



Public Health
England

Session 3

Monitoring Air Quality and Health – UK tools and guidance

Combatting urban air pollution impacts on maternal and child health in Asia: A Science and Policy Dialogue
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Costs of air pollution to the National Health Service and social care system

In England between 2017 and 2025, the total cost from PM_{2.5} and NO₂ was £1.69 billion to 5.62 billion

1.3 million new cases of disease due to PM_{2.5} by 2035 if current air pollution levels persist

Impacts of air pollution in the UK may be greater if 'lost working days', 'restricted activity days' and 'asthma symptom days in children' included

A tool to estimate the cost of air pollution for each local authority

Over the following 18 years a **1 µg/m³ reduction in fine particulate air pollution in England** could prevent around:



50,900 cases of coronary heart disease

16,500 strokes



9,300 cases of asthma

4,200 lung cancers



A briefing for public health professionals



Overview

- Getting to grips with air pollution
- Understanding air pollution in your area
- Engaging local decision makers
- Communicating during air pollution episodes
- Communicating the long term impacts of air pollution

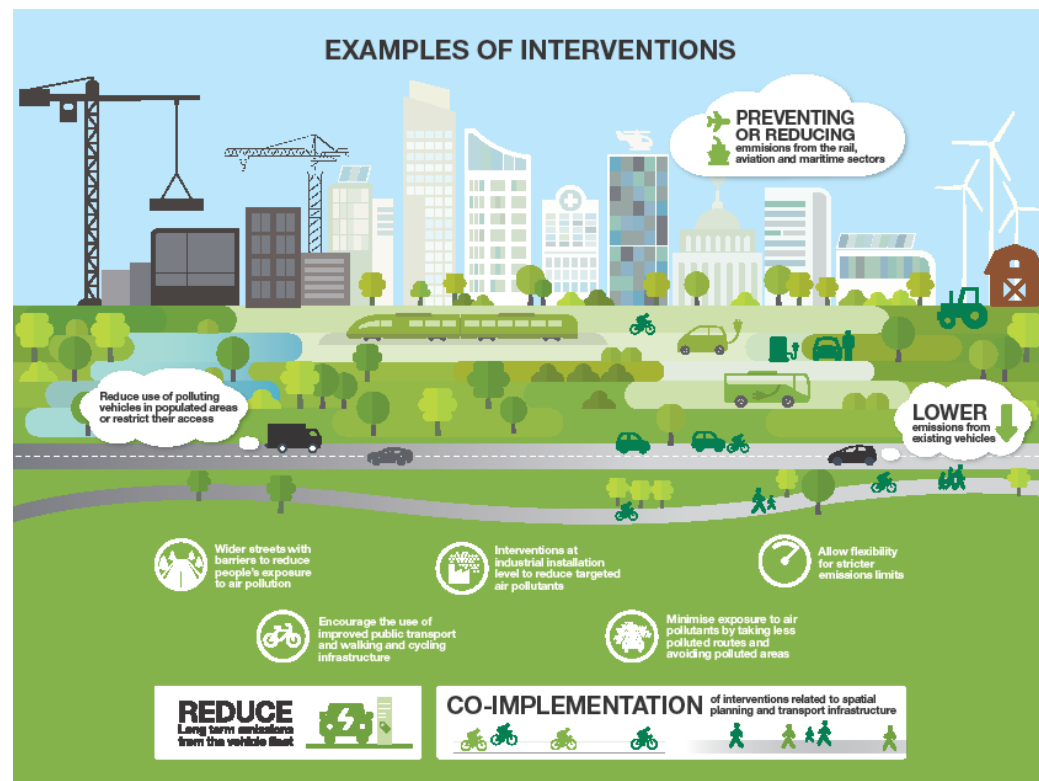


PHE Review of Air Quality Interventions

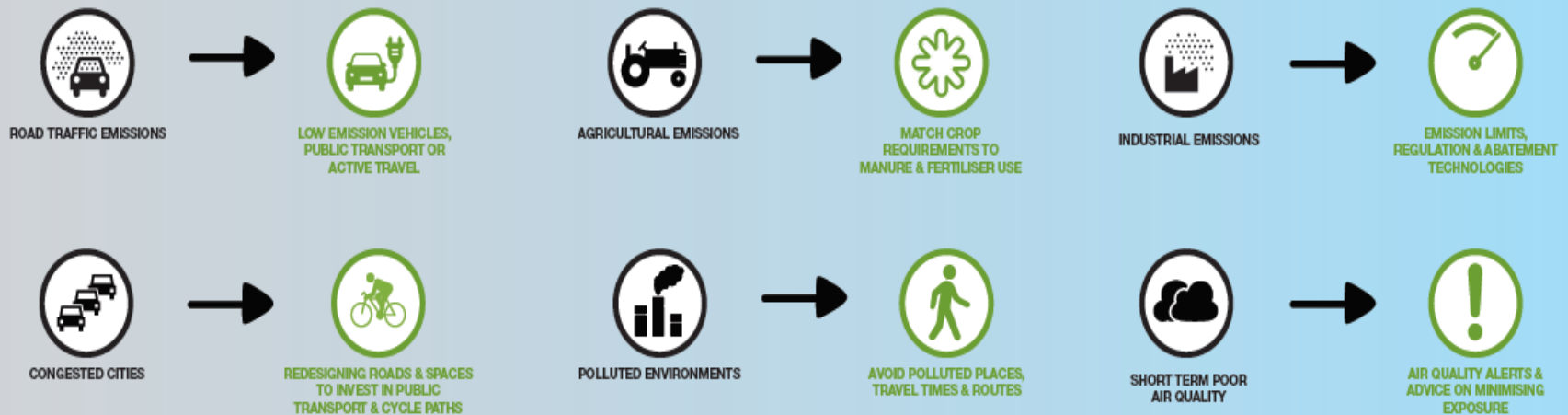
Evidence for effective interventions

Practical recommendations for local authorities

- Industry
- Vehicle/fuel
- Planning/structural design
- Agriculture
- Social science/behaviour

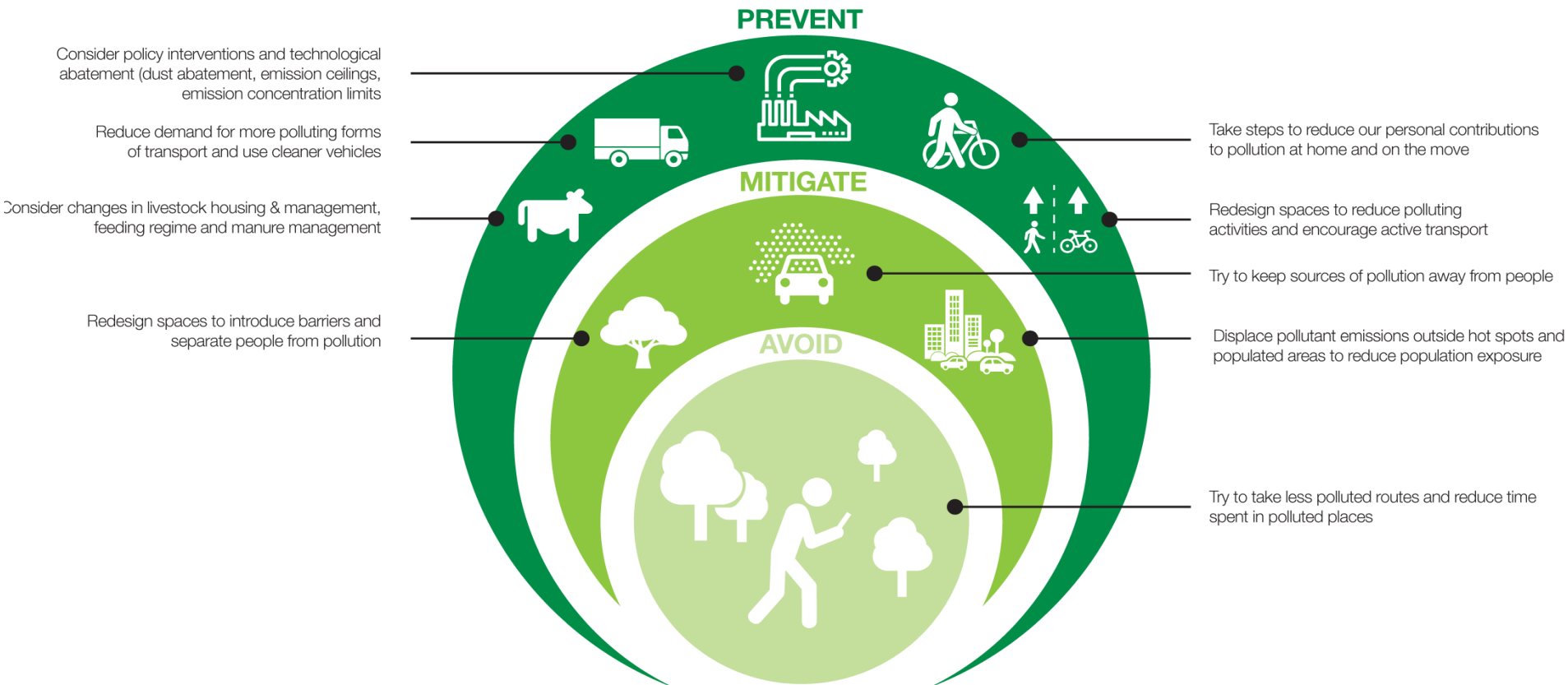


EXAMPLES OF SOURCES OF AIR POLLUTION, PREVENTION & CONTROL





Prioritising Interventions





NICE Air pollution quality standard

National Institute for Health and Care Excellence (NICE)

Measurable, action-focussed statements showing priority areas for quality improvement with accompanying measures

Aimed at commissioners

For implementation at a local level

Statements on strategic plans, planning applications, reducing emissions from public sector fleets and advice to vulnerable groups



NICE Air pollution quality standard

Statement 4: Children, young people and adults with chronic respiratory or cardiovascular conditions are given advice at routine health appointments on what to do when outdoor air quality is poor

Structure

Evidence that

- healthcare professionals are aware of advice to provide
- local processes to ensure that advice is given

Process

- proportion of children, young people and adults with chronic respiratory or cardiovascular conditions given advice at routine health appointments

Outcomes

- level of awareness about what to do
- rate of hospital attendance or admissions for CV or resp. exacerbations



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UK's largest air pollution campaign



- Reduce the amount of air pollution created
- Talk and join forces to beat pollution together
- Avoid harmful pollution

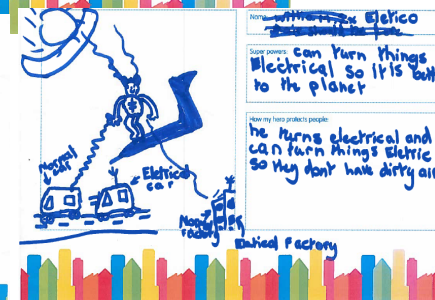
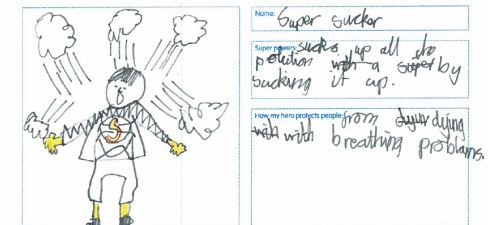
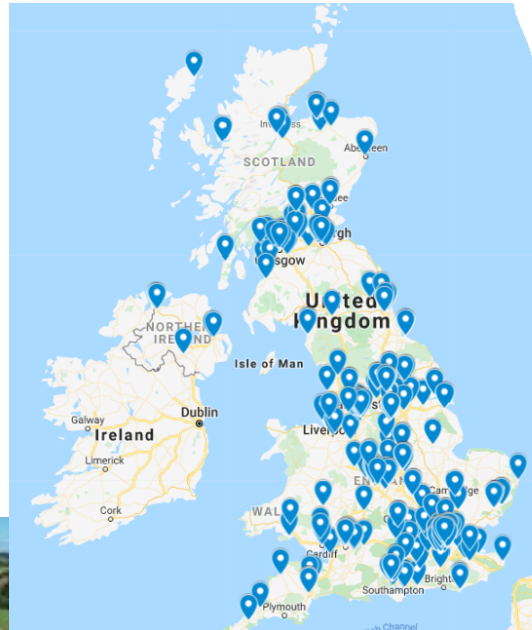
www.cleanairstay.org.uk AQ facts, free toolkits and posters





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Activities on Clean Air Day 2019





General recommendations

Maximise health benefits - All policy strategies, plans should include consideration of air quality

Take a holistic approach - Range of interventions eg including working with children and their parents to implement no-idling zones outside schools, make it easy for children to walk or cycle to school and increase public awareness in relation to air pollution and children.

Evaluate interventions - Embed evaluation in the design and costing of all future interventions

Find and share good practice - Current practices and evaluations of interventions

Training and Guidance - To reduce exposure and to reduce contributions to pollution. For health and social care professionals, elected members, schools.



References

- **Clean Air Day** <https://www.cleanairday.org.uk>
- **NICE Air pollution Quality Standard** <https://www.nice.org.uk/guidance/qs181>
- **Defra/PHE/LGA Resource for Directors of Public Health**
http://www.local.gov.uk/web/guest/publications/-/journal_content/56/10180/8324922/PUBLICATION
- **Royal College of Physicians report – Every breath we take, the life long impact of air pollution** <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>
- **PHE Review of interventions to improve outdoor air quality**
<https://www.gov.uk/government/publications/improving-outdoor-air-quality-and-health-review-of-interventions>
- **PHE Estimation of costs to the NHS and social care due to the health impacts of air pollution** <https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs>
- **PHE Health matters information on air pollution**
<https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>