HotM2 article

Transport, social exclusion and health

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ARTICLE INFO

ABSTRACT

This paper explores the nature of social exclusion and how transport contributes to it by providing barriers to access. Transport influences health in several ways: by providing physical activity through walking and cycling, and by providing access to healthy food, recreation facilities and healthcare. Transport produces externalities including traffic casualties and vehicle emissions. These effects impinge on society unequally with socially excluded people able to access fewer facilities than others but suffering more from the externalities. The paper is concluded by discussion about various interventions that have been used to address social exclusion by reducing the barriers to access.

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1. Introduction

Social exclusion, a term first coined in France by Lenoir (1974), has long been recognised as a problem in society, linked to poor access to resources causing personal and physical harm (Sen, 2000). In 1997, the British government established the Social Exclusion Unit (2003) which published 'Making the Connections: Final Report on Transport and Social Exclusion' to explain how poor accessibility can contribute to social exclusion and how improvements to the transport system can increase social inclusion. As the report explains, the effects of transport-related social exclusion are wide: individuals can be affected personally, financially and physically. When people, for whatever reason, are unable to access healthcare services, parks, education or welfare services their health is likely to suffer. Transport externalities such as road casualties, vehicle emissions and noise can all affect health adversely.

This paper is a narrative review of the ways in which transport-related social exclusion impacts upon health and some of the interventions which have been designed to address the issue. The examples cited are from Great Britain, which may provide useful ideas for implementation elsewhere. The paper builds upon the work on this subject carried out in the report 'Health on the Move 2' (Mindell et al., 2011) by examining the links between transport-related social exclusion and health more explicitly, and the updated work in that report on the health implications of inequalities in travel opportunities (Mackett, 2014d). 'Health on the Move 2' (Mindell et al., 2011) was produced by the Transport and Health Study Group to update the original 'Health on the Move' report, summarising the available empirical evidence on the relationships between transport and health.

There are many papers on transport and health in this and other journals. There are a number of papers on the links between transport and social exclusion such as Delbosc and Currie (2011) and papers in the special issue of the journal Transport Policy (volume 6, issue 3) but only one of those contained evidence on the possible effects on health (Lucas et al., 2009). The effects of transport-related social exclusion on health are rarely considered. The objective of this paper is to consider this topic and how transport interventions can be used to help address social exclusion with consequential positive impacts on health.

2. Social exclusion

In this paper the term social exclusion is used to mean circumstances where individuals or groups of people are unable to participate in activities or to access goods, services and opportunities that are available to others as a fundamental part of belonging to society.

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Examples of excluded groups include those living in poverty who face financial exclusion to services, disabled people who face physical exclusion and minority groups who face language and/or cultural exclusion (Social Exclusion Unit, 2001). People who are socially excluded are more likely to spend less time in education, more likely to be unemployed, and have higher rates of ill health.

3. Transport-related social exclusion

Access to the transport system allows individuals to participate in many aspects of society. Transport-related social exclusion is more likely to affect some groups than others.

- *Income*. Those in lower income and socio-economic groups are most likely to be excluded from full access to transport. For example, in the lowest income quintile in Great Britain, 48% of households did not have access to a car compared to 14% in the highest income quintile in 2013 (Department for Transport, 2014). There is evidence (Horten and Reed, 2010) that government spending on transport is strongly biased towards higher income groups, unlike education, housing and health.
- *Disability*. 9% of the population over the age of 16 in 2013 had mobility difficulties (Department for Transport, 2014). They made 572 trips on average compared with 977 by those without mobility difficulties. Inaccessible transport prevents some disabled people from taking jobs or attending interviews (Campion et al., 2003).
- *Age*. Older people are more likely than others to have given up driving, have limited walking ability and find it difficult to navigate stairs or steps which can make many forms of public transport difficult or inaccessible (Mackett, 2014c). Mobility difficulties increase with age: 3% of adults under 50 years have mobility difficulties in 2013 (Department for Transport, 2014). This increased to 12% for those aged 60–69 years and 31% for those aged 70+ (Department for Transport, 2014). Young people may be excluded from the job market and leisure facilities because they cannot afford to learn to drive or afford bus fares (pteg, 2010). Children may be unable to enjoy after-school activities because they live with a single parent who is employed and so unable to take them or unable to afford the cost of travel (pteg, 2010).
- *Gender*. Fewer women than men hold a driving licence (Department for Transport, 2014) but more women than men say that they do not use buses because they feel unsafe (Department for Transport, 2013).
- *Ethnicity*. Members of black and Asian ethnic groups in Britain make over 15% fewer trips on average than white people and have lower car ownership (Department for Transport, 2014).

There are barriers to travel which affect some socially-excluded people more than the rest of the population.

- *Cost*. Public transport is becoming increasingly expensive (Maddison et al., 2014) and those with cars must pay for parking. For some people, travel (using either private or public modes) is too expensive for them to make essential journeys: one in four unemployed people say that their job search is inhibited by the cost of travel to interviews (Social Exclusion Unit, 2003). The cost of transport can be a major barrier to engaging in education and work for young people (ACEVO Commission on Youth Employment, 2012). Increases in bus fares in Manchester to support the increased cost of supporting the Concessionary Travel Pass for older people led to some young people not being able to travel to after-school activities (pteg, 2014). Small increases in bus fares can have a large impact on low income families, especially for participation in after-school activities (Greater Manchester Transport Research Unit, 2008).
- *Availability of transport*. 77% of jobseekers in British cities outside London do not have regular access to a car, van or motorcycle (Johnson and Mackie, 2013). Public transport does not always link homes to essential places. For example, 40% of households lived over 30 min from a hospital in 2012 (Department for Transport, 2014). In 2013 24% of households did not have a frequent local bus service and 15% did not have a reliable one (Department for Transport, 2014).
- *Psychological barriers*. Some women, disabled and members of ethnic minorities have a fear of using public transport (pteg, 2010). People may feel unsafe using public transport in the areas they need to reach or feel unsafe travelling at the time of day needed to access services. Bostock (2001) argues that the lack of a car may have negative impacts on the welfare of families because those with low incomes, particularly lone mothers with young children, may be forced to walk through neglected and depressed areas because of the lack of a car or suitable public transport.
- *Physical barriers*. Some disabled and older people have difficulty travelling because of barriers such as steps, steep slopes and obstructions on the pavement (Mackett et al., 2011).
- *Facilities*. Lack of facilities can make it difficult for some groups to travel. For example, a lack of benches and bus shelters can stop older or disabled people from accessing public transport (Mackett et al., 2011).
- *Information*. Poor quality travel information may mean that people do not know which services are available (Balcombe and Vance, 1998). This can be difficult for infrequent travellers, people who need to reach new areas (for example, the newly employed) and disabled people. Travel information can be provided in the form of timetables, maps and route information. It can be provided both prior to travel and in the course of the journey, either on paper or electronically via the internet on home computers or mobile devices such as phones. Whilst electronic information has advantages because it can be provided at low marginal cost, people on low incomes may not be able to afford the technology, many older people grew up before the technology became common and so do not use it, and many devices are not suitable for use by some disabled people.

4. How transport-related social exclusion affects health

There are various ways in which transport affects health, directly and indirectly as shown in Fig. 1. Walking and cycling provide physical activity. Transport provides access to various facilities that can improve health such as recreation facilities, both indoor and outdoor, shops that sell healthy food, health and medical facilities, and the opportunity to meet with friends, family and others which can enhance well-being and mental health. Access is easier for those with more income, which is provided through access to employment, with higher