On your bike

Dr Tim Jones, Senior Research Fellow, is investigating how the design of the built environment and technology is shaping older people's engagement with cycling.

As the UK and Europe grapples with an increase in the the older population, there is greater need to support 'active ageing' through the implementation of policies that support older citizens' autonomy and participation in society, and that promote life-long health and wellbeing. The ability for older citizens to remain mobile is an important component in maintaining wellbeing as it allows engagement in meaningful activities outside the home.

Cycling offers the potential for healthy ageing by improving the cardiovascular system as well as muscle function and bone density therefore helping to reduce the risk and severity of falls. Cycling can also act as a mobility aid for people who are unable to walk very far or who do not drive. As it allows them to extend their range of activities and not be constrained by public transport service provision, and to carry things that may otherwise be difficult to transport on foot or by bus. However, as people age, cycling does become more physically challenging, and fear of injury and concerns about safety forces many to stop. This may account for the fact that only one per cent of all journeys of people aged over 65 and older in the UK are by bike, compared to 23 per cent in the Netherlands, 15 per cent in Denmark and nine per cent in Germany - countries who have invested more in cycling (Pucher & Buehler, 2012).

It is typically the case that older people in the UK are portrayed as lacking the capacity to cycle. This is despite the contribution that cycling could make to their lives and the increasing proportion of older people already leading healthy and active lives. Many adapt to changing physical circumstances and continue to cycle into older age and many would possess the desire and capacity to cycle if the built environment was more supportive. Further developments in assistive mobility technology such as the growth in the availability of electric bicycles ('e-bikes') may also provide an aging population with enhanced opportunities to continue to cycle.

The result is a general absence of discourse on designing the built environment to support older people's cycling needs, resulting in scant attention to it in policy and design guidelines. A recent example is the Department for Communities and Local Government's Lifetime Neighbourhoods (2011) initiative that goes so far as to promote design of walkable neighbourhoods for older people but completely ignores cycling. This means that current infrastructural projects aimed at encouraging cycling continue to be implemented without prior knowledge of how their design affects older people's mobility and general wellbeing. The low uptake of cycling in the UK amongst the population compared to countries that give more attention to cycling infrastructure and design, therefore comes as no surprise.

The Cycle BOOM project seeks to address this. It will engage with around 250 older people from across the Oxford, Reading, Bristol and Cardiff areas to understand the role of physical and technological design in shaping engagement with cycling, and how this impacts wellbeing. Methods will include mobile interviews with participants whilst they make a regular journey by cycle using video, GPS and a special bio-harness representing physiological response that when interacting with the physical environment. A fact finding mission will be conducted in cities across Europe that are actively supporting a more democratic landscape for cycling and focusing on older riders. Finally, electric-bike trails in Oxford and Reading will investigate the impact of e-bike use on independent mobility and wellbeing.

To find out more about Cycle Boom, please visit: **www.cycleboom.org**

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