



**Environmental Protection UK comments on
“Prevention is better than cure”,
the Government’s plan for improving health.**

The Department of Health and Social Care (DoHSC) published its vision for improving health on 5 November 2018. The underlying theme of this paper is one that Environmental Protection UK (EPUK) has long espoused, that it is better, where possible, to try to prevent people becoming ill than to concentrate most (if not all) efforts on treatment when they are already ill.

There is much in this document that is to be welcomed, and many of the issues discussed lie outside EPUK’s direct remit. Where the document as published disappoints, from our perspective, is in its lack of ambition so far as air pollution is concerned. Ambient air pollution is recognised as one of the major public health challenges facing society today, eclipsing active smoking, alcohol and obesity and, arguably, second only to climate change, and yet it merits little more than a bare page, supplemented by two short paragraphs, in a 41-page document and that page is little more than a brief summation of points contained in the Government’s Clean Air Strategy (CAS). Although it is welcome that a Department other than Defra acknowledges the importance of good air quality it would be far more satisfactory to see that Department making its own contribution to achieving that goal. Although all parts of Government have some part to play in improving air quality, and by doing so improving public health, the Department of Health and Social Care has a particularly large part to play in that process. EPUK believes that this is important given that there is strong evidence to suggest that, even in the relatively short term, improvements in air quality can lead to observable health benefits¹.

This document is largely concerned with educating the population about the ways in which they can improve both their life expectancy and the quality of that extra expectancy and EPUK applauds those aims. We do, however, feel that there are important differences between air pollution and the various other issues that it addresses. The primary difference is that people do have the final choice over whether they smoke; whether they drink alcohol, and the salt/sugar/fat content of the food they eat. We would accept that in the case of eating habits economic factors might have some influence on choice but the evidence is strong that, even on a limited budget, it is possible to eat in a

¹ C. Arden Pope III, Ph.D., Majid Ezzati, Ph.D., and Douglas W. Dockery, Fine-Particulate Air Pollution and Life Expectancy in the United States, *N Engl J Med* 2009;360:376-86

healthy manner. In contrast people have little, if any, choice over the air that they breathe.

Government has taken some actions such as the ban on smoking in public places, limitations on drinking in certain places and measures on salt and sugar content of foodstuffs. The first two of these have had a reasonable amount of success but, although manufacturers might reduce the salt and sugar content of food, there is nothing to prevent the consumer adding excessive amounts of either to the meal they eat. This is clearly an example of an area in which further education is necessary, as is recognised in this document. How effective such education might be is another question and at least some of the evidence surrounding attempts to improve nutritional standards in school meals is less than encouraging.

In the case of air pollution EPUK believes that there is a great need for proper public awareness of the true extent of the problem and, most importantly, the ways in which their individual actions contribute to that problem. We feel that the medical profession as a whole can play a very important part in that process and, below, we suggest some ways in which this document could be strengthened.

Missed opportunities.

We at EPUK believe that there is a significant part to be played in reducing the impact on human health, and consequently demand on the NHS, by the primary care services. Essentially this means an important role for GP surgeries but this role is **not** confined to GPs alone. For many people their main (often only) contact with a GP surgery is with a nurse and this means that nursing staff have an equally important part to play. GP surgeries also display a considerable amount of information about a range of health issues and so offer an opportunity for suitable information relating to air pollution to be disseminated. This at least implies a role for non-medical staff to ensure that all such material, whether relating to air pollution or to other matters, is clearly displayed and accessible for reading. Unfortunately in many GP surgeries such displays are chaotic and confusing to the general public.

One very important section of the document (page 20) is headed "Giving our children the best start in life" and goes on to itemise a number of desirable fields of action. Sadly there is no mention of the fact that children's health may be compromised from early years by them attending a school that is in an area subjected to high levels of air pollution. Although DoHSC has no direct remit in this respect it could add its weight to moves to prevent the siting of new schools in areas of high air pollution and the prioritisation of measures to improve air quality near existing schools.

There is also a direct way in which DoHSC can contribute to improved air quality and this relates to its own transport policies.

Long term vision versus short term needs.

As has been stated earlier the air quality aspects of this document rely heavily on the Government's Clean Air Strategy. This is a series of long term measures and is heavily focussed on reducing emissions. Although such a long-term view is an essential element of dealing with air pollution problems it singularly fails to address the short-term problems of advanced mortality and increased morbidity that are the consequence of current levels of air pollution. The focus on emissions is also questionable as three of the most important pollutants from a health perspective, nitrogen dioxide (NO₂), fine particles (especially PM_{2.5}) and ozone, are largely secondary pollutants and, as such, less amenable to control by direct emission reductions.

There is an additional issue related to the CAS and to other Government plans to improve air quality. This is that the aim of the measures proposed appears to be solely to achieve the various statutory limits and no more. The DoHSC document does, however, refer to a goal of working towards the World Health Organisation (WHO) recommendations on particles which is a very welcome move as these are more stringent than the EU limit values. However, given that there is no safe threshold of effect for particles, EPUK feels that the true aim should be to improve on the WHO recommendations and that this should apply to all relevant pollutants. We acknowledge that because there is a natural background for particles it is impossible to achieve zero concentration, but the aim should be to attain the lowest concentrations possible.

A related point is that there is at least an impression that improving air quality is being driven by the simple need to comply with a number of legal requirements whether they be the EU Directive limit values or the recent UK court rulings. EPUK has always maintained that the aim of improving air quality is to improve human health and quality of life and we feel that DoHSC should be promoting this message as forcibly as possible. There are two over-riding reasons for this. The first is the obvious increased well-being of the population of the UK. The second is that improvements in health should reduce some of the burdens, whether in workload or financial terms, on the NHS.

Other issues.

These comments have focussed on the impacts of air pollution on health but other issues cannot be overlooked in this respect and we call upon Government to address these in their vision.

Contaminated land has the potential to impact on human health. It is obvious that grossly contaminated land such as former gas work sites are unsafe but there can be problems with other locations where there may be elevated concentrations of, for example, heavy metals such as lead and cadmium. There are possibilities for these to be directly ingested (pica) or for vegetables grown in such soils to contain excessive concentrations of these substances.

Elevated concentrations of air pollution are frequently associated with elevated levels of noise and there is evidence² to suggest that noise may be associated with cardiovascular disease (CVD). As air pollution has also been associated with CVD it seems possible that there may be synergistic relationships between some of the health effects of air pollution and some of those of noise, most notably those linked to stress.

Finally the health effects of climate change cannot be ignored. These may be more direct in terms of stress induced by abnormally high (or low) temperatures or in terms of higher average temperatures encouraging the spread of diseases normally associated with the tropics into more temperate regions. Equally they may be less obviously direct in that extremes of temperature may lead to elevated levels of air pollution as in the summer of 2003 and the winters of 1994 and 2000 with the associated increases in mortality and morbidity.

Concluding remarks.

We welcome this statement from Government in that it recognises that there are advantages in taking measures to prevent people's health being adversely affected by environmental and other factors. We do, however, feel that it only represents "work in progress" and that there is much that can be done to develop the aspirations it contains.

About Environmental Protection UK

Environmental Protection UK is a national charity that provides expert policy analysis and advice on air quality, land quality, waste and noise and their effects on people and communities in terms of a wide range of issues including public health, planning, transport, energy and climate.

We offer clear and critical analysis of UK government and European Union policy proposals through a range of high-quality publications and expert-led events, as well as up-to-date regulatory information through our comprehensive guide to UK and EU environment legislation.

Environmental Protection UK works with UK national and devolved governments, local authorities, business, academics and the general public, and with relevant EU institutions and NGOs.

For further information, please contact us at secretariat@environmental-protection.org.uk.

² Anna L Hansell, Marta Blangiardo, Lea Fortunato, Sarah Floud, Kees de Hoogh, Daniela Fecht, Rebecca E Ghosh, Helga E Laszlo, Clare Pearson, Linda Beale, Sean Beevers, John Gulliver, Nicky Best, Sylvia Richardson, Paul Elliott. BMJ 2013; 347: f5432