

Results 100,801 registered individuals made 2.5 million trips between July 2010 and March 2011. Compared with local residents and workers, registered individuals were more likely to be male and to live in areas of low deprivation and high cycling prevalence. Among those registered, females made 1.63 (95%CI 1.74,1.53) fewer trips per month than males. In combination with the fact that fewer females registered in the first place, this meant that only 17.8% of the total number of BCH trips were made by females. Adjusting for the fact that deprived areas were less likely to be close to BCH docking stations, users in the most deprived areas made 0.85 (95%CI 0.63,1.07) more trips per month than those in the least deprived areas.

Conclusion Females and residents in deprived areas are underrepresented among users of London's public bicycle sharing scheme. Indeed, the BCH scheme currently appears to be less gender-equal than cycling in general in London. Nevertheless, registered users in more deprived areas made more trips on average, suggesting there may be a greater latent demand for cycling in these areas. The scheme's expansion into more deprived areas from Spring 2012 has, therefore, the potential to create a more socio-economically equitable uptake of cycling.

OP35 THE HEALTH IMPACTS OF FREE BUS TRAVEL FOR YOUNG PEOPLE IN LONDON

doi:10.1136/jech-2012-201753.035

¹P Edwards, ²R Steinbach, ³P Wilkinson, ⁴M Petticrew, ¹A Goodman, ²A Jones, ³H Roberts, ⁴C Kelly, ⁴J Nellthorpe, ²J Green. ¹Faculty of Epidemiology and Population Health, LSHTM, London, UK; ²Faculty of Public Health and Policy, LSHTM, London, UK; ³Institute of Child Health, UCL, London, UK; ⁴Institute for Transport Studies, University of Leeds, Leeds, UK

Background Interventions in transport systems have potentially far-reaching impacts on public health, but can be challenging to evaluate. In 2005, young people in London gained access to free bus travel; an intervention that has a number of potential risks and benefits to health. As transport access is linked to well-being, we might expect the policy to benefit the health of young people by reducing transport exclusion. However, health effects might also include: young people doing less walking, thus reducing levels of physical activity, but also reducing exposure to pedestrian injury risk; or being more exposed to assault as they travel further.

Methods We utilized change-on-change analyses comparing pre (2001–2004) and post (2006–2009) changes in outcomes in 'younger people' (intervention group, 12–17 years) to 'adults' (control group, 25–59 years) in London, UK. Main outcome measures included changes in travel patterns (trips made by main travel mode and distances travelled), road traffic injuries and hospital admissions for assault.

Results Post-intervention, the total number of journeys to school or work made by younger people increased relative to adults (change-on-change ratio 1.19: 95% CI 1.13–1.25), and the proportion of short trips (<1km) by bus doubled (1.97: 1.07–3.84). There was some evidence that younger people made fewer trips where walking was the main mode of travel (0.76: 0.70–0.85), but no evidence for a change in overall distances walked by younger people post-intervention. Against background declines in road traffic injury, the decrease in road injury to young people was larger relative to adults (0.84; 0.82–0.87), however pedestrian injuries declined similarly in both groups. Rates of hospitalisation due to assaults increased in younger people relative to adults (1.20: 1.13–1.27).

Conclusion A change in the distribution of travel modes used by younger people (relative to adults who had not received free bus travel) was observed post-intervention. Younger people made fewer trips where walking was their main mode of travel, but there was little overall difference in distances walked, suggesting that the policy may have generated journeys but made little overall impact on

prevalence of active transport. Observed changes in road traffic injuries reflect the relative risks of changing travel modes. The intervention has been associated with a small relative increase in assaults to younger people. A change-on-change analysis has enabled us to use this 'natural experiment' to quantify some important health outcomes of a transport policy in the absence of evidence from a randomised trial.

OP36 A CROSS-SECTIONAL ASSESSMENT OF THE EFFECT OF THE FREE OLDER PERSONS' BUS PASS ON ACTIVE TRAVEL AND REGULAR WALKING AMONG ADULTS ≥60 YEARS IN ENGLAND USING DATA FROM THE NATIONAL TRAVEL SURVEY 2005-2008

doi:10.1136/jech-2012-201753.036

¹S Coronini-Cronberg, ^{1,2}C Millett, ¹A Laverty, ^{1,3}E Webb. ¹Department of Primary Care and Public Health, Imperial College London, London, UK; ²Clinical Programme Group 7, Imperial College NHS Trust, London, UK; ³ESRC International Centre for Lifecourse Studies in Society and Health, UCL, London, UK

Background The benefits of physical activity for all age groups is well-documented and there is increasing interest in the promotion of incidental physical activity, such as active transport, which includes walking, cycling and use of public transport. For older adults, even small increases in activity may have significant benefits: for example, the relative risk of disability is reduced by 7% for each additional hour of relatively gentle physical activity undertaken each week. Our study assessed the potential public health benefit of the *National Bus Pass*, introduced in 2006, which permits free local bus travel for older adults (≥60 years) in England.

Methods Data from the year prior to the pass being introduced (2005) to the most recently available (2008) were extracted from an annual cross-sectional survey, the National Transport Survey, resulting in a sample size of 15 175 older adults. Models assessed associations between possessing a bus pass and our main outcome measures: use of active transport (walking, cycling and use of public transport), use of buses and walking three or more times a week. Since participants were sampled by household, all models were adjusted for clustering at the household level, as well as a range of confounders, including: age, sex, and socio-economic status.

Results Preliminary results show that having a free pass is significantly associated with greater use of active travel among both disadvantaged and advantaged groups. It is also associated with increased use of buses and a greater likelihood of walking three or more times a week.

Conclusion Older people in England with a free bus pass are more likely to use active transport, buses and undertake regular walking than those without, regardless of their socio-economic status. This suggests public subsidies enabling free bus travel for older persons may confer significant population health benefits through increasing incidental physical activity levels.

Prevention

OP37 PSYCHOLOGICAL CONSEQUENCES OF FALSE-POSITIVE SCREENING MAMMOGRAMS IN THE UK: A SYSTEMATIC REVIEW

doi:10.1136/jech-2012-201753.037

¹M Bond, ¹T Pavey, ²K Welch, ¹C Cooper, ¹R Garside, ¹S Dean, ¹C Hyde. ¹Peninsula Medical School, University of Exeter, Exeter, UK; ²Karen Welch Information Consultancy, Fareham, UK

Background In the UK women aged 47–73 are invited for screening by mammography every three years. In 2009–10 more than 2.24 million women in this age group in England were invited to take