

## Mobile bicycle sharing: the social trend that could change how we move

Tackling the global pandemic of physical inactivity requires scalable interventions across many sectors, disciplines, and the whole of society.<sup>1</sup> Active travel by cycling provides opportunities for health-enhancing population-level physical activity, while conveying additional benefits, such as reduced traffic congestion, and air and noise pollution, and improved liveability for communities.

China, once considered a kingdom of bicycles, has seen a substantial decrease in population-level cycling due to economic growth and the booming car industry. For example, from 2002 to 2010–12, the proportion of the Chinese population who reported walking as their main mode of transportation decreased from 30.7% to 22.5%, and for cycling the proportion decreased from 35.8% to 15.6%, whereas the proportion who reported motorised transport as their main mode of transportation increased from 33.5% to 61.9%.<sup>2</sup>

In 2016, a new trend of mobile public-bicycle sharing that did not require docking stations emerged in China, led by companies such as Mobike and Ofo. Users can identify a nearby available bicycle with a smartphone app via the bicycle's inbuilt Global Positioning System (GPS), then once they have completed their journey they can leave the bike anywhere and pay for the ride (at a low rate) by smartphone. This new bicycle-sharing concept has become increasingly popular. For example, within a year of launching mobile public-bike sharing in Shanghai, China, more than 13 million users were registered and more than 1 million shared bicycles were available in the city.<sup>3</sup>

Innovative mobile public-bike-sharing programmes have the

potential to bring cycling back to China. On the basis of GPS travel data from their bikes and a survey of more than 100 000 Mobike users, by April 2017—less than a year after the company's launch in Shanghai, China—Mobike Global estimated that of all journeys made by their users, the percentage of journeys by bicycle had increased from 5.5% to 11.6% (with the majority of journeys done to link with buses and trains) and the number of car journeys had halved.<sup>4</sup>

However, mobile public-bike-sharing programmes without docking stations are inherently subject to vandalism, misuse, and loss of bicycles.<sup>5</sup> Cluttering of footpaths with bicycles and increasing traffic violations by cyclists have also been frequently reported. Despite the problems and challenges, mobile public-bike-sharing programmes exemplify an alignment between private-sector interests and public health and sustainability, and offer unique opportunities to promote physical activity on a large scale. By the end of 2017, mobile public-bike-sharing programmes had spread to hundreds of cities across Asia, Europe, North America, and Australia. If continuous business innovation and technological advancement are coupled with government support for mobile public-bike sharing, investments in cycling infrastructure, and appropriate regulations and protective mechanisms to encourage responsible bicycle use, mobile public-bike-sharing programmes are likely to lead to long-term changes in commuting culture and physical activity around the world.

We have no competing interests.

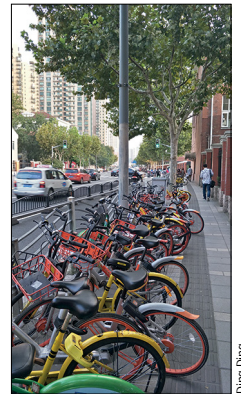
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