



# Improving air quality: national plan for tackling nitrogen dioxide in our towns and cities

## Royal College of Physicians' submission

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Submitted via online survey

**How satisfied are you that the proposed measures set out in this consultation will address the problem of nitrogen dioxide as quickly as possible?**

### **Very dissatisfied**

The Royal College of Physicians (RCP) welcomes this opportunity to respond to Defra/DfT consultation on its plan to tackle nitrogen dioxide emissions in the UK. This response has been submitted in support of the UK Health Alliance on Climate Change's submission.

We believe that the draft plan rightly notes that poor air quality is the largest environmental risk to public health in the UK and disproportionately impacts vulnerable groups, including the elderly, children and people already suffering from pre-existing conditions. RCP's report 'Every Breath We Take: the lifelong impact of air pollution' highlighted that pregnancy, infancy and early childhood are also critical times when many of the body's systems are at their most vulnerable, with the developing heart, lungs, brain, immune, and endocrine systems all at risk from pollution.

We are pleased that the draft plan also refers to the impact of air pollution on the environment and the ways in which nitrogen dioxide contributes to acidification and eutrophication of the soil and watercourses, which in turn affects animal and plant life and diversity. The RCP is a member of the UK Health Alliance on Climate Change, which brings together the UK's major health professional organisations to encourage a joined-up approach to the environmental health challenges of air pollution and climate change. We therefore welcome the UK Government's efforts to incorporate both health and broader environmental considerations in this draft plan.

We support the recommendation to implement more Clean Air Zones across the UK as part of a broader effort to improve air quality and accelerate the transition to a low-carbon economy. However, we are concerned that without a clear mandate requiring more UK cities to implement Clean Air Zones, improving air quality and reducing carbon emissions will not be achieved at the shortest time possible, resulting in needless excess mortality and morbidity, and additional costs to the NHS. Including more cities than the five targeted in the draft Clean Air Zone framework in the revised plan is important. This will allow the Government to signal a more ambitious approach in support of local interventions; in particular, this would allow Local Authorities to consider the merits of establishing their own charging zones.

The technical report accompanying the draft plan shows that charging for entry in to Clean Air Zones is the most effective intervention for the reduction of nitrogen dioxide levels, with an average reported 18.3% reduction in mean NO<sub>2</sub> concentrations in the first year. This contrasts with other measures such as retrofitting and scrappage schemes, which are estimated to reduce NO<sub>2</sub> concentrations by only 0.19% and 0.02% respectively. The technical report also indicates that the same is true over a 10 year period, with an expected 24% reduction from Clean Air Zones compared with 10% from retrofit programmes and a mere 0.4% from scrappage schemes. These findings are summarised in the technical report's conclusion, stating

that “if local authorities adopt a charging scheme, the UK Government believes that local authorities could achieve statutory NO<sub>2</sub> limit values in most cases by 2021”.

It is therefore concerning that the draft Air Quality Plan encourages local authorities to prioritise other options that are “at least as effective” as charging zones, when a single method has been found to effectively reduce levels of nitrogen dioxide more rapidly and more effectively. Charging zones are described as a final option, to be considered only if local authorities “fail to identify equally effective alternatives”. The current guidance risks placing local authorities under undue strain, with the responsibility of demonstrating that they have fully investigated and costed all other options, creating additional and unnecessary administrative and financial burdens on already over-stretched services. This will inevitably mean that the most effective intervention available to Clean Air Zones will be the last option considered, and would only be implemented following a resource intensive local authority option appraisal. We believe that these recommendations will discourage local authorities from even submitting proposals for Clean Air Zones which include a charging zone.

The proposed plan can only address the problem of nitrogen dioxide and protect the UK population’s health from harmful levels of air pollution if it contains a clear mandate to expand the number of Clean Air Zones, across the UK. This is particularly important, given that the technical report notes that the introduction of charging schemes will likely take “until the end of 2020”. It is therefore critical that the final plan published in July includes a strong and explicit recommendation for additional Clean Air Zones.

Lastly, the draft plan lacks clear commitment to reducing the UK’s dependence on private vehicles, failing to prioritise investments in public transport, and active travel, such as walking and cycling strategies which enable people to avoid or reduce the use of private vehicles in favour of more efficient and healthier transport modes. Two categories of health benefits available from such an approach are immediately obvious: those which result from improved air quality, such as reduced rates of stroke, heart disease, and chronic lung disease; and reductions in obesity-related diseases which result from increased physical activity associated with a modal shift towards cycling and walking. These elements should be captured in the draft plan and in the technical report.

**What do you consider to be the most appropriate way for local authorities in England to determine the arrangements for a Clean Air Zone, and the measures that should apply within it? What factors should local authorities consider when assessing impacts on businesses?**

Local authorities are best placed to determine the arrangements most appropriate for them, when provided with the reassurance that the Government will empower them to implement measures deemed effective. The consultation document aims to set out the Government’s plan to provide support for local action in England to tackle nitrogen dioxide but fails to provide the adequate tools and resources to facilitate local action. To improve air quality in UK towns and cities, it is essential that the Government issues a clear mandate for additional cities to implement Clean Air Zones. The central projection in the modelling used by the technical report indicates that 27 Clean Air Zones are required to achieve the desired outcome. It is therefore critical that the final Air Quality plan mandates the twenty-seven non-compliant local areas to implement Clean Air Zones. In addition, the Government should provide assurances of financial support to all local authorities listed on page seventeen of the consultation document which are forecasted to persistently exceed NO<sub>2</sub> legal limits if no new measures are taken.

The criteria used to approve the implementation of a Clean Air Zone by the UK Government should not be limited to assessing impact on businesses, but should also clearly assess the substantial health benefits available from enhanced action, for example reducing the cost of sick leave. Overall, the estimated cost to individuals and society is more than £20 billion annually in the UK. It is clear that Clean Air Zones will work to deliver economic benefits for local growth, and these considerations should be captured in the criteria used by the Government to approve a Clean Air Zone.

**How can government best target any funding to support local communities to cut air pollution? What options should the Government consider further, and what criteria should it use to assess them? Are there other measures which could be implemented at a local level, represent value for money, and that could have a direct and rapid impact on air quality? Examples could include targeted investment in local infrastructure projects. How can government best target any funding to mitigate the impact of certain measures to improve air quality, on local businesses, residents and those travelling into towns and cities to work? Examples could include targeted scrappage schemes, for both cars and vans, as well as support for retrofitting initiatives. How could mitigation schemes be designed in order to maximise value for money, target support where it is most needed, reduce complexity and minimise scope for fraud?**

Targeted investments in scrappage schemes, for both cars and vans, as well as support for retrofitting initiatives will work to reduce air pollution. However, the Government should ensure that any diesel scrappage scheme is available to all individuals and businesses (irrespective of the size of the latter). The RCP believes that retrofitting schemes should be widely publicised through the Office for Low Emission Vehicles (OLEV) and that the public sector, including the NHS, should set a high and visible standard with its own transport fleet. The RCP would also argue that overall costs of a diesel car or van that fails real life NO<sub>x</sub> emissions tests should always be more expensive than the less polluting equivalent. This should be achieved by a combination of fuel tax, vehicle excise duty and insurance. Finally, ultra-low emission light-duty vehicles such as vans should be afforded tax incentives to encourage a transition. The iniquitous situation where individuals who buy an electric car pay more insurance compared with a similar petrol/diesel powered vehicle must end.

It may also be worth considering the Vehicle Excise Duty (VED) charge not only on the basis of CO<sub>2</sub> emissions but also to reflect the NO<sub>2</sub> emissions or particulate emissions recorded at the Ministry of Transport (MOT) test. These data are uploaded automatically, and the subsequent VED payment made on the basis of these reports may influence corrective action in reducing the number of high-emission vehicles or increasing funds which could be hypothecated on action to improve air quality.

Overall, there is little to encourage change at an individual level, which may in part be symptomatic of a lack of recorded measurement which undermines the principle of change management. Statutory NO<sub>2</sub> forecasts and measurements of particulates or real-time NO<sub>2</sub> and particulate concentrations in places where vulnerable persons are, such as primary age schools and hospitals, should assist in defining the magnitude of the issue and encouraging change.

However, such schemes should not be the principal focus of the UK Air Quality plan. A comprehensive air quality plan must include a combination of measures, with a particular focus on charging zones, especially since the technical report highlights the large health and environmental benefits available from Clean Air Zones.

Charging zones are a cost-effective measure that will maximise value for money by helping local authorities reduce air pollution levels and greenhouse gas (GHG) emissions. The technical report highlights the large health benefits available from Clean Air Zones, and stresses that they will support the UK in meeting its legally binding carbon targets set out in the Climate Change Act. Charging zones should therefore be recommended to local authorities as a cost-effective measure that will protect and promote health from the joint challenges of climate change and air pollution.

Finally, public awareness of the scale of the disease burden from poor air quality, and the contribution of road transport to that burden is limited. Both a national public health awareness campaign and local initiatives targeting the most polluted communities should be a priority. On the 15th of June, the RCP and UK Health Alliance on Climate Change participated in the first ever National Clean Air Day, which was an opportunity to provide communities, schools and hospitals with the resources and information they need to run events and enable people to act on air pollution. We encourage the UK Government to use the momentum created by this event to further facilitate engagement with the public and in particular, with the most vulnerable groups.

**How best can governments work with local communities to monitor local interventions and evaluate their impact?**

**The Government and the devolved administrations are committed to an evidence-based approach to policy delivery and will closely monitor the implementation of the plan and evaluate the progress on delivering its objective**

Please refer to our responses above.

**Which vehicles should be prioritised for government-funded retrofit schemes?**

**We welcome views from stakeholders as to how a future scheme could support new technologies and innovative solutions for other vehicle types, and would welcome evidence from stakeholders on emerging technologies. We currently anticipate that this funding could support modifications to buses, coaches, HGVs, vans and black cabs**

**Please provide your views**

The RCP believes that the most polluting vehicles and public service vehicles should be prioritised for government-funded retrofit schemes.

In particular, buses outside of London should be prioritised for retrofit programmes, especially those that fall below EURO 3 standards. These make up a considerable proportion of the bus fleet given their contribution to emissions on heavily trafficked urban streets and the deregulated environment they currently operate in. Further it should be evident to other road users that particular vehicles have been retrofitted to advertise the fact and serve as an incentive for others. The next high priority is all delivery vans and if not included among PSV, taxis.

Following this, private-hire vehicles should be prioritised. These often have the worst emission levels of all diesel vehicles on the road, and there is currently minimal incentive to retire the long-lasting but highly polluting engines that make up the majority of the private-hire fleet. Private diesel drivers should also be encouraged to retrofit, especially on 'classic' models.

**What type of environmental and other information should be made available to help consumers choose which cars to buy?**

**Please provide your views**

The RCP believes that providing clearer information concerning the environmental (both in terms of particulate pollution and GHG emissions) and health impacts of different brands and models will enable consumers to make informed choices about the vehicles they buy. Furthermore, any future technological solutions to reduce vehicle emissions (e.g. progressive taxation, or adequate tax subsidies) should be clearly signalled long in to the future, to strengthen consumer confidence.

**How could the Government further support innovative technological solutions and localised measures to improve air quality?**

**Please provide your views**

The Government must continue to encourage innovative technological solutions, including the uptake of low-emission vehicles, through the work of OLEV. However, this should be coupled with adequate resources to support local authorities to improve local air quality.

The amount of funding currently available is insufficient to ensure that all local authorities will receive the necessary additional resources to be able to implement new measures, or to increase investments in ongoing projects. We believe that Defra's £500,000 air quality grant scheme for 2015/2016 and the £3 million Air Quality Grant announced to fund English local authorities' work on air quality are inadequate for the scale of the task ahead. Transport for London's £875 million budget allocated to improve air quality in London by 2021/2022 is a much better and more robust illustration of the resource commitment that will be needed.

The consultation document, in line with the original Clean Air Zones framework, places the onus on local authorities to develop innovative proposals, but gives no assurance that there will be sufficient funding for their implementation. The draft plan risks unhealthy competition between local authorities for central Government funding. Financial support is clearly required for all areas which breach legal limits. The technical report indicates that forty local authorities in the UK have one or more roads that are projected to remain in breach of air quality limits for some years unless further action is taken. It is therefore vital that the final Air Quality plan guarantees additional funding to ensure all local authorities across the UK have the financial resources necessary to deliver what they need to realise the objectives laid out in the consultation document.

The Government should support the implementation of Clean Air Zones by enabling and encouraging local authorities to apply for ring-fenced funding for local air quality monitoring, and create interventions to reduce pollution levels experienced by vulnerable populations (e.g. for school-run traffic around primary schools). This funding should be in addition to the existing annual Air Quality Grant competition, and the application process for the latter must also be simplified and made more user-friendly.

**Do you have any other comments on the draft UK Air Quality Plan for tackling nitrogen dioxide?**

It is very disappointing that the plan contains no commitment to change the tax regime for diesel vehicles, given the historical generous tax subsidies which encouraged the tenfold increase in these vehicles on

Britain's roads, and the damage to the public's health, that resulted. Increased taxation on new diesel vehicles could help provide finances for much-needed infrastructure to promote active transport, as well as reducing fine particulate air pollution.

The draft plan also misses the fundamental point that tackling air pollution can make a significant contribution to reducing health inequalities. Air pollution interacts with many other stressors, such as diet, socio-economic deprivation and climatic conditions, therefore creating reduced health and increased susceptibility to disease, particularly among the most vulnerable groups including low-income people, the elderly and people with existing medical conditions. It is therefore critical that the final Air Quality plan incorporates the need to protect the most vulnerable groups and integrates the immediate health and societal benefits improving air quality will bring in its impact assessment.

It is important to recognise the potential for spatial infrastructure planning and urban centre design to reduce the use of private vehicles, and encourage physical activity. A major investment is required in increasing the coverage and availability of public transport services. The final UK Air Quality Plan should integrate all these aspects and fully consider the health benefits of reducing car use and increasing cycling and walking in its technical report.

Lastly, existing legislation governing the UK's emission standards are at the European Union (EU) level. We would support a commitment from the UK government that the UK will aspire to acceptable EU levels of NO<sub>2</sub> and NO<sub>x</sub> as a minimum standard.