

Air Pollution and why we should care.

Sussex Air Quality Conference
October 2025

Dr Mark Hayden



RIDE FOR THEIR LIVES



There is a Crisis !!!!



RIDE FOR THEIR LIVES



Non Communicable Diseases



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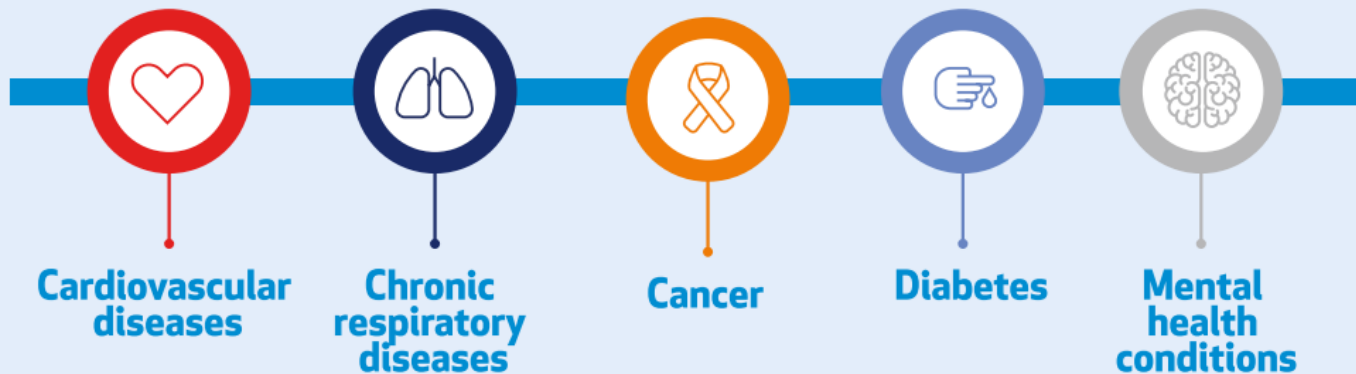


TIME TO DELIVER



Third UN High-level Meeting
on Non-communicable Diseases

27 September 2018, New York



5 main NCD risks



Unhealthy diet



Tobacco use



Air pollution



Harmful
use of alcohol



Physical
inactivity

Global burden of disease



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2019 rank		
1	High systolic blood pressure	Metabolic risks
2	Smoking	Behavioral risks
3	High fasting plasma glucose	Metabolic risks
4	Particulate matter pollution	Environmental/occupational risks
5	High body-mass index	Metabolic risks
6	High LDL cholesterol	Metabolic risks
7	Kidney dysfunction	Metabolic risks
8	Alcohol use	Behavioral risks
9	Diet high in sodium	Behavioral risks
10	Diet low in whole grains	Behavioral risks
11	Low birth weight and short gestation	Behavioral risks
12	Low temperature	Environmental/occupational risks
13	Secondhand smoke	Environmental/occupational risks
14	Unsafe water source	Environmental/occupational risks
15	Diet low in legumes	Behavioral risks
16	Child growth failure	Behavioral risks
17	Diet low in fruits	Behavioral risks
18	Unsafe sex	Behavioral risks
19	Lead exposure	Environmental/occupational risks
20	Diet high in red meat	Behavioral risks
21	Low physical activity	Behavioral risks
22	Unsafe sanitation	Environmental/occupational risks
23	Diet high in trans fatty acids	Behavioral risks
24	No access to handwashing facility	Environmental/occupational risks
25	Diet low in fiber	Behavioral risks
40	Suboptimal breastfeeding	Behavioral risks



Cardiovascular diseases



Chronic respiratory diseases



Cancer



Diabetes



Mental health conditions

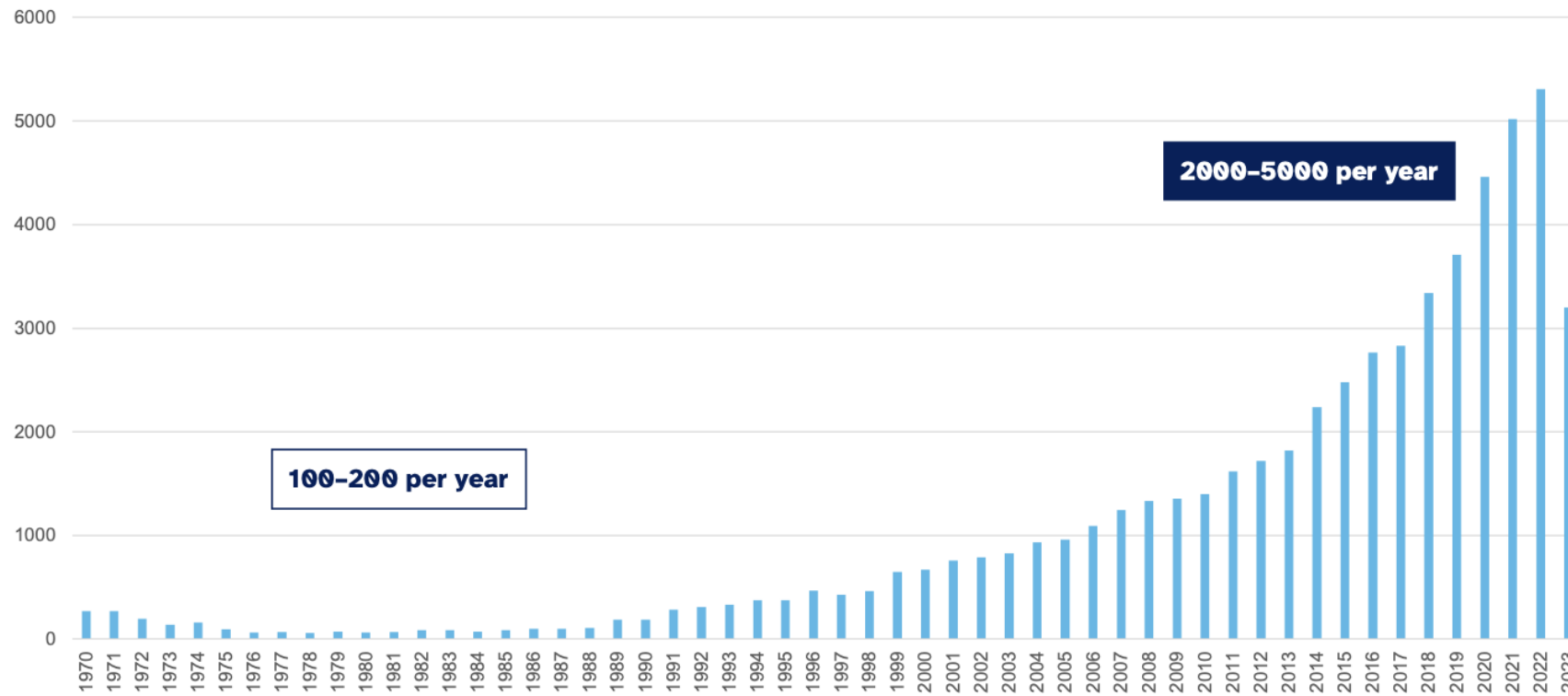
Rapidly evolving evidence



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Research on air pollution and health

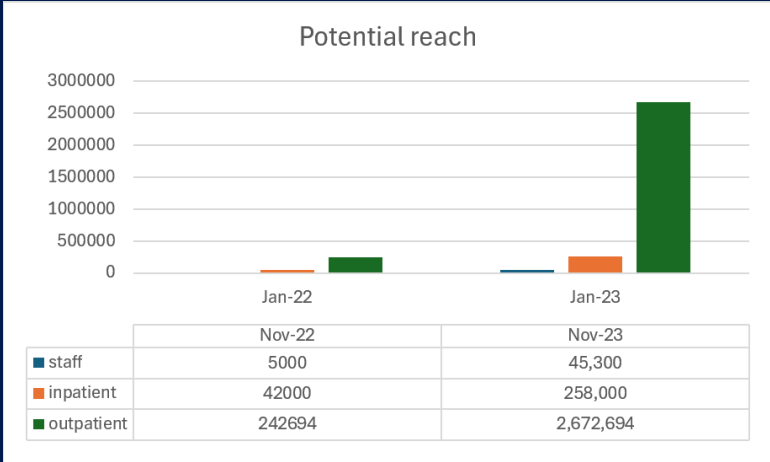


Number of publications/year with key words "air pollution" and "health" in PubMed, 1950–Sept 2023

Showing we care



RIDE FOR THEIR LIVES



Royal Brompton and Harefield hospitals



10:10

small changes that work

special issue

John Pilger Tributes as campaigning journalist dies, aged 84

Monday 1 January 2024 £2.80 From £2.14 for subscribers

The Guardian

Newspaper of the year

Doctors told to consider risk of air pollution when assessing patients

Amelia Gentleman

Families understand whether their child has been exposed to elevated risk. The initiative is a response to criticism by the coroner during the inquest of Ella Adoo-Kissi-Debrah, who was nine when she died from asthma to years ago, and who in 2020 became the first person in the UK to have air pollution listed on her death certificate as a cause of death. The coroner, Philip Barlow, noted that Ella's mother, Rosamund Adoo-Kissi-Debrah, "was not given information about the health risks of air pollution and its potential to exacerbate asthma". In his prevention of future deaths report, Barlow warned that the adverse effects of air pollution on health were not sufficiently communicated to patients and carers by medical and nursing professionals, and called on medical staff to do more to inform families about the dangers of air pollution. Ella's mother has said the family "would have moved straight away" if she had been told that her daughter was being killed by the air she was breathing. The Great Ormond Street hospital initiative was conceived by Mark Hayden, who works in the intensive care unit, with colleagues Nicola Wilson and Johanna Anderson. Hayden said there had previously been a "significant knowledge gap" at the hospital regarding air pollution and its effects. Data added to patients' electronic records provides information on fine particulate matter (PM2.5) and nitrogen dioxide, and

Obviously, air quality is a bit harder to fix than an infection. You can't just give antibiotics

Mark Hayden Great Ormond Street Hospital

Anger over PM's 'secret Cummings meetings'

Peter Walker Deputy political editor

Conservative MPs have expressed anger and alarm at the claim that Boris Johnson offered Dominic Cummings a secret deal to help him win the election, with one saying Boris Johnson's former chief aide should have "no place in political life". Other Tory MPs have expressed opposition to the idea, which was first revealed in the Sunday Times, with some saying it showed a lack of judgment by Sunak. Another likened it to letting "an assassin into your home". Downing Street has not denied Sunak met Cummings twice for discussions, but rejected Cummings' contention that the deal involved a job offer, saying

Gday, 2024

Fireworks over the Sydney Opera House and Harbour Bridge during New Year's Eve celebrations yesterday. The event was watched by about a million people from the harbour's foreshore and by 400 million online around the world. In the UK, several fireworks displays in the south of England had to be cancelled because of bad weather. Eyewitness Page 22



Ride For Their Lives Nov 2020



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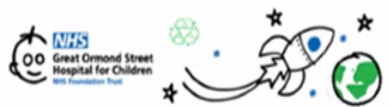
From: Vincent Lee
Sent: 23 November 2020 12:18
To: Nick Martin
Subject: COP26

Hello Nick,

I've just had a really bad idea (although I'm sure someone else may have had it first). Should we cycle 450 miles to Glasgow for COP26?

Kind regards,

Vincent Lee



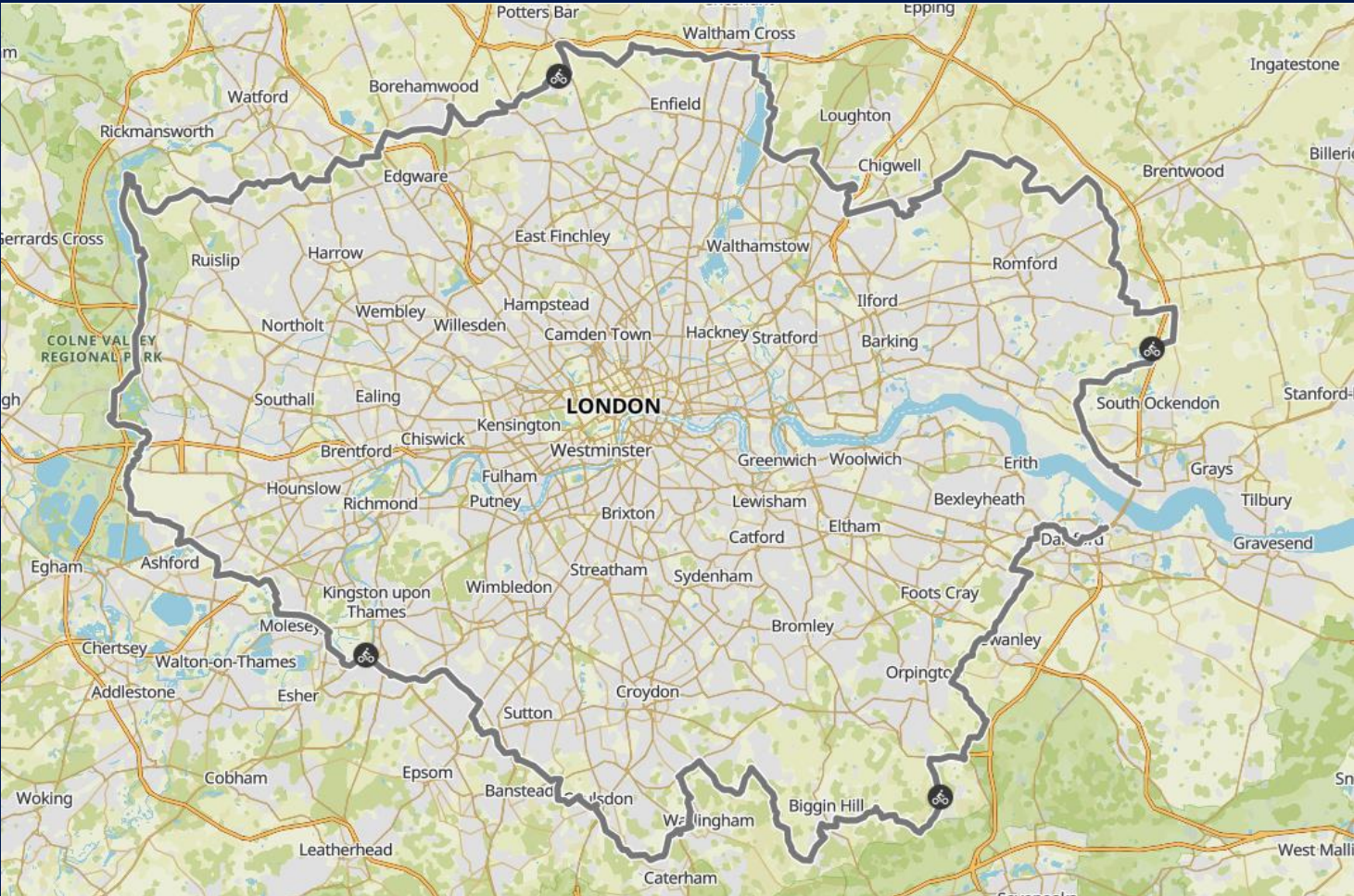
Rides and Events



RFTL ULEZ London May 2023



RIDE FOR THEIR LIVES



Ride For Ella September 2024



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Thank you!

Dr Mark Hayden



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