

RESEARCH TWITTER

Feng, Zhanlian, Heying Jenny Zhan, Xiaotian Feng, Chang Liu, Mingyue Sun, and Vincent Mor. "**An Industry in the Making: The Emergence of Institutional Elder Care in Urban China.**" *Journal of the American Geriatrics Society*, 2011, 59(4):738-744.

Demographic shifts in China pose unprecedented challenges in the care of a rapidly growing older population. This study documents the growth, ownership, financing, staffing, and resident characteristics of elder care institutions using survey data collected in 2009 from Nanjing, China, supplemented with government registry data from seven additional major Chinese cities. The findings portray the emergence and rapid growth of a nascent industry of institutional long-term care in urban China and a fundamental shift in institutional ownership, financing, and clientele.

Mu, Ren, and Xiaobo Zhang "**Why Does the Great Chinese Famine Affect the Male and Female Survivors Differently? Mortality Selection versus Son Preference.**" *Economics and human biology*, 2011, 9(1):92-105.

Evidence shows that exposure to nutritional adversity in early life has larger long-term impacts on women than on men. Consistent with these findings, our paper shows a higher incidence of disability and illiteracy among female survivors of the Great Chinese Famine (1959-1961). Moreover we find that the better health of male survivors most plausibly reflects higher male excess mortality during the famine, whereas the observed gender difference in illiteracy rate is probably better explained by the culture of son preference.

Xi, Bo, Chunyu Wang, Lijun Wu, Meixian Zhang, Yue Shen, Xiaoyuan Zhao, Xingyu Wang and Jie Mi. "**Influence of Physical Inactivity on Associations Between Single Nucleotide Polymorphisms and Genetic Predisposition to Childhood Obesity.**" *American Journal of Epidemiology*, 2011, 173(11): 1256-62.

This paper explored whether sedentary behavior and physical activity modulate the association between single nucleotide polymorphisms (SNPs) and obesity risk in Chinese children. A population-based study was carried out in 2,848 children in Beijing, China, in 2004. It included 1,229 obese cases and 1,619 normal-weight controls. Lifestyle information was collected through the use of a validated questionnaire, and 6 SNPs were genotyped. A higher risk of obesity was observed in children who carried the high-risk alleles of the 6 SNPs and engaged in sedentary behavior ≥ 2 hours/day outside of school or participated in low or moderate physical activity. Most notably, the association between 5 SNPs and obesity risk was only observed in children who had moderate-to-low physical activity levels or engaged in sedentary behavior. The results indicated that encouraging less sedentary behavior and higher levels of physical activity could alleviate the influence of risk alleles on genetic predisposition to childhood obesity, thereby serving as a promising prevention strategy.

Zhang, Ben, Alicia Beeghly-Fadiel, Wei Lu, Qiuyin Cai, Yong-Bing Xiang, Ying Zheng, Jirong Long, Chuanzhong Ye, Kai Gu, Xiao-Ou Shu, Yutang Gao and Wei Zheng. "**Evaluation of Functional Genetic Variants for Breast Cancer Risk: Results From the Shanghai Breast Cancer Study.**" *American Journal of Epidemiology*, 2011, 173(10): 1159-70.

In previous studies among 1,144 cases and 1,256 controls recruited in stage 1 of the Shanghai Breast Cancer Study (SBCS I; 1996–1998), 18 known or potentially functional single nucleotide polymorphisms (SNPs) in 16 genes were found to be associated with breast cancer risk. The authors evaluated these associations among 1,918 cases and 1,819 controls recruited in stage 2 of the SBCS (SBCS II; 2002–2005) using genetic effect models and subgroup analyses predetermined from SBCS I results. Five SNPs showed generally consistent results in SBCS I and SBCS II and statistically significant associations with breast cancer risk in combined analyses, mostly in subgroups defined by age or menopausal status. Further, the relation between breast cancer risk and SHBG rs6259 was found to vary by body mass index. The strongest reduction in risk associated with SHBG rs6259 was found for

lean postmenopausal minor allele carriers. This biologically plausible and highly significant finding provides strong evidence for a true association among Asian women.

Shrubsole, Martha J., Xiao Ou Shu, Hong-Lan Li, Hui Cai, Gong Yang, Yu-Tang Gao, Jin Gao and Wei Zheng. "Dietary B Vitamin and Methionine Intakes and Breast Cancer Risk Among Chinese Women." American Journal of Epidemiology, 2011, 173(10): 1171-82.

Methionine, folate, vitamin B6, vitamin B12, niacin, and riboflavin intakes may be related to breast carcinogenesis. These associations may vary by breast cancer type. Using the prospective cohort Shanghai Women's Health Study (1997–2008), the authors evaluated baseline dietary intake of these factors and breast cancer risk and whether the associations varied by menopausal status and estrogen receptor (ER) and progesterone receptor (PR) status. They estimated associations using hazard ratios and 95% confidence intervals from Cox proportional hazards regression models and stratified analyses by menopausal status and ER/PR status. For postmenopausal women, dietary intakes of methionine and B vitamins were not associated with breast cancer risk. For premenopausal women, higher intake of folate was associated with decreased breast cancer risk. Only niacin intake was associated with ER+/PR+ breast cancer risk. Findings support the hypothesis that high folate intake may reduce breast cancer risk and that the association may vary by menopausal and ER/PR status.

Lin, Sihao, Xiaorong Wang, Ignatius Tak Sun Yu, Wenjuan Tang, Jianying Miao, Jin Li, Siying Wu, and Xing Lin. "Environmental Lead Pollution and Elevated Blood Lead Levels Among Children in a Rural Area of China." American Journal of Public Health, 2011, 101(5): 834-41.

This study focused on environmental lead pollution and its impact on children's blood lead levels (BLLs) in a rural area of China. It examined 379 children younger than 15 years living in 7 villages near lead mines and processing plants in 2007, along with a control group of 61 children from another village. It followed approximately 86% of the children who had high BLLs (> 15 µg/dL) for 1 year. It found that lead concentrations in soil and household dust were much higher in polluted villages than in the control village, and more children in the polluted area than in the control village had elevated BLLs. Further, increased BLL was independently associated with environmental lead levels. This study concluded that the lead industry caused serious environmental pollution that led to high BLLs in children living nearby.

Li, Qing and Louis G. Keith. "The Differential Association between Education and Infant Mortality by Nativity Status of Chinese American Mothers: A Life-Course Perspective." American Journal of Public Health, 2011, 101(5): 899-908.

This paper investigated whether the association between maternal achieved status (education) and infant mortality differed by maternal place of origin (nativity) over the life course of Chinese Americans. It conducted a population-based cohort study of singleton live births to US-resident Chinese American mothers using National Center for Health Statistics 1995 to 2000 linked live birth and infant death cohort files. It performed Cox proportional hazards regressions of infant mortality. This paper found significant nativity-by-education interaction via stratified analyses and testing interaction terms and substantial differentials in infant mortality across divergent maternal life-course trajectories. It concluded that maternal nativity and education synergistically affect infant mortality among Chinese Americans, suggesting the importance of searching for potential mechanisms over the maternal life course and targeting identified high-risk groups and potential downward mobility.

Feng, Xing Lin, Ling Xu, Yan Guo & Carine Ronsmans. "Socioeconomic inequalities in hospital births in China between 1988 and 2008." Bulletin of the World Health Organization, 2011, 89(6): 393-468.

This study assessed trends in hospital births in China during 1988–2008 in an effort to determine if efforts to overcome financial barriers to giving birth in hospital have reduced the access gap between the rich and the poor. It used cross-sectional data from four National Health Service Surveys to determine trends in hospital births during 1988–2008. Crude and adjusted annual rates were calculated by Poisson regressions and were used to define trends across socioeconomic

regions and households in different income quintiles. It found that in 2008 women throughout China were giving birth in hospital almost universally except in region IV, the most remote rural region. Hospital births in this region had increased steadily before 2002, but after that year the upward trend slowed down. Inequalities between socioeconomic regions were greater than among individual households belonging to different income strata. By 2008 the difference between low- and high-income households in the proportion of hospital births had become very small (87.7% and 96.1%, respectively).

*Chen, Yuyu, and Weibo Xing. "Quantity, quality, and regional price variation of cigarettes: Demand analysis based on a household survey in China." *China Economic Review*, 2011, 22(2): 221-32.*

This paper investigates the price elasticity of cigarettes using an urban household survey in China. It finds that cigarette price is an important determinant of smoking. In a two-part model, the overall price elasticity is - 0.82. Tobacco demand is influenced by both price and quality. The standard price elasticities net of the quality effect of tobacco demand are between - 0.70 and - 0.35. In addition, the estimated own-price elasticities of cigarettes are - 0.57 and - 0.81 from two demand systems of Chinese households. These elasticities suggest that government revenue from the tobacco tax will increase if the tobacco excise tax rate goes up.

*Bhattacharyya, Onil, Yin Delub, Sabrina T. Wong and Chen Bowen. "Evolution of primary care in China 1997–2009." *Health Policy*, 2011, 100(2-3): 174-80.*

This paper draws on policy analysis, literature review, and a secondary analysis of two case studies and two surveys to review the structure of community health services and public reaction to them. The results suggest that despite several years of primary care reform, current performance remains poor. The capacity of providers is low, services are not felt to be affordable, and patients report concerns about safety, all contributing to low utilization of community health facilities. This paper argues that the minimum skill set for community health service providers should be clearly defined and a quality and accountability framework for community health service is needed.

*Zhang, Xuanchuan, Li-Wu Chen, Keith Mueller, Qiao Yu, Jiapeng Liu and Ge Lin. "Tracking the effectiveness of health care reform in China: A case study of community health centers in a district of Beijing." *Health Policy*, 2011, 100(2-3): 181-88.*

This paper evaluates the effectiveness of urban health reform policies in Beijing since 2007 that provided universal health insurance and strengthened local government-owned community health centers (CHCs). Pre- and post-reform data on outpatient visits, staff, and financial statements among all CHCs in a district in Beijing were analyzed by the nonparametric Kruskal–Wallis method. The post-reform data showed a substantial increase in outpatient visits at the district level, but the number of outpatient visits was flat at the CHC level. In addition, short-term CHC responses to reform policies have not been cost effective. The overall increase in outpatient visits at the district level conceals the fact that CHCs within the district were unable to attract a greater number of patients. The lack of operational efficiency in the process of establishing and transforming CHCs may put the primary care system at financial risk in the long run.

*Xie, R-H, S Liao, H Xie, Y Guo, M Walker, S W Wen. "Infant sex, family support and postpartum depression in a Chinese cohort." *Journal of Epidemiology & Community Health*, 2011, 65:722-726.*

This study assessed the impact of prenatal and postnatal family support on the association between infant sex and postpartum depression (PPD). From February to September 2007, 534 pregnant women were consecutively recruited from a hospital in Changsha, China during their prenatal visits at 30–32 weeks of gestation. They completed the 2 weeks postpartum survey and had no recorded major psychiatric disorders and obstetric and/or pregnancy complications. This study found that postnatal family support scores were much lower in women who gave birth to a female infant, and the odds ratio of PPD was 3.67 (95% CI 2.31 to 5.84) for them as compared to women who gave birth to a male infant. After adjusting by postnatal support from all family members, husband and parents, the odds ratios of PPD for women who gave birth to a female infant decreased to 2.06 (95% CI 1.20 to 3.53), 2.89 (95% CI 1.76 to 4.77) and 2.20 (95% CI 1.28 to

3.77), respectively. It is argued that increased risk of PPD in Chinese women who gave birth to a female infant can be explained to large extent by inadequate or poor postpartum support from family members, particularly husband and parents.

Yu, Xue-Jie, Mi-Fang Liang, Shou-Yin Zhang, Yan Liu, Jian-Dong Li, Yu-Lan Sun, Lihong Zhang, Quan-Fu Zhang, Vsevolod L. Popov, Chuan Li, Jing Qu, Qun Li, Yan-Ping Zhang, Rong Hai, Wei Wu, Qin Wang, Fa-Xian Zhan, Xian-Jun Wang, Biao Kan, Shi-Wen Wang, Kang-Lin Wan, Huai-Qi Jing, Jin-Xin Lu, Wen-Wu Yin, Hang Zhou, Xu-Hua Guan, Jia-Fa Liu, Zhen-Qiang Bi, Guo-Hua Liu, Jun Ren, Hua Wang, Zhuo Zhao, Jing-Dong Song, Jin-Rong He, Tao Wan, Jing-Shan Zhang, Xiu-Ping Fu, Li-Na Sun, Xiao-Ping Dong, Zi-Jian Feng, Wei-Zhong Yang, Tao Hong, Yu Zhang, David H. Walker, Yu Wang, and De-Xin Li. "**Fever with Thrombocytopenia Associated with a Novel Bunyavirus in China.**" *New England Journal of Medicine*, 2011, 364(16): 1523-32.

Heightened surveillance of acute febrile illness in China since 2009 has led to the identification of a severe fever with thrombocytopenia syndrome (SFTS) with an unknown cause. Infection with *Anaplasma phagocytophilum* has been suggested as a cause, but the pathogen has not been detected in most patients on laboratory testing. The authors obtained blood samples from patients with the case definition of SFTS in six provinces in China. The blood samples were used to isolate the causal pathogen by inoculation of cell culture and for detection of viral RNA on polymerase-chain-reaction assay. The pathogen was characterized on electron microscopy and nucleic acid sequencing. The authors used enzyme-linked immunosorbent assay, indirect immunofluorescence assay, and neutralization testing to analyze the level of virus-specific antibody in patients' serum samples. They isolated a novel virus, designated SFTS bunyavirus, from patients who presented with fever, thrombocytopenia, leukocytopenia, and multiorgan dysfunction. Results from the RNA sequence analysis revealed that the virus was a newly identified member of the genus phlebovirus in the Bunyaviridae family. Electron-microscopical examination revealed virions with the morphologic characteristics of a bunyavirus. The presence of the virus was confirmed in 171 patients with SFTS from six provinces by detection of viral RNA, specific antibodies to the virus in blood, or both. Serologic assays showed a virus-specific immune response in all 35 pairs of serum samples collected from patients during the acute and convalescent phases of the illness. The authors concluded that a novel phlebovirus was identified in patients with a life-threatening illness associated with fever and thrombocytopenia in China.