

## RESEARCH TWITTER

Janet Currie, Wanchuan Lin, Wei Zhang. **"Patient Knowledge and Antibiotic Abuse: Evidence from an Audit Study in China."** *Journal of Health Economics*, 2011, 30(5): 933-49.

The authors conduct an audit study in which a pair of simulated patients with identical flu-like complaints visits the same physician. Simulated patient A is instructed to ask a question that showcases his/her knowledge of appropriate antibiotic use, whereas patient B is instructed to say nothing beyond describing his/her symptoms. The authors find that a patient who displays knowledge of appropriate antibiotics use reduces both antibiotic prescription rates and drug expenditures. Such knowledge also increases physicians' information provision about possible side effects, but has a negative impact on the quality of the physician-patient interactions. The results suggest that antibiotics abuse in China is not driven by patients actively demanding antibiotics, but is largely a supply-side phenomenon.

Zhiwen Li, Le Zhang, Rongwei Ye, Lijun Pei, Jianmeng Liu, Xiaoying Zheng and Aiguo Ren. **"Indoor Air Pollution from Coal Combustion and the Risk of Neural Tube Defects in a Rural Population in Shanxi Province, China."** *American Journal of Epidemiology*, 2011, 174(4): 451-8.

This paper evaluated indoor air pollution from coal combustion (IAPCC) as a potential risk factor for neural tube defects (NTDs) in a rural population in Shanxi Province, China. The studied rural population has both high IAPCC exposure and a high prevalence of NTDs. A population-based case-control study was used to identify 610 NTD cases and 837 normal controls between November 2002 and December 2007. Compared with women with no IAPCC exposure, women with any exposure at all had a 60% increased risk of having a child with an NTD. An increased NTD risk was linked to both residential heating and cooking. The risk increased with increases in the exposure index, showing a dose-response trend.

Qi-Qiang He, Tze-Wai Wong, Lin Du, Zhuo-Qin Jiang, Tak-sun Ignatius Yu, Hong Qiu, Yang Gao, Andromeda H.S. Wong, Wei-Jia Liu, Jia-Gang Wu. **"Environmental Tobacco Smoke Exposure and Chinese Schoolchildren's Respiratory Health: A Prospective Cohort Study."** *American Journal of Preventive Medicine*, 2011, 41(5): 487-93.

This study examined the relationship between exposure to ETS and respiratory health in Chinese schoolchildren. The study subjects included 1718 children, who were never-smokers, aged  $10.05 \pm 0.86$  years and asthma-free at baseline. The children performed spirometric tests in 2006 and 18 months later. Significant exposure-response relationships were found between ETS exposure and coughing at night; sneezing; and sneezing with itchy, watery eyes in the first survey, and coughing at night; phlegm without a cold; and sneezing in the second survey. Compared with those who reported no ETS exposure in either survey, children who had a high ETS exposure level in either survey had lower growth rates in forced expiratory flow between 25% and 75% of forced vital capacity and forced expiratory flow at 25% of forced vital capacity. This study concluded that exposure to ETS increased the risks of respiratory symptoms in Chinese school-aged children and was associated with impaired lung function growth.

Chi Pang Wen, Jackson Pui Man Wai, Min Kuang Tsai, Yi Chen Yang, Ting Yuan David Cheng, Meng-Chih Lee, Hui Ting Chan, Chwen Keng Tsao, Shan Pou Tsai, Xifeng Wu. **"Minimum amount of physical activity for reduced mortality and extended life expectancy: a prospective cohort study."** *The Lancet*, 2011, 378(9798): 1244-53.

The authors assessed the health benefits of a range of volumes of physical activity in a Taiwanese population. In this prospective cohort study, 416 175 individuals (199 265 men and 216 910 women) participated in a standard medical screening programme in Taiwan between 1996 and 2008. On the basis of the amount of weekly exercise, participants were placed into one of five categories of exercise volumes: inactive, or low, medium, high, or very high activity. The authors found that compared with individuals in the inactive group, those in the low-volume activity group, who exercised for an average of 92 min per week or 15 min a day, had a 14% reduced risk of all-cause

mortality, and had a 3 year longer life expectancy. Every additional 15 min of daily exercise beyond the minimum amount of 15 min a day further reduced all-cause mortality by 4% and all-cancer mortality by 1%. These benefits were applicable to all age groups and both sexes, and to those with cardiovascular disease risks. Individuals who were inactive had a 17% increased risk of mortality compared with individuals in the low-volume group.

Ying Chu Ng. **The Productive Efficiency of Chinese Hospitals.** *China Economic Review*, 2011, 22(3): 428-39.

Based on five years' data on the implementation of health care reforms, this study provided empirical evidence on inefficiency of hospitals in China. Using the data envelopment analysis, the sources of inefficiency were examined. Echoing the unnecessary care, over-prescription of drugs and the adoption of high-tech treatments since the implementation of health care reforms, the sampled hospitals were found quite inefficient and pure technical inefficiency played a dominant role in driving the inefficiency of hospitals. Hospitals had experienced productivity growth between 2004 and 2008. Mirroring the behavior of hospitals, technological progress was the underlying force for the growth and the deterioration in efficiency change was found. Regional results revealed that the stage of economic development and the efficiency performance of hospital did not necessarily go hand in hand.

Zhihua Yan, Dai Wan and Li Li. **"Patient Satisfaction in two Chinese Provinces: Rural and Urban Differences."** *International Journal for Quality in Health Care*, 2011, 23(4): 384-9.

This study examined what factors were associated with level of patient satisfaction and how such satisfaction might differ across rural and urban populations in China. This study also served as an evaluation of the recent healthcare reforms in China, which were expected to equalize satisfaction between rural and urban patients. Study participants consisted of twenty-five patients from each of the 40 county-level hospitals in two provinces of China. This study showed that perceived convenience was significantly associated with patient satisfaction among all participants. The new rural cooperative medical insurance scheme (NRCMIS) was associated with higher overall satisfaction among the rural residents. Age and income were significantly related to satisfaction only among rural patients.

Dan Liu and Daniel W. Tsegai. **"The New Cooperative Medical Scheme (NCMS) and its Implications for Access to Health Care and Medical Expenditure: Evidence from Rural China."** ZEF- Discussion Papers on Development Policy No. 155.

This paper investigates the impact of the New Cooperative Medical Scheme (NCMS) program on improving health care utilization and reducing medical expenditure with a focus on the endeavors to unravel the heterogeneous effects of the program for the different regions and income groups. It utilizes the China Health and Nutrition Survey data (CHNS) to provide prolific cross section and longitudinal information. Propensity score matching method and bounding approach are used to infer the causal effect of NCMS and examine the influence of unobservable factors respectively. Major findings indicate that there is a systematic adverse selection in the NCMS program, both in health- and economic-related aspects. Especially in western regions, households with high ratio of migrant workers are less attracted to the NCMS program. The NCMS program improved medical care utilization for the poor and regionally, western regions benefitted more from the program. The NCMS program also induces a moral hazard problem in western regions.

Huijun Liu and Shuzhuo Li. **"Social Change and Psychological Well-Being in Urban and Rural China."** Stanford Asia Health Policy Program Working Paper No. 23.

Using data from the Chinese General Social Survey (2005), this paper looks at the relationships between social change, social support and the psychological well-being of individuals in both urban and rural areas, as well as the role of marital status in Chinese society. The authors find that an increasing health care burden is significantly reducing individuals' psychological well-being. Perceptions of social status, especially as it changes over time and when compared against peers,

also have an effect. Social support has protective function for psychological well-being, and also compensates for the negative effect of increasing health-care burden and relative deprivation during social change on psychological well-being. Marital status is also significantly correlated with psychological well-being, and moderates the relationships between social change, other social support and psychological health, especially in rural cases.