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‘World first’: Launch of Clean Air in Cities Index™ (or Birkett Index™) and App to report the health impact on the population of long-term exposure to air pollution

Over 100 MPs responded to a survey for ‘Clean Air in London’ by Politics Home. They were asked to ‘Rank the following risk factors in terms of the number of early deaths attributable to them in the UK annually: air pollution; alcoholism; obesity; road traffic accidents; and smoking (excluding passive smoking)’. Note: Air pollution is the biggest public health risk after smoking

All political groupings, including over two-thirds of Conservatives, said air pollution (29,000 attributable deaths) has less impact than the lowest risk of road traffic accidents (1,901 deaths)

App uses the innovative new Clean Air in Cities Index™ (or Birkett Index™) to report annual mean levels of dangerous airborne particles (PM_{2.5}) for local and unitary authorities and regions in England together with the percentage of total deaths attributable to human-made PM_{2.5}. It also calculates continually the pro rata calendar year-to-date number of deaths attributable to human-made PM_{2.5} and the time to the next such death for each area

‘Clean Air in London’ urges people to use this free App to challenge political leaders and others

Clean Air in London (CAL) is launching a revolutionary new [App](#), initially for iPhones and iPads, to build public understanding of the dangers of air pollution after finding many Members of Parliament (MPs) (and others) do not understand these dangers.

Government estimates for the number of deaths attributable to different [public health risks](#) are:

Smoking	Nearly 80,000 in England (2011); average 10 years
Air pollution	29,000 in the UK (2008); average of 11.5 years (excludes short-term impact)
Alcoholism	15,000 to 22,000 in England; average men 20 years, women 15 years
Obesity	9,000 in England; average nine years
Road traffic accidents	1,901 deaths in Great Britain in 2011

Over 100 MPs responded to a survey for CAL by [Politics Home](#). They were asked to ‘Rank the following risk factors in terms of the number of early deaths attributable to them in the UK annually: air pollution; alcoholism; obesity; road traffic accidents; and smoking (excluding passive smoking)’. Responses showed:

- MPs overall wrongly ranked the risks in descending order (most dangerous to least dangerous) as: smoking; obesity; alcoholism; road traffic accidents; and air pollution;
- none of the political groupings ranked the risks correctly;
- over two-thirds of Conservative MPs think air pollution (29,000 attributable deaths) has less impact than the lowest risk of road traffic accidents (1,901 deaths);
- nearly twice the proportion of Labour MPs (18%) correctly identified air pollution as a top three public health risk compared to Conservative MPs (10%) (and 14% of Liberal Democrats MPs).

The new [App](#) is being launched to address widespread ignorance of public health risks. It uses the innovative new **Clean Air in Cities Index™** (or **Birkett Index™**), developed by CAL, to report the health impact of long-term exposure to dangerous airborne particles (PM_{2.5}) on the total population in a local area, region and England as a whole.

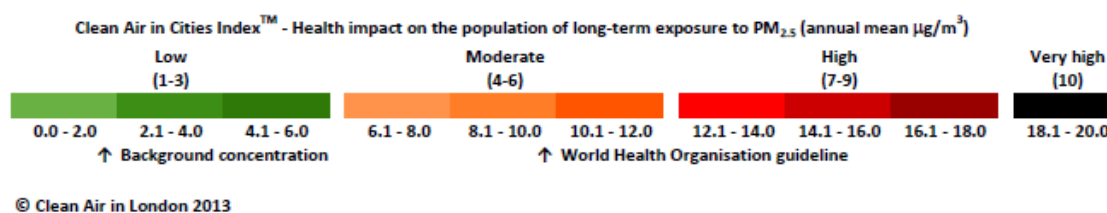
Note: the App does not estimate or display the number of actual deaths from air pollution or the risk for an individual.

App functionality

The App can be downloaded from the App Store. It can be found by searching for ‘Clean Air in Cities’ on the App Store or [downloaded here](#) or here <https://itunes.apple.com/us/app/clean-air-in-cities-index/id646281816?ls=1&mt=8>.

Key functionality of the App includes:

- the innovative new **Clean Air in Cities Index™** (or **Birkett Index™**) to report the health impact on the population of long-term exposure to PM_{2.5}



- population-weighted annual mean concentrations of total PM_{2.5} for local areas, regions and England as whole compared to the World Health Organisation (WHO) guideline;
- the percentage of total deaths attributable to long-term exposure to human-made PM_{2.5} in each area;
- the pro rata calendar year-to-date number of deaths attributable to long-term exposure to human-made PM_{2.5} and time to the next such attributable death for every local area and region in England;
- ‘Add’ button allows Users to add local areas or regions and ‘Edit’ button allows Users to move or delete local areas or regions. The location capability on the App allows Users to choose from up to four nearby locations or select another area by typing its name;
- Users can also see the CAL website and a detailed explanation of the App under ‘About’; and
- the App is free. Users are invited, as they add local areas or regions, to make at least one donation to CAL to support the further development of the App and other projects.

Total PM_{2.5} is the sum of human-made (i.e. anthropogenic) and background (i.e. non-anthropogenic) mass concentrations of PM_{2.5}. The number of attributable deaths for an area depends on the attributable fraction and total number of deaths in that area which means a larger, less polluted local area may have more such deaths than a smaller, more polluted local area. The index is based on [Government data](#) and/or has been calculated by CAL using its understanding of the methodology

recommended by the Committee on the Medical Effects of Air Pollution. [Policy Exchange](#) has estimated diesel vehicles were responsible for 91% of PM_{2.5} exhaust emissions in London in 2009.

CAL hopes to be able to create android, desktop and other versions of the App in future. For example, it would like to include estimates of short-term concentrations for air pollution (e.g. smog alerts) and show the **Clean Air in Cities Index**TM (or **Birkett Index**TM) for every postcode. CAL would also like to show trends over time, costs and the impact of air pollution on morbidity (e.g. asthma etc.), personal exposure and other pollutants and extend the index to other public health risks.

Quotes

Simon Birkett, Founder and Director of Clean Air in London, said:

“The vast majority of over 100 Members of Parliament (MPs) responding to our survey displayed a shocking level of ignorance about the health impact of air pollution. In particular, over two-thirds of Conservative MPs responding said air pollution (29,000 attributable deaths) has less impact than road traffic accidents (1,900 deaths).

“By using the latest technology, information obtained under access to environmental information laws and the revolutionary new **Clean Air in Cities Index**TM (or **Birkett Index**TM), Clean Air in London (CAL) is able to give people an indication for the first time of the health impact locally of long-term exposure to air pollution. CAL hopes the innovative new App and index will become a talking point. As far as we know, this index is a ‘World first’.

“It is vital people are warned about the dangers of air pollution and given advice about protecting themselves and reducing pollution for themselves and others. People may be encouraged by this new index and App to consider reducing their day to day exposure to outdoor and indoor air pollution and may wish to seek health advice from medical or health professionals if they are concerned about possible health impacts.

“Most important, politicians, reporters, campaigners, members of the public and others can now access information about local air pollution. CAL hopes they will ask political leaders whether they understand air pollution is the biggest public health risk after smoking and demand action.

“By mobilising political will, technology and behavioural change, London and the UK could lead the world again in tackling air pollution as it did after the Great Smog of 1952.”

ENDS

Notes

1. **Clean Air in Cities Index**TM (or **Birkett Index**TM) reports the health impact on the population of long-term exposure to air pollution. In particular, it illustrates CAL’s view of the potential health impact of long-term exposure to different annual mean concentrations of total PM_{2.5}. The index starts at zero and increases in 10 bands of 2.0 micrograms per cubic metre (µg/m³) to 20 µg/m³ in population-weighted exposure to total PM_{2.5} in a local area or region. The WHO guideline is 10 µg/m³ for total PM_{2.5} but the WHO has found no safe level of human exposure down to 8 µg/m³ or below. CAL has therefore chosen bands of LOW (zero to 6.0 µg/m³), MODERATE (6.1

$\mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$), HIGH ($12.1 \mu\text{g}/\text{m}^3$ to $18.0 \mu\text{g}/\text{m}^3$) and VERY HIGH ($18.1 \mu\text{g}/\text{m}^3$ to $20.0 \mu\text{g}/\text{m}^3$). On this basis, the WHO guideline is at the top of the middle of the three sub-bands within the MODERATE band. The App does not estimate or display the number of actual deaths from air pollution or the risk for an individual.

2. The words **Clean Air in London**TM, **Clean Air in Cities Index**TM and **Birkett Index**TM along with their associated logos are trademarks or registered trademarks of Clean Air in London, a company limited by guarantee, registered in England and Wales, with company number 7413769.
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