

## Expert testimony to inform NICE guideline development

Section A: Developer to complete	
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<b>Role:</b>	[e.g. lay / practitioner / academic]
<b>Institution/Organisation (where applicable):</b>	
<b>Contact information:</b>	
<b>Guideline title:</b>	Air pollution – outdoor air quality and health
<b>Guideline Committee:</b>	Public Health Advisory Committee E
<b>Subject of expert testimony:</b>	Overview of the evidence relating to influencing driving behaviours for fleet drivers and others
<b>Evidence gaps or uncertainties:</b>	

**Section B: Expert to complete**

**Summary testimony:** [Please use the space below to summarise your testimony in 250–1000 words. Continue over page if necessary ]

**Behaviours and segmentation in relation to pollution.**

In terms of supporting communities ( households, schools, businesses etc) to reduce their emission the following behaviours can be considered.

Behaviours	Barriers/ incentives
Walk or cycle more	Time, safety,
Walk or cycle on less busy streets	Time safely, not knowing the safest streets
Take public transport	Public transport can be expensive and takes time, social norm
Shut the door against pollution	Air conditioning to avoid overheating,
Personal drivers	
Buy a cleaner car	Cost / social norm
Efficient driving behaviours	

Businesses	
Encourage employees to use public transport –	Public transport is expensive subsidise public transport
Encourage employees to cycle more	Showers, offer cycle training
Rationalise deliveries during less busy times on the high street	Avoid stiff parking fines
Shut the door against pollution	Shops also enjoy and open door policy to encourage footfall
Discourage deliveries to idle	
Encourage fleets to use efficient driving techniques	

In terms of driving behaviours – better driving can reduce CO2 emissions and fuel consumption by 15-25%. Studies have shown that there is a direct link between CO2 emissions and fuel consumption to emissions of pollutants. The following driving habits can assist in reducing emissions

- No idling
- Driving in a higher gear
- Driving smoothly
- Driving slow
- Opening windows instead of using air conditioning
- Maintaining tyre pressure
- ‘Lightening’ the load

There are 30 million licensed cars & 3.5 million licensed vans in the UK.

Privately owned cars and vans constitute 76% of the CO2 emissions from car and van travel; while company owned cars & vans account for 24%. Personal travel by cars and vans also account for 77% of the total CO2 emissions in contrast to 23% for

business travel by cars and vans.

Private drivers claim to drive efficiently - most could do lot more . Well educated, affluent women, aged 25 – 65, with low annual mileage using a small vehicle are the most likely to practise efficient driving. No equivalent data on levels of efficient driving among employee drivers has been identified. 20% of organisations with a vehicle fleet have provided training on efficient driving for their employees and 25% have introduced in-vehicle telematics. Larger organisations with larger vehicle fleets are also reported to be most likely to be taking action on efficient driving.

In terms of synergy with ambitions other than pollution busting; Road safety benefits arising from efficient driving (- reductions in subsequent accidents rates of between 14% and 35%). And of course there are financial benefits also results in lower maintenance and insurance costs. Anecdotally some drivers have reported in preferring not to disturb neighbours by idling their engines when in a quiet street, and some find that air conditioning gives them health problems such as sinusitis.

Large fleets are most likely to take action, and feel the benefits. There are insufficient trials and documented evidence indicating that driving more efficiently can save on driving costs, but where there is evidence it is clear that the savings can be substantial. An organisation with 100 vehicles with an average mileage of 10,000 miles could reduce their fuel consumption by a conservative 3% by better driving techniques, thus saving them £4,608 a year.

There s evidence that with improved technology will come an enhanced rebound effect – I can drive more, not bother to deploy efficient driving techniques as I have a very clean car. ‘Volkswagengate’ may have reduced the confidence that we have in new technology, but there is still cause to be cautious.

There is currently little or no work that has been conducted in relation to segmenting and targeting pollution reducing behaviours Jillian Anable has conducted studies that has provided a segmentation for drivers, but so far a segmentation strategy that relates to people’s attitudes has proven to be elusive. The marketing needs to be focused on air quality, which in turn means segmenting your target market in terms of their relationship to air quality – which will mean some mix of factors e.g. their exposure to air quality, their awareness of air quality, the things they do in their life that either expose them to or contribute to air quality, their efficacy (the extent to which they [feel they] can do anything about it, and so on).

In conclusion the following policies or practices could be put in place in order to reduce pollution

- Enabling all drivers easy access to technologies promoting efficient driving, such as by including efficient driving in the driving test or individual test required by fleet managers;
- Testing and further exploring the linkages between efficient driving, safety and insurance (telematics have found to be effective when linked to car insurance premiums) ;
- Segmenting and targeting of future measures at key types of pollution busting behaviour.

**References to other work or publications to support your testimony' (if applicable):**

Efficient Driving, a rapid evidence assessment - DfT and GSR (conducted by Brook Lyndhurst) Jan 2016

Complacent Car Addicts or Aspiring

Environmentalists? Identifying travel behaviours segments using attitude theory Anable, J.  
*Department of Psychology, The University of Surrey Nov 2004*

Expert testimony papers are posted on the NICE website with other sources of evidence when the draft guideline is published. Any content that is academic in confidence should be highlighted and will be removed before publication if the status remains at this point in time.