

# School Streets and school travel behaviour

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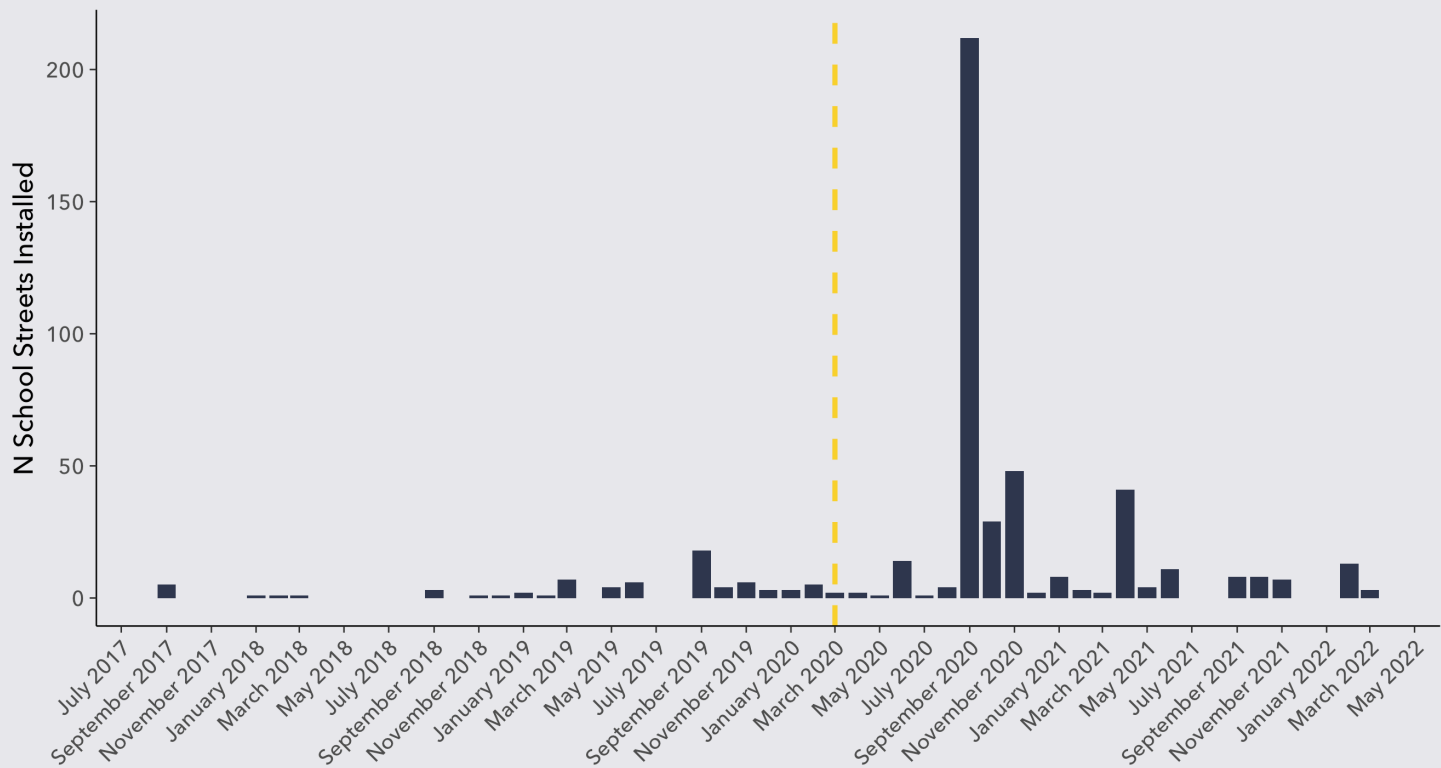


Can small scale changes to streets and how they are accessed lead to changes in travel behaviour?



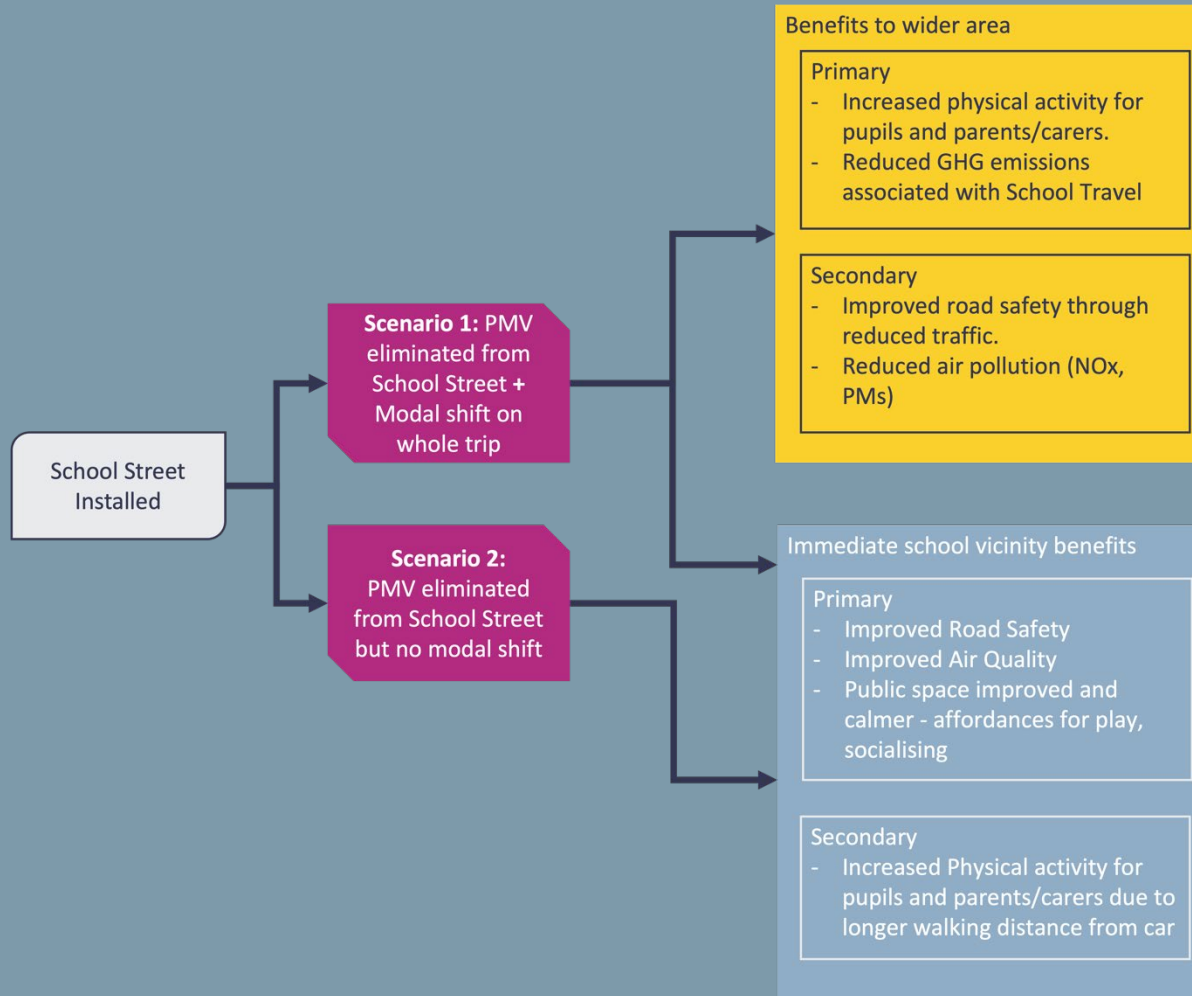
## School Streets in London





# Research Approach

- ~18 **interviews** with practitioners – policy process, mechanisms of change
- Analysis of **spatial distribution** of schemes – social and environmental equity
- Analysis of TfL STARS “**hands up**” **travel surveys** – behavioural impact



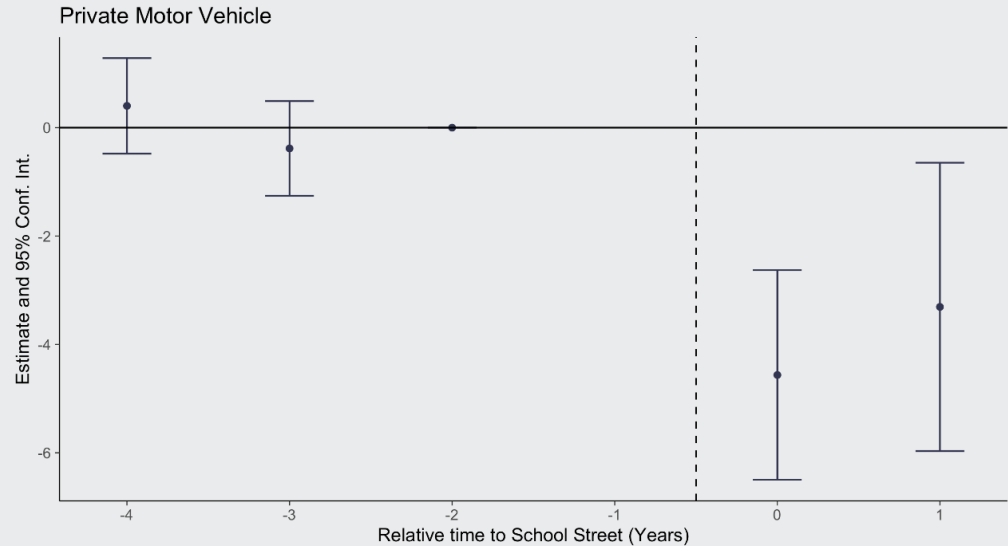
<b>Air Quality</b>	<b>Road Safety</b>	<b>Sociality/Pedestrian experience</b>	<b>Modal Shift</b>
Air Quality Consultants, 2021	Belcourt-Weir, Cannell and Pearce, 2022	Thomas, 2022; Transport for London, 2022	(Hopkinson <i>et al.</i> , 2021)
23% reduction in NO <sub>2</sub> concentrations at a School Street vs comparator School during morning closure time. Results in 2% decrease over 24hr period.	Overall decrease in traffic at School Street and surrounding. More pedestrian-traffic interactions at the entrances to closure but interactions not more severe.	Sites with lower levels or no residual traffic had higher pedestrian use of roadway (30-35%) vs the busier school (2%).	Small meta analysis of LA monitoring activities estimates 3-6% decrease in motor vehicle use associated with a School Street
Fairly strong	More to be done (quant)	More to be done (qual)	Much more to be done

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## Results

- Difference in Differences analysis.
- ~4% reduction in car use,  
~4% increase in active travel associated with a School Street.



Based on Gardner (2022) 2-step difference in differences approach

## However, the mechanism remains elusive.

- My interviewees didn't quite agree on this. Diverging ideas:
  - Convenience (schemes should be big)
  - Making the space nicer (focus on traffic removal)
  - Social factors (focus on engagement)
- No formal model of behaviour change.

## There are some hints, however.

- Other schemes that seek to make streets more pleasant for walking and less convenient for driving seem to have had some success.
- Two recent systematic reviews looking at the efficacy of 'carrots', 'sticks' and 'carrot-sticks'.
- They find these to be particularly effective for changing travel behaviour.
- So possible that some interplay between the two behind the success of School Streets.



# This raises interesting questions for designers...

- Schemes need to balance inconvenience with improvement of space.
- But large schemes also tend to have more residual traffic, perhaps compromising quality of space.
- Scope for improving the public realm.

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