

Act now, breathe better

How Glasgow can deliver change to
protect local people



ASTHMA+
LUNG UK

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Foreword

A strong sense of community adds real value to all of our lives. It not only helps us feel more connected to the world around us, it also makes a measurable difference to our happiness and to our health. We know that people want to feel secure in their localities and the places they live. And yet, levels of air pollution across our regions, cities and towns means that people are not safe in the places they work, exercise and socialise.

Toxic air has a huge impact on communities. In Glasgow, too many local schools, hospitals and other key institutions are located in areas where pollution is at levels in breach of World Health Organisation guidelines, ultimately meaning lives are at risk. For children this could mean stunted lung growth and, for those already vulnerable with lung conditions, a worsening of their health and even death. Too little is being done to lessen the impact and lives are being put in danger on a daily basis.

But it doesn't have to be this way - we believe that policymakers, at all levels of government, have the power to deliver change, to really make a difference to the local air environment and to transform communities. Post the pandemic, 'building back better' should not be a choice between the economy and our health. We need both to be central to strategies and plans. With the right leadership and commitment, we believe local politicians can make a step-change to tackling air pollution in the short-term which will reap huge benefits for the medium and long-term, ultimately improving, and even saving, the lives of the people they represent.

COP26 left a large imprint on the city. There is an opportunity for Glasgow to build on that legacy and lead the UK in tackling the health crisis that air pollution is causing. We know that there is the desire to go further but we believe the need is urgent and that it needs to happen faster. This report sets out an action plan that builds on what's been done but offers a step-change in approach that we're sure will deliver the better air local people want and deserve.

Sarah Woolnough

CEO
Asthma + Lung UK

The importance of tackling air pollution

Air pollution is the biggest environmental risk to the public's health, causing death, reduced life expectancy and long-term illness. It contributes to over 36,000 early deaths a year¹ and annually costs the UK economy £20 billion². It's estimated that air pollution kills 2,500 people in Scotland each year and that Glasgow has the nation's dirtiest air - despite the fact that only half the population own a car³.

Breathing clean air should be a basic requirement of any fair society. The pandemic meant that air quality concerns dropped down the political agenda both nationally and locally. In fact, some towns and cities may even have experienced a short-term reduction in air pollution as people changed the way they moved around. With less cars on the road, the levels of some pollutants dropped, and people experienced a glimpse of what clean air can be like. But, with restrictions lifted, and with policymakers focussed on the economic effects of COVID-19, it is key to ensure we also draw on the benefits that lockdown brought to the air quality and embed those into 'build back better' planning.

“ Air pollutants refers to anything in the air that can harm people's health. The two main focuses, where we believe an impact can be made, are nitrogen dioxide (NO₂) and particulate matter (PM_{2.5}). ”

The pandemic also shone a harsh light on some of the health and wider inequalities that persist in our society. Those very same groups that were hit hardest by COVID-19 are also amongst those most vulnerable to air pollution, often living and working in the most polluted areas. As policymakers develop approaches to 'build back better,' it's vital that, alongside strategies for economic growth, tackling health and environmental inequalities remain a central tenet.

¹ Kelly et al. (2018) Associations of long-term average concentrations of nitrogen dioxide with mortality. Available at: <https://assets.publishing.service.gov.uk/> (accessed May 2022)

² Royal College of Physicians (2016) Every breath we take: the lifelong impact of air pollution. Available at: [https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution#:~:text=The%20health%20problems%20resulting%20from,%C2%A320%20billion%20every%20year.\(accessed May 2022\)](https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution#:~:text=The%20health%20problems%20resulting%20from,%C2%A320%20billion%20every%20year.(accessed%20May%202022))

³ Glasgow Live (2021) Glasgow has 'dirtiest air in Scotland' Available at: [Glasgow has 'dirtiest air in Scotland', asthma charity head warns - Glasgow Live](#) (accessed June 2022)

Both nationally and locally the public have told us they want to see more action to clean their air. A 2020 survey commissioned by the Clean Air Fund showed that air pollution is one of the top-three public health concerns in the UK⁴. Another survey revealed 79% of residents in Glasgow agreed that polluting cars should be prevented from entering the city⁵. People welcome action and they want to see their national and local leaders step up on the issue and bring forward the structural changes that will then enable them to act on in their own lives to make a difference.

Air pollution does not respect borders. Collaboration is critical to making an impact as well as ensuring a problem is dealt with and not just shifted elsewhere. National and local politicians have an opportunity to work together and lead from the front on this issue. They have the local knowledge which, combined with designated powers, means they can design and implement the right policy interventions to meaningfully tackle poor air quality. They are best placed to work with local people through institutions and community groups to deliver impactful solution.

What is air pollution?

Air pollutants refers to anything in the air that can harm people’s health. The two main focuses, where we believe an impact can be made, are nitrogen dioxide (NO₂) and particulate matter (PM_{2.5}).

Nitrogen dioxide – NO ₂	Fine particulate matter – PM _{2.5}
<p>What is it?</p> <p>A gas.</p> <p>Where does it come from?</p> <p>At the roadside 80% of this pollution comes from road transport.⁶</p>	<p>What is it?</p> <p>Tiny particles of solids and liquids in the air, such as dust or dirt. Referred to by their diameter in size, so PM_{2.5} has a diameter smaller than 2.5µm: 30 times smaller than the average human hair.</p> <p>Where does it come from?</p> <p>Domestic wood and coal burning (38%), industrial combustion (16%), road transport (12%) and industrial processes (13%)⁷</p>

What

is

⁴ Clean Air Fund and YouGov (2020) Air Pollution and COVID-19 Survey Results Available at: [Clean Air Fund and YouGov Air Pollution and COVID-19 Survey Results](#) (accessed June 2022)

⁵Transport and Environment (2020) No going back: European public opinion on air pollution in the Covid-19 era Available at: [Briefing - polling Covid-19 & mobility.pdf \(transportenvironment.org\)](#) (accessed June 2022)

⁶ DEFRA (2017) UK plan for tackling roadside nitrogen dioxide concentrations Available at: [UK plan for tackling roadside nitrogen dioxide concentrations: Detailed plan \(publishing.service.gov.uk\)](#) (accessed June 2022)

⁷ DEFRA (2022) Emissions of Air Pollutants in the UK – Summary Available at: [Emissions of air pollutants - GOV.UK \(www.gov.uk\)](#) (accessed June 2022)

happening in Glasgow

Alongside national measures, local leadership is critical. Local government has a central role in achieving improvements in air quality - local knowledge and interaction with the communities that they serve mean that they know the issues on the ground in detail.

The [Glasgow Low Emission Zone](#) (LEZ) is a welcome initiative and one that has proven popular with 63% of residents say they support the scheme⁸. Understanding its impact once it has been fully rolled out beyond buses to all vehicles will be key. Evidence from other LEZs indicate the impact on air quality will be significant.

Additionally, School Car Free Zone pilots introduced by Glasgow City Council across 43 schools have been a welcome step towards protecting developing lungs. These schemes are key interventions in being able to safeguard children's respiratory health and limiting their exposure to higher concentrations of toxic air. All children in Glasgow should have the right to these protective measures.



Good air quality is essential for our health, quality of life and the environment.

[Glasgow City Council](#)



Air pollution in Glasgow remains a serious concern. Our analysis shows a gloomy picture across the locality for the everyday places people are using and visiting. Using the World Health Organization's most recent guidance on air quality levels for PM2.5⁹ we have set out the statistics:

In excess of WHO 2021 recommendations for annual PM2.5¹⁰:

Place	Amount of pollution (%)
Care homes	100
Sports grounds	100
Hospital	100
GP surgeries	100
Schools	100

⁸ Opinion Matters Polling (2022) Data available upon request

⁹ WHO (2021) New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution Available at: [New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution](#) (accessed June 2021)

¹⁰ British Lung Foundation (2021) The Invisible Threat. Available at: [www.blf.org.uk/take-action/clean-air/invisible-threat-report](#) (specific data available on request)

Key factors

Air pollution affects everyone; however, it does impact some more than others. We urgently need to protect those most at risk, including children, pregnant women, those with existing lung conditions and the elderly.

1. Many children are being put at risk

Children are particularly vulnerable to air pollution as their smaller lungs are still developing. Toxic air can cause irreversible damage, with research suggesting that infant exposure to pollution increases the chance of children developing asthma.¹¹

Evidence shows that it is estimated that all children in Glasgow are going to schools that are situated in areas that breach the WHO guidelines on what is safe, meaning they are in very real danger of ill health everyday of their lives.

The consequences for young people are huge. We also know that one in 11 children in the UK have asthma and for them the situation is critical.¹² Last year, for the first time anywhere in the world, air pollution featured on a death certificate – that of Ella Kissi-Debrah, a young girl from London with asthma. The coroner made it clear that her proximity to toxic air was to blame: *"I will conclude that Ella died of asthma, contributed to by exposure to excessive air pollution."* We need urgent action to ensure this does not happen to any other child in the UK.

80% of Glasgow residents want vehicle idling to be banned at school gates.¹³

Protecting our children should always be a priority and every effort should be made to ensure that not only we have sufficient measures in place to safeguard them from dirty air but that we are monitoring their air quality levels at schools consistently.

2. Vulnerable groups are being hit hardest

There is no safe level of air pollution, and we know that it affects everybody. But there are some groups for whom the situation is worse.

¹¹ Asthma + Lung UK (2021) Clear the Air. Available at: https://www.blf.org.uk/sites/default/files/Clear_the_air_report_v2.pdf (accessed May 2022)

¹² Asthma + Lung UK (2021) The Invisible Threat. Available at: https://cdn.shopify.com/s/files/1/0221/4446/files/Invisible_Threat_FINAL_compressed.pdf?v=1612948799&_ga=2.154898224.940976880.1646672267-981671646.1646040662 (accessed May 2022)

¹³ Opinion Matters Polling (2022) Data available upon request

We hear from people with lung conditions every day about the challenges that they face when trying to do something that so many of us take for granted: breathe. They tell us how air pollution exacerbates their conditions, making it dangerous to leave the house and taking a devastating toll on their mental health and wellbeing.

With one in five people in the UK affected by a lung condition any rise in air pollution poses an immediate threat. For the NHS there is a significant impact with the Royal College of Physicians estimating an additional 20,000 hospital admissions each year linked to air pollution episodes.¹⁴ And there is an economic burden too - one that falls on society but also on those who are already more likely to be struggling. When people get sick, they cannot go to work or school and there is the additional strain on families and individuals of repeat trips to A&E, or hospitalisation. The reality is that dirty air is unfair and unjust, and that air pollution compounds already existing health inequalities.

3. Disadvantage groups

People living or working near busy roads can be exposed to two or three times the level of pollutants than in other areas. This increases their risk of chronic lung conditions and heart failure as well as neurological disorders such as dementia

We know that these transport corridors often have an over-representation of lower income communities and those from ethnic minority backgrounds. Despite being less likely to be net contributors to air pollution they are more likely to be impacted by it.

85% of people living in areas with illegal levels of pollution make up the poorest 20% of the UK population¹⁵

All communities have a right to access clean air regardless of where they are. All protective measures should be assessed on a health first approach, prioritising areas with the highest levels of air pollution as well as highest levels of deprivation.

4. Ability to transition

Helping people move towards cleaner transport will be crucial to cleaning the air we breathe but it is crucial that viable options are available to people so that they are able to make this change, both practically, and financially.

A study among people living in disadvantaged suburban neighbourhoods in Glasgow found that car ownership was not always a matter of choice. Limited public transport services meant that forced car ownership was a growing phenomenon in deprived parts of the city where people, especially those with children, faced challenges. These included the complexity of their overall household mobility demands, as well as the added costs of travelling with children.¹⁶

To lower emissions as much as possible, we will all need to be part of the solution and choose cleaner travel options at every opportunity. However, some people will require extra support to do this. Alternative travel options need to be made far more inclusive and accessible. People who need it should be financially supported by governments to access cleaner electric vehicles, public transport, or accessible active travel options

¹⁴ Royal College of Physicians (2018) [Reducing air pollution in the UK: Progress report 2018](#) Available at: [Reducing air pollution in the UK: Progress report 2018 | RCP London](#)

¹⁵ Mitchel et al (2015) Who benefits from environmental policy? An environmental justice analysis of air quality change in Britain, 2001–2011. Available at: <https://iopscience.iop.org/article/10.1088/1748-9326/10/10/105009/meta> (accessed May 2022)

¹⁶ Curl, A., Clark, J. & Kearns, A. (2017). Household car adoption and financial distress in deprived urban communities over time: a case of 'forced car ownership'? *Transport Policy* 65, 61 – 71

Making a difference

Glasgow has the power to set the agenda, deliver change and transform the air quality for local people.

We have developed an 8-point plan that we think will deliver a significant impact in the city.

- 1. A better funded and integrated public transport plan** - outline a strategic vision and key policies to support the enhanced provision and accessibility of public transport across the region. This should include ensuring that vehicles that are on the roads are working efficiently - whether that's shared use of taxis, increased use of car clubs, efficient freight vehicles and/or human powered last mile deliveries. Ensuring a faster shift to cleaner transport will deliver multiple benefits for all the health challenges across the region.
- 2. Prioritisation of active travel** - active travel is cheap, inclusive, and accessible and will not only reduce air pollutants and help with traffic congestion. It will also improve health and well-being for the individual, promote vibrant local economies and bring community cohesion. Plans need to include proposals and actions which aim to further improve walking and cycling options for all residents, visitors and people who work in the region as well as ways to work with, and communicate to, local people to ensure take up.
- 3. Low Emission Zone** – launched on 31 May 2022 the Low Emission Zone (LEZ) is now operating in the city centre. Research shows that these can deliver an average 18% reduction in NO₂ which could prevent at least 1% of deaths in the affected population while also injecting millions into local economies by saving lives and reducing illness and days off work.¹⁷ We are calling on Glasgow City Council to work with businesses and residents to discourage people from driving in the LEZ and change travel habits.
- 4. School Car Free Zones** - these offer a proactive solution for school communities to tackle air pollution, poor health, and road danger reduction. Glasgow City Council has already shown it can restrict cars around schools to reduce air pollution, and we would like this to be expanded to encourage a healthier lifestyle and active travel to school for families and lead to a better environment for everyone.
- 5. Greater enforcement to tackle idling** - councils were granted extra powers in 2003 to stop motorists from running their engines unnecessarily. Whilst Glasgow has used the powers there is a need for a further push in use around key areas of vulnerability such as schools, hospitals, playgrounds etc.
- 6. A comprehensive scrappage scheme** - targeted to the most polluted areas it is key for the Scottish Government to help people replace polluting diesel and petrol cars with cleaner methods of transport.
- 7. Better monitoring** - key to taking action is understanding how air pollution is impacting the locality and where the hot spots are. It is essential that this happens around schools and hospitals so that the most vulnerable are better protected. We want to see more monitoring, which is acted on by the council but also made available to local people so they can understand what is happening where they live, work, and socialise and can better protect themselves.
- 8. Better guidance and advice** - engaging local people and working with them to co-design solutions to dealing with air pollution is critical. We know people are concerned about the issue and so it's vital to enable them to take action themselves. They need to be equipped with information on how to act and keep themselves safe and encouraged to come together in their communities to take collective action.

¹⁷ Clean Air Fund (2021) Clean Air Zones in the UK will save lives and boost local economies

Available at: [Clean Air Zones in the UK will save lives and boost local economies \(cleanairfund.org\)](https://cleanairfund.org) (accessed June 2022)

Conclusion

There is no doubt that air pollution affects communities and blights lives. Many of those who suffer most are the least able to influence their surroundings. The pandemic showed us how things could be and how behaviour change can have a huge impact on the air we breathe. We need to learn from, and harness that change as we return to growth - clean air should not be sacrificed at the altar of the economy. They can go hand in hand.

We urge policymakers to make the step change needed and commit to action. Clean air is not an optional policy - it is a fundamental right. The evidence that stronger standards have an impact is irrefutable. We know that taking achievable steps on local level will help to save and improve the lives of people living in impacted communities. It is time to turn the tide, take bold action on toxic air, and protect everyone's lungs.



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