



## Joint briefing: air pollution targets in the Environment Bill that deliver safer air

Together as charities we represent hundreds of thousands of patients, healthcare professionals and members of the public who every day experience and witness the harmful effects of air pollution, which is now the biggest environmental threat to the public's health in the UK.<sup>i</sup>

The overwhelming evidence showing the devastating effect air pollution has on all our health – particularly the most vulnerable including children and those with existing health conditions – has brought us together to call for new legislation to guarantee everyone's right to breathe clean air.

### What changes are urgently needed?

In the upcoming Environment Bill we want to see the following commitments:

#### 1. Ambitious legally binding targets for fine particulate matter

- We support the inclusion of clear and legally binding targets for fine particulate matter (PM2.5) in line with the limit recommended by the World Health Organization (WHO).
- The Bill is a once-in-a-generation opportunity to adopt the best standards to protect the public's health. The current legal limit for PM2.5 is more than twice as high as that recommended by the WHO - 25µg/m<sup>3</sup> and 10µg/m<sup>3</sup> respectively.
- Therefore, we want the government to adopt the WHO's limit for PM2.5 into UK law, with a commitment for these standards to be met by 2030. This would guarantee that we have a legislative framework based on the highest health standards in place, and clear legally binding targets to consistently and effectively reduce pollution to safer levels.

## 2. Protection of existing EU air quality standards after Brexit

- Many areas in the UK experience illegal levels of nitrogen dioxide (NO<sub>2</sub>), and it is essential that the Environment Bill commits to maintaining existing NO<sub>2</sub> standards after Brexit.<sup>ii</sup> Legal limits for NO<sub>2</sub> are already in line with WHO guideline values, and we need certainty that these will not change after we leave the EU.
- Given that 37 out of 43 UK areas are still experiencing illegal levels of NO<sub>2</sub> it is also critical that changes are put in place so that across the UK we comply with the legal limit as soon as possible.
- As we learn more about NO<sub>2</sub> pollution it may be that even current WHO/EU limit values will not turn out to be adequate to protect human health, but legally-binding compliance with current WHO/EU standards, set out in the new Environment Bill, is an essential start.

## 3. New legal targets for other pollutants

Given that current UK legislation does not match existing WHO standards for other pollutants either, such as sulphur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>) and coarse particulate matter (PM<sub>10</sub>), we are also calling for all future air pollution limits to be legally tied to WHO standards.

## What can you do to stand up for cleaner air?

There are many ways you can support our call for stronger air quality standards. These include:

- **Writing a private letter to the Secretaries of State in:** Department for the Environment, Food and Rural Affairs; Department for Health and Social Care; Department for Transport; HM Treasury (this can be a joint letter signed by several MPs).
- **Publishing a blog post on your website**, outlining the issue with air pollution and supporting our calls.
- **Submitting a Parliamentary Question** to ask ministers what action they are taking to tackle toxic air.

If you're keen to support us, please do get in touch with Zak Bond, Policy and Public Affairs Officer, British Lung Foundation: [zak.bond@blf.org.uk](mailto:zak.bond@blf.org.uk)

## **In-depth briefing:**

### **A) The opportunity for a world-leading Environment Bill that sets out standards to protect everyone's health**

- Provisions on air quality are expected to form a substantial part of the Environment Bill and improving air quality is highlighted as a priority in the Draft Environment (Principles and Governance) Bill, which sets out how the government will enforce environmental law in the future.<sup>iii</sup>
- The government's Clean Air Strategy lays out a comprehensive set of actions to tackle air pollution which the government intends to incorporate into the clean air provisions of the Environment Bill.<sup>iv</sup> The latter is expected to be published in Summer/Autumn 2019.

#### **The Clean Air Strategy refers to the World Health Organization guideline value for PM2.5:**

- The Clean Air Strategy acknowledges the WHO's limit for PM2.5 and commits to reviewing how to reach it. However, it falls short of committing to including it in the Environment Bill and to setting legally binding targets.
- Instead, the Clean Air Strategy only aims to halve the population living in areas with concentrations of PM2.5 above WHO guideline levels (10 µg/m<sup>3</sup>) by 2025.
- This is a step in the right direction, but it still means that the other half of the population exposed to PM2.5 levels above the WHO's limit will still be exposed to levels of fine particulate matter that could affect their present and future health.

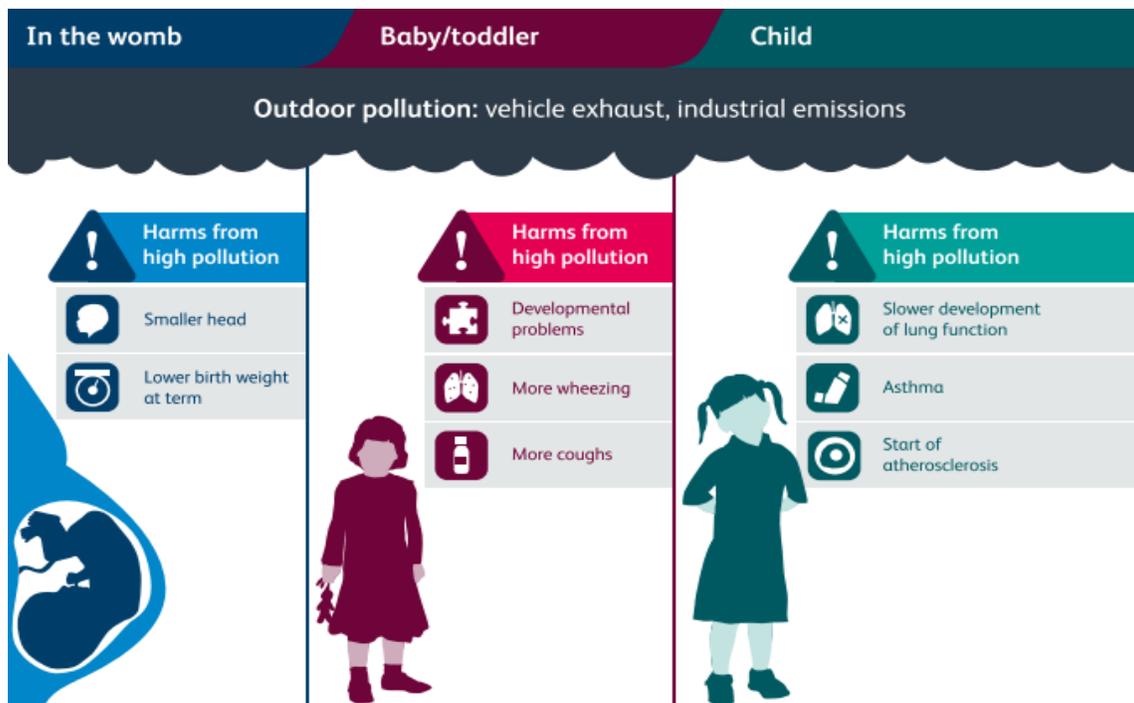
#### **The Clean Air Strategy fails to provide a legal framework or accountability mechanisms to ensure we meet this target and, therefore, does not take into consideration the recommendations of the joint parliamentary inquiry on air quality:**

- The joint inquiry on improving air quality launched by four Select Committees in 2017 (The Environment, Food and Rural Affairs, Environmental Audit, Health and Social Care and Transport Committees) recommended a series of measures to improve air quality. With regards to the WHO's air pollution limits it advised that, we "*should aim to achieve the widest possible health benefits by adopting World Health Organization targets into UK statute.*"<sup>v</sup>

- The inquiry also highlighted the fact that Defra’s air quality objectives are not reflected in the policies of other government departments and that there is an ongoing lack of joined-up thinking and cross-departmental collaboration. Legally binding targets and a legal framework would ensure action from across government and require ambitious commitments on air quality in departmental strategies.
- We want to see clear, legally binding targets to **reduce all UK concentrations of PM2.5 to WHO recommended levels by 2030**. We also want to see statutory requirements to set out how this target will be reached, along with the milestones for doing this and details setting out how the most vulnerable people will be protected.

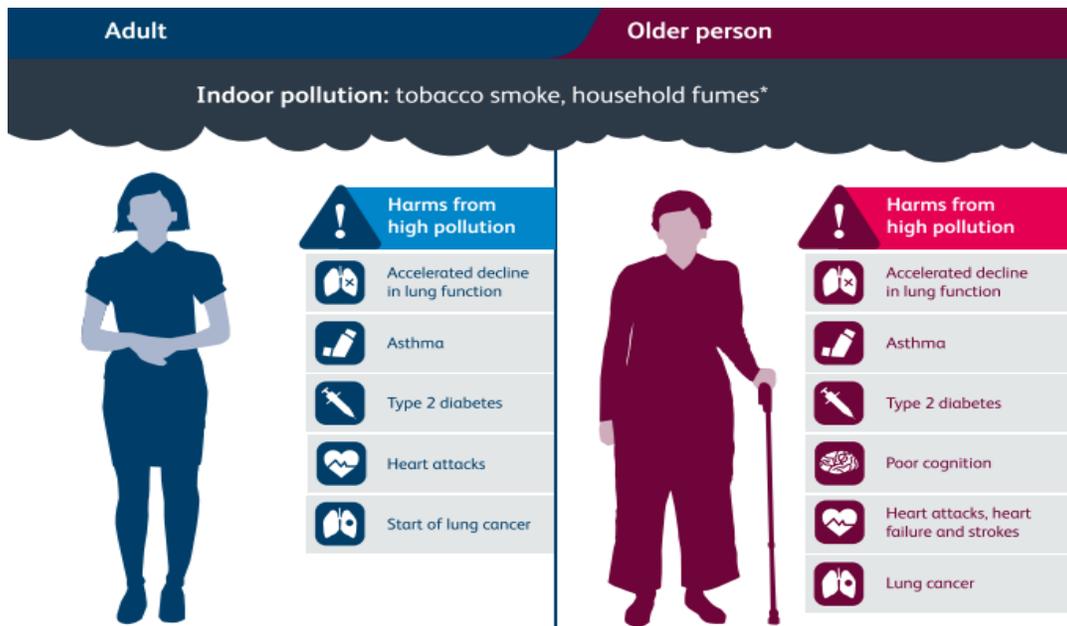
## B) Air pollution can have devastating impacts on our health

- Air pollution is linked to a wide range of health problems, including **lung and heart disease, stroke, cancer**, and it can disproportionately affect the most vulnerable including: **babies in the womb, children, people with existing lung or heart conditions and the elderly**.<sup>vi</sup>
- Anyone can be affected by air pollution. Breathing polluted air throughout our lives can put anyone at greater risk of developing a lung or cardiovascular condition. It is now estimated that **one in ten cases of lung cancer** are due to outdoor air pollution.<sup>vii</sup>



RCP/RCPCH, Every Breath We Take, 2016

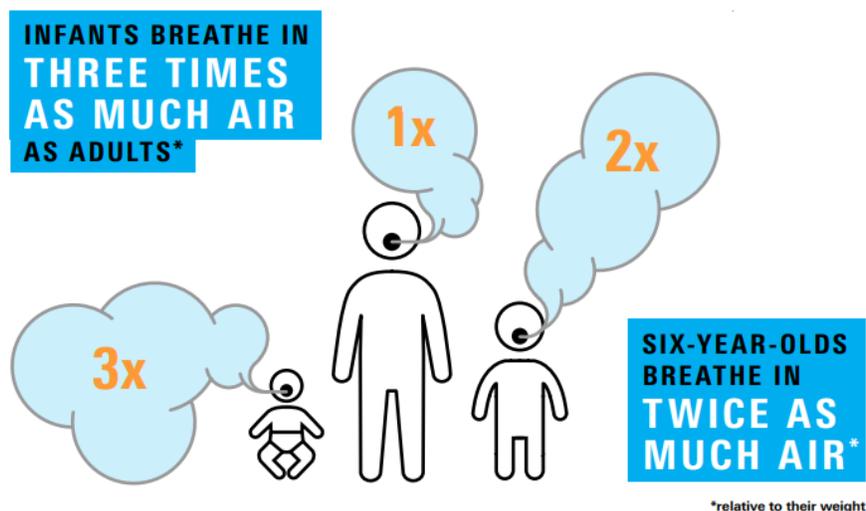
Available at: <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>



RCP/RCPCH, Every Breath We Take, 2016

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- Around **one in three children in the UK are currently growing up in areas with unsafe levels of air pollution.**<sup>viii</sup> Breathing polluted air can cause **irreversible damage to children’s growing lungs and hearts**, and there is growing evidence showing that air pollution not only aggravates asthma in children, but it can also cause it.<sup>ix</sup>



UNICEF UK, Healthy Air for Every Child: A Call for National Action, 2019

Available at: <https://www.unicef.org.uk/clean-air-child-health-air-pollution/>

- **Air pollution can worsen existing health inequalities.** People living in the poorest areas are often the most exposed to pollution, so exposure to toxic air can reinforce unequal health outcomes for deprived communities.<sup>x</sup> It can also contribute to health inequalities later in life; children living in highly polluted areas are four times more likely to have reduced lung function in adulthood.<sup>xi</sup> This can leave children with lifelong health challenges and affect their future opportunities.
- There is robust evidence of a **clear link between high levels of air pollution and increased numbers of patients with breathing problems presenting at hospitals and GP surgeries.** Last year, a BLF-funded study carried out by the University of Dundee, found that on days when air pollution levels spiked there was a large increase in the number of people admitted to Ninewells Hospital and Perth Royal Infirmary with breathing problems and also of visits to GPs with breathing problems, known as exacerbations.<sup>xii</sup>
- British Heart Foundation (BHF) funded research has further shown that **short term exposure to elevated concentrations of air pollution increases the risk of those living with heart failure experiencing a coronary event.** Long-term exposure to air pollution has also been found to result in changes to the structure of the heart in healthy individuals, similar to those seen in the early stages of heart failure.
- Air pollution in the UK is also estimated to cost at least **£23 billion to society** every year, due to increased use of the NHS and lost working days.<sup>xiii</sup> Not only is air pollution a burden on our health services, it also carries a huge economic cost to society.

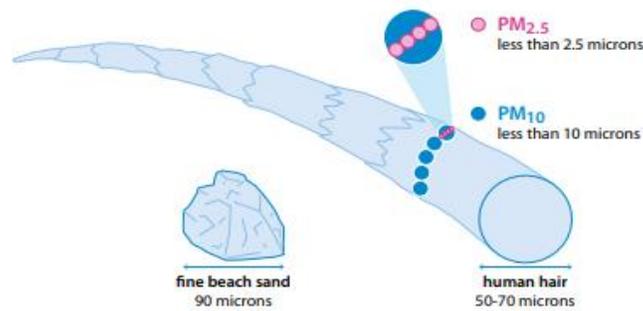
Each year, air pollution causes:<sup>1</sup>



<sup>1</sup> Royal College of Physicians [2018] *Reducing air pollution in the UK: Progress report 2018*, London. <https://bit.ly/2IMZg0g>

## C) Tiny pollution particles are the most harmful for our health

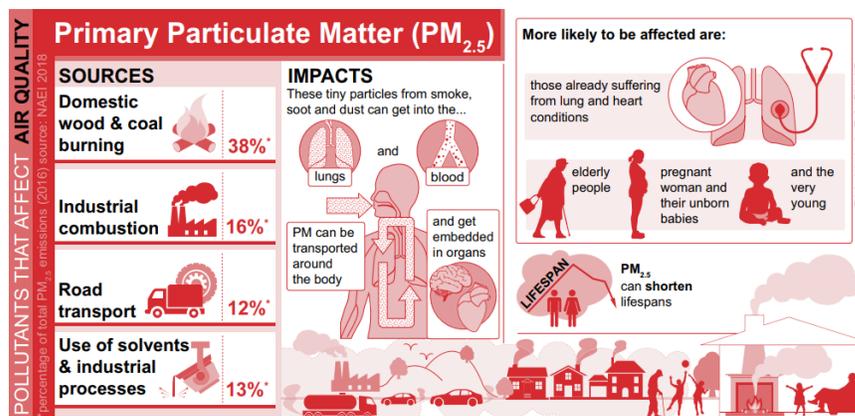
- PM2.5 is one of the most harmful air pollutants for humans. PM2.5 refers to particles with a diameter smaller than 2.5µm – 30 times smaller than the average human hair - and these small particles can easily and quickly penetrate deep into the lungs, and potentially enter the bloodstream.<sup>xiv</sup>



British Lung Foundation, Toxic Air at the Door of the NHS, 2018

Available at: <<https://www.blf.org.uk/take-action/campaign/nhs-toxic-air-report>>

- Exposure to PM2.5 has been linked to a wide range of poor health outcomes including asthma, COPD, coronary heart disease, stroke, and lung cancer, with emerging evidence showing impacts on low birth weight, diabetes and neurodegenerative diseases such as Alzheimer's and Parkinson's.<sup>xv</sup>
- PM2.5 comes from a variety of sources (*see infographic below*). However, the majority of PM2.5 pollution in urban areas comes from road transport.<sup>xvi</sup>



Defra, Clean Air Strategy, 2019 Available at:

<[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/770715/clean-air-strategy-2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf)>

## D) PM2.5 levels across the UK currently pose a risk to the health of everyone

- According to the WHO air pollution database, 80% of UK cities measured were on or above the WHO limit for PM2.5 in 2016.<sup>xvii</sup>
- Cities exceeding the WHO's limit include large and mid-sized cities such as London, Leeds, Leicester, Nottingham, Portsmouth, but also smaller towns and cities such as Southend-On-Sea, Norwich and Sandy.
- This means that **millions of people in towns and cities** across the UK could be breathing in levels of PM2.5 that are harmful for their health.
- We are particularly concerned about PM2.5 levels in hotspots where vulnerable groups live, work and play, such as schools, hospitals and care homes.
- In October 2018, the BLF revealed that more than **2,000 health centres are located in areas with levels of PM2.5 above that recommended by the WHO**, putting at risk the health of millions of patients and staff.<sup>xviii</sup>



British Lung Foundation, Toxic Air at the Door of the NHS, 2018  
Available at: <<https://www.blf.org.uk/take-action/campaign/nhs-toxic-air-report>>

## **E) Protecting the nation's health with WHO limits for PM2.5 in legislation is both achievable and urgently needed**

- **WHO guideline values can be achieved by 2030** through joined up action across government departments with responsibility for health, transport, energy and innovation. This needs to be steered by an overarching government ambition to tackle air pollution for the benefit of people across the UK so they can enjoy the cleaner air that is already a feature of many European cities with the resulting benefits to their health.<sup>xix</sup>
- **Meeting WHO guideline values for PM2.5 will require a robust set of actions across government**, including: taking ambitious measures to ensure that there are fewer and cleaner vehicles on our roads; better control of industrial emissions – such as tougher enforcement of emissions limits for bulldozers, diggers and other construction machinery; improved monitoring of PM2.5 at national and local level; and ensuring that the most polluted fuels and stoves are regulated, with better enforcement of existing legislation to prohibit open fires.

**It's clear that current legal standards on air quality are failing people's health. Stand with us now and support new world-leading limits on PM2.5 that will deliver air that is safer to breathe for all of us – now and for generations to come.**

If you are keen to support us, please get in touch with Zak Bond, Policy and Public Affairs Officer, British Lung Foundation: [zak.bond@blf.org.uk](mailto:zak.bond@blf.org.uk)

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