



# SCHOOL TRAVEL-PLANS IMPROVE AIR QUALITY

Walking and cycling to school isn't only much healthier for children and parents it's also much healthier for the environment.

The Air Quality Unit based at Cornwall College in conjunction with the Cornwall Air Quality Forum has monitored concentrations of traffic-related pollutants in Cornwall's major towns over the last ten years and has discovered some interesting facts.

Concentrations of traffic-related pollutants, including nitrogen dioxide and inhaled particulate matter decrease by as much as 10% over the school holidays such as Christmas and the summer break, not only around schools but at other congestion hotspots in Cornwall's town centres. For example, Figure 1 compares daily nitrogen dioxide concentration patterns in Penryn Street, Redruth, during term-time and holiday (2007). It is clear there are two distinct peaks that coincide with the morning and afternoon school runs that are not apparent during school holidays.

Similar reductions in pollutant concentrations have been observed in Cornwall's other major towns such as Truro, Bodmin, Camborne and Falmouth.

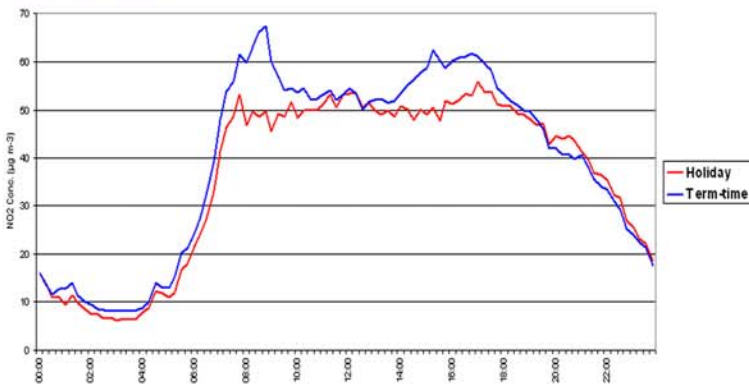


Figure 1. A comparison of daily nitrogen dioxide concentration patterns recorded in Penryn Street, Redruth (2007).

Between 1999 and 2004, the proportion of 5 to 10 year olds travelling to school by car increased from 27% to 41% (DfT, 2006). Recent studies highlight that concentrations of inhaled particulate matter, a pollutant with serious health impacts, are much greater in cars than experienced by walkers or cyclists (Kaur *et al.*, 2005).

Exposure to elevated concentrations of pollutants, either on congested streets or inside cars, has a greater impact on children due to their body mass.



A walking bus scheme delivers children to their primary school in Norfolk.

There are other benefits from walking and cycling to school; in a recent Department for Transport survey 90% of teachers considered that walking or cycling to school improves a child's alertness and readiness to learn (LACORS, 2008).