

RESEARCH TWITTER

Li Li, Zunyou Wu, Li-Jung Liang, Chunqing Lin, Jihui Guan, Manhong Jia, Keming Rou, and Zhihua Yan. **"Reducing HIV-Related Stigma in Health Care Settings: A Randomized Controlled Trial in China."** *American Journal of Public Health*, 2013, 103(2): 286-92.

The randomized controlled trial was conducted in 40 county-level hospitals in 2 provinces of China between October 2008 and February 2010. Forty-four service providers were randomly selected from each hospital, yielding a total of 1760 study participants. In the intervention hospitals, about 15% of the popular opinion leaders were identified and trained to disseminate stigma reduction messages. Significant improvements for the intervention group were observed in reducing prejudicial attitudes ($P < .001$), reducing avoidance intent towards people living with HIV ($P < .001$), and increasing institutional support in the hospitals ($P = .003$) at 6 months after controlling for service providers' background factors and clinic-level characteristics. The intervention effects were sustained and strengthened at 12 months. This paper concluded that the intervention reduced stigmatizing attitudes and behaviors among service providers and has the potential to be integrated into the health care systems in China and other countries.

Baorong Yu, Xiaojuan Zhang, and Guijing Wang. **"Full Coverage for Hypertension Drugs in Rural Communities in China."** *American Journal of Managed Care*, 2013, 19(1): e22-e29.

In November 2009, the authors interviewed 110 hypertensive patients who had been participating in a free medication program since May 2008 and 241 hypertensive patients who were not participating. They used a 1:1 propensity-score matching technique to obtain matched samples of 102 program participants (intervention) and 102 nonparticipants (control). They found that all intervention patients took >1 drugs for hypertension control and 93% of them took >3 such drugs, 15 control patients (15%) did not take any, and only 39% took 3 or more ($P < .001$). Three-fourths (75%) of the intervention patients took the prescribed drugs regularly, whereas 66% of the control group ($P = .034$) did so. Participation in the program was associated with lower annual out-of-pocket medical costs both overall and for outpatient services ($P < .001$ for both). This paper concluded that low-income rural residents in China receiving free drugs had enhanced medication adherence and reduced total medical costs. Providing hypertension drugs at no charge may be a promising strategy for preventing costly cardiovascular events associated with hypertension in China and other parts of the world with growing rates of cardiovascular disease.

Yamin Bai, Yanfang Zhao, Guijing Wang, Huicheng Wang, Kejun Liu, Wenhua Zhao. **"Cost-Effectiveness of a Hypertension Control Intervention in Three Community Health Centers in China."** *Journal of Primary Care & Community Health*, 2013, doi: 10.1177/2150131912470459.

The objective of this study was to investigate the cost-effectiveness (CE) of a hypertension control program in China. The authors collected information on program costs and health outcomes in three community health centers over a 1-year period. The participants were 4902 people with hypertension (systolic blood pressure [SBP] ≥ 140 mm Hg and/or diastolic blood pressure [DBP] ≥ 90 mm Hg, or on hypertension medication) aged 18 years and older. The SBP and DBP changes in the populations were estimated from a random sample of 818 participants by conducting face-to-face interviews and physical examinations. The authors derived CE measures based on the costs and effects on health outcomes. They found that the total cost of implementing the intervention was Renminbi (RMB) 240,772 yuan (US\$35,252), or 49 yuan (US\$7.17) per participant in 2009. On average, SBP decreased from 143 to 131 mm Hg ($P < .001$) and DBP decreased from 84 to 78 mm Hg ($P < .001$), the SBP decreases ranged from 7.6 to 17.8 mm Hg and DBP decreases ranged from 3.9 to 8.3 mm Hg. CE ratios ranged from RMB 3.6 to 5.0 yuan (US\$0.53-US\$0.73) per person per mm Hg SBP decrease, and from RMB 6.3 to 9.7 yuan (US\$0.92-US\$1.42) per person per mm Hg DBP decrease. Per capita costs varied widely across the communities, as did changes in SBP and DBP, but CE was

similar. The findings suggest (a) a positive correlation between per capita costs and program effectiveness, (b) differences in intervention levels, and (c) differences in health status.

Stuart Basten. **"Family planning restrictions and a generation of excess males: analysis of national and provincial data from the 2010 Census of China."** Oxford Centre for Population Research: Working paper # 59.

In 2005, it was estimated that China had the most skewed sex ratio at birth [SRB] of any country in the world at 119 males per 100 females, with provincial SRBs ranging from 102 to 134. Such highly skewed SRB indicate widespread prenatal sex selective abortion in contravention of Chinese legislation. Using the latest data release from the 2010 Chinese Census, the author found that in the national SRB in 2009-2010 was 117.94. Over the past fifteen years there have been over one million excess male births per year resulting in an excess of 22,562,169 males aged under 20. As well as the continuation of other programs to change societal attitudes towards girls and the active enforcement of laws forbidding sex-selective abortion, reform of the family planning regime may have a beneficent impact upon SRBs.

Xuezheng QIN, Lixing LI, Chee-Ruey HSIEH. **"Too few doctors or too low wages? Labor supply of health care professionals in China."** *China Economic Review*, 2013, 24(1): 150–64.

This paper estimates the labor supply functions for health care professionals in China using Census-based data in 2005. The rapid economic growth and population aging in China led to a substantial increase in the demand for health care services and the derived demand for health care professionals in recent years. However, the increase in the supply of doctors and nurses lags behind the growth in demand, raising the question of whether the excess demand should be met by expanding the health care manpower or by inducing the existing personnel to work more hours through wage increase. Findings indicate that wage rate adjustment has a significant impact on the length of working time among the self-employed practitioners (with an estimated short-run elasticity of 0.575), while the labor supply of hospital employees is inelastic due to their fixed payment scheme. Instead, hours worked in the employee group are related to non-wage factors such as asset holdings and the hospital ownership type. An important policy implication of our study is that adjustments of labor compensation methods and hospital ownership structure are potentially effective approaches for coping with the excess demand for health care professionals and improving the quality of health care in China.

Jessie X. Fan, Ming Wen, Lei Jin, Guixin Wang. **"Disparities in Healthcare Utilization in China: Do Gender and Migration Status Matter?"** *Journal of Family and Economic Issues*, 2013, 34(1): 52-63.

Using a multi-stage cluster sampling approach, the authors collected healthcare and demographic data from 531 migrants and 529 local urban residents aged 16–64 in Shanghai, China. Logistic regressions were used to analyze the relationship between gender-migration status and healthcare utilization while controlling for predisposing, enabling and needs factors. Other things equal, female migrants and male locals had significantly lower actual healthcare utilization rates, compared to female locals. Female migrants were more likely to report "no money" as a reason for not seeking care, while male locals were more likely to report "self-medication" as a reason. Considering established gender differences in healthcare utilization, the authors conclude that female migrants as a group face the most healthcare access barriers among all groups.

Haijiang Lin, Na He, Sujuan Zhou, Yingying Ding, Danhong Qiu, Tiejun Zhang and Frank Y. Wong. **"Behavioral and Molecular Tracing of Risky Sexual Contacts in a Sample of Chinese HIV-infected Men Who Have Sex With Men."** *American Journal of Epidemiology*, 2013, Advance Access, doi: 10.1093/aje/kws256.

Contact tracing, coupled with molecular epidemiologic investigation, is especially useful for identifying an infection with few cases in the population, such as human immunodeficiency virus (HIV) infection in China. No such research is available on Chinese men who have sex with men (MSM). From 2008 to 2010 in Taizhou Prefecture in China, every newly diagnosed HIV-infected MSM was invited to participate as an "index case" in a contact tracing survey by providing contact information for up to 8 sexual contacts, who themselves were approached to receive voluntary HIV counseling and testing. Those who tested HIV-positive were then subjected to another contact tracing survey. This process was repeated until no more sexual contacts were reported or tested positive. A total of 100 HIV-infected MSM served as "index cases," including the initial 49 cases identified through routine surveillance programs and 51 cases from the present survey. Traced MSM exhibited little willingness to receive voluntary counseling and testing. CRF01_AE (HIV type 1) was the dominant subtype. Seven of 49 independent sexual networks were deemed HIV transmission clusters. Fear of stigma or discrimination may deter Chinese MSM from receiving voluntary counseling and testing. Nonetheless, the integration of behavioral network analysis and HIV phylogenetic analysis provides enhanced evidence for developing tailored prevention strategies for HIV-infected MSM.

Lu Shi & Donglan Zhang. **"China's New Rural Cooperative Medical Scheme and Underutilization of Medical Care Among Adults Over 45: Evidence From CHARLS Pilot Data."** *The Journal of Rural Health*, DOI: 10.1111/jrh.12013

With a 2-province pilot sample (Gansu, the poorest province, and Zhejiang, one of the richest) of people over age 45 from the China Health and Retirement Longitudinal Study (CHARLS), this paper used logistic regressions to examine the association between the coverage of New Rural Cooperative Medical Scheme (NCMS) and the underutilization of medical care. It found that among those who had a need to visit a health care provider during the previous month, people covered by NCMS were more likely to underutilize outpatient care than the uninsured (Odds Ratio = 5.610, 2.035-15.466). As for those who had a need to be hospitalized in the past year, the association between NCMS coverage and the underutilization of inpatient care was not statistically significant (Odds Ratio = 1.907, 0.335-10.862). Low total household expenditure per capita, living in the inland province of Gansu, and being an urban resident were also associated with underutilizing outpatient care. Further research is needed to understand the negative association between NCMS coverage and outpatient care utilization.