EXETER HEALTH & WELLBEING BOARD

5 JULY 2016

PUBLIC HEALTH GRANT: AIR QUALITY PROJECTS

1. SUMMARY

This report outlines the outcomes of two pieces of project work on air quality undertaken in collaboration between Devon district councils and Public Health Devon, and funded by Public Health Grant monies. It makes recommendations to the Board about identifying air quality as an important factor in the health of Exeter's citizens, and to support the future directions identified in the report.

2. RECOMMENDTION

That the Board:

1. agree to add air quality as one of its priorities; and
2. supports the 'Future Directions' described in Section 7 below

3. INTRODUCTION

The UK is currently failing to meet European limits for NO2 and the UK government will be under considerable pressure to meet future targets. Recently there has been a number of high profile news events linked to vehicle emissions, most notably the VW scandal. Following the scandal independent testing of diesel vehicles was carried out on behalf of the UK Department of Transport (April 2016). The report noted that the tests 'have not detected evidence of test cycle manipulation strategies as used by the Volkswagen Group. However, tests have found higher levels of NO_x emissions in test track and real world driving conditions than in the laboratory for all manufacturers' vehicles, with results varying significantly between different makes and models.' To remedy this discrepancy new EU legislation will come into force next year to meet emissions limits in real driving conditions across a wide range of typical operating temperatures. The report also notes that some manufacturers are now looking to improve current vehicle emissions before the legislation is passed; an acknowledgement perhaps that vehicle emissions is now more than ever a key purchasing consideration for consumers and more generally that the transport sector is more amenable to efforts to reduce emissions.

There are positive associations between short term exposure to NO2 and co-pollutants such as Particulate Matter and hospital admissions and emergency visits for cardiovascular and/or cardiac diagnoses. There is no safe limit for Particulate Matter therefore any reduction is deemed as positive. Knowledge of this risk is probably not widespread among the general public and in predominantly rural locations is probably viewed as a lesser personal risk as the surrounding natural landscape may give the impression that air quality is good. However, many of the streetscapes in towns and villages across Devon are narrow with buildings close to the road which can cause traffic congestion and hence potentially high levels of exposure to vehicle emissions for residents.

With this background the conditions for action to reduce emissions or exposure should appeal on all levels – from government, industry and the general public as well as public health professionals.

The two air quality projects implemented in Devon attempt to tackle the problem from both ends of the spectrum - the polluters and those affected by the pollution.

4. ECO STARS SCHEME

The ECO Stars Fleet Recognition Scheme is part of a package of measures that aims to have a positive impact in and around Air Quality Management Areas (AQMAs) and throughout the region's transport routes, major towns and villages. Essentially the Scheme reviews vehicles' environmental credentials such as Euro Engine Standard, anti-idling cut-off, and in-cab fuel monitoring and also carries out an assessment of operational fuel management practices, driver training, vehicle specification and maintenance. A soon to be published evaluation of the ECO Stars scheme in South Yorkshire, by the University of the West of England, calculates emissions savings resultant from members undertaking improvements as a direct result of their ECO Stars Road Map as follows:

- 63% Reduction in PM
- 88% Reduction in NOx
- 63% Reduction in CO2

It is worth noting that membership recruitment in Devon has been slower than anticipated, though assurances from the project managers (TTR Ltd) are in place to meet agreed targets. Nevertheless, over 2,000 vehicles are now in the scheme and it is hoped that given the current public debate on vehicle emissions this will provide the impetus for future growth.

ECO Stars Scheme growth 2015-16

	October 2015	*May 2016*	*Number increase/decrease*	*% increase/decrease*	*Pending application*
Membership	44	53	9	20%	4
Vehicles	1673	2053	380	23%	n/a

Whilst ECO Stars is ultimately about reducing vehicle emissions, the Personal Exposure Project looked at how best individuals could avoid areas of high pollution and find new lesser polluted routes.

The full project report is attached (Appendix 1).

5. DEVON WIDE PERSONAL EXPOSURE REDUCTION PROJECT (DWPERP)

10% of the grant money was originally planned for this project, in order to cover any "ad hoc" expenses required, as the main resource was existing staff resources within the participating Local Authorities. However, none of the grant funding was finally allocated to this project. It was not intended as an academic study as it eventually received no funding; it was specifically designed to trial a potential harm reduction approach to air

pollution. The study involved 6 school pupils from two schools in different Devon Districts.

- The project clearly showed the positive impacts of less polluted routes for volunteers in Newton Abbot and showed how monitoring personal air pollution levels can be used successfully as a tool to plan alternative less polluting routes.
- The results from Braunton indicate that time and training is a vital part of a project, particularly when working with young children. It also highlighted the issues with successful project management and the need to provide realistic timescales.
- However despite the difficulties relating to the Braunton phase of the project, many useful lessons were learnt and some unforeseen benefits were drawn from the project.
- Both study areas provided discussion and engagement with young people on other matters including a more detailed knowledge of how modern transportation can affect our health.
- The project could be rolled out at other locations but needs to be carefully planned. It would be sensible to targeting any future similar projects at the most polluted areas where schools were present.

The full project report is attached (Appendix 2).

6. LEARNNG POINTS FROM BOTH PROJECTS

- Engagement of large vehicle operators and SMEs on emissions reduction is best sold as a win-win concept - lower emissions and fuel savings
- Engagement of the freight industry is both specialised and time-consuming.
- Daily patterns of exposure are very personal to each individual
- Personal air pollution exposure reductions can be achieved by changing travel habits, even in large mainly rural areas such as Devon, where concentrations are generally low compared with urban areas in the rest of the UK. These changes may not be so great, but even small reductions are of benefit
- New ways of communicating air pollution issues, raising awareness in schools, and encouraging positive behavioural change when people chose their travel mode and route, are needed.

7. FUTURE DIRECTIONS

The following measures would benefit air quality:

- As a scheme, ECO Stars needs to prioritise getting better reach and traction into Districts – local smaller enterprises and some Districts are not well represented currently.
- Promoting the ECO Stars scheme as a Devon-wide scheme and linking it within the Devon Local Transport Plan or other appropriate mechanism.
- Better linkage with school travel planning, walking corridors and ‘walking buses’, so that besides road traffic safety, air quality safety is also a significant consideration.
- Target schools that lie in the AQMAs, as these are likely to have pupils subject to greater exposure to poor air quality.

8. CONCLUSION

Accreditation schemes like ECO Stars, when placed alongside other air quality interventions, such as safe walking corridors to schools, school travel plans, alternative and public transport, greater physical activity, support for cycle routes, proposed sustainable transport, could provide significant improvements for health & wellbeing and the environment.

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