

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

HEALTH AND SOCIAL CARE DIRECTORATE

QUALITY STANDARD CONSULTATION

SUMMARY REPORT

1 Quality standard title

Air pollution: outdoor air quality and health

Date of quality standards advisory committee post-consultation meeting:

13 November 2018

2 Introduction

The draft quality standard for air pollution: outdoor air quality and health was made available on the NICE website for a 4-week public consultation period between 21 September and 19 October 2018. Registered stakeholders were notified by email and invited to submit consultation comments on the draft quality standard. General feedback on the quality standard and comments on individual quality statements were accepted.

Comments were received from 27 organisations, which included local authorities, national organisations, professional bodies and others.

This report provides the quality standards advisory committee with a high-level summary of the consultation comments, prepared by the NICE quality standards team. It provides a basis for discussion by the committee as part of the final meeting where the committee will consider consultation comments. Where appropriate the quality standard will be refined with input from the committee.

Consultation comments that may result in changes to the quality standard have been highlighted within this report. Comments suggesting changes that are outside of the process have not been included in this summary. The types of comments typically not included are those relating to source guidance recommendations and suggestions for non-accredited source guidance, requests to broaden statements out of scope, requests to include thresholds, targets, large volumes of supporting information, general comments on the role and purpose of quality standards and requests to change NICE templates. However, the committee should read this summary alongside the full set of consultation comments, which are provided in appendices 1 and 2.

3 Questions for consultation

Stakeholders were invited to respond to the following general questions:

1. Does this draft quality standard accurately reflect the key areas for quality improvement?
2. Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be to be for these to be put in place?
3. Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.

Stakeholders were also invited to respond to the following statement specific questions:

4. For draft quality statement 1: To ensure this statement is practical and measurable, should it focus on particular vulnerable groups: people with chronic respiratory and cardiovascular conditions; children; pregnant women; older people?

5. For draft quality statement 1: To ensure this statement is practical and measurable, should it focus on providing advice at particular types of health appointment such as: initial antenatal booking appointments; child health checks; annual reviews for people with chronic respiratory or cardiovascular conditions; when presenting with an exacerbation of a respiratory or cardiovascular condition?

6. Do you have an example from practice of implementing the NICE guideline that underpins this quality standard? If so, please submit your example to the [NICE local practice collection](#) on the NICE website. Examples of using NICE quality standards can also be submitted.

4 General comments

The following is a summary of general (non-statement-specific) comments on the quality standard.

- Most stakeholders supported the quality standard and the areas identified for quality improvement.
- There were some suggestions for additional areas to be included in the quality standard to reflect the wider opportunities for local authorities and NHS organisations to impact on air pollution.
- There should be more emphasis on reducing emissions rather than managing its effects.
- The quality standard should be aligned with the Department for Environment, Food and Rural Affairs Local Air Quality Management Scheme including referring to existing policy and technical guidance.
- The role of Sustainability and Transformative Partnerships should be clear.
- Some stakeholders suggested that air pollution needs to be tackled at a national rather than a local level.
- The effect of outdoor air pollution on the allergenicity of pollen, and the complex interaction between environmental pollution, biological allergens and allergies should be emphasised.

- It would be helpful to highlight other relevant quality standards including indoor air pollution, asthma and healthy workplaces.
- The aim of the quality standard in relation to different aspects of air pollution needs to be clearer. Is the focus on achieving legal limits or DEFRA mandated improvements for Clean Air Zones? It should be clear that there is no safe level of NO₂ and some initiatives such as electric vehicles will still contribute to PM₁₀ and PM_{2.5}.
- Measuring the outcomes of reducing air pollution is complex, and in particular, the impact on health.
- PM_{2.5} only has an average annual limit not a daily average limit.
- As well as having a positive impact on air pollution, the additional potential impact on reducing carbon emissions needs to be clearer.
- The quality standard should address the issue of emissions offset i.e. avoiding local whilst at the same time increasing national aggregate emissions.

Consultation comments on data collection

- Stakeholders indicated that data for many indicators may already be available and data for others should be feasible to collect, although it may be time consuming to collate and report.
- The quality of local data on air pollution is highly variable and needs to improve.
- Data collection should be linked to the requirements for data collection and reporting for DEFRA's Local Air Quality Management to reduce burden on local authorities.

Consultation comments on resource impact

- Some stakeholders suggested that although NHS organisations and local authorities should take action to improve air pollution they may find this difficult given the many competing demands on current budgets and reducing national grants.
- Improved local monitoring of air pollution, and in particular PM_{2.5}, could have a significant resource impact.

5 Summary of consultation feedback by draft statement

5.1 Draft statement 1

People in vulnerable groups attending a health appointment when air pollution is high or very high are given advice on how to minimise their exposure and manage related symptoms.

Consultation comments

Stakeholders made the following comments in relation to draft statement 1:

- General
 - There was a concern about the evidence of clinical and cost effectiveness for the statement.
 - There were some concern that the statement could have a resource impact given the need to develop an alert system, training for healthcare professionals and data collection to measure awareness.
- Statement
 - Should focus on routine advice to people in vulnerable groups, not just when they attend an appointment when air pollution is high or very high.
 - As short term incidences of high and very high air pollution are very infrequent and short-lived, implementation of the statement will be infrequent, even in London. The chance of a patient being given information will therefore be low.
 - In contrast, it was suggested that it should be clear that some areas have air pollution that is chronically in excess of EU limits and therefore a permanent alert should be in place.
 - The statement will be difficult to implement and measure because it applies to a large group of patients in primary and secondary care.
 - There was a concern that alert systems are not in place and may be difficult to implement.
 - It needs to be clear if patients should be informed of poor air quality before (e.g. via text reminder/appointment information) or during their appointment. Some

stakeholders were concerned that people could miss appointments with potentially negative impacts on their health.

- The statement should include wider settings including early years and schools to communicate with vulnerable groups. It could also include direct provision of information to people via an alert system.
- Measures
 - Local emergency resilience plans could be an evidence source for the structure measures.
- Audience descriptors
 - Local authorities may have a role in disseminating air quality information, however, it is unclear if a local or national system is needed.
 - Easily understandable information, including social media, should be developed to help people to reduce their day-to-day exposure. This could include tools such as a walking route finder.
- Definitions
 - It should be clear that the definition of vulnerable groups may change as the evidence base develops.
 - People with reversible airway diseases with allergic triggers should be identified as part of the group with chronic respiratory conditions.
 - Health advice needs to be clear as it may be seen as impractical and there may be conflicting sources of advice.
 - Advice should include:
 - ◇ Understanding local and national air quality forecasts and alerts.
 - ◇ Action to take during high pollution episodes including being clear that people should not miss health or care appointments.
 - ◇ Action to take to minimise long term exposure.
 - ◇ Advice on driving and choice of vehicle.

Consultation question 4

Stakeholders made the following comments in relation to consultation question 4:

To ensure this statement is practical and measurable, should it focus on particular vulnerable groups: people with chronic respiratory and cardiovascular conditions; children; pregnant women; older people?

- There was general agreement that it is appropriate to focus the statement on the vulnerable groups as defined.
- A specific focus on people with chronic cardiovascular and respiratory conditions, older people and children aged 0 to 6 was suggested.
- People who live or work in highly polluted areas should also be included.
- It would be preferable to give advice to everyone attending a health appointment when air pollution is high or very high.

Consultation question 5

Stakeholders made the following comments in relation to consultation question 4:

To ensure this statement is practical and measurable, should it focus on providing advice at particular types of health appointment such as: initial antenatal booking appointments; child health checks; annual reviews for people with chronic respiratory or cardiovascular conditions; when presenting with an exacerbation of a respiratory or cardiovascular condition?

- There was agreement that it is appropriate to focus on providing advice at specific types of appointment, in particular: annual reviews, child health checks and antenatal booking appointments.
- Additional opportunities to provide advice were identified as: primary school enrolment, when accessing repeat prescriptions at community pharmacies, at routine immunisations e.g. flu, and via occupational health in settings where staff have high exposure.
- It was suggested that providing advice at particular types of appointment will be more effective than only issuing advice on high or very high pollution days.
- Providing advice when someone presents with an exacerbation of a respiratory or cardiovascular condition should be a clinical decision based on an assessment of the triggers that led to the exacerbation.

CONFIDENTIAL

- Others suggested that it would be preferable to retain the focus on all healthcare appointments in the statement as it is currently worded.

5.2 Draft statement 2

Local authorities identify in the Local Plan and other key strategies how they will address air pollution, including enabling zero- and low-emission travel and how to design buildings and spaces to improve air quality.

Consultation comments

Stakeholders made the following comments in relation to draft statement 2:

- General
 - There was support for this statement although there were some concerns about the ability of local authorities to make improvements as follows:
 - ◇ The statement does not reflect the wider policy context such as the limits set by the National Planning Policy Framework, top-down development targets for housing, and inspectorate decision making, which limit the ability of the Local Planning Authority to impose strict policy controls. A stronger stance in national policy is needed.
 - ◇ Resource constraints in local authorities may limit the extent to which improvements can be made and strong local political support will be vital to bring about real change.
- Statement
 - It was suggested that many local authorities already have strategies and plans in place although there is room for improvement in some areas.
 - Should emphasise the joint responsibilities of other local partner organisations.
 - Should be reworded to include 'active travel'.
- Rationale
 - Should include key NHS strategic plans including Sustainable Development Management Plans and Healthy Travel Plans.
 - Should include designing urban environments that do not cause exacerbations of respiratory allergies when people are walking or cycling.
- Measures

- Additional evidence sources for the structure measure could include the Joint Strategic Needs Assessment, equality impact assessments and planning policies for housing and schools.
- The outcome for travel patterns:
 - ◇ Should include journeys by zero- or ultra-low emission vehicles
 - ◇ Should include the National Travel Survey and the Census as a data source.
 - ◇ Could include the provision and monitoring of travel plans (section 106) that include zero and low emission travel as a data source.
- The air pollution outcomes:
 - ◇ should not be focussed on compliance with legal limits.
 - ◇ data source should include local monitoring sites.
 - ◇ should include PM_{2.5} even though it is not a statutory requirement for local authorities to monitor.
- Audience descriptors
 - Should emphasise the need for strategic leadership in local authorities to avoid a disjointed, inconsistent and reactive approach.
 - Should identify the need for a cross-authority approach to manage and monitor displacement effects.
 - Identify the need for training for planners and others to improve the local policy approach.
 - It would be helpful to distinguish between the overarching policy criteria that should be included in the Local Plan and more detailed guidance and mechanisms that should be included in supplementary planning guidance and other strategic plans.
 - It would be helpful to highlight best practice/case studies in the design of buildings and spaces that can impact on air pollution.
- Definitions
 - Active travel and zero- and ultra-low-emission vehicles should be defined separately.

- The definition of zero- and ultra-low-emission vehicles should include public transport, taxis and private hire vehicles and car sharing and car clubs as per the Department for Transport's the Road to Zero strategy.
- Equality and diversity considerations
 - It was suggested that in practice it can be difficult for local authorities to tackle specific areas where air pollution is highest if overall EU limits are not breached.
 - If economic sanctions on polluting vehicles are included it will be important for employers and trade unions to mitigate the impacts on low paid staff.

5.3 *Draft statement 3*

Local planning authorities assess proposals to minimise and mitigate road-traffic-related air pollution in planning applications for major developments.

Consultation comments

Stakeholders made the following comments in relation to draft statement 3:

- General
 - Although there was support for the statement there were some concerns that it may be unrealistic:
 - ◇ The statement is unlikely to lead to improvements in air quality because Local Planning Authorities are already implementing local policy within the limits of their powers while balancing different priorities.
 - ◇ Any extra burden on applicants in terms of data collection and mitigation costs will need to be carefully considered as part of the overall viability of the scheme.
 - ◇ The rejection of individual developments on air quality grounds will be politically divisive in parts of the country with significant housing shortages.
 - On the contrary, a stakeholder suggested that local planning authorities are not doing enough and some suburban and rural authorities still have guidance and processes in place that encourage car-dependent development.
 - It was suggested that there is a need for national guidelines/criteria to improve the consistency of the assessment of air quality in planning applications.
- Statement
 - Limiting the statement to major developments means it will be less relevant to inner city compared to suburban or rural settings due to the availability of land. The statement should also include minor and medium scale developments to reflect cumulative impact on air pollution.
 - The focus should be on minimising rather than mitigating air quality impacts.
- Rationale
 - Street design should include planting which can act as a barrier/absorb pollutants.

- Measures
 - Supplementary planning guidance may be a useful evidence source for the structure measures.
 - Additional measures were suggested:
 - ◇ applications which undergo significant modifications to reduce impact on air quality during the pre-submission or consultation phase
 - ◇ inclusion of planning conditions to mitigate air pollution impacts.
 - Data and evidence to determine compliance will need to be available.
 - Outcome a) on travel patterns is inappropriate.
 - The outcome for PM₁₀ has a daily and annual average limit.
 - PM_{2.5} should be included as an outcome measure. It has an annual average limit.
- Audience descriptors
 - It should be clear that mitigation of road-traffic related air pollution should include the construction phase as well as post completion.

5.4 Draft statement 4

Local authorities and NHS organisations identify how they will reduce emissions from their vehicle fleets to address air pollution.

Consultation comments

Stakeholders made the following comments in relation to draft statement 4:

- General
 - There was a concern that some organisations may be tied into long term contracts which may mean they can't renew their fleet to improve air pollution.
 - Reword low emission vehicles to zero- or ultra-low emission vehicles throughout.
- Statement
 - Should include grey fleet vehicles owned by employees and driven for business purposes such as community nurses.
 - Should include staff and visitor travel.
 - Should be more specific and include a timescale.
- Rationale
 - Is the aim to address 'local air pollution in busy urban centres where national limits may be exceeded' or 'aggregate emissions to air nationally' or do both aims need to be balanced.
 - It was suggested that driver training should not be included, as evidence of the relationship with air quality emissions is inconclusive.
 - It would be useful to refer to the Department for Environment, Food and Rural Affairs Government Buying Standards for Transport
 - Consider adding:
 - ◇ consolidating multiple deliveries via urban freight consolidation centres into few zero or ultra-low emission deliveries.
 - ◇ banning idling vehicles on NHS sites.
- Measures
 - Evidence of use of the Sustainable Development Unit Health Outcomes of Travel Tool (HOTT) could be useful for the structure measures.

CONFIDENTIAL

- Structure b) commissioning specifications in data source should be more specific
- Outcome b) should be reworded to 'overall energy consumption'.
- The NHS Estates Return Information Collection could be a useful data source.
- Audience descriptors
 - A broader definition of relevant organisations is needed including primary care and social care and healthcare providers.
 - It should be clear that Transport Refrigeration Units used by the NHS are included.
- Definition
 - A definition of fleet would be helpful. Does it include – vehicles owned and maintained, vehicles directly or indirectly leased, vehicles operated by sub-contractors, grey fleet, staff travel to work, visitors?

6 Suggestions for additional statements

The following is a summary of stakeholder suggestions for additional statements.

- Improving air quality monitoring and communication
- Information and advice to the general public to improve awareness of the risk of long-term exposure to air pollution and encourage behavioural change in the way people travel
- Major employers, including the NHS and local authorities, to support active staff and visitor travel
- Including air quality policies and responsibilities in Local Transport Plans

© NICE 2018. All rights reserved. Subject to [Notice of rights](#).

Appendix 1: Quality standard consultation comments table – registered stakeholders

ID	Stakeholder	Statement number	Comments ¹
1	British Heart Foundation	General	<p>The British Heart Foundation (BHF) welcomes NICE's consideration of the issue of air quality and its impact on health. The BHF is the third largest medical research charity in the UK, funding over £100 million of research into heart and circulatory diseases and their risk factors each year.</p> <p>We have a strong interest in air quality, having invested £3.2 million into research into the health impacts of air pollution since 2010. Our research has shown that fine (PM_{2.5}) and ultrafine particulate matter, derived from sources such as diesel vehicles and wood burning, has serious cardiovascular health implications. These include an increase in the incidence of coronary events (defined as heart attack, acute heart failure and unstable angina due to coronary artery disease) and stroke, particularly in vulnerable groups such as the elderly or those with existing heart disease. We are absolutely committed to reducing the burden of air pollution on the 7 million people living with heart and circulatory diseases in the UK. It is vital that activity to tackle air pollution is a priority across all areas of national and local government, and has the protection of health at its core. Integrating air quality as a key consideration across health services is essential to this aim.</p>
2	British Thoracic Society	General	The British Thoracic Society welcomes the Quality Standard on this topic.
3	Institute of Air Quality Management	General	<p>In my opinion the four quality statement cover the key areas where public sector organisations need to improve their performance, based on conventional thinking.</p> <p>However, one of the IAQM committee members has raised the issue of the most recent COMEAP report that sheds doubt on the exact air pollutant responsible for the health effects observed. Broadly speaking if it is nitrogen dioxide (NO₂) reducing this pollutant will have a greater impact on health outcomes within urban areas. If it is particulate matter (PM_{2.5}) then the health outcome will occur at longer distances, on a regional scale (and different approaches will be needed). If NO₂ or PM_{2.5} are surrogates for the ill effect of traffic, then the appropriate measure would be to reduce traffic, but the health benefit could not be assessed in detail.</p>

¹PLEASE NOTE: Comments received in the course of consultations carried out by NICE are published in the interests of openness and transparency, and to promote understanding of how quality standards are developed. The comments are published as a record of the submissions that NICE has received, and are not endorsed by NICE, its staff or its advisory committees.

ID	Stakeholder	Statement number	Comments ¹
			Although the recommended measures would appear to be worthwhile, there is no way to quantify the benefits. Moreover meeting air quality limit values, that is eliminating exceedances, still leaves the population exposed to air pollution (as there is no safe level of exposure) and would not substantially reduce the estimated mortality or number of life years lost. The mortality attributed to air pollution is based on estimates of the outdoor, long term exposure to an air pollutant. The benefit of reducing pollution in hotspots may be small compared with the long term population exposure. This is not to deny that the common sense feeling that there are clear amenity benefits from less noise, fewer crowded places and lower air pollution.
4	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	General	Annual and hourly exceedances of particulates including PM2.5 and PM10 - This is not quite right I think: PM 2.5 has an annual average limit PM 10 has daily and annual average limits
5	NIHR CLAHRC North Thames	General	I realise this document is about outdoor pollution, but given that we spent about 90% of our time indoors, I believe there should be a mention of indoor air, which can be very different from outdoors, even in a car or a bus. You could: mention related past or future NICE standards, e.g. about asthma, workplace exposure, or indoor pollution
6	Nottingham City Council	General	<u>Section 1.3 NG70</u> Not all local authorities will have CAZs for NO2 and it is not clear if the CAZ purpose will expand to include more than just traffic related air pollution (as originally proposed). Therefore, this sections title should also include/refer to Air Quality Management Areas and Air Quality Action Plans (or whatever replaces them) as ways to deliver improved air quality.
7	Oxypod Earthdome Ltd	General	There appears to be nothing in the report about air pollution from domestic and commercial Gas Boilers. We have been working with NPL The National Physical Laboratory Teddington on the testing of a patented new UK technology that reduces air pollution by reducing the amount of combustion gas uses. The technology Oxypod has been shown to reduce gas consumption on by as much as 20% + on live test sites at Greenwich Council. The technology could be fitted to new boilers or as a refit. It is not expensive. The technology is also being tested as part of a BIES funded research programme.
8	Royal College of Nursing	General	This is just to let you know that there are no comments to submit on behalf of the Royal College of Nursing in relation to the stakeholder engagement exercise for the Air pollution: outdoor air quality and health quality standard.
9	Royal College of Paediatrics and Child Health	General	This guidance does not effectively address the problem of air pollution.
10	Royal College of Physicians	General	We would like to endorse the response submitted by the British Thoracic Society (BTS).

ID	Stakeholder	Statement number	Comments ¹
11	Royal Town Planning Institute	General	<p>The RTPI welcomes NICE’s continued focus on the need to reduce levels of air pollution and the recognition of the important role that town planning plays.</p> <p>Our report ‘Settlement patterns, urban form and sustainability: an evidence base’ published in May 2018 outlines how settlement patterns and urban forms that promote sustainable mobility can play a critical role in reducing emissions from the transport sector, where decarbonisation is urgently needed. It highlights that evidence shows that larger settlements, with higher densities and mixed land use, can increase levels of self-containment and reduce the need to travel by car. This helps to reduce emissions from the transport sector, and also reduces emissions from the buildings sector. To read the report in full see www.rtpi.org.uk/media/2822766/settlementpatternsurbanformsustainability.pdf</p> <p>We will follow up this report by producing practice advice for our members, demonstrating practical solutions and highlighting good practice. The advice will be published in 2019.</p>
12	The Dirac Foundation	General	<p>Metrics, like measures of cardiovascular risk, require consideration of all major influencing factors, some of which may need to be discovered or affirmed, but there are clearly potential risk factors in current epidemiological understanding. I still see no clear entry point for inclusion of consideration cooperative harm-increasing interactions (exponentiating cross reactions) with other forms of traffic pollution, and also pollution from other nearby sources. See my previous comments and citations on noise pollution, cooking from restaurants, and hydrogen sulphide from nearby landfill emissions a waste, and so on. In addition, there are genetic interactions that put matters of ethnic equality and “molecular ethnicity” into play (e.g. Modern Epidemiologic Approaches to Interaction: Applications to the Study of Genetic Interactions, Sharon Schwartz, Ph.D., Institute of Medicine (US) Committee on Assessing Interactions Among Social, Behavioral, and Genetic Factors in Health; Hernandez LM, Blazer DG, editors. Washington (DC): National Academies Press (US); 2006. We might well expect difference due to types of neighbourhood (commercial etc.) and predominating ethnic groups. I would sincerely doubt that expensive town houses in busy streets in a city pose comparable risks to other areas, meaning here also the external air quality for walkers, cyclists etc., as well as impact on residents. I am involved in not dissimilar matters as a public contributor for local council and it is likely that planning objections etc. can be examined to consider some of these influences. But also the local geographics and demographics clearly signal potential risks in the above issues.</p>
13	Allergy UK	Question 1	<p>1. Does this draft quality standard accurately reflect the key areas for quality improvement? Yes, it does. However, we believe that further clarification is needed in two areas:</p> <ol style="list-style-type: none"> 1. Focus on vulnerable groups should explicitly include, within those with chronic respiratory conditions, people with reversible airway diseases with allergic triggers. 2. The effect of outdoor air pollution on the allergenicity of pollen, and the complex interaction between environmental pollution, biological allergens and allergies should be addressed throughout the document.

ID	Stakeholder	Statement number	Comments ¹
			<p>Rationale 1: There is a growing body of evidence linking air pollution with the development and/or exacerbation of allergies. Research suggests that ‘Chemical air pollution may interact with airborne allergens enhancing the risk of atopic sensitisation and exacerbation of symptoms in sensitised individuals’ affecting the development and/or exacerbation of allergies, particularly allergic asthma, allergic rhinitis (hay fever) and atopic dermatitis (eczema)^{2 3 4}.</p> <p>Likewise, it has been suggested that approximately 80% of asthmatic children and 60% of asthmatic adults whose asthma is the result of allergic sensitisation are more likely to have an asthma attack when exposed to high levels of air pollution⁵. It has also been reported that air pollution may be a contributing factor in the development of new cases of asthma among people living in close proximity to busy roads⁶.</p> <p>Rationale 2: Research shows that the development and/or exacerbation of allergies is a ‘Complex multifactorial process in which the interaction and possible synergy between environmental pollution and biological allergens play a significant role’⁷. For instance, we know now that air pollution resulting mainly from traffic and measured as particulate matter (PM₁₀, PM_{2.5}), nitrogen (NO_x) and ground-level ozone, interacts with and increases the allergenicity of pollen released from plants growing in areas of high pollution⁸.</p> <p>Furthermore, ‘Pollutants might damage the pollen cell wall modifying the pollen’s allergenicity and intensifying allergen expression or potency’^{9 10}. In addition, pollutants may facilitate the release of this ‘super pollen’ allergen into the environment, which may stimulate IgE-mediated allergic responses in atopic¹¹ asthmatics for instance.</p>
14	Barnsley Metropolitan Borough Council	Question 1	Statement 1 is new, although as a LA we already publish real time air quality data based on the national pollution bandings on our web page, so information on air quality in the borough is already available. It would be useful to

² Allergy and asthma: Effects of the exposure to particulate matter and biological allergens

Baldacci, S. et al. *Respiratory Medicine*, Volume 109, Issue 9, 1089 -1104.

³ Kim, Ja Kyoung et al. ‘Effects of Indoor Air Pollutants on Atopic Dermatitis’. Ed. Jonathan Levy and Kim Natasha Dirks. *International Journal of Environmental Research and Public Health* 13.12 (2016): 1220. PMC. Web. 13 Aug. 2018.

⁴ Reinmuth-Selzle, Kathrin et al. ‘Air Pollution and Climate Change Effects on Allergies in the Anthropocene: Abundance, Interaction, and Modification of Allergens and Adjuvants’. *Environmental Science & Technology* 51.8 (2017): 4119–4141. PMC. Web. 13 Aug. 2018.

⁵ Royal College of Physicians. *Every breath we take: the lifelong impact of air pollution*. Report of a working party. London: RCP, 2016.

⁶ The Committee on the Medical Effects of Air Pollutants (COMEAP). *Does outdoor pollution cause asthma?* November, 2010.

⁷ Ibid viii.

ID	Stakeholder	Statement number	Comments ¹
			<p>apply this information in a medical setting so that vulnerable groups are advised accordingly to protect their health. Unsure as to whether this would be a national or local system which would disseminate the info however. Statements 2, 3 and 4 are already addressed by the LA via other existing mechanisms to some extent, and are incorporated into the Air Quality Action Plan for the Borough. It would be useful to widen fleet measures out to the NHS.</p>
15	Barnsley Metropolitan Borough Council	Question 1	<p>Emissions from traffic are the most significant source of poor air quality in our towns and cities. This draft quality standard attempts to address this issue. The quality standard reflects the key role that local authorities have in tackling local air quality issues. However, the draft quality standard should align more with existing work being undertaken locally and nationally under the Government’s Local Air Quality Management LAQM scheme as required within the Environment Act of 1995. LAQM has been in operation since 1997 and is well embedded into the statutory duties required of local authorities. Policy and Technical guidance issued for LAQM goes beyond these proposals and consists of a wide scope of actions to improve local air quality, including those proposed by this quality standard. Consequently, the NICE quality standard should recognise the existing LAQM structure and should complement and enhance the LAQM regime.</p> <p>Local authorities are already addressing the air quality impact of new development using the planning regime, and air quality related policies are becoming increasingly incorporated within Local Plans, along with supporting guidance / supplementary planning documents (SPD), which provide prescriptive detail on how developers can mitigate the air quality impact of their development. Several examples of this are available from local authority air quality web pages.</p>
16	British Heart Foundation	Question 1	<p>The draft standard does reflect a number of the key areas for improvement. The British Heart Foundation is supportive of measures to reduce emissions of traffic-related air pollution, particularly as diesel vehicles are a contributor to levels of health-harmful PM_{2.5} as well as NO₂. The integration of air quality considerations in local planning decisions is also of importance to taking a holistic approach to tackling poor air quality.</p>

⁸ Ibid v.

⁹ Sedghy, Farnaz et al. ‘Interaction Between Air Pollutants and Pollen Grains: The Role on the Rising Trend in Allergy’. Reports of Biochemistry & Molecular Biology 6.2 (2018): 219-224. Print.

¹⁰ Behrendt H., Friedrich K.H., Kainka-Stänicke E., Darsow U., Becker W.M., Tomingas R. (1991) Allergens and Pollutants in the Air — A Complex Interaction. In: Ring J., Przybilla B. (eds) New Trends in Allergy III. Springer, Berlin, Heidelberg.

¹¹ According to the American Academy of Allergy Asthma and Immunology, ‘Atopy refers to the genetic tendency to develop allergic diseases such as allergic rhinitis, asthma and atopic dermatitis (eczema). Atopy is typically associated with heightened immune responses to common allergens, especially inhaled allergens and food allergens’. In

ID	Stakeholder	Statement number	Comments ¹
			We have previously highlighted the need for better provision of information on the health impacts of air pollution. A British Heart Foundation-run focus group and survey of patient representatives found that only 36% of those involved felt well informed about the impact of air pollution on heart health and 88% said that they would like to know more about outdoor air pollution. We are therefore pleased to see Statement 1 embedding this as a key aim for service providers and healthcare professionals.
17	British Heart Foundation	Question 1	<p data-bbox="772 481 1400 507"><u>Quality Statements 2 & 3-quality measures, outcome</u></p> <p data-bbox="772 526 2145 702">In the BHF's submission to NICE's stakeholder engagement on the development of this standard, we pointed to the need for improved coverage and quality of air pollution monitoring. This is essential to measuring both population-level exposure to air pollutants, particularly in areas where the most vulnerable people are likely to be (schools, hospitals, care homes etc.), and the effectiveness of interventions. It is our view that the NICE quality standard must reflect this need as vital to ensuring that the health and care system is taking adequate action to protect people's health from the damaging effects of air pollution.</p>
18	Havant Borough Council	Question 1	Standard focuses upon 3 factors (incremental reductions of local emissions, vulnerable persons avoiding pollution 'episodes', and planning for air quality). The standard does not address vulnerable persons avoiding outdoor air pollution in general (e.g. emissions peaks at compliant locations, or behavioural influence on personal exposures). The Standard also ignores (admittedly by definition) indoor and workplace exposures, and the issue of 'emissions offset' (e.g. avoiding 'local'- whilst at the same time increasing 'national aggregate'- emissions). Provisions with respect to 'Planning for Air Quality' (Statement 2) do not acknowledge or address the limits of local policy as set by National Policy Framework, by top-down development targets (e.g. independently assessed housing need), NGO guidance (e.g. NSCA) on thresholds of triviality, or the potential for inspectorate decisions to undermine these (and local plan) provisions.
19	Kingston upon Hull City Council	Question 1	Whilst I agree that raising awareness and providing advice on managing symptoms is very important, I feel it is more of a short term measure, and the emphasis should always be on reducing emissions rather than managing the effects.
20	London Borough of Hackney	Question 1	Hackney Council broadly agree with the scope of the draft quality standard.
21	NHS Sheffield CCG	Question 1	<p data-bbox="772 1152 2132 1267">No, this draft quality standard does not accurately reflect the key areas for improvement. The focus on health appointments, spatial planning and development control, and fleet seems limited. This draft quality standard only briefly mentions local transport strategies, staff travel under Quality Statement 2: Strategic plans. Commissioning is briefly mentioned in terms of fleet (pp14-15).</p> <p data-bbox="772 1273 2123 1358">The powers and "at scale" opportunities of Local Authorities NHS organisations in terms of procurement, licensing, leasing are either not considered or appear to be under-valued under this quality standard and this is a missed opportunity for both air pollution and carbon emissions as many measures would impact on both reduction goals.</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>It is not clear which aspects of air pollution this quality standard targets - NO2 and PM10 PM2.5 are mentioned (p9, p17). It is unclear whether the focus is on achieving legal limits i.e. European Health Limit Values for NO2 or DEFRA mandated improvements for Clean Air Zones. However, it is important to acknowledge that there is no safe level of NO2. Further, some measures which will improve NO2 such as electric vehicles will not have significant impacts on congestion, will not increase activity levels, and will still contribute to PM10 and PM2.5 through brake, tyre, and road “wear and tear”.</p> <p>Finally, these quality statements are concerned with technical solutions rather than changing cultures of how we move around. While it is right to nudge Local Authorities and the NHS to use their powers effectively to address air pollution this doesn’t seem to be informed by behavioural insights of why they don’t currently do so.</p>
22	North Hertfordshire District Council	Question 1	<p>No. It doesn’t because it doesn’t address the most significant area of relevance to outdoor air quality, which are roads and the traffic on them. None of the quality standards refer to the responsibilities of the organisations and professionals responsible for traffic/transport and road planning and design. For example, Highways England and Transport & Highways departments whether in Unitary or Upper Tier local authorities.</p> <p>The meaningful inclusion of air quality policies and the identification of responsibilities within Local Transport Plans and the various supporting documents to these are as vital to the improvement of outdoor air quality as the Local Plans required pursuant to the planning regime.</p> <p>It is not sufficient to consider that Transport and Roads have been covered by the ‘other key strategies’ within Statement 2.</p>
23	Nottingham City Council	Question 1	<p>Q1. Does this draft quality standard accurately reflect the key areas for quality improvement?</p> <p>Focusing on vulnerable groups limits the dissemination of the AQ information/advice and doesn’t encourage the wider societal/behavioural changes needed to deliver long term improvements to air quality. Messages should be a general message for all citizens, with additional information for vulnerable groups.</p>
24	Royal College of General Practitioners	Question 1	<p>This draft quality standard does reflect the key areas for quality improvement. It will be important to link local and data on air quality with local and national data sets such as the RCGP Research surveillance centre RSC workload data. It important that there some emphasis on individuals to take action for instance turning off their engines in stationary traffic and for parents to share lifts and develop walking busses to get children to school. Air pollution is worse sitting in a car. National advice to drivers should be available and displayed in each vehicle.</p>
25	University of Birmingham	Question 1	<p>There are recognised health issues relating to road-traffic air pollution as outlined in the briefing; however there remain significant evidence gaps in understanding relevant PM and NOx dose-response relationships (including sub-clinical effects) and behavioural responses to health promotion measures such as provision of targeted health advice. There is a need for appropriate applied health research methodology to identify the effectiveness of intervention</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>measures for achieving co-benefits for both air quality and health, including long-term evaluation of health impacts among vulnerable population groups and impact upon health inequalities. The distinction between strict legal compliance with the prevailing legislation concerning annual mean NO₂ levels), and achieving the greatest net public health benefit (which would imply explicit consideration of PM and other pollutants), remains a critical issue for implementation of these standards. Investment in integration of DEFRA, AURN, Local Authority records within a single portal providing high quality data provision and development of meaningful indicators supported by quality assurance processes would enhance the potential effectiveness of quality statement 1.</p> <p>Key areas for quality improvement which are omitted from the quality standards include:</p> <ul style="list-style-type: none"> - <i>Provision of consistent and robust behaviour change advice concerning modal transport choices and impact upon air pollutant exposure and health, utilising evidence-based approaches suitable for end-user groups.</i> There exists a risk of proliferation of inconsistent and poorly targeted advice which may cause confusion among the wider public. Delivery of a communication and messaging intervention measure must also consider potential for differential uptake, including higher engagement levels among affluent, educated population groups which risks paradoxically widening existing health inequalities. - <i>Local authorities and NHS organisations are supported to extend local air pollutant monitoring capabilities to improve spatial resolution and specific pollutant level data availability at a local level.</i> Air pollution can vary even within a radius of several metres due to contextual ‘street canyon effects’ and other local factors, however existing monitoring network are designed to assess exposure for compliance purposes (with e.g. annual mean NO₂) with a paucity of data in sub-urban and rural locations. Such improvements are of fundamental importance for delivery of QS1 to ensure high pollutant level episodes are accurately defined and also for enabling monitoring and evaluation of Quality Statements 2-4. The evidence base regarding population level behavioural change based upon such data availability is lacking and has not yet been subject to rigorous evaluation; engagement with the academic community is critical for addressing this issue. - <i>Involvement of Sustainability and Transformative Partnerships to identify strategies to address air pollution and improve air quality at a regional level</i> is a notable omission.
26	Allergy UK	Question 2	<p>2. Are local systems and structures in place to collect data for the proposed quality measures?</p> <p>We believe that there is already monitoring infrastructure in place to collect and produce pollution information. However, more can be done to raise awareness about the existence of this infrastructure within the general population.</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>We also want to encourage the government to explore ways in which information about the grass and seeds (i.e. Mugwort) pollen count and routes where allergenic trees/plants are present can be incorporated into platforms such as the Daily Air Quality Index or London Air, to highlight the complex interactions between environmental pollution, biological allergens and allergies.</p> <p>Finally, for the information collected by this infrastructure to make an impact on the health and well-being of vulnerable groups targeted by this consultation, we believe that improving training for healthcare professionals and informing the general population about the harmful effects of air pollution on health and preventative measures is paramount. Without this increased level of awareness, we believe this guidance will not result in improved health outcomes.</p>
27	Barnsley Metropolitan Borough Council	Question 2	<p>Systems and structures are not in place to collect data for statement 1. However, 2 and 4 can be evidenced in the relevant plans (including the Air Quality Action Plan). I am unsure as to how these could be measured quantitatively? With regards to statement 3, the number of planning consultations received from Planning requiring an air quality input/advice is already recorded (to show the increase in this area of work which has occurred over the past few years).</p>
28	Barnsley Metropolitan Borough Council	Question 2	<p>Local data to monitor progress with the proposed quality measures are available. In order to ensure that these data are collected in a way and format suitable for the proposed quality measures, greater co-operation and dialogue is required between the various agencies. As local authorities collect much of these data in order to meet their statutory LAQM requirements, it is important that the data collection exercises for the proposed quality measures utilise and mirror very closely the data collection for LAQM. Each year, local authorities are required to submit annual status reports to Defra detailing progress to improve air quality within their areas. These reports are subsequently appraised and commented on by Defra, including recommendations for further work to enable more effective work to improve air quality. Local authorities follow well established prescriptive statutory and non-statutory guidance in collecting and reporting on these data. We propose therefore, that NICE engage with Defra and local authorities in order to develop complementary data collection exercises to LAQM in order to prevent repetition and putting unnecessary extra burden on local authority resource delivering LAQM.</p>
29	British Heart Foundation	Question 2	<p>The quality measures for Statements 2 and 3 only require local measurement of PM₁₀ and NO₂. Air quality monitoring must not only be used to ensure compliance with legal air pollutant limits, but is fundamental to directing and evaluating interventions with the protection of health at their core. Given the strength of evidence on the health harms of PM_{2.5}, PM_{2.5} levels must also be an outcome measure for these quality statements. This would better enable identification of problem areas, consideration of all health-harmful pollutants in strategic plans, and evaluation of the efficacy of planning and traffic-related interventions.</p>

ID	Stakeholder	Statement number	Comments ¹
			As there are only 78 DEFRA-owned monitors for PM _{2.5} nationwide ¹² , and it is not a statutory obligation for local authorities in England to monitor PM _{2.5} ¹³ , these values are modelled in many areas, and there is often significant uncertainty in modelled air pollution values ¹⁴ .
30	Havant Borough Council	Question 2	Largely, yes. I have no basis on which to comment Re: Statement 1. Re: Statement 2 [outcome, a)] County have oversight of travel plans agreed under s106, and already collect some of these figures. Census data will also be informative for long-term change. [outcome, b) & c)] – Local Authority (LA) ASR's and AURN monitoring already provide this data.
31	Kingston upon Hull City Council	Question 2	To give the kind of information required in a timely and accurate way at a local level would require a significant amount of resources. In my opinion, this would be perhaps better invested in measures to reduce the emissions in the first place.
32	NHS Sheffield CCG	Question 2	No, there are not local systems and structures in place to collect data for all of the proposed quality measures. There would be additional work for Local Authorities and NHS organisations to collate and report this data during a time of diminishing resource. Any national data collection requirement, templates and reporting deadlines would need to be agreed with stakeholders in terms of the data burden.
33	North Hertfordshire District Council	Question 2	Yes, in any local authority that takes its duties under Part IV of the EA 1995 seriously there should be adequate funding to collect enough air quality data.
34	Nottingham City Council	Question 2	Q2. Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be for these to be put in place? Some are in place, those not in place may be feasible. Further local work needed to establish feasibility/costs.
35	Royal College of General Practitioners	Question 2	The structure is in place in some areas but there is little linkage of data sets and relaying the information to local population.
36	University of Birmingham	Question 2	As described, there remains a paucity of locally available air pollutant data available at a local level to inform effective delivery of Quality Statement (QS)1 and which is also critical for robust evaluation of QS2-5. Investment is necessary to provide fixed site and field campaigns at specific locations of relevance for 'live' episode awareness among vulnerable population groups (e.g schools, primary care facilities, acute hospitals, care providers). Given recent increases in marketing of mobile / "low cost" monitoring devices and uptake by members of the public, efforts will be needed to ensure data audit quality control and accountability.

¹² Department for Environment, Food and Rural Affairs, [UK-Air, Air information resource](#). Last accessed 25 September 2018.

¹³ Department for Environment, Food and Rural Affairs, [Local Air Quality Management, Technical Guidance \(TG16\)](#), April 2016.

¹⁴ Public Health England, [Public Health Outcomes Framework: Indicator Definitions and Supporting Information](#), May 2018.

ID	Stakeholder	Statement number	Comments ¹
37	Barnsley Metropolitan Borough Council	Question 3	Statements 2, 3 and 4 are already being done to some extent. However the extent to which this is successful if resource dependent (particularly 2 and 4) and is a particular challenge at a time of reducing resources in local government and in national grants for this work.
38	Barnsley Metropolitan Borough Council	Question 3	Much of the proposed quality standards 2 to 4 (inclusive) are already being largely delivered by local authorities under LAQM. Accessible local authority air quality action plans demonstrate this. Encouraging and facilitating the switch to low emission vehicles and other forms of travel (cycling and walking) are undertaken by local authorities, either via the planning regime, or by developing initiatives themselves (e.g. ECO Stars https://www.ecostars-uk.com/ , and http://www.care4air.org/ are examples of two initiatives developed and implemented in South Yorkshire), with further initiatives developing all the time, particularly those authorities (but not exclusively so) who have been mandated to produce feasibility studies for the development and implementation of Clean Air Zones. It is therefore essential that in order to minimise resource requirements and maximise “value-for-money” that the requirements of these quality statements are aligned closely and harmonised with the LAQM regime. Consideration therefore needs to be given to how this alignment can be achieved – alignment with the annual status reporting cycle seems the most appropriate process to incorporate and adopt. For instance, the adoption of ECO Stars for local NHS fleets is an important milestone to moving towards lower emission fleets.
39	British Heart Foundation	Question 3	The cost of PM _{2.5} monitoring is high; in 2016, an analysis performed for the Scottish Government found that the 10-year cost of monitoring PM _{2.5} would be between £35,000 and £120,000 per site ¹⁵ , hence could be prohibitive to some local authorities. There must be adequate financial resource provided by central government to support better local monitoring and the benefit that it will bring to tackling the health harms associated with air pollution.
40	Havant Borough Council	Question 3	I have no basis upon which to make comment, other than to say that the provisions of Statements 2 & 3 are already undertaken, so the answer would have to be ‘yes’. Similarly, LA’s are already thinking about reducing emissions from vehicle fleets, and making procurements on this basis, so again it would appear feasible.
41	Kingston upon Hull City Council	Question 3	It depends. There is data that can be used, however it is unlikely to be at the appropriate resolution for such local measures, so it would be a very general prediction of emissions that is unlikely to hold true for a wider area. To get data at an appropriate resolution would be costly.
42	NHS Sheffield CCG	Question 3	No, these statements are not achievable by local services given the net resources needed to deliver them. In order to meaningfully effect change in road traffic related air pollution then significant resource is required, for example fleet renewal. Local Authorities and NHS organisations may already be tied into long term contracts which may preclude them from taking more robust action on road traffic related air pollution and which may carry financial penalties for early termination.

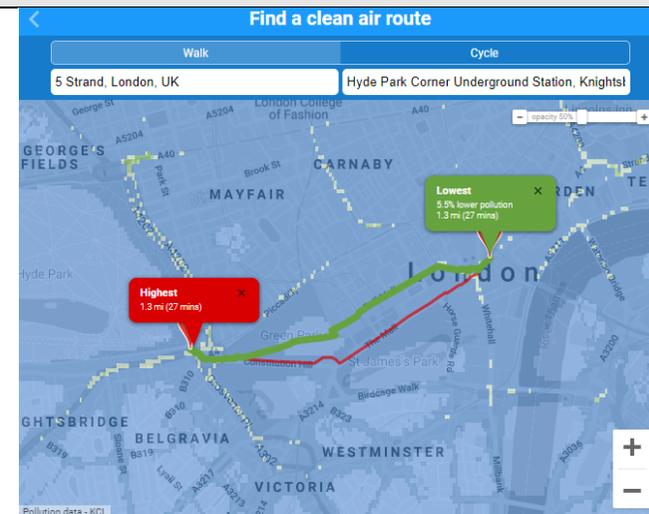
¹⁵ Ricardo Energy & Environment, [PM2.5 Network in Scotland, Report for the Scottish Government](#), March 2016

ID	Stakeholder	Statement number	Comments ¹
			Further, the need for additional resourcing to meet this quality standard is set against a backdrop of continued austerity and competing demands/responsibilities. The ambition for NHS organisations and Local Authorities to take action on local air pollution is correct but this requires national investment and programme management if it is to meaningfully effect change.
43	North Hertfordshire District Council	Question 3	Yes, they should be achievable in-house, provided the subject is prioritised accordingly. However, often the work is overlooked or undertaken on an ad-hoc basis by sub-contractors or consultants as a short term fix when deadlines are due. This can lead to a disjointed and inconsistent approach to addressing the challenge of improving local air quality and does not facilitate joint working across departments and between organisations.
44	Nottingham City Council	Question 3	<p>Q3. Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.</p> <p>Some. The communications package requires resourcing in both the NHS and Local Authorities. However, as awareness is raised, behaviour changes and air quality/health improves there will be savings to the NHS. A recent local audit of GP practices reviewed current practice regarding the nature and content of advice given to patients living with asthma as it relates to air pollution. The survey found that GPs rarely have conversations about air quality (indoor and outdoor) with patients. GPs attributed this to a lack of knowledge, lack of time and a lack of guidance. We would suggest that NICE guidance is issued in the first instance to support clinicians and other health professionals in issuing the correct evidence based advice.</p>
45	Royal College of General Practitioners	Question 3	There needs to be a standard information portal with local alerts to these group using UK Air collating all local data which links to national and local health data sets such as the RCGP research and surveillance centre.
46	Barnsley Metropolitan Borough Council	Question 6	BMBC is the lead commissioning organisation for Eco Stars – case studies are included the following link https://www.ecostars-uk.com/about-eco-stars/case-studies/
47	Basingstoke and Deane Borough Council	Question 6	No comment
48	Kingston upon Hull City Council	Question 6	<p>Whilst not done specifically through the NICE guidance as it was done independently of them, we (Hull City Council) have and air quality strategy that the NICE guidelines compliment. The NICE guidelines are very much in line with our own.</p> <p>As examples of the above, the Council's air quality strategy compliments Quality Statements 2, 3 and 4 as presented in the consultation document.</p> <p>Quality Statement 2: Strategic Plans. Air Quality is detailed in the Local Plan, and we are currently working with Council Planners to produce Supplementary Planning Documents for Planners and developers. The overall aim is to minimise the creation of emissions, rather than simply achieving the objectives.</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>Quality Statement 3: Whilst not a statutory consultee, we have a very good working relationship with the planning department, who give any comments we make full consideration and support, however, they need to balance our comments with the various other demands and constraints that they are obliged to comply with.</p> <p>Quality Statement 4: We have an excellent relationship with our fleet management team, even though they are not directly a council department. They are fully committed to greener technology, and push the new technologies where ever and whenever they are able, and invest a lot of time and effort in making sure that they are up to date with current thinking.</p>
49	Nottingham City Council	Question 6	<p>Do you have an example from practice of implementing the NICE guideline that underpins this quality standard? If so, please submit your example to NICE local practice case studies on the NICE website. Examples of using NICE quality standards can also be submitted.</p> <p>No.</p>
50	Royal College of General Practitioners	Question 6	<p>The RCGP runs a green impact for health scheme http://www.rcgp.org.uk/clinical-and-research/resources/bright-ideas/dr-terry-kemple-and-dr-charlie-kenward-green-impact-for-health-scheme.aspx. This could be expanded to Hospital Trusts and local authorities</p>
51	Royal Town Planning Institute	Question 6	<p>Enjoy Waltham Forest, Waltham Forest LBC. Major infrastructure changes throughout the area to encourage a modal shift among residents by prioritising walking and cycling over private car-use has resulted in a large reduction in the number of households living in areas with pollution emissions above acceptable levels.</p> <p>Trumpington Meadows, South Cambridge. A dedicated park and ride and cycle lanes have been integrated into a new urban extension to reduce the use of cars by residents.</p> <p>Both schemes were shortlisted for the RTPI Awards for Planning Excellence.</p>
52	University of Birmingham	Question 6	<p>Do you have an example from practice of implementing the NICE guideline that underpins this quality standard? If so, please submit your example to NICE local practice case studies on the NICE website. Examples of using NICE quality standards can also be submitted</p>
53	British Thoracic Society	Statement 1	<p>The Society supports this statement - patients with lung disease will benefit from being more aware of the effects of air pollution and routinely being given advice on what to do if levels of air pollution are high, but we have a number of comments.</p> <p>We have some concern about the evidence-base behind the statements in terms of clinical and cost effectiveness eg cost per QALY?</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>This statement would apply to a large number of primary and secondary care patients who were deemed vulnerable, and that it would be difficult to implement and measure.</p> <p>Without good evidence of cost effective benefit, would GP practices and hospitals be prepared to spend time and money training staff, contacting patients and auditing? Is this more or less valuable than spending more money on smoking cessation clinics for example?</p> <p>The statement as written could be interpreted as suggesting that the advice is only relevant to pollution exposure when attending a clinic, when clearly it is just as relevant on every other day.</p> <p>We also have concern as to what effect contacting patients might have, and whether some would then not come to clinic on high pollution days - potentially resulting in missed appointments and harm e.g. if you are having an asthma exacerbation is it better to attend the GP For treatment or stay indoors on a high pollution day, eg2 if you choose to cancel your occupational asthma clinic appointment to avoid high air pollution, it might result in you staying exposed to a more harmful agent until the next appointment is available - there would need to be much clearer and more detailed guidance of what patients should and shouldn't do.</p> <p>We suggest that this statement is reworded.</p>

ID	Stakeholder	Statement number	Comments ¹
54	Cross River Partnership	Statement 1	<p><i>“Evidence of local processes to ensure that people in vulnerable groups attending a health appointment when air pollution is high are given advice on how to minimise their exposure and manage related symptoms”</i></p> <p>There is currently little evidence of formal processes of people in vulnerable groups being given advice on how to minimise exposure to air pollution when attending a health appointment.</p> <p>With exposure to air pollution seriously affecting health, The Cross River Partnership (CRP) has developed the ‘Clean Air Walking Route’ tool which could be harnessed by healthcare professionals to help support and minimise exposure of air pollution to vulnerable groups and enable them to protect themselves. This tool has been created to encourage a mode shift in promoting walking or cycling and to promote behaviour change.</p>
55	Greater London Authority	Statement 1	<p>Quality statement 1: Advice for people that are vulnerable</p> <p>Statement: People in vulnerable groups attending a health appointment when air pollution is high or very high are given advice on how to minimise their exposure and manage related symptoms</p> <p>Question 1: To ensure this statement is practical and measurable, should it focus on particular vulnerable groups: people with chronic respiratory and cardiovascular conditions; children; pregnant women; older people?</p> <p>Yes, this would be in keeping with the approach we have taken in London with our air quality alerts system. The approach adopted is to disseminate the message as widely as possible through various media channels but also have an additional layer of alerts, including targeted for vulnerable groups (e.g. schools). Please see below for more detail on our alerts system. This is in keeping with Proposal 4.1.1b on the London Environment Strategy <i>“The Mayor will aim to do more to protect London’s young and disadvantaged people by reducing their exposure to poor air quality, including at schools, nurseries, other educational establishments, care homes, and hospitals.”</i></p>



ID	Stakeholder	Statement number	Comments ¹
			<p>Question 2: To ensure this statement is practical and measurable, should it focus on providing advice at particular types of health appointment such as: initial antenatal booking appointments; child health checks; annual reviews for people with chronic respiratory or cardiovascular conditions; when presenting with an exacerbation of a respiratory or cardiovascular condition?</p> <p>We would expect that a focus on providing advice at particular types of health appointment would be more effective than only issuing advice on high or very high pollution days: even in London high and very high events are relatively rare so restricting advice to these times could miss the majority of affected people.</p> <p>Advice should include information on how to access and understand local (in London) and National air quality forecasts and alerts, what action should be taken during episodes of high and very high pollution and what actions can be taken to minimise long term exposure, such as using low exposure travelling routes.</p> <p>We agree on targeting messaging at vulnerable groups as a priority. However, there is now a growing body of evidence for associations between poor air quality and many diseases so the impacts of air quality affect the population as a whole. A recent report by the Royal College of Physicians linked air pollution to cancer, asthma, stroke and heart disease, diabetes, obesity, and changes linked to dementia. If the precautionary principle is applied, advice should be provided to people suffering with a wider range of conditions as further evidence of the wide-ranging health effects of air quality emerge.</p> <p>Comment:</p> <p>The quality measure most relevant to the GLA here is:</p> <p><i>“b) Evidence of local arrangements to notify healthcare professionals when air pollution is high or very high.”</i></p> <p>In January the Mayor launched an update to the air quality alerts system in London based on publicly available forecasts, including Defra’s forecast. (Defra do not have an ‘alerts’ system – they have a forecast but should consider how to actively contact people with an alert). When high and very high air pollution is forecast, air quality alerts are displayed at many public locations across London including 2,500 bus stop countdown signs and all Tube stations. Alerts and guidance are also available via social media, an app and a text alert service providing information and guidance on the alert level. To improve this system the Mayor has now appointed King’s College London as duty forecaster. They continuously monitor air pollution in London using the existing air quality monitoring network and cutting-edge modelling tools, as well as taking into account other available forecasts to deliver alerts as required.</p>

ID	Stakeholder	Statement number	Comments ¹
			They also directly notify a wider group of stakeholders so that the alerts are disseminated more widely and targeted at Londoners who are most vulnerable to the impacts of poor air, including those at schools, and potentially care homes, and GPs surgeries in the near future. More details of our air quality alerts system can be found on our website .
56	Havant Borough Council	Statement 1	I do not see the relevance of only providing advice to vulnerable groups on days of high ambient or transboundary pollution. This may serve to limit resource requirements, but equally limits achievable outcomes. Personal exposures can be dramatically improved by minor behavioural change, and being a chronic (as well as acute) harm, overall improvements in outcomes (over and above those achievable under the draft Quality Standard) will be possible if all priority vulnerable groups are routinely targeted for provision of advice. This would dispense with the need for a system of notification and serve to embed this element as routine clinical care.
57	London Borough of Hackney	Statement 1	<p>Question 2</p> <p>Statement 1: Data to inform outcome measures <i>structure</i> a), b) and c) should be available, but could be potentially time consuming to collate.</p> <p>Data to inform the quality measure <i>outcome</i> would be likely to require bespoke data collection across a range of healthcare organisations, which could potentially be highly resource intensive.</p> <p>The data to inform the numerator of the <i>process</i> outcome measure should be available (via the new SNOWMED coding system across healthcare), though this may vary between healthcare providers - there are concerns about the likely completeness of this recording, particularly in certain settings, and given that may be difficult to employ some of the usual systems in place to improve coding. It should also be possible to determine the denominator value using existing individual provider level data.</p>
58	London Borough of Hackney	Statement 1	<p>Question 3</p> <p>Statement 1: The implementation of this measure may potentially highly resource intensive, and may prove practically very difficult to establish and embed within working practices.</p>
59	London Borough of Hackney	Statement 1	While we support the aims of informing patients when air quality is poor and advising on appropriate measures to minimise exposure and manage associated symptoms, we have significant reservations about how the proposed approach could be practically implemented on a local level. To work effectively as described, the proposed system would probably have to be highly automated, which may prove more difficult to achieve given the infrequency of high/very high air pollution events. It is unclear that the necessary systems are in place or could be readily established to achieve implementation as intended.
60	London Borough of Hackney	Statement 1	The number of days per year that meet the air quality thresholds referred to within the standard is very small. (15 days were designated as having high or very high air pollution in London between 1st January 2015 and 31st December 2017 (Source: UK AIR - Air Information Resource)). Therefore, the chance of a given patient having an appointment on one of these days is likely to be very low. Any intervention such as the one proposed in this Quality

ID	Stakeholder	Statement number	Comments ¹
			<p>Statement must be complemented with a strong emphasis on building air quality and appropriate advice into standard care pathways, to ensure that vulnerable patients are informed and empowered to manage their condition in relation to air pollution every day.</p> <p>As proposed in <i>Structure a</i>), this must be underpinned through appropriate training of healthcare and other support staff.</p>
61	London Borough of Hackney	Statement 1	<p>It is not clear from the current statement as to whether the expectation is the patients would be informed of poor air quality in advance of their appointment (so they can take appropriate measures to minimise their exposure on their way to their appointment), or at the appointment itself.</p>
62	London Borough of Hackney	Statement 1	<p>It is disappointing that only the role of healthcare professionals in sharing advice about air quality is reflected in the Quality Statement. There are a range of other providers (just as one example, Early years and school settings), which could play an important role in communicating these messages. This may reflect perceived difficulties in recording or reporting of this activity.</p>
63	NHS Sheffield CCG	Statement 1	<p>This statement is about people in vulnerable groups and includes those with long term conditions which are known to be exacerbated by air pollution, as well as the very young and old, pregnant women. The list of vulnerable groups and long term conditions known to be exacerbated by air pollution is likely to change over the period the NICE quality standard is in place due to emerging evidence. This should be made clear in the definitions section.</p>
64	NHS Sheffield CCG	Statement 1	<p>This statement is concerned with people attending health appointments. This seems unnecessarily restrictive. In a technologically advanced age it should be possible to provide information and advice in real time to those who ‘opt in’ to receive alerts about poor air pollution “events” as well as chronic background levels of air pollution.</p> <p>How this alert system will operate is not articulated and appears to be left to local systems (CCGs and NHSE are mentioned on p6) to devise and manage. This is unlikely to be effective. Health professionals and patients moving to work in different areas or working across Local Authority boundaries may be exposed to a number of different local models which may create confusion.</p> <p>If this statement is restricted to those attending health appointments then this should be widened to those ‘booked’ for health appointments as relevant advice may include “do not attend – reschedule/rebook” or “do not drive” which may necessitate re-booking for patients reliant on transport including patient transport vehicles.</p> <p>This statement concerns itself with when air pollution is high or very high. This appears to be restricted to short-term air pollution “events” (p6) however some Local Authority areas will have air pollution which is chronically in excess of EU Health Limit Values and in effect a permanent alert would need to be in place for these areas.</p> <p>This statement describes people being given advice to minimise their exposure and manage related symptoms. This advice should meaningfully include advice not to drive, not to drive diesel, not to drive diesel that is not Euro 6/VI and therefore exacerbate poor air quality problems. The health advice has been well articulated.</p>

ID	Stakeholder	Statement number	Comments ¹
65	NIHR CLAHRC North Thames	Statement 1	Examples for advice are poor: Indoor air can be worse than outdoor air, indoor PM10 would usually exceed even high outdoor levels if frying food without a good air vent. Better advice: On high pollution days, keep windows mostly closed, unless you create smoke or fumes inside, e.g. through frying food, or using dusty substances.
66	Nottingham City Council	Statement 1	<p>How this might be achieved?</p> <p>Not stated in guidelines, but options might include:</p> <ol style="list-style-type: none"> i. Via text to registered users and when text appointment reminder issued, ii. As part of appointment information pack to patients, and with links to:- <p>Current AQ information and forecast available at:- https://uk-air.defra.gov.uk/</p> <p>Current (last 3 hours) air quality information for Nottingham at:- http://nottinghamaqm.net/</p> <p>BBC weather for Nottingham (information and forecast):- https://www.bbc.co.uk/weather/0/2641170</p> <p>How could this be implemented locally?</p> <p>The need to regularly and effectively communicate information has been identified. However, not planned/implemented as no funding to deliver range of health AQ information.</p> <p>Resource/funding requirement? Minimal if incorporated in appointment information pack and possibly low resource requirement if part of automated appointment reminder via SMS text.</p>
67	Royal College of Paediatrics and Child Health	Statement 1	The quality standards mention providing advice to vulnerable groups, however the advice given is not specific.
68	Royal Pharmaceutical Society	Statement 1	The Royal Pharmaceutical Society is the professional body for pharmacists and pharmacy in Great Britain. As professionals in pharmaceutical care, pharmacists are well equipped to offer advice on health and wellbeing. With an increasing number of pharmacists working in general practice and managing long term conditions such chronic

ID	Stakeholder	Statement number	Comments ¹
			obstructive pulmonary disease (COPD), pharmacists are often directly involved in providing health and lifestyle advice for better management.
69	Royal Pharmaceutical Society	Statement 1	<p>We support this statement in general. However NICE may need to consider the advice on how to minimise exposure and manage related symptoms. It may be useful to have support guidance for healthcare professionals with practical tips on how to support patients that are vulnerable. UK Air provide a daily air quality index with associated health advice (https://uk-air.defra.gov.uk/air-pollution/daq). Currently the advice given may not always be feasible such as 'Close external doors and windows facing a busy street at times when traffic is heavy or congested to help stop highly polluted air getting in'. This may prove difficult for families who live on busy main roads, particularly in the summer months. Additionally, further advice may be needed on 'Use an asthma reliever inhaler more often, as necessary', as this may not be appropriate use of an asthma reliever. Asthma UK have a range of tips for asthmatics to manage their asthma on high pollution days. Further information can be found here:- https://www.asthma.org.uk/advice/triggers/pollution/#TopTips, this includes advice such as 'taking your preventer medicine every day you'll cope better with all your triggers, including pollution'.</p>
70	Sustainable Development Unit for NHS England and Public Health England	Statement 1	<p>No link to the carbon co-benefits of ultra-low emissions vehicles and other ways to manage air pollution is made. This is important knowing that heat waves events exacerbate air pollution levels. And these impacts need to be managed in parallel to avoid other environmental & health unintended consequences (e.g. the diesel vs. petrol decision/policy making).</p>
71	University of Birmingham	Statement 1	<p>Question 3</p> <p>QS1 – Measures: Additional resource to support local data collection (e.g surveys of people in vulnerable groups) will be necessary. Utilisation of a standardised tool for assessment of awareness level and understanding of behavioural changes for symptom management would be beneficial for evaluation; however there are significant gaps in the relevant evidence base.</p> <p>QS1 – Audiences: Healthcare professionals will require high quality and consistent training (with associated resource implication) to enable delivery of targeted health advice for 'high pollutant episodes'. Such training may build upon existing NHS England frameworks (i.e 'Make Every Contact Count implementation) and be supported by online training tools and integration within training and accreditation regulatory bodies (i.e. Health Education England). Achieving a cultural change across the medical profession, beyond the public health and respiratory medicine community, is also likely to be critical for effectiveness of this approach, including achieving a shift in public risk perception. Delivery by local authority agencies (and contracted providers) has potential to extend broad population coverage, including those individuals adversely affected by air pollutants who are not under current management for a defined health condition.</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>QS1 – Commissioners: Capital investment in appropriate infrastructure for service provider facilities will be necessary to support notification systems of local air pollutant levels. Integration with health promotion messaging systems (i.e. in patient waiting areas) may provide a suitable approach, dependent upon local resources.</p> <p>QS1- Vulnerable Groups: All communication mechanisms and targeted advice should provide appropriate measures to mitigate behavioural changes which are potentially harmful for health, such as discouraging access to health and social care services, increasing levels of social isolation and unintended changes in compliance with prescribed medication (i.e not using reliever inhalers due to fears of increasing pollutant exposure).</p>
72	Allergy UK	Statement 1 – Question 4	<p>Quality statement 1: Advice for people that are vulnerable to air pollution</p> <p><input type="checkbox"/> To ensure this statement is practical and measurable, should it focus on specific vulnerable groups: people with chronic respiratory and cardiovascular conditions, children, pregnant women, and older people?</p> <p>We believe that people with reversible allergen-induced airway diseases should be added to the vulnerable group list or held as an example of what constitutes a chronic respiratory condition (For instance, someone could have asthma triggered by grass pollen every year for 40 years). This approach will clearly recognise the vulnerability of people with allergies and facilitate addressing their particular needs.</p> <p>Consequently, healthcare professionals can provide vital information to a group of people that might not be considered to be affected by air pollution and patients themselves might establish the link between air pollution and exacerbation of their symptoms. Subsequently, helping them to develop preventative measures.</p>
73	Barnsley Metropolitan Borough Council	Statement 1 – Question 4	<p>Yes, I think that it should focus on those with medical vulnerability who are therefore worst affected by high pollution episodes. Advice would be most effective when targeted at these groups, although advice given nationally would also be useful to the public in general who may be unknowingly at risk.</p>
74	Barnsley Metropolitan Borough Council	Statement 1 – Question 4	<p>We agree that this quality statement should focus on vulnerable groups as detailed above. However, incidences of high and very high air pollution outside of London (as measured by Defra’s Daily Air Quality Index https://uk-air.defra.gov.uk/) are very infrequent, and are typically of a relatively short duration before the air quality index falls back to moderate and low. Due to this low incidence and the frequency of NHS appointments for patients, it is likely that implementation of this quality standard outside of London will also be infrequent. It is therefore important that there are robust lines of communication between NHS/Local Authority coms teams when such incidences are forecast, so that the necessary procedures to inform these groups are in place. This should be included within local emergency resilience plans. We also think it pertinent that consideration should be given to issue advice (when appropriate and feasible to do so) when appointments are taking place outside of high and very high air pollution incidences), as long term exposure to air pollution will also have impact on patients’ health. This advice should not be</p>

ID	Stakeholder	Statement number	Comments ¹
			alarmist, but should focus on practical steps to reduce exposure to road traffic emissions (walking on the pavement furthest away from the kerb next to busy road has been demonstrated to reduce exposure to air pollution for instance). We therefore believe that there is scope for the development of easily understandable resources (including social media) to be provided to patients at these times, containing simple advice to reduce their day-to-day exposure as well as consideration of exposure during pollution episodes. Annual reviews (e.g. annual asthma reviews) could present a good opportunity to provide this advice.
75	Basingstoke and Deane Borough Council	Statement 1 – Question 4	No comment
76	British Heart Foundation	Statement 1 – Question 4	As highlighted by our survey and focus groups, there is a need for improved provision of information on the health impacts of air pollution and ways to reduce personal exposure and contribution. To ensure that the statement is practical and measurable, the purpose of providing such information must be carefully considered. One important aim must be to provide tailored advice to those who are vulnerable, such that it enables them to take specific action to protect their health. However, more general guidance should also be available to those not considered to be vulnerable, both for considerations of health and to incentivise them to reduce their contribution to poor air quality. Our supporters and patients raised the point that people will only moderate their behaviour and reduce their contribution to poor air quality if they are aware of the impact it is having on their own health and that of those around them. Moreover, although healthy people are less vulnerable to many of the acute impacts of air pollution, such as an increased risk of a heart attack or stroke following short term exposure, they are not immune to the long-term effects. Recent BHF-funded research used data from 4,000 people with no pre-existing heart or circulatory condition and found that those living near loud, busy roads, and therefore exposed to higher levels of air pollution, had changes in the structure of the heart similar to those seen in the early stages of heart failure ¹⁶ .
77	Havant Borough Council	Statement 1 – Question 4	My understanding of research into health outcomes is that vulnerable groups are disproportionately affected – either due to the exposure scenario's, or their physical vulnerability. In this sense, I would agree that the most vulnerable groups should be targeted – particularly those with pre-existing chronic cardiovascular or respiratory problems, the elderly, and children aged 0-6 (through the provision of advice to parents)
78	Kingston upon Hull City Council	Statement 1 – Question 4	Whilst the groups mentioned will benefit most from advice, others that fall outside of those groups could be missed, and it could take resources away from resolving the excess emissions by managing the cause rather than the effect. It needs to be in conjunction with other initiatives, with an appropriate form of cost benefit analysis informing the priorities.
79	London Borough of Hackney	Statement 1 – Question 4	Under the proposed quality statement, providing advice to vulnerable groups only will 1) help to ensure consistency and accuracy of messaging and 2) focus activity towards a more manageable number of patients. Providing this

¹⁶ Aung et al. Association between ambient air pollution and cardiac morpho-functional phenotypes: Insights from the UK Biobank population imaging study. Circulation. 03/08/2018

ID	Stakeholder	Statement number	Comments ¹
			information to vulnerable groups should also help to maximise the impact of this intervention, by prioritising those who are more likely to suffer from acute adverse effects associated with air pollution.
80	Nottingham City Council	Statement 1 – Question 4	<p>Q4. For draft quality statement 1: To ensure this statement is practical and measurable, should it focus on particular vulnerable groups: people with chronic respiratory and cardiovascular conditions; children; pregnant women; older people?</p> <p>The NHS message should be for anyone attending the hospital/clinics, with targeted (via text/SMS reminder and appointment information) additional information for vulnerable groups when attending clinic on high air pollution days and on air pollution alert days.</p> <p>If resources were made available a Local Authority a regular message could be issued on website/social media and/or messages issued when air pollution is high.</p>
81	Royal College of General Practitioners	Statement 1 – Question 4	To ensure this statement is practical and measurable it should focus on providing advice at particular types of health appointment such as: initial antenatal booking appointments; child health checks; annual reviews for people. However there needs to be a standard information portal with local alerts to these group using UK Air collating all local data which links to national and local health data sets such as the RCGP research and surveillance centre.
82	University of Birmingham	Statement 1 – Question 4	For the purpose of providing practical and measurable target populations these groups represent those who are recognised to have specific sensitivities to pollutant exposure (due to age or co-morbidities) therefore providing a pragmatic targeted approach. Inclusion of those groups experiencing high pollutant exposures due to geographical location (i.e. living or working at pollutant ‘hotspots’) would increase potential for wider public health benefit. Effective measures to target and reduce exposure levels among vulnerable population groups are likely to be essential to reduce local health inequalities; however, given the complex relationships with wider health determinants such evaluation requires robust methodology and engagement with the academic community.
83	Allergy UK	Statement 1 – Question 5	<p><input type="checkbox"/> Should it focus on providing advice at specific types of health appointment such as initial antenatal booking appointments, child health checks, annual reviews for people with chronic respiratory or cardiovascular conditions, or when presenting with an exacerbation of a respiratory or cardiovascular condition?</p> <p>Air pollution is considered to be the greatest environmental risk to health, being responsible for four million deaths worldwide in 2015. In the UK, approximately 40,000 deaths are attributable to exposure to outdoor air pollution each year¹⁷ with an estimated annual cost to the health system of approximately £20 billion.</p> <p>There is strong evidence that outdoor air pollution is harmful to human health. Air pollution has been linked to cancer, asthma, stroke and heart disease, diabetes, obesity, and, more recently, to dementia.</p>

¹⁷ Royal College of Physicians. Every breath we take: the lifelong impact of air pollution. Report of a working party. London: RCP, 2016.

ID	Stakeholder	Statement number	Comments ¹
			<p>We agree with the guidance to provide advice at specific types of health appointments listed above. However, for the reasons listed above, we suggest that information regarding the effects of air pollution on human health as well as preventative measures should be provided to everyone attending a health appointment on days with particularly high air pollution and/or pollen count. Such information should be a constant feature of public health campaigns seeking to educate the population about the harmful effects of air pollution on human health.</p> <p>The opportunistic approach of providing advice to vulnerable groups attending health appointments is a good tactic but, in our opinion, does not go far enough to achieve better health outcomes for the population exposed to air pollution. In the UK, the number of people exposed to illegal air pollution reaches almost 40 million¹⁸.</p> <p>We understand that is not possible for everybody, and indeed every parent, to avoid the negative health effects of air pollution. However, we believe that by providing advice at this stage, preventative measures can be developed and informed decisions made to minimise the exposure and its effects on health.</p> <p>Providing advice to this population could result in significant improvements to the nation's health and the sustainability of the health system. This would arise as a result of improved preventative measures and self-management, which reduce the number of appointments and medical interventions needed to treat symptoms.</p>
84	Barnsley Metropolitan Borough Council	Statement 1 – Question 5	Yes, I would also agree with this statement.
85	Barnsley Metropolitan Borough Council	Statement 1 – Question 5	Further to answer to question 4, we believe that routine appointments (annual / six monthly reviews) provide the best opportunity to provide general advice on how to minimise exposure etc. for both short term pollution episodes and longer term exposure.
86	Basingstoke and Deane Borough Council	Statement 1 – Question 5	No comment
87	British Heart Foundation	Statement 1 – Question 5	Information on the health impacts of air pollution and practical advice on reducing personal exposure and contribution to air pollution must be integrated into daily life, in order to reach those who do not actively seek such advice. While providing advice to vulnerable groups at specific types of health appointment will ensure that this statement is practical and measurable, service providers must also consider how messaging can be embedded across the health and care system and have the maximum possible benefit to the health of all of those they provide for.
88	Havant Borough Council	Statement 1 – Question 5	I would agree that routine health checks (child, annual reviews) provide appropriate contact opportunities to provide such advice. A patient presenting with exacerbation is more of a clinical matter – I would agree that GP's should

¹⁸ Nearly 40 million people live in UK areas with illegal air pollution. Available online at: <https://www.theguardian.com/environment/2017/apr/22/nearly-40-million-people-live-in-uk-areas-with-illegal-air-pollution>

ID	Stakeholder	Statement number	Comments ¹
			consider air quality as a factor when considering why there has been a clinical change; for example, has a behavioural change occurred which has increased personal exposure? Advice would naturally follow where air quality might be a material factor. This strikes me as being more 'case-by-case' however.
89	Kingston upon Hull City Council	Statement 1 – Question 5	I feel that the focus could not only miss some affected people, but also risks missing 'other' causes, as not all breathing problems are related to air quality, and sometimes, the data can hide the effects of changes in weather being the cause, even though the information as presented matches poor air quality.
90	London Borough of Hackney	Statement 1 – Question 5	Under the proposed quality statement, it may be more appropriate for advice is offered at all appointments, rather than a particular subset of appointment types. This would ensure that patients receive this advice regardless of why they are interacting with the healthcare system, and may help to minimise complications associated with the implementation of this standard.
91	Nottingham City Council	Statement 1 – Question 5	<p>Q5. For draft quality statement 1: To ensure this statement is practical and measurable, should it focus on providing advice at particular types of health appointment such as: initial antenatal booking appointments; child health checks; annual reviews for people with chronic respiratory or cardiovascular conditions; when presenting with an exacerbation of a respiratory or cardiovascular condition?</p> <p>The NHS the message should be for anyone attending the hospital/clinics, with targeted (via text/SMS reminder and appointment information) additional information for vulnerable groups when attending clinic on high air pollution days and on air pollution alert days.</p> <p>If resources were made available a Local Authority a regular message could be issued on website/social media and/or messages issued when air pollution is high</p>
92	Royal College of General Practitioners	Statement 1 – Question 5	To ensure this statement is practical and measurable it should focus on providing advice at particular types of health appointment such as: initial antenatal booking appointments; child health checks; annual reviews for people. However there needs to be a standard information portal with local alerts to these group using UK Air collating all local data which links to national and local health data sets such as the RCGP research and surveillance centre
93	University of Birmingham	Statement 1 – Question 5	Delivery of advice at key health service contact points is recognised to achieve high coverage for the targeted population groups. Primary school enrolment provide an opportunity for contact with children at an age of recognised heightened susceptibility to long-term impacts of pollutant exposure and therefore risk of chronic disease in later life. Community pharmacies are a potentially suitable setting, particularly for those patients accessing repeat prescriptions or could be included during routine immunisation for vulnerable population groups (e.g. seasonal influenza) Occupational health staff should be trained in those settings with recognised high road traffic emissions exposure (e.g highway workers, parking attendants).
94	Allergy UK	Statement 2	<p>Additional Considerations</p> <p>Quality statement 2: Strategic plans</p> <p>Within the key strategies that Local Authorities are required to implement to target air pollution and improve air quality, special consideration should be given to the impact of mass planting of certain species of trees on people vulnerable</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>to air pollution. Research shows that pollution generated by diesel engines in combination with tree (especially birch¹⁹) and plant pollen play a role in the development and exacerbation of respiratory conditions and might be a contributing factor in the exacerbation of allergic rhinitis and asthma in the UK.</p> <p>As such, evidence-based, allergy-specific guidance should be taken into account when designing urban infrastructure. This is especially important when encouraging low-emission travel (i.e. walking and cycling) within the strategies and plans to target air pollution, as this quality standard document suggests.</p> <p>We believe that encouraging vulnerable groups to spend more time exposed to air pollution when walking and cycling could act as a contributing factor in the exacerbation of respiratory allergies, especially in peak pollen seasons, contradicting the purpose of this guidance.</p> <p>In order to support urban planning that accounts for the link between pollution and allergenic plant selection, we recommend the government use the Ogren Plant Allergy Scale (OPALS) to inform urban planning. This scale highlights allergenic plant species and recommends low allergen plant species that produce considerably fewer harmful effects on those affected by respiratory allergies. Thus, exposure to allergenic pollen can be reduced along with the symptoms suffered by atopic individuals.</p>
95	Basingstoke and Deane Borough Council	Statement 2	<p>Question 1 Does this draft quality standard accurately reflect the key areas for quality improvement?</p> <p>Statement 2 (strategic plans):</p> <p>We support the inclusion of strategic policies relating to air quality in Local Plans as this will help ensure that there is a strategic basis for ensuring air quality is addressed in land use planning. However, more detailed proposals and the framework for joined up action would sit more comfortably within other strategies such as Health and Wellbeing strategies, walking/cycling strategies, air quality action plans or Local Transport Plans. It would be useful if the statement could make the distinction between what is expected for Local Plans compared to 'other strategic' to aid clarity. Many aspects of addressing air pollution fall outside the remit of planning.</p> <p>In line with national policy Local Plans already seek to direct development to the most accessible locations where the need to travel is minimised. Where additional sites are allocated to meet housing needs; accessibility, sustainability and the provision of sustainable transport/alternative modes of travel are relevant considerations in developing proposals for new developments.</p> <p>Local Plan policies can usefully provide the policy hook for zero and low emission travel (which includes enabling cycling and walking, travel by zero- and low-emission vehicles such as electric cars, buses, bikes and pedal cycles,</p>

¹⁹ The birch tree is highly allergenic and contributes significantly to causing health issues for susceptible people (i.e. allergic rhinitis, asthma and oral allergy syndrome).

ID	Stakeholder	Statement number	Comments ¹
			<p>and car sharing schemes or clubs) but it's likely that supplementary planning documents and other guidance/strategies will be more relevant for incorporating more detailed information to embed these approaches into the planning process. The supporting evidence base for Local Plans usefully examines many of these areas including for example the connectivity of the cycle/footpath network as a whole and in relation to new development.</p> <p>Best practice/case studies are needed in relation to how the design of buildings and spaces is able to improve air quality. The briefing paper accompanying these standards suggests measures such as minimising the exposure of vulnerable groups to air pollution by not siting buildings (such as schools, nurseries and care homes) in areas where pollution levels will be high, siting living accommodation away from roadsides, avoiding the creation of street and building configurations (such as deep street canyons) that encourage pollution to build up where people spend time, including landscape features such as trees and vegetation in open spaces or as 'green' walls or roofs where this does not restrict ventilation, and including information in the plan about how structures such as buildings and other physical barriers will affect the distribution of air pollutants. As outlined above these approaches to the design or new buildings could usefully be implemented in areas where there are air quality issues and this approach could be reflected in high level policy criteria in Local Plans. However, and most importantly, detailed guidance and mechanisms are likely to be too detailed for inclusion in a Local Plan and would more suitably be placed in supplementary planning guidance or relevant strategies.</p> <p>Whilst Local Plans are the appropriate place to set out overarching policy criteria, local authorities will need to work with strategic partners in the production of air quality, transport and health and wellbeing strategies to set out more detailed approaches to achieving reductions in pollutant emissions. If Local Plan policies seek reductions in levels of pollutants these policy requirements need to be supported by an evidence base, be measurable and be assessed to ensure they would not have an effect on the viability of development as part of a plan level viability assessment.</p> <p>In respect of strategic partners, it needs to be recognised that in much of the country, local authorities operate on a two tier basis, with upper tier County authorities having responsibility for transport as Local Highway authorities, and district councils having a role as the Local Planning Authority. Whilst there needs to be a good working relationship between both authorities in areas where this structure operates, there is concern that in some instances, Local Transport Plans are not regularly reviewed to reflect local changes or issues arising. This reflects the role of Local Transport Plans, which has changed since their introduction, with less emphasis on them providing a basis for securing funding. There is therefore a requirement for some recognition that the statutory responsibility of highway authorities needs to be considered and recognised, including any requirement to maintain up-to-date Local Transport Plans if these are to be key documents in highlighting and addressing air quality related issues.</p>

ID	Stakeholder	Statement number	Comments ¹
96	Basingstoke and Deane Borough Council	Statement 2	<p>Question 2 Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be for these to be put in place?</p> <p>Statement 2: Best practice guidance and case studies could usefully provide support for local planning authorities to adopt policies which seek to address air pollution. Policy compliance could be determined through the provision and active monitoring of Travel Plans which put in place zero and low emission travel options. However, it may be difficult to determine/quantify the air quality outcomes of proposals.</p> <p>In many instances, there is limited resource available to fully undertake this role.</p>
97	Basingstoke and Deane Borough Council	Statement 2	<p>Question 3 Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.</p> <p>Statement 2: Guidance documents and best practice along with training for planners would be beneficial to provide confidence in developing a policy approach for the inclusion in Local Plans.</p>
98	Cross River Partnership	Statement 2	<p><i>“Local authorities should work in a coordinated way with key partners to address air pollution”</i></p> <p>CRP have been delivering externally-funded, multi-partner regeneration projects since 1994. Leading on a number of public-private air quality projects, CRP has found that taking a multi-stakeholder approach to tackling air quality problems is a positive way of meeting complex challenges. CRP are pleased and encouraged by NICE’s highlighting of the need to take this pragmatic approach. For context and to highlight successful examples of multi-partner approaches, a number of CRP projects have been outlined below:</p> <p>Clean Air Villages: for the Clean Air Villages programme, a partnership between five London boroughs to reduce emissions at 10 air quality hotspots has been created and the project has been funded by central government (Defra). This programme encourages businesses and communities to make deliveries and servicing more efficient through individual and collective action. Through this collective action, lasting solutions are going to be implemented.</p> <p>Marylebone Low Emission Neighbourhood: The Marylebone LEN is a partnership between Westminster City Council and local stakeholders, including businesses, landowners and residents, with many of the core projects led</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>and delivered by its stakeholders. Taking this approach creates the buy-in of local communities, making any solutions or changes more easily implementable.</p> <p><u>The Central London Sub Regional Transport Partnership (CLSRTP)</u>: CLSRTP is a collective of transport specialists from eight central London boroughs convened by Cross River Partnership on behalf of Transport for London (TfL). The partnership delivers outcomes for boroughs and TfL, such as those specifically promoting and implementing the healthy streets approach to transport.</p> <p><u>Clean Air Better Business</u>: With the support of the Mayor of London, CRP’s Clean Air Better Business (CABB) programme is helping our public and private sector partners and central London businesses to improve air quality through a diverse range of projects and interventions. One of these is <u>deliverBEST</u>, an online tool and business support service that helps businesses reduce emissions from their operations, save money, reduce congestion and cut air pollution.</p>
99	Cross River Partnership	Statement 2	<p><i>“Strategies and plans should include enabling zero-and low-emission travel such as cycling and walking and how to design buildings and spaces to improve air quality...”</i></p> <p>CRP supports NICE’s commitment to strategies that promote low emission travel. With 50% of air pollution coming from road transport and 6 million car journeys made every day by Londoners, the need to increase the uptake of zero and low emission forms of travel is vital if any reductions in air pollution are going to happen. CRP have been involved with, and lead on a number of projects that attempt to address this:</p> <p><u>Marylebone Low Emission Neighbourhood</u>: Urban realm project management and stakeholder engagement – The network of streets in Marylebone are some of London’s most distinguishable. CRP leads the project management for the design feasibility and stakeholder engagement of the LEN urban realm improvements, focussing on designs that enhance the pedestrian experience. Through this project, low emission travel is promoted and design and planning changes have been recommended in order to support the transition and advancement of strategies to improve air quality.</p> 

ID	Stakeholder	Statement number	Comments ¹
			<p>Clean Air Walking Routes: Utilising data from the Environmental Research Group at King’s College and with the Mayor of London’s Air Quality Funding, CRP and its partner organisations developed a tool that shows alternative ‘clean air walking’ to highly polluted walking routes. Pollutant concentration levels on clean air walking routes have been shown to be between 30% and 60% lower than more heavily-used alternatives between transport hubs and key pedestrian destinations. Foot traffic has more than trebled on London’s first ever clean air walking route, delivering benefits to independent businesses down the route and reducing many commuters and travellers’ exposure to air pollution.</p> <p>Click. Collect. Clean Air (CCCA): This is a behaviour change campaign and project, promoting ‘click & collect’ for online shopping purchases instead of personal deliveries to work. The CCCA website maps parcel collection points across London and the U.K, making it easy to identify a convenient collection point.</p>
100	Greater London Authority	Statement 2	<p>Quality statement 2: Strategic plans</p> <p>Statement: Local authorities identify in the Local Plan and other key strategies how they will address air pollution, including enabling zero- and low-emission travel and how to design buildings and spaces to improve air quality</p> <p>Comment:</p> <p>The Mayor manages the London Local Air Quality Management (LLAQM) framework which requires boroughs to have Air Quality Action Plans. To support boroughs, under this framework we provide them with the following tools and resources:</p> <ul style="list-style-type: none"> <input type="checkbox"/> London-specific policy and technical guidance (due to be updated in the new year) <input type="checkbox"/> A flexible template for their statutory Air Quality Action Plans (due to be updated in the new year) <input type="checkbox"/> An Action Matrix which assesses the actions that boroughs can take locally to address pollution, to use as an initial filter for their Air Quality Action Plans. This is currently being reviewed and updated. <input type="checkbox"/> Bespoke borough-by-borough pollution mapping and source apportionment maps and graphs (these packages will be updated to reflect the new London Atmospheric Emissions Inventory in the new year). <input type="checkbox"/> A commitment to provide regular summaries of borough progress on air quality, based on the statutory reports they provide each year, the next report will be published shortly, and the past report is available here: https://www.london.gov.uk/sites/default/files/borough_air_quality_report_2017_final_2.pdf <p>Outcome</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>a) Proportion of journeys made by local residents that are by walking, cycling or public transport. Data source: Local data collection, for example, survey of residents. Estimated data for local authorities on usual method of travel to work is available from the Office for National Statistics' Labour Force Survey</p> <p>In addition to this statistics on mode share (walking, cycling and public transport) are compiled annually by Transport for London and published in the Travel In London Reports.</p> <p>b) Annual and hourly exceedances for nitrogen dioxide (NO₂) (and also c) Data source: Local data collection. Modelled data from the Automatic Urban and Rural Network is available from the Department of Environment Food and Rural Affairs UK Air Information Resource.</p> <p>In addition to the AURN in London we have over 100 additional monitoring sites that form the London Air Quality Network and the Air Quality England. We are also in the process of installing a lower cost hyperlocal network in partnership with C40 cities, CIFF and EDF.</p>
101	Havant Borough Council	Statement 2	<p>I have been involved with the development of Local Plan policy, with specific regard to air quality & pollution. The current reality of policy development is that it is framed by the 'presumption in favour of sustainable development'; defined in loose terms under national policy, but specifically requiring positive determination (of an individual application, or of a plan against the objectively assessed housing need) unless the impacts of development would <i>'significantly and demonstrably outweigh the benefits'</i> (benefits in this context having a broad interpretation including economic- & social-, and not construed simply in environmental- or health- terms) (para.11 b)ii) & d) ii) NPPF 2018). Coupled with the need for a robust evidence base for any adopted local policy provision, and perhaps more critically-, with the requirement for any policy measure to be 'reasonable' (in particular, that it cannot be expected to solve existing problems), these factors conspire to significantly limit the ability of the LPA to impose strict local policy controls.</p> <p>Whilst it is recognised that the local plan forms the 'starting point' for decision-making, the plan-making requirements mean that to seek to impose strict local policy controls (e.g. policy which <i>does</i> require development to deliver net benefits to an existing problem-) would necessitate an evidence-based challenge to either or both the National Policy, and NGO guidance, which currently restricts the drafting & interpretation of local policy. This would obviously be outside the scope of the resources available to most Local Authorities, and would only be justifiable at the local level where severe local issues exist (in line with para. 11, NPPF).</p> <p>The result is a drive for 'positively framed' policy which necessarily uses 'soft' language, such as 'would favour', and 'encourage'; rather than more direct provisions such as 'must', or 'will be refused unless...' – whilst not universal, this</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>is certainly true where there lacks a strong legislative- or national policy- basis upon which to take a less permissive stance (as currently in the case of air quality). This language allows a significant degree of leeway for applicants to seek to minimise development provisions for mitigating emissions or for delivering incremental improvements to local air quality (the offering) against the policies that are in place. Lacking a strong (policy-, legislative-, or evidential-) basis upon which to determine that the sustainability credentials or air pollution provisions (particularly with respect of design) are inadequate, the LPA is in a weak position to challenge this. This limits application-, and therefore success- of local policy.</p> <p>It is also true that to tackle air quality effectively through planning requires a coordinated suite of policy covering energy, transport, employment, housing, quality design, landscapes, pollution and health. It has proven extremely difficult to make specific air quality provisions, and I have encountered significant resistance to making design or policy stipulations for air quality purposes. The need for such policy is easy to argue for on a qualitative basis, but extremely difficult to quantitatively justify (thus falling at the 'evidence base' hurdle). The breadth of influences upon local air quality means that in order to mobilise all local planning authorities to achieve marginal, incremental and cumulative emissions reductions which stand a realistic prospect of translating into the hoped-for demonstrable real-world improvement in local Air Quality; Air Quality needs to be made a central theme to the development of local plans. A strong stance in National Policy (or additional freedom given to LPA's in plan-making) is required to achieve this, and it may require re-defining fundamental principles of central policy, e.g. re-defining "sustainable development" from something which permits environmental and health harms to be balanced by social gains, to something which requires the balancing of environmental (or health) harms against environmental (or health) gains.</p>
102	Havant Borough Council	Statement 2	<p><i>("...Strategies and plans should include enabling zero- and low-emission travel...and how to design buildings and spaces to improve air quality...")</i>. Strategies and plans are appropriate documents within which to set out aspirations. Application in practice (through the planning system, as implied by Quality Statement 3, would require the LPA to be willing (enabled / empowered) to either refuse an otherwise acceptable development on grounds that the design for air quality could be 'improved' (even where it meets all building regulations and design code standards - manual for streets etc.), or to deem it to be unacceptable in planning terms without the imposition of conditions dictating certain aspects of design, or requiring the delivery of certain features, provisions, or mitigation - principally or exclusively for the purpose of improving air quality. This is difficult where the planning system is geared towards thresholds of 'unacceptability', especially where the Government's focus on housing delivery and the need to 'significantly boost housing supply' (as an economic and social benefit) frequently outweighs all other considerations unless constrained by one of the policies in footnote 6 of the NPPF (e.g. SSSI, Green Belt, AONB, national park, designated heritage assets etc.).</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>Within this context, a development which offers ‘something’ which contributes towards air quality goals (but could, at the expense of the available margin of profit deliver substantially greater contributions to emissions reductions) is very difficult to deem ‘unacceptable’ unless it fails to meet the broad definition of ‘sustainable development’, or exceeds some other threshold (e.g. NSCA ‘<i>planning for air quality</i>’ significance criteria, which essentially screens out all but the most substantial development projects).</p> <p>In order to secure an improved scheme – whether the LPA is seeking to impose a planning condition or is seeking a fundamental amendment to design - a development is required to be deemed ‘unacceptable without improvement’. Even if appropriate policy is in place (which it largely is, and has been for some time), and an LPA is willing to treat it as a ‘hard’ requirement; planning decisions could still be frustrated by the planning appeals process, competing NGO and industry guidance, and the National Policy standards which are often taken to override local policy (by providing the framework against the local policy wording & phraseology is interpreted). National provisions may also explicitly override local policy where (for example) the objectively assessed housing need determines a 5-year housing supply requirement in excess of that provided for in the local plan, thus invalidating the plan and defaulting to National Policy the determination of applications. In this sense, I would say that as an extension to this Quality Statement (2), the provisions need to call for these principles to be embedded at the heart of the NPPF if they are to stand a realistic prospect of achieving substantial aggregate improvements.</p>
103	Havant Borough Council	Statement 2	<p>This section states that LA’s should identify areas where air pollution is ‘<i>highest</i>’. National policy is loosely leaning toward a strategy of ‘cumulative incremental improvements’, making this Statement provision relevant in theory. In practice however, NGO & Industry guidance commonly referred to sets a high bar for ‘significance’, and National Air Quality Limits / Objectives (as laid out in EU and Domestic instruments) have explicitly limited application. Generally speaking, ‘<i>compliant</i>’ areas (albeit that these may be areas of the ‘<i>highest</i>’ air pollution, may materially contribute to poor health outcomes, and may <i>exceed</i> National standards <i>without breaching</i> them-) are treated as being below the threshold of triviality. This makes it difficult for Planning Authorities to evidence the need for interventions within the local plan process, and thus limits the ability to adopt robust policy. If such policy is not adopted, it cannot be implemented. Even where a LA does not recognise those thresholds of triviality and seeks to unilaterally exercise local policy controls (e.g. to seek air quality improvement within a compliant area); an appeal inspector is nevertheless likely to be sympathetic to such arguments and the LA is consequentially unlikely to be successful at appeal. In line with the comment at 8 above, if national policy incorporated tougher requirements then Planning Authorities would be empowered to be stronger both in the plan-making process, and in determining individual applications.</p>
104	Joint Air Quality Unit (Department for Environment, Food and	Statement 2	<p>Cycling and walking is typically referred to as ‘active travel’ in that it has a win-win in enabling people to do more exercise (health benefits) while reducing harmful vehicle emissions. Suggest reword to (and reflect in measures and descriptors):</p>

ID	Stakeholder	Statement number	Comments ¹
	Rural Affairs/ Department for Transport)		Local authorities identify in the Local Plan and other key strategies how they will address air pollution, including enabling active travel, public transport and zero- or ultra-low-emission travel and how to design buildings and spaces to improve air quality.
105	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 2	Outcome a) - Could add or zero- or ultra-low- emission vehicles?
106	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 2	Active travel - Includes enabling cycling and walking. Zero- and ultra-low-emission vehicles - Includes enabling travel by vehicles with zero- and ultra-low exhaust emissions including public transport, taxis and private hire vehicles, and car sharing and car clubs. (Defined here https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy)
107	London Borough of Hackney	Statement 2	Question 2 Statement 2: Data to inform all of the <i>structure</i> and <i>outcome</i> quality measures are readily available at a local level. <i>Outcome</i> measure a) would be taken from the TfL London Travel Demand Survey (LTDS) which is broken down to borough level, and this is supplemented with specific local resident surveys, looking at specific journey types or destinations, such as travel to work or travel to school.
108	London Borough of Hackney	Statement 2	Question 3 Statement 2: The implementation of this measure should be achievable, as many measures will either only require occasional review, or are informed by readily available data. Achievement against quality measures should be reasonably easy to determine locally.
109	London Borough of Hackney	Statement 2	It is unclear why there are no specific references to key NHS strategic plans (for example, Sustainable Development Management Plans, which are a requirement of all NHS boards).
110	London Borough of Hackney	Statement 2	Hackney Council strongly agrees Quality Statement's focus on the Local Plan as a key vehicle to ensure that Air Quality is adequately considered within the Council's view of borough development. Hackney's new Local Plan 2033 (currently out for consultation) seeks to adopt a broad range of measures to enhance air quality including: <ul style="list-style-type: none"> <input type="checkbox"/> Creating 'liveable neighbourhoods' by requiring that new developments to create environments that are conducive to increases in walking and cycling, support reductions in the dominance of private motor vehicles, and contribute to the Healthy Streets approach by improving air quality, enhancing greening and improving road safety.

ID	Stakeholder	Statement number	Comments ¹
			<ul style="list-style-type: none"> <li data-bbox="824 300 2166 448">□ Requiring all new developments to be appropriate for their location, and to ensure that there are no significant adverse impacts on the amenity of occupiers and neighbours. Consideration of the merits of development proposals will be balanced against the impact on amenities including; visual privacy and overlooking; overshadowing and outlook; sunlight/daylight/artificial light levels; vibration, noise, fumes/odour, and other forms of pollution; microclimate conditions and; safety of highway users. <li data-bbox="824 453 2166 571">□ Requiring all new developments to promote and prioritise sustainable transport, by enhancing the local walking and cycling infrastructure and environment, ensuring that new developments are permeable and adequately lit, supporting improved wayfinding, and providing high quality facilities to enable bike use and storage. <p data-bbox="779 608 1805 635">More details on Hackney's local plan are available at: https://www.hackney.gov.uk/lp33</p>
111	NHS Sheffield CCG	Statement 2	<p data-bbox="779 639 1205 667"><u>Equality and diversity considerations</u></p> <p data-bbox="779 671 1227 699">A focus on inequalities acknowledges:</p> <ul style="list-style-type: none"> <li data-bbox="779 703 1480 730">- More deprived areas tend to have poorer air quality; <li data-bbox="779 735 1429 762">- More deprived areas have lower car ownership; <li data-bbox="779 767 1906 794">- Lower paid staff may have less opportunity to renew vehicles to low emission standards; <li data-bbox="779 799 1883 826">- Shift workers may be dependent on car travel due to lack of public transport overnight; <p data-bbox="779 831 2166 1034">Economic sanctions for more polluting vehicles which are designed to improve overall air quality have the potential to disproportionately impact on lower paid staff. This does not mean that these measures should not be taken as at a population level health inequalities may reduce if air quality improves. It does however mean that employers and Trade Unions may need to consider what mitigation could be offered to lower paid staff to buffer against impacts e.g. working with local passenger transport executives to improve coverage of public transport for shift workers, or providing affordable car leasing arrangements or car clubs for low paid posts requiring essential car travel such as home care workers as an alternative to individual car ownership.</p>
112	NHS Sheffield CCG	Statement 2	<p data-bbox="779 1038 2166 1257">This statement is about strategic plans of Local Authorities and particularly focuses on the Local Plan but also references other strategies and plans (transport, health and wellbeing for example) and suggests that these should focus on low emission travel including active travel, modal share, and design of buildings and the public realm to improve air quality. There is also a suggestion that hot spots and sensitive locations are mapped in strategic plans. There is nothing to object to in this quality statement but neither does it seem to progress beyond what Local Authorities are already doing, and yet air pollution above EU health limits persists. The scale of ambition would need to increase and be matched by national investment in order to effect meaningful change.</p> <p data-bbox="779 1262 2166 1313">Anchor organisations such as the NHS, Local Authorities, Universities, major employers have a significant role to play in addressing outdoor air pollution both as major employers of staff and as procurers of goods and services at scale.</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>As employers, as a minimum anchor organisations can ensure that they provide annual staff travel surveys so that they have an overview of how staff travel to work and stretch targets for increasing the modal share of active travel. Anchor organisations can ensure their infrastructure enables staff to use lower emission forms of transport, for example providing secure bike parking nearer to the door, having a higher ratio of bike parking to car parking, providing electric bike and car charging points on their estate, ensuring that showers and lockers (staff bike hubs) are available to remove the barriers to active travel for staff. There is a wealth of experience and literature on the types of measures which are successful.</p> <p>Anchor organisations can also use procurement to ensure low emission vehicles are used in all their contracts for goods and services.</p>
113	Nottingham City Council	Statement 2	<p>How this might be achieved?</p> <p>Range of local strategies, policies and plans to encourage facilitate modal shift, active travel and reduce use of private motor vehicles. National/local promotion and funding of energy efficiency measures. Partnership with UoN and other universities looking at monitoring/improving indoor air quality.</p> <p>Could be delivered by including:-</p> <ol style="list-style-type: none"> 1. reference to NICE guidance in local HWB strategy and JSNA air quality chapter and link to relevant local plan, and 2. Placing statement on Nottingham Insight – ‘Nottingham City and Nottingham NHS statement on NICE Air pollution: outdoor air quality and health’ and detail where the guidelines are implemented in relevant strategies, plans and operating arrangements. <p>Resource/funding requirement? Minimal additional cost as significant part of the information and action is already reported in the HWbStrategy and LAQM ASR and Transport Progress Reports, Sustainability Strategy and Spatial Strategy, Local Plan etc.</p>
114	Royal College of Paediatrics and Child Health	Statement 2	<p>Local Authorities (LAs) seem to have been given sole responsibility on the management of air pollution, however, they are not given specific advice about how to reduce air pollution. Air pollution is a national and international problem, not just a problem for LAs. Air pollution does not limit itself to LA boundaries. Intervention should be realistic and realistically national UK government (not devolved nations) would all do the same thing: reduce fossil fuel use; ban fracking; ban fossil fuel private transport; encourage cycling; have only electric public transport; green energy production (100% by 2035)</p>
115	Royal Town Planning Institute	Statement 2	<p>Q1 – Yes. The revised National Planning Policy Framework promotes sustainable transport. It states that, “Significant development should be focused on locations which are or can be made sustainable, through limiting the need to</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.” This policy is already reflected within many local plans around the country. However, the RTPI recognises that there is the potential for improvement in some areas.</p> <p>Q2 - Yes, working within the established planning system and effectively utilising approaches like Air Quality Management Areas, Clear Air Zones and air quality management plans is the best way to develop an integrated approach.</p> <p>Q3 – Consideration needs to be given to the impact of the prolonged funding constraints and cuts that local planning authorities have to operate within. Our “Investing in Delivery” research investigated planning services resourcing, staffing pressure and delivery structures in the South East and North West regions over the last five years. It found that ,any local authority planning services are not able to effectively recruit and retain staff to meet service objectives and that resources are diverted from place-shaping activities to core statutory functions.</p> <p>This is at the same time as our research into the role of chief planning officer in local authorities found that the planning function has been relegated to lower positions in the corporate structure of local authorities across the UK. With the head of planning being a member of the top management team in only 17% of councils in the UK.</p> <p>The need strong support from local councillors is paramount alongside the political will to bring about real local change. Read more on our research www.rtpi.org.uk/briefing-room/news-releases/2018/june/planning-delivery-key-findings-unveiled-at-rtpi-convention/</p> <p>This quality standard should recognise that the ability of Local and Strategic Plans to deliver improvements in air quality relies on effective engagement in the planning process from a variety of stakeholders, both within and outside of local authorities. This includes developers, Local Highways Authorities, Local Traffic Authorities, education providers, Clinical Commissioning Groups, Passenger Transport Executives/Integrated Transport Authorities/Combined Authorities, Local Enterprise Partnerships (LEPs), Sub-national Transport Bodies and Highways England. The responsibility to improve air quality should be an integral part of the strategic objectives for these stakeholders, not just Local Planning Authorities.</p>
116	Sustainable Development Unit for NHS England and Public Health England	Statement 2	<p>There is no mention of local NHS plans, either at organisation level or at STP level. There is an expectation for all NHS providers to have Healthy Travel Plans (see support here and HTM 07-03). The SDU Healthcheck scorecard shows the uptake of HTPs is stalling (at 54% of all providers in 2017/18) therefore strengthening the expectation through this quality statement is important.</p>

ID	Stakeholder	Statement number	Comments ¹
117	Transport Planning Society	Statement 2	<p>TPS welcomes the strong statement on the need for cross-sector efforts to improve outcomes through the Local Plan process. Together with other professional organisations we have recently expressed our concerns that the current Local Plan system is not achieving the desired outcomes, and that the majority of development being delivered outside several core cities is entirely car-dependent and does not offer any genuine travel options for zero- and low-emission travel, leading to a range of negative health outcomes for those affected.</p> <p>Some of the concerns of TPS are set out in our response to the MHCLG consultation on the National Planning Policy Framework. https://tps.org.uk/public/downloads/TURbm/TPS%20response%20to%20MHCLG%20consultation%20on%20NPPF%20-%20FINAL.pdf.pdf</p> <p>The recent Transport for New Homes report was published through a collaboration between the Foundation for Integrated Transport and the Campaign for Better Transport. The report documents many of the policy and process issues that cumulatively lead to housing development with virtually no options for zero- and low-emission travel. http://www.transportfornewhomes.org.uk/</p>
118	Transport Planning Society	Statement 2	<p>(measure a) The Labour Force Survey dataset only provides data on residents' usual method of travel to work. As a result, the travel patterns of non-working groups of society are not included. Furthermore, the real variation in walking trips occurs for local trips (shopping, personal business, schools, social etc).</p> <p>Data on travel for all purposes and the population as a whole is available from the National Travel Survey, and this would be a better measure of travel behaviour to use. Some of the larger metropolitan areas also have their own travel surveys.</p> <p>Note that care must be taken when monitoring trends in travel because there is a background trend of a gradual reduction in short trips. It is too early to draw conclusions but it appears that this a direct result of some shopping, personal business and social trips being replaced by digital activities.</p>
119	University of Birmingham	Statement 2	<p>Question 3</p> <p>QS2- Measures: Additional potential resource requirements include investment by LAs in data capture methods e.g. smart sensors for modal transport information at key transport hubs and urban traffic flow monitoring capabilities data. The National Travel Survey may provide additional information for assessment of modal shift to that obtained from the sources described. Personell time and training will be necessary for integration of data obtained from a range of data sources within the LA context. Reliance upon measures of annual and hourly exceedances for nitrogen dioxide (NO2)</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>will not reflect changes in PM and other pollutants known to be of harm for human health, and therefore is not suitable for robust evaluation of local strategies. Data sources are also necessary to capture potentially negative impacts of policy measures, such as traffic displacement</p> <p>All policy areas that impact on air quality and environmental pollution which impact upon delivery of the Local Plan should have within them strategies to minimise the impacts on air quality. Thus, spatial planning, transport and economic planning should have within them a focus on enhancing air quality to avoid isolated responses. A cross-authority approach is necessary for evaluation due to displacement effects that may arise from interventions such as emissions control initiatives for defined geographical areas. A key consideration for relevant process measures is the timescale for development and formal adoption of Local Plans.</p> <p>More broadly, public services may also account of this disproportionate harm upon vulnerable population groups through local tools such as planning policies for housing and schools, equalities impact assessments, and Joint Strategic Needs Assessments.</p>
120	Allergy UK	Statement 3	<p>Additional Considerations</p> <p>Quality statement 3: Planning Applications</p> <p>Assessment of planning applications should take into account proposed measures to tackle air pollution. We consider that ‘pedestrianisation’ of areas with a high volume of road traffic, pedestrians, and cyclists should be explored as a measure to target air pollution and protect the health of those vulnerable to its harmful effects.</p> <p>Furthermore, cycling and walking pathways should be built away from high-traffic roads and in places with a low concentration of air pollution, such as residential streets or off-street trails²⁰.</p> <p>Finally, networks of clean air zones with low pollutant levels can be used as spaces where cycling and walking can occur with reduced exposure to air pollution. However, if a green infrastructure is also developed around these clean air zones, special considerations should be given to the types of tree planted.</p>
121	Basingstoke and Deane Borough Council	Statement 3	<p>Question 1 Does this draft quality standard accurately reflect the key areas for quality improvement?</p> <p>Statement 3 (planning applications):</p> <p>It would be beneficial to improve consistency of consideration of air pollution in the determination of planning applications by developing national guidelines/policy or a checklist for the assessment of air quality impacts for new developments.</p>

²⁰ Hankey, Steve, Greg Lindsey, and Julian D. Marshall. ‘Population-Level Exposure to Particulate Air Pollution during Active Travel: Planning for Low-Exposure, Health-Promoting Cities’. *Environmental Health Perspectives*. 125.4 (2017): 527–534. *PMC*. Web. 10 Oct. 2018.

ID	Stakeholder	Statement number	Comments ¹
			<p>Development proposals could be required to be at least 'air quality neutral' and not lead to further deterioration of existing poor air quality (such as areas designated as Air Quality Management Areas (AQMAs)). However, if such an approach is to be taken the data and evidence needs to be available to determine compliance and burdens on applicants need to proportionate so as not to affect viability.</p>
122	Basingstoke and Deane Borough Council	Statement 3	<p>Question 2 Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be for these to be put in place?</p> <p>Statement 3: It will be very difficult for Local planning authorities to assess the extent to which proposals minimise and mitigate road-traffic-related air pollution in the determination and implementation of planning applications. The evidence/data required to undertake such assessments isn't currently available.</p>
123	Basingstoke and Deane Borough Council	Statement 3	<p>Question 3 Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.</p> <p>Statement 3: The assessment of planning applications would require specialist skills and knowledge which may have resource and cost implications. Any additional burden on applicants to collect data and then mitigate any negative impacts would need to be considered carefully as part of both whole plan and site specific viability.</p>
124	Greater London Authority	Statement 3	<p>Quality statement 3: Planning applications</p> <p>Statement: Local planning authorities assess proposals to minimise and mitigate road-traffic related air pollution in planning applications for major developments.</p> <p>Comment:</p> <p>We strongly support this statement and have reflected this in the new London Plan that will go on to inform Local Plans of all boroughs within the Greater London Authority. As stated in the London Environment Strategy, the London Plan will encourage new developments to take into account local air quality, so they are suitable for their use and location In the London Plan, the Mayor has set out policies that seek to reduce exposure to existing poor air quality</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>through design. This is vital where new development will be used by large numbers of people who are particularly vulnerable to poor air quality, like children or older people.</p> <p>In addition, the London Plan states that London’s air quality should be significantly improved, and exposure to poor air quality, especially for disadvantaged people, should be reduced. The Plan also features a requirement to consider the overall suitability of a site (and its design/layout) for the proposed end use, in terms of exposure to pollution.</p> <p>The London Plan also includes policies to reduce the impact of new industrial and waste sites on local air quality. The Mayor will also work with regulators and industry to reduce emissions from existing sites and will address the antisocial burning of waste and the inappropriate use of bonfires.</p> <p>The Environment Agency is responsible for licensing, inspecting and enforcing heavy industrial processes (known as ‘Part A’) and waste sites in London. It is a crucial partner in managing emissions from these installations. London boroughs lead on licensing, inspecting and enforcing ‘Part B’ sites.</p> <p>Some waste and industrial activities have the potential to cause local dust and particulate pollution by the nature of the work that they undertake. The potential for these sites to cause pollution can be greatly reduced by moving dusty activities indoors. Working indoors can also have other benefits, such as reducing the amount of water used for dust suppression. The London Plan includes a policy on appropriate enclosure of polluting (or dusty) activities on waste sites to mitigate and avoid adverse effects on human health including poor air quality and noise pollution.</p> <p>In reflection of level of ambition to tackle air pollution seen in the London Plan we are also asking central Government to allow London planning policy to take precedence over national planning policy. Changes that resulted from the government’s Housing Standards Review could potentially complicate London’s ability to enforce existing emission standards on residential developments. Taking into account London’s growth, this could offset emissions reduction delivered by schemes such as the ULEZ. It is essential the Ministry for Housing, Communities and Local Government protect regional and local authorities’ ability to set appropriate air pollutant emission standards for new developments, such as the ‘Air Quality Neutral’ requirements included in the London Plan or new approaches like ‘Air Quality Positive’.</p> <p>The London Plan includes policies so that all new large scale developments in London are ‘Air Quality Positive’, and maintain Air Quality Neutral requirements for all other developments London’s growth and redevelopment should</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>contribute to delivering improvements in air quality now and into the future. All major developments are already, and will continue to be, required to be Air Quality Neutral.</p> <p>Emission benchmarks for Air Quality Neutral Developments are set out in planning guidance for building operations and transport emissions based on the latest technology (including its effectiveness and viability).</p> <p>Developments that meet or improve on these benchmarks are considered to avoid any increase in NO_x and PM emissions across London as a whole and are therefore 'Air Quality Neutral'. By ensuring all developments meet this minimum requirement London's growth can be accommodated without undoing other improvements in air quality. The Mayor will continue to keep these benchmarks under review to ensure that they remain fit for purpose. Implementation of the Air Quality Neutral policy will be monitored through the LLAQM (Local London Air Quality Management) process and in the London Plan monitoring report to ensure the requirements are met.</p> <p>Larger developments have the potential to go further and boost local air quality by effective design and integration into the surrounding area. For instance, by the provision of low or zero emission heating and energy, green infrastructure, or improvements to public transport, walking and cycling infrastructure, Air Quality Positive developments will make sure that emissions and exposure to pollution are reduced.</p> <p>The Mayor will provide guidance for developers on the most effective approach to take to ensure a development is Air Quality Positive and will review and update the guidance as required. This will ensure the best approaches to Air Quality Positive development are used in London.</p> <p>While transport is the often the largest single source of air pollution the impacts of emissions from buildings, including boilers and other heating systems, can be significant both locally and in their contribution to elevated background and long-term pollutant concentrations. These emission sources are addressed in the London Plan through our Air Quality Neutral requirements, energy policies and the requirement for larger developments to assess their whole impact, not just the traffic emissions that they generate.</p> <p>Similarly, emissions from construction and demolition activities and machinery are not insignificant on a regional scale and can be very significant locally, especially for large or long running development sites. Through our planning policies and guidance, we seek to ensure that these emission sources are minimised by ensuring minimum emission standards are in place for "Non-Road Mobile Machinery" and that best practice is used to control fugitive emissions.</p>

ID	Stakeholder	Statement number	Comments ¹
125	Havant Borough Council	Statement 3	This rationale is reliant upon the provisions of Quality Statement 2 having been implemented. The right policy needs to be in place for LA's to exercise. Comments above under 8 & 9 above largely apply. Given the breadth of factors influencing local air quality, exercisable local policy is generally already in place, and LPA's already seek to implement it (albeit for purposes to which air quality is a subordinate, but relevant, factor). In general terms, the provisions of this statement are (therefore) likely to achieve better recording of this activity, but are unlikely to deliver air quality improvements over & above those already being achieved.
126	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 3	Addressing air pollution at the planning stage - Could include for example factoring in – electric vehicle charging infrastructure, space for freight consolidation centres etc.
127	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 3	Outcome a) - Could add or zero- or ultra-low- emission vehicles? Outcome c) - This is not quite right I think: PM 2.5 has an annual average limit PM 10 has daily and annual average limits
128	London Borough of Hackney	Statement 3	Question 2 Statement 3: Data to support quality measures <i>structure</i> a) and b) and <i>outcomes</i> a), b) and c) is likely to be readily available. It is unclear if and how data relating to <i>process</i> quality measures a) and b) would be captured, and could potentially be significantly time-consuming to collate unless there are systems are in place to capture this data in a comprehensive and co-ordinated way.
129	London Borough of Hackney	Statement 3	Question 3 Statement 3: Some of this quality statement may be easy to implement, but the ease of availability of data regarding <i>process</i> quality measures a) and b) may influence whether it would be practical to implement the whole quality standard.
130	London Borough of Hackney	Statement 3	Hackney Council Hackney Council's new Local Plan 2033 includes a number of measures specifically targeted at reducing the air quality impact of new developments, including: <ul style="list-style-type: none"> <li data-bbox="824 1198 2136 1257">□ Requiring all new development to as a minimum not exceed air quality neutral standards or contribute to a worsening of air quality at the construction or operation stage, over the lifetime of the development. <li data-bbox="824 1257 2136 1319">□ Requiring particular care to be taken in developments catering for vulnerable groups (including children and the elderly) to ensure that siting and design minimise exposure.

ID	Stakeholder	Statement number	Comments ¹
			<p>□ Requiring Air Quality Assessments to be completed for a range of new development types, including some major developments, developments in areas of poor air quality, developments of sensitive uses and those developments involving significant demolition and construction.</p> <p>Development proposals which are identified as likely to cause harm to air quality or could expose occupiers and users of the building to poor air quality will be resisted unless appropriate mitigation measures are proposed to reduce the impact to acceptable levels. Measures to improve air quality should be implemented on-site however where it can be demonstrated that on-site provision is impractical or inappropriate, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated.</p> <p>More details on Hackney’s local plan are available at: https://www.hackney.gov.uk/lp33</p>
131	London Borough of Hackney	Statement 3	<p>(Outcome b) Approaches to mitigating the road-traffic related air pollution associated with a new developments should explicitly include a focus on both the construction phase and post completion.</p>
132	London Borough of Hackney	Statement 3	<p>Outcome quality measure a) does not seem to be entirely suitable for this quality standard, given the broad range of factors which influence transport mode choices.</p>
133	London Borough of Hackney	Statement 3	<p>In inner city areas such as Hackney, the availability of land, particularly large sites is limited. As such, the inclusion of ‘major’ within the quality statement may make this less relevant to inner city compared to suburban or rural settings.</p>
134	NHS Sheffield CCG	Statement 3	<p>This statement is about planning applications but restricts this to major developments. The meaning of “major developments” should be clarified in the definitions.</p> <p>This statement focuses on permission granted or refused, rather than considering enumeration of planning conditions for example which Local Authorities may place on developments which may mitigate air pollution impacts.</p> <p>This statement does not appear to recognise economic considerations of Local Authorities and how this may interplay with other responsibilities, for example refusing permission to a housing developer on air quality grounds may create consequences in terms of default on government house building targets. This is unrealistic and therefore unlikely to create meaningful change in terms of the types of development.</p> <p>The focus on locally agreed frameworks is in line with localism but does not recognise the need for Local Authorities to be competitive and grow their economies in order to secure revenues of council tax and business rates. These economic considerations may apply a brake to ambitions of Local Authorities in terms of how assertive they can be in refusing development on air quality grounds. Further, developers may consider planning conditions will render developments unviable on economic grounds.</p> <p>This statement needs further consideration and specialist input from Local Authority planning.</p>
135	NIHR CLAHRC North Thames	Statement 3	<p>Should mention not just street design, but also using intelligent planting. Plants can act as barriers, as well as – to different degrees - absorb pollutants.</p>

ID	Stakeholder	Statement number	Comments ¹
136	North Hertfordshire District Council	Statement 3	LAs should also expect Minor and Medium Scale developments to provide an appropriate scale of mitigation to minimise road traffic related air pollution. There is a track record of this approach being used in various areas of the Country and it reflects that fact that cumulatively a number of smaller developments have the potential to adversely impact on local air quality. The principle of cumulative impact is widely present within NPPF 2018 including in relation to local air quality.
137	Nottingham City Council	Statement 3	<p>How this might be achieved? Detail in Local Spatial Strategy. Planning Applications and Decision Notices/Planning Permissions Granted.</p> <p>Resource/funding requirement? Need to record AQ information for decision will require a process/system and resource to collate/report. + 3 reported stats: a) Proportion of journeys made by local residents that are by walking, cycling or public transport b) Annual and hourly exceedances for nitrogen dioxide (NO₂). (already reported via LAQM ASR) c) Annual and hourly exceedances for particulate matter (PM₁₀). (already reported via LAQM ASR). But will also need stats/data to show air quality changes due to recommended conditions/and conditions in granted planning consent.</p>
138	Royal College of Paediatrics and Child Health	Statement 3	The quality standards “Proposals” are not specific enough. See comments above.
139	Royal Town Planning Institute	Statement 3	<p>Q1 - Yes, but the statement says, ‘mitigate road-traffic related air pollution in planning applications for major development’. We would recommend that the statement goes further as planners need to take account of the cumulative impact of large number of smaller developments on traffic levels and air quality.</p> <p>Q2 – See the answer given above.</p> <p>Q3 – See the answer given above.</p>
140	Transport Planning Society	Statement 3	<p>It is essential that there is greater cooperation between the transport and public health sectors in developing clear guidance on air quality in planning applications.</p> <p>As a result of the statutory and legal framework on air quality, it is clearly an important material consideration in assessing planning applications. Indeed, since some of the legal requirements stipulate there should be no net increase in Air Quality Management Areas, these considerations may need to be treated as absolute constraints rather than material considerations to be balanced against other factors.</p>

ID	Stakeholder	Statement number	Comments ¹
			Overall TPS would like to see a much greater emphasis on <i>minimising</i> air pollution rather than <i>mitigating</i> air quality impacts, because there are so many additional economic, social and environmental benefits from the measures to reduce air pollution.
141	Transport Planning Society	Statement 3	<p>(measure a)</p> <p>TPS agrees that it is absolutely essential the guidance and processes in the development planning system are updated to reflect the need to reduce road-traffic-related air pollution.</p> <p>In practice some of the larger UK cities currently have planning policy and guidance in place with the stated aim of reducing road traffic generation of new development for a variety of reasons. With the current legal and political pressure on cities to improve air quality we expect that these cities will, over time, update their processes and guidance to explicitly consider air quality impacts in the development planning system. On the other hand, many suburban and rural authorities still have guidance and processes in place that encourage car-dependent development and therefore increased local air pollution, such as generous minimum parking standards.</p> <p>Further guidance should seek to achieve a degree of consistency between cities, taking examples of current good practice from the more advanced cities, and creating clear processes to steer development control in less proactive planning authorities.</p>
142	Transport Planning Society	Statement 3	<p>(measure b)</p> <p>TPS agrees that it is absolutely essential that an appropriate framework for the assessment of road-traffic-related air pollution is adopted in the development planning system. The existing framework for completing Transport and Environmental Assessments includes established methods for quantifying the road traffic generated by larger developments and to some extent the associated environmental impacts. TPS supports the provision of further clarification to planning authorities on the application of this assessment framework and the consistent measurement of air pollution from generated traffic.</p> <p>The nature of the development planning system means that there is no mechanism for planning authorities to steer the site allocation process to achieve strategic aims such as reducing road traffic and associated air quality impacts. Until these fundamental issues can be resolved, the rejection of individual developments solely on air quality grounds will be politically divisive in many parts of the country with significant housing shortages.</p>
143	University of Birmingham	Statement 3	Question 3

ID	Stakeholder	Statement number	Comments ¹
			<p>QS3 – Data Sources: Reliance upon the proportion of planning applications for major developments refused permission due to an adverse impact on air quality (at least in part) as an outcome measure will not capture applications which undergo significant modifications to reduce AQ impact at the pre-submission or consultation phase, for example as recommended by the local highways authority. Consideration for planning applications will reflect legal compliance and therefore integrated assessment of net public health benefit would be a more informative outcome measure. Review of Supplementary Planning Documents (wherever available) would provide additional data regarding local considerations in determining planning permissions. Application of the WHO HEAT tool?</p>
144	Cross River Partnership	Statement 4	<p><i>“Proportion of low-emission vehicles within local authority and NHS organisation vehicle fleets.”</i></p> <p>CRP fully supports NICE’s focus on the increase of low-emission vehicles within local authority and NHS organisation fleets. CRP has experience of working on projects that encourage fleets to transition from traditionally fuelled vehicles to use electric vehicles, ranging from car-derived vans to 18-tonne fully electric trucks. Importantly, experience has shown that the attitude of key stakeholder groups such as fleet managers and drivers towards these vehicles significantly improves throughout vehicle trials.</p> <p><u>Smart Electric Urban Logistics:</u> working with global logistics company UPS and UK Power Networks and funded by the Office for Low Emission Vehicles (OLEV) and Innovate UK this programme has led to an electrification strategy for UPS’s entire central London fleet of 170 vehicles. This project has moved the company towards meeting its green objectives and provides an exemplar and real-world data for other UK organisations interested in the electrification of their fleets to learn from. This project will have a net positive impact upon air pollution within London.</p>



ID	Stakeholder	Statement number	Comments ¹
			<p>Freight Electric Vehicles in Urban Europe (FREVIEW): a European Commission flagship project to support the introduction of electric freight vehicles by demonstrating and evaluating innovative urban logistics solutions in eight of Europe's largest cities. FREVIEW was a €14 million project that co-funded by the EU Seventh Framework Programme (FP7) and coordinated by Cross River Partnership. The FREVIEW partnership was comprised of 32 local and European partners from both the public and private sectors in the cities of Amsterdam, Lisbon, London, Madrid, Milan, Oslo, Rotterdam and Stockholm. London partners included Westminster City Council, UPS, UK Power Networks, Imperial College, Transport for London and Arup.</p> <p>Results from the vehicle trials analysed by Imperial College London have shown the significant environmental benefits as well as cost savings from electrifying fleets. "If, in London alone, we could electrify 10% of the freight fleet by 2021, we could save over £900 million in reduced health impacts and abatement costs."</p>  <p style="text-align: center; font-size: small;">2017 National Air Quality winners</p>
145	Energy Saving Trust	Statement 4	<p>Structure 4a).</p> <p>4a. Evidence that local authorities and NHS organisations identify how they will reduce emissions from their vehicle fleets to address air pollution.</p> <p>We strongly support this draft quality statement. Every NHS Trust and public sector fleet should have plans in place to reduce their fuel use, mileages and emissions – and save money. Energy Saving Trust has worked with hundreds of NHS and public fleets in recent years, providing free-of-charge, and impartial advice on practical improvements, based on tailored fleet analysis. Our work is predominately funded by the Department for Transport.</p> <p>An effective plan would include a travel hierarchy (a decision-making process to help staff select cost-effective and sustainable travel options, prioritising public transport, active travel and pool cars etc). The plan should also cover measures to improve mileage efficiencies, pay appropriate reimbursement rates, a vehicle policy which encourages more fuel efficient car choices, and adoption of electric or plug-in hybrid vehicles. Fewer journeys in newer, fuel-efficient, better maintained vehicles will contribute to air quality improvements.</p>

ID	Stakeholder	Statement number	Comments ¹
146	Energy Saving Trust	Statement 4	<p>Structure 4a)</p> <p>One key area of quality improvement missing from this statement: actions to reduce the use of grey fleet vehicles. Grey fleet are vehicles owned by employees and driven for businesses purposes, reimbursed on a pence per mile rate. We would like to see the statement expanded to: “reduce emissions from their vehicle fleets, including private cars driven for work purposes (grey fleet)”.</p> <p>On average, grey fleet vehicles are older (average age 8.2 years) and therefore more polluting than the alternatives, such as public transport, company cars, salary sacrifice cars, daily rental, and pool cars. Unmanaged grey fleet is also associated with duty of care risks and inflated mileage reimbursement costs. Every well-managed fleet ought to have this information.</p> <p>Energy Saving Trust and BVRLA’s research estimated that 624 million miles are driven in grey fleet vehicles each year by NHS Trusts, at a cost of £317 million (2016 figures). This mileage would generate 185,000 tonnes of CO₂, 462 tonnes of NO_x and 17,000kg of particulate matter annually. These figures are likely to be an underestimate because they were based on NEDC figures (the EU emission test regime currently being phased out due to the disparity between test and real world emissions).</p> <p>From our experience working with many fleets over several years, we are confident that many more could make significant cost, environmental and air quality improvement without impacting on care delivery, especially through working closely with community nurses and other high mileage drivers, for example.</p> <p>In January 2018, EST presented to the NHS Transport & Logistics Best Practice Group (part of the National Performance Advisory Group) on the topic of grey fleet management. We also recently engaged with NHS Sustainable Development Unit, providing case studies.</p>
147	Energy Saving Trust	Statement 4	<p>Structure 4b) Evidence that local authorities and NHS organisations require commissioned services to identify how they will reduce emissions from their vehicle fleets to address air pollution.</p> <p>EST would support the inclusion in tender documents of a requirement for suppliers to state the measures they have undertaken to minimize air quality emissions from their fleets, where appropriate. This could include membership of an independently-audited standard, such as Fleet Operator Recognition Scheme (FORS).</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>Greater attention also needs to be paid to heavily polluting diesel-powered refrigeration generators, which are extensively used to supply the NHS. This could be made explicit in the draft standard. To date, Transport Refrigeration Units (TRU) have been regulated to less stringent standards than on-road vehicles.</p> <p>Technology exists to retrofit abatement technology to Stage V standard, and some alternatives to diesel –powered TRUs have been developed, but they are more expensive, especially as most TRU are run on subsidised red-diesel. Alternatively, NHS services could insist on new vehicles with Stage V standard TRUs (into force 2019) as this is a vast improvement on current standards. Scrutiny in procurement processes could have a significant impact and incentivise market development – and improve air quality.</p>
148	Energy Saving Trust	Statement 4	<p>Outcome 4a) Proportion of low-emission vehicles within local authority and NHS organisation vehicle fleets</p> <p>This quality statement is important as the adoption of electric (and fuel-efficient vehicles) by public sector fleets can be highly cost-effective and inspire wider action. A precedent has been set through the Government Fleet Commitment, which has a target for 25% of central government department cars to be ultra low emission vehicles (ULEVS) by 2022.</p> <p>EST is working with the Crown Commercial Services to provide electric and plug-in hybrid vehicle specifications for procurement, which the NHS can also use to acquire vehicles. We also advise on how EVs can be phased-in cost-effectively and practically.</p>
149	Energy Saving Trust	Statement 4	<p>Outcome 4a) Proportion of low-emission vehicles within local authority and NHS organisation vehicle fleets.</p> <p>Data on this statement would be hard to collect or interpret unless a definition is agreed and used consistently between fleets. An ultra-low emission vehicle emits less than 75g/km CO₂, including electric, plug-in hybrid and hydrogen fuelled cars. Newer or highly fuel-efficient petrol or diesel vehicles could qualify as “low emission” vehicles.</p>
150	Energy Saving Trust	Statement 4	<p>Outcome 4a) Proportion of low-emission vehicles within local authority and NHS organisation vehicle fleets.</p> <p>To make data collection useful, EST suggest that the standard asks for evidence on the proportion of Ultra-Low Emission Vehicles, as well as the proportion of Euro 4 petrol and Euro 6 standard diesels vehicles in the fleet, both owned and grey fleet. These are Euro standards used for Clean Air Zone compliance and are therefore directly relevant for air quality.</p>
151	Energy Saving Trust	Statement 4	<p>Outcome 4b) Overall fuel consumption for local authority and NHS organisation vehicle fleets</p> <p>It should be straightforward for well-managed fleets to provide this data. Accurate fuel consumption (and mileage) data is highly necessary and the starting point for making any operational improvements, EV adoption, and calculating carbon footprints (or NO_x or PM emission estimates). There can be difficulties getting sufficient levels of</p>

ID	Stakeholder	Statement number	Comments ¹
			detail, but there are many software solutions available and EST can advise (free of charge) on how set up appropriate reporting systems and understand their data.
152	Energy Saving Trust	Statement 4	<p>Outcome 4b) Overall fuel consumption for local authority and NHS organisation vehicle fleets</p> <p>For the reasons noted in Structure 4a) above, fuel consumption data should include both owned fleet vehicles and grey fleet use (through mileage expense records).</p>
153	Energy Saving Trust	Statement 4	<p>Other</p> <p>EST notes the suggestion in the briefing document that driver training could reduce vehicle emissions. We recommend that driver training is not included in the standard at this time. Our research investigating the relationship between driving style and air quality emissions has been inconclusive. This is in contrast to strong evidence we have on CO₂ emissions and fuel consumption reductions following training.</p> <p>As EST leads on the efficient driving (Ecodriving) agenda, as referenced in the Government's recent Road to Zero strategy, we would be highly interested in any other research which provides robust evidence on the air quality emissions and driving style, and welcome further discussion.</p>
154	Greater London Authority	Statement 4	<p>Quality statement 4: Reducing emissions from public sector vehicle fleets</p> <p>Statement: Local authorities and NHS organisations identify how they will reduce emissions from their vehicle fleets to address air pollution.</p> <p>Comment:</p> <p>We support this statement. The public sector has a wider duty to lead by example to reduce emissions and exposure to pollution, particularly in relation to its vehicle fleets, as well as to raise awareness.</p> <p>As stated in the London Environment Strategy, the Mayor, working in partnership, will reduce emissions from fleet vehicles in the GLA group, the London boroughs and the wider public sector by switching to zero emission capable vehicles</p> <p>It is important that the GLA group, and more broadly the public sector in London, leads by example in the take up of ultra low emission vehicles. The GLA group has an important role in demonstrating the viability of</p>

ID	Stakeholder	Statement number	Comments ¹
			<p>technologies on a broader scale and influencing the market. For example, the London Fire Brigade has an all-electric support car fleet. It also has a number of ultra low emission cars to attend emergency incidents and other brigade business across the capital.</p> <p>Across the world, cities have started to set dates after which their operational fleets will not be allowed to procure or lease vehicles that are not zero exhaust emission (either electric or hydrogen). The Mayor will work with TfL, the Metropolitan Police Service and the London Fire Brigade to achieve compliance with the ULEZ and work towards:</p> <ul style="list-style-type: none"> <input type="checkbox"/> all cars in GLA group support fleets being zero emission capable by 2025 <input type="checkbox"/> all new cars and vans (less than 3.5 tonnes) in GLA group fleets, including response vehicles, being zero emission capable from 2025 <input type="checkbox"/> all heavy vehicles (greater than 3.5 tonnes) in GLA group fleets being fossil fuel-free from 2030 <input type="checkbox"/> zero emission GLA group fleets by 2050 <p>The wider public sector, including London boroughs and the NHS, will also be expected to lead by example and adopt similar dates.</p> <p>NHS organisations can also consider how they might encourage patients and other visitors to use low or zero emission transport when coming to and from appointments. For example, a recent project funded by the Mayors Air Quality Fund helped reduce pollutant concentrations around Great Ormond Street Hospital by, amongst other things, listing zero emission taxi firms in waiting areas to encourage patients to use these services in preference to more polluting alternatives.</p>
155	Havant Borough Council	Statement 4	<p>The rationale uses the phrase “...to address air pollution”, but does not indicate whether this should be taken to mean “local air pollution in busy urban centres where national limits may be exceeded”, or “aggregate emissions to air on a national basis”. This is important, as some LEV types may actually use more energy per-average-km than the equivalent conventionally fuelled vehicle. When considering either plug-in-hybrid or electric vehicles, the source of energy is also important, as if this is not an entirely renewable (or low atmospheric pollution option such as nuclear) the emissions are simply offset from one place to another and no overall (national, aggregate) benefit is achieved. It would help guide authorities & NHS fleet emissions strategies if the goal is clear (the goal may of course be both these things, requiring competing requirements be appropriately weighed / balanced; but this should be made clear)</p>
156	Havant Borough Council	Statement 4	<p>Structure, b), Data Source</p> <p>Refers to Commissioning Specifications – it might be helpful to expand this concept to make clear that the commissioning specification should respond to vehicle duty & drive cycle, and that organisations should not select a</p>

ID	Stakeholder	Statement number	Comments ¹
			'one size fits all' specification. The one size option would likely deliver benefits in some circumstances but could represent an increase in emissions (relative to the use of conventional vehicles) in others.
157	Havant Borough Council	Statement 4	<p>Outcome b)</p> <p>Refers to “<i>overall fuel consumption</i>”. Care should be taken to ensure that this is representative. There are well documented problems with fuel consumption figures with hybrid & electric vehicles which suit marketing purposes but have little relevance to real world performance. I would recommend that the word “<i>Fuel</i>” be substituted for “<i>Energy</i>”, as both petroleum fuel and electrical power can be expressed in terms of ‘energy per km’. By extension, fleet energy use may be aggregated on this common basis over a given time period and compared on an equivalent basis to previous periods (irrespective of the composition of the fleet in terms of power plant / drivetrain / end-of-pipe abatement).</p>
158	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 4	<p>I just spotted the press release on the NICE consultation. In relation to this bit:</p> <p>“Organisations should make low vehicle emissions one of the key criteria when making routine procurement decisions. This could include selecting low-emission vehicles, including electric vehicles.”</p> <p>it was good to see it echoing the message of the Government Buying Standards for Transport</p> <p>It’s maybe worth me flagging this DfT-funded report on CONSOLIDATING PUBLIC SECTOR LOGISTICS OPERATIONS, not least because the case study was the University Hospital Southampton Foundation Trust</p>
159	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 4	<p>Suggest re-word - Approaches could include replacing existing vehicles with zero- or ultra-low emission vehicles over time</p> <p>Suggest add - and consolidating multiple deliveries via urban freight consolidation centres into few zero or ultra-low emission deliveries</p> <p>Example - https://s3-eu-west-1.amazonaws.com/media.ts.catapult/wp-content/uploads/2018/07/13095627/Public-Sector-Logistics-Consolidation_On-Line-Report-web.pdf</p>
160	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 4	Specify zero- or ultra-low-emission vehicles

ID	Stakeholder	Statement number	Comments ¹
161	Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)	Statement 4	Service providers - replacing vehicles with zero- or ultra-low -emission vehicles over time. Fuel consumption - This is where a shift to zero or ultra-low could offer a win win in terms of reducing fuel costs and emissions. Public sector fleet managers - See Government Buying Standards https://www.gov.uk/government/publications/sustainable-procurement-the-gbs-for-transport-vehicles
162	London Borough of Hackney	Statement 4	Question 2 Statement 4: Data for these quality measures is likely to be available.
163	London Borough of Hackney	Statement 4	Question 3 Statement 4: The implementation of this measure should be achievable, as it is likely to only require occasional review. All data to inform this statement should be readily available, and the achievement against quality measures should be reasonably easy to determine locally.
164	London Borough of Hackney	Statement 4	There could be specific emphasis on the need for local authorities and the NHS (and potentially their providers or contractors) to evidence the steps they are taking beyond their business fleet to address vehicle emissions - for example, making service locations easily accessible, encouraging those attending services to use active or public transport, supporting staff to use active or public transport to and from work, offering bike hire or purchase schemes etc.
165	NHS Sheffield CCG	Statement 4	This statement is concerned with Local Authorities and NHS organisations reducing emissions from their vehicle fleets to address air pollution and it is important to clearly define what constitutes their “fleet”, for example this should include: <ul style="list-style-type: none"> - Fleet of vehicles owned and maintained by the organisation which should be Euro VI/6 as a minimum and optimally electric; - Fleet of vehicles directly or indirectly leased by the organisation for which the same emissions standards should be applied; - Fleet of vehicles operated by sub-contractors through procurement i.e. contracts for goods and/or services for which the same emissions standards should be applied; - “Grey fleet” of staff owned vehicles used for work such as home care, social work visits, health visiting for which the same emissions standards should be applied and for which organisations should have affordable

ID	Stakeholder	Statement number	Comments ¹
			<p>and practical schemes in place for low paid workers;</p> <ul style="list-style-type: none"> - Staff travel to work should be included as major employers can contribute significantly to local air quality through staff travel patterns. As a minimum, organisations should have annual staff travel surveys, staff travel plans and co-ordinators to support staff to switch to lower emission modes of travel and to prioritise active travel; <p>There is no minimum standard set in this quality statement for example clean air zone/low emission zone compliant. Although NICE quality measures do not specify expected levels of achievement, in order to be meaningful there should be some discussion within the definitions of what constitutes low emission aside from walking and cycling (pp6-7) e.g. electric, hybrid, petrol, Euro 6/VI etc</p>
166	Nottingham City Council	Statement 4	<p>How this might be achieved? Review fleet and grey fleet technologies. Review travel and parking needs. Review policies to restrict eligibility/reimbursement for vehicle contracts and mileage to low/zero emission vehicles.</p> <p>NCC Local Transport Plans, Workplace Parking Levy, ULEV strategy. Quality measures: Council fleet EV transition plans</p> <ul style="list-style-type: none"> a) Evidence that local authorities and NHS organisations identify how they will reduce emissions from their vehicle fleets to address air pollution. b) Evidence that local authorities and NHS organisations require commissioned services to identify how they will reduce emissions from their vehicle fleets to address air pollution. c) Proportion of low-emission vehicles within local authority and NHS organisation vehicle fleets. d) b) Overall fuel consumption for local authority and NHS organisation vehicle fleets. <p>Report progress and outcomes via HWb Board.</p>
167	Royal College of Paediatrics and Child Health	Statement 4	<p>“LA and NHS will identify how to reduce emissions from vehicle fleets” is not specific or timed. National and local state organisations could convert to 100% green engird and 100% electric fleet by 2022 (green energy companies exist as does the technology for all electric cars for fleets)</p>

ID	Stakeholder	Statement number	Comments ¹
168	Sustainable Development Unit for NHS England and Public Health England	Statement 4	<p>The context seems limited to Local Authorities and NHS organisations (which is further reduced to NHS Trusts) – the health and care sector related travel relates to around 5% of all road traffic in England. NHS related travel is 3.5% on its own. Therefore ensuring a wider level of expectation including all health and care organisations will help support a greater reduction in air pollution from health and care sources. Due to the high numbers of primary care visits by the public accessing primary care is a major reason for NHS related travel therefore the quality statement should cover all elements of health related travel not just NHS trusts.</p>
169	Sustainable Development Unit for NHS England and Public Health England	Statement 4	<p>The focus seems to be only on fleet, whereas analysis from the SDU's Health Outcome of Travel Tool (HOTT), for many organisations especially acute NHS Trusts the largest areas of impact are from staff commuting and Patient and Visitor travel. Ensuring these areas are also managed through engagement /education, healthy care pathway design, healthy travel infrastructure and incentives to staff and patient is just as important as NHS organisations managing their own fleet. Please see the Natural Resources Footprint for a detailed air pollution footprint of the NHS and the CMO's 2017 report for detailed breakdown of air pollution sources from the NHS. All data created using HOTT – this is the main tool for NHS providers, CCGs and Primary Care to measure their air pollution impact.</p> <p>The NHS Estates Return Information Collection introduced a new data stream for 2017/18 NHS provider business travel (by fleet, grey fleet and other transport (public and private e.g. train, underground, tram, taxi etc.)) and could be another data source = 700m miles per annum (all NHS travel is 9.3bn miles per annum). The SDU aim to embed data on ultra-low emissions vehicles (ULEV) uptake into future years data streams. There are only 1305 EV charging points on NHS provider estate (which is less than 0.3% of all parking spaces with access to EV charging points).</p> <p>Evidence from monitoring air pollution on NHS sites points to vehicle idling being a major reason for poor air quality on NHS sites, therefore banning idling vehicles on NHS sites is a clear and obvious step to reducing health impacts, this is not mentioned in the QS.</p> <p>Is there a case for major static sources to all be included such as onsite static fuel combustion and construction projects? NHS providers are also burning significant amount of fuel on NHS sites which can also contribute to air pollution including dirtier fuels such as coal, oil and diesel for heat and electrical generation: In 2017/18 23.6 GWh of coal and 186.6GWh of heavy and fuel oil (of which around 40% is used as a primary heating fuel) was combusted on NHS hospital sites. Construction on NHS sites, through Non road mobile machinery and dust and particulate releases can also have a significant impact on NHS site's air quality.</p>
170	Transport Planning Society	Statement 4	<p>TPS welcomes the inclusion of a statement on the NHS vehicle fleets because this would be clear example of leading by example and the purchasing power of such a large organisation will have an impact on the UK market.</p>

ID	Stakeholder	Statement number	Comments ¹
			However, the statement could be widened from the internal vehicle fleet to a more general consideration of staff and visitor travel. Some NHS sites already have exemplary travel plans that seek to encourage the use of sustainable transport modes. The first aim should always be to shift travel to the most sustainable modes, and where this is not possible encourage car sharing to reduce single occupancy or potentially use the bulk purchasing power of the NHS to discounted prices for electric vehicles for staff.
171	University of Birmingham	Statement 4	<p>Question 3</p> <p>QS4 - Measures: Use of the NHS Sustainable Development Unit Health Outcomes of Travel Tool (HOTT) to evaluate the success of past/current travel and transport initiatives in NHS organisations.</p> <p>QS4 – Structures: Extension of the quality statement to care and healthcare provider organisations would reflect the contemporary context of fleet vehicle activity across the healthcare sector.</p>

Registered stakeholders who submitted comments at consultation

- Allergy UK
- Barnsley Metropolitan Borough Council
- Basingstoke and Deane Borough Council
- British Heart Foundation
- British Thoracic Society
- Cross River Partnership
- Energy Saving Trust
- Greater London Authority
- Havant Borough Council
- Institute of Air Quality Management

CONFIDENTIAL

- Joint Air Quality Unit (Department for Environment, Food and Rural Affairs/ Department for Transport)
- Kingston upon Hull City Council
- London Borough of Hackney
- NHS Sheffield CCG
- NIHR CLAHRC North Thames
- North Hertfordshire District Council
- Nottingham City Council
- Oxypod Earthdome Ltd
- Royal College of General Practitioners
- Royal College of Nursing
- Royal College of Paediatrics and Child Health
- Royal Pharmaceutical Society
- Royal Town Planning Institute
- Sustainable Development Unit for NHS England and Public Health England
- The Dirac Foundation
- Transport Planning Society
- University of Birmingham

Appendix 2: Quality standard consultation comments table – non-registered stakeholders

ID	Stakeholder	Statement number	Comments ²¹
1	Individual	General	<p>These are no new as you will be aware, it gas been ongoing for some while now, A lot of ‘talking’ has taken place, but until recently very little action! In the meantime our young people as well as the older generation are facng another winter of toxic fumes which they cannot escape. all of the schools in our area are already over subscribed yet the house building programme for the area gathers pace! Surely someone must be responsible for this catastrophe in the making!! We must start taking this matter more seriously and with some urgency, It is obvious to all now the dire state of our air pollution has to stop!!!! what right have we or anyone to put PROFIT BEFORE PEOPLE !! the clean air campaign are doing an excellent job of making people aware and trying to encourage them into taking some responsibility but what is the alternative for many most have to go to work because of financial situations and te public transport is A.. inadequate and unreliable ...B....in these situations a health risk !!! We must address these problems before the loss of any more lives and time off work because of ill health.</p> <p>It does not make financial sense! And is an irresponsible situation which only benefits those who often do not live in these area.....OR HAVE SHARES IN THESE COMPABIESOFTEN BOTH !!</p> <p>WE THE PEOPLE MUST ACT IF GOVERNMENTS WONT?</p>

²¹PLEASE NOTE: Comments received in the course of consultations carried out by NICE are published in the interests of openness and transparency, and to promote understanding of how quality standards are developed. The comments are published as a record of the submissions that NICE has received, and are not endorsed by NICE, its staff or its advisory committees.