

# The health costs of road vehicle emissions

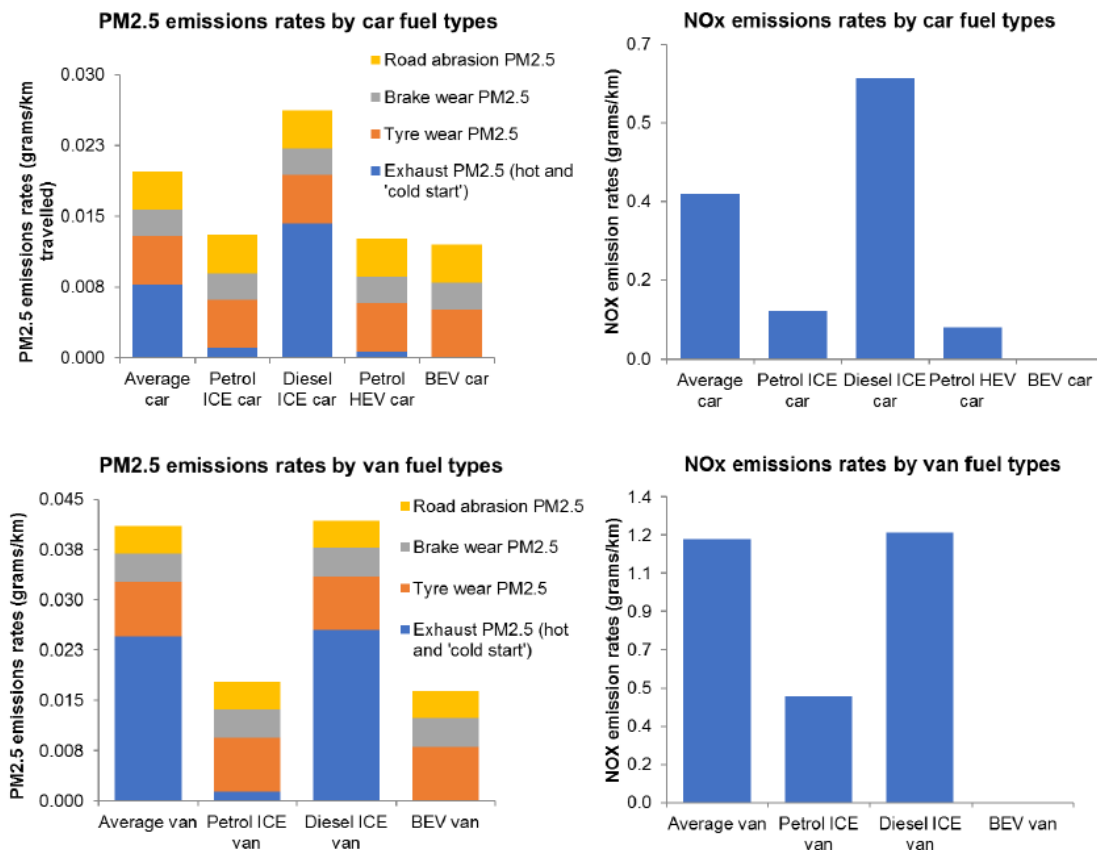
In advance of Clean Air Day 2018, researchers at the University of Oxford and University of Bath produced new research - “The health costs of air pollution from cars and vans”. The extracts, below, shows the different costs for cars and vans with different fuel types. If anything, the estimates are extremely conservative, in that the report attribute a surprisingly low proportion of emissions to road vehicles. Nonetheless even with a very low estimate the costs to the health service of each registered vehicle are staggering. The clearest statement in the report is:

## 0.4 The annual health costs from air pollution per fossil fuel car is £121

So how much does each car and van contribute to the above total? We estimate that the health cost per average fossil fuel car is £121 per year. The health cost of diesel cars is **£258** per year, with petrol cars lower at £37 a year and BEVs the lowest, at only £13 a year.

Similarly, the average health damage cost per diesel van is **£593** per year. For BEV [electric] vans the health costs are much lower at **£35** a year.

Figure 1: Exhaust and non-exhaust emissions of PM<sub>2.5</sub> (left) and NO<sub>x</sub> (right) per ca-km (top) and van-km (bottom) travelled



Notes: ICE=internal combustion engine, HEV=hybrid electric vehicle, BEV=battery electric vehicle.