

7 The well-being lens and the post-COVID context: A real-world experience

This chapter places the recommendations in this report in the context of the COVID-19 crisis and its aftermath. It provides examples of measures that were undertaken during the lock-down and post lock-down periods (e.g street re-design) and discusses opportunities and challenges going forward.

The transport sector experienced unprecedented change as a result of the social distancing measures and reduced economic activity triggered by the COVID-19 crisis. With lock-down came important traffic reductions (e.g. passenger surface transport dropped by 50% on average compared to 2019 (Le Quéré et al., 2020_[1])), which in turn led to an important temporary¹ reduction in air pollution (e.g. NO_x, NO₂, and PM_{2.5} and PM₁₀ emissions (Vincendon, 2020_[2]; da Silva, 2020_[3]; Mahato, Pal and Ghosh, 2020_[4])) as well as greenhouse gas emissions (Le Quéré et al., 2020_[1]). At the same time, less than proportional improvements in traffic fatalities (ITF, 2020_[5]) showed that if not accompanied by proper street redesign and speed regulation (among other complementary actions), a reduction in traffic will not, on its own, solve the road safety challenge (Buckle et al., 2020_[6]). The recent COVID-19 crisis has also highlighted the need for decision making in transport to take account of the risks of shocks such as disease outbreaks as well as the (possibly) more frequent disruptions due to, for example, floods and snowstorms.

The health crisis provided a number of lessons and opportunities for advancing in the direction of systemic change (or reversing car-dependency), mainly by facilitating the shift in thinking to reverse induced demand and emphasising the value of active modes. However, it also brought challenges, by adding to the already existing barriers for shifting away from sprawl and making more difficult the mainstreaming of shared modes and trips, which, as has been argued in this report, has an enormous potential to reverse the erosion of sustainable alternatives to car use.

This chapter summarises some of the opportunities and challenges brought about by the COVID-19 crisis. It discusses ways forward to build on the opportunities and overcome the challenges to advance change towards better functioning transport systems.

7.1. The opportunity: Increased awareness of the power of street redesign

The COVID-19 crisis provided interesting lessons and opportunities on the use of active modes of transport and the management and reallocation of public space (Buckle et al., 2020_[6]). A number of cities engaged in the reallocation of road space for active transport modes (walking and cycling) and micro-mobility vehicles (such as e-scooters and e-bikes). By doing this they showed that such modes can effectively help to increase the resilience of transport systems by allowing travel in the absence of, or with reduced, public transport services (Schwedhelm et al., 2020_[7]; Bert et al., 2020_[8]). This has been possible especially in those cities that have created proximity between people and places, and thus where the scope for these modes is greater.

The health crisis also emphasised the opportunity for reallocating space to other uses besides transport. Traffic reductions during confinement made it ever more evident that an over dimensioned amount of public space is occupied by cars. This has led a number of local governments to reassess not only the current allocation of road space between different modes of transport, but also between transport and other uses (e.g. space for car parking vs. space for commercial or recreational activity) (ITF, 2020_[9]; Buckle et al., 2020_[6]).

Actions during the health crisis also illustrated how short- and long-term goals can be aligned via public space reallocation and redesign (ITF, 2020_[9]). Liberating and reallocating space from car use helped cities to better adapt to the need for social distancing. At the same time, these changes have opened opportunities for cities to become more attractive (e.g. allowing to integrate more green space), and fostering economic activity (e.g. expanding available surface area for businesses-such as new terraces) (Perk et al., 2015_[10]). Savills (2016_[11]) finds that reconfiguring streets can also liberate space for increasing housing supply in central areas (see more in Chapter 3).

(Glaser and Krizek, 2021_[12]) reviewed 55 of the United States' largest cities to assess how municipalities' emergency responses could potentially trigger a transition to sustainable urban mobility. The COVID-19 pandemic altered the use of street space in many cities that implemented emergency response measures

to allow individuals to walk, bike and travel to and from essential business while keeping a safe distance. “Transition experiments” showcase how alternative systems to vehicle transportation might gain traction due to the conditions created by COVID-19. (Glaser and Krizek, 2021^[12]) found that a number of “innovator” cities utilised the pandemic to build street networks and test new forms of streets.

7.2. The challenge: The risk of exacerbating private transport and sprawl

Increased awareness of the effects of street redesign is key to move towards disappearing traffic (the transformational change see Chapter 3). Nonetheless, shifting away from car dependency also requires systems to shift away from sprawled territories towards those that create proximity between people and places (Chapter 4), as well as from eroded towards integrated networks of shared and sustainable modes (Chapter 5).

The COVID crisis has raised important concerns about the viability of cities— especially compact cities — and the mere idea of proximity. Concerns that high densities can be a factor in the rapid spread of viruses such as COVID-19 has raised unease about the desirability of dense and compact urban areas among many groups (Hernandez-Morales, Oroschakoff and Barigazzi, 2020^[13]). Although dense environments (as currently designed) may lead to negative consequences such as air pollution or congestion; these environments also have numerous benefits, such as infrastructure investment efficiency, access to a diversity of local services, enabling conditions for technological development and innovation, and low travel costs, energy consumption and greenhouse gas emissions (OECD, 2012^[14]).

Lockdown restrictions have also brought to light the disadvantages of restricted living space in cities relative to suburban or rural areas, in particular in cities where green space is limited (Ahmadpoor and Shahab, 2021^[15]; SEI, 2020^[16]). This has led to the growing belief that large numbers of city dwellers (in particular those in metropolitan areas) will leave the city in the pursuit of more living space and private green spaces (Hernandez-Morales, Oroschakoff and Barigazzi, 2020^[13]). This trend is supported by the “normalisation” of teleworking as mainstream practice.

Similarly, concerns over shared mobility for health reasons have meant that public transport and other types of shared services have seen challenges escalate. The perceived risks and fear of contagion translated into major drops in public transport use, leading to the risk of increased car use (ITF, 2020^[9]) and importantly damaging the financial health of public transport systems.² While individual bicycle and micro-mobility use has increased, shared services using these modes have been in many cases temporarily shut-down or experienced large drops in use (Bert et al., 2020^[8]). Shared e-scooter services have been hit the hardest, since unlike some bike-sharing schemes, they do not receive public support (Hawkins, 2020^[17]).

7.3. A way forward

The first step to overcoming the increased challenges to advance systemic change is to recognise (and effectively convey the message) that a future based on the systems that we have, is not without challenges. As described above, the “new” COVID-19 context could be seen as one that undermines and renders the recommendations in this report infeasible, since a system based on an increased role of shared – and especially public – transport, and increased proximity and compact development might seem unviable and even undesirable now. However, a closer look at the wider picture, including the lessons learnt from the lockdown and post-confinement periods, sheds light on the fact that a continuation (and further exacerbation) of car dependency will likely increase the tensions between coping with the immediate pressures and achieving the long-term goals of resilience and sustainability.

In terms of climate goals, an increase in the use of cars, due to lower use of public transport or increased sprawl, will further delay emission reductions. In addition increased sprawl can further jeopardise biodiversity and reduce carbon sinks. Both things will increase the risks that not meeting climate goals will entail (e.g. extreme weather events such as droughts and wild fires, etc). Moreover, the intensification of suburban sprawl and car dependency can be conducive to a higher risk of mortality in the case of future pandemics, for example via poor air quality, which has increased mortality rates related to COVID-19 (Grove, 2020_[18]) (UN, 2020_[19]).

In contrast, the structural changes proposed in this report could help the sector better manage both the near and long-term challenges (including climate change) and recovery packages could be key to accelerating such changes. Importantly, density per se has not been proven to be directly linked to the spread of COVID-19. Some studies in the United States, for instance, show that density was not significantly associated with higher infection rates. On the contrary, denser counties tended to have lower mortality rates (probably due to a higher level of development and better health services) compared to more sprawled counties (OECD, 2020_[20]). However, a link between density and a higher risk of contagion was found in urban areas in which density is accompanied by factors such as overcrowding, air pollution, poverty and limited access to services (UN, 2020_[19]). Thus, redesigning transport and urban systems in ways that can contribute to solving such issues, is in reality key to increasing resilience.

A priority would be to ensure the continuity of street redesign as a key element of recovery packages, with the aim of triggering wide-scale transformations (such as those planned for Barcelona with Superblocks - see Chapter 3) rather than small pilots in specific places. Moreover, in the view of the challenges discussed above, placing actions discussed in Chapter 4 (to reverse sprawl) and 5 (to reverse the erosion of shared modes) at the centre of recovery packages and plans needs also to be a priority.

Important synergies, between climate and wider well-being and short and long-term goals could be created. For instance, if effectively mainstreamed (by scaling street redesign, among other things), active and micro-mobility modes could become public transport's best allies, attracting an array of short distance trips and thus helping to reduce overcrowding (ITF, 2014_[21]). The increase in physical activity from greater active travel could also improve general health and help to reduce the risk of death in the case of contagion of respiratory-related viruses such as COVID-19. Building on virtual solutions such as teleworking can also improve public transport management, if well-co-ordinated with broader transport and land-use policies (Hook et al., 2020_[22]) (as discussed in chapter 5). In parallel, other (smaller scale) shared services (e.g. shared bicycles, e-scooters, shared and pool car systems, and on-demand public transport services) with added cleanliness and distancing procedures, could also survive and contribute to relieving pressures on public transport systems while also delivering more equitable access to opportunities (e.g. jobs, education centres). A system that can effectively enhance accessibility, especially for the most vulnerable through the development of multi-modal and sustainable systems, can contribute to reducing "chronic stresses"³ (e.g. poverty, unemployment) that increase inequalities and undermine the resilience of cities and territories on a daily basis (100 Resilient Cities, n.d._[23]) ; and which have made some cities particularly weak during the health and economic crisis (UN, 2020_[24]) (Cohen, 2020_[25]).

Moreover, liberating and re-allocating significant space from car use in a systematic way could ensure priority is given to less carbon-intensive and more space efficient transport modes, in addition to having cities that are better prepared for social distancing in situations like the COVID-19 crisis. Space liberated from cars could also help cities become more attractive, healthy and strengthen policies consistent with climate mitigation and adaptation goals. Among other things it would allow for planning of more and better quality green space which can, in turn, further incentivise active travel – (Perk, 2015_[26]) help reduce incentives to move further out, and contribute to reducing heat islands. Reconfiguring streets can also importantly liberate space for increasing housing supply in central areas, while making these more attractive (Savills, 2016_[27]). Cities could also become more equitable and conducive for economic recovery, since road and public space can also be used to improve both recreational and travel space around housing and be allocated to local economic activity.

Evidence also suggests that recovery packages fostering an increased role of public transport and other sustainable modes could lead to significant jobs opportunities, as experienced in the 2009 recession in certain countries. In 2013 public transport generated almost as many jobs globally (13 million, 2013 figure) as the number of jobs generated by the car industry today (14 million, 2013 figure) (Buckle et al., 2020^[6]), Active and shared transport modes could also generate important amounts of jobs if their role was to be expanded. For example, in the United States, investment in public transport have generated 31% more jobs per dollar spent than the construction of roads and bridges, while in Korea, jobs generated by public transport, rail and cycling infrastructure investments accounted for 15% of the total jobs generated by the 2009 recovery package (Buckle et al., 2020^[6]). As the International Energy Agency shows, bicycle manufacturing and repair, as well as the investment in infrastructure for pedestrians and cyclists, also have high employment factors. Start-ups could also become a more significant job generator and, as discussed in Chapter 5, micro-mobility could contribute to job creation by bringing almost 1 million jobs annually in Europe between now and 2030 if mainstreamed (Buckle et al., 2020^[6]). Job opportunities in the automotive industry will remain crucial, and some transformations in the type of skills needed due to electrification, automation, and new business models for shared mobility services are worthy of attention. For example, recent studies suggest that new economic activities such as fleet operation or software development that automotive manufacturers may carry out could create a significant number of job opportunities.

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Notes

¹ Both air pollution and emission levels returned to pre-confinement levels rapidly.

² As discussed in Chapter 5, for instance, the expected loss of revenue from fares by the end of 2020 in European public transport systems was EUR 40 billion (UITP, 2020^[28]).

³ "slow moving disasters that weaken the fabric of a city"-(100 Resilient Cities, n.d.)



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