



**Asthma Society of Ireland submission to the
Department of the Environment, Climate and Communications
Consultation on the Clean Air Strategy for Ireland**

03 May 2022

The Asthma Society of Ireland

The Asthma Society of Ireland's mission is to stop asthma deaths in Ireland. We are the voice of the 380,000 people with asthma in Ireland, and our work radically transforms their quality of life. We fight asthma with every breath. Our vision is that everyone with asthma in Ireland lives a full life, symptom-free.

We are evidence-led; our services and programmes are endorsed by our Medical Advisory Group, made up of some of Ireland's leading respiratory clinicians. Our Freephone Adviceline nurse appointments and Beating Breathlessness WhatsApp and webinar programmes are a lifeline for patients, scoring highly on the recommender rating. Our awareness-building, research and advocacy programmes have won several awards, including the prestigious Irish Healthcare Awards in 2019 (across all four categories in which we were nominated) and in 2020, for promoting asthma management and assessing asthma's economic impact. We also aim to be a best-in-class charity in terms of governance and organisation.

We play a key role as change-makers in Ireland's health and respiratory landscape. The Asthma Society actively participates in a number of key working groups to represent people with asthma in the wider healthcare policy landscape. These include the HSE's National Clinical Programme for Asthma, Tobacco and e-Cigarettes Programme and Irish Health Alliance at a national level, and the European Federation of Allergy and Airways Diseases Patients' Associations (EFA) Global Allergy & Asthma Patient Platform at international level. I also sit on the Sláintecare Advisory Council and on the Board of Irish Platform for Patient Organisations, Science and Industry (IPPOSI). We are a member of the Climate and Health Alliance, the Children in Hospital Network and have partnered with the Environmental Protection Agency (EPA) in two projects – the ongoing LIFE Emerald project and Clean Air Together.

Goal 4 of the Asthma Society's *Stopping Asthma Deaths in Ireland* Strategic Plan 2020-2025 commits the organisation "To change Irish society to create a more asthma-friendly environment in homes, schools, clubs and workplaces and in our wider environment". The Asthma Society has been working on air quality and respiratory health since its critical involvement in the 1990s campaign with Dr. Luke Clancy to ban smoky coal in Dublin City. The Society's advocacy and awareness work in respect of air quality and its link with health has intensified over the last ten years. The Asthma Society is a Prescribed Body under Schedule 17 of the Air Quality Standards Regulations 2011 and thus must be informed of any air quality exceedance and must be consulted with by local authorities on air quality matters.

Our Five Strategic Pillars:

1. **We champion change** by advocating to prevent asthma deaths.
2. **We communicate about asthma** to ensure it is taken seriously as a health challenge.
3. **We support with services** for all people with asthma, empowering them to control the condition and providing health promotion programmes which deliver impactful asthma interventions.
4. **We learn together** and collaborate with healthcare, research and education professionals – and *always* with patients – to improve our understanding of how asthma works and how to combat it.
5. **We build our capacity** to deliver for patients by growing and diversifying our funding streams, by innovating and by being best-in-class as a charity.

Introduction

The European Environment Agency (EEA) has cited air pollution as a major cause of premature death and disease, and the single largest environmental health risk in Europe¹. It estimates that approximately 400,000 premature deaths in the 27 EU Member States annually are linked to air pollution, costing up to €4 billion in healthcare utilisation and €16 billion in lost workdays². In Ireland, the EEA attributes 1,410 premature deaths annually to air pollution in total, 1,300 of which are caused by exposure to PM_{2.5}³.

Air pollution is caused by the excessive presence of tiny particles and certain harmful gases in the air that are hazardous to human health and the environment. It can be naturally occurring, like pollen, or manmade, like soot or smoke, and mostly so minuscule they are invisible to the naked eye. It is carried in the air outside and indoors, into our bodies, and causes greatest harm to the most vulnerable in our society: to children, the elderly, people who are homeless or living in substandard accommodation and those with chronic illnesses, such as heart or respiratory diseases, like asthma. Air pollution playing a role in many of the major health challenges of our time. It has been proven to exacerbate the symptoms of pre-existing medical conditions, and with causal links now established between it and cancer, asthma, stroke and heart disease, diabetes, obesity and dementia. Recent clinical research by Quintyne, *et al*, found correlations between spikes in poor air quality in Dublin and respiratory and cardiovascular hospital admissions rates⁴.

The WHO's director general has labelled air pollution a "silent public health emergency" that no one can escape fromⁱⁱ. Almost the entire global population (99%) breathes air that exceeds concentrations of pollutants that damages human healthⁱⁱⁱ. Ireland is no exception. While air quality in Ireland is generally good, there are localised exceptions. The EPA has cited the following factors as attributable to the state of Irish air quality:

- Increasing number of vehicles and in particular diesel fuelled vehicles in recent years, due to the ongoing economic recovery and population expansion, acting as the primary source of NO₂.

The EPA reported one NO₂ exceedance of the EU annual average legal limit values in 2019 at one urban traffic station in Dublin due to pollution from transport. The Agency warned that more are expected across the country in the future. A global study published in April 2019 reviewed the occurrence of asthma in children caused by traffic pollution in 194 countries around the world. It identified that 1,700 new cases of the disease in Ireland a year were as a consequence of pollutants emitted from vehicles. That is 1,700 children who will have to take medication daily, might be limited in how they play or exercise and will know how it feels to struggle to breathe.⁴

- Residential solid fuel heating, which is the largest source of PM_{2.5} in Ireland, responsible for over 60% of emissions. (The EPA has identified that the extent of the contribution needs to be further clarified as most citizens only report their main heating sources and not their secondary sources.) Recent evidence from the EPA funded AEROSOURCE project provides evidence of the impact of solid fuel burning on PM_{2.5} levels in the Dublin region.

¹ Air quality in Europe 2021, last accessed 03 May 2022

² Ibid

³ Ibid - using Irish air quality data from 2017, the EEA estimated that PM_{2.5} caused 1,300 premature deaths in Ireland in that year.

⁴ 2019 report of The Lancet Countdown on health and climate change

In 2020, Ireland breached the (then less strict) World Health Organisation (WHO) air quality guidelines for levels of PM_{2.5} at 34 stations^{iv}. PM_{2.5} is the smallest and most dangerous air pollutant monitored by the EPA in Ireland. Medical research has demonstrated the link between PM_{2.5} and both short and long-term health impacts^v, including headache, breathing difficulty, eye irritation, irreversible sight loss^{vi}, dementia^{vii}, exacerbation of chronic diseases and increased risk of cancer and respiratory diseases, such as asthma and COPD. PM_{2.5} can penetrate deeply into the lung, irritate and damage the alveolar wall, and consequently impair lung function^{viii}. Childhood exposure to PM_{2.5} concentrations that are above the WHO guidelines can affect lifelong health, with an increased risk of lung damage, impaired lung growth and pneumonia, and a subsequent risk of developing asthma and Chronic Obstructive Pulmonary Disease (COPD)^{ix}. Children have faster breathing rates and their lungs are still developing. Even in utero, exposure to air pollution can be detrimental; it can affect brain development and cognitive ability, and can cause premature birth, chronic disease, and childhood cancer.

The department has identified in the draft Strategy Ammonia as a third key pollutant produced primarily by the agricultural sector.

Air pollution combined with global warming present further risk; in particular, during periods of extreme heat, young children have a greater risk of electrolyte imbalance, fever, respiratory disease, and kidney disease.⁵ Older populations are also particularly vulnerable, especially those with pre-existing medical conditions.⁶

In a 2019 survey of ASI members, 78 per cent said they felt that air pollution in their area noticeably affected their asthma. Many were also very concerned about the safety of their children playing outside. A more recent 2020 survey, conducted by Amárach on behalf of the Asthma Society, found that 71 per cent of respondents consider air pollution to be damaging or extremely damaging to their health. 95 per cent know that air pollution can aggravate asthma symptoms and 74 per cent know it can cause asthma. The Irish population recognises the need for significant change to protect public health and requires radical action from the State.

While some efforts have been made at national level to tackle air pollution, most notably legislative and regulatory changes and increased funding to expand EPA air quality monitoring, we are far behind countries such as Canada and Germany in addressing the matter effectively, or sufficiently, to protect residents' right to clean air⁷ and meet our statutory obligations prioritise the most vulnerable from air pollution⁸.

⁵ *ibid*

⁶ *ibid*

⁷ United Nations High Commissioner for Human Rights stated in 2018 that “there can be no doubt that all human beings are entitled to breathe clean air”.

⁸ Issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment- Report of the Special Rapporteur. Available at: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/002/54/PDF/G1900254.pdf?OpenElement>

Consultation Questions

1. Do you agree with the five strategic priorities outlined in the draft strategy?

The strategic priorities set out in the draft Clean Air Strategy are, broadly, to be welcomed, the Asthma Society recommends the following in order that they prove meaningful and effective:

Adopt World Health Organisation Guideline Values

While the draft Strategy commits Ireland “to setting more stringent legal limits for ambient air quality by 2025 *taking into consideration* [emphasis added] the new WHO guideline limits, the Asthma Society urges the government – and the Department – to use the Strategy to make a more ambitious and definitive commitment to supporting the adoption of the WHO guidelines limits in its negotiations on the new CAFÉ Directive. Indeed, national discussions triggered by the European Green Deal, with its Zero Pollution objective, provide an opportunity to showing leadership by adopting them in advance of the European deadline.

A 2014 study of the *Global Burden of Asthma Among Children*⁹ found evidence that the even previous WHO standards – more stringent than those imposed on Ireland by the CAF – are not protective against childhood asthma. It estimated that approximately 92 per cent of the childhood asthma incidence attributable to NO₂ exposure was in areas with NO₂ concentrations below the values of the WHO annual average guidelines. This strengthens the case for the downward revision of these global standards. Furthermore, these findings not only support the association of NO₂ exposure with childhood asthma incidence, but also, because this pollutant serves as an important proxy for broader traffic related air pollutants, highlights that urgent intervention is necessary to protect the health of those most vulnerable in society: children, particularly those with pre-existing respiratory disease.¹⁰

Delineate Measurable Actions

The draft strategy currently provides a comprehensive overview of air quality in Ireland. While the collation of relevant information is useful in setting the current air quality context in Ireland, it does not go far enough in setting out the actions required to achieve its stated priorities. Reference to existing national policies, commitments and legislation/regulation vary in detail throughout the strategy. Rather, the strategy should set out a detailed and specific implementation plan for all those with statutory responsibility, which, where necessary, restates all relevant commitments, identifies gaps where action has yet to be taken and commits to taking those actions. These actions should be set against a timeline, should enumerate achievable indicators and should stipulate time-bound review mechanisms.

Attribute Accountability

The Asthma Society welcomes the commitment to establish a Cross-Government Air Quality Implementation Group to which each Department will report annually on progress in reducing air

⁹ Global burden of asthma among children. *Int J Tuberc Lung Dis.* 2014; **18**: 1269-1278

¹⁰ NO₂ increases the risk for childhood asthma: a global concern, Rajen N Naidoo, Published Online April 10, 2019 [http://dx.doi.org/10.1016/S2542-5196\(19\)30059-2](http://dx.doi.org/10.1016/S2542-5196(19)30059-2) See Articles page e166 Comment e156 www.thelancet.com/planetary-health Vol 3 April 2019

pollution. However, in addition to setting out specific time-bound and measurable steps to improving air quality in Ireland, it is critical that these steps are attributed to the relevant accountable statutory actor to facilitate clear and effective reporting and timely adjustment, as necessary. Where these actors are public bodies or State agencies, it is our view that they should appoint representatives to that group and report directly to it.

Demonstrate a Whole-of- Government Approach

The Asthma Society is concerned by the tone of the strategy which, despite a stated priority of ensuring “integration of clean air considerations into policy development across Government”, presents no discernible indication of an established whole-of-government approach to the implementation of the strategy. The Strategy states,

“The responsibility to develop and implement the policies and measures required to deliver results for a number of the key sectors lies with other Departments and agencies, however the Department of the Environment, Climate and Communications is responsible for ensuring the incorporation of air quality considerations into all national policy making. This can only be achieved through enhanced co-ordination, collaboration and increased monitoring and oversight of progress made to date.”

While this statement is accurate, it suggests aspiration rather than ambition and does not demonstrate the cross-government ambition required to achieve the type of rapid and radical changes needed to protect the lives, health and rights of the island’s population. As such, it would be expected that the final draft of the Strategy includes a stated Ministerial commitment to cross-departmental “co-ordination, collaboration and increased monitoring and oversight”. As stated in Community and Law Mediation submission to this consultation, endorsed by the Asthma Society, this would best be achieved by placing the Strategy on a statutory footing.

2. Do you feel there are additional strategic priorities which should be included?

Adopt a Human rights and Equality Based Approach as a Priority

It is widely acknowledged that air pollution has the greatest detrimental impact on the most marginalised and vulnerable in our society, including children, older persons, people with medical conditions, persons with disabilities, those of lower socio-economic status, those living in substandard accommodation and people living in homelessness. The EU Action Plan: “Towards Zero Pollution for Air, Water and Soil”, states that “people who live in more deprived areas often live close to contaminated sites, or in areas where there is a very high flow of traffic.” Commissioner for the Environment, Oceans and Fisheries Virginijus Sinkevičius has affirmed that, “Environmental pollution negatively affects our health, especially the most vulnerable and socially deprived groups”. Ireland’s EPA note that: *“People of lower socio-economic status tend to be disproportionately exposed to environmental pollution (such as air pollution), and this may be exacerbated in the future without appropriate policies to protect those most*

*vulnerable in our society.*¹¹ Unless the particular needs of these groups are explicitly prioritised, assessed and addressed in this Strategy, they will not be met and, indeed, will result in further marginalisation and deprivation.

The United Nations Special Rapporteur found that States have procedural, substantive and special obligations to vulnerable persons in the context of air quality.¹² The Aarhus Convention, to which Ireland is a party, protects “the right of every person of present and future generations to live in an environment adequate to his or her health and well-being” (art. 1), while the Sustainable Development Goals confer further responsibility on the Irish State, with 3.9 specifically committing to “substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination”

Adopting a human rights and equality-based approach should be included as a strategic priority in the Strategy. This should involve the Department of Environment, Climate and Communications conducting a human rights and equality analysis to assess – and commit to – the steps required to achieve equality of outcome across Irish society arising from the implementation of the Strategy and to protect, respect and fulfil the right to breathe clean air, in particular of those most vulnerable to air pollution.

Deepen All-island Cooperation on Air Quality

It should be noted that relatively low air pollution readings do not necessarily mean that a country produces low levels of pollutants. Prevailing weather patterns (wind/air flow specifically) distort readings. Thus, air pollution produced in Ireland could be detrimentally impacting the public health of other countries’ populations, not least in Northern Ireland. The Clean Air Strategy should seek to enhance north-south cooperation in air quality assessment, monitoring, policy development, measures and communication, and act as an impetus to secure a cross-border commitment to situate health and the environmental matters as mutually reinforcing priorities.

One means of doing so would be to task the North-South Ministerial Conference (NSMC) Transport and Environment sector with prioritising air quality for the benefit of public health. Further to the recommendation in the 2016 NSMC report, a new NSMC report should be commissioned on all-island air quality which includes an investigation into air pollution produced by transport, and the sets out measures that can be taken to reduce this.

3. How can pollutant emissions data be better used to inform actions at local and national levels?

Air quality data should be provided to decision-makers across the public sector, including those represented on the Cross-Government Air Quality Implementation Group to act as a monitoring tool

¹¹ Environmental Protection Agency Ireland. Environment and Wellbeing. <https://www.epa.ie/our-services/monitoring--assessment/assessment/irelands-environment/environment--wellbeing/environment-and-wellbeing-learn-more/>

¹² Issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment- Report of the Special Rapporteur. Available at: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/002/54/PDF/G1900254.pdf?OpenElement>

against relevant air quality commitments. Progress on outstanding commitments should be reported against this data.

As mooted previously, Met Éireann should be provide air quality forecasting across the country once the EPA's capacity to do so has been established through completion of the LIFE Emerald Project.

4. What do you feel are the most important current and emerging air quality issues in Ireland that require further research?

The socio-economic and health impacts of current, deteriorating and improved air quality on the vulnerable groups, as set out above, requires further research in Ireland. The extent to which these health impacts influence healthcare utilisation, the knock on effects on the capacity of the Irish healthcare system to adequately service the population also requires further investigation.

Further assessment of indoor air quality in Ireland and its impact on vulnerable groups (children, pregnant women, older people) in socially deprived areas of is needed in informing policy and budgetary decision-making on air quality.

5. How can we better increase awareness of the health impacts of air pollution?

The government should undertake a public health communication campaign to highlight the impact of air quality on Irish residents. Such a campaign should be delivered in a manner that is accessible to those most at risk from air pollution, i.e. taking into account health literacy, reading literacy, climate literacy and cultural appropriateness. Any such communication campaign should be developed with meaningful participation of and consultation with organisations representing those most vulnerable to air pollution and their communities.

The DECC and Department of Health (DoH) should seeks to fund – and prioritise funding to – health organisations across Ireland to conduct communication, mobilisation, health promotion and advocacy programmes that increase awareness of the health impacts of air pollution to those most at risk due to age, health status and socio-economic status.

The DoH, the HSE (including their National Clinical Programmes) and the DECC should undertake an outreach and education programme, which seeks to train healthcare professionals on the impact of air pollution on their patients and identify means of supporting those patients clinically and through signposting to relevant supports and resources developed by patient representative organisations.

All EPA resources, including its air quality website, Air Quality Health Index, and reports resources should be made more easily accessible and provide targeted, culturally appropriate, communications to vulnerable and marginalised groups.

6. What issues might a national clean air awareness campaign encompass and how could its impact be measured?

The impact of indoor and outdoor air quality for the good and to the detriment of lifelong health should be highlighted, with an emphasis on positive potential outcomes and authentic personal testimonies or 'stories'. Such a campaign should be solution-focused and present a picture of the Ireland we might enjoy should we take timely and adequate action. The image, for example, of a

child breathing in traffic emissions because they are closer to the ground and have smaller, developing lungs, or that of an older person keeping warm by the fire but also breathing in poisonous emissions should be balanced with images of electric cars with fewer emissions and a healthy warm house after retrofitting. A focus on behavioural change rather than education and awareness is key.

The impact could be measured through regular national surveys to monitor attitudinal and behavioural change.

7. What particular metrics or benchmarks do you think should be considered in tracking the progress of a Clean Air Strategy?

Implementation progress of the Clean Air Strategy should, primarily, be tracked against the measurable, attributed actions recommended above.

The impact of that progress should be benchmarked against the number of premature deaths and number of years lost due to air pollution, Quality-Adjusted Life Year and Disability-Adjusted Life Year rates as a result of changing air quality, intensity of healthcare utilisation, including hospital admissions, attributable to air pollution, and the cost saved to the State by implementation of the Strategy.

Finally, and critically, progress should be benchmarked against the WHO guideline values as well as existing pollutant metrics by which the EPA monitors and assesses air quality.

8. Are there any other comments you have in relation to the draft national Clean Air Strategy?

The Asthma Society welcomes the proposed introduction in the Strategy to introduce a new Clean Air Act. We endorse CLM's recommendation that this new legislation include enhanced provisions for individuals and other bodies to enforce their rights to clean air. The revised legislation must furthermore enshrine the principle of non-regression, to prevent the weakening of air quality regulations in future.

ⁱ Quintyne KI, Sheridan A, Kenny P, O'Dwyer M. Air Quality and Its Association with Cardiovascular and Respiratory Hospital Admissions in Ireland. *Ir Med J.* 2020 Jun 11;113(6):92. PMID: 32816427. <https://imj.ie/air-quality-and-its-association-with-cardiovascular-and-respiratory-hospital-admissions-in-ireland/>

ⁱⁱ https://www.theguardian.com/environment/2018/oct/27/air-pollution-is-the-new-tobacco-warns-who-head?CMP=gu_com

ⁱⁱⁱ Billions of people still breathe unhealthy air: new WHO data. (2022) WHO. Available here: <https://www.who.int/news/item/04-04-2022-billions-of-people-still-breathe-unhealthy-air-new-who-data>

^{iv} <https://www.epa.ie/publications/monitoring--assessment/air/Air-Quality-in-Ireland-2020.pdf>

^v Consultation on the Development of a new Solid Fuel Regulation for Ireland. (2021). Department of the Environment, Climate and Communications.

^{vi} Carrington, Damian. (2021). Air pollution linked to higher risk of irreversible sight loss. *The Guardian*. [Online]. Available here: <https://www.theguardian.com/environment/2021/jan/26/air-pollution-linked-to-higher-risk-of-irreversible-sight-loss#:~:text=Small%20increases%20in%20air%20pollution,large%20UK%20study%20has%20found.&text=The%20biggest%20risk%20factors%20for,such%20as%20smoking%20and%20obesity.>

^{vii} What is air pollution? BHF. [Online]. Available here: <https://www.bhf.org.uk/informationsupport/risk-factors/air-pollution>

^{viii} Xing YF, Xu YH, Shi MH, Lian YX. The impact of PM2.5 on the human respiratory system. *J Thorac Dis.* 2016 Jan;8(1):E69-74. doi: 10.3978/j.issn.2072-1439.2016.01.19. PMID: 26904255; PMCID: PMC4740125.

^{ix} The 2019 report of The *Lancet* Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate, Watts, Nick et al., *The Lancet*, Volume 394, Issue 10211, 1836 - 1878