



**Clean Air at Home:
A Manifesto for Tackling
Indoor Air Pollution**

About

Policy Connect is a cross-party think tank that supports parliamentary groups, forums and commissions, bringing together parliamentarians and government in collaboration with academia, business and civil society to help shape UK public policy.

Our work focusses on five key policy areas which are: Education & Skills; Industry, Technology & Innovation; Sustainability; Health; and Accessibility.

Before the pre-election purdah period, Policy Connect served as the secretariat for multiple All-Party Parliamentary Groups (APPGs), leading policy work around indoor air quality through the APPGs on Health and Carbon Monoxide.

Executive Summary

Air pollution accounts for **tens of thousands of premature deaths in the UK annually**, and scores more cases of chronic ill health, life-lasting complications, and billions in annual avoidable health and social costs.

To achieve a gear shift in public health outcomes, action to address air pollution should focus on where exposure is gravest. Around 90% of our time is spent indoors, the majority of which is spent in the home. **Tackling air pollution in homes and other indoor spaces is a public health imperative.**

Indoor air pollution intersects multiple policy areas, including housing, environmental health, and energy, and requires concerted, cross-sector action.

Government prioritisation, leadership and support are essential to better coordinate, inform and target action on indoor air pollution.

Better planning, enforced regulation, increased public awareness and earlier intervention can help prevent strain on the NHS and public services, address health inequalities, and improve the health of the workforce.

The problem

Our indoor environments, where we spend 80-90% of our time, expose us to myriad pollutants from a variety of sources including building materials, fossil fuel-burning cooking and heating appliances, and cleaning products.[i],[ii]

Health effects

Air pollution is associated with increased risk of **chronic illnesses, permanent cognitive impairment, developmental defects, and rapid death.**[iii]

- **5,000 cases of asthma** in 2019 were associated with exposure to damp, mould and formaldehyde.[iv]
- **£1.4 billion annual health costs** are incurred by gas cooking alone.[v]

Social effects

Air pollutants affect **vulnerable groups** such as children, older people and pregnant women more gravely, while **lower socio-economic groups** face a triple risk of greater exposure, worse underlying health, and least empowerment to improve circumstances.

Addressing the problem

Though the burden of indoor air pollution is complex, and responsibilities are diffuse, **there is sufficient scientific understanding, industry and third sector expertise, and public will to support immediate political action.**

Recommendations

The Government must lead concerted, cross-sector action on indoor air pollution. Recommended actions for political leadership are as follows:

1. **Designated ministerial leadership** on indoor air quality (IAQ).
2. The designated minister to convene responsible ministers in complement with the Cross-Government Working Group on Indoor Air Quality.
3. A new clean air strategy to feature **a dedicated IAQ action plan.**
4. Government support for an **indoor air quality research partnership**, supporting a research framework and an observatory coordinating systematic indoor environmental monitoring in houses, schools, and healthcare facilities.
5. **Consolidated guidance on tackling household air pollution** to be issued to Local Authorities, housing developers and providers, and health and emergency services.
6. Stronger Local Authority selective licensing schemes, with greater **enforcement powers** and greater **penalties for non-compliance.**

We recommend designated ministerial leadership on indoor air quality; for the relevant minister to convene responsible ministers in support of the Cross-Government Working Group on Indoor Air Quality; and for responsible ministers to oversee a new action plan on indoor air quality in step with relevant policy.

1, 2 & 3

Leadership and cross-government working on IAQ

Responsibility for IAQ lies across policy areas; this can hinder action within government. Responsible ministers include air quality (DEFRA); health and work (DWP); public health and health security (DHSC); schools (DfE); transport air quality (DfT); fire services (Home Office); enterprise and markets (DBT); and housing, planning and building safety (DLUHC).

A **designated ministerial lead** can coordinate responsible ministers and ensure appropriate action is undertaken across departments. A Cross-Government Working Level Group on Indoor Air Quality was set up in 2021 – a good step towards cross-departmental action on IAQ. The designated ministerial lead should direct the civil service-level group to prepare papers for discussion by ministers.

It is particularly important that **ministers overseeing energy efficiency measures factor in IAQ**, ensuring adequate ventilation, safe insulation materials, and proper installation.

Ministerial communication is essential to drive public awareness; this may begin with the health secretary, who should publicly communicate the health risks of exposure to pollutants indoors, particularly ahead of winter, when exposure is heightened through increased domestic fuel use and decreased ventilation.

Government IAQ policy

Government clean air policy is skewed towards ambient (outdoor) air, limiting local action on indoor pollution. The 2019 Clean Air Strategy focusses primarily on industrial sources in aiming to reduce national levels of five pollutants in line with national commitments, while DEFRA's 2023 Air Quality Strategy for councils contains few actions for indoor air.[vi]

A new clean air strategy should include a **dedicated plan to address IAQ**, expanding the 2019 strategy's limited provisions on household air pollution. A new strategy should include goals for addressing individual pollutants common indoors, such as carbon monoxide, that are absent in the 2019 strategy; designate IAQ responsibilities across departments; provide a **framework for IAQ leadership within Local Authorities**; and detail an action plan for Local Authorities to mitigate and report air pollution levels across indoor spaces.

As part of the strategy, the Government should assess the effects of regulatory changes for ventilation and housing rules; **labelling schemes and warnings at the point of sale** of fossil fuel appliances; **an explicit indoor air quality baseline**; and a **policy framework for setting legal targets**, in line with the Environment (Air Quality and Soundscapes) (Wales) Act 2024.

IAQ research partnership

We recommend an indoor air quality research partnership, supported by a research framework and overseen by an observatory for systematic indoor environmental monitoring in houses, schools and healthcare facilities.

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Data policy gaps

IAQ policy is hindered by policymakers' lack of data and insight on the real-world risks and effects of pollutants indoors. This issue led to only non-binding targets being legislated in the Environment (Air Quality and Soundscapes) (Wales) Act 2024.

However, the 2019 Clean Air Strategy obliges Local Authorities to monitor only ambient (outdoor) pollutant levels for five pollutants[vii], despite these being produced by a variety of household sources and bearing significant health risks indoors.

Government must break this deadlock with support for IAQ research and monitoring, emulating the IAQ observatory introduced in France 20 years ago.

Collating clean air data

An IAQ observatory should, as a start, **collate and share existing data**. Indoor air data and expertise lie across sectors, for example in council- and academia-led IAQ projects, in alarms, and in personal atmosphere monitors worn by some emergency service personnel.

Departments with existing indoor monitoring infrastructure should ensure all key pollutants are reported. The Department for Education should examine **issuing low-cost atmosphere monitors to state-funded schools when replacing the CO2 monitors** previously issued to every school, while the Home Office should ensure fire and rescue services record data on pollutants, such as carbon monoxide, found during home visits.

Agencies should submit IAQ data to the IAQ observatory, **expanding the existing single air quality data portal** developed through the 2019 Clean Air Strategy.

Realising an IAQ observatory

The new observatory should complement a new government framework for data collection and sharing across services responsible for indoor air pollution.

To better understand the health burden of indoor air pollution, the Government must **introduce a research framework**. This can emulate the 2017 Department of Health Framework for Mental Health Research introduced to coordinate researchers and policymakers and to commission research to plug evidence gaps. This can spur innovation and the trialling of new monitoring technologies.

Consolidated IAQ guidance

It is recommended to set up consolidated guidance on tackling household air pollution to set out pollutant sources and risks, responsibilities, and a directory of support, to be issued to Local Authorities, housing developers and providers, and community health and emergency services.

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Fragmented information

There is a range of existing IAQ-related guidance from public bodies such as NICE[viii], the Parliamentary Office of Science and Technology[ix], and the UK Health Security Agency[x], but these do not provide a complete picture of the sources, effects and means to tackle air pollution at home, where exposure is greatest.

For this reason, responsible bodies can lack clarity when responding to domestic environmental hazards, with dialogue between such bodies often ineffective over risk assessment and appropriate responses.

Following ministerial leadership on the issue, the DLUHC (now MHCLG) and DHSC recently issued comprehensive guidance on addressing damp and mould.[xi] This dossier must form part of consolidated guidance on household air pollution.

Setting up comprehensive IAQ guidance

Consolidated guidance should set out the sources and health risks of pollutants with ambient air quality standards in the UK[xii]; providers' responsibilities and occupants **rights; recommended interventions** or precautions for councils, responsible public services, private providers such as landlords, and individuals; and a **directory of support** available from public and private services to address household hazards.

Relevant sections must be communicated by departments, embedded within professional standards and training, and made available through every relevant departmental website.

Responsible authorities should use the consolidated guidance for public communication to engender behavioural change. Immediate awareness-raising actions should focus on the sources, signs, and symptoms, and mitigative interventions to address, household air pollution, in particular the effects of domestic wood-burning.

Local powers & enforcement

We recommend stronger Local Authority selective licensing schemes, with greater enforcement powers and greater penalties for non-compliance.

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Limited authority and resource constraints

Limited government strategies, coupled with lacking statutory obligations and powers, mean that Local Authorities lack sufficient resources to address indoor air pollution.

The Housing Act 2004 already provides freedom from the most immediately serious hazards in rental homes, covering a limited range of exposure to indoor air pollution, while subsequent regulations have mandated additional responsibilities[xiii] and safety measures such as carbon monoxide alarms.[xiv] However, understanding of the effects of indoor air pollution has evolved since the establishment of the Decent Homes Standard; as such real threats may be omitted by existing regulation.

Limited local powers and enforcement lead to limited compliance with existing regulations. Councils often do not deploy licensing schemes that can help ensure health and safety standards; many deprioritise enforcement; and must obtain permission for schemes covering more than 20% of their area or of private rentals.[xv]

Empowering councils and enforcing standards

To allow regulations to have effect, **councils must be able to extend licensing conditions to a wider range of properties and include broader conditions for health and safety in homes.**

An enforcement-first approach of providers' obligations under licensing schemes can greatly improve compliance, with penalties attained used to resource enforcement.

Any new legislation for housing health and safety, such as duties on landlords to ensure health and safety and instigate repairs, **must give powers to councils to enforce freedom of all hazards, not just those considered the most immediately serious.** This can be supported by expanding the Social Housing (Regulation) Act 2023 to set a timescale for repairs across private rental, as well as social, housing.

References

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- [v] Blair, H. et al, May 2023. The Public Health and Environmental Impacts of Cooking with Gas. CLASP & European Public Health Alliance.
- [vi] DEFRA, August 2023. Air quality strategy: framework for local authority delivery.
- [vii] As listed on page 15 of DEFRA’s Clean Air Strategy, 2019.
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- [x] UKHSA, May 2022. Carbon monoxide: general information.
- [xi] DLUHC & DHSC, September 2023. Understanding and addressing the health risks of damp and mould in the home.
- [xii] As listed on page 15 of DEFRA’s Clean Air Strategy, 2019.
- [xiii] DLUHC, March 2019. Guide for landlords: Homes (Fitness for Human Habitation) Act 2018.
- [xiv] DLUHC, July 2022. Smoke and Carbon Monoxide Alarm (Amendment) Regulations 2022: guidance for landlords and tenants.
- [xv] DLUHC, June 2023. Selective licensing in the private rented sector: a guide for local authorities.