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UK Health Alliance on Climate Change

ENDING THE SALE OF NEW PETROL, DIESEL AND HYBRID CARS AND VANS

About the UK Health Alliance on Climate Change

The UK Health Alliance on Climate Change ('the Alliance') brings together leading health bodies to advocate for responses to climate change that protect and promote health. Our membership comprises many Medical Royal Colleges, the Royal College of Nursing, Faculties, the British Medical Association, the British Medical Journal, and The Lancet.

While climate change poses the greatest health threat of the 21st century, the actions needed to halt climate change can unlock large health co-benefits[1]. Our vision is that the threats to planetary health from climate change are minimised, in a way that maximises potential co-benefits to public health.

Executive summary

The Alliance supports the Government's proposal to bring forward the end to the sale of new petrol, diesel and hybrid cars and vans from 2040 to 2035. However, to remain a global leader in climate change, we urge the Government to go further and commit to ending sales of petrol, diesel and hybrid, by 2030 in line with the plans of countries such as Ireland, Denmark and India[2].

Committing to the earliest possible date will enable the UK to achieve it's net-zero carbon emissions target by 2050, and – in the words of the Prime Minister – acknowledge the UK's historic emissions and "responsibility to our planet to lead in this way".

Furthermore a commitment to 2030 would give the Government an unprecedented opportunity to support people not simply to shift to 'cleaner' sedentary modes of travel, but to to switch to active modes of travel such as walking and cycling. Doing so would improve the health of the public and the planet, reduce the pressure on the NHS and support the Government's recently announced obesity strategy and 'Better Health' campaign.

1 Watts et al., 2015. Health and climate change: policy responses to protect public health. The Lancet.

2 UK Health Alliance on Climate Change, 2018. Moving beyond the air quality crisis

Introduction

The UK is facing the reality of climate change right now. At the beginning of 2020 thousands of people were displaced by the worst flooding in living memory. It is therefore incumbent on the Government to show leadership, be bold in its ambition and establish credibility ahead of COP26 – due to be held in the UK next year.

Transport is the biggest source of greenhouse gas emissions in the UK[3], and one of the largest sources of particulate pollution (PM2.5-10) and nitrogen oxides (NO_x)[4]. Together, these pollutants are responsible for the causation and exacerbation of many life-limiting health problems such as lung cancer, strokes, asthma and dementia. Beyond the cardiovascular conditions which with it is most frequently associated, air pollution has been found to damage every organ in the body[5].

The health impacts of these pollutants cost the NHS over £6 billion a year[6]. The most vulnerable in our communities are often impacted the hardest, and 1 in 4 hospitals across the UK are located in areas that exceed World Health Organization recommended limits of particulate pollution from petrol and diesel road transport[7].

To meet our commitments to reach net-zero emissions and protect people from harmful pollution, the Government must be bold and put in place world leading policies that accelerate clean growth and put UK industry at the forefront of the global shift to electric vehicles, whilst accelerating a shift towards alternative, cleaner and more active forms of travel.

As the leading health voice in the UK, the Alliance urges the Government to strive for the highest level of ambition in ending the sale of new petrol, diesel and hybrid vehicles, and also by supporting strong clean air laws in the Environment Bill.

Phase out date

The Alliance supports bringing forward the ban on the sale of new petrol, diesel and hybrid cars and vans from 2040, and urges the Government to go further and bring forward the ban to 2030.

However, in addition to direct exhaust emissions of NO_x, carbon monoxide etc. from internal combustion engine driven vehicles, tyre and brake wear accounts for 60-75% of the total mass of PM2.5 and PM10 emissions from road transport[8]. Therefore a shift to personal electric vehicles is not the silver bullet that will address all transport-related emissions.

3 Office for National Statistics, 2020. Provisional UK greenhouse gas emissions national statistics

4 DEFRA, 2018. Clean Air Strategy

5 Schraufnagel et al., 2018. Air Pollution and Noncommunicable Diseases

6 Brand and Hunt, 2018. The health costs of air pollution from cars and vans

7 British Lung Foundation, 2018. Toxic air at the door of the NHS

8 UK Parliament Air Quality Expert Group, 2019. Non-Exhaust Emissions from Road Traffic

Instead, two shifts in transport use are needed to minimise the impact of road transport on air quality:

1. A move from diesel, petrol and hybrid vehicles to electric and other zero emission fuels.
2. A reduction in overall vehicle use, with increases in shared and active transport, such as cycling and walking.

Impact of transport on air quality

Transport is the largest emitting sector of the UK economy[9], it's therefore critical that we make changes to our transport system.

In 2016 emissions from road transport accounted for 12% of particulate air pollution in the UK, the third largest source[10]. Road transport accounted for 34% of UK nitrogen dioxide emissions in the same year, with the rate of reduction from this sector slowing down due to the increased contribution from diesel vehicles[11].

Research into the impact of the Covid-19 lockdown on emissions found that passenger vehicles – including motorcycles and buses – saw a "60% per drop in emissions as a result of travel restrictions and fewer people commuting to work" [12]. It is therefore reasonable to assume that bringing forward the ending of the sale of new petrol, diesel and hybrid vehicles will accelerate the UK's progress to net zero. In the light of the independent Committee on Climate Change's recent progress report, which showed the Government has missed all but two of 31 key policy milestones[13], acceleration is clearly required.

Impact on different sectors of industry and society

The Alliance strongly recommends that an earlier ban be accompanied by a significant public campaign to encourage members of the public not to simply swap their high emission sedentary transport for zero emission sedentary transport, but to also educate them on the health benefits of a change to more active transport.

There are three positive impacts that flow from this approach:

1. Public health

The Alliance recognises that action on road transport can unlock significant health co-benefits, through increases in cycling, walking and other active transport. Currently a third of adults are extremely inactive – walking for fewer than 30 mins each week[14] – and inactivity as been estimated to be responsible for 17% of all premature deaths in the UK[15].

9 House of Commons, 2019. Clean Growth: Technologies for meeting the UK's emissions reduction targets

10 DEFRA, 2018. Clean Air Strategy

11 ibid

12 Sia Partners, 2020. COVID-19 and CO2 Emissions in the UK

13 Committee on Climate Change, 2020. Reducing UK emissions: 2020 Progress Report to Parliament

14 Townsend et al., 2012. Physical Activity Statistics 2012 (British Heart Foundation)

15 Lee et al., 2012. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. The Lancet.

Meanwhile, estimates of the mortality burden of air pollution are as high as 40,000 deaths a year[16], and, by 2035, the health and social care costs of air pollution are predicted to reach up to £18.6 billion[17].

The impact of an earlier ban on air pollution will deliver significant cost savings, however, a ban and a shift to more active transport will unlock other significant cost savings. Guidance from Public Health England estimated the overall cost of obesity to wider society at £27 billion[18].

We therefore urge the Government not to restrict its cost/benefit analysis to the impact zero emission sedentary transport will have on air quality and public health, but to consider the additional benefits that a switch to active, zero emission, transport can have.

2. NHS capacity

The significant effect that underlying health conditions can have on the severity of illness from Covid-19 has become increasingly clear in recent months. Meanwhile, many of the conditions which increase risk of serious illness from the virus are themselves exacerbated, or even caused in part, by factors related to transport behaviour – such as air pollution and inactivity.

If, as seems likely, we are to live with Covid-19 and the threat of other pandemics for the foreseeable future, it is critical to NHS capacity that the Government facilitate and encourage the shift to active transport, as a means of reducing the prevalence of conditions that exacerbate the symptoms of Covid-19, and contribute to a general improvement in public health.

3. Economic prosperity

Uptake of more active transport will also have a positive economic impact. A recent report by McKinsey, 'Prioritizing health: A prescription for prosperity' asserted that "better health promotes economic growth by expanding the labor force and by boosting productivity" [19]. McKinsey estimated that the economic benefits from the health improvements "are substantial enough to add $12 trillion or 8 percent to global GDP in 2040" [20].

In view of the above impacts we would recommend that an 'Active Travel Scheme' be created to support businesses and households in adopting shared and active transport options. The Scheme should represent a significant increase in active travel spending per capita, which made up less than 5% of the transport budget in 2017[21]. Such a scheme should provide, for example, discounts on car club schemes, access to bikes and support to engage in physical activity, as opposed to grants to buy new vehicles, as has typified diesel scrappage policies of the past.

16 Royal Colle.ge of Physicians, 2016. Every breath we take: the lifelong impact of air pollution

17 Public Health England, 2018. Guidance – Air pollution: a tool to estimate healthcare costs

18 Public Health England, 2017. Health matters: obesity and the food environment

19 McKinsey, 2020. Prioritizing health: A prescription for prosperity

20 ibid

21 UK Health Alliance on Climate Change, 2018. Moving beyond the air quality crisis

Definition of what should be phased out

The Alliance supports the Government's definition of which vehicles should be banned, and warmly welcomes the inclusion of hybrid vehicles. Without the inclusion of hybrid vehicles the demand and therefore rollout of the infrastructure required to support electric and zero emission vehicles is likely to be slower and the progress to net zero not of a sufficient pace to enable the Government to reach it's net zero target by 2050.

Furthermore, a shift to hybrid and even electric vehicles that is not paired with a reduction in overall personal vehicle use will not affect the majority of dangerous roadside PM2.5-10 particulate pollution, which is generated from tyre and brake wear[22]. Emphasis must be placed on more active forms of travel which do not produce such pollutants, such as cycling and walking.

Barriers to achieving an earlier ban and measures by government and others to achieve an earlier phase out

According to the ONS 89% of petrol vehicle use and 50% of diesel vehicle use comes from households[23]. Shifting the UK to zero emission transport will therefore require the public to have confidence to adopt electric and other zero emission vehicles.

Surveys repeatedly identify three barriers to adoption: Cost, range and infrastructure[24]. With costs for electric vehicles (EV) predicted to reach parity with internal combustion engine (ICE) vehicles by the mid 2020s[25], and range gradually improving, we shall confine our remarks to infrastructure. We understand that the energy regulator Ofgem, will be receiving the initial business plans (for the period 2023-2028) from the UK's electricity distribution network operators (DNOs) by Q2 2021[26]. Currently the approach of some of the networks is to invest in the infrastructure to support EV charging infrastructure 'just in time', i.e. in response to growing uptake. However – as stated – EV adoption is hindered by a lack of infrastructure.

We would therefore urge the Government and Ofgem to ensure that RIIO-ED2 incentives do not deter DNOs from investing ahead of need in the provision of electric vehicle charging infrastructure.

The NHS is the UK's largest employer, and accounts for 5% of all road traffic in England[27]. However, the health sector is ahead of the curve in many ways, and through the 'Greener NHS Campaign', NHS England is currently developing a plan for how it will reach net-zero as soon as possible[28]. Transport will undoubtedly play a key role in their plan, and the health service will require support from the Government to achieve this, especially given that the majority of PM2.5 and NO_x emissions are derived from patient travel[29].

22 UK Parliament Air Quality Expert Group, 2019. Non-Exhaust Emissions from Road Traffic

23 Office for National Statistics, 2019. Road transport and air emissions

24 Ipsos, 2020. Ipsos Global Mobility Navigator Syndicated Study

25 Electric vehicles to hit price parity with regular cars in 5 years, expert says [online article]

26 Ofgem. Consultations and decisions (RIIO-ED2)

27 Public Health England, 2018. Reducing the use of natural resources in health and social care

28 NHS England, 2020. Greener NHS campaign to tackle climate 'health emergency'.

29 Public Health England, 2018. Reducing the use of natural resources in health and social care

Summary of our recommendations

1. The Alliance supports bringing forward the ban on the sale of new conventional diesel, petrol and hybrid cars and vans from 2040.

2. The Alliance urges the Government to go further and bring forward the ban to 2030.

3. We urge the Government not simply to facilitate the switch to cleaner forms of sedentary travel, but to use the opportunity to also educate and enable the public on the health benefits of switching to active forms of travel.

4. Between now and the ban coming into force the Government should run an extensive campaign to educate the public about the health benefits of switching to active forms of travel.

5. An 'Active Travel Scheme' should be created to support businesses and households in adopting shared and active transport options. The Scheme should provide, for example, discounts on car club schemes, access to bikes and support to engage in physical activity, as opposed to grants to buy new vehicles, as has typified diesel scrappage policies of the past.

6. The Government not to restrict its cost/benefit analysis to the impact zero emission sedentary transport will have on air quality and public health, but should also consider the additional benefits that a switch to active, zero emission, transport can have.

7. Government and Ofgem should ensure that RIIO-ED2 incentives do not deter DNOs from investing ahead of need in the provision of electric vehicle charging infrastructure.

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