

Open Letter to Tayside & Fife Councillors in support of Climate Mitigation for Public Health

Communication to Greener Practice Tayside & Fife:

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Dear Councillors,

We are a group of healthcare workers writing in support of council interventions to improve public health and mitigate the climate crisis. The hope is that the evidence presented here can help to inform decision making that will be in the interests of us all.

The Climate Crisis

It is now widely recognised that the worsening climate crisis is a public health emergency which will dwarf COVID-19 in terms of impact on our population's health and our economy.¹ Leading medical journals such as the BMJ and The Lancet are reminding us almost every week of our responsibility as health professionals to raise these issues.¹² The public look to nurses, doctors and scientists as those they trust to communicate the facts and so, we have a duty to speak up.³⁴

COVID and Emissions

While COVID-19 monopolised global attention over the past year, the need for climate action becomes increasingly urgent. Despite the global shutdown, emissions fell by only 6% in 2020,⁵ and the UN has warned that progress "falls far short" of what is necessary to avoid temperatures rising. Rising global temperatures result in a raft of adverse health outcomes, such as increased risk of further pandemics and infectious disease, increased migration, poorer nutritional value of food and worsening extreme weather, such as heavy rain and flooding.¹

Inequality

We know that these 'adverse health outcomes' most greatly impact the poorest and most vulnerable parts of society, and further widen health inequalities in Scotland and around the world.⁶ We need to radically reduce carbon emissions to net zero to avoid unmanageable climate change and unacceptable harm to public health.¹ We recognise the work underway to reduce fuel poverty and properly insulate homes which is a key part of reducing health inequalities.

Deprivation

Those living in areas of deprivation have less access to green spaces and are particularly vulnerable to the health impacts of car dependence, air pollution and climate change.⁷ For instance, people living in the most deprived areas of Scotland are less likely to have a driving licence, own a car, or to drive frequently, but are up to 5 times more likely to be killed by traffic collisions than those living in the most affluent areas.⁸

Air Pollution

Dundee has two of the most polluted streets in Scotland,⁹ and with the harm from air pollution in the UK being equivalent to over 40000 deaths a year, this would equate to 473 deaths every year in Tayside and Fife, based purely on population extrapolation.¹⁰ Air pollution causes headache, lung disease, heart disease, stroke, diabetes and cancer.¹¹ Pregnant women and unborn babies are especially vulnerable and there is some evidence of association with learning and behavioural difficulties, obesity, and increased risk of chest infections.¹¹ Mike Berners-Lee calculates that for every mile driven in a built-up area that 3.5minutes of life are lost due to the effects of air pollution.¹²

Transport

Accordingly, we need urgent change in our transport system. These are decisions which rest in your hands as public officials, rather than ours as healthcare workers. Transport remains the single biggest contributor to greenhouse gas emissions in Scotland and has remained stubbornly high despite improvements in other sectors.¹³ It is therefore a crucial priority for action on climate to meet net zero 2045 law, but also to improve health and reduce health inequality.

Low Emissions Zone

We support the low-emission zone in Dundee, and view it as a necessary measure to reduce the harm caused by air pollution to the public. Indeed, we support clean air for all in Tayside and Fife, not just a small part of Dundee. Reduced air pollution and greenhouse gas emissions will improve the health of our people.

Healthy Places

Creating healthy places for people through cleaner air, safe active-travel and access to green and blue space are vital to mitigate the climate crisis and offer huge opportunity to improve the health and inclusivity of our communities. A focus on healthy places will improve the happiness and wellbeing of our communities, and economic activity while reducing the strain on overstretched health services.

Green & Blue Space

We know that exposure to space that is green (vegetation) or blue (water courses) reduces stress hormones like cortisol, which are linked to raised blood pressure, poor mental health, and many chronic diseases.¹⁴ Time in nature can improve sleep and boost the immune system, which reduces susceptibility for infectious diseases, and may even have a preventative effect on cancer.¹⁵¹⁶ Time in a natural environment can be helpful for calming behaviour including helping symptoms of ADHD, and has been shown to improve memory.¹⁷ There is evidence too, that greener schools have higher test scores, even adjusting for family income.¹⁸ Nature experience is also associated with improved social cohesion, resilience, and a sense of purpose.¹⁹

Opportunity for Health

Further to the health benefits from green space, the co-benefits to health and wellbeing from getting people out of cars and walking, wheeling, running, or cycling are enormous. These include responding to our obesity and diabetes crises; improving mental health through increased exercise and exposure to nature; and reducing air pollution which in turn reduces rates of asthma, lung cancer, strokes, heart attacks, and likely dementia too.²⁰

The Spaces for People Programme

As one of the few truly positive changes to emerge during these difficult times, 'Spaces for People' made walking, wheeling, running, and cycling safer during the COVID-19 pandemic. We are aware that these have been designed as temporary measures and would urge you to improve, extend, and connect them, to create a comprehensive and safe active travel network in all areas.

Design for Health

Tayside and Fife are designed for cars, but this needs to change. Even electric cars have particulate matter emissions from brake dust and tyre wear that have harmful air pollution effects.²¹ We need to transform our regions to make active travel an easy, safe, and appealing option for everyday journeys. This must be an inclusive process which prioritises accessibility for those with disabilities.

Safe Active Travel Networks

If active travel is to be an appealing option, we need connected networks that provide safety for the whole journey, rather than just a short stretch. This is especially true for families with children, disabled people, and women - who are least likely to use active travel at present, but who report they would if it were safer.²² Safety at junctions is a particular concern, with the new infrastructure often ending at junctions leaving people on bikes adrift amidst fast-moving traffic. Soft segregation measures with narrow paths reduce accessibility for those with disabilities. We welcome new segregated lanes but are disappointed to see some new lanes which are advisory rather than physically segregated, as lanes with painted lines only (advisory) have been associated with a 30% *increased* odds of injury.²³ We support projects - such as the new active travel project in Arbroath - which strive to achieve an integrated active travel system.

Biodiversity

Biodiversity is essential for human life, yet we are amidst a mass extinction and the UK is the least effective G7 member at protecting nature.²⁴²⁵²⁶²⁷ Adaptation is required to cope with increasing temperatures, increased rainfall, and the risk of flooding as climate change worsens. This adaptation can be done in combination with access to greenspace and improved biodiversity to improve the health and wellbeing of the public and reduce risks to health and finances.

Progress is Slow

We acknowledge the steps that councils have started to make towards improvement, yet progress still feels painfully slow in comparison to what is required. With the eyes of the world on Scotland at COP26, we hope that we can showcase significant change that we are truly proud of. We as healthcare workers have the knowledge and evidence about what is needed to improve health, but we need you, the decision makers to facilitate this. The reward is healthy, happier people, reduced illness with the added benefits of reduced costs associated with illness on the health system,²⁸ and other costs such as absence from work.

Responsibility

As Councillors, you hold the keys to these particular public health issues. It is our responsibility as health professionals to highlight the importance of these. Please prioritise clean air, access to green and blue space, and infrastructure for safe walking, cycling, running, and wheeling, and help us protect the health of our people. There is strong evidence of public support for climate mitigation, and there is a multitude of resources available to you to guide on how to do this, referenced at the end of this letter.²⁹³⁰³¹³²³³³⁴³⁵

Many thanks,

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