

Hardware and Digital Solutions for Bradford's Clean Air Plan (CAP)

July 19th 2021

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Clean Air Zone Operations
Manager



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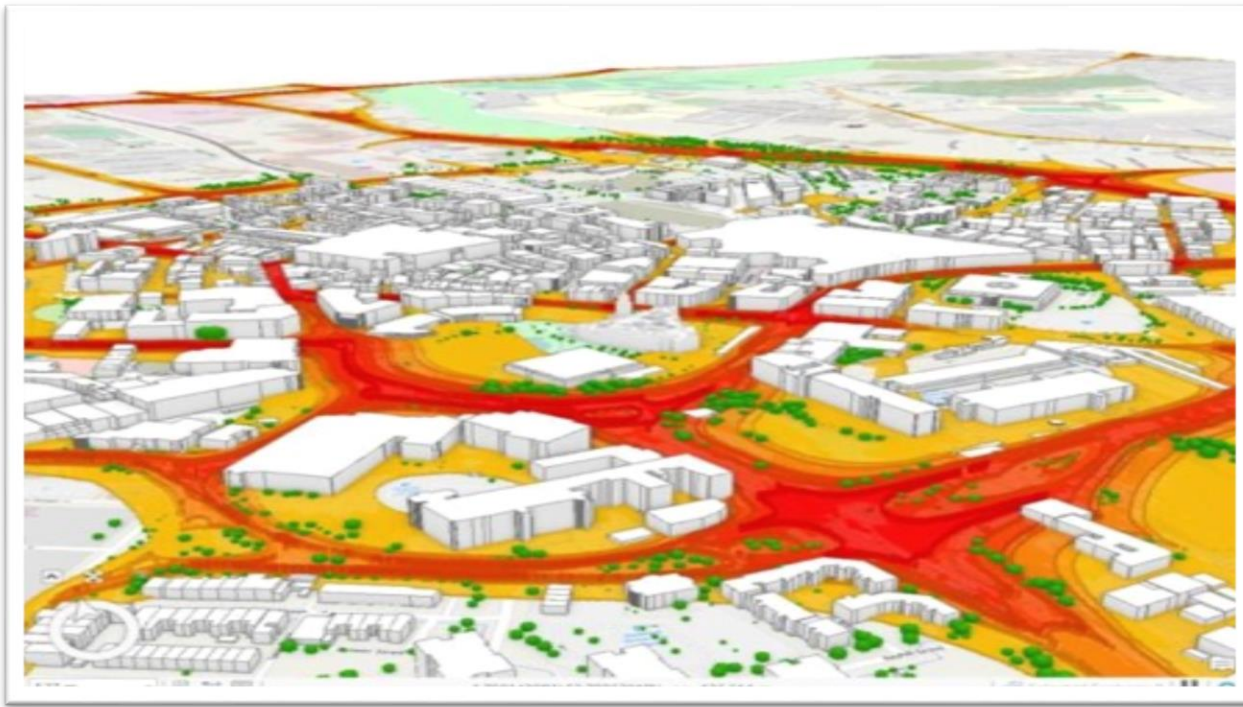
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Contents

- Bradford's Clean Air Plan (CAP) - why we need one and what/where it is
- Objectives of the Clean Air Zone and how it works
- People, processes and technology to set up and run the CAZ – our roadmap to launch and progress to date
- What's worked well, what hasn't and lessons so far

Why Does Bradford Need a Clean Air Plan?

- Mandated by government in 2018 to implement CAZ
- Persistent and widespread exceedances of the legal limits for nitrogen dioxide throughout the City



NO2 levels in
2018



ENVIRONMENT ACT 1995

- Environment Act 1995 (City of Bradford Metropolitan District Council) Air Quality Direction 2020
- Schedule 1, Article 3
- Class C Charging Clean Air Zone
- To be implemented as soon as possible and at least in time to bring forward compliance to 2022
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/867249/air-quality-direction-bradford-2020.pdf

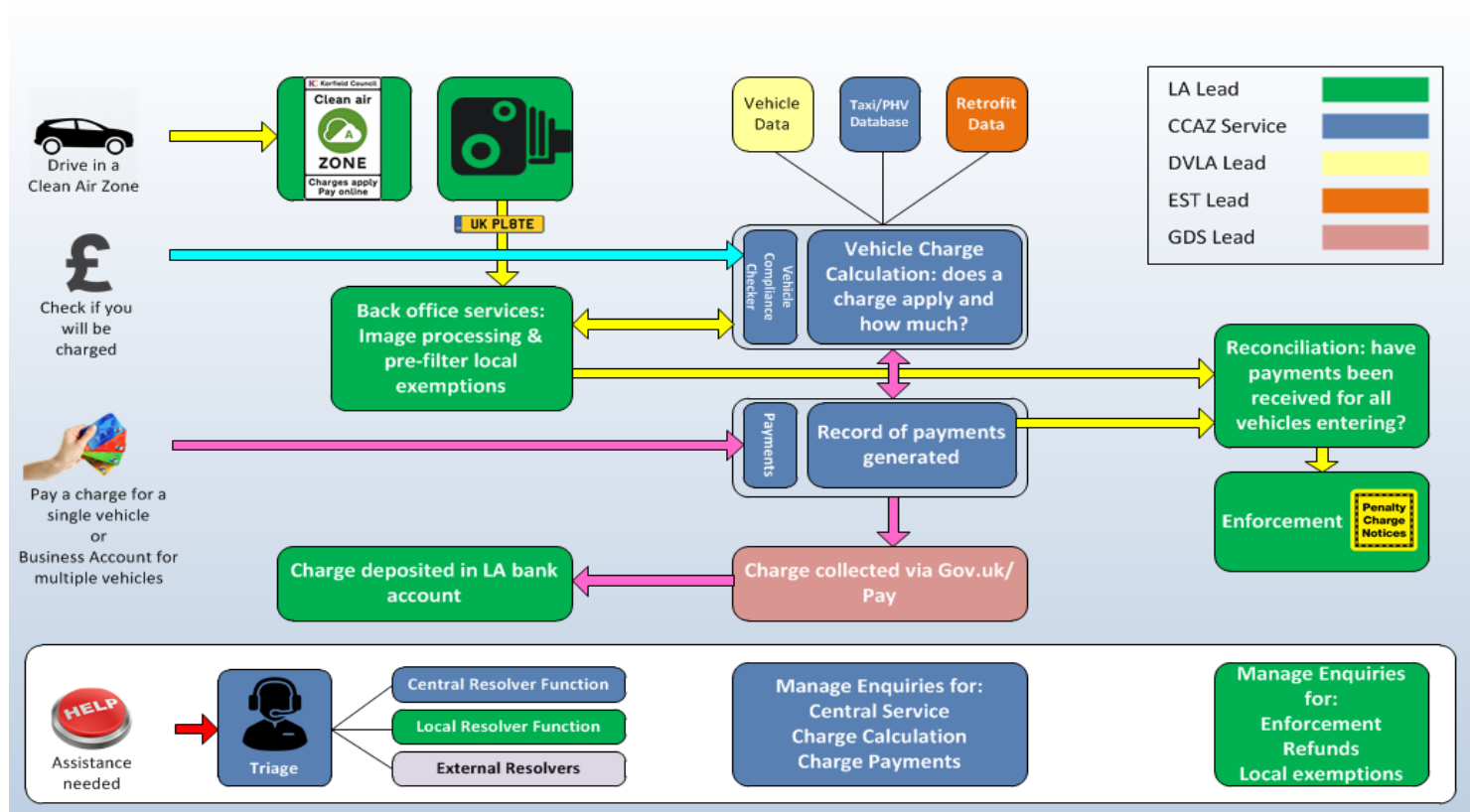
What / where is the Clean Air Zone?



Objectives of the Clean Air Zone and how it works

- 30-35% reduction in no2 in some of the most deprived areas in the district
- Improvements everywhere, biggest improvements at schools
- £31.5m of funding to renew vehicles
- CAZ revenue ring-fenced to further improve air quality

Overview of Bradford Charging Clean Air Zone Service Operations



People, processes and technology to set up and run the CAZ – our roadmap to launch and progress to date

- Procurement of 400 ANPR cameras / ANPR system and extension of fibre network, requiring 16km of new network duct
- Recruitment of new CAP Operations team including Grants and CAZ officers
- In-house development of multiple new IT systems
- Publicity campaign launched June 2021
- Clean Air Support programme for local SME's has started

Publicity Campaign – June 2021

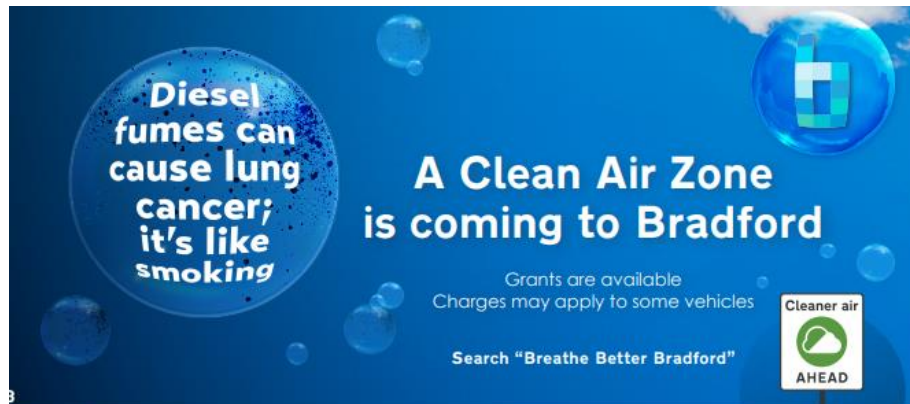
Diesel fumes can cause lung cancer; it's like smoking

A Clean Air Zone is coming to Bradford

Grants are available
Charges may apply to some vehicles

Search "Breathe Better Bradford"

Cleaner air
AHEAD



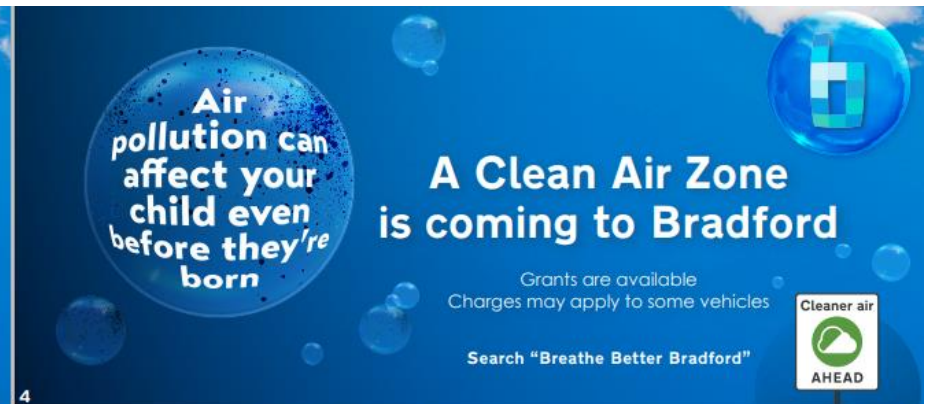
Air pollution can affect your child even before they're born

A Clean Air Zone is coming to Bradford

Grants are available
Charges may apply to some vehicles

Search "Breathe Better Bradford"

Cleaner air
AHEAD



Starts January 2022

A Clean Air Zone is coming to Bradford

Grants are available
for businesses in the district
Check if your vehicle is affected

Search "Breathe Better Bradford"

Cleaner air
AHEAD



We're breathing better across the Bradford district

The Clean Air Zone is here

Grants are available
for businesses in the district
Check if your vehicle is affected

Search "Breathe Better Bradford"

Cleaner air
AHEAD



What's worked well, what hasn't and lessons so far

- Use of in-house resource has saved cost
- Time-scales for implementation are longer than originally envisaged
- Actively engage internal stakeholders early (e.g. Procurement IT and HR)
- Plan for Behaviour Change, not just implementation
- Consult with other authorities – all are willing to share experience

Further information about the CAZ

- <https://www.bradford.gov.uk/breathebetterbradford>



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If you would like to receive a newsletter with regular updates on the implementation of Clean Air proposals in Bradford, then please enter your email address here

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Any Questions?

- Contact
- Carolyn Escreet
- Carolyn.escreet@Bradford.gov.uk

Bradford Clean Air Plan



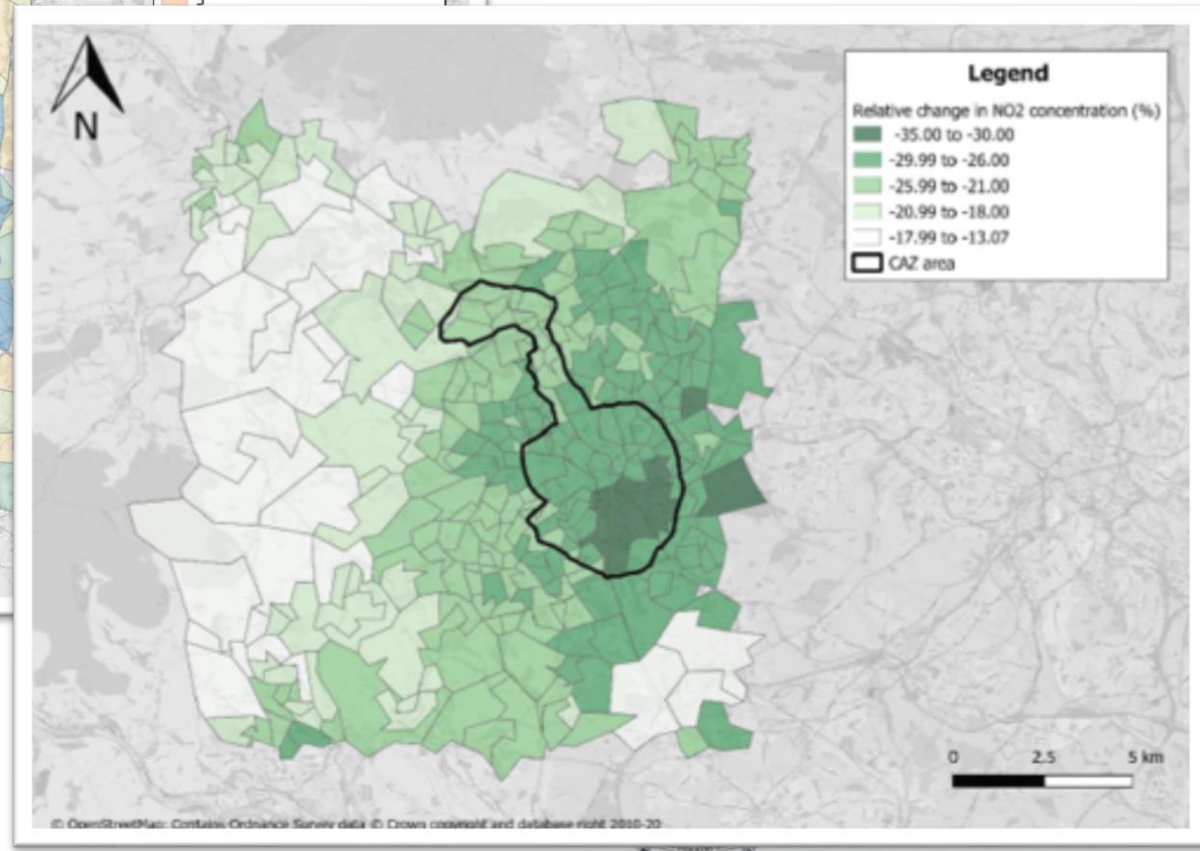
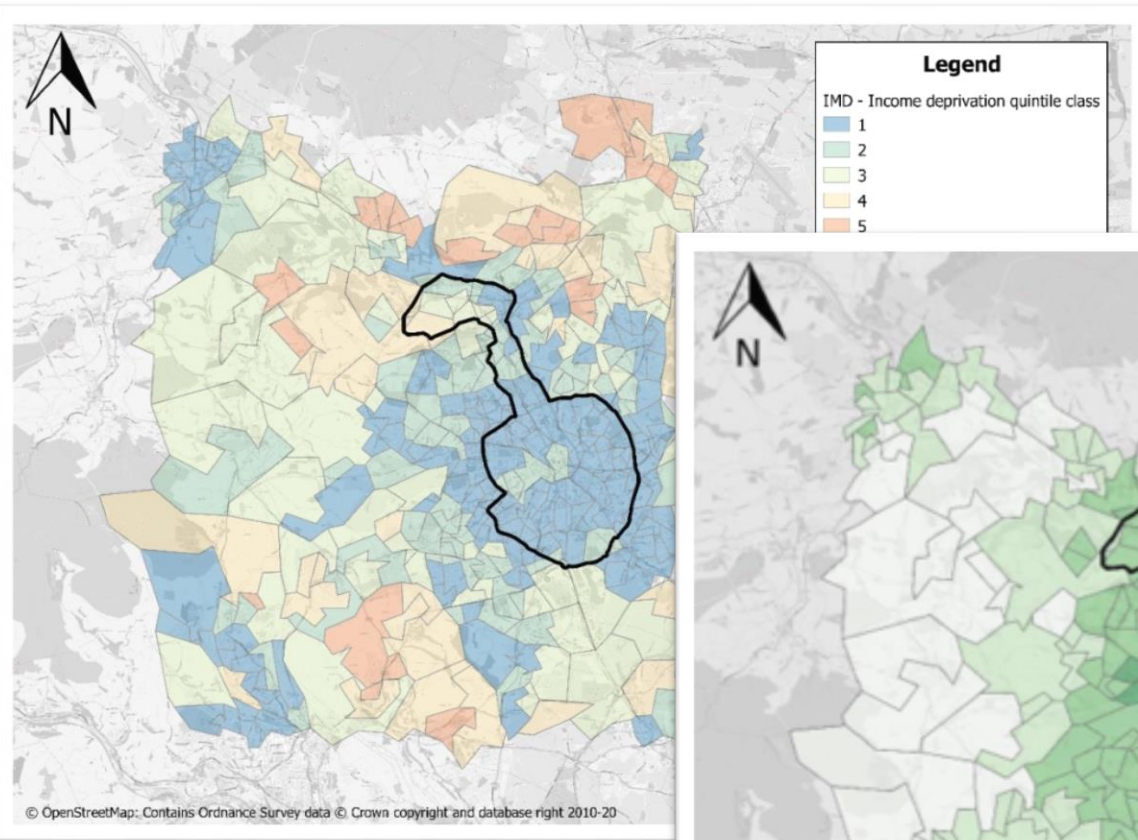
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Sally Jones
Monitoring & Evaluation



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What will the CAZ Achieve?



Further information about the CAZ

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We are family
BORN IN BRADFORD

people
powered
research

#BiBBreathes



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The Born in Bradford family of birth cohorts



~12,500 families
and ~13,700 young
people born
between 2007-2011



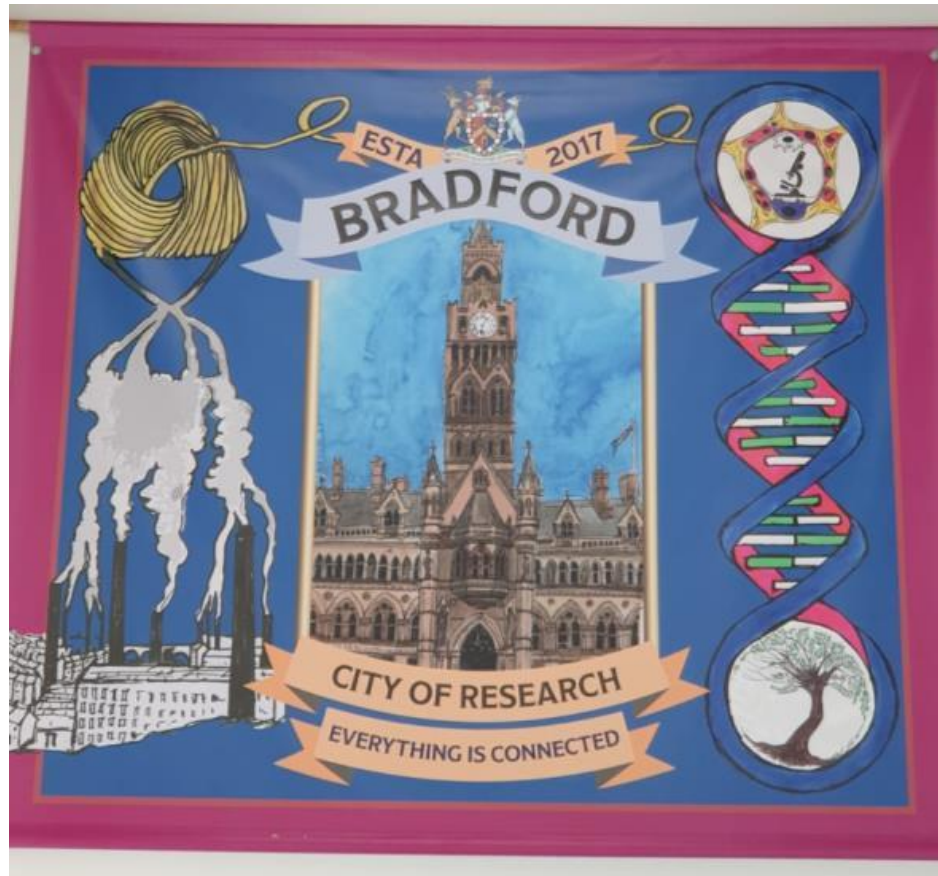
Experimental birth
cohort to assess
impact of early life
interventions
Target ~5000
families, babies
born 2016-date



Routine data
linkage, consent
embedded in
routine practice
Bradford and
beyond (BaBi)
Babies born 2019-
date



Our City of Research data infrastructure



Connected Bradford



One aim:
Population Health Management



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I'd say it's very poor quality but then how do you know, you can't see it

Health effects of air pollution

short-term effects

exacerbation
of asthma

cough, wheezing
and shortness
of breath

episodes of high air
pollution increase
respiratory and
cardiovascular hospital
admissions and mortality

long-term effects

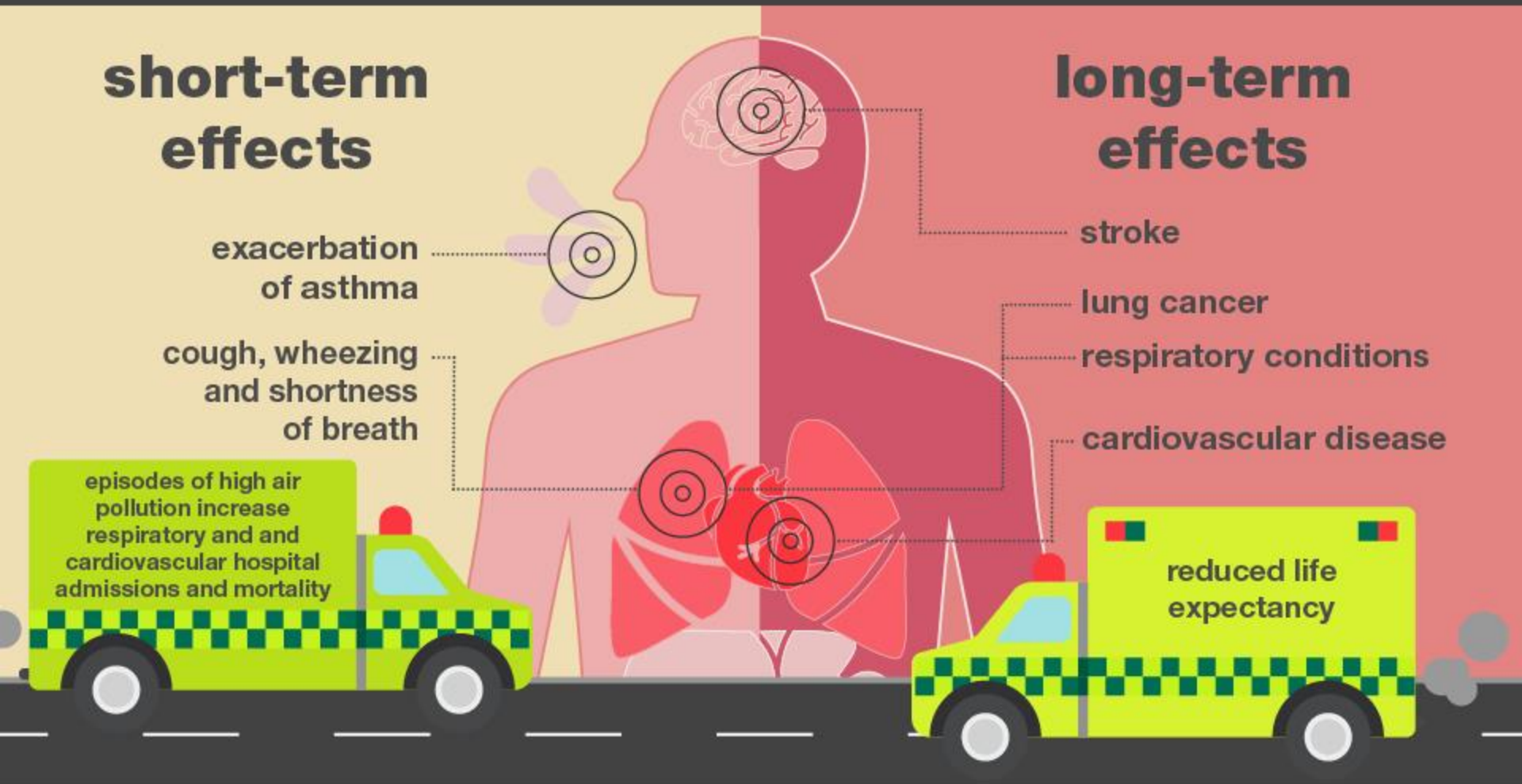
stroke

lung cancer

respiratory conditions

cardiovascular disease

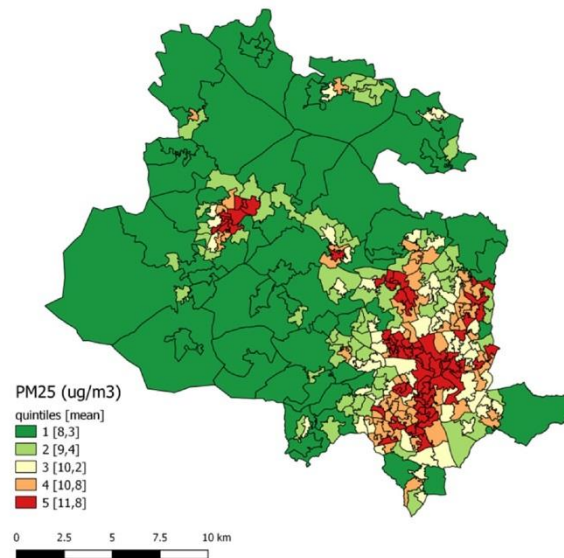
reduced life
expectancy



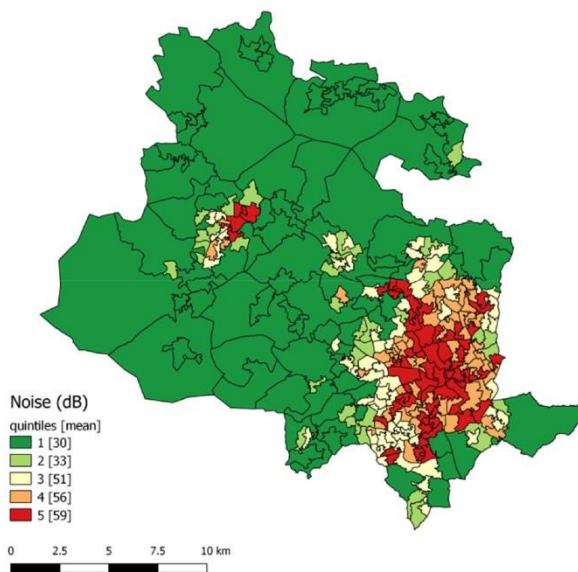
A



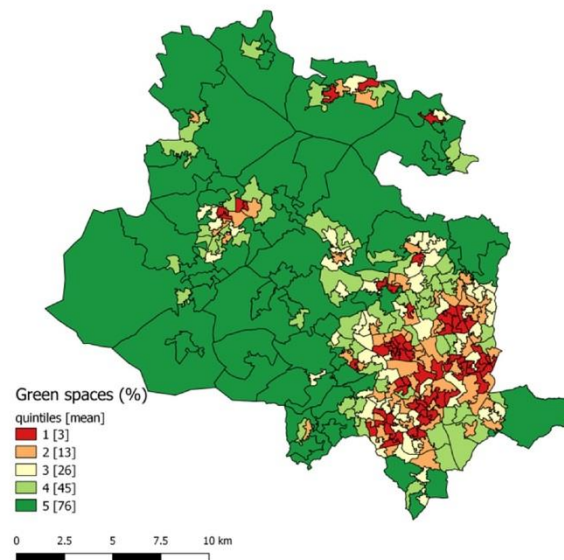
B



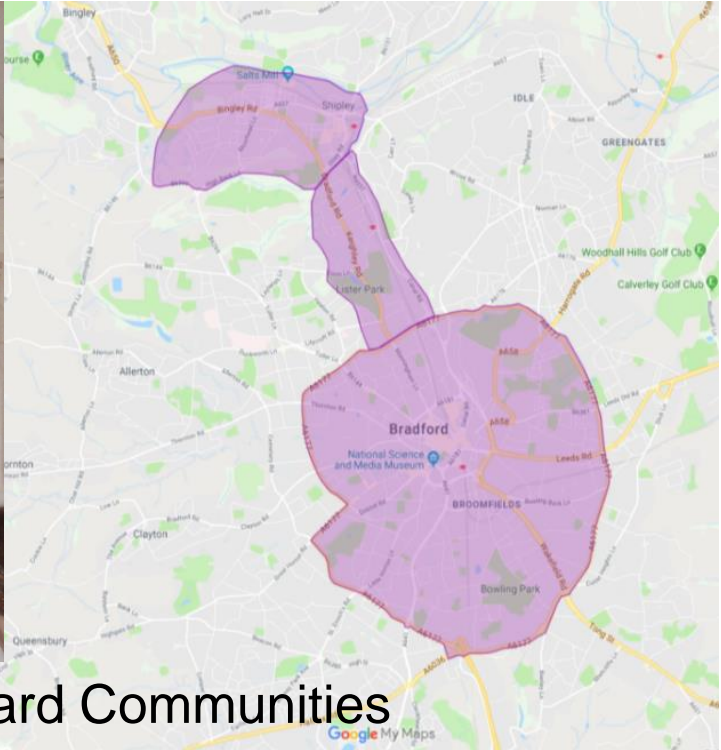
C



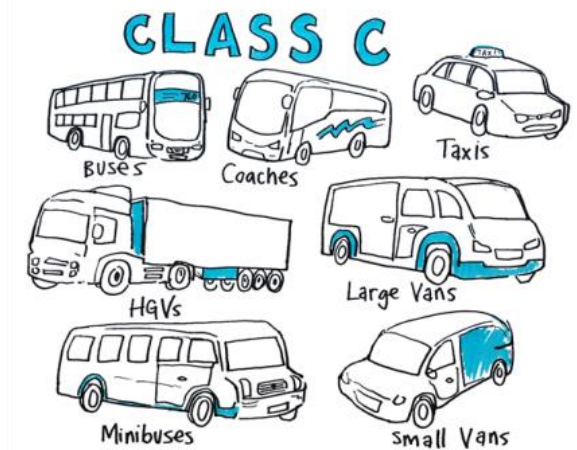
D

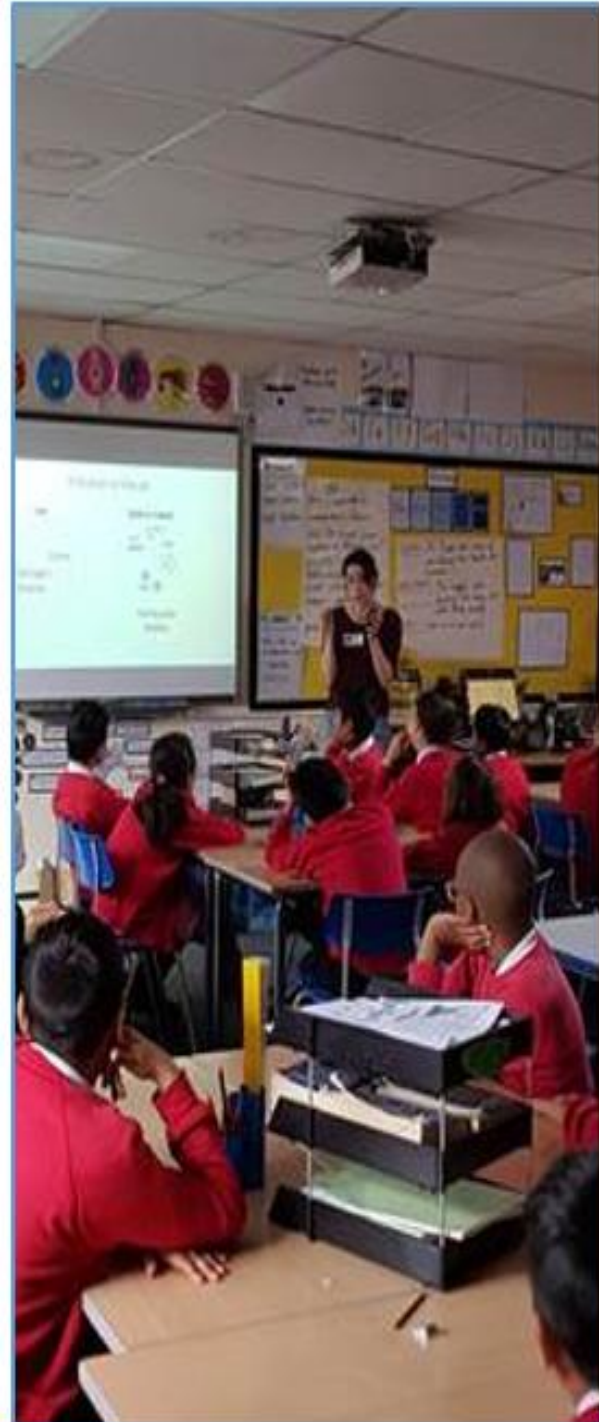


A=Major road network of the Bradford district.
B=PM_{2.5} concentrations (2009/2010) at LSOA level.
C=Noise levels L_{den} (2006) at LSOA level.
D=% green space (2012) at LSOA level.



Bradford Clean Air Plan Engagement: Seldom Heard Communities





Low

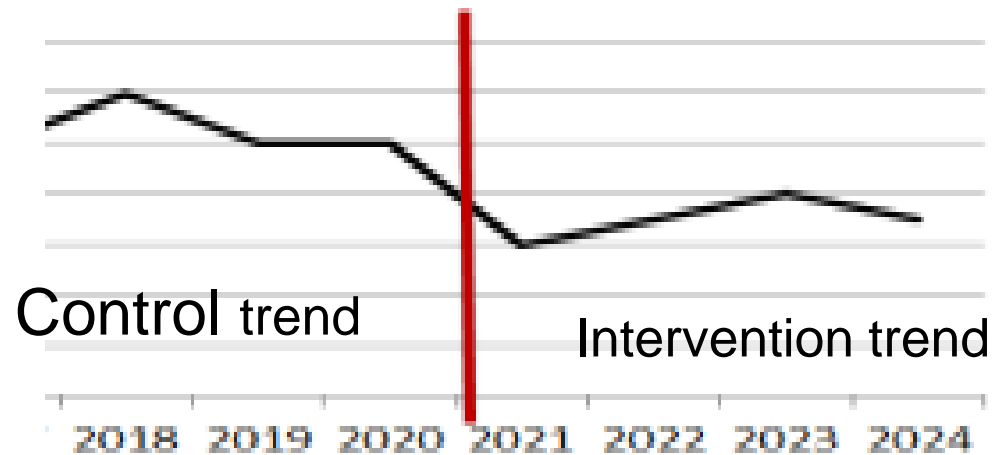
Medium

High





Time series analysis



What is the impact of the Bradford Clean Air Plan on respiratory health cardiovascular health and birth outcomes?

How does the Bradford Clean Air Plan impact on health inequalities?

What is value for money of the Bradford Clean Air Plan 3 years post implementation and longer term?

Any Questions?

- Contact
- Sally Jones
- Sally.jones@Bradford.gov.uk