

A longitudinal analysis of the impact of the local tobacco retail availability and neighbourhood deprivation on male smoking behaviours in Shanghai, China

Zheng, C., Feng, Z., Pearce, J.

Abstract

Some evidence from Western high-income countries suggests local tobacco retail availability and neighbourhood deprivation may influence smoking behaviours. However, this assertion has not been considered in China, where 44% of males continue to smoke. Data were analysed from Chinese males ($n = 2054$) who participated in Waves 3–5 (2009–2015) of the International Tobacco Control (ITC) China Survey by linking information on tobacco retail availability (estimated through population weighted Kernel Density of tobacco retailers in 2019) and neighbourhood deprivation (calculated as a composite score derived from the 2010 Chinese census) across Shanghai. Generalised Estimating Equation models were fitted to examine the impacts of local tobacco availability and neighbourhood deprivation on smoking behaviours (current smoking versus current non-smoking, quitting versus current smoking, longer durations of smoking abstinence versus current smoking) using the longitudinal data. Examining the impacts separately, participants living in neighbourhoods with greater availability and higher levels of deprivation were less likely to maintain longer durations of smoking abstinence in both unadjusted and adjusted models. Neighbourhood deprivation, but not availability, was found to be associated with higher odds of being a current smoker. Examining the impacts jointly, neighbourhood deprivation was still positively associated with current smoking and negatively associated with longer durations of smoking abstinence, but the negative association between availability and longer durations of smoking abstinence disappeared. The findings offer some evidence that greater tobacco retail availability and deprivation are obstacles on prolonged smoking cessation among males in Shanghai, China. Policymakers should consider small-area level place-based restrictions in China, such as reducing the availability of tobacco, as part of a comprehensive tobacco control strategy aimed at addressing the high prevalence of smoking.

Recommended Citation

Zheng, C., Feng, Z., Pearce, J. (2024). A longitudinal analysis of the impact of the local tobacco retail availability and neighbourhood deprivation on male smoking behaviours in Shanghai, China. *Journal of Health and Place*, 85, 103171. doi: 10.1016/j.healthplace.2023.103171.

Link to PDF: <https://www.sciencedirect.com/science/article/pii/S1353829223002083>