

National Institute for Health and Care Excellence

Indoor air quality at home quality standard

Consultation on draft quality standard – deadline for comments 17:00 on 11/04/2022

Please email your completed form to: QSconsultations@nice.org.uk

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

Use the form to comment on the content of the quality standard (i.e. the statements and other sections e.g. rationale, measures etc.), as well as answer the following 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 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.
4. For draft quality statement 1: Does the definition of plans to improve indoor air quality include examples that are appropriate for local authorities? If not, please say why and, if possible, suggest alternatives.
5. For draft quality statement 2: What questions about housing conditions could a healthcare professional ask?
6. For draft quality statement 2: Is it feasible for a healthcare professional to help someone request a housing assessment? If so, please give examples of how this can be done.
7. For draft quality statement 3: Statement 3 covers a range of housing assessments carried out by different organisations across different tenures. Would this statement have a greater impact by focusing on a particular tenure and type of assessment?
8. Do you have an example from practice of implementing the NICE guideline that underpins this quality standard? If so, please provide details.

Organisation details

Organisation name (if you are responding as an individual rather than a registered stakeholder please leave blank)	Policy Connect
Disclosure Please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry.	None
Name of person completing form	Laura Fatah & Becky Rice
Supporting the quality standard Would your organisation like to express an interest in formally supporting this quality standard? More information.	
Type	[Office use only]

Comments on the draft quality standard

Comment number	Statement or question number Or 'general' for comments on the whole document	Comments Insert each comment in a new row. Do not paste other tables into this table because your comments could get lost – type directly into this table.
<i>Example 1</i>	<i>Statement 1</i>	<i>This statement may be hard to measure because...</i>
1	General	Policy Connect is pleased to see NICE consulting on this important subject and are grateful for the opportunity to comment on the standard, which has the potential to deliver wide ranging health and economic benefits in line with the levelling up agenda.
2	Question 1	Processes to improve air quality at both local authority level and within healthcare are both key areas for quality improvement.

3	Question 1	As on average a person spends 90% of their time indoors, pollutants in our homes should be considered on a parallel with pollutants outdoors, which have tended to draw greater focus. Indoor and outdoor air are naturally linked, and the relationship between the two is currently the subject of research being supported by the UK Clean Air Program ¹ .
4	Question 1	As the briefing document highlights, no single government department is responsible for indoor air quality and the regulatory landscape is complex. The All- Party Parliamentary Carbon Monoxide Group inquiry “Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk” evidence suggests that action by local authorities and health care professionals can improve air quality at an individual and local level. The inquiry will identify opportunities for improving carbon monoxide safety policies and practices in health and social care. ²
5	Question 1	In addition to requiring plans and measurement, Policy Connect’s initial research suggests that impact assessment and evaluation are key steps to review whether any changes made have had the desired effect and whether there has been a resulting improvement in air quality in homes. ³
6	Question 2	The formation of ICSs (Integrated Care Systems) and data reform present the opportunity to extract and link data from various sources including air quality measures, housing surveys, GP databases and reports from healthcare professionals. For example, if worsening respiratory symptoms were identified, the data in the health record would show how these symptoms were responded to by the GP or other professional. Some digital solutions including prompts for worsening symptoms could provide measurable data for how often this was acknowledged and acted on. ^{4, 5}
7	Question 2	We are not well placed to comment on whether local systems and structures are currently in place to collect data at a local authority level. However, Policy Connect’s research suggests that the reforms which will be implemented in future, via the Health and Care Bill and the establishment of ICSs around the country, provide an opportunity to review data practices and explore whether these can be improved and

¹ UK Clean Air Program, see <https://www.ukcleanair.org/>

² All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)

³ Ibid

⁴ Grigore B, Lewis R, Peters J, Robinson S, Hyde CJ., *Development, validation and effectiveness of diagnostic prediction tools for colorectal cancer in primary care: a systematic review*. (November 2020), BMC Cancer. 2020 Nov 10;20(1):1084. doi: 10.1186/s12885-020-07572-z. PMID: 33172448; PMCID: PMC7654186. Available at: <https://bmccancer.biomedcentral.com/articles/10.1186/s12885-020-07572-z>

⁵ All Party Parliamentary Health Group, analysis from discussion: *What Does Good Integration Look Like?* (29 March 2022). See [APHG AGM and Roundtable Event "What Does Good Integration Look Like?" | Policy Connect](#)

		better integrated. Dorset ICS have an integrated summary care record, and good practice like this may be replicated to provide a reliable data infrastructure. ⁶
8	Question 2	Policy Connect's research suggests that data on staff training levels and frequency of training may be valuable to collect to assess if strategies to improve indoor air quality are being embedded into practice. ⁷
9	Question 3	<p><u>Statement 1: Local authorities embed plans to improve indoor air quality into existing strategies to improve people's health</u></p> <p>It is likely that any change to existing local authority plans will require additional resource. Policy Connect's preliminary research for the inquiry into practice improvement suggests that within the change process, implementation is the phase which is likely to incur the greatest cost. Once the strategies have been amended, delivering the change is where resource will be needed in the longer term.</p> <p>The health benefits that improving indoor air quality can bring may deliver long term savings, however for these changes to be planned, determined, agreed, implemented, rolled out (including workforce training), assessed, evaluated and then reported on, significant time and resource may be required up front.⁸</p>
10	Question 3	<p><u>Statement 2: People with respiratory or cardiovascular conditions who have repeated or worsening respiratory symptoms are asked about their housing conditions by a healthcare professional</u></p> <p>This would require implementation and training of healthcare professionals across a local area. Policy Connect's research suggests that training and implementation may benefit from the consideration of local structures and demographics within this process. For example, establishing a set of core questions and some additional that can be adapted to suit the demographics of the ICS or local authority area.⁹</p>
11	Question 3	<p><u>Statement 2: People with respiratory or cardiovascular conditions who have repeated or worsening respiratory symptoms are asked about their housing conditions by a healthcare professional</u></p> <p>In regard to design of health care professional training, Policy Connect's research has identified organisations providing training in carbon monoxide; for example the organisation Think CO, who are funded by the Gas Safety Charity. Think CO are a training organisation for carbon monoxide safety, offering free sessions and resources which help learners to identify risk and understand the symptoms of</p>

⁶ Ibid

⁷ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)

⁸ Ibid

⁹ Ibid

		<p>exposure to carbon monoxide. In addition to running independent session and providing free resources, the charity has partnered with the Royal College of Nursing to develop a series of learning modules that can be accessed via an e-platform and used as part of health care professionals continuing development.^{10, 11}</p>
12	Question 3	<p><u>Statement 2: People with respiratory or cardiovascular conditions who have repeated or worsening respiratory symptoms are asked about their housing conditions by a healthcare professional</u></p> <p>Policy Connect’s research has identified methods in practice which can be used to ‘prompt’ healthcare professionals to ask questions about housing conditions (once the exact questions have been agreed). When entering a patient’s symptoms/details in a computer record, it is possible to pre-set a ‘trigger’ for a pop-up box to automatically open on the screen. This could be facilitated with a reminder to “Ask About Housing Conditions”, for example if the GP were to list “worsening breathing difficulties”.</p> <p>A study using this format has been very successful in promoting clinicians to ask a series of four questions (known as COMA; see reference 23) when patients present with complaints of severe headaches. The pop-up-box, (which can alternatively be a hard copy sticker added to physical notes if used) has been shown to drastically increase the likelihood that a clinician will ask the COMA questions, when compared to no pop-up-box or sticker.¹²</p> <p>However, ‘boxes’ availability and data collection may depend on the database used by the GP, for example EMIS prompts can only be used on EMIS systems so might need to consider how this will work across the country and whether it would be implemented at a local, ICS or other level.</p>
	Question 3	<p><u>Statement 2: People with respiratory or cardiovascular conditions who have repeated or worsening respiratory symptoms are asked about their housing conditions by a healthcare professional</u></p> <p>Policy Connect suggests that understanding who is considered a healthcare professional in this context would be helpful. For example, would this only be a nurse or doctor, or would the definition include broader primary care professionals and those in domiciliary and community services? Services outside of the GP may be very well placed to detect worsening symptoms (as they are likely to have regular visits)</p>

¹⁰ Think CO is a program providing free training and resources to enable carbon monoxide safety in homes. Think CO is funded by the Gas Safety Charity: [Think CO | Gas Safety Charity \(gassafecharity.org.uk\)](http://gassafecharity.org.uk)

¹¹ Developed by the Gas Safe Charity in partnership with the Royal College of Nursing (RCN), *Think CO - Gas Safety*, (free training resource). Available at [Think CO - Gas Safety | Professional Services | Royal College of Nursing \(rcn.org.uk\)](http://Think CO - Gas Safety | Professional Services | Royal College of Nursing (rcn.org.uk))

¹² Dr Fahad Malik & Dr Randa Ghazal-Asswad, *Carbon Monoxide: the invisible as well as silent killer? A quality improvement project raising awareness in the emergency department, Aintree University Hospital*, pre-publication presentation to APPCOG working group ‘COMed’ (May 2021)

		and to consider if housing conditions might be impacting health, as they may visit homes or local areas and observe potential risks. ¹³ ¹⁴
13	Question 3	<p><u>Statement 3: Local authorities develop processes to help people request a housing assessment when poor indoor air quality is identified or suspected.</u></p> <p>This statement appears to require the least resource. However, if the new processes lead to an increase in requests for housing assessments, these will need to be handled and responded to appropriately.</p> <p>It may not be within local authorities' capabilities to either carry out housing assessments or make improvements to housing where a need is identified. To breach the gap, Policy Connect's investigations suggest that local authorities might be advised to link services with community and charity organisations such as Care & Repair or National Energy Action, as is happening in an ad hoc manner at present.¹⁵</p>
14	Question 4	Yes, some great examples of plans which can improve indoor air quality are listed in the definition.
15	Question 4	<p>Ideas for building on the examples listed include:</p> <ul style="list-style-type: none"> • Supporting or co-designing part of a public information campaign on the risks of poor indoor air quality, making members of the public and relevant professionals aware of the causes of poor indoor air quality, who is particularly vulnerable, how health is affected and how to prevent or reduce poor indoor air quality. This may include using campaigns, web pages, and social media. As an example, the All-Party Parliamentary Carbon Monoxide Group ran two awareness campaigns last year, Carbon Monoxide Safe 4 Summer and Carbon Monoxide Awareness Week which enjoyed support from

¹³ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)

¹⁴ All Party Parliamentary Health Group, analysis from discussion: *Achieving High Street Health* (9 March 2022). Available at [Achieving High Street Health | Policy Connect](#)

¹⁵ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)

		UKHSA, the Royal College of Nurses and the Royal College of Midwives. The group Global Action Plan are also active in this area, providing information on both indoor and outdoor pollutants. ^{16,17,18}
16	Question 4	<p>Ideas for building on the examples listed include:</p> <p>When considering the example: “Developing inspection protocols to identify poor indoor air quality through existing home visits by staff. Protocols may include visual inspections, checklists and the monitoring of pollutant levels.”</p> <p>Policy Connect’s research identifies that when social care providers and healthcare professionals working in domiciliary settings take on new clients, there is a legal duty to carry out a risk assessment of the property. Assessments could include questions such as those listed in Question 5 and might provide a useful source of data if recording keeping and review can be effectively managed, perhaps within ICS processes.¹⁹</p>
17	Question 4	<p>Policy Connect’s research for the inquiry ‘<i>Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk</i>’ suggests examples such as developing protocols for what to do in the case that a carbon monoxide alarm sounds, or a dangerous indoor air pollutant is suspected, planning escape routes and holding emergency numbers, such as the Gas Emergency Service number 0800 111 999.</p> <p>Staff training and amending of employer processes will be needed for these practices to be implemented effectively.²⁰</p>

¹⁶ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Awareness Week: thank You!* (Summary and impact, 3 December 2021). Available at [Carbon Monoxide Awareness Week 2021: thank you! | Policy Connect](#)

¹⁷ All-Party Parliamentary Carbon Monoxide Group, *Highlights from the Carbon Monoxide Safe 4 Summer Awareness Campaign* (Summary and impact, 8 October 2021). Available at [Highlights from the Carbon Monoxide Safe 4 Summer Awareness Campaign | Policy Connect](#)

¹⁸ Global Action Plan: *Clean Air Hub*, see [Clean Air Hub](#)

¹⁹ *Care Standards Act 2000*, s.23: National Minimum Standards. Legislation: [Care Standards Act 2000 \(legislation.gov.uk\)](#)
[Guidance \(substance of clause\): 2553.pdf \(housingcare.org\)](#)

²⁰ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)

18	Question 4	Policy Connect’s research identifies that monitoring and evaluation are also necessary in any process, to ensure the implementation of measures has been effective and to identify any training needs or gaps in compliance. ²¹
19	Question 5	<p>Questions could include:</p> <ul style="list-style-type: none"> • What is the heating system type (e.g. gas, oil, or electric)? • Is there a solid fuel burning appliance (i.e. a fireplace or wood burning stove)? • What is the appliance servicing history (e.g. is the boiler serviced annually, if there is a chimney has this been swept)? • How old are the fuel burning appliances? • Are the fuel burning appliances registered with the manufacture for recall/report in case of design or manufacture fault (as with the Beko cookers which have been linked with 18 deaths)? • Is there an extractor fan and is this working and used by the resident? • Do windows open fully? • Proximity to major roads/pollution sources Are there working smoke, heat and carbon monoxide alarms? And: <ul style="list-style-type: none"> ○ when these are due for battery change? ○ when these are due to expire (as carbon monoxide alarms generally have a lifespan of 7 – 10 years)? ○ where the alarms are sited: which room and area (e.g. on the ceiling, 1m from extractor fan etc)? • If symptoms are suspected due to poor indoor air quality: Do other people and/or pets in the home have the same symptoms or feel unwell? • If symptoms are suspected due to poor indoor air quality: Does the patient feel better/symptoms reduce when outside the home? ^{22, 23}
20	Question 6	<p>This may need to be considered on a case-by-case basis. Whether a healthcare professional can help someone request a housing assessment will depend on:</p> <ul style="list-style-type: none"> • If the person wants help • The relationship between the applicant and the healthcare professional

²¹ Ibid

²² Think CO Training, see ref 10

²³ Public Health Wales, *Suspected carbon monoxide (CO) exposure: a guide for use in hospital Emergency Departments and primary care settings* (October 2016) Available at [PHW CO algorithm FINAL Eng Oct 2016.pdf \(wales.nhs.uk\)](https://www.phw.wales.nhs.uk/algorithm/FINAL_Eng_Oct_2016.pdf)

		<ul style="list-style-type: none"> • The confidence/ability of the healthcare professional to do this • Whether the local authority will accept this approach • How easy it is to submit the request or information • The resource available to the healthcare professional (i.e. their time and ability)²⁴
21	Question 6	If feasible, a healthcare professional could support the applicant and give them confidence by helping to approach and understand the application process, providing evidence/opinion that the assessment is required, and acting as witness to evidence how they believe the housing situation may be impacting the occupant(s) and their health. ²⁵
22	Question 7	No comment
23	Question 8	As part of the primary research for the inquiry ‘Raising Awareness and Reducing Risk’ the All-Party Parliamentary Carbon Monoxide Group has conducted several interviews with those in health and social care who are taking a pro-active to carbon monoxide safety. This research highlights examples from Care and Repair Cymru, an organisation which offers free home repairs to eligible households in need and links with hospital discharge teams and care providers to identify individuals who might benefit from their service. Academic research from the British Geriatrics Society has shown that interventions from Care & Repair Cymru “reduced the odds of falling”. ^{26, 27}
24	Question 8	A further best practice example from this inquiry is of an employee who has been training in recognising the symptoms of carbon monoxide poisoning who attended the home of an elderly resident. The resident was complaining of headaches and after asking some simple questions, the employee realised that she could be suffering from carbon monoxide poisoning. Further investigation from an engineer confirmed this

²⁴ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)

²⁵ Ibid

²⁶ Ibid

²⁷ Hollinghurst J, Daniels H, Fry R, Akbari A, Rodgers S, Watkins A, Hillcoat-Nallétamby S, Williams N, Nikolova S, Meads D, Clegg A. *Do home adaptation interventions help to reduce emergency fall admissions? A national longitudinal data-linkage study of 657,536 older adults living in Wales (UK) between 2010 and 2017*. (January 2022) *Age Ageing*. 2022 Jan 6;51(1):afab201. doi: 10.1093/ageing/afab201. PMID: 34673925; PMCID: PMC8753038. Available at <https://academic.oup.com/ageing/article/51/1/afab201/6399893?login=true>

		to be the case. The resident was referred for a free repair and her life may have been saved from these simple questions asked by the employee. ²⁸
	Statement 1	
	Statement 2	
	Statement 3	

Insert more rows as needed

Checklist for submitting comments

- Use this form and submit it as a Word document (not a PDF).
- Complete the disclosure about links with, or funding from, the tobacco industry.
- Combine all comments from your organisation into 1 response. We cannot accept more than 1 response from each organisation.
- Do not paste other tables into this table – type directly into the table.
- **Clearly mark any confidential information or other material that you do not wish to be made public. Also, ensure you state in your email to NICE that your submission includes confidential comments.**
- Do not include medical information about yourself or another person from which you or the person could be identified.
- Spell out any abbreviations you use

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NICE reserves the right to summarise and edit comments received during consultations, or not to publish them at all, where in the reasonable opinion of NICE, the comments are voluminous, publication would be unlawful or publication would be otherwise inappropriate.

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

²⁸ All-Party Parliamentary Carbon Monoxide Group, *Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk* (open inquiry chaired by Liz Twist MP); Available: [Carbon Monoxide Safety in Health and Social Care: Raising Awareness and Reducing Risk | Policy Connect](#)