

Cynulliad Cenedlaethol Cymru
Pwyllgor yr Economi, Seilwaith a
Sgiliau
Ddatgarboneiddio trafnidiaeth
EIS(5)DT19
Ymateb gan Public Health Wales

National Assembly for Wales
Economy, Infrastructure and Skills
Committee
Decarbonisation of Transport
Evidence from Public Health Wales

About you

Public Health Wales

Your opinion

- 1. Are the transport emissions reductions targets, policies and proposals (set out in Prosperity for All: A Low Carbon Wales) achievable and sufficiently ambitious?**

Partly

1.1 Please outline your reasons for your answer to question 1

The basis of the response to this question, and the three that follow, is a public health perspective that transport in Wales needs to be based mainly upon public transport and active travel, with limited personal car use. Specifically in relation to decarbonisation of transport, while electric cars could make a contribution to decarbonisation, they are not a panacea. This is particularly important when considering infrastructure developments and whether electric car infrastructure will support, or hinder, public transport and active travel it.

Taking the transport specific elements of Prosperity for All first

Our attitudes to, and expectations of, transport are likely to change in ways that we cannot currently anticipate. With the geography of Wales and the needs of sparsely populated rural communities, cars will remain important, but new powers over buses and the rail franchise mean that we can take a more joined up view across all types of transport, enabling us to reduce our carbon emissions, promote active travel, and get the most from our spending on public transport (page 21).

We welcome the commitment to a more joined up view across all types of transport; this will support public transport and active travel and is critical to reducing car use and decarbonising transport in Wales. New powers over buses and trains are welcomed. Mass modal shift needs a co-ordinated system that crosses the geopolitical boundaries that are often of little relevance to the ways that people live, work and play. Integrated ticketing and linked bus and train services can only support improved uptake of public transport and active travel and there is also evidence that one of the most

effective ways to improve bus services is with effective, efficient, high quality, accessible rail services.

We acknowledge that while there are challenges to travelling by public transport in rural areas, almost all of our rural towns and villages were established long before mass car travel was. In addition, road traffic crashes are the most direct harm of car travel and disproportionately affect rural communities.

Electric cars (ECs) offer some gains in terms of decarbonisation, but are still inherently harmful to public health in the way that internal combustion engine cars (ICE-Cs) are. In addition, electricity generation in Wales, the power source for ECs, is yet to be decarbonised (see quote below).

... the power source for electricity for ECs may still create emissions, particularly if generated in coal fired power stations. What changes is that while ICE-Cs pollute near the ground where they are being driven, ECs pollute where the power is being generated, at whatever height the power station discharges¹⁻³. Obviously, with a switch to cleaner, greener methods of producing power, this becomes less of a problem. It also means that for any given EC at any given point in time, EC power being generated could be very clean, for example, if generated with wind power, but it could be very dirty, if coming from coal power¹⁻³. Estimates have also suggested that if 90% of the current UK ICE-C fleet is switched to EC, an additional 18GW of electricity would be required⁴. The new nuclear power station being developed at Hinckley Point will generate 3.2GW⁵. In addition, in some areas, the grid is already struggling to power existing and planned developments⁵; how it will accommodate the demands of a switch to ECs is not clear. Issues with the lack of progress in decarbonizing electricity production has been highlighted as limiting the prospects of potential emission, climate and air quality benefits of electric cars⁶.

Jones, S.J. (2019). If electric cars are the answer, what was the question? British Medical Bulletin,

<https://academic.oup.com/bmb/advancearticle/doi/10.1093/bmb/ldy044/5274656?searchresult=1>

(1) Muller N, Mendelsohn R. Measuring the damages of air pollution in the United States. *J Environ Econ Manage* 2007;54:1-14.

(2) Muller N, Tong D, Mendelsohn R. Regulating NO_x and SO₂ in Atlanta. *BE J Econ Anal Policy* 2009;9:2, Article 3.

(3) Holland SP, Mansur ET, Muller NZ, et al (2015). Environmental benefits from driving electric vehicles. NBER Working Paper Series. National Bureau of Economic Research.

(4) National Grid (2017). Future Energy Scenarios. National Grid.

(5) IWA (2018). Re-energising Wales. Decarbonising Transport in Wales. https://www.iwa.wales/wp-content/uploads/2018/06/IWA_Decarbonising_Transport-1.pdf (4 October 2018, date last accessed)

(6) UK Energy Research Centre (2016). Review of UK Energy Policy, A UKERC Policy Briefing. <http://ukerc.ac.uk/news/ukerc-calls-for-urgent-action-on-uk-energyduring-this-parliament.html> (22 August 2018, date last accessed).

We will:

- introduce the new National Infrastructure Commission for Wales to strengthen the governance and strategic planning of major infrastructure investments.

We welcome the notion of a National Infrastructure Commission for Wales, but recommend that health partners are included in this commission and that health is a guiding principle in any assessment and decision making process.

- require co-ordinated planning of new homes, facilities and infrastructure by local authorities, health bodies, housing associations and other key partners.

We welcome this requirement but recommend that infrastructure is prioritised in these developments. At the moment, infrastructure often comes last, meaning that people living in the homes and using the services have already embedded their behaviours (usually car travel) before the options of public transport and active travel are available. This also then means that when an infrastructure assessment is carried out, public transport and active travel risk being deemed inappropriate and unnecessary because people use cars. If decarbonisation is to be achieved, public transport and active travel infrastructure should be the priority in any new development.

- deliver a single National Transport Plan supporting improvements to all the transport infrastructure for Wales, balancing travel needs with the aim of reducing emissions.

Again, we welcome this, but again recommend that health partners are included in this commission and that health is a guiding principle in any assessment and decision making process. This will also help to ensure that the travel needs of everyone are considered.

- create an integrated public transport network, covering the rail and bus networks, which is safe, reliable, affordable and low carbon.

As stated above, the integration of buses and rail is, we believe, important to achieving greater modal shift towards public transport and active travel and developing a transport network that promotes and protects, rather than harms health. In addition, again, as above, geopolitical boundaries should not be determining which services are offered and the areas that they serve. And, also as above, evidence suggests that the bus services are enhanced by a high quality rail network.

- deliver the South Wales Metro, underpinning the region's economic development, and spreading jobs and prosperity through more rapid transport, and ensuring that all new and significant developments in the region are sited within easy reach of a station.

As with the Commission highlighted above, we recommend that there is a much stronger link between the South Wales Metro and health to the extent that health partners are included in the process and that health is a guiding principle in any assessment and decision making.

It is also important to decouple the notion that that economic growth in Wales is associated with speed of travel. Growth needs a happy, healthy population, served by a transport system that promotes and protects health, with public transport and active travel, rather than harming it. This is consistent with "Healthy and Active" being a key theme of Prosperity for All; a decarbonised transport system, based on active travel and public transport can support this ambition.

- continue to develop the North Wales Metro and deliver transport improvements that complement it.

As above

- deliver a significant improvement to the M4 around Newport, as well as enhancements to the A55, the A40 in West Wales and other trunk roads.

Decarbonising the transport system means moving away to greater public transport and active travel use and less car travel. The reality is that if significant public transport improvements are delivered that make public transport a viable alternative to car use, then while road enhancements will still be needed, the extent to which they are needed will be far lower.

- deliver fast reliable broadband to those parts of Wales not currently served by the market.

Reducing unnecessary travel and offering alternatives to travelling, particularly commuters who may be able to work flexibly and / or not travel to an office every day, needs fast reliable broadband.

- work with the mobile industry and OFCOM to deliver usable and reliable mobile phone connectivity across Wales.

As above

- help people and businesses make the most of digital connectivity by investing in digital skills and through our business support programmes.

As above

- support increased use of low emissions vehicles, through investing in a network of charging points.

While we welcome efforts to reduce emissions, we are keen that ECs are not seen as a panacea for achieving this. Low emission vehicles make some contributions to decarbonisation, but they still harm health in almost all of the ways that ICE-Cs do. There are small gains in NO₂ emissions, but particulate matter is still produced. We are also keen to ensure that the charging point infrastructure does not hinder anyone walking or cycling. To date, charging points have often occupied pedestrian and cyclist space

2. Is the Welsh Government's vision for the decarbonisation of transport sufficiently innovative, particularly in terms of advocating new technologies?

Don't have a view

2.1 Please outline your reasons for your answer to question 2

The critical point is that "innovative" does not necessarily need new technologies. It may be that being innovative needs solutions that do not require technology, but rather people.

The following is taken from a recent publication by the author of this response:-

How do we mitigate the effects of climate change?

Transport accounted for 23% of greenhouse gas emissions in 2010 and, even with improvements in vehicle efficiency, is one of the fastest growing sources of global emissions¹. In 2007, the Intergovernmental Panel on Climate Change (IPCC) highlighted the importance of mitigating the effects of private vehicles with improved fuels, including biofuels, to reduce levels of fine particulates, other traffic related pollutants and greenhouse gas emissions². Electric Cars (ECs) are a part of this technological revolution. However, such technology heavy solutions are not necessarily good for health or health equity³, not least because there are few, if any, additional benefits for traffic injuries, noise or physical activity that cannot result from shifting from private cars to efficient public and non-motorized transport³.

Furthermore, encouraging EC use is only likely to increase car use and this will soon offset the technological benefits⁴. In a recent article, the IWA state that ECs could make an important contribution to decarbonization but emphasize the fact that they are not a panacea⁵.

Jones, S.J. (2019). If electric cars are the answer, what was the question? British Medical Bulletin,

<https://academic.oup.com/bmb/advancearticle/doi/10.1093/bmb/ldy044/5274656?searchresult=1>

(1) Sims R, Schaeffer R, Creutzig F, et al. Transport. In: Edenhofer O, Pichs-Madruga R, Sokona Y, et al (eds). Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press, 2014, 599–670.

(2) IPCC (2007). Working Group III. Fourth assessment report. Cambridge University Press.

(3) WHO (2012). Health in the Green Economy. www.who.int/hia/green_economy/en/index.html.

(4) European Environment Agency (2010). Transport Emissions of Air Pollutants (TERM 003). European Environment Agency. www.eea.europa.eu/data-and-maps/indicators/transport-emissions-of-air-pollutants/transport-emissions-of-air-pollutants-2.

(5) IWA (2018). Re-energising Wales. Decarbonising Transport in Wales. https://www.iwa.wales/wp-content/uploads/2018/06/IWA_Decarbonising_Transport-1.pdf (4 October 2018, date last accessed)

What is needed is population wide modal shift to travelling on public transport and by active travel. Doing this needs all people to feel safe, that the system is reliable, affordable, timely and relevant to them – it takes them where they want to go when they want to go there. This may not be achieved with “new technologies” or apps, but by well-known solutions such as more buses and trains and protected walking / cycling routes. There is evidence to suggest that new technologies may actually deter significant population groups from using a service

3. What action is required, and by whom, to achieve the targets, policies and objectives?

Making stronger links between public health and transport at policy level in Wales would help to ensure that the decarbonisation of transport is achieved in a way that supports health promotion and protection. Transport has significant effects on health, from direct effects of road traffic injuries through to enabling people to access high quality jobs and education, both of which have longer term effects on health. To date, transport policies have developed with little consideration for health, meaning that the potential to narrow or create inequalities has often been missed and the need to ensure that vulnerable groups can travel safely is overlooked. Cars have been the

focus of transport policies for many years. Prioritising public transport and active travel in the transport system is an important part of decarbonisation.

4. How should the new Wales Transport Strategy reflect the actions needed to decarbonise transport?

By prioritising health and wellbeing, and making stronger links between public health and transport at policy level in Wales, the Wales Transport Strategy will reflect the actions needed to decarbonise transport.

The Strategy should also seek to decouple the notion that economic growth in Wales is associated with speed of travel. Growth needs a happy, healthy population, served by a transport system that promotes and protects health rather than harming it. This is consistent with “Healthy and Active” being a key theme of Prosperity for All; a decarbonised transport system, based on active travel and public transport can support this ambition.

5. Do you have any other points you wish to raise within the scope of this inquiry?

Planning Policy Wales 10 has set out the importance of transport infrastructure in relation to development and offers a welcome rebalancing of the link between health and development to support active travel and public transport use. This will support the decarbonisation of transport in Wales.

Reducing unnecessary journeys is important to achieving decarbonisation targets. It is particularly important to cut car use for short journeys that could reasonably be made by public transport, on foot or by bike. However, it is important to recognise the difference between changing the way in which we travel and reducing unnecessary journeys (e.g. commuting every day when technology allows for home working a day a week) and “minimising the individual’s need to travel”. Socialising with others, whether on the journey itself, or at the end of the journey, is an important part of promoting good mental health.

A transport system based on personal car travel has created significant health harms that we cannot quantify. An inclusive, de-carbonised, transport system, based on public transport and active travel, that seeks to promote and protect health, rather than harm it, can help to achieve this objective. Community severance is often associated with transport, particularly cars, and contributes to social isolation and reduced social cohesion. This objective is important to improving health and will be significantly contributed to by a decarbonised transport system that is based on public transport and active travel.

Learning to drive and owning a car is extremely expensive, yet in many parts of Wales, the poor public transport and active travel networks mean that car ownership is the only way to access high quality employment and education.

A decarbonised transport system that is not car focussed will help to achieve this objective.

Major cities of the world are now realising that “modern and connected” needs public transport and active travel infrastructure rather than car focussed approaches. This needs to be the case in Wales too.

As stated above, car domination of cities is now being curtailed and the First Minister has declared a climate emergency. Decarbonisation of the transport network with rapid improvements to the public transport and active travel infrastructure will help to achieve this.

We believe that the transport infrastructure needs to support life, not just work, and promote and protect health with a decarbonised transport infrastructure, based around active travel and public transport, which is fair for everyone.

We welcome a regional approach in relation to transport. By delivering cross boundary public transport services, reducing car dependence and therefore decarbonising transport, while supporting access to work and education, is more likely to be achieved more quickly.

The current car based transport system has created significant health harms, including encouraging physical inactivity and contributing to community severance. By decarbonising the system through reduced car focus and encouraging public transport and active travel, government will improve local environments and make it easier for people to exercise.

As stated above, being able to access health and care services (e.g. GPs) through a decarbonised public transport and active travel based transport system is likely to mean that more people use the most appropriate service at the right time. This is likely to reduce the unscheduled care demand and make it easier to deliver a high quality NHS.

As stated above, the current car based transport system has encouraged physical inactivity and contributed to community severance. By decarbonising the system through reduced car focus and encouraging public transport and active travel, government will improve local environments and make it easier for people to exercise.

We welcome this recognition that services need to be delivered closer to home and the importance of communities and the environment to health and well-being. A decarbonised transport system, that encourages public transport and active travel, is important to achieving this.

We recommend that infrastructure is prioritised in new developments. At the moment, infrastructure often comes last, meaning that people living in the homes and using the services have already embedded their behaviours (usually car travel) before the options of public transport and active travel are available. This also then means that when an infrastructure assessment is carried out, public transport and active travel risk being deemed inappropriate and unnecessary because people use cars. If decarbonisation

is to be achieved, non-car based infrastructure should be the priority in any new development.

We welcome the commitment to services that are accessible and believe that public transport and active travel are important parts of this. This will support the de-carbonisation agenda but will also help to improve service quality because people access the appropriate service at the appropriate time, reducing unscheduled care demands. New technologies are important in delivering services, but again, as stated elsewhere, socialising and personal contact are also important for good mental health.

We welcome the proposals for independent living and easily accessible public transport but believe that this needs to be the case for the entire population of Wales.