
  - The highest level of deprivation within the neighbourhood as measured by the Indices of Multiple Deprivation (relative to the rest of England)
  - The proportion of the population that is aged 0-17 that the proportion that is 70+ (additional context not in overall SNA)

- Other: Where existing bus routes run through neighbourhoods (additional context not in overall SNA)

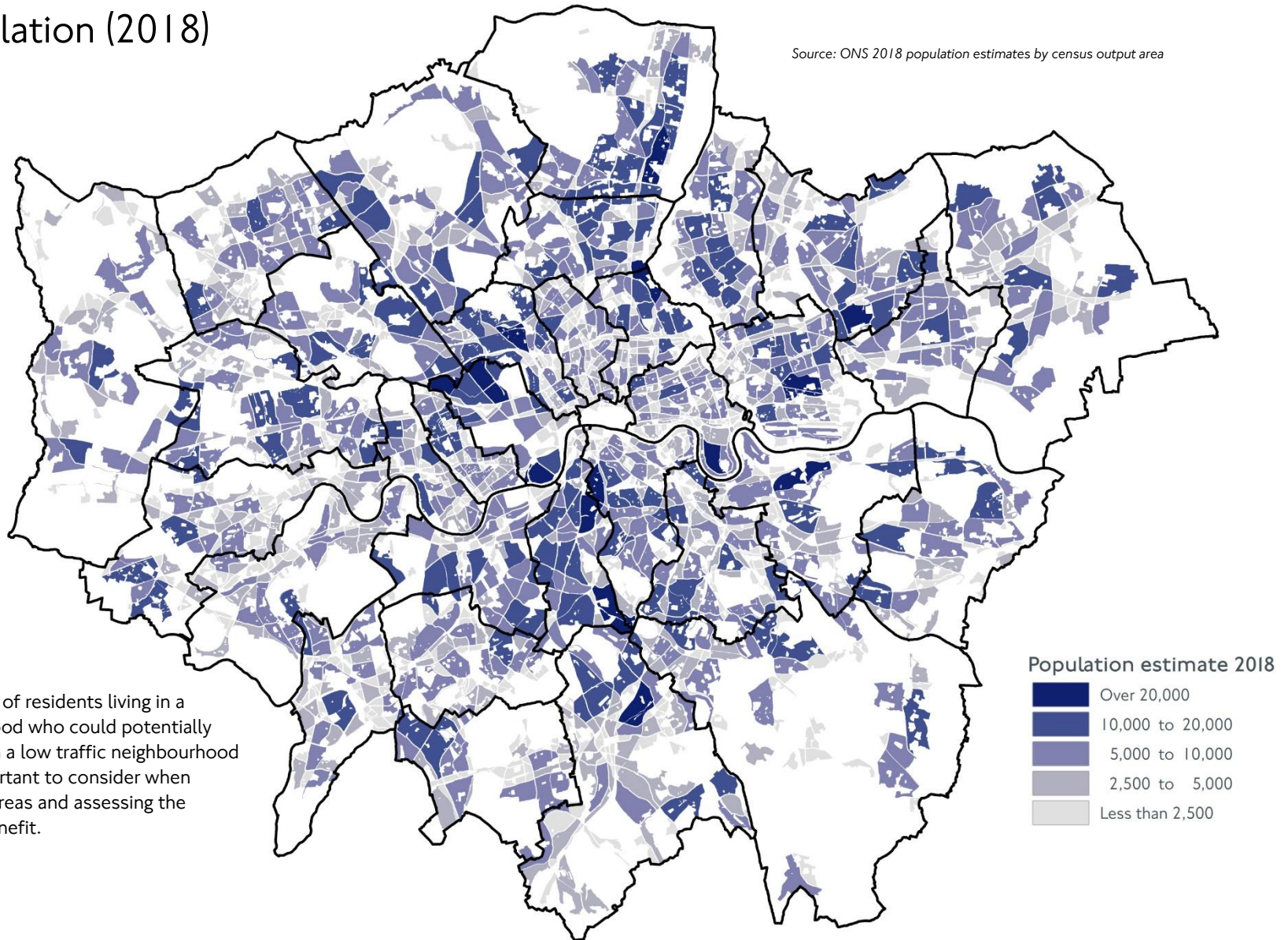EVERY JOURNEY MATTERS

General Context:
Size
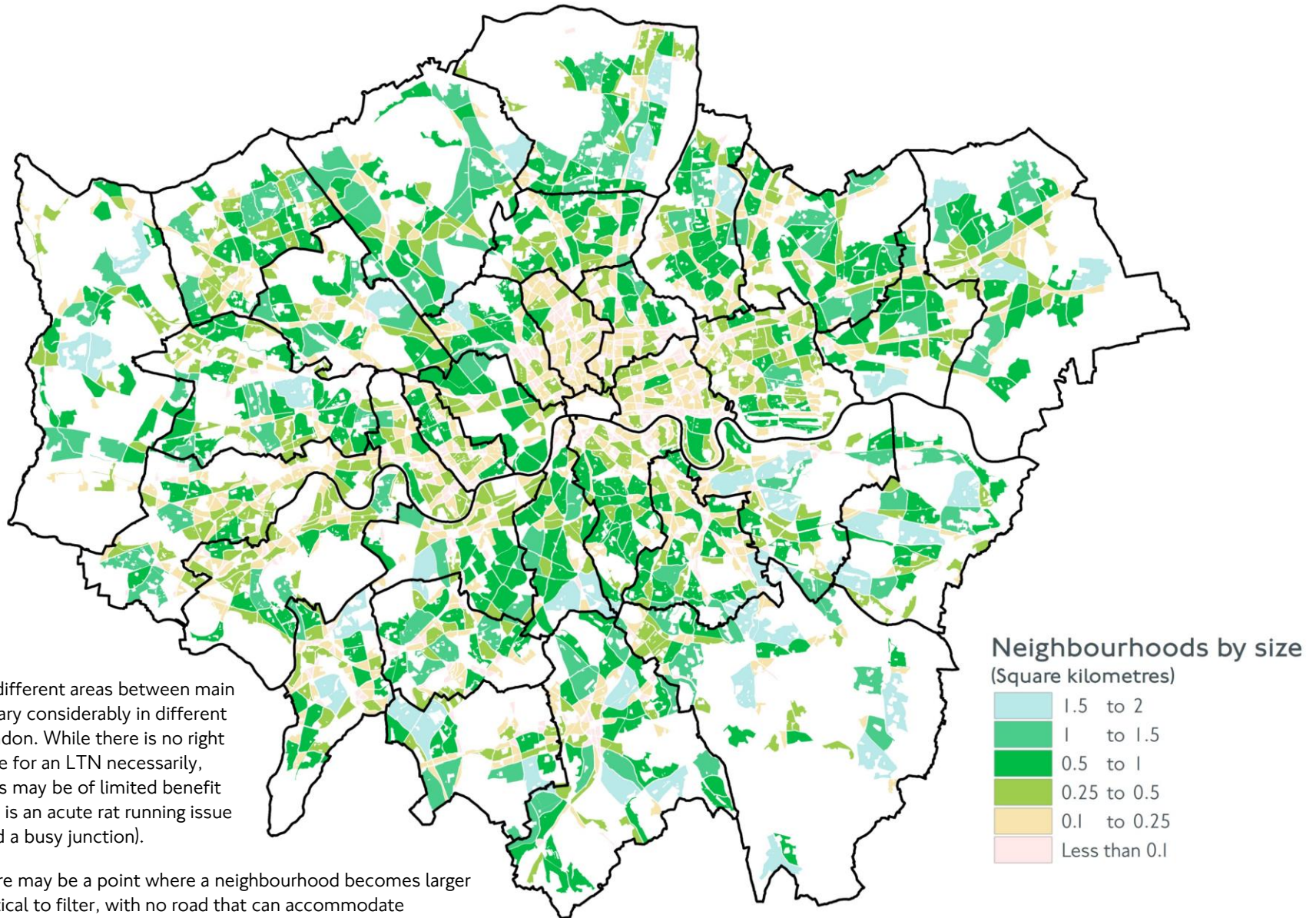
The size of different areas between main roads can vary considerably in different areas of London. While there is no right or wrong size for an LTN necessarily, smaller areas may be of limited benefit unless there is an acute rat running issue (e.g. to avoid a busy junction).

Equally, there may be a point where a neighbourhood becomes larger than is practical to filter, with no road that can accommodate consolidated traffic to split a neighbourhood into two. The appropriate size range may be different in different boroughs, particularly between outer and inner London and depend on local circumstances.

Neighbourhoods by size
(Square kilometres)

|	
	1.5 to 2
	1 to 1.5
	0.5 to 1
	0.25 to 0.5
	0.1 to 0.25
	Less than 0.1

General Context:
Population (2018)

The number of residents living in a neighbourhood who could potentially benefit from a low traffic neighbourhood can be important to consider when prioritising areas and assessing the potential benefit.

Population estimate 2018

- Over 20,000
- 10,000 to 20,000
- 5,000 to 10,000
- 2,500 to 5,000
- Less than 2,500

General Context:
Car ownership (2011)

Source: 2011 Census by LSOA.
Note: The percentage of London households that do not own a car has remained broadly stable since 2011

Share of households without a car
2011

- Over 60%
- 50–60%
- 40–50%
- 30–40%
- Less than 30%
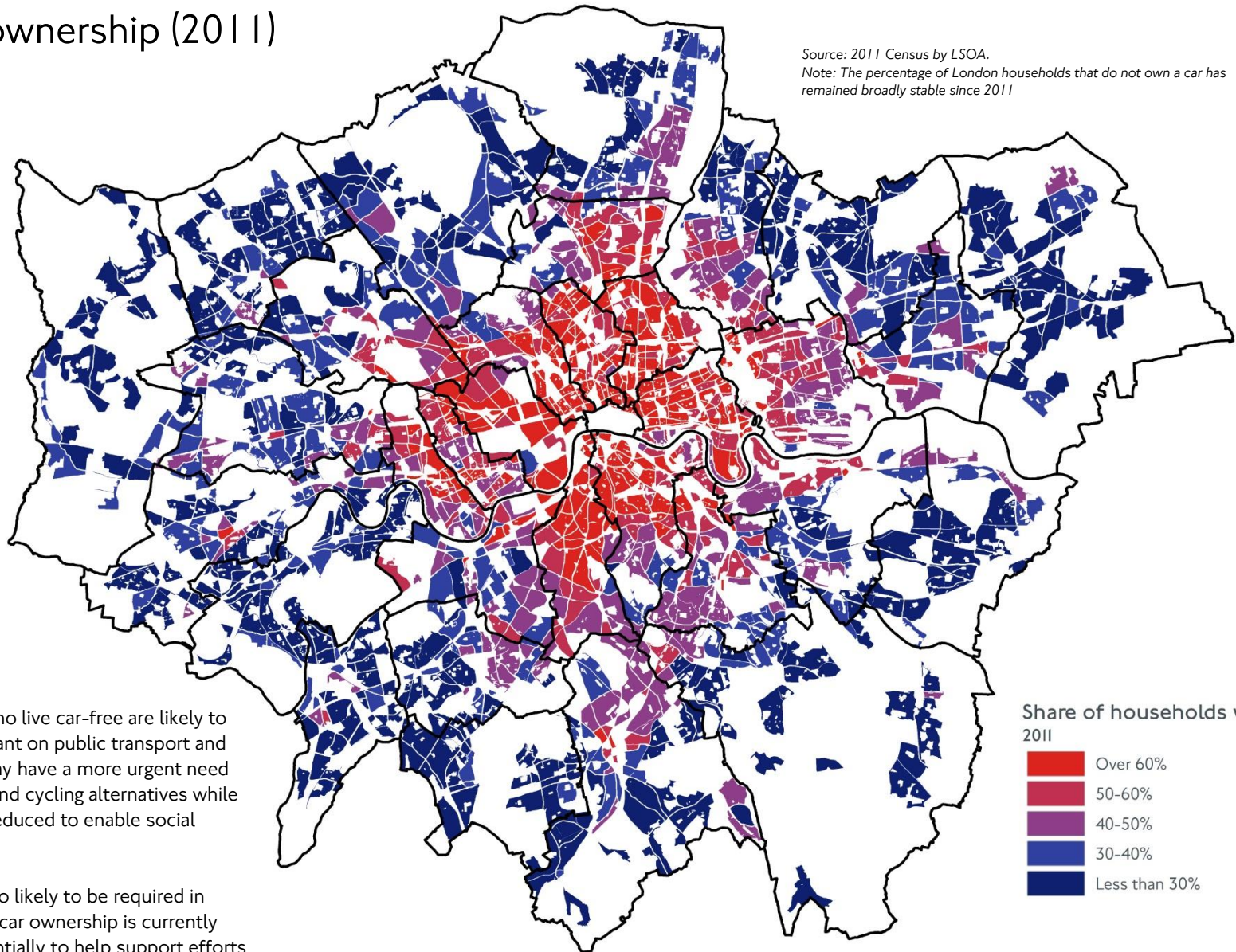
Residents who live car-free are likely to be more reliant on public transport and therefore may have a more urgent need for walking and cycling alternatives while capacity is reduced to enable social distancing.
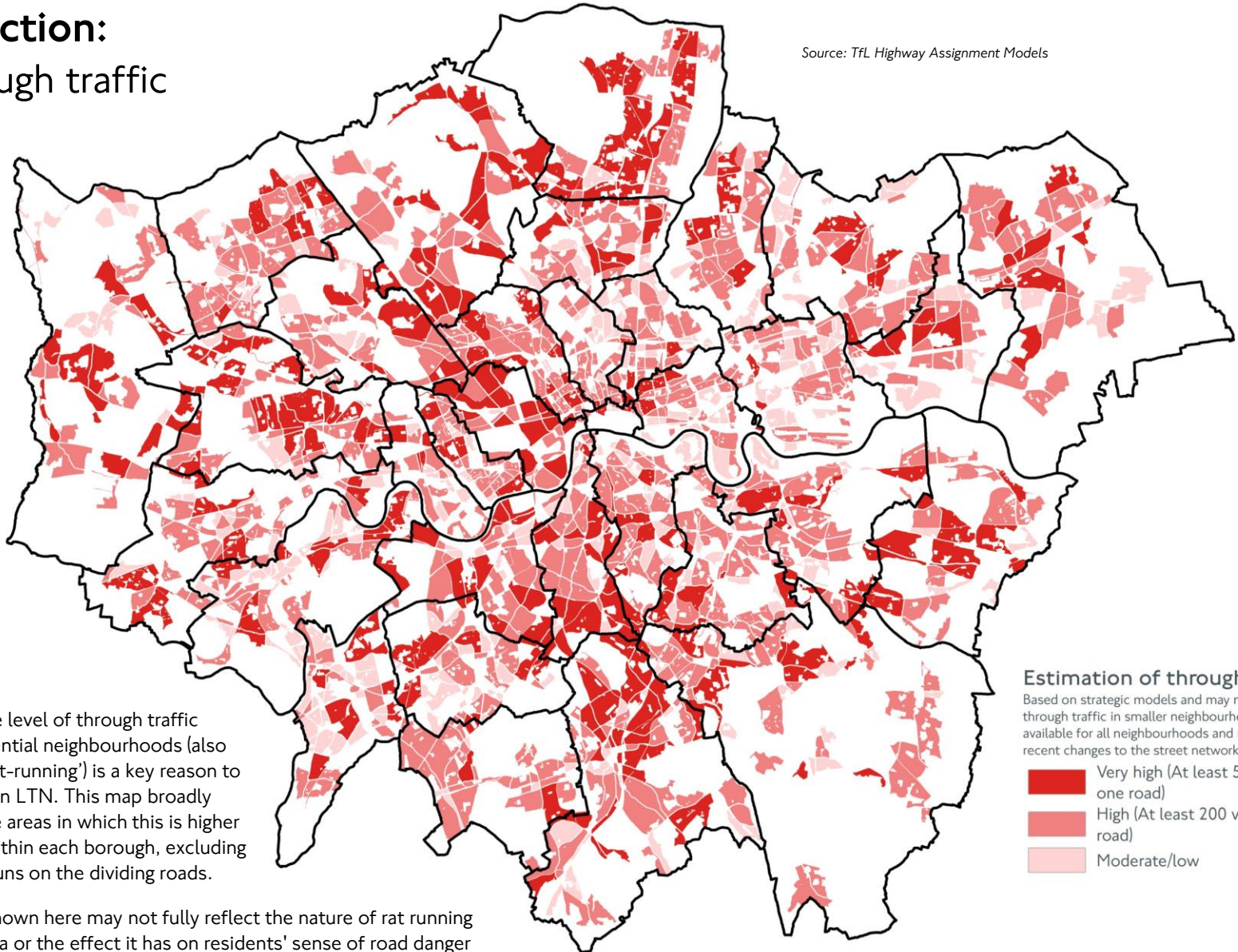
LTNs are also likely to be required in areas where car ownership is currently higher, potentially to help support efforts to reduce car ownership.

Traffic and road danger reduction:

Through traffic
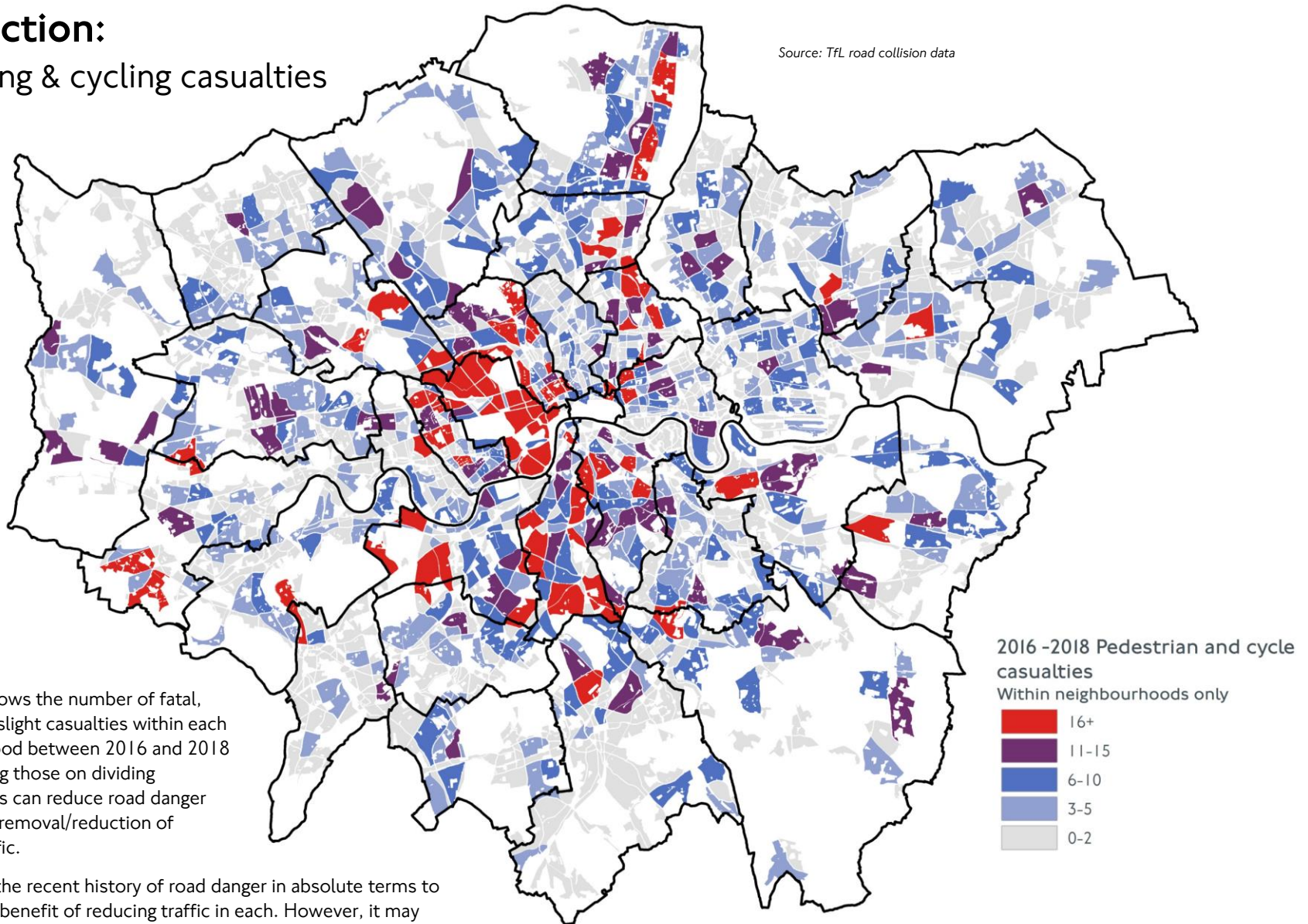
Estimation of through traffic

Based on strategic models and may not fully reflect through traffic in smaller neighbourhoods. Data not available for all neighbourhoods and may not reflect recent changes to the street network

- ▉ Very high (At least 500 veh/hr on one road)
- ▉ High (At least 200 veh/hr on one road)
- ▉ Moderate/low

Reducing the level of through traffic within residential neighbourhoods (also known as 'rat-running') is a key reason to implement an LTN. This map broadly indicates the areas in which this is higher and lower within each borough, excluding traffic that runs on the dividing roads.

Estimates shown here may not fully reflect the nature of rat running in a local area or the effect it has on residents' sense of road danger and consequent mode choices. This is particularly relevant for smaller neighbourhoods and where boroughs may wish to include a dividing road within a filtered area.

Traffic and road danger reduction:

Walking & cycling casualties

2016 -2018 Pedestrian and cycle casualties
Within neighbourhoods only

- 16+
- 11-15
- 6-10
- 3-5
- 0-2

This map shows the number of fatal, serious and slight casualties within each neighbourhood between 2016 and 2018 (not including those on dividing roads). LTNs can reduce road danger through the removal/reduction of through traffic.
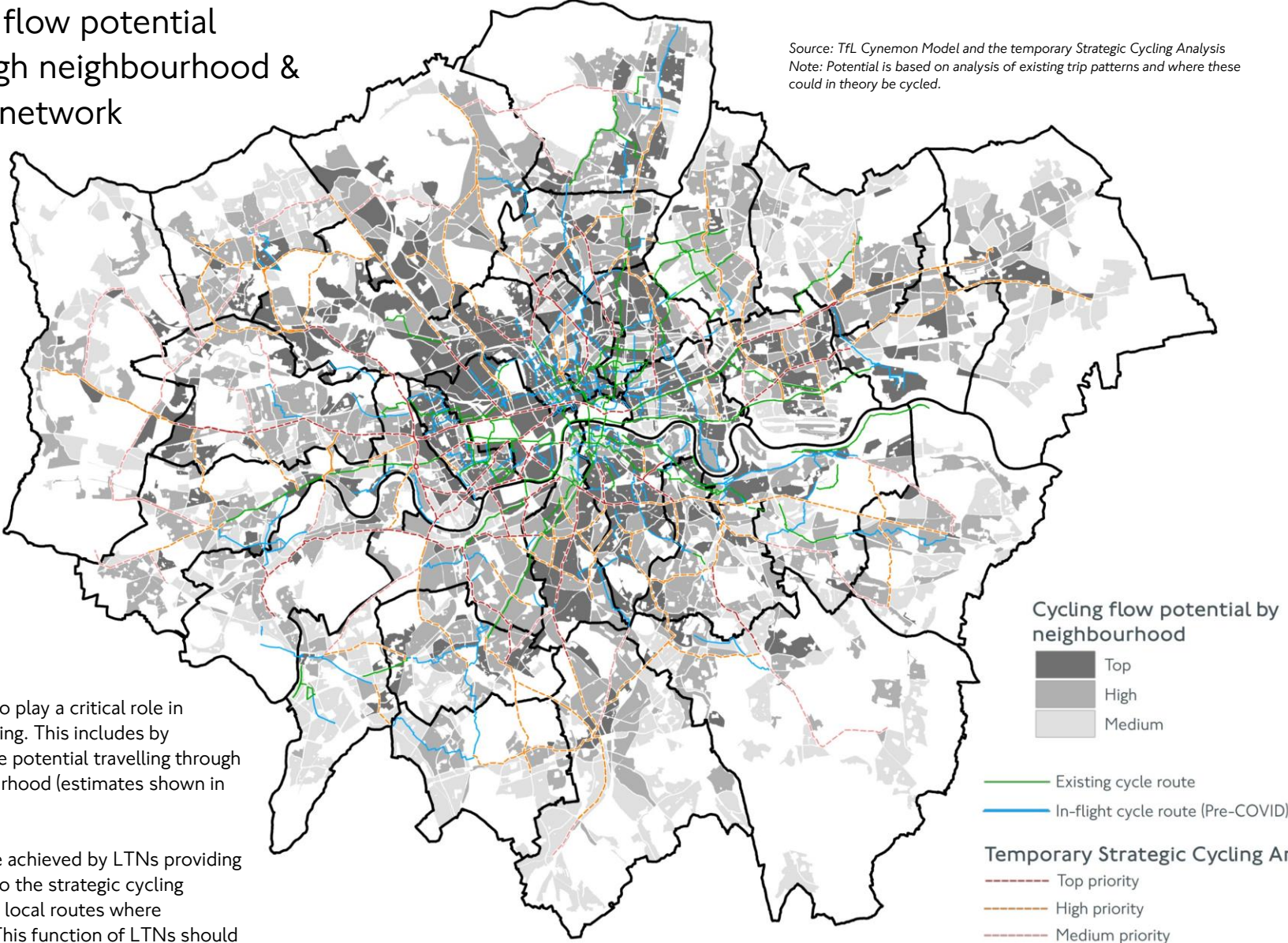
This shows the recent history of road danger in absolute terms to indicate the benefit of reducing traffic in each. However, it may also be appropriate to consider the rate of casualties relative to the size of the neighbourhood, particularly in parts of inner London, along with local knowledge about road user behaviour.

Cycle connectivity:

Cycle flow potential through neighbourhood & cycle network

Cycling flow potential by neighbourhood
- Top
- High
- Medium

— Existing cycle route
— In-flight cycle route (Pre-COVID)

Temporary Strategic Cycling Analysis
- - - Top priority
- - - High priority
- - - Medium priority

LTNs can also play a critical role in enabling cycling. This includes by realising cycle potential travelling through the neighbourhood (estimates shown in grey).

It can also be achieved by LTNs providing safe access to the strategic cycling network (and local routes where applicable). This function of LTNs should be considered alongside the feasibility of road space reallocation on dividing roads.

Social distancing:
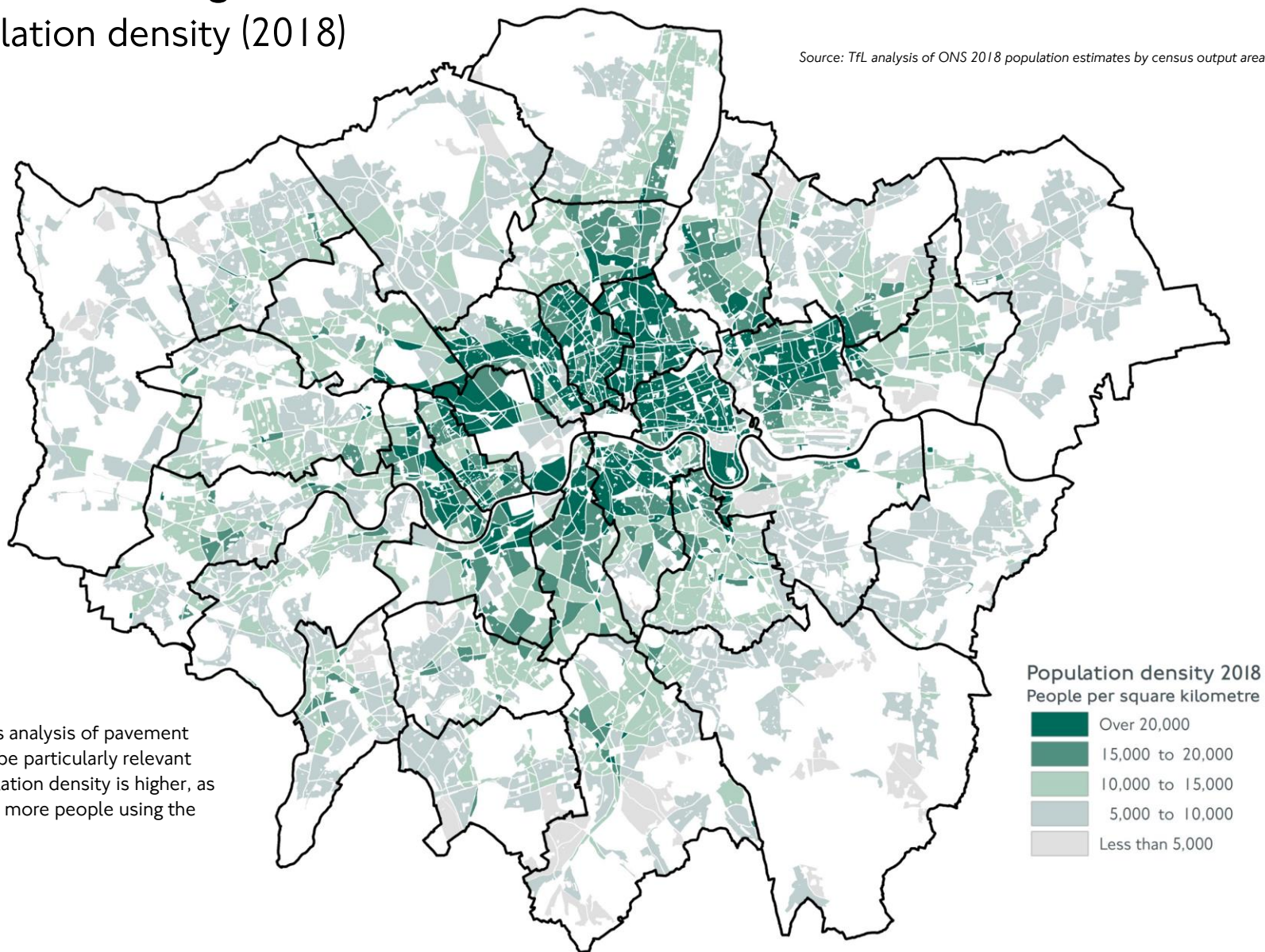## Pavement width

Source: UKMap pavement width data
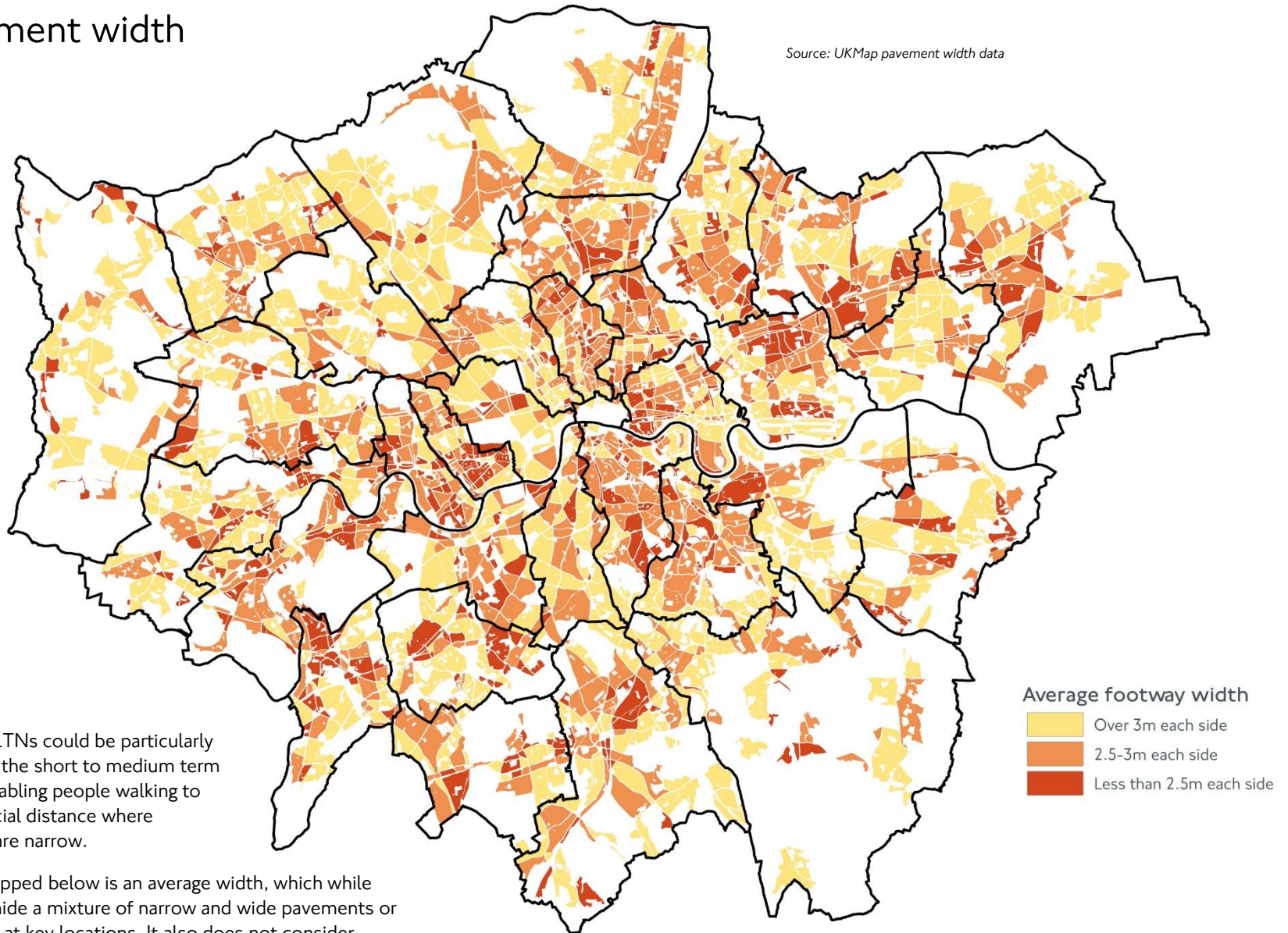
Temporary LTNs could be particularly beneficial in the short to medium term by better enabling people walking to maintain social distance where pavements are narrow.

The data mapped below is an average width, which while useful, can hide a mixture of narrow and wide pavements or pinch points at key locations. It also does not consider street clutter or pavement parking, all of which should be considered at a local level.

Average footway width

Over 3m each side
2.5–3m each side
Less than 2.5m each side

Social distancing:
Population density (2018)

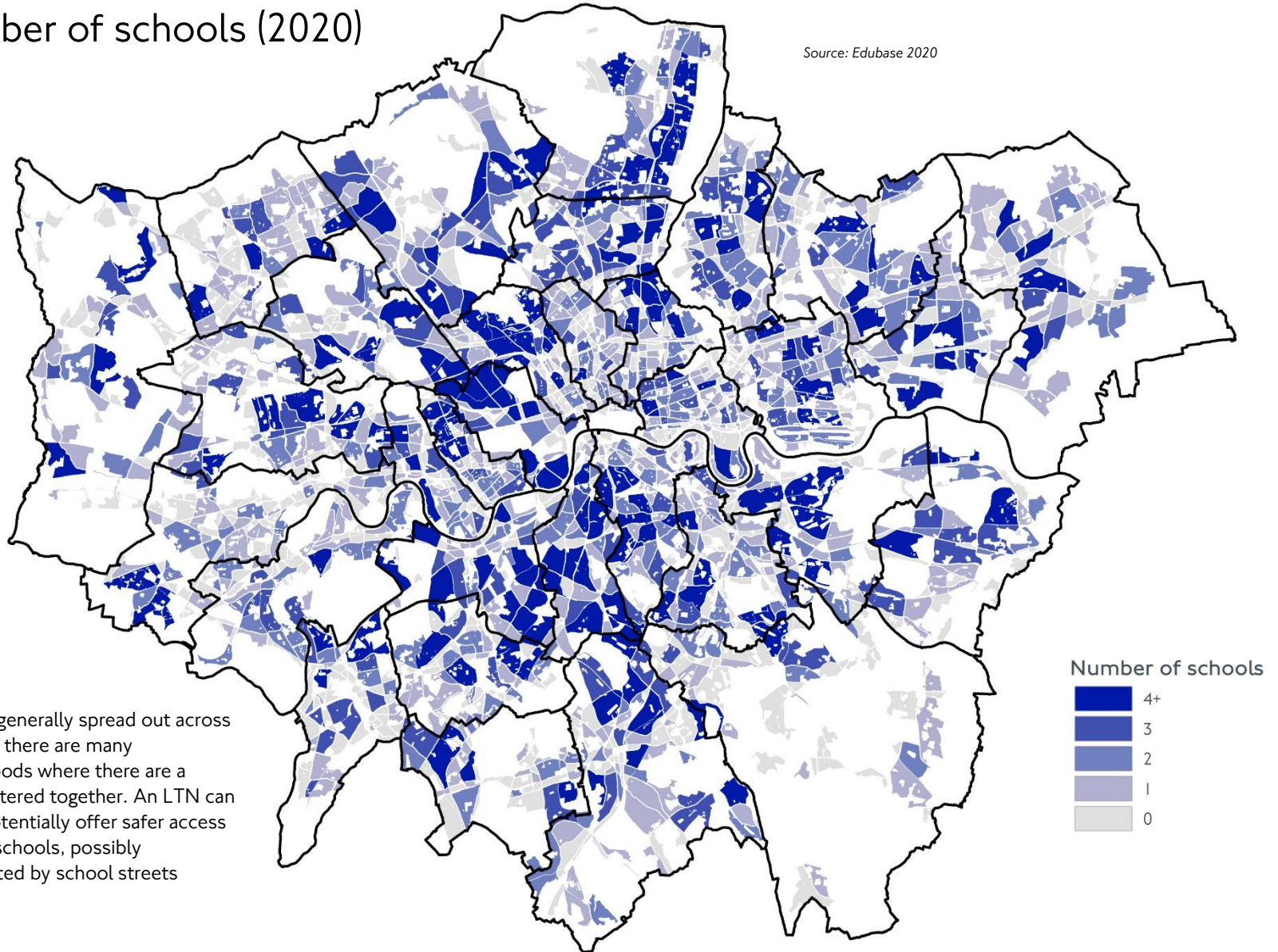*Source: TfL analysis of ONS 2018 population estimates by census output area*

The previous analysis of pavement widths may be particularly relevant where population density is higher, as there will be more people using the footway.

Population density 2018
People per square kilometre

- Over 20,000
- 15,000 to 20,000
- 10,000 to 15,000
- 5,000 to 10,000
- Less than 5,000

Access to schools:
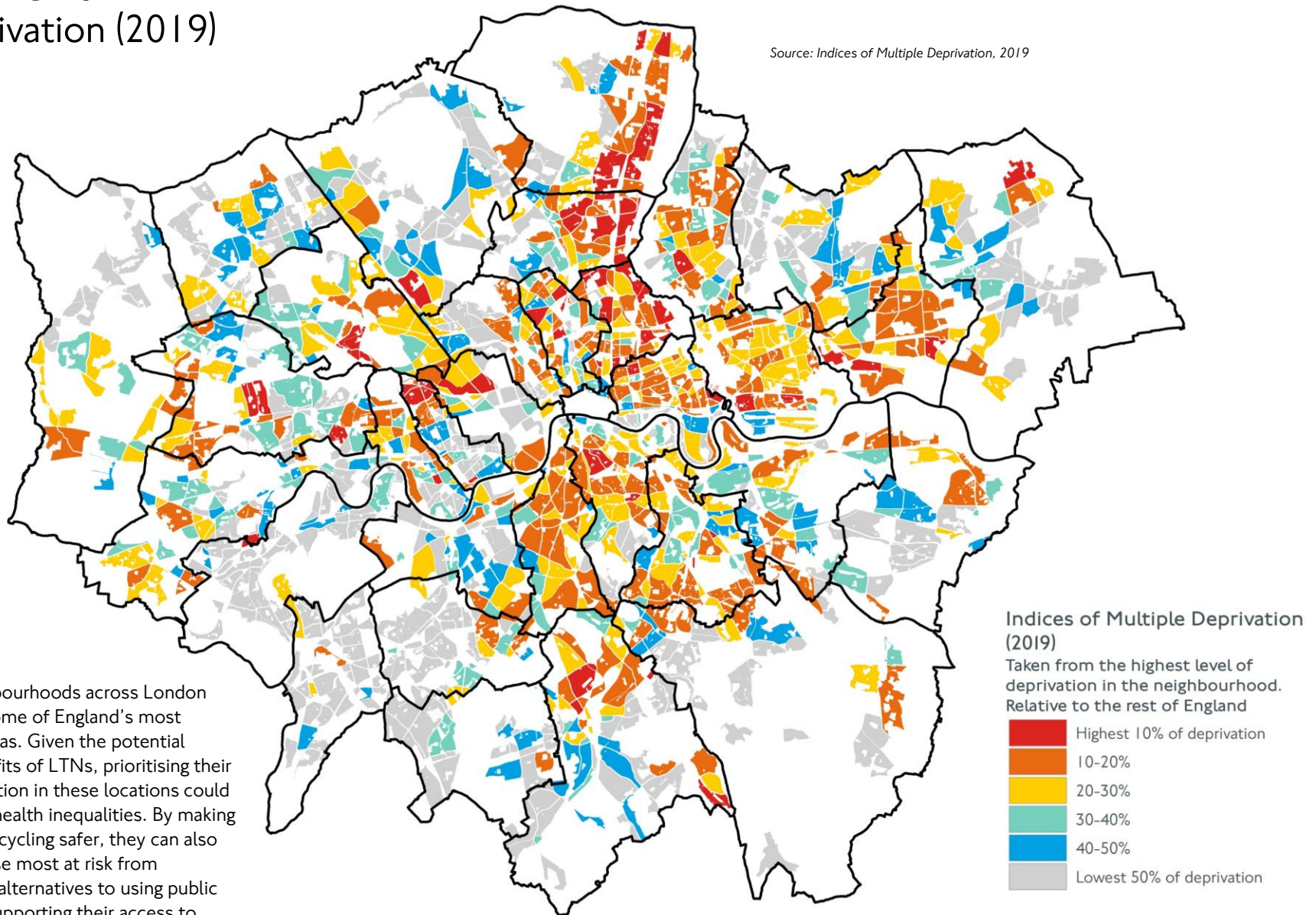
Number of schools (2020)

Source: Edubase 2020

Schools are generally spread out across London, but there are many neighbourhoods where there are a number clustered together. An LTN can therefore potentially offer safer access to multiple schools, possibly complemented by school streets measures.

Number of schools

- 4+
- 3
- 2
- 1
- 0

Demographics:
Deprivation (2019)

Many neighbourhoods across London represent some of England's most deprived areas. Given the potential health benefits of LTNs, prioritising their implementation in these locations could help tackle health inequalities. By making walking and cycling safer, they can also provide those most at risk from coronavirus alternatives to using public transport, supporting their access to employment, health and other services.

Indices of Multiple Deprivation (2019)
Taken from the highest level of deprivation in the neighbourhood. Relative to the rest of England

- Highest 10% of deprivation
- 10–20%
- 20–30%
- 30–40%
- 40–50%
- Lowest 50% of deprivation

Demographics:
Children (2018)

Source: TfL analysis of ONS 2018 population estimates by census output area
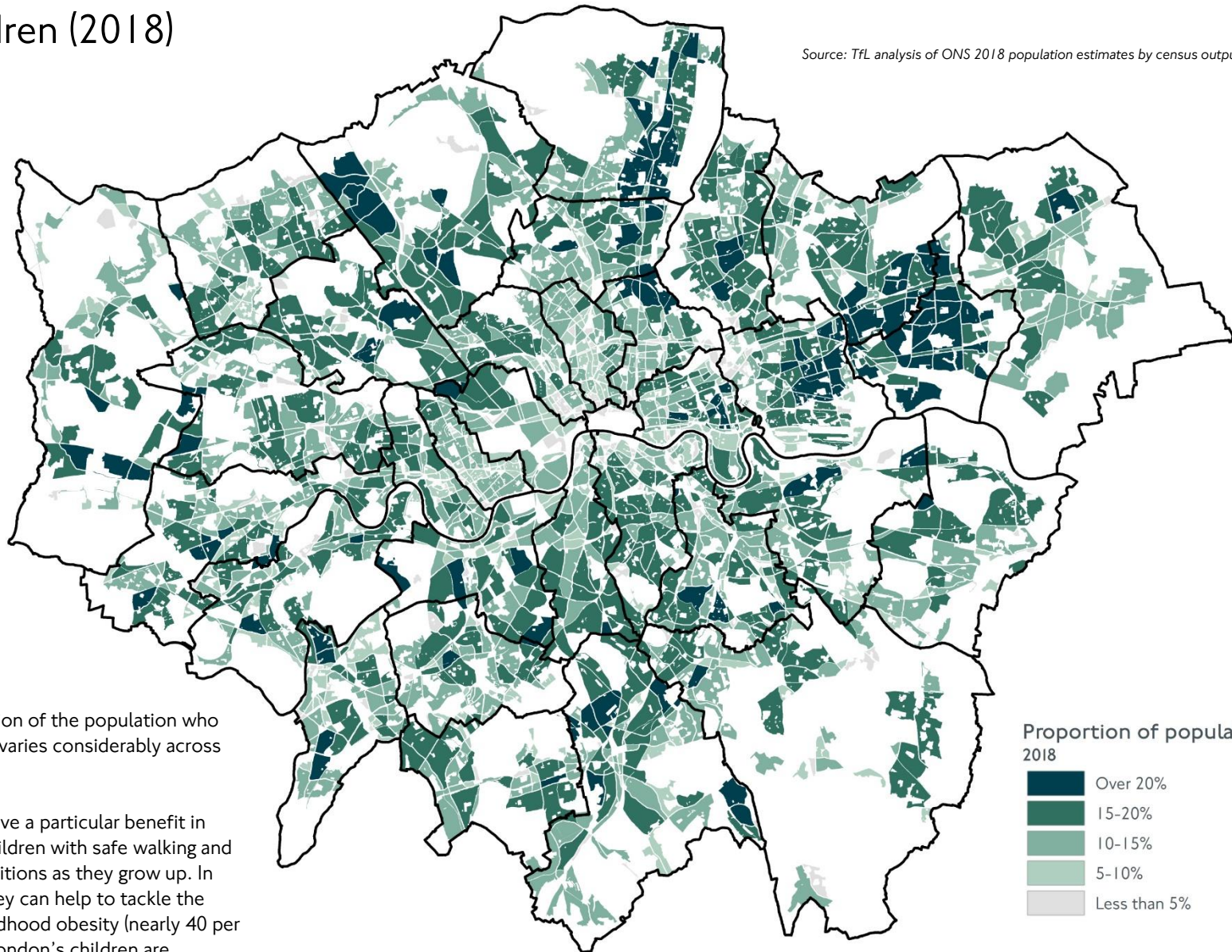
The proportion of the population who are children varies considerably across London.

LTNs can have a particular benefit in providing children with safe walking and cycling conditions as they grow up. In doing so, they can help to tackle the issue of childhood obesity (nearly 40 per cent of all London's children are overweight or obese). This issue is particularly prevalent in more deprived areas.
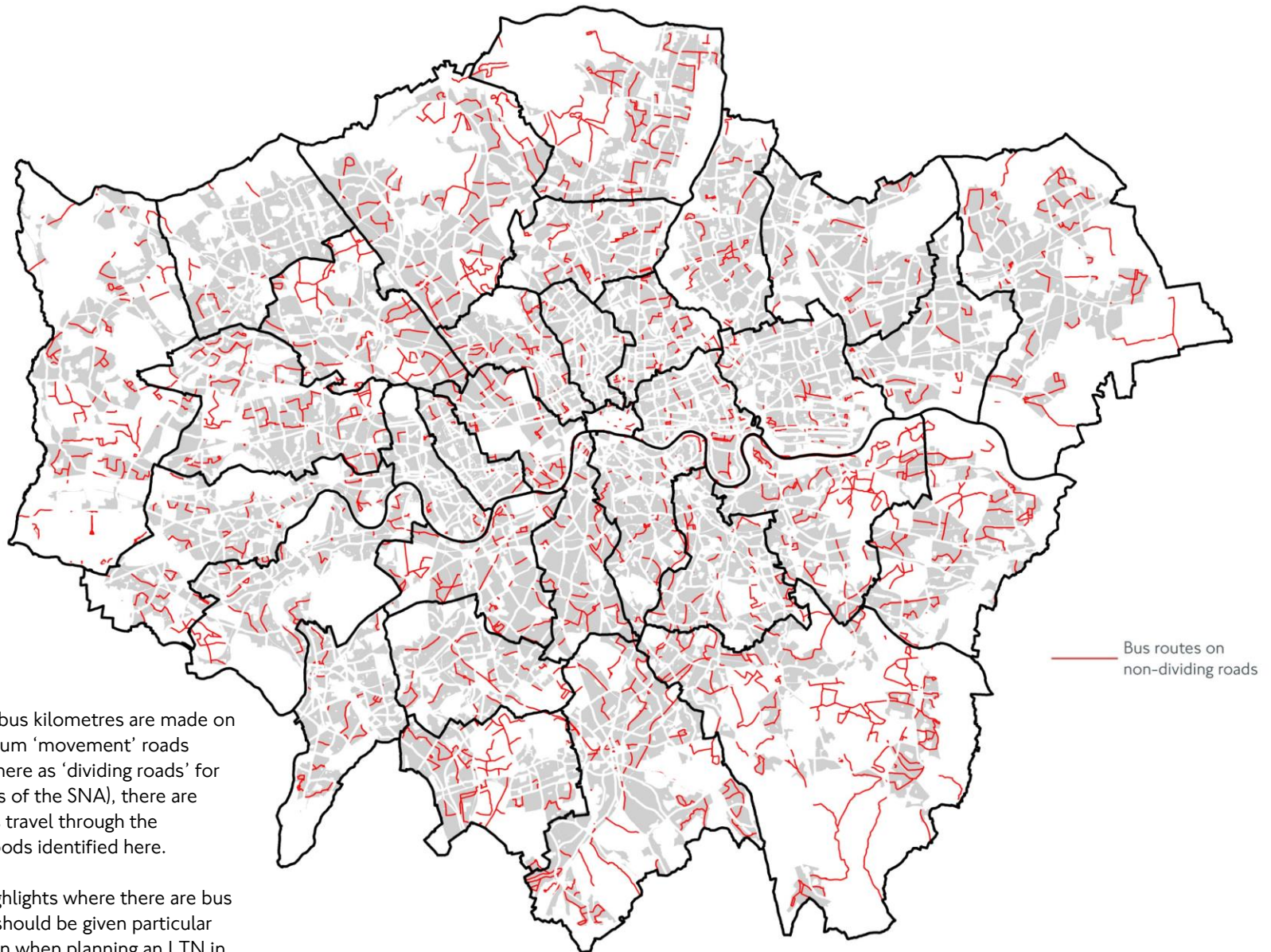
Proportion of population under 18 2018
- Over 20%
- 15-20%
- 10-15%
- 5-10%
- Less than 5%

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Demographics:
Older people (2018)
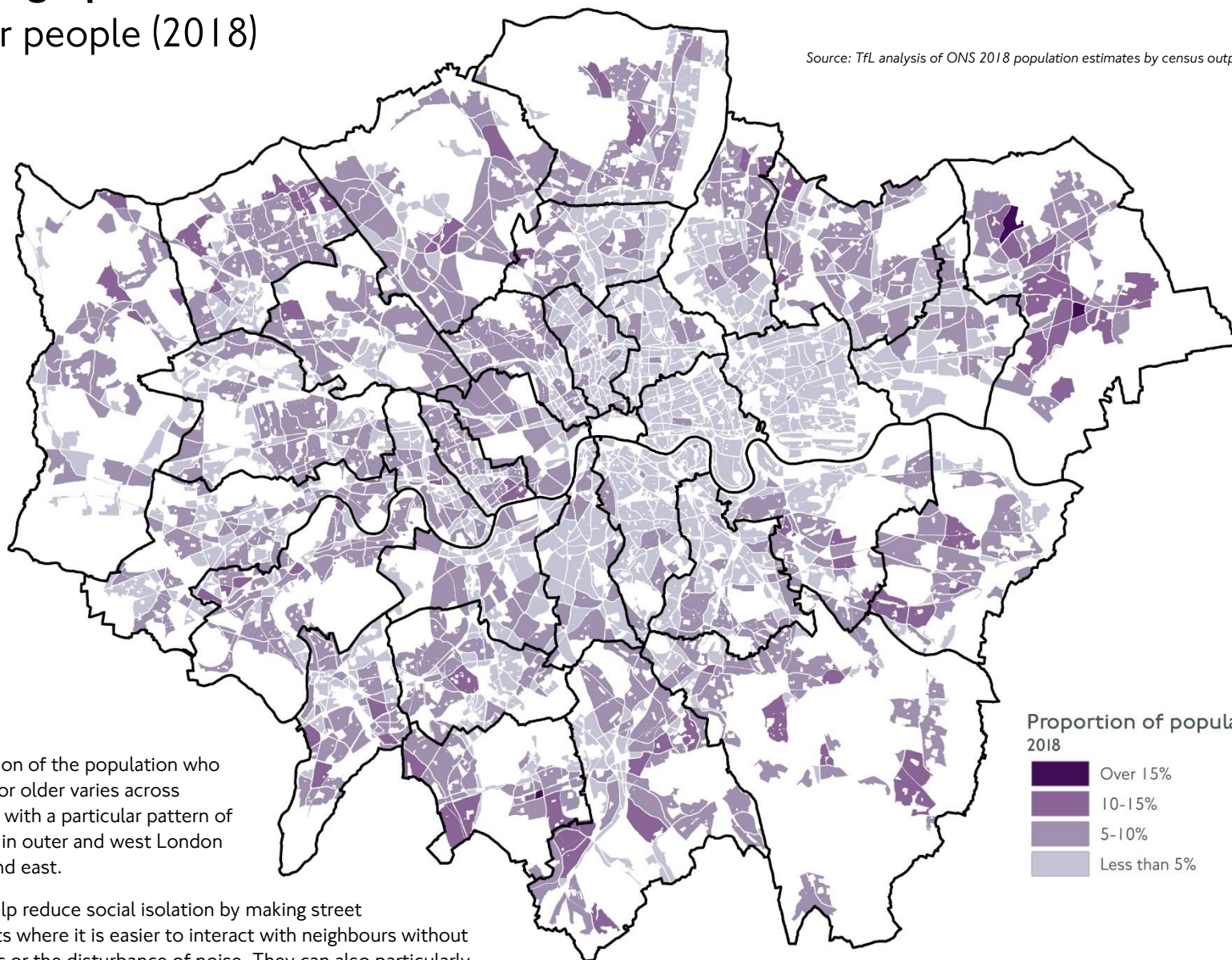
The proportion of the population who are aged 70 or older varies across London, but with a particular pattern of being higher in outer and west London than inner and east.

LTNs can help reduce social isolation by making street environments where it is easier to interact with neighbours without fear of traffic or the disturbance of noise. They can also particularly important for providing walking and cycling alternatives to public transport, as older people face the highest risks if they are infected by coronavirus.

Proportion of population aged 70+
2018

- Over 15%
- 10-15%
- 5-10%
- Less than 5%

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Other: Bus routes

Bus routes on
non-dividing roads

While most bus kilometres are made on high or medium 'movement' roads (referred to here as 'dividing roads' for the purposes of the SNA), there are many routes travel through the neighbourhoods identified here.

This map highlights where there are bus routes that should be given particular consideration when planning an LTN in conversation with TfL.