



No. 11 School Travel Plans and air quality

Top Line: School Travel Plans can be highly effective in reducing levels of car use. There is a need to measures any resulting air quality benefits robustly.

While distance and road safety concerns are often the major barriers to children travelling actively to school there is a need to integrate district policies on school choice and children's school travel with information on child physical activity and environmental pollutant emissions. This would allow for educators and planners to better manage potential side-effects of school choice programmes. In the UK there has been specific emphasis on the development of School Travel Plans (STPs) and under the Labour Government (1997-2010) all schools (including private) were mandated to develop school travel plans by 2010. Yet, evidence as to the effectiveness of STPs with specific regard to air quality appears largely absent.

A paper summarized the state of evidence that traffic management strategies (TMS) have provided emissions, air quality, exposure, and pollution-related health benefits, based on before and after monitoring data.¹ The researchers found that there is limited evidence of effects on emissions for seven of the studied strategies, and limited evidence of effects on air quality for two of the strategies. Insufficient evidence exists for all other TMS and effects. The lack of evidence for TMS effects does not indicate that TMS cannot generate air quality and health benefits. Rather, the evidence base is limited primarily by a lack of before-and-after evaluations of real-world strategies, lack of evaluation of exposure and health impacts, small intervention effects relative to the influences of other factors, and insufficient evaluation of spill-over and indirect effects. The researchers noted that there is also a need for before and after case studies of smaller-scale projects that can be used as an evidence base in efforts to address localized air quality issues, such as around schools or parks.

Overall, the evidence base is weak for these effects. A previous review of the literature on traffic management and air quality highlighted "the lack of hard evidence in terms of changes in air quality, with most of the studies relying on modelling rather than monitoring".² In the intervening 18 years, the situation has not greatly changed.

School travel work can be highly effective in reducing levels of car use. For the case study schools in UK research, the average reduction in total car use was 23%, with some high performing schools cutting car use by more than half.³ Although improvements in physical activity and air quality can be inferred from travel mode shift, such outcomes should be measured directly.

¹ Bigazzi, A., Rouleau, M. 2018. Can traffic management strategies improve urban air quality? A review of the evidence, *Journal of Transport and Health*, 7(Part B): 111-124.

² Cloke, J., et al, 1998. Traffic management and air quality research programme: final report. TRL REPORT 327.

³ Cairns, S., Newson, C., Davis, A. 2005. Making School travel plans work. For Dept. Transport.

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