The heterogeneous effects of cigarette prices on brand choice in China: Implications for tobacco control policy

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Abstract
BACKGROUND: China has long kept its tobacco taxes below international standards. The Chinese government has cited two rationales against raising tobacco tax, namely, the unfair burden it places on low-income smokers and the ability of consumers to switch to cheaper brands.

OBJECTIVE: This study examines how different socioeconomic subgroups of Chinese smokers switch brands in response to cigarette price changes.

METHODS: We model smokers' choice of cigarette tier as a function of tier-specific prices. We examine heterogeneous responses to prices by estimating mixed logit models for different income and education subgroups that allow for random variation in smokers' preferences. We use data from three waves of the longitudinal International Tobacco Control China Survey, collected in six large Chinese cities between 2006 and 2009.

FINDINGS: Low-income and less educated smokers are considerably more likely to switch tiers (including both up-trading and down-trading) than are their high-socioeconomic status (SES) counterparts. For those in the second-to-lowest tier, a ¥1 ($0.16, or roughly 25%) rise in prices increases the likelihood of switching tiers by 5.6% points for low-income smokers and 7.2% points for less educated smokers, compared to 1.6% and 3.0% points for the corresponding high-SES groups. Low-income and less educated groups are also more likely to trade down compared to their high-SES counterparts.

CONCLUSIONS: Only a small percentage of low-income and less educated Chinese smokers switched to cheaper brands in response to price increases. Hence, the concern of the Chinese government that a cigarette tax increase will lead to large-scale brand switching is not supported by this study.

Recommended Citation