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## **THE IMPACT OF CIGARETTE SMOKING ON HEALTH CARE UTILIZATION AMONG RURAL RESIDENTS IN CHINA**

### **Abstract:**

**Objectives:** To assess how cigarette smoking affects health care utilization among rural residents in China and to analyze the choice of health facility among current and former smokers in rural China. **Methods:** Fixed effect and random effect logistic models were used to assess the impact of cigarette smoking on health care utilization. The multinomial logistic model was employed to analyze the choice of health facility among current and former smokers. This study employed three waves (2010-2014) of the China Family Panel Studies, which is a nationally representative, biennially longitudinal survey in China. The data set included 10,330 adults in each wave.

**Results:** First, according to fixed effect logistic model, the results showed that current smokers (light and heavy smokers) and former smoker (recent, moderate-term and long-term quitters) are positively ( $ORs > 1$ ) and significantly associated with outpatient care. Moreover, recent, moderate-term and long-term quitters are positively ( $ORs > 1$ ) and significantly associated with inpatient care. Second, based on random effect logistic model, the results displayed that heavy smokers and long-term quitters are positively ( $ORs > 1$ ) and significantly related to outpatient care, and former smokers (recent, moderate-term and long-term quitters) are positively ( $ORs > 1$ ) and significantly associated with inpatient care. Last, the results of multinomial logistic model uncovered that recent and long-term quitters increase the probabilities of visiting general hospital by 36% and 49% compared to visiting village health center and increase the probabilities of visiting special hospital by 90% and 79% compared to visiting clinic.

**Conclusions:** Firstly, the present study employing fixed effect logistic model found that current and former smokers use more outpatient care than never smokers. Moreover, former smokers use more inpatient care than never smokers. Secondly, the current study showed that although former smokers use more inpatient care than never smokers, long-term quitters decrease the probability of using inpatient care compared with recent and moderate-term quitters according to the random effect logistic model. Lastly, this study discovered that recent and long-term quitters have much higher probability of visiting general hospital compared to visiting village health center and clinic. Therefore, the tobacco tax policy and smoking cessation treatments should be implemented in rural China.

### **Keywords:**

Smoking; Health Care Utilization; Rural China

**JEL Classification:** I14