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Potential impacts of the Covid-19 pandemic on the future of travel demand

The Covid-19 pandemic has dramatically cut the amount people travel, with possible long-term effects on demand. Greg Marsden of the University of Leeds says civil engineers need to reconsider how they plan future transport infrastructure accordingly.

The global introduction of lockdowns in 2020 in response to the Covid-19 pandemic led to an unprecedented shift in travel behaviour. In most countries only essential travel was allowed with small amounts of localised exercise. What can civil engineers learn from this and how will the adaptations made by society during the pandemic impact their future needs for travel?

The first thing to observe is that it is not just the past few months which provide a learning opportunity, but the many months and possibly years ahead where people will need to continue to practice social distancing. The impacts are profound and start with the activities people take part in, the reasons why they travel.

Pubs, restaurants, cinemas, shops, employment sites, gyms, schools: none will be able to accommodate people in the numbers they used to. In Milan and Paris, immediately after the relaxation of restrictions on such places, traffic congestion levels increased 5−7% over the preceding week but still remained a half of 2019 levels (Tom Tom, 2020). People will all be travelling less often for many things for a considerable period to come.

Productivity benefits of non-travel

In adapting to the big shift, civil engineers need to understand not just what people are not doing but what they do instead. This has been very evident with home working, for the part of the population that can do this. Roles that were, 'not to be worked from home' have shifted overnight to, 'must be worked from home'.

Innovations and experience in webinars and new ways of interacting are, in some cases, enhancing accessibility. Face-to-face meetings are not dead, but there will be a step change in how work gets done. This is particularly important to thinking about future infrastructure decisions. The economic case, previously based on the time savings from people who travel, may look quite different given the productivity benefits of non-travel now being recognised in some parts of the economy.

There are also some huge questions to be addressed around public transport. Social distancing regulations are limiting operational public transport to between 10% and 20% of capacity. The UK government has even declared it is people's 'civic duty' to avoid using public transport so that capacity is there for key workers who have no other way of getting there. Will demand ever return to previous levels in the light of the shifts in work patterns or because of a loss of trust or an extended period of months where people have to find another way of doing things?

Mode shift to walking and cycling

At a local level the response in the UK to the loss in bus capacity has been a move to provide temporary capacity for walking and cycling. If these are well used, then the demands for this shift to be made permanent will be loud. Greater Manchester reported a 42% increase in cycle use over pre-lockdown levels (Sustrans, 2020).

A final observation would be that the future of travel demand as the world experiences Covid-19 will be shaped by the policy actions taken. Funding for public transport must keep it viable in the medium term for when it is safe to use again in large numbers. On infrastructure, rather than building more to stimulate demand as was done after the 2008 global financial crisis, any stimulus

attention should be focused on road maintenance and the upgrading and renewal of towns and cities and cycling and walking infrastructure.

Society is in the middle of proving that parts of the economy do not need to travel anywhere near as much to keep functioning. Civil engineers should not be building back presuming it does.

References

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[Marsden] In a post-Covid-19 world, people are likely to commute less and cycle more – with consequent changes on infrastructure demand