

# A BREATH OF TOXIC AIR: UK CHILDREN IN DANGER

New Unicef UK analysis *A Breath of Toxic Air: UK Children in Danger* has found that millions of children are living in areas with unsafe levels of air pollution – breathing in toxic air and damaging their health. Unicef is mandated by the United Nations General Assembly to implement the *UN Convention on the Rights of the Child* which gives every child the right to grow up healthy and thrive in a clean and safe environment (Article 24) and survive (Article 6).

Air pollution represents a major children's health crisis and immediate action should be taken to address the impacts. While all children are vulnerable to air pollution, Unicef UK's research shows the youngest children are most at risk – children contribute least to the problem yet they are being affected the most.

These toxic emissions in the air can stunt children's lung growth, affect brain development and could leave them with long-term health problems such as asthma. This not only impacts their health now, but limits their opportunities later in life. Long-term exposure could leave them suffering with lung cancer or cardiovascular disease as adults.

The pollutant that poses the biggest risk to public health is understood to be long-term exposure to particulate matter, specifically fine particulate matter: PM2.5. This type of pollution is especially dangerous for children's health, as it is smaller than the width of a human hair and can penetrate deep into children's lungs, and potentially into their bloodstream and brains.

## KEY FINDINGS

1. Around **1 in 3 babies under the age of 1** are growing up in areas of the UK with unsafe levels of particulate matter – nearly 270,000 babies.
2. An estimated **1.6 million under-fives** are growing up in areas of the UK with unsafe levels of particulate matter – one third of all 0-5 year olds in the UK.
3. At least **4.5 million children** in the UK are growing up in areas with unsafe levels of particulate matter – 30% of 0-18 year olds in the UK.
4. The health effects from PM2.5 exposure **cost the NHS and social care over £40 million each year**. Even the smallest improvement in exposure could reap major rewards for children and the UK taxpayer.
5. Areas with **young populations tend to have disproportionately high levels** of particulate matter – 75% of the local authorities with the youngest populations in the UK also have unsafe levels of particulate matter.

## CHILDREN AFFECTED BY AIR POLLUTION IN ENGLAND<sup>1</sup>:

- An estimated 4,361,000 children (0-18 years old) are growing up in areas of England with unsafe levels of PM2.5, with the greatest number living in London, followed by Birmingham, Leeds, Manchester and Sheffield.

<sup>1</sup> This is based on analysis of WHO statistics and ONS data identifying the number of children growing up in areas with unsafe levels of air pollution. This refers to readings above the level of PM2.5 WHO recommends – an annual average level no higher than 10 micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ).

## TINY PARTICLES & LITTLE LUNGS

The World Health Organization (WHO) estimates that over 70% of towns and cities in the UK have unsafe levels of air pollution<sup>2</sup>. This is based on research that highlighted levels of fine particulate matter in cities across the world.

These tiny particles are the most dangerous for, and can have long lasting impacts on, a child's health. For babies and children under five, these health effects are even more acute. The people who contribute least to the problem are being impacted the most.

The Government has not yet prioritised interventions to protect children's health. Current work has focused on lowering vehicle emissions to reach legal limits rather than reducing the exposure of vulnerable populations.

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## THE UK GOVERNMENT SHOULD THEREFORE:

- Prioritise and fund measures that protect children and other vulnerable groups from toxic air in places they live, learn and play.
- Create **ambitious networks of clean air zones** that lower pollution and create child-friendly urban areas that promote walking, cycling and public transport.
- Commit to urgent action to **reduce particulate matter**, meeting WHO levels by 2030 at the latest.
- Expand **air quality monitoring and data collection** to better reflect children's exposure, so that children and their families have the information they need to protect their health.
- Ensure **children's rights are at the centre of policy making**, and that all information is disseminated in an accessible and child-friendly way.
- Carry out detailed **research into the health impacts** and risk for all children – broken down by age, disability, gender, ethnicity and socio-economic background – and the impact on pregnant women and fetuses.

### GET IN TOUCH

Please contact Emma Reece, Senior Government Relations Adviser, by email [ereece@unicef.org.uk](mailto:ereece@unicef.org.uk) or phone on **020 7375 6071** if you have any questions or if you would like any further information about Unicef UK's work to protect children from the negative impacts of air pollution.

<sup>2</sup> Unicef UK analysis of WHO stats – 71% of UK towns and cities included in WHO (2018) Global Ambient Air Quality Database – using the latest available data <http://www.who.int/airpollution/data/cities/en/>