

Item 7: Active Travel Update

Appendix One: Benefits of Active Travel

A1.1 There are many benefits to increased walking and cycling. These can be divided into the direct benefits for an individual in being more active for a given journey, and the total benefits society accrues through the widespread use of clean and quiet active travel. Some of these are shown below.

Direct Individual Benefits of Active Travel

A1.2 Walking and cycling more has huge individual health benefits, in terms of both physical and mental health. In the UK a third of the population lead lives that are so inactive that it could affect their long-term health, with 80% of British children undertaking so little exercise that their cardio-vascular systems are under-developed and they are more likely to suffer from chronic illness. In terms of physical activity, in West Yorkshire life expectancy is already below the national average and 38% of people are considered inactive. More than one in three Year 6 school children are overweight or obese. Inactivity (separate to obesity) is linked directly to increased risk of cardiovascular disease, cancer, type 2 diabetes, bone and joint health, cognitive function and dementia as well as mental health more broadly.

A1.3 However, walking and cycling are relatively easy ways to overcome this. World Health Organisation Guidelines state that 150 minutes a week of brisk walking or 75 minutes of reasonably quick cycling is enough to overcome inactivity related health issues. One of the leading causes of inactivity is a perceived lack of time – when exercise is limited to attending gym classes or carving out time to go for a run this can be difficult to do consistently due to other pressures and demands.

A1.4 Active Travel overcomes this by it no longer requiring separate time budgeting but instead being a part of everyday life. If we assume that a person leaves the house to go shopping, travel to work or school or undertake leisure activities 3 times a week, if they can do this actively it is much easier to reach these targets. 75 minutes of cycling is 12.5 minutes there, 12.5 minutes back. three times a week whilst 150 minutes of walking is 25 minutes there and 25 minutes back. Of course, at 5 times a week this comes down to 15 minutes there and 15 minutes back for walking, meaning that enabling (for example) school children to travel actively to and from school could have significant long-term physical and mental health benefits for West Yorkshire.

A1.5 Children who cycle to school are more attentive and achieve better results than children who are driven, whilst for adults and businesses, active travel reduces absenteeism, boosts productivity, results in fewer sickdays and lowers staff turnover due to happier, healthier workers. Cyclists consistently exhibit the highest levels of commute satisfaction, resulting from a high degree of arrival time reliability and control, enjoyable sensory stimulation (e.g. trees and greenery), the ‘feel-better’ effects of moderate exercise and the greater opportunities for social interaction afforded by cycling over other modes.

Broader Societal Benefits of Active Travel

A1.6 Society more broadly benefits from the adoption of walking and cycling. In particular, in terms of capacity compared to road, the amount of space required per person is significantly lower than in private vehicles:

(per person)	Pedestrian	Cyclist	Bus	Car
Space when Stationary	0.5m ²	2m ²	2m ²	30m ²
Space when moving	3mph: 2m ²	10mph: 5m ²	30mph: 7m ²	30mph: 140m ²
Capacity of a Lane	19,000	14,000	9,000	2,000

A1.7 This means that high density, cycle-friendly urban form is more conducive to agglomeration benefits than car-based systems and the reduced space and maintenance requirements mean that annualised infrastructure costs are 33% lower in less car-dependent areas than in car-oriented ones.

A1.8 A recent study (2017) in America determined that for every \$1 an individual spent walking (including the value of time) society paid an additional \$0.01 in terms of infrastructure upkeep, externalities such as air and noise pollution, health benefits severance, congestion and alike. For cycling, the additional costs were \$0.08, whilst for every \$1 spent on public transport society paid \$1.50 and for driving society paid an additional \$9.20.

A1.9 In addition to any health savings associated with the NHS through more active lifestyles, enabling active travel to and from schools would reduce the public costs of school travel (the Netherlands estimated it saved £390 million a year) but also free up significant time for adults no longer required to move their children around and enable them to partake in other activities and civic society, building community resilience. Per square metre, the provision of cycle parking provides five times higher retail spend than car parking, supporting evidence that cyclists visit local shops more regularly and tend to spend more than motorised users. Therefore a compact town optimised for walking and cycling has a “retail density” (spend per square metre) 2.5 times higher than a typical urban centre.

A1.10 Whilst it is easy to perceive some of the benefits of active travel (e.g. an accessible square full of trees and café-style seating with a cycle path is more pleasant to be in than a car park or a traffic gyratory and thus people will be happier, healthier, spend more time and money there, etc.) it is not always easy to measure these benefits. Whilst our system for measuring, modelling and planning for private motor traffic has been developed and in place for many years, active travel and the “softer” benefits are significantly newer in terms of being introduced to the appraisal framework. For example, throughout West Yorkshire there is an extensive array of automatic traffic counters to understand motor vehicle movements, we have much poorer data on the number of people walking at any given moment, on a bus or cycling

into and out of areas. The Combined Authority is undertaking a review of its current data on active travel and is seeking not only to present what information we have more accessibly, but also to assess how best these gaps can be filled through either new data collection infrastructure or innovative alternatives.

A1.11 However, in summary, the benefits of investing in Active Travel are lower costs, a healthier population and a more prosperous economy. Not all of these are easy to monetise to include in benefit/cost ratios and business cases, however the DfT notes that many cycling schemes achieve BCRs of upto 19:1 (including some schemes as high as 35.5:1). By comparison, motorway upgrades and bypasses tend to have BCRs between 3.1:1 and 3.7:1 respectively.

A1.12 The higher BCRs for active travel schemes tend to be for “new-build” schemes, as schemes where road space re-allocation is required away from private motor vehicle movement tend to have BCRs between 1:1 and 5:1, currently. This is due to many factors but includes widely acknowledged issues around the Transport Appraisal Guidance approach to modelling active travel schemes and valuing time. For example, car users’ time is valued more highly (£17.69 per hour) than that of either pedestrians or cyclists (£10.02 per hour) meaning that any impact on journey times for motorists can have significant ramifications for the ratio, even if the scheme may have multiple social and cultural values that are harder to monetise and include in the analysis. The DfT is currently looking at how such issues can be addressed and stress that TAG outputs are merely one element in the wider appraisal process which should enable incorporation of such strategic objectives.

A1.13 The DfT’s Active Modes Appraisal Toolkit currently includes: reduced congestion benefits, infrastructure maintenance savings, fewer accidents, local air quality and noise benefits, greenhouse gas emission reductions, reduced risk of premature death, reduced absenteeism, improved journey ambience, indirect taxation changes and overall Government costs as part of the BCR analysis.