

Dear Residents and Neighbours,

dated 4<sup>th</sup> March 2020

Does the term “pandemic” mean causes of early death on a global scale are pitched against each other, vying for public attention? I hope not, but this was my first thought when reading a report [3<sup>rd</sup> March 2020] in The Times covering large-scale research published recently focussed on 2015. The Times article is reproduced below and a summary of the Research Paper too.

Of course, this research ended before the current “Covid-19 pandemic” entered popular consciousness.

What worries me as we face Covid-19 is that air pollution undermines **everyone’s** health, but especially those who are already vulnerable – through health conditions and age.

The connections between novel infections and pollution are obvious. But, will that lead to serious action globally to reduce pollution after Covid-19 has run its course? I find this question uncomfortable.

Bringing the two threats to our local conditions, surely our responsible local authorities have to ‘face down’ the causes of concentrated and worsening pollution due to unruly development proposals tearing up rational planning...

Kind regards,  
Nigel Heriz-Smith

**The research paper** (PDF attached for enthusiasts) gives **its aims** as:

"Long-term exposure of humans to air pollution enhances the risk of cardiovascular and respiratory diseases. A novel Global Exposure Mortality Model (GEMM) has been derived from many cohort studies, providing much improved coverage of the exposure to fine particulate matter (PM2.5). We applied the GEMM to assess excess mortality attributable to ambient air pollution on a global scale and compare to other risk factors."

**And concludes:** "Ambient air pollution is one of the main global health risks, causing significant excess mortality and Loss of Life Expectancy (LLE), especially through cardiovascular diseases. It causes an LLE that rivals that of tobacco smoking. The global mean LLE from air pollution strongly exceeds that by violence (all forms together), i.e. by an order of magnitude (Loss of Life Expectancy being 2.9 and 0.3 years, respectively)."

The Times article summarises the Research well but the full report has additional images that put each source of early deaths into a global perspective.

Kind regards,  
Nigel Heriz-Smith

## **Dirty air is deadlier than war, Aids and smoking combined**

*Air pollution shortens the average person’s life by 1.55 years in the UK, compared with 2.9 years globally*  
Ben Webster, Environment Editor, **The Times. March 03 2020**

“Air pollution shortens the life of the average person worldwide by almost three years and causes more deaths than the total from wars, malaria, Aids and smoking, a study has found.

Scientists said the world faced an air pollution “pandemic”, with the death toll far greater than previously thought.

They calculated that air pollution caused 8.8 million premature deaths in 2015, almost 2 million more than the number previously calculated by the World Health Organisation. Smoking caused 7.2 million deaths, Aids 1 million, malaria and other insect-borne diseases 600,000 and wars and violence 530,000.

The new study took into account a wider range of diseases and conditions, including diabetes, dementia and high blood pressure, which studies have shown are linked to air pollution. It also used new data from some countries, including China.

Globally, air pollution shortens the average person's life by 2.9 years and by 1.55 years in the UK, where it caused 63,665 premature deaths in 2015, according to the study published in Cardiovascular Research.

The researchers found that two thirds of the premature deaths caused by air pollution worldwide were attributable to human-made pollutants, mainly emitted by burning fossil fuels such as diesel, petrol and coal.

They estimated that removing fossil fuel emissions would increase average life expectancy by just over a year, and by nearly two years if all human-made emissions were removed.

The Times Clean Air for All campaign is calling for sales of new diesel and petrol cars to be banned in 2030 and for the most polluting models to face charges to enter city centres.

**The study looked at the effect of air pollution on six categories of disease:** lower respiratory tract infection, chronic obstructive pulmonary disease [COPD], lung cancer, heart disease, cerebrovascular disease leading to stroke, and other non-communicable diseases, which include conditions such as high blood pressure and diabetes. They found that heart disease and strokes were responsible for the greatest proportion of shortened lives from air pollution, or 47 per cent of the total.

They also found that air pollution had a greater effect on shortening lives in older people, with the exception of deaths in children aged under five in low-income countries, such as Africa and south Asia. Globally, about 75 per cent of deaths attributed to air pollution occur in people aged over 60.

Thomas Münzel, one of the authors from University Medical Centre Mainz in Germany, said: "We believe our results show there is an air pollution pandemic. Policymakers and the medical community should be paying much more attention to this. Both air pollution and smoking are preventable, but . . . much less attention has been paid to air pollution than to smoking.

"We show that about two thirds of premature deaths are attributable to human-made pollution, mainly from fossil fuel use. This goes up to 80 per cent in high-income countries. Five and a half million deaths worldwide a year are potentially avoidable."

Jos Lelieveld, from the Max Planck Institute for Chemistry in Mainz, said: "It is remarkable that both the number of deaths and the loss in life expectancy from air pollution rival the effect of tobacco smoking and are much higher than other causes of death. Air pollution exceeds malaria as a global cause of premature death by a factor of 19; it exceeds violence by a factor of 16.

"The realisation that air pollution is a major health risk can contribute to the willingness to phase out fossil fuels — with the co-benefit of reducing climate warming."

The British Heart Foundation said: "This study presents further evidence that air pollution is a public health emergency that can worsen or shorten lives. The government has a unique opportunity to put this right by strengthening its Environment Bill, including adopting the World Health Organisation's stricter guideline limits into UK law to be met by 2030."