

Please find below some research on the potential health impacts of the free bus pass for older people in England. Now that this stage of the work is finished we are keen to try to disseminate these findings as well as to discuss with others what might be most interesting in terms of taking related work forward.

If you would like to discuss the findings or interested in taking related work forward please contact myself:

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Many thanks

Anthony

### **Executive Summary in plain English**

**Background:** In April 2006 England launched a scheme to offer subsidised bus travel to all persons over the age of 60 years. Officially known as the “English National Concessionary Travel Scheme” the scheme is more commonly referred to as the “free bus pass.” Since 2010 the age of eligibility has been rising in line with the state pension age for women, such that by 2020 the age of eligibility will be 66 years. One of the key aims of the scheme is to prevent social exclusion among older adults, and a free bus pass is available to all people regardless of circumstances or wealth.

In addition to potential consequences of reducing social exclusion among older people, there may be other positive benefits stemming from an increased use of public transport. This is because people generally walk to get to and from bus stops, rather than driving whole journeys or not travelling at all. Previous research suggests that the introduction of the free bus pass may have increased use of public transport and reduced the likelihood of becoming obese. This previous research however, only included data from the first two years of the scheme. Additionally previous work was unable to use data on specifically who held a free bus pass or examine impacts on other measures of health and wellbeing such as social isolation.

**Study aims:** This study aimed to assess the health impacts of providing a free bus pass to older people in England. Specifically the study aimed to examine differences in uptake of the free bus pass, and the impacts of the free bus pass on public transport use and physical activity among different groups in the population. We also looked at whether this public transport use was linked to a range of health indicators including social isolation and Body Mass Index (BMI, a measure of obesity).

**Methods:** We conducted a number of studies using two different datasets. The first was the National Travel Survey (NTS), which is an annual survey of the travel patterns of English households involving both interviews and the collection of travel diaries. The second dataset was the English Longitudinal Study of Ageing (ELSA), which has been following up people over

the age of 50 years since 2002. Data collection takes place every two years involving interviews about the life circumstances and health of participants. Every four years these participants are also visited by a nurse to collect objective physical health measures such as BMI and blood pressure. The NTS provides rich data on who has a free bus pass and travel patterns, while ELSA provides more detail on the health of participants.

We used the NTS to examine whether certain population groups were more likely to hold a free bus pass, and whether holding a free bus pass was associated with more use of buses and public transport. We also investigated whether the impacts of the free bus pass on travel patterns were different across ethnic groups using the NTS. We used ELSA data from 2012/13 to examine health outcomes linked to public transport use, as well as longitudinal data to examine people who had either taken up public transport (moving from never using it to at least sometimes using it) or increased their public transport use. We assessed if public transport was associated with any of: markers of circulatory health (including BMI, blood pressure and cholesterol); physical function (including walking speed and balance problems); psychosocial outcomes (including social isolation, loneliness and self-rated health).

**Details of patient and public involvement in the research:** Representatives from *Age UK Policy Sounding Board* were involved in the development and dissemination of these studies. We have been in contact with Age UK and the Department for Transport to arrange dissemination events on our findings.

**How we addressed equality and diversity issues:** We have considered the entire population of England who are eligible for the bus pass in all of our analyses. We examined the extent to which the bus pass may be more likely to be taken up within different socio-demographic groups, including age, sex and presence of physical impairments. We additionally examined whether uptake of the bus pass and any associated physical activity benefits differed between ethnic groups.

**Results and relevance to policy:** 79% of eligible people had a free bus pass in 2014. This was higher for women than for men (82% vs. 75%), for retired people than those still in paid work (83% vs. 58%), for people without access to a car (86% vs. 77%), and for those with routine or manual jobs compared with managerial jobs (81% vs. 73%). Bus pass holding was similar across ethnic groups although non-white groups accumulated more of their active travel as part of bus journeys compared with White people: 56% of the active travel of Black participants came from bus journeys, compared with 29% for White participants and 44% for South Asian participants.

Following up the same participants over two years found that retiring from paid work was associated with taking up a free bus pass compared with remaining in paid work (37% vs. 18%). Those with a free bus pass were more likely to have used public transport in the last month (82% vs. 33%), and those using public transport were more likely to be classed as physically active (81% vs. 61%).

Women who used public transport had  $0.7\text{kg}/\text{m}^2$  lower BMI and 2.0cm smaller waist circumferences on average than those who never used public transport. Women who increased their public transport use over time or who started using public transport also had lower mean BMI, although this was not the case for men. Both women and men using public transport were less likely to be socially isolated (33% vs. 56% for men, 30% vs. 54% for women) or to have symptoms of depression (6% vs. 14% for men, 12% vs. 23% for women). Starting and increasing use of public transport was also linked to being less likely to become socially isolated; this was clearer among men than women.

Uptake of the free bus pass in England is high and there is evidence that this is the case across all socioeconomic groups, including groups such as retired people who are at risk of social exclusion. The free bus pass is linked to reduced social isolation and depressive symptoms, which suggest that the principle objective of the scheme has been achieved. The free bus pass is effective in promoting the use of public transport among older people, and this is linked to an increase in physical activity and reduced obesity. While there is no cost-effectiveness data presented here, there are a wide range of health outcomes for which physical activity and reduced obesity may be beneficial. While the impacts of the rising age of eligibility for a free bus pass and retirement are still unknown, these may undermine high uptake and associated health benefits, particularly among disadvantaged groups, if the enrolment process becomes more complicated.

**Conclusions and further research:** Levels of uptake of the free bus pass are high, including among groups such as those retired from paid work who are potentially at high risk of social exclusion. People with a free bus pass are more likely to use public transport, and people using public transport were more likely to be physically active and less likely to become socially isolated. Women using public transport also had lower mean BMI. A limitation of this work was that we were unable to examine the association of possession of a free bus pass directly with health indicators and instead relied primarily on assessing public transport use, which for older people, is predominantly bus travel. Future work could examine the impact of the free bus pass and associated public transport use on longer term clinical outcomes, such as hospitalisations and mortality and evaluate cost-effectiveness.