

Safety and travel/traffic impacts of Low Traffic Neighbourhoods

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Outline

What are Low Traffic Neighbourhoods (LTNs)?

Evidence of:

- Impacts on traffic
- Impacts on Road Traffic Injuries
- Street crime and fire response times

Conclusions

WHAT ARE LTNs?

Use “modal filters” to restrict through motor traffic in residential streets

Standard practice in the Netherlands (known as “unbundling”) and often a feature of estates there

Mix of stick (aim to make car journeys slightly less convenient) and carrot (aim to make walking and cycling safer and more pleasant).

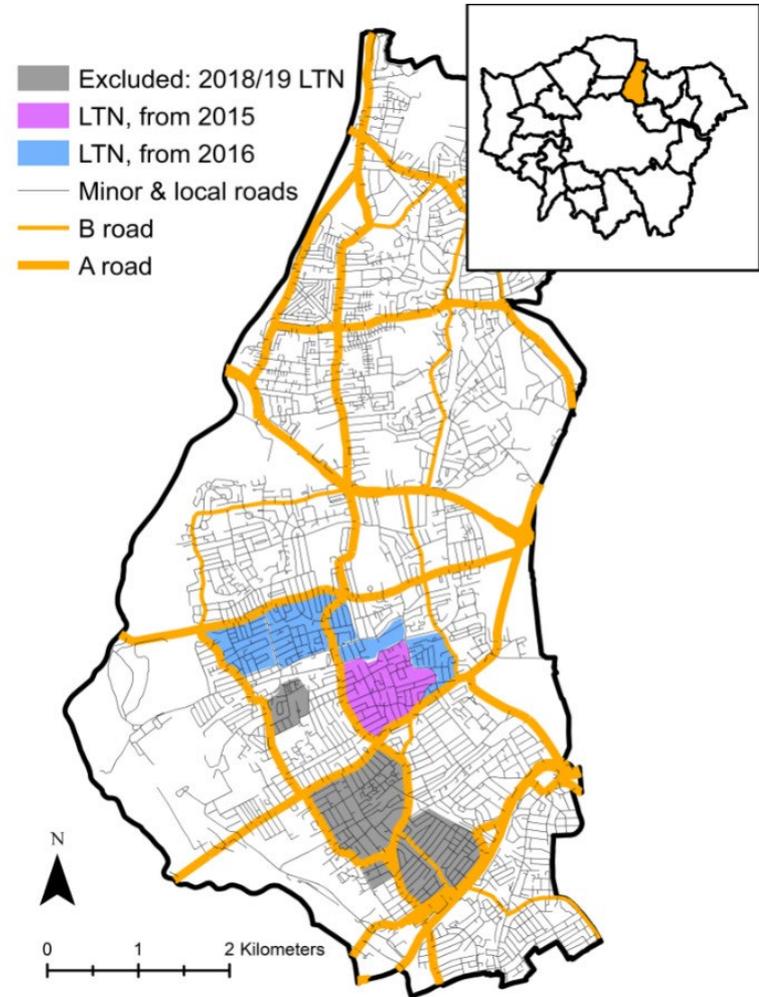


Impacts in Waltham Forest

Waltham Forest started implementing LTNs in 2015/6 giving time to study in-depth

Until quite recently a lot of the evidence came from looking at these schemes

Image:
<https://doi.org/10.32866/001c.18198>



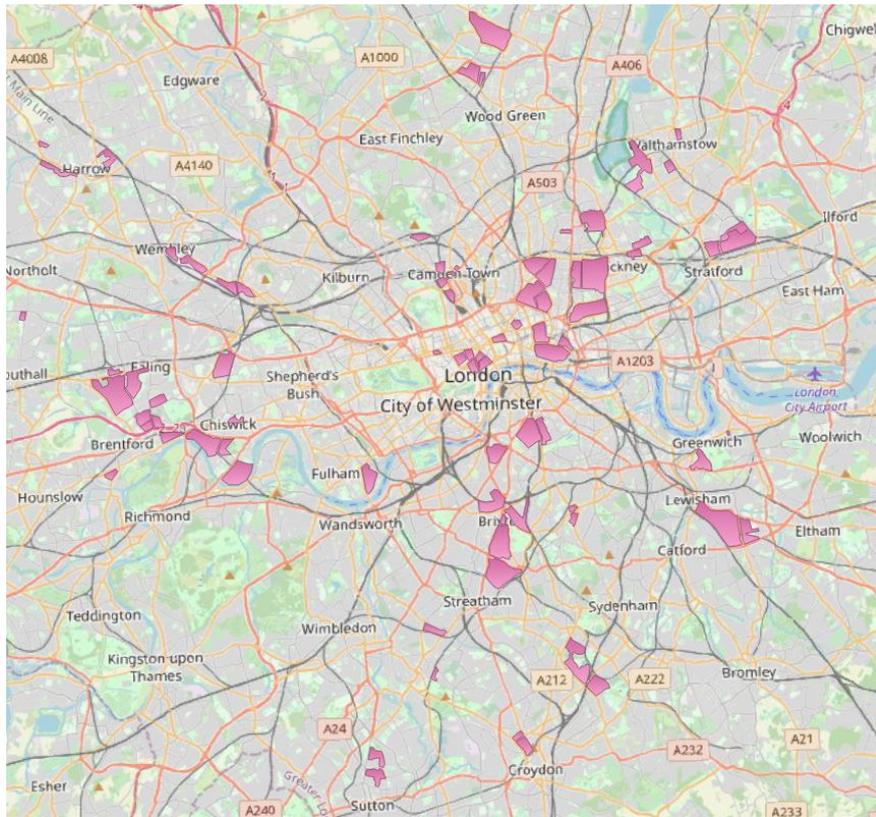
Wider implementation in 2020

From May 2020 Emergency Active Travel Funding announced by Department for Transport

Encouraged councils to reallocate road space away from motor vehicles and LTNs one of the measures used

Other measures included protected bike lanes, reduced speed limits and wider pavements

New LTNs in London



LTNs implemented March-Sept 2020 covered 4% of London residents, 300,000 people.

Across London, people in the most deprived quarter of neighbourhoods are 2.7 times as likely to live in a new LTN than Londoners in the least deprived quarter.

BUT variation by borough: 12/33 did nothing; a few started in richer areas.

Impacts on travel/traffic (1)

In Waltham Forest longitudinal survey data found:

More walking and cycling. After three years, LTN residents did 115 minutes more walking per week and 20 minutes more cycling per week, compared to the control group.

These effects were much larger than in areas getting other walking or cycling schemes without an LTN.

<https://doi.org/10.32866/001c.17128>

Impacts on travel/traffic (2)

This concurs with traffic counts in Walthamstow Village which found 44% reduction in overall traffic levels

Is there traffic displacement?

Some areas around Walthamstow Village did find increases

But analyses of main roads adjacent to LTNs in Hackney did not find evidence of displacement

Impacts on travel/traffic (3)

Our review of Local Authority monitoring schemes with pre and post data.

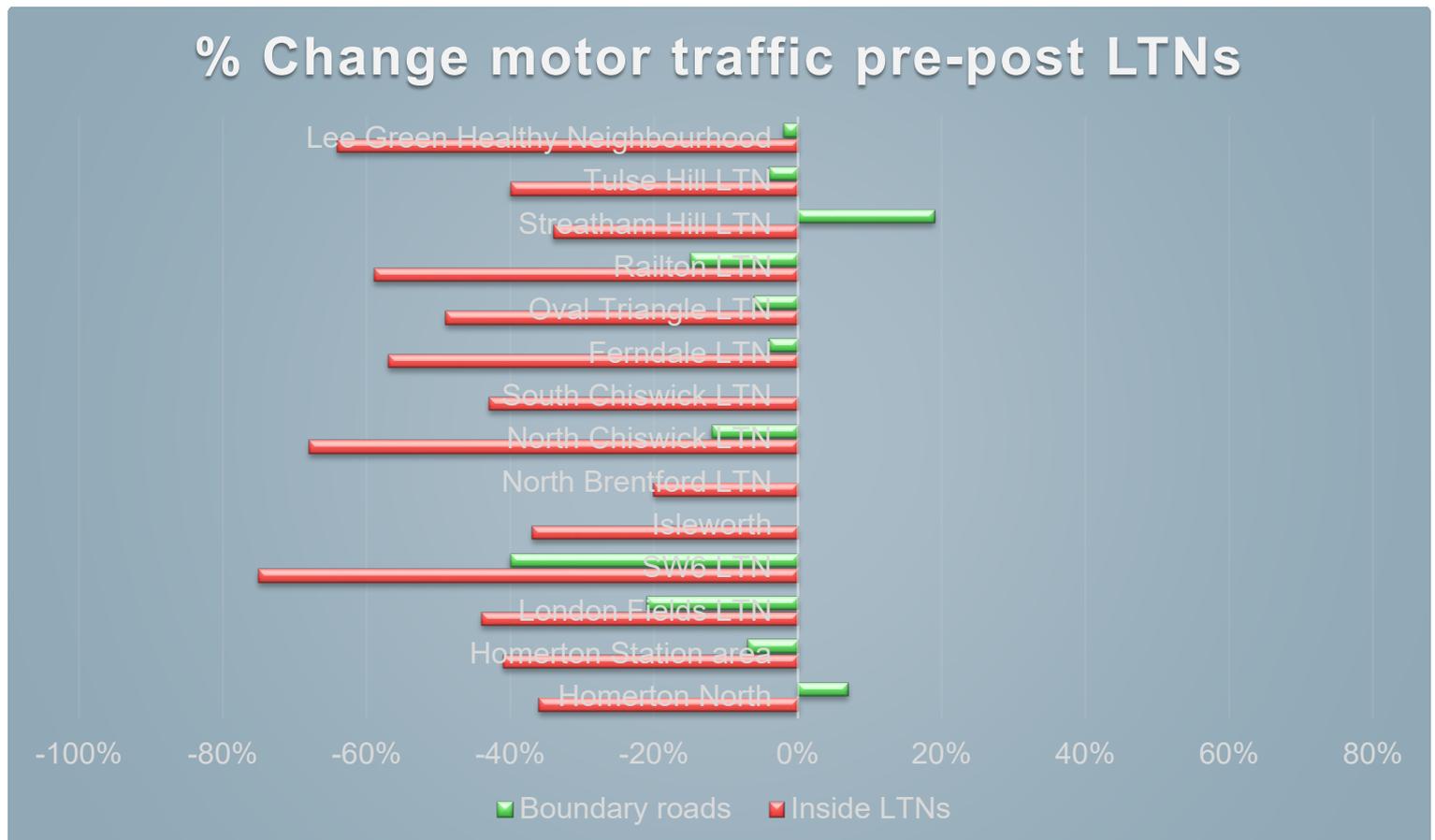
Median -42% traffic inside LTNs and -6% at boundaries

-6% is ballpark similar reduction to trend over period excluding Central London

However, substantial variability & this review only covered 14 schemes, of which 11 had boundary road data

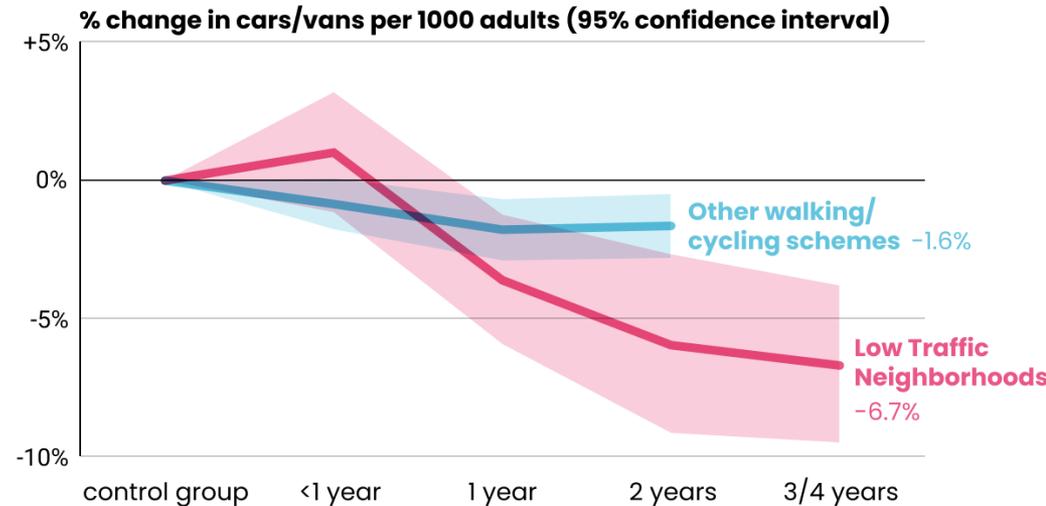
We are currently conducting a new review of c.50 M&E reports across London now published – watch this space!

Substantial variability



Impacts on travel/traffic (4)

Reductions in traffic would fit with expectations from review of 70 road space reallocation schemes and expert opinion. And a wide range of other impacts e.g.



<https://doi.org/10.32866/001c.18200>

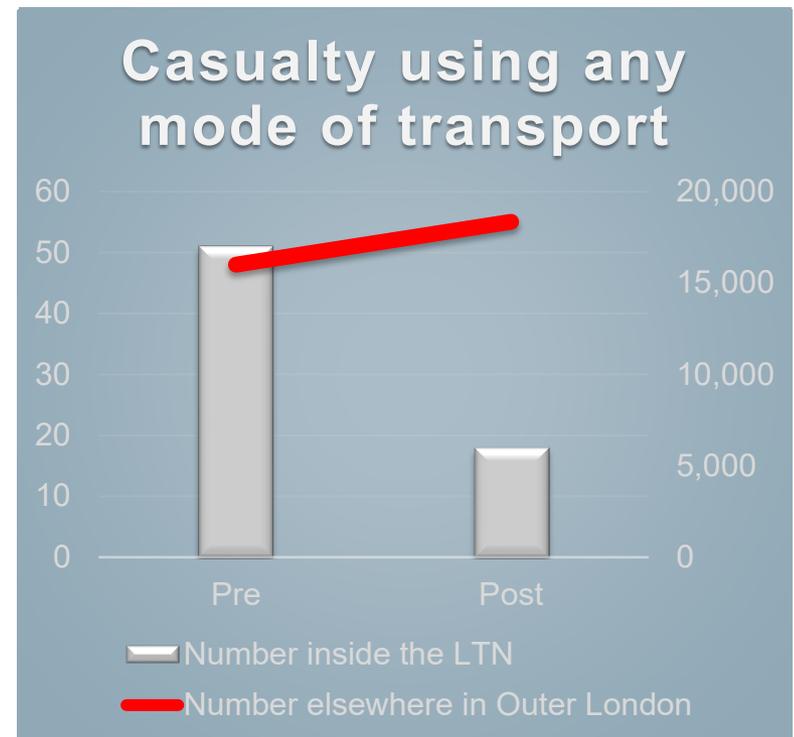
https://nacto.org/wp-content/uploads/2015/04/disappearing_traffic_cairns.pdf

Impacts on Road Traffic Injuries (1)

Analysis of police data in found approx. a 70% reduction in road traffic injury risk in Waltham Forest LTNs compared with Outer London. Similar for pedestrians, cyclists, and car occupants alike.

No negative impact found on boundary roads.

<https://doi.org/10.32866/001c.18330>



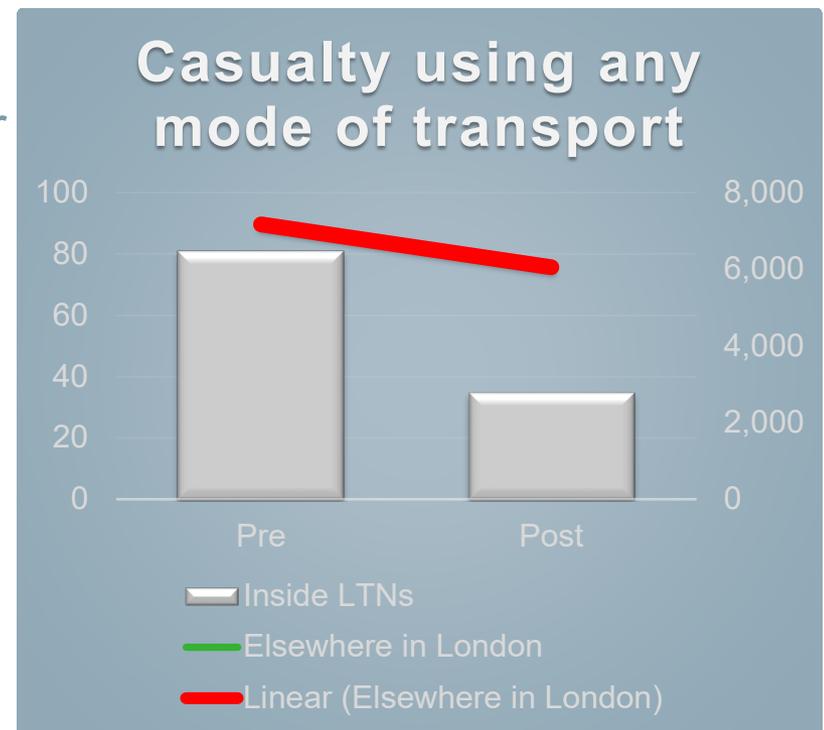
Impacts on Road Traffic Injuries (2)

Used police data to assess 72 LTNs in London implemented March-September 2020 and still in place at the end of October 2020

Absolute number injuries halved compared to rest of London

Again no negative impacts found at boundary roads

<https://doi.org/10.32866/001c.25633>



Impacts on Road Traffic Injuries (3)

London-wide analyses found larger reductions for pedestrians (-85%) and car occupants (-63%) but not for cyclists

This in contrast to the Waltham Forest findings

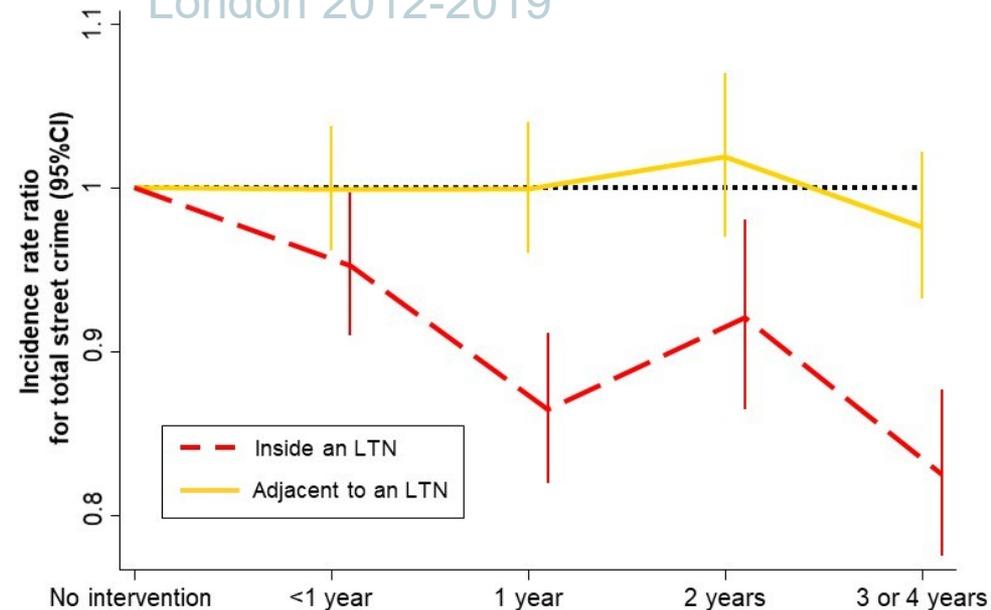
But monitoring reports point to reduced car use in 2020 and more walking and cycling, so **possibly** overestimating changes for car users and underestimating for walkers/cyclists

Other safety outcomes – street crime

In Waltham Forest overall a 10% reduction in street crime overall.
This was an 18% fall after 3 years
Decrease especially for violent crimes against the person (-18%)
but increase in bike theft (+85%)
No crime increase in adjacent areas

<https://doi.org/10.32866/001c.19414>

Incidence rate ratio for street crime by duration of LTN implementation, Outer London 2012-2019



Other safety outcomes – fire response times

No impacts on fire response times in Waltham Forest

Slight improvements at boundary roads

Analyses on whole of London give similar results suggests that this is the same whether LTNs are enforced by cameras vs. physical barriers

Substantiates the Fire Brigade's view that the 2020 LTNs have not affected response times

<https://doi.org/10.32866/001c.18198>

<https://doi.org/10.32866/001c.23568>

Conclusions – travel/traffic

Low Traffic Neighbourhoods linked to:

- More people walking and cycling
- Reduced car ownership

Previous evidence and monitoring suggests less motor traffic overall

Displacement of motor traffic to surrounding areas is a potential concern, although only limited evidence of this so far

What about main roads?

People living on main roads matter and main road pollution matters to everyone.

Main roads need main road solutions

- Clean air zones
- Electrifying buses
- Wider pavements + protected cycling space
- Some high streets amenable to traffic reduction

Main roads are part of why we ultimately need to go from low traffic neighbourhoods to low traffic towns.

Conclusions - safety

- Low traffic neighbourhoods linked to:
- Big reductions in Road Traffic Injuries
- Those identified probably underestimate risks per trip
- The level of reductions seen (3 to 4 times) would bring UK into line with best performers in Europe
- Big reductions in street crime and no evidence impacts on fire response times

Overall conclusions

- LTNs are extremely promising in terms of reducing traffic and improving safety
- Design of schemes is important, as is public support
- They are an important part of solutions but we also need other actions to reduce harms from traffic and vehicles

Thank you

For listening

And to Anna Goodman, Anthony Laverty, Asa Thomas, Jamie Furlong

QUESTIONS?

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