

Aberystwyth University

Rurality, sustainability, and health

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Published in:

Journal of Transport & Health

DOI:

[10.1016/j.jth.2023.101571](https://doi.org/10.1016/j.jth.2023.101571)

Publication date:

2023

Citation for published version (APA):

Musselwhite, C. (2023). Rurality, sustainability, and health. *Journal of Transport & Health*, 28, [101571].
<https://doi.org/10.1016/j.jth.2023.101571>

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Journal of Transport & Health

journal homepage: www.elsevier.com/locate/jth

Editorial

Editorial - Rurality, sustainability and health



There is a growing and much needed focus on bringing together sustainability and health. Approaches such as One Health and Planetary Health bring together animal, human and environmental health, suggesting sustainability and health cannot be looked at in isolation from one another. When examining transport within these paradigms, mobility means the spatial context cannot be ignored and, for example, what happens in an urban area may be very different to that in a rural area, and this is explored briefly in a mostly UK context in this paper.

Getting out and about and connecting to the things people want and need to do is more difficult in rural compared to urban areas. Public transport journeys can take twice as long to significant destinations in rural areas than they do in urban areas (Mackett, 2014). Public transport routes tend to be longer, serving fewer potential passengers per route kilometre, which means that costs are higher and revenues lower (Mackett, 2014). As a result, public and community transport is variable in provision and many rural areas are characterised by high levels of the use of private vehicles for journeys, leading to increased air and noise pollution and associated health issues. Access to work, leisure, healthcare, services and shops takes longer and if not using a private vehicle then may incur additional barriers such as poor infrastructure, changing services, high costs etc. As an example, in a study in Indiana, United States, rural area residents incurred a significantly higher average cost to reach healthy food, especially when not using a private vehicle, compared to those in urban areas (Losada-Rojas et al., 2021).

Poor transport in rural areas can widen inequalities, with the needs of certain groups, including older people, women and children, not being met by current provision resulting in isolation for such groups. As an example, rural areas in the UK are typically characterised by older populations. Older people who may no longer wish to, or be able to, drive, face greater inequality as a result of the car-centric nature of such areas, leading to risk of greater isolation and difficulty in accessing the things they need, for example healthcare, services and shops and meeting friends and family and following leisure pursuits (Graham et al., 2018; Parkhurst et al., 2014).

Policies, innovation and intervention aimed at climate change mitigation may not just fail to improve the health of those living in rural areas, they can negatively impact on health. Sustainability arguments in transport planning, for example, may encourage the locating of business and housing closest to existing larger settlements, in locations better served by public transport, and more accessible by walking and cycling. This may be of benefit to the health of people living in towns and cities, but at the expense of people in rural areas who have to travel to such destination using cars and other motorised private vehicles.

Speed limit reductions on residential roads (as a recent agreement in Wales to lower the default speed limit to 20 mph) could have huge health benefits on citizens, including reducing injuries and collisions, reducing air pollution, increasing active travel and reducing community severance (See Jones et al., 2022), but this would mainly fall in urban areas. Rural areas have more through trunk-roads which people live on, where speeds are less likely to be reduced, and coupled with poorer infrastructure for walking and cycling the health benefits of slower traffic are less likely to be realised.

With regard to electric vehicles as a sustainability panacea, the UK Government Policy, Taking charge: the electric vehicle infrastructure strategy (HM Government, 2022), intends to end the sale of new petrol and diesel vehicles by 2030 and for all new cars and vans to be fully zero emission at the tailpipe by 2035. Despite potential to reduce air pollution at site, other health burdens of motor vehicles in terms of death and injuries from collisions, reductions in active travel and community severance (along with some continued noise pollution) continue to be an issue. Additional issues in rural areas including longer journeys by vehicles and the lack of charging points (there are more charging points in London, than in the rest of the UK combined, with the majority of these being in towns and cities – see County Councils Network, 2021), means the shift to electric vehicles may lag behind urban areas.

As another example, traditional approaches to air quality management have focused on the hot spot locations where exceedances of UK Air Quality Objectives exist, resulting in Air Quality Management Areas mainly being in urban locations. New WHO (2021) Air

<https://doi.org/10.1016/j.jth.2023.101571>

Available online 24 January 2023

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Quality Guidelines have substantially reduced the health-based thresholds for traffic related air pollution (NO₂ and PM₁₀) and the UK government is exploring new models of air quality management that take a wider Population Exposure Reduction Targets (PERT). These policy changes increases the importance of focusing on rural populations and the need for a better understanding of the transport at the rural/urban interface to generate policies that create enabling environments so that greener and healthier transport choices become the social norm.

The “penalty of distance” in rural areas is not always overcome with “virtual mobility” – the meeting of mobility needs through the use of the internet and associated IT. Rural areas can suffer poorer mobile communication, with fragmented internet connection, making such technology more difficult to be successful in rural areas.

What we are seeing here is that when governments introduce sustainable policy and associated implementation, there is often little regard for spatial or geographical context within such policy and interventions. It may be the case, that since the power around decision making is often situated in urban areas, policies tend to assume an urban focus. It may also be the case that there is an urban-centric view that the impact of transport on health is worse in urban areas due to the compact nature of people, activity and mobility, which is not the case, impacts may be different, but not necessarily better in rural areas, as outlined above. Debates continue as to how far policies need overhauling to suit rurality, whether rural areas are qualitatively different for example, or whether they simply need a different scale or adapting to a rural context. Although in this paper, the focus has been on rural areas, peri-urban and suburban areas are also under-researched with regard to the impacts of transport and health within a wider sustainability agenda. To conclude, the age-old adage is important here, we simply need more research, in this case addressing different spatial contexts linking transport, sustainability and health.

Acknowledgments

I am grateful to Prof. Enda Hayes, Director, Air Quality Management Resource Centre, University of the West of England and Prof. Mike Christie, Business School, Aberystwyth University for discussions around research proposals we have been having which has led to the thinking included in the editorial above.

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