Public transport in towns and cities

House of Lords Built Environment Committee Inquiry

Submission from the Population Health Interventions Programme, MRC Epidemiology Unit, University of Cambridge

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The MRC Epidemiology Unit is a department at the University of Cambridge. It works to improve the health of people in the UK and around the world through understanding obesity, type 2 diabetes and related metabolic disorders, and finding strategies for their prevention. www.mrc-epid.cam.ac.uk. Within the unit, the Population Health Interventions Group investigates the potential to improve the health of whole populations – irrespective of individual disease risk – by altering fiscal, physical or social environments to shift activity and diet patterns. https://www.mrc-epid.cam.ac.uk/research/research-areas/population-health-interventions/

Reflecting on our expertise, it focuses on questions 1-3 relating to travel patterns and influences of population travel behaviour rather than policy implementation.

1. What are the current and anticipated levels of public transport demand and capacity in towns and cities in England? What influences public transport patterns? How does the choice of public transport vary across different demographic groups?

1.1 As may be expected, data from the 2020 National Travel Survey (NTS)[1] shows a sharp decline in the number of trips taken and miles travelled compared to 2019. While the decline was expected due to government guidance to avoid public transport to reduce viral transmission, trends from previous years show a gradual decline in bus travel and increases in rail travel.

1.2 In our previous evidence submission for the long term impact of the pandemic on towns and cities[2] we draw attention to the current NICE guidance highlighting the importance of public transport for cardiovascular health[3] with other evidence suggesting potentially a lower rate of all-cause mortality, cardiovascular disease mortality and reduced rate of incident cancer than those using private motorised vehicles for commuting.[4] Our evidence demonstrates that on average 20% of the journey to work for those travelling by bus, park-and-walk or park-and-cycle, is spent in physical activity of at least moderate intensity thus benefiting the health of public transport users.[4] Over the course of a week, this equates to almost half the recommended level of physical activity.

1.3 Evidence suggests that the built environment influences public transport travel patterns, particularly the quality of infrastructure and accessibility of public transport stops. Research suggests that people who live in high density or well-connected areas with relevant destinations, for example shops and workplaces use public transport more often.[5, 6]

1.4 Public transport use is also influenced by individual values and attitudes, including but not limited to attitudes and values relating to flexibility, predictability, travel cost and time.[6] Personal considerations such as air pollution exposure and health benefits also influence travel choices.[6]

1.5 Public transport provides important access to amenities and services for disadvantaged groups and areas, and evidence that deprived populations use public transport and walking more common as a commute mode in more deprived populations compared to less deprived.[7] Indeed evidence suggests that car ownership, which is socio-demographically patterned, is one of the biggest factors that influence public transport use, with people who own a car less likely to use public transport.[5]

2. How might public transport patterns shift in the next 10 years? What impact could digitalisation and the COVID-19 pandemic have on travel patterns in the long term?

2.1 The Covid-19 pandemic has had a major impact on public transport ridership levels, and disrupted the provision and operations of services. Recent data[8] shows that levels of private car use have now returned almost to the same levels as before the pandemic but public transport use is still markedly lower.

2.2 Evidence suggests that there may now be a change in the profile of public transport users compared to pre-pandemic.[9] For example, a survey by the Department for Transport (conducted May/June 2021) found that there was an increase in the proportion of young adults using public transport (e.g. 16-34 years olds increased from 39% to 59% of train users), whereas middle-aged and older groups and those with a disability accounted for a smaller proportion of users than pre-pandemic. [9]

2.3 It is possible that individuals will move from using public transport to private vehicles due to an enduring perceived risk to health and changes in habits. Public transport is often part of a multi-modal trip, including walking or cycling. Potential improvements such as those outlined in the NICE guidance on physical activity and the environment,[3] could focus on the experience of the journey.

2.4 Commuting activity has changed as a result of government social distancing guidance and facilitated by access to technology. In the DfT survey[9], many of those employed expected to travel to their workplace less often than before the pandemic. It is likely that there may be a persistent preference for remote or hybrid working beyond the pandemic which could impact the frequency of public transport usage. However, this may vary across sub-groups of the population, with many low income workers and young people being less likely to be able to work from home [7, 10].

2.5 Changes in how people travel to purchase food and supplies may have been impacted in the longer-term by the pandemic, with a new familiarity and reliance on digital online delivery services and using shops closer to home than before the pandemic. [9,10]

What can be done to improve connectivity across public transport modes? How could better integration be delivered in urban areas outside London?

3.1 Public transport is often one part of a multi-modal trip, with other transport modes often used to connect public transport hubs to journey origins or destinations. It is important to consider that the factors influencing each mode of transport in a trip can be different.[6] For example, the factors influencing walking include safety, neighbourhood attractiveness and outdoor spaces. Improvements targeting these factors are outlined in NICE guidance. For example, recommendations suggest ensuring new or refurbished footpaths and cycle paths

link to existing routes and destinations.[3] The NICE guidance on physical activity and the environment provides extensive recommendations for enhancing routes to facilitate walking, cycling and public transport use as part of a longer journey.

3.2 Public transport use is often associated with not owning a car or low levels of car ownership and approaches to discourage car use or car ownership can be used in tandem with approaches to promote public transport use. Some approaches include addressing the availability and cost of car parking or limiting motorised vehicles in high density areas.[6]

References

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