

Transport Disadvantage: a significant issue in an unequal society

What is transport disadvantage?

In a modern society we need to move around to access education, jobs, events, recreational activities, and social and cultural networks. Some individuals and families in our society cannot easily travel to the opportunities they would like to use. They suffer transport disadvantage.

A person or family can also be considered to suffer transport disadvantage (or transport poverty) if the cost of transport reduces their ability to pay for other basic items. For example a rural family on a low income may need several cars to allow all its members to travel to work and education, and that may leave no money for things like healthy housing, medical bills, and even food.

A person may also be transport disadvantaged if transport availability restricts where they can live. For example a young person without a drivers licence may be able to live a full life in Wellington, but be transport disadvantaged in Whangarei, and therefore not be able to consider moving to that city.

What creates transport disadvantage?

There are three main reasons that people find themselves facing transport disadvantage:

1. They don't have a car, public transport isn't available, and walking or cycling is not practical.
2. They can't afford to use the options that are available (e.g. pay the bus fare or put petrol in the car).
3. Transport options are available, but for non-financial reasons they won't use them – they may not want to have to ask their children to drive them around, or they may consider their streets too unsafe to walk in, or they may have a disability that makes using transport difficult.

Why does transport disadvantage matter?

People respond to transport disadvantage in four ways:

1. They may change from their preferred option to a more accessible option. For example they may choose a poorer quality job that pays less or provides less job satisfaction, but is accessible. Or they may choose their child's school based only on transport options, not on educational quality.
2. Many people simply choose not to utilise opportunities. Feedback from elderly people after the introduction of the SuperGold card showed that many were now doing new activities, or doing social activities (e.g. visiting friends) more often.
3. Others may choose to use the relatively unaffordable transport (e.g. taking a taxi on those nights when their shift doesn't coincide with the bus service, or buying an extra car for the household), restricting the money they have available for high priority activities (e.g. visiting the dentist).
4. Some develop dependency, using family and friends to fill the transport gap.

This can result in:

- A loss of productivity in the economy, as people choose jobs in which they are less productive, give up work (e.g. after retirement), and have increased absenteeism due to lack of transport (e.g. because the cheap second hand car won't start, or the train service isn't operating and they have no alternative)
- A reduction in people available to carry out community work, because those with the time to contribute are often the most likely to be unable to travel to where they are needed
- Increased poverty and the negative effects of restricted discretionary income (e.g. reduced use of primary health services, less nutritious meals, colder houses).
- A reduction in participation in educational activities and other activities that will assist in mental development of young people, contributing further to lost productivity
- Constraints on people's ability to gain new skills or retrain, affecting productivity and mental health
- Effects on mental health, as people become more isolated and miss normal social interactions. This can significantly contribute to rates of disorders such as depression, increase the severity of mental health events, and reduce recovery rates.
- An increase in the number of elderly and other individuals moving into residential care, because they can no longer look after themselves in their own homes.
- A sense of dependency in individuals whose only "disability" is that they cannot have a drivers licence
- A risk that unsafe drivers will continue to drive, putting themselves and others at risk, and that other members of society will be reluctant to intervene

How do we reduce transport disadvantage?

The key need is to shift the transport system from domination by private car use to one where public transport, walking and cycling are core modes.

There are 3 reasons for doing that:

1. It will lower the overall cost of transport to society, and also for most individuals
2. It will ensure that those who cannot have a drivers licence (around 30% of the population) are not disadvantaged, and reduce the pressure on individuals to drive when they do not want to
3. It will ensure that those who cannot afford to run a car, or are temporarily carless, can still access opportunities

This would involve:

1. Reducing investment in new roads and instead investing in mass public transit
2. Developing a basic public transport network in rural areas, by utilising and if necessary supplementing existing transport services (e.g. school buses, rural mail, tourism bus operations, health transport services)
3. Improving urban design and investing in broadband, so that people are less likely to have to travel, or can walk or cycle
4. Improving urban design and public transport network design, so that mass public transit is more affordable and effective
5. Improving active mode infrastructure (footpaths, cycleways, making roads safer for cyclists), and addressing other barriers to active mode use (e.g. improving lighting and security)

Effects of transport design on communities

Transport has significant effects on communities and the way they work. Those effects can be important for making cities more vibrant and economically successful, breaking down social barriers, and reducing the marginalisation of at risk individuals and groups.

Exchange spaces

It is now well recognised that the economic success of a city or shopping street, and the sense of a city as a vibrant and exciting place to be, is largely based on the number of unplanned exchanges that occur.

A person who gets in their car at home, drives to the local shopping centre, parks right outside the shop, buys what they want, and then drives home again, has only done a planned exchange (in that case with the shopkeeper). But if they have to park at a distance from the shop and walk, they may also be tempted to enter another shop, and make a further purchase. Or they may run into a friend. Or accept a leaflet advertising a local event. And if they walk to the bus and take that instead of driving, the potential for unplanned exchanges increases further.

Unplanned exchanges will only occur in a suitable space. They cannot safely occur in the middle of a busy road, and are unlikely to occur on the footpath next door where the traffic noise makes talking difficult. Quality public spaces facilitate unplanned exchanges.

Where the dominant transport mode is walking or walking and public transport, there will be large areas available for unplanned exchanges, because less space is needed for roads and parking, and a lot more space will have been set aside as pedestrian space. Where the dominant transport mode is the private car, little suitable space will be available. In a commercial centre, as much as 50% of the land may be taken up by roads and carparks.

High quality public spaces will also encourage people to move through the space less rapidly, and perhaps even persuade people to promenade. In some European cities, residents all congregate in the town square in the evening, simply to walk, be seen, talk to friends, buy from stalls and adjacent shops, etc. A slightly different form of promenading is developing in some New Zealand cities – the Saturday morning brunch gatherings in cafes, the lunchtime walk on the waterfront, etc.

Rebuilding neighbourhoods

The Christchurch earthquake response highlighted the value of strong neighbourhood connections. Modal choice greatly affects an individual's connections to their neighbours.

In a street where everyone travels to and from home by car, most will know few neighbours. But in a street where everyone walks to the local shops and catches the bus from the same bus stop, most people will at least be able to recognise their neighbours and feel comfortable saying hello to them. And the street, public transport stops and vehicles provide a neutral space in which the potential for a closer relationship can be explored. A shared interest (e.g. in gardening) may lead to more contact (e.g. arranging to swap cuttings) and ultimately something closer to a friendship.

It can also result in significant sharing of knowledge about the local area. I may find out at the bus stop that there is a lovely walk up through the bush at the back of the school, a sale tomorrow at the garden centre, that the man in number 3 is a good electrician who I should use to solve my heat pump problem, or that the man over there is to be avoided because he tends to grope young women given a chance.

Encouraging social mixing

Where people exclusively mix with their own socio-economic or cultural group, they are likely to have less understanding of, and exhibit lower tolerance or respect for other groups in society. And some groups (e.g. people of minority ethnicity) are more likely to feel isolated from the wider society. This can contribute to the development of significant social problems, such as racial abuse, vandalism, crime, lowered sense of safety (even if crime rates are relatively low) and bullying. The end result may be riots of the sort the UK has recently suffered.

High public transport use will force social mixing. A young Pacific Islander from Kenepuru will be standing on the same platform and catching the same train as the middle aged businessman from Tawa. Even if they never speak to each other, they will hopefully be forced by the context to be polite to each other – move to one side to allow the other to exit at their station, share a seat. And they are likely to overhear each other's conversation with other public transport users, giving them a glimpse of an alternative life. What they hear may conflict with their assumptions about people who look like that, helping to break down stereotypes and reduce social distance.

A noticeable feature of trains in Wellington is the high degree of interaction that occurs between passengers who do not know each other and have little in common. It often only requires some sort of trigger – a question about an unusual object someone is holding, mutual grumbling about the train service – to start a fuller conversation. For buses that sort of interaction is generally at the stops rather than on the vehicle. Either way, it helps break down societal barriers.

Perceptions of safety

Actual levels of safety do not change people's behaviour – otherwise who would drive on a motorway or be afraid of flying on Air New Zealand. It is perceptions that matter.

For walkers, the greatest influence on perceptions of safety is the number of other people out walking (depending in part on who those people are – I may not feel safer if the other pedestrians are all in gang patches). A person who would not go up a deserted alley at night will happily traverse it with the rest of the audience that has just exited the theatre by the side door.

And having a lot of pedestrians around will also make people feel safer even if they aren't walking – at home alone, in an otherwise empty office at night, at a bus stop.

Connection to the environment

Walkers will be closely connected to the physical world around them. They will be aware of the rubbish in the gutter, the smell of the daphne in someone's garden, the fact that the old man down the road sits on his front steps every morning.

Someone who is connected to their environment will enjoy it more and care about it. They are likely to stop to smell the flowers, and say hello to the old man. And they

are likely to take action to improve it - pick up the rubbish, or make enquiries if the old man suddenly ceases to be there.

In contrast a person in a car is effectively isolated from that environment. They will experience less, because they are limited to one sense (visual). That will make them feel distanced from it. The daphne is reduced to a splodge of pale flowers flashing past, no longer an overwhelming experience. And they are unlikely to be able to take actions in response – even if they see the rubbish they will not be able to easily stop and pick it up. And they are more likely to damage the environment without recognising what they are doing, or because they are damaging a space they feel no connection to – someone else's space.

Transport: A key factor in improving public health

Transport has a major influence on

- the health of individuals (and therefore their quality of life)
- the direct (e.g. hospital care) and indirect (e.g. lost productivity) costs to society of accidents and ill health
- the availability of health dollars for elective surgery and preventative health

Road safety

Modes vary in how safe they are. So a transport system that pushes people or goods towards less safe modes (e.g. motorcycles, cars and trucks) will increase the number of people occupying hospital beds or early graves.

A car dominated system will also increase injuries and deaths by reducing the safety of pedestrians and cyclists. These are very safe modes when done in a dedicated space, but where a small number of pedestrians or cyclists mixes with a large number of cars, their individual risk becomes very high. As pedestrian and cyclist numbers increase, the safety of each person also increases, because car drivers are more likely to look for them and see them.

Emissions

Petrol and diesel vehicles emit fine particles and gases that affect the occupants of those vehicles, and can accumulate in the environment and affect residents and pedestrians/cyclists. It is estimated that at least 500 premature deaths a year occur in New Zealand as a result of vehicle emissions.

Exercise

Regular exercise reduces the risk of a range of diseases, including cardiovascular disease, strokes, some types of cancer, and diabetes. Exercise also reduces the risk of obesity, which poses a significant health risk.

One recent study estimated that an increased modal share for cycling in Auckland of 5% would save an average of 100 lives each year as a result of the benefits of exercise. People who travel to work or school by walking, cycling, or using public transport (and therefore walking to and from their service) are likely to easily get the 30 minutes a day of exercise recommended as a minimum by health authorities.

People who drive to work or who are driven to school will need to have some other source of that exercise – e.g. joining a gym or sports club.

Access to health services

People who are suffering transport disadvantage are less likely to access available health services, and are therefore less likely to have medical intervention at an optimal stage. They may defer seeing their GP. And they may then choose not to agree to see a specialist at the hospital, or may miss their appointment.

Missed appointments are also a significant cost to the health system, as they waste scarce specialist or GP time. Providing transport services or dispersed services to overcome transport disadvantage is a significant cost for all DHBs.

Mental health

Transport systems have two main effects on mental health – through the creation of transport disadvantage, and through effects on social mixing and behaviour.

The sense of being treated unfairly that may come with transport disadvantage will have mental health effects, as will the stress associated with transport poverty. Transport disadvantage will also reduce the ability for an individual to access health services.

But transport systems can also help create the social isolation and sedentary behaviour that increases the risk of mental health problems, or provide an opportunity for social mixing or exercise that will reduce the risks or facilitate recovery.

For example a person suffering from depression who uses a car to get around can easily isolate themselves from other people, and reduce exercise, exposure to sunlight, and stimulation – all of which will worsen their condition. In contrast, if they use public transport to get to work or the shops, they will have to go outside in the sun and fresh air, walk at least as far as the bus stop, and mix with other human beings.