

Air pollution - outdoor air quality and health

NICE National Institute for
Health and Care Excellence

**Consultation on draft guideline – deadline for comments 5pm on 25/01/17 email:
OutdoorAirPollution@nice.org.uk**

Please read the checklist for submitting comments at the end of this form. We cannot accept forms that are not filled in correctly.

We would like to hear your views on the draft recommendations presented in the short version and any comments you may have on the evidence presented in the full version. We would also welcome views on the Equality Impact Assessment.

We would like to hear your views on these questions:

1. Which areas will have the biggest impact on practice and be challenging to implement? Please say for whom and why.
2. Would implementation of any of the draft recommendations have significant cost implications?
3. What would help users overcome any challenges? (For example, existing practical resources or national initiatives, or examples of good practice.)
4. The guideline includes reference to the current draft proposals for clean air zones from DEFRA. Do stakeholders feel that this reference is helpful and will support implementation of actions locally?
5. The guideline includes reference to providing general advice on air quality. NICE is aware of information published after the completion of the reviews relating to the use of air alerts (Effects of an air pollution personal alert system on health service usage in a high-risk general population: a quasi-experimental study using linked data, doi:10.1136/jech-2016-207222). Are stakeholders aware of any further published evidence relevant to this recommendation that will inform the considerations of the committee after consultation?
6. Are there any grants / government schemes that are targeting traffic air pollution either now or in the future that could be referenced in any resource impact work?
7. Where you have implemented, or plan to implement any of these recommendations how would you prove or justify the benefit of the spend in business cases within your organisation?
8. Apart from broadening beyond the five cities, does recommendation 1.2 add anything to the DEFRA draft?
9. Does recommendation 1.2 from NICE act as a lever for local communities when considering clean air zones?

See section 3.9 of [Developing NICE guidance: how to get involved](#) for suggestions of general points to think about when commenting.

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Organisation name – Stakeholder or respondent (if you are responding as an individual rather than a registered stakeholder please leave blank):		British Lung Foundation		
Disclosure Please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry.		<u>No funding to disclose</u>		
Name of commentator person completing form:		Harriet Edwards, Policy and Public Affairs Officer		
Type		[office use only]		
Comment number	Document (full version, short version or the appendices)	Page number Or 'general' for comments on the whole document	Line number Or 'general' for comments on the whole document	Comments Insert each comment in a new row. Do not paste other tables into this table, because your comments could get lost – type directly into this table.
1	Full	General	General	<p>The British Lung Foundation is pleased to submit a response to NICE's consultation on outdoor air quality and health. The BLF is the only UK charity looking after the nation's lungs. Air pollution poses a serious threat to our lung health and has reached crisis levels across UK towns and cities. In 2015, 169 local authorities contained areas that breached the legal limit for nitrogen dioxide.ⁱ We strongly support the production of these NICE guidelines. However, as our response outlines, this guidance needs to be accompanied by ambitious national action in order to tackle this public health crisis.</p> <p>Over 12 million people live with a lung condition in the UK. Adults with Chronic obstructive pulmonary disease (COPD) and asthma face worsening symptoms, exacerbations and hospitalisationⁱⁱ from acuteⁱⁱⁱ and everyday pollution exposure^{iv}. Across</p>

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				<p>the UK we support over 210 Breathe Easy patient groups. These patients often tell us that pollution levels can change how they spend their day and make them feel like “prisoners in their own homes.”</p> <p>Breathing pollution across our lifetimes has been linked with higher lung cancer incidence^v, poor adult lung function, and accelerated decline^{vi}. Children’s lungs are particularly at risk as they are still growing. Children exposed to severe air pollution are five times more likely to have poor lung development^{vii}, and increased infection susceptibility. Air pollution exposure during pregnancy is linked with low birth weight and premature birth, which then impacts on children’s lung health in later life^{viii}. Across the UK, air pollution contributes to 40,000 early deaths each year.</p> <p>Whilst we recognise these guidelines have been written for a local audience, they urgently need to be accompanied by ambitious national action. Many of these local interventions will help, but without resource, expertise and investment from national governments these interventions will only go so far. National governments should be investing in health awareness campaigns to inform the general public and professionals.</p> <p>Most importantly, the UK government needs to introduce a new clean air act that sets a national public health framework for tackling pollution. This act should clarify the roles and responsibilities of devolved and local governments and set ambitious guidelines for local governments to follow. The act should also look at transparency and implementation of air quality policy at all levels of government.</p> <p>This NICE guidance is welcome and a step in the right direction, but much more action is required if we really want to protect the public’s health.</p>
2	Full	General	General	Qu. 1: Which areas will have the biggest impact on practice and be challenging to implement?

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				<p>Please say for whom and why.</p> <p>In our experience, the ability and capacity to implement NICE guidance considerably varies across the UK. Some LAs are likely to face significant challenges in embedding a joined-up working culture between health and transport. We recommend that bodies such as the Local Government Association and London Councils work to support and disseminate best practice and advice for doing so. Challenges are likely to be compounded in LAs where budget cuts have been extensive and where there is less expertise and lower public awareness.</p>
3	Full	Pg.4 Pg.5	Line: 5-20 Line 1-29	<p>Qu.1: Joined-up local planning</p> <p>We welcome the focus on planning and air pollution in this draft guidance. This is particularly pertinent for areas where at risk populations frequent. We agree that applications for new schools should not be considered in high pollution areas and if they are built, then information, funding and resources need to be given to that school to enable them to take steps to protect children. The guidance should emphasise the importance of careful planning for new schools, care homes and hospitals.</p> <p>We are concerned that the guidance doesn't outline how any of the recommendations will be implemented - which is likely to be make transparency and evaluation difficult. Many LA professionals we have spoken to are already struggling to champion air quality within their departments. Particularly when competing against high-profile issues such as infrastructure and congestion. The guidance should be more explicit about existing legislation, policies or indicators that LAs can use to take action on air pollution. For instance: the guidance could recommend that LAs assess if funds can be obtained from new developments in high air pollution areas through the community infrastructure levy.</p> <p>As the guidance states, there is already an indicator on air pollution in the public health outcomes framework (PHOF) and in the transport analysis</p>

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				<p>guidance (TAG). These indicators exist, but have failed to deliver change on the ground. This shows that this guidance will need to be supported by further national measures to achieve the wide-scale change that is required.</p> <p>Local public health teams across the UK have experienced budget cuts which make any extension of their prevention work challenging. In November 2015, it was announced that public health funding will be cut by 9.7% by 2020/21 in cash terms of £331 million, on top of the £200 million cut in year for 2015/16^{ix}. These stretched teams require clear advice, training and resources to be able to add or integrate air pollution to their portfolios.</p> <p>LAs need clear targets, training and incentives to be able promote air quality within their teams. Particular attention should be paid to the presentation and availability of local data. Currently data can be difficult for members of the public to understand, not easy to access and often written by transport teams. The guidance should recommend that LAs improve the access and quality of data for the general public and for professionals.</p> <p>Additionally, LAs should signpost professionals to organisations that are already working in this sector. As a patient organisation, the British Lung Foundation is able to provide expertise on respiratory outcomes, patient services and health advice. Signposting to organisations will save LAs resources and time, as well as improve their reach into vulnerable communities. The guidance should be more specific about the LA leads who should be involved in air quality planning - namely planning, transport and public health.</p>
4		<p>Pg.4</p> <p>Pg.5</p>	<p>Line: 5-20</p> <p>Line 1-29</p>	<p>Qu.1 Joint outcomes across LAs</p> <p>The BLF works with health care professionals across the UK. In our experience, it's rare that these professionals have been involved in air quality planning and it's rare to find air quality plans with respiratory outcomes attached to them.</p>

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				<p>Every year, the Department for Environment, Food and Rural Affairs (DEFRA) estimates that air pollution costs the treasury up to £27.5 billion^x. The British Lung Foundation's <i>Battle for Breath report</i>,^{xi} found that lung disease places a huge burden on health care services. It accounts for 700,000 hospital admissions and over 6.1 million hospital bed days a year in the UK. Many of these hospitalisation days can be linked to air pollution episodes. Both air pollution and lung disease prevalence increase in areas of higher social deprivation.</p> <p>Therefore, improved respiratory mortality outcomes should be linked to air quality plans. This will not only improve health outcomes but help tackle embedded social inequalities. Cross-departmental targets and outcomes will ensure funding and resources are used more efficiently across LAs.</p>
5	Full	General	General	<p>Qu: 2: Would implementation of any of the draft recommendations have significant cost implications?</p> <p>Lowering air pollution levels to a safe level will require financial investment and resource; however the health benefits that could be achieved far outweigh these costs. Every year, DEFRA estimates that air pollution costs the treasury up to £27.5 billion. Tackling air pollution will help create cleaner and safer cities which are then more likely to be attractive places to invest.</p>
6	Full	Pg.5	Line 3	<p>Qu: 3: What would help users overcome any challenges? (For example, existing practical resources or national initiatives, or examples of good practice.)</p> <p>Qu.3: Increase monitoring outside schools</p> <p>Information and data on air pollution outside schools often is not collected, and where it does exist it is not always accessible and easy to understand. Better pollution data would make the</p>

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				<p>NICE recommendation on “safe travel routes,” more effective and easier to implement around schools.</p> <p>Following a Freedom of Information (FOI) request to councils earlier this year we discovered huge discrepancies in the levels of pollution monitoring outside schools across the country. Nearly two-thirds (57%) of LAs don’t have air quality monitors outside their local schools, yet many of them are located within the most harmfully polluted areas, according to the World Health Organisation. There was also a discrepancy in LA’s understanding of the current local air quality monitoring guidance - with some stating that schools were a priority and others stating schools were not. Therefore the suggested NICE recommendations around schools need to be supported by updated local air quality monitoring guidance from DEFRA.</p> <p>Increasing monitoring outside schools will ensure that teachers and parents have the information they need to be able to make health decisions. This will also equip LAs with more data and information on pollution in areas where the most vulnerable people are. This will help ensure that NICE’s recommendation on travel planning is more effective, as cleaner routes will be easier to identify. Safe travel routes should be communicated to parents through a variety of mediums in a clear manner, with straightforward explanations of what air pollution is, the impact that it has on children, and what they can do to limit their child’s exposure.</p> <p>We have spoken to many LAs who are keen to carry out projects with schools but often lack the funding to do so. Where these projects have been carried out some interesting results have been achieved. For example, councils across London worked with the Cleaner Air 4 Schools project, where students measured air quality around their schools and then ran a campaign to encourage their parents to stop using cars on the school run. This saw car travel reduced by 35% with resultant improvement in air</p>
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				<p>quality.</p> <p>These schemes should be encouraged and case studies should be shared in the guidance to encourage other LAs to adopt them. Organisations like the BLF are able to support with the delivery of these projects.</p>
7	Full	<p>Pg.25</p> <p>Pg.27</p>	<p>Line 4-6</p> <p>Line: 15-23</p>	<p>Qu.3: Increased active travel will have co-benefits across public health</p> <p>We welcome the focus on active travel measures in the guidance. Schemes that reduce car travel must be accompanied by investment in alternative transport methods. However, we feel the guidance should emphasise the co-benefits that active travel will bring to LAs. LAs should be required to ensure that policies on active travel are compliant with NICE guidelines on physical activity. Local authorities should also work with Public Health England and local public health teams so that these policies tackle other public health goals, including improving lung health, reducing obesity, increasing physical activity and addressing health inequalities. Subsequently, this will help lower pollution and create safer and more active communities.</p> <p>LAs should promote active travel amongst the most deprived communities, as this would yield outcomes in improving public health and reducing health inequalities - important government and NHS priorities. Deprived communities are less likely to have access to alternative transport infrastructure and green spaces, yet are more likely to be exposed to toxic pollution levels and have a lung condition. For example, people in London's poorest boroughs are twice as likely to have COPD when compared to people living in London's richest boroughs.^{xii} Moreover, children in more deprived areas are also likely to be at higher risk: 443 schools in London are located in areas that exceed legal levels of NO₂, with 83% of these schools considered deprived.^{xiii} A similar situation exists nationwide, with Sir Michael Marmot's review of health inequalities finding that 66% of man-made carcinogens are emitted from the 10% most deprived English city wards.^{xiv} The guidance should be amended to reflect these broad</p>

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				public health benefits that could be achieved from active travel schemes.
8	Full	General	General	<p>Qu.3: Training and awareness-raising with professionals</p> <p>The UK government should fund a national public health awareness campaign for both LA professionals and the general public. This should include training for LAs. This will then equip practitioners with the knowledge they need to champion air quality locally. It would also have the potential to raise democratic pressure and public willingness to support more ambitious interventions.</p>
9	Full	Pg.9 Pg.10	Line 12-27 Line 1-22	<p>Qu.3: Tailored health information campaigns</p> <p>Campaigns must be targeted at all audiences, particularly vulnerable groups who may be harder to reach and/or less likely to engage. This includes people who have lung conditions, who may be also disproportionately affected due to reduced mobility. Efforts to engage with vulnerable people must consider those with an ‘invisible’ illness and those who might not consider themselves to be “disabled”.</p> <p>Information shared as part of these campaigns must be written in simple and straightforward language, outlining how people with different conditions - including lung conditions - will be affected. This should include robust health advice on how people can protect themselves from air pollution.</p> <p>LAs should issue health alerts during episodes of high pollution, through a variety of mechanisms - including social media, text messages, email alerts, local radio and television etc. - to reach the largest number of people possible. The Mayor of London has recently introduced these types of alerts, and other LAs should evaluate and learn from this programme.</p>

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10	Full	Pg.6	Line 4-28	<p>Qu. 4: The guideline includes reference to the current draft proposals for clean air zones from DEFRA. Do stakeholders feel that this reference is helpful and will support implementation of actions locally?</p> <p>The inclusion of clean air zones should be core to any LA guidance. This will help increase awareness about the role and impact Clean Air Zones could have on pollution levels. However, for these zones to be successful LAs must be supported by a wider ambitious national strategy. Until this strategy is in place, it's unclear how useful such references will be.</p> <p>For Clean Air Zones to sufficiently tackle local pollution hotspots and bring emissions down to safe levels, they must be based on robust modelling. This modelling should assess which vehicles contribute the most pollution. In the majority of towns and cities, it's likely that private cars, particularly diesel will be the largest emissions source. Therefore, the guidance should recommend that private cars are included in any charging scheme, unless modelling suggests otherwise.</p> <p>Evidence suggests that the inclusion of cars within a clean air zone can lead to excellent outcomes. For example, a clean air zone in Berlin which included cars led to PM and NO₂ emissions 50% and 20% lower than the predicted trend.^{xv} London's current Low Emission Zone has failed to provide positive health outcomes, largely because it does not go far enough and has failed to regulate private cars.^{xvi} In the three years it has been operating, there has been no evidence of air quality improvement or improvement in children's lung health. Therefore, in order to achieve positive public health outcomes NICE should recommend that these clean air zones are ambitious in scope, size and design.</p> <p>We agree that LAs are well-placed to identify local problems and decide on the measures that should be put in place. However, they need to be given sufficient resources to make this decision. This could mean easy access to case studies of the</p>
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				<p>impact of vehicle inclusion across different areas. It could also mean the provision of funding to carry out studies and assessments. This will ensure all policies are supported by robust modelling and evidence and will require support from a national air pollution framework.</p> <p>Currently, the DEFRA framework does not clarify the operational standards for vehicle detection in clean air zones. If vehicles identified through ANPR are being recorded as compliant with Euro 4 or diesel Euro 6/VI standards based on laboratory testing only, then the standards will be difficult to implement as intended. This is because many laboratory tests systematically understate true pollution levels, as highlighted in the Department for Transport’s 2016 report on nitrogen dioxide emissions from cars sold in Britain.^{xvii}</p> <p>These standards should be acceptable if DEFRA, the Department for Transport and the DVLA cross-reference cars identified through ANPR with data real world emissions, or use cameras or sensors to measure the real world emissions for each car entering the clean air zone. The framework should establish the minimum number and optimal location of cameras, including the need for mobile cameras. Alternatively, these government departments could work with industry partners to ensure that cars are required to have consumer labelling based on real world emissions that local authorities can monitor. These changes will ensure that only low polluting vehicles will be permitted to enter clean air zones.</p> <p>The guidance should signpost LAs to organisations that can support them with real-world emissions testing and monitoring. This will then help LAs take steps to clean up their procurement contracts, carry out random vehicle inspections on their fleet and create effective clean air zones.</p>
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11	Full	Pg.6	Line: 4-28	<p>Qu.4: Clean air zones need to work for the most vulnerable people</p> <p>The NICE guidance should recommend that the boundaries of clean air zones are drawn up to include as many schools, hospitals and care homes as possible. Additionally, clean air zones should also contain ample parking and stopping places to ensure that people with mobility issues are able to embark and disembark from their vehicle on journeys. This is because people with respiratory related mobility issues may be unable to walk even short distances without experiencing fatigue.</p> <p>These guidelines should recommend that LAs establish exemption frameworks that ensure people with reduced mobility from a lung condition are not negatively impacted. Blue badge holders should be automatically exempt from clean air zones as they are more likely to rely on their car to live and work. However, NICE should also recognise that many people who have “invisible conditions,” such as COPD struggle to walk long distances and may not be able to use equipment like bikes or travel by public transport. If LAs fail to consider the impact on people with a respiratory condition, they may well then breach their Public Sector Equality Duty under the Equality Act 2010. LAs need to make sure that health practitioners are aware of these changes so that they can support vulnerable people get the correct support. A national exemption criterion should be written to prevent inconsistencies and confusion across the UK.</p> <p>LAs should also consider that alternatives to cars are not always feasible for people with lung-related mobility issues. Some modes of transport, such as buses, still require relatively significant amounts of exertion to get to and from stops. These journeys may be even more challenging during the peaks of summer or winter, when outdoor air quality may be diminished due to natural environmental factors. These barriers may be both physical and mental for some patients and may exclude some people from some of these policies.</p>
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12	Full	Pg.59	Line: 14-28	<p>Qu: 5: The guideline includes reference to providing general advice on air quality. NICE is aware of information published after the completion of the reviews relating to the use of air alerts.</p> <p>Are stakeholders aware of any further published evidence relevant to this recommendation that will inform the considerations of the committee after consultation?</p> <p>We welcome the inclusion of health alerts and information provision in the draft guidance; it's essential that this information is timely, accessible and localised to enable people to make the right choices for their health. NICE should emphasise that all alerts need to be accompanied by robust health advice. LAs should work with organisations like the BLF to provide this advice.</p> <p>We are not aware of any new evidence on the efficacy of air quality alerts; however we have collated feedback on this from the people we support. In a survey with 83 lung patients and carers, 25% said that air pollution information needed to be presented more clearly, 32% said it should be easier to find, nearly 40% said it needed to be more localised, 31% wanted earlier warnings and 36% wanted air pollution alerts to be accompanied by clear health advice.</p>
13	Full	General	General	<p>Qu: 8: Apart from broadening beyond the five cities, does recommendation 1.2 add anything to the DEFRA draft?</p> <p>No, it is largely in line with the DEFRA draft. As outlined above, we think it needs to go further in ambition level, particularly in setting targets, timelines and implementation mechanisms.</p>
14	Full	General	General	<p>Qu.9: Does recommendation 1.2 from NICE act as a lever for local communities when considering clean air zones?</p> <p>Yes, although the guidance will need to be supported by national government action as outlined in this consultation response.</p>

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Insert extra rows as needed

Checklist for submitting comments

- Use this comment form and submit it as a Word document (not a PDF).
- Complete the disclosure about links with, or funding from, the tobacco industry.
- Include page and line number (not section number) of the text each comment is about.
- Combine all comments from your organisation into 1 response. We cannot accept more than 1 response from each organisation.
- Do not paste other tables into this table – type directly into the table.
- Underline and highlight any confidential information or other material that you do not wish to be made public.
- Do not include medical information about yourself or another person from which you or the person could be identified.
- Spell out any abbreviations you use
- For copyright reasons, comment forms do not include attachments such as research articles, letters or leaflets (for copyright reasons). We return comments forms that have attachments without reading them. The stakeholder may resubmit the form without attachments, but it must be received by the deadline.

You can see any guidance that we have produced on topics related to this guideline by checking [NICE Pathways](#).

Note: We reserve the right to summarise and edit comments received during consultations, or not to publish them at all, if we consider the comments are too long, or publication would be unlawful or otherwise inappropriate.

Comments received during our consultations are published in the interests of openness and transparency, and to promote understanding of how recommendations are developed. The comments are published as a record of the comments we received, and are not endorsed by NICE, its officers or advisory Committees.

ⁱ House of Commons (2016) written question, Neil Parish MP, <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2016-10-11/47949/>

ⁱⁱ Halonen et al, (2008) Urban air pollution, and asthma and COPD hospital emergency room visits, *Thorax* Jul;63(7):635-41. doi: 10.1136/thx.2007.091371. Epub 2008 Feb 11. p365

ⁱⁱⁱ Peacock, J. L. et al (2011) Outdoor air pollution and respiratory health in patients with COPD. *Thorax* p.591

^{iv} Royal College of Physicians (2016) Every breath we take: the lifelong impact of air pollution p.61

^v Silverman, D.T et al (2012) The Diesel Exhaust in Miners Study: A Nested Case-Control Study of Lung Cancer and Diesel Exhaust *JNCI J Natl Cancer Inst* doi:10.1093/jnci/djs034 p.1

^{vi} Adam M et al (2015) Adult lung function and long-term air pollution exposure. ESCAPE: a multicentre cohort study and meta-analysis, *Eur Respir J*. 2015 Jan;45(1):38-50 p.47

^{vii} Macintyre, E.A et al. (2014). Air pollution and respiratory infections during early childhood: An analysis of 10 European birth cohorts within the escape project. *Environmental Health Perspectives*, 122(1), 107-113. p.112

^{viii} Pedersen M et al, (2013) Ambient air pollution and low birthweight: a European cohort study (ESCAPE), *The Lancet Respiratory Medicine*, Volume 1, No. 9, p695-704 p.695

^{ix} Local Government Association (2016) Public health funding in 2016/17 and 2017/18, <http://www.local.gov.uk/documents/10180/11493/Briefing+-+Public+health+funding+in+2016-17+and+2017-18/981d88ec-b8d2-4461-99b8-a893494783cc>

^x Department for Environment, Food and Rural Affairs (2016) Committed Clean Air Zone Impact Assessment p.18

^{xi} British Lung Foundation (2016) The battle for breath - the impact of lung disease in the UK

^{xii} British Lung Foundation (2016) Chronic obstructive pulmonary disease (COPD) statistics. Available at <https://statistics.blf.org.uk/copd>

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^{xiii} Mayor of London (2016) “Hundreds of London schools exceed legal air quality levels”. Available at <https://www.london.gov.uk/press-releases/mayoral/hundreds-of-schools-exceed-air-quality-limits>

^{xiv} Marmot, M. et al (2010) Strategic Review of Health Inequalities in England Post 2010 (Marmot Review) p.80

^{xv} German Partnership for Sustainable Mobility (2014) Clean Air - Made in Germany p.26

^{xvi} Mudway et al (2015) Effects of Air Pollution and the Introduction of the London Low Emission Zone on the Prevalence of Respiratory and Allergic Symptoms in Schoolchildren in East London: A Sequential Cross-Sectional Study, Accessed: 15 Nov 2016

^{xvii} Department for Transport (2016) Vehicle Emissions Testing Programme: Moving Britain Ahead p.17