

Written evidence, Asthma UK and the British Lung Foundation (CCE0012)

Introduction

Asthma UK and the British Lung Foundation Partnership came together at the end of 2020 in order to change the lives of everyone affected by asthma, bronchiectasis, COPD, ILD, mesothelioma, pulmonary fibrosis and all other lung conditions. This includes undertaking research, policy and campaigning work to tackle air pollution, a major source of lung disease in the UK.

Air pollution poses the single greatest environmental risk to human health, and as such is a key priority for the government. The Environment Act introduced a legally binding duty on the government to bring forward a target to reduce the annual average level of fine particulate matter (PM_{2.5}) as well as an exposure reduction target for PM_{2.5}.ⁱ

In order for these targets to be met, we will need to implement a raft of measures which help residents, businesses and consumers to change their behaviour and reduce their contribution to toxic air pollution, particularly in our towns and cities.

Summary

Much of the most toxic air pollution in the UK originates from traffic at the roadside. It is the largest emitter of nitrogen oxide emissions and produces 12% of our annual PM_{2.5},ⁱⁱ although this can be higher in more polluted areas near busy roads, particularly in large towns and cities like London, Birmingham, Manchester and Glasgow.

Whilst the proliferation of electric or zero emission vehicles (ZEVs) is likely to reduce NO₂ concentrations, it will not improve air quality in its entirety. This is because a significant amount of PM_{2.5} is released from tyre, brake and road abrasion, rather than through exhaust emissions. The government's own air quality expert group notes that "particles from brake wear, tyre wear and road surface wear currently constitute 60% and 73% (by mass), respectively, of primary PM_{2.5} and PM₁₀ emissions from road transport, and will become more dominant in the future", as vehicles become larger and heavier.ⁱⁱⁱ

The only way to safely reduce air pollution from road transport and protect public health is to reduce the number of vehicles on the roads. This is also essential if we are to meet our national Net Zero targets. Modelling by the UK's Climate Change Committee suggests that total car miles must reduce by 9% by 2035 and by 17% by 2050 if we are to meet Net Zero by 2050.^{iv}

Behaviour change will have a vital role to play in achieving this. In order to ensure that people are able to change their behaviour without negatively impacting their day-to-day lives, we need to:

- Improve public transport.
- Invest in walking and cycling infrastructure.

- Provide more comprehensive financial incentives to make it easier and more beneficial for people to change their behaviour.
- Improve education around air pollution, including amongst health professionals.

Set out below are answers to a range of questions set out in the consultation, alongside several recommendations for government to help deliver the change we need to see if we are going to clean up our toxic air.

Policy Recommendations

- **UK governments should ramp up annual funding for public transport, walking and cycling** to encourage car users to shift to cleaner modes of transport. Annual additional funding commitments should include £2.2 billion for buses and cycling in England, £1 billion for trams in England, and £4.4 billion for trains across the UK.
- **UK governments and local authorities should focus on inclusive walking and cycling** schemes through financial incentives to support those with long-term health conditions to switch to cleaner travel. This should include the extension of safe cycling paths, the banning of pavement parking and financial support for e-bike purchases. This would both make walking and cycling more inclusive and ensure more people switched their behaviour away from driving private vehicles.
- **UK health bodies should ensure that air pollution exposure reduction is included in all training for health care professionals** and is integrated in all care pathways. This would ensure that all patients are given the right advice to change their behaviour and protect their health from the impacts of air pollution.
- **Public health agencies should deliver a national public health campaign** to set out clear health advice for at-risk groups to protect themselves from air pollution as well as guidance on how to reduce their own contribution.
- **Government should fund research into exploring air pollution's contribution to health inequalities** to better mitigate its effects. Specifically, we need to learn more about links with gender, and the relationship between ethnicity, social deprivation, and air pollution. This would help us to support different groups across society to change their behaviour and mitigate the worst impacts of air pollution.
- **The government must ensure that any and all policies designed to change behaviour and tackle climate change also have a net benefit for air pollution.** Otherwise, we risk tackling climate change whilst worsening the public health crisis caused by polluted air.

What is the UK public's appetite for the key lifestyle changes that may be needed to achieve the Government's long-term climate change and environment goals and commitments, and how does this vary across the population?

Public appetite for cleaning up the air amongst those with lung conditions is extremely high. As the UK's leading respiratory charity, representing people living with asthma and lung conditions right across the UK, we hear from our beneficiaries about the impact that air pollution is having on their day-to-day

lives. They are being forced to change their behaviour in order to protect their health and mitigate the worst impacts of air pollution. As a result, they have been calling on us to tackle toxic air for a number of years.

During a survey undertaken earlier this year, 88% of people with a lung condition said that air pollution affects their health and wellbeing.^v 63% said that they can feel out of breath and 53% have increased coughing due to high levels of air pollution.^{vi} A large majority (60%) note that air pollution contributes to modifying their behaviour, as they feel discouraged from leaving their home on days when air pollution is high, 28% feel this way at least once a month.^{vii}

Furthermore, many people with a lung condition currently feel forced into taking their car on short journeys because high levels of pollution often make it hard for them to walk down the street. This means that they often feel like they are further contributing to the problem despite wanting to fix it.

No-one deserves to feel trapped in their own home or limited in what they can do purely because of where they live, work and play. We therefore urgently need to deliver improvements in air quality, which means delivering the structures that will encourage those most culpable to change their behaviour and allow those most vulnerable to live full lives.

Balancing approaches to behaviour change and considering fairness and social responsibilities.

The impacts of air pollution are not evenly distributed across the country. Those that are most vulnerable to the impacts of air pollution - pregnant women, babies, children, older people and those with lung conditions – are being hit hardest by its effects. Recent analysis by Asthma UK and the British Lung Foundation found that almost a third of English hospitals, schools, colleges and GP surgeries, as well as over a quarter of care homes, are located in areas with levels of PM_{2.5} above the 2005 WHO guidelines.^{viii} Similarly, over a third (35%) of all maternity units in England exceed the WHO's 2005 Air Quality Guidelines for PM_{2.5}. When compared to the new guidelines, this becomes almost 95%.^{ix}

Air pollution is also a social justice issue, with those who are most deprived likely to live in the most polluted places. 85% of people living in areas with illegal levels of NO₂ make up the poorest 20% of the UK population. Birmingham, Liverpool and Manchester rank among the top ten areas with the highest proportion of deprived neighbourhoods in England and all of these cities have main roads which breach legal NO₂ limits.^x However, despite living in some of the most polluted place, those on the lowest incomes are often less likely to have contributed significantly to the problem. In 2019, just over half of those on the lowest incomes had access to a car or van in their household, compared to almost 90% for those on the highest incomes.^{xi}

Therefore, we cannot focus on changing the behaviour of those in the most polluted areas alone, as they often are not the main cause of pollution in their neighbourhood.

Where could the focus of Government efforts on behaviour change add the most value?

It is essential to consider a holistic approach to reducing transport in the most polluted areas. Only once the infrastructure for improved public transport, as well as safer, simpler active travel, is in place will we be able to change behaviour across our major towns and cities to get people out of vans and cars.

Central government's plans to set out new legally binding targets to reduce levels of PM_{2.5}, the most dangerous pollutant for human health, will be essential for catalysing activity across the country. However, we need these to be as ambitious as possible if they are going to help to drive change on the ground. This is why Asthma UK and the British Lung Foundation have been calling on the government to ensure the annual average reduction target is set at the level of the 2005 World Health Organization (WHO) air quality guidelines of 10µg/m³, and for this to be reached by 2030 at the latest.

Meanwhile, local and regional authorities need to prioritise removing the most polluted vehicles from the roads, preventing them from driving through highly polluted neighbourhoods. We have seen the positive impact of traffic reduction measures through the success of London's Ultra Low Emission Zone (ULEZ)^{xii} as well as the success of Clean Air Zones in places like Bath and Birmingham.^{xiii} What has been most noticeable is the swift compliance with such schemes from residents and businesses. Just one month after the expansion of ULEZ, for example, 92% of vehicles driving through the zone are compliant with the rules, whilst there are already 11,000 fewer vehicles passing through the expanded Zone on weekdays.^{xiv}

There are also other targeted measures that can reduce exposure to harmful pollutants in areas where we know highly vulnerable people gather. For example, School Streets programmes, where roads around schools are closed during drop off and pick up times, have both reduced air pollution around schools and increased levels of walking and cycling amongst school children, parents and carers. Research from the Mayor of London found that parents and carers in schools with School Streets reported driving to school less.^{xv} The same research also found that 77% of parents and carers in schools with School Streets, and 59% of parents and carers in schools without School Streets, support their implementation over the long-term, subject to community consultation.^{xvi} This suggests widespread acceptance for such measures, as well as long-term benefits.

Measures designed to remove polluting vehicles from the road must nevertheless be accompanied by improved bus, tram and, where applicable, underground services. Research from Campaign for Better Transport looking at likely transport patterns post-pandemic found that the factors that would encourage the increased use of public transport were better and more frequent routes, punctual services and quicker journey times.^{xvii} Local authorities need to therefore work with providers to deliver frequent, cheap and efficient public transport networks that make it easier to travel via bus than private car.

All of these measures show that, when governments take the lead and make it simple for people to shift away from private vehicles, then compliance and behaviour change comes quickly.

In addition to traffic reduction measures, we need improved infrastructure for walking and cycling throughout our towns and cities. Secure cycle lanes, better bike storage facilities and improved road layouts, with a ban on pavement parking, are essential to getting more people out of cars and onto bikes. This was acknowledged in the government's recent cycling and walking strategy, which set the target of ensuring 50% of "all journeys in towns and cities are being cycled or walked by 2030".^{xviii}

Despite this commitment, there is still a long way to go before people feel safe cycling in their communities. A recent study by Sustrans notes that only 38% of residents in cities and towns feel that their city is a good place to cycle, meaning that a significant majority still feel like their city is a barrier to them taking up cycling. Furthermore, "81% of people from ethnic minority groups think protected space on roads is helpful to start cycling or cycle more".^{xix} Unless people feel safe whilst cycling, they won't do it. Safe cycling routes and better infrastructure for active travel are essential in order to help people change their behaviour and switch from private vehicles to less polluting modes of transport.

What barriers are faced by civil society, including community groups, and businesses when delivering change?

In addition to the barriers caused by poor public transport and a lack of active travel infrastructure, one of the key barriers to inclusive behaviour change around private transport is cost. Individuals should be incentivised to change their behaviour, rather than deterred from activity due to the financial cost of investing in a ZEV or paying for public transport.

We need national, regional and local governments as well as businesses to provide financial incentives to individuals to help them switch away from private cars. We have seen some moderate success with various scrappage schemes whereby older, polluting cars can be traded for grants from the government. Similarly, Lime Scooters have recently offered credits worth up-to 2 years of free rides on their electric bikes and e-scooters for people who traded in their ULEZ non-compliant vehicles in London.^{xx} A similar concept of mobility credits is being trialled in Coventry, allowing residents to apply for credits to reduce the cost of public transport.^{xxi}

We need to see more of these schemes, with more generous measures particularly targeted at those who are most marginalised and unable to easily make the switch away from older, more polluting private vehicles. Similarly, there are those who will always be reliant on cars for mobility, such as some people living with disabilities; these groups should be offered grants and other financial support schemes to ensure that they are able to switch polluting cars to ZEVs without incurring any financial penalty.

Another key barrier to behaviour change around air pollution is a lack of knowledge of its impact on human health. Neither health professionals nor individual residents living in polluted areas know enough about the impact of air pollution nor the measures that can be taken to reduce personal exposure and individual contribution to the problem.

It was noted by coroner Philip Barlow in the case of 9-year-old Ella Adoo-Kissi-Debrah, who was the first person to have air pollution written on her death certificate, that “Ella's mother was not given information by health professionals about the health risks of air pollution and its potential to exacerbate asthma”.^{xxii} He went on to highlight that “the adverse effects of air pollution on health are not being sufficiently communicated to patients and their carers by medical and nursing professionals”.^{xxiii}

If we are going to shift behaviours towards more air pollution friendly activity, then we need to ensure people are aware of the impact that air pollution has on human health as well as having access to the right information from medical professionals on how to reduce their exposure.

This will also require increased funding into research in some areas. This is an expanding and evolving area of public health research. If we are going to change behaviours to mitigate the worst impact of air pollution, we need to have as much information about its effects as possible. In particular, we need to better understand the link between air pollution and its links with gender, ethnicity and social deprivation.

For behaviour change efforts, how effective is the coordination between government departments and the split of Ministerial and departmental responsibilities, and are sufficient resources in place (staff and budgets)?

Tackling air pollution cannot be siloed within one department. It will require changing behaviour and practices across industry, farming, transport and the day-to-day lives of individuals. Unless air pollution policy is coordinated across government, we risk making radical changes in one area without mitigating the worst impacts of toxic air.

This is why we are calling on the government to establish the Air Pollution Minister as a cross-department brief, reporting directly to No.10, so as to more effectively drive the required changes across transport, industry, education, environment, health and levelling up. This would also ensure that all activity on air pollution is in line with the Government's Net Zero Strategy^{xxiv} as well as the Prime Minister's 10-point plan for a green industrial revolution^{xxv}.

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