# Call for evidence on domestic solid fuel burning – British Lung Foundation response

## February 2018

The British Lung Foundation is pleased to submit a response to this call for evidence. We welcome the government’s interest in this area and the recognition that the domestic burning of house coal and wood with a high moisture content is a significant and harmful source of the UK’s particulate matter emissions.

We are calling for:

* **A national plan for lung disease to be integrated with the air quality plan**, recognising the impact that air pollution has on our lungs.
* **A new regulatory framework for the sale of solid fuels for residential burning**, including a ban on the sale of wet wood and smoky coal to households for residential burning.
* **A UK-wide public awareness campaign** on the impact of emissions from residential burning and the health and consumer benefits of burning low-moisture wood and smokeless coal.
* **Greater support and powers for local authorities** to tackle persistent smoke pollution, where people’s health is at risk, including introducing a nation-wide Low Smoke Zone prohibiting the marketing, sale and distribution of smoky coal, as in Ireland.
* **The UK to adopt World Health Organisation ‘safe’ legal limits** on particulate matter as new legal limits.

It is important to note that whilst residential fuel burning is a significant contributor to UK particulate matter, road transport is the single biggest contributor to air pollution in towns and cities across the UK. Road transport contributes around 15% of the UK’s PM2.5 and PM10 emissions and a third of total NO2 emissions, and must continue to be tackled alongside fuel burning.

## Air pollution is an invisible and silent killer

Millions of people in towns and cities across the UK are breathing in levels of pollution that are illegal and harmful for their health.

This could be increasing their risk of getting lung cancer, cutting people’s lives short and making existing lung conditions worse. Latest estimates suggest that the equivalent of 40,000 lives are cut short each year from air pollution[[1]](#endnote-1) and it’s estimated that this equates to an annual cost of £27.5 billion to the Treasury.[[2]](#endnote-2) [[3]](#endnote-3)

Air pollution hits hardest people with a lung condition, children and older people. For many of the people we support with chronic obstructive pulmonary disease (COPD) and asthma, air pollution poses a daily risk to their lives – it can worsen their symptoms and in the worst cases force them into hospital.

Children’s lungs are also very vulnerable as they are still growing – polluted air can stunt the growth of their lungs and increase the likelihood of asthma. For pregnant women breathing in polluted air can stunt the development of their unborn child. Children with smaller lungs are more likely to face health problems later on in their lives. [[4]](#endnote-4) [[5]](#endnote-5)

We support 230 Breathe Easy peer support groups across the UK. Many patients who attend these groups tell us that pollution restricts their lives and changes what they are able to do with their day. Every month, we receive numerous calls and emails from people who are concerned about air pollution - particularly from parents, schools and patients.

## We need a national plan for lung disease to be integrated with the air quality plan

Lung disease is the UK’s third biggest killer, [costing the NHS £9.9 billion](https://www.blf.org.uk/what-we-do/our-research/economic-burden) a year and business £1.2 billion through work days lost.[[6]](#endnote-6) Despite the millions affected, there is currently no plan in place to evaluate or improve respiratory services. Successive governments have failed to prioritise lung disease and put a robust strategy in place.

Any plan to tackle air quality should be fully integrated into a new national and devolved governments plan to tackle lung disease. We want the government to set national health targets in the air quality plan to reduce hospital admissions from air pollution and to reduce premature deaths from air pollution. At a local level, public health, environmental health and transport teams should similarly work together.

## We need a new regulatory framework for the sale and purchase of fuels for residential burning

The use of wood with a higher moisture content in residential burning accounts for 20,000 tonnes of the UK’s PM2.5 emissions, and produces 21.1 g/h of smoke emissions for every 2.0 kg of wood burnt. This is compared to 4.6 g/h of every 2.5 kg of dry wood burnt. The residential burning of coal accounts for 11,250 tonnes of the UK’s PM2.5 emissions.[[7]](#endnote-7)

Burning wood and coal in a stove or on an open fire releases [particulate matter](https://www.blf.org.uk/support-for-you/air-pollution/types), which has shown a range of adverse health impacts, including decreased lung development and function, exacerbation of asthma, allergy, COPD, pulmonary fibrosis, and increased risk of lung cancer.[[8]](#endnote-8) [[9]](#endnote-9) It is also linked with increased morbidity and mortality.[[10]](#endnote-10) Studies in Vancouver have linked wood burning and exposure to PM released by burning wood or coal to an increase in emergency hospital visits.[[11]](#endnote-11)

Government should introduce a ban on the retail sale of all wood with a high moisture content (more than 20% moisture) to households for residential use, recognising wood burning as a significant contributor of the UK’s particulate matter emissions. It is estimated that this would contribute to an 8-10% reduction in the UK’s PM2.5 emissions. We welcome the introduction of the ‘Ready to Burn’ standard for dry wood, which should be used as a stepping stone to a ban on the retail sale of wood with a high moisture content.

Government should also, in line with Ireland, introduce a ban on the domestic sale of smoky coal. This is supported by the WHO, and would result in a significant reduction in the UK’s particulate matter emissions. A shift to the burning of smokeless coal would result in a 10% reduction in the UK’s PM2.5 emissions.[[12]](#endnote-12)

Government should also ban the use of high-sulphur petroleum coke in the manufacturing of solid fuels. This will contribute to a significant reduction in the UK’s PM2.5 emissions, and will reduce smoke emissions in residential burning.

A new regulatory framework should also require the packaging of dry wood and smokeless coal for retail sale to include information on the health impact of solid fuel burning, how to efficiently burn solid fuels, and how to store wood for burning.

## We need a UK-wide public awareness campaign on air pollution

A campaign based on clear, accurate and robust health information will ensure that people know how to protect themselves and support local authorities to take ambitious action on pollution.

There must also be a nationwide campaign targeting consumers about the health implications of residential burning, garden fires, and bonfires. This should emphasise the health and consumer benefits of burning wood with a low moisture content and smokeless coal. This information should provide clarity for consumers on the significant contribution residential burning makes to total emissions levels in the UK and its effects on the nation’s and individual health.

Studies have shown that providing the public with clear, concise and meaningful data and information on air pollution significantly helps raise awareness of the problem. However, if this data is not accompanied with clear ways in which people can reduce their exposure people often report feeling “powerless” and unable to protect themselves.[[13]](#endnote-13) Any awareness campaign must be accompanied by clear health advice that facilitates behaviour change.

## Local authorities need powers to tackle persistent smoke pollution

The UK Government should follow the Irish Government in rolling out a nationwide Low Smoke Zone, introducing a ban on the marketing, sale and distribution of smoky coal and other prohibited fuels. This will address some local capacity issues in local government with enforcement, noted below.

The smoky coal ban, first introduced in Dublin in 1990 before being extended to the next 25 largest urban areas in the country in 2013, resulted in significant falls in respiratory problems and premature deaths. It is estimated that approximately 8,000 premature deaths have been averted in Dublin since the introduction of the smoky coal ban in 1990.[[14]](#endnote-14)

## Support local authorities with more funding, resources and expertise

We agree that local authorities should be given additional powers in order to deal with persistent smoke pollution where there is harm to the local amenity, the health of neighbours and residents in the wider area (particularly those living with a lung condition). We would also recommend that the government engage with local authorities in order to ensure the full enforcement of regulations set down by existing Smoke Control Zone, and updating legislation where necessary.

FOIs submitted in 2017 found that many local authorities are struggling to meet local air quality monitoring requirements because of financial challenges.[[15]](#endnote-15) These findings were supported by a survey from the Local Government Information Unit who found that three-quarters of local councils had little or no confidence in the sustainability of local government finances and more than one in 10 believed they were in danger of failing to meet legal requirements to deliver core services.[[16]](#endnote-16) Overwhelmingly, council leaders stated that social care pressures were their top priority. To ensure that local authorities can prioritise air quality, they must receive adequate funding, resources and expertise.

## We need to change legal limits for particulate matter to safe limits

The two sizes of PM normally monitored are PM10 and PM2.5 – both considerably thinner than a human hair.[[17]](#endnote-17) [[18]](#endnote-18) Harmful smaller particles, such as PM1 and PM0.1 also exist, but there is no legal requirement to monitor them. These tiny particles are some of the most toxic for our health, with evidence showing they can pass through our lungs into our bloodstream and cause damage across our bodies.

Our legal limits for particulate matter are over twice as high as those recommended by the World Health Organisation.[[19]](#endnote-19) [[20]](#endnote-20) It’s important to remember that the WHO state there is no real “safe” level of pollution and that any level of exposure is harmful to human health. The UK’s plans should be striving to go beyond our current legal limits to lower all pollutants to “safe” WHO levels. We want the UK to adopt WHO limits on particulate matter as new legal limits.

## Other comments

We want government to improve data recording and research in order to map those areas and individuals which are most at-risk from harmful emissions and would be affected by any policies which shift fuel usage. This should also include improving government and sector understanding of the use of solid fuels as primary or secondary heating sources and any regional differences, in providing transitional arrangements for those consumers likely to be impacted by regulatory changes.

## About the British Lung Foundation

The BLF is the only UK charity looking after the nation’s lungs. We offer hope, help and a voice. Our research finds new treatments and cures. We help people who struggle to breathe to take control of their lives. And together, we’re campaigning for better lung health. With your support, we’ll make sure that one day everyone breathes clean air with healthy lungs.

## For further information, please contact:

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