

Better Prepared: Learning Lessons from the COVID-19 Crisis

Chair:
Tomos Joyce,
Guidance Manager



THE LONDON SCHOOL
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Department
for Environment
Food & Rural Affairs

Today's Speakers



Professor Tony Travers
London School of Economics and
Political Science (LSE)

Speaker



Susannah Wilks
Director
Cross River Partnership

Speaker



Joshua West
Communications Manager
Cross River Partnership

Speaker



Tomos Joyce
Guidance Manager
Cross River Partnership

Chair



Ross Phillips
Project Officer
Cross River Partnership

Chat Moderator



Rachael Aldridge
Project Officer
Technical Lead

Technical Lead

Today's Agenda

1. CRP:
Introduction
and Context

2. CRP: Health
and Transport
Recovery

3. LSE: London:
Learning to live
with COVID-19

Have your say:
Q/A session after each
presentation

Introduction and Context

Susannah Wilks, Director of CRP



CRP Projects



Our Vision

People

Working with engaged people connecting stakeholders to successfully collaborate and deliver

Places

Create great places, sharing best practice whilst ensuring all businesses are supported to grow sustainably

Projects

Deliver innovative projects for partners encouraging businesses to shift from incremental to permanent change, whilst inspiring others to do more at pace



Working towards sustainable businesses, and improving air quality.

The Imperative for Improving Air Quality

09 MAY 2019 | STORY | AIR

Air pollution hurts the poorest most



Evidence that air pollution hits poorer areas the hardest, with a harder recovery

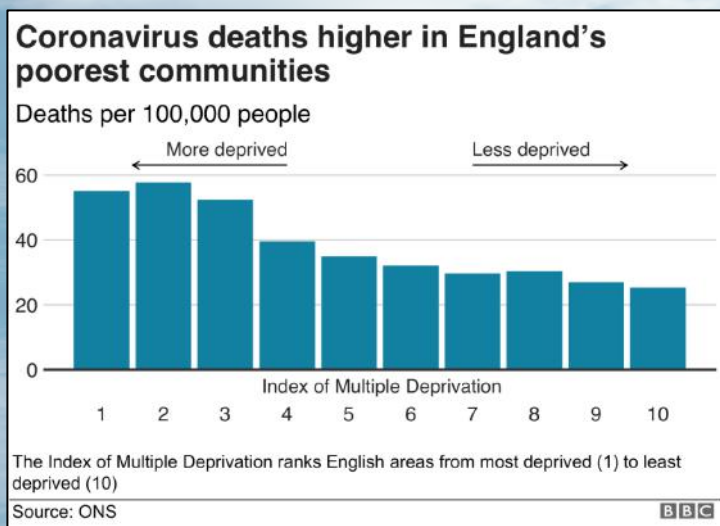
COVID-19 deaths worse in the poorest parts of England

Increasing evidence linking poor air quality and COVID-19 deaths

Air pollution likely to make coronavirus worse, say UK government advisers

Experts say further investigation of link is urgently required and may be relevant to managing pandemic

- [Coronavirus - latest updates](#)
- [See all our coronavirus coverage](#)



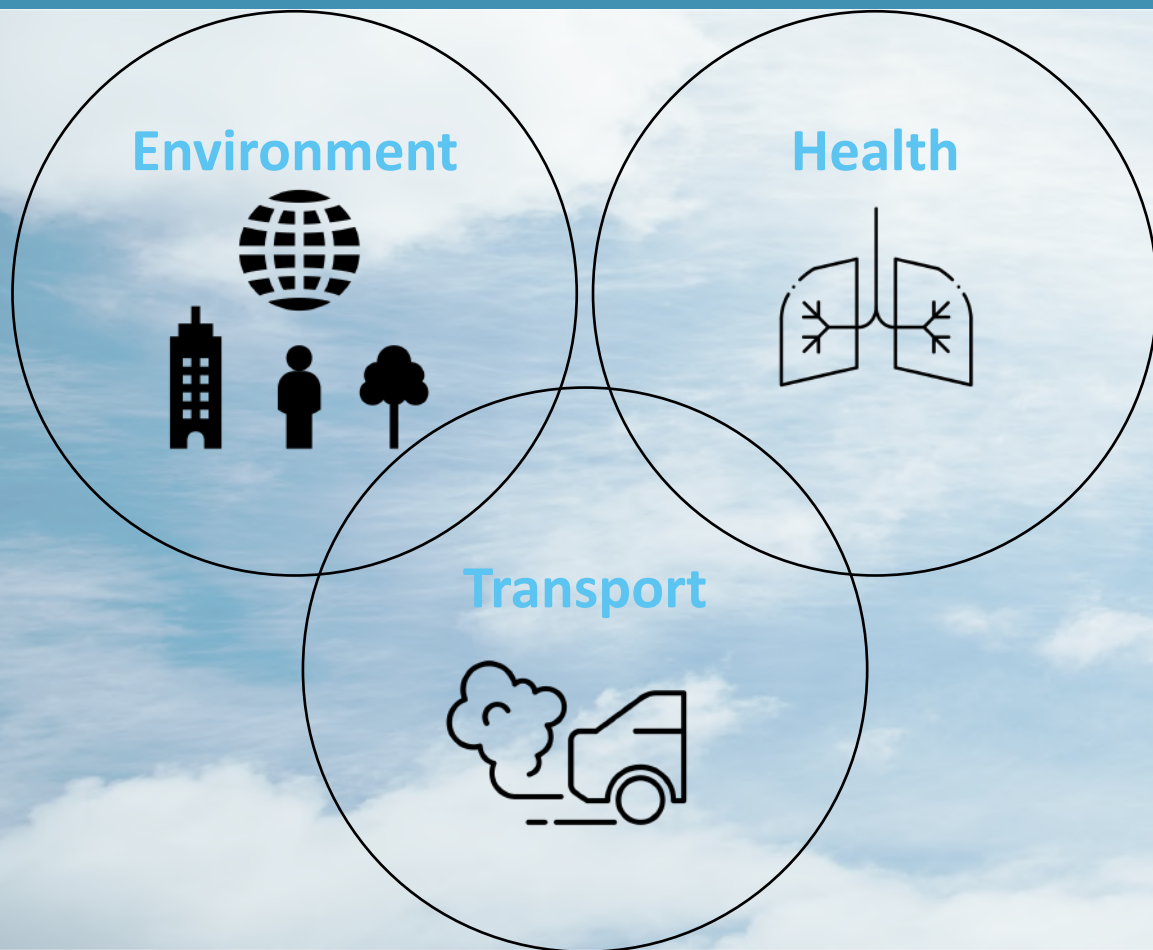
May 2020



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The Imperative for Improving Air Quality



“You could pick any city in the world and expect to see an effect of air pollution on people’s risk of getting sicker from coronavirus”.

Aaron Bernstein, Director of the Center for Climate, Health, and Global Environment at Harvard University.

“Dirty air is preventing people of colour, in low-income communities in particular, from being able to have a fighting chance against this pandemic”.

Gina McCarthy, president of the Natural Resources Defence Council, US.

Future funding opportunities 2021/22



Department
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Food & Rural Affairs

- CRP bidding for Defra's Air Quality Grant 2021/2022
- Clean Air Villages 4 - building on the success of the previous award-winning CRP CAV projects
- £2 million available to English Local Authorities



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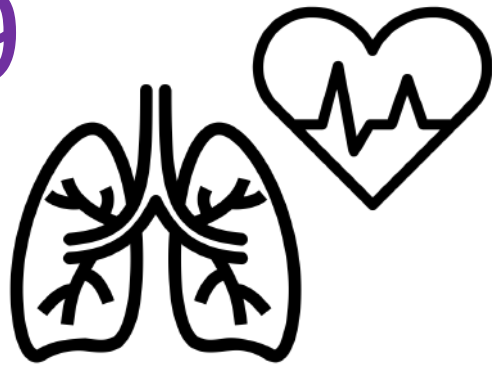
Health and Transport Recovery from COVID-19

Joshua West, Cross River Partnership



Impacts of air pollution on health

Air pollution increases susceptibility to COVID-19



Exposure to high levels

- Damaging lung function
- Triggering asthma
- Increasing blood pressure
- Increasing lung and heart related hospital admissions and deaths

Long-term exposure

- Chronic heart and lung conditions such as coronary heart disease)
- Lung cancer, leading to reduced life expectancy







Links between air pollution exposure and COVID-19 mortalities

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Environmental Research Letters



LETTER • OPEN ACCESS

Hazardous air pollutant exposure as a contributing factor to COVID-19 mortality in the United States

Michael Petroni¹ , Dustin Hill¹ , Lylla Younes², Liesl Barkman¹ , Sarah Howard^{1,3} ,
I Brielle Howell^{1,3}, Jaime Mirowsky^{1,4}  and Mary B Collins^{1,3} 

Published 11 September 2020 • © 2020 The Author(s). Published by IOP Publishing Ltd

[Environmental Research Letters, Volume 15, Number 9](#)

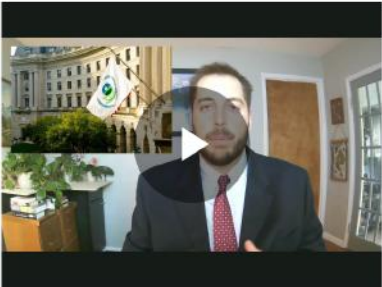
 View PDF now  View ePub now

Figures References



[+ Article information](#)

Abstract

To date, COVID-19 has claimed more than 100 000 American lives. Early inquiry suggests preexisting conditions are key risk factors contributing to COVID-19 mortality and air pollution exposure could exacerbate this relationship. Building on prior research linking deaths from respiratory viruses to air pollution exposures, we investigate how 2014 National Air Toxics Assessment hazardous air pollutants (HAPs) respiratory hazard quotient and








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Abstract

1. Introduction

2. Methods

3. Results

4. Discussion

Acknowledgments

References

<https://iopscience.iop.org/article/10.1088/1748-9326/abaf86>

Links between air pollution exposure and COVID-19 mortalities



Science of The Total Environment

Volume 741, 1 November 2020, 140515



A vulnerability-based approach to human-mobility reduction for countering COVID-19 transmission in London while considering local air quality

Manu Sasidharan ^{a, 1}, Ajit Singh ^{b, c, 1}, Mehran Eskandari Torbaghan ^d, Ajith Kumar Parlikad ^a

[Show more](#) ▼

<https://doi.org/10.1016/j.scitotenv.2020.140515>

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Highlights

- a strong correlation between increment in NO₂ and PM_{2.5} levels and an increase in the risk of COVID-19 transmission
- a strong correlation between the risk of COVID-19 fatality and higher NO₂ and PM_{2.5} levels
- Introduces a vulnerability-based approach to human-mobility reduction strategies.

<https://www.sciencedirect.com/science/article/pii/S0048969720340377>



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Links between air pollution exposure and COVID-19 mortalities

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Links between air pollution and COVID-19 in England

 Marco Travaglio,  Yizhou Yu,  Rebeka Popovic,  Liza Selley,  Nuno Santos Leal,  L. Miguel Martins

doi: <https://doi.org/10.1101/2020.04.16.20067405>

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

Abstract Info/History Metrics  Preview PDF

Abstract

In December 2019, a novel disease, coronavirus disease 19 (COVID-19), emerged in Wuhan, People's Republic of China. COVID-19 is caused by a novel coronavirus (SARS-CoV-2) presumed to have jumped species from another mammal to humans. This virus has caused a rapidly spreading global pandemic. To date, thousands of cases of COVID-19 have been reported in England, and over 25,000 patients have died. While progress has been achieved in managing this disease, the factors in addition to age that affect the severity and mortality of COVID-19 have not been clearly identified. Recent studies of COVID-19 in several countries identified links between air pollution and death rates. Here, we explored potential links between major air pollutants related to fossil fuels and SARS-CoV-2 mortality in England. We compared current SARS-CoV-2 cases and deaths recorded in public databases to both regional and subregional air pollution data monitored at multiple sites across England. The levels of multiple markers of poor air quality, including nitrogen oxides and sulphur dioxide, are associated with increased numbers of COVID-19-related deaths across England, after adjusting for population density. We expanded our analysis using individual-level data from the UK Biobank and

<https://www.medrxiv.org/content/10.1101/2020.04.16.20067405v5.full.pdf>

Links between air pollution exposure and COVID-19 mortalities



The screenshot shows the Office for National Statistics website. The header includes the ONS logo, language options (English (EN) | Cymraeg (CY)), and navigation links (Release calendar, Methodology, Media, About, Blog). A secondary navigation bar contains links to Home, Business, industry and trade, Economy, Employment and labour market, People, population and community, and Taking part in a survey?. Below this is a search bar with the placeholder text 'Search for a keyword(s) or time series ID'. The breadcrumb trail reads: Home > Economy > Environmental accounts > Does exposure to air pollution increase the risk of dying from the coronavirus (COVID-19)? The article title is 'Does exposure to air pollution increase the risk of dying from the coronavirus (COVID-19)?'. The subtext states: 'Our analysis measures the link between long-term exposure to dirty air and COVID-19 deaths in England.' The date is '13 August 2020'. The main text begins with: 'The coronavirus (COVID-19) pandemic has led to a big drop in pollution levels – global carbon emissions per day were [up to 17% lower than normal](#) at one stage in early April, returning to levels last seen in 2006.' It continues: 'However, some studies have suggested that long-term exposure to air pollution before the pandemic is associated with severe symptoms from COVID-19 and a greater risk of death.' The final sentence is: 'Studies in the United States (US), Northern Italy and the Netherlands all'.

Office for National Statistics

English (EN) | Cymraeg (CY)

Release calendar | Methodology | Media | About | Blog

Home | Business, industry and trade | Economy | Employment and labour market | People, population and community | Taking part in a survey?

Search for a keyword(s) or time series ID

Home > Economy > Environmental accounts > Does exposure to air pollution increase the risk of dying from the coronavirus (COVID-19)?

Does exposure to air pollution increase the risk of dying from the coronavirus (COVID-19)?

Our analysis measures the link between long-term exposure to dirty air and COVID-19 deaths in England.

13 August 2020

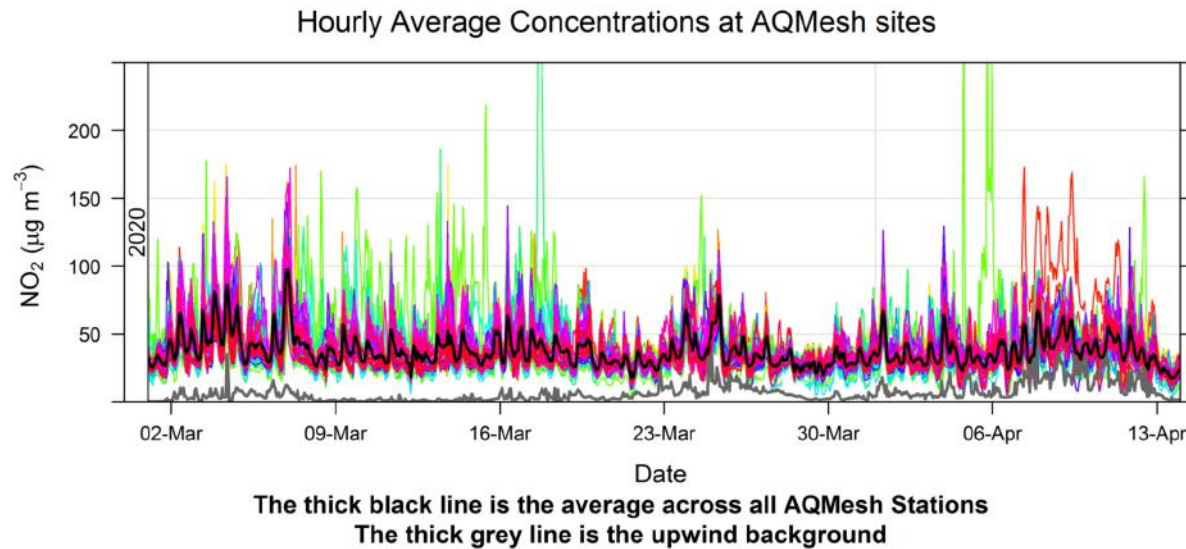
The coronavirus (COVID-19) pandemic has led to a big drop in pollution levels – global carbon emissions per day were [up to 17% lower than normal](#) at one stage in early April, returning to levels last seen in 2006.

However, some studies have suggested that long-term exposure to air pollution before the pandemic is associated with severe symptoms from COVID-19 and a greater risk of death.

Studies in the United States (US), Northern Italy and the Netherlands all

<https://www.ons.gov.uk/economy/environmentalaccounts/articles/doesexposuretoairpollutionincreasetheriskofdyingfromthecoronaviruscovid19/2020-08-13>

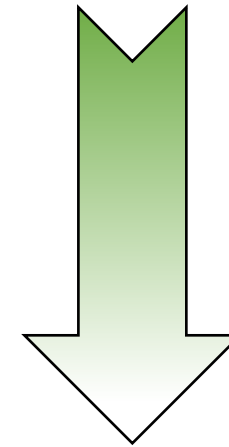
London lockdown's impact on AQ



Source: [Breathe London data](#)

Source: <https://www.breathelondon.org/new-breathe-london-data-covid-19-confinement-measures-reduce-london-air-pollution/>

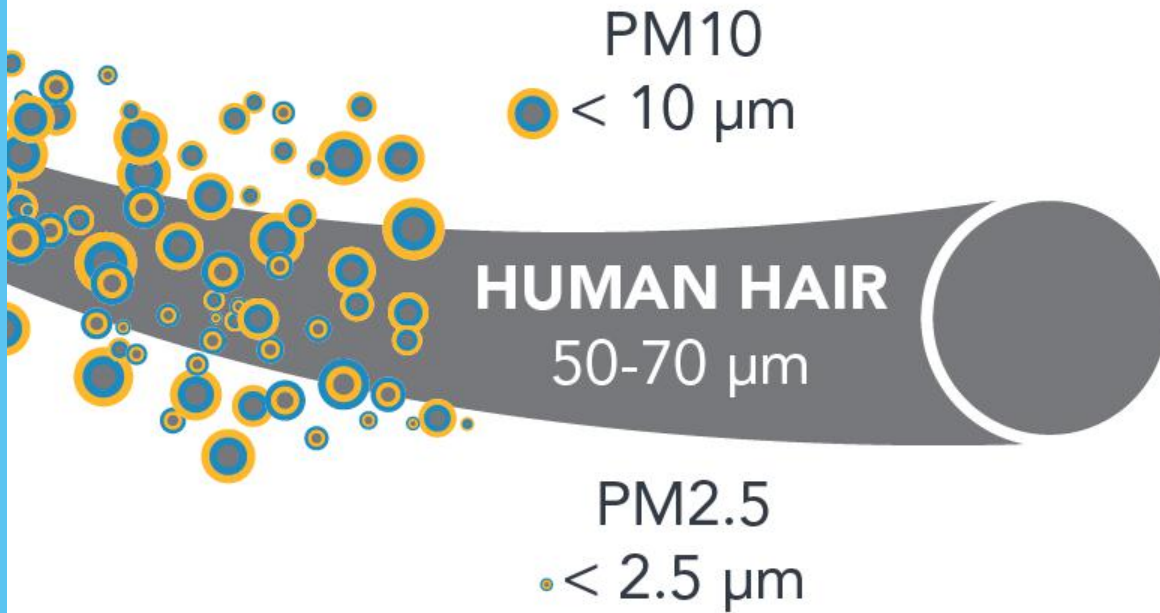
NO₂



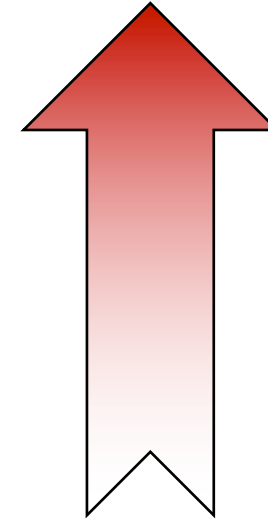
20-24%

London lockdown's impact on AQ

Particulate Size Comparison



Source: <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health>



PM10 and PM2.5



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London lockdown's impact on AQ

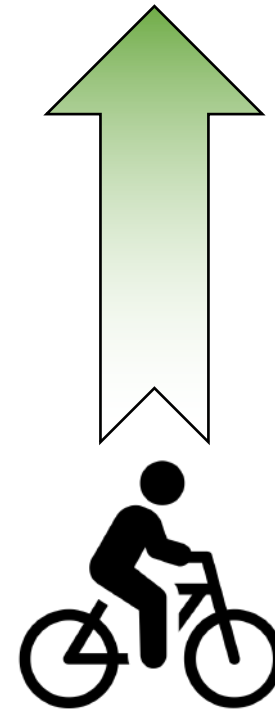


STREETSPACE
FOR LONDON

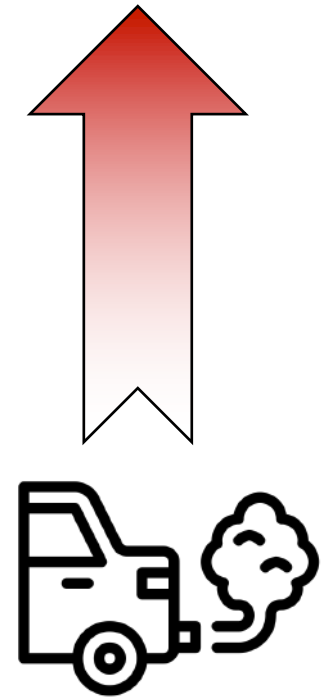


Source: <https://tfl.gov.uk/travel-information/improvements-and-projects/streetspace-for-london>

Cycling increase by 10%
on weekdays compared
to pre COVID-19 levels



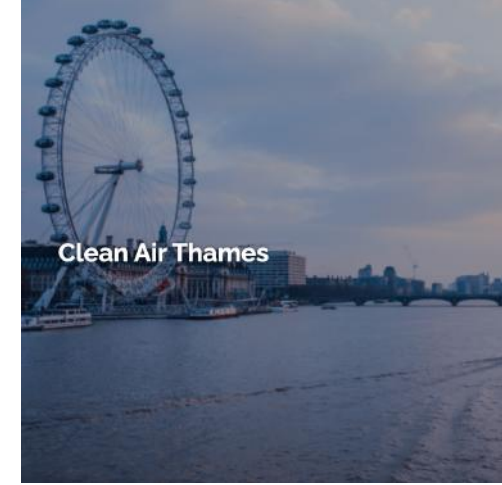
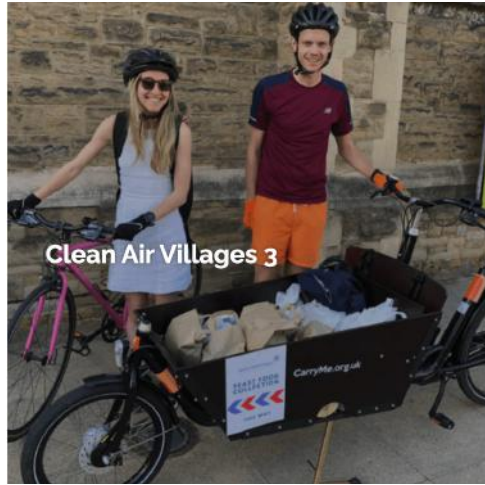
Private car traffic is only
5% below pre COVID-19
levels



Low Traffic Neighbourhoods and School Streets



Healthy Streets Indicators

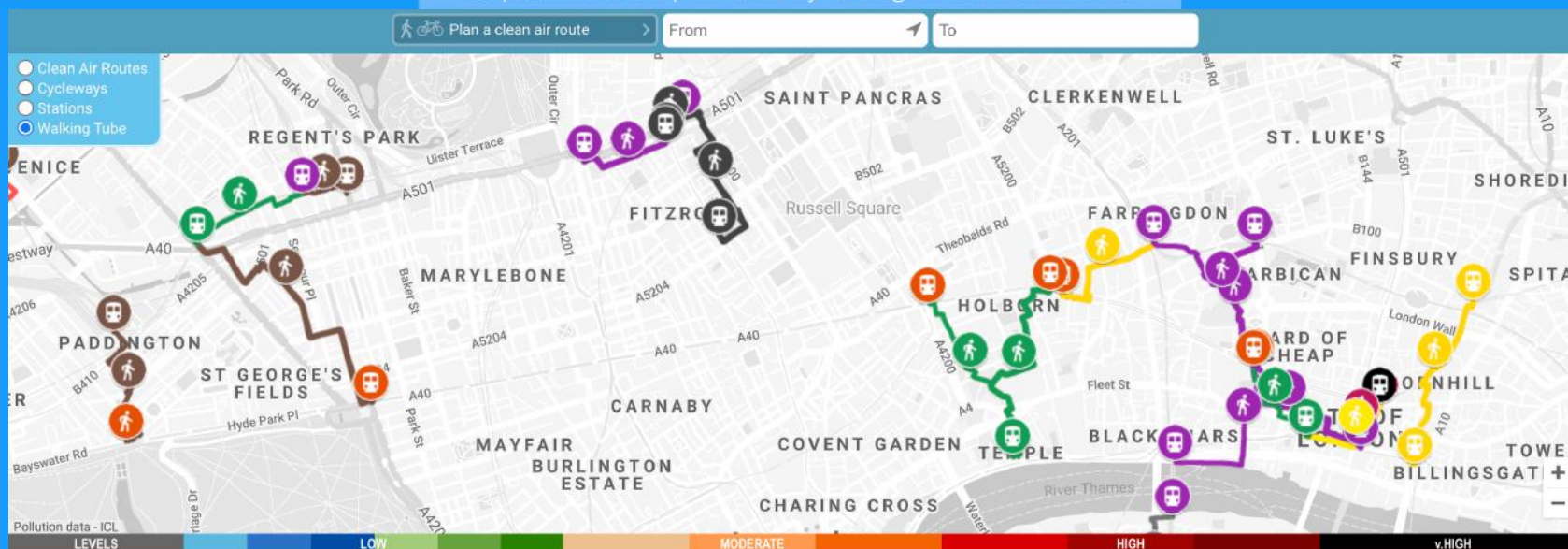


CRP Online Tools



Clean Air Route Finder

Some streets have cleaner air than others. Reduce your exposure to air pollution by taking a clean air route.

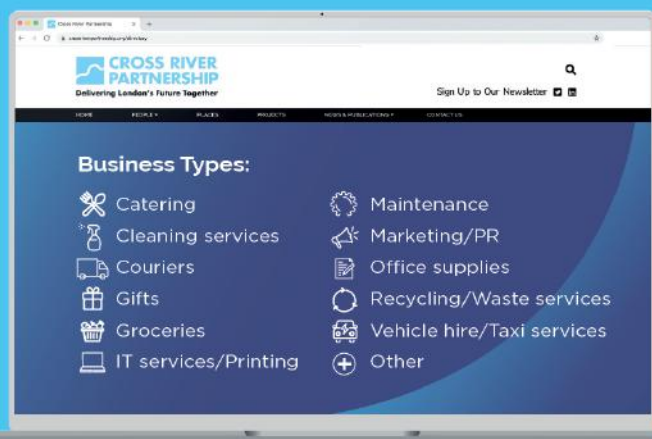


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CRP Clean Air Villages Directory

CRP Clean Air Villages Directory

Improve air quality in your area by using our directory of businesses offering deliveries and services without harmful emissions.



Improve local
air quality

Support
businesses
actively tackling
air pollution

Find your local directory here: www.crossriverpartnership.org/directory

“We’re committed to doing everything we can to improve the air quality in London, so we’re delighted to be part of the Cross River Partnership Directory”

Kate Walker-Collins,
Fed by Able and Cole
(listed on the CRP Clean Air Villages Directory).



Available online at: www.crossriverpartnership.org/directory

Questions?



London: Learning to live with COVID-19

Professor Tony Travers, London School of Economics and Political Science (LSE)



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Impacts so far

- Major shifts to working from home
- Varying economic impacts
 - Substantial reduction in central London economic activity
 - Smaller reduction in larger inner/outer London centres
 - e.g. Ealing, Stratford, Croydon, Camden
 - Some increase in activity in retail-dominated inner/outer London centres
 - e.g. Southall, East Ham, Golders Green, Ilford, Surbiton, Bromley
- Public transport use down substantially
- Live theatre, music, clubs almost closed
- Working from home will redistribute economic activity

The impact of the London and UK economy

- UK economy to shrink by 8-10% in 2020
- Partial recovery in 2021, but not back to 2019 till 2023 or 2024?
- London impact unknown but almost inevitable central London will see a major decline in GVA/GDP in 2020
 - West End worst affected
 - City of London largely unaffected, though huge shift to WFH
 - Outer boroughs/centres with little office accommodation probably trading well
 - South East and East towns probably also recovering more strongly
- Big question is: will there be permanent damage to the London economy from these short-term impacts?

Short-term issues

- Business rates in 2020-21, especially central London/other city centres
- Travel industry
- Theatre, music, clubs, leisure, hotels: need for protection
- Tube, trains and buses: need for support
- Post-furlough support required for some sectors
- Sport: increasing need for protection

Unless these sectors/activities are protected they will be permanently damaged

Recovery objectives

- Back to January 2020?
- Policy requirements:
 - Maintain existing property uses?
 - Maintain existing public transport system
 - Eventually: incentives to stimulate recovery
 - Major marketing effort
 - London/SE/E
 - Rest of UK
 - Global

All three spheres of government (Whitehall/City Hall/Town Hall) will need to work on this – consistently and with agreed objectives

Threats and Opportunities

Threats

- Productivity
- Creative industries
- Leisure industries
- Employment
- UK's 'soft power'

Opportunities

- Plan a good recovery: better long-term objectives
- Better co-ordination of CG/LG policy
- Ensure the rest of the UK more fully understands London and its people

Questions?



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Final Observations



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Operating Sustainably: A North-South Perspective on UK Transport and COVID-19



**Join us for our next
LiveShare session**

Thursday 8th October, 2pm

Thank You!



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