**Air Quality and Health**

Air pollution is the largest environmental risk to public health in the UK. It is a contributing factor in the onset of heart disease and cancer and particularly affects the most vulnerable in society: children, the elderly, pregnant women and those with existing heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent areas[[1]](#footnote-1),[[2]](#footnote-2).

The mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages[[3]](#footnote-3), with a total estimated healthcare cost to the NHS and social care of £157 million in 2017[[4]](#footnote-4).

Long-term exposure to air pollution can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy. In addition, short-term exposure (over hours or days) to elevated levels of air pollution can also cause health impacts, such as reduced lung function, exacerbation of asthma, increases in respiratory and cardiovascular hospital admissions and mortality[[5]](#footnote-5).

Whilst air pollution can be harmful throughout life and across all age groups, some people are more affected because they are exposed to higher levels of air pollution in their day to day lives, live in polluted areas or are more susceptible generally to air pollution related health issues. The most vulnerable face all of these disadvantages.

CYC has a statutory role to assess and improve local air quality. Our current [Air Quality Action Plan](https://www.york.gov.uk/AirQualityActionPlan) has facilitated the introduction of electric buses across Park & Ride sites, a city centre Clean Air Zone (CAZ) for buses, low emission planning guidance to minimise and mitigate development related emissions, an anti-idling campaign, widespread EV charging infrastructure across the city and incentives for low emission vehicle use. These measures have been progressed alongside sustainable travel initiatives and improvements to walking and cycling infrastructure to facilitate active travel. Such interventions will also help to deliver wider public health objectives and benefits such as reducing obesity and improving mental-health wellbeing.

CYC’s Air Quality Action Plan has an important role in contributing to the aims of CYC’s Health and Wellbeing Strategy by minimising and reducing public exposure to air pollution and raising public awareness about the impacts of air pollution on health. It will also continue to ensure that new developments provide a safe and healthy environment for occupants, support active travel initiatives and help to address health inequalities in the city.

**Health Impacts in York**

Through monitoring of air quality across the city, we have previously identified some areas of the city centre, where levels of pollution are above health based objective levels. Whilst there has been a general downward trend in air pollution in York over the last 10 years, there are still a few areas where levels of pollution are elevated and are above objectives. We are committed to improving air quality further and lowering emissions across the entire city through delivery of measures in our Air Quality Action Plan.

The [Public Health Outcomes Framework](https://fingertips.phe.org.uk/profile/public-health-outcomes-framework) (PHOF) includes an indicator relating to the fraction of mortality attributable to particulate pollution in York. This indicator enables Directors of Public Health to prioritise action on air quality in their local area to help reduce the health burden from air pollution.

Indicator D01 ‘[Fraction of mortality attributable to particulate air pollution’](https://fingertips.phe.org.uk/search/particulate#page/6/gid/1/pat/6/par/E12000003/ati/102/are/E06000014/iid/30101/age/230/sex/4/cid/4/tbm/1/page-options/car-ao-1_car-do-0) is defined as the mortality burden associated with long-term exposure to anthropogenic particulate air pollution (measured as fine particulate matter, PM2.5), expressed as the percentage of annual deaths from all causes in those aged 30+. The latest published figures for York are for 2020 and are 4.5%. The PHOF indicator encourages the co-operation of multiple local authority departments which can all contribute to the delivery of air quality improvements. Any improvements in air quality will have a positive health consequence and in turn can support other local priorities such as health inequalities, care integration and growth and regeneration.

1. Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017 [↑](#footnote-ref-1)
2. Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006 [↑](#footnote-ref-2)
3. Defra. Air quality appraisal: damage cost guidance, July 2021 [↑](#footnote-ref-3)
4. Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018 [↑](#footnote-ref-4)
5. Health matters: air pollution. Public Health England. <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution> [↑](#footnote-ref-5)