

The China Health Policy and Management Society
中国卫生政策与管理协会(海外)

China Health Review

中国卫生评论

Volume 4 Issue 2, July 2013

TABLE OF CONTENTS

Editorial Introduction	1
Interview	
CMB Open Competition Interview Series (I)	3
Perspective	
City Building and Public Health: Threats and Opportunities in China by Rui Wang, PhD	18
Special Interview	
Dr. Helena Wang, Asia Editor, <i>The Lancet</i> by Yi Pan, PhD	26
Research Twitter	32
Policy and Practice Updates	37
About CHPAMS	
From the CHPAMS Planning Committee	42
Feature Member: Jing Hao, MD, MPH	45
Members' Updates	46



China Health Review (CHR), published quarterly, is the official online magazine of the China Health Policy and Management Society (CHPAMS). The CHR is intended to promote health research, policy, practice, and education related to China and the general population health sciences by providing research and policy updates, topical reviews, and other appropriate information. Targeted audience includes (1) academic researchers within and outside of China; (2) policymakers within China; (3) other interested parties including nonprofit organizations and business leaders as appropriate.

Advisory Board

Frank J. Chaloupka, PhD, Professor, University of Illinois at Chicago
Michael Grossman, PhD, Professor, City University of New York and NBER
Teh-wei Hu, PhD, Professor Emeritus, University of California, Berkeley
Jeffery P. Koplan, MD, MPH, Director of the Emory Global Health Institute, Vice President for Global Health at Emory University
Gordon G. Liu, PhD, Professor, Peking University
Minghui Ren, MD, PhD, National Health and Family Planning Commission, China
John Strauss, PhD, Professor, University of Southern California
Winnie Yip, PhD, Professor, Oxford University
Hai Yu, MD, PhD, Professor, Zhejiang University School of Medicine

Editorial Team

Editor-in-Chief

Zhuo (Adam) Chen, PhD, MS, US Centers for Disease Control and Prevention

Sections:

Topical Review, Editor

Lu Shi, PhD, Clemson University

Perspective, Editor

Yi Ning, ScD, MD, MPH, Virginia Commonwealth University

Research Twitter, Editor

Feijun (Frank) Luo, PhD, US Centers for Disease Control and Prevention

Policy and Practice Updates, Editors

Xuezheng Qin, PhD, Peking University

Yinan Peng, PhD, MPH, US Centers for Disease Control and Prevention

Interview, Editor

Zheng (Jane) Li, PhD, US Centers for Disease Control and Prevention

About CHPAMS, Editor

Kun Zhang, MS, Emory University

News and Announcements, Editor

Muzi Na, MS, Johns Hopkins University

Visual Effects Editor

Shuli Qu, MPH, US Centers for Disease Control and Prevention

ISSN 2325-1557 (Print)
ISSN2325-1549 (Online)

Review Process:

Submissions will be reviewed and edited by the CHR's editorial team.

Contact Information:

Inquiries and submissions should be addressed to Dr. Zhuo (Adam) Chen (CHR@chpams.org).

Publisher:

The China Health Policy and Management Society

Address:

P.O. Box 1832, Tucker,
GA 30085, USA

Acknowledgement:

The China Health Review is made possible with a grant from **the China Medical Board** (CMB, Cambridge, MA). The opinions expressed in the editorials or in the articles are those of the authors and do not reflect views of the China Medical Board, nor of the institutions with which authors or members of the editorial team are affiliated.

EDITORIAL INTRODUCTION

The July 2013 issue of China Health Review includes the CMB Open Competition Interview Series I, a perspective article by Professor Rui Wang, and a special interview with Dr. Helena Wang, the Asia Editor of *the Lancet*, in addition to our usual sections.

In the *China Medical Board Open Competition (CMB-OC) Interview Series (I)*, we invited **Ms. Linda Zhou**, CMB grants Manager; **Dr. Shufang Zhang**, coordinator of the OC review process, and finalists (**Drs. Xinglin Feng**, **Weiyang Jian**, **Guoqing Hu**, **Li Zhao**, and **Ms. Qian Li**) to share their experience and insight about the OC Program.

In the *Perspective* section, **Professor Rui Wang** discussed the long-term effects on people's lifestyle and health caused by the rapid change of China's urban built environment, and suggested researchers act promptly to develop robust evidence of the relationship between urban form and health behavior.

In the *Special Interview*, **Dr. Helena Wang**, the Asia Editor of *the Lancet*, reviewed the history and focus of *the Lancet* China themed issues, described the purpose and scope of *the Lancet*, and offered suggestions regarding research topic selection and scientific writing from an editor's perspective.

Research Twitter provides summaries of ten recent publications, covering topics such as H7N9 infection, comparative epidemiology on H7N9 and H5N1, assessment of clinical severity of H7N9, health-education package to prevent worm infections among Chinese schoolchildren, the association between government subsidy and injection use in primary health care institutions, public hospital reform, responsiveness of community health services in urban China, the impacts of health insurance on health care utilization among elderly, and effect of ambient air pollution on stroke mortality in China.

Policy Practice and Updates includes six updates concerning topics including the integration of drug and food administrations, the role of private funded hospitals, initial steps in combining medical insurances, twelfth five-year plan medical reform blueprint, and medical reforms in Qinghai and Shanxi.

In *About CHPAMS*, we provide a summary of the roundtable discussion about China's public hospital reform hosted by CHPAMS during the 2013 Chinese Economists Society's annual meeting in Chengdu, China. The feature member of this issue is **Jing Hao**, an active CHPAMS Planning Committee member and a doctoral candidate in Health Policy and Management at the School of Public Health and Health Sciences, University of Massachusetts Amherst. You will also find recent career and professional updates of **Professor Dongfu Qian** and **Dr. Yi Pan**.

Enjoy Reading!

导读：

2013 年 7 月刊《中国卫生评论》除常规栏目外，还包括美国中华医学基金会(CMB)公开竞标项目访谈专题（一）、王锐教授的文章、以及对《柳叶刀》亚洲区主编王辉的专访。

在美国中华医学基金会公开竞标项目访谈专题（一）栏目，我们邀请到 CMB 项目经理**周娜**、评审协调人**张术芳**博士、以及**冯星淋**博士、**简伟研**博士、**胡国清**博士、**赵莉**博士和研究员**李茜**，来分享他们的关于公开竞标项目的经验和观点。

在**观点**部分，**王锐教授**探讨了中国城市建设环境的高速发展对城镇居民的生活方式和健康产生的长期影响，并建议政策研究人员应当迅速采取行动，调查和提供城市形态与健康行为的直接关系的有力证据。

在**专访**栏目，《柳叶刀》亚洲区主编**王辉**介绍了《柳叶刀》杂志中国专刊的由来和关注点，陈述了《柳叶刀》杂志的创刊目标和期刊的收录范围，并站在编辑的角度，就研究课题和写作方法向中国研究者提供了建议。

研究动态栏目提供了对 10 篇近期学术文章的总结，涉及领域包括：人感染 H7N9 病毒、H7N9 感染的临床发现、H7N9 和 H5N1 的比较流行病学研究、H7N9 感染严重程度的临床评估、防止中国学龄儿童蠕虫感染的健康教育程式包、运用倾向得分评估政府补助与中国基层医疗卫生机构注射使用之间的关联、中国公立医院改革的趋势、中国城镇社区卫生服务的反应度、医疗保险对中国老年人医疗服务利用情况的影响、中国环境空气污染对中风死亡率的急性影响。

政策与新闻栏目提供了包括国家食药监局的整合、厦门举办的中国社会资本办医论坛、医保并轨初起步、十二五医改县级医院改革试验路线、青海实施 5 项医改政策为民减负、山西医改的进展等 5 个方面的最新消息。

在**CHPAMS 之声**栏目，我们向您介绍了在中国成都 2013 年留美经济学会年会上，CHPAMS 举办的有关中国公立医院改革的圆桌论坛。此外，我们还向您介绍 CHPAMS 成员**郝静**——马萨诸塞大学阿姆斯特分校公共卫生与健康学院的卫生政策与管理博士生。您还可以找到**钱东福**教授和**潘羿**博士的近期工作和学术活动信息。

阅读愉快！

CMB OPEN COMPETITION INTERVIEW SERIES (I)

美国中华医学基金会公开竞标项目访谈专题（一）

SERIES INTRODUCTION

专题介绍

By *Jing Li*, MA, University of California at Berkeley
李婧，硕士，加州大学伯克利分校

In 2011, the China Medical Board (CMB) initiated the Open Competition (OC) Program as an integral part of its continuing effort to support China's junior researchers in conducting high quality research in health policy and systems sciences (HPS). Over the course of three years, numerous young scholars have benefited from participating in the grant application process of OC.

In this special interview series, we invite CMB staff, reviewers and finalists of the CMB 2012 OC to share their experience and insight about the program. The purpose of the series is threefold. First, the series aims to provide a more comprehensive overview of the OC program and enhance readers' familiarity about its purpose, process and significance. Second, the detailed experience shared by the reviewers and participants will inform potentially interested researchers and hopefully better prepare them for future participation in the OC program or any other grant application. Third, the series presents a snapshot of some of the most up-to-date and promising research projects conducted by China's young scholars in HPS, thereby offering a microcosm of the current landscape of China's HPSS research.

This issue's CMB-OC interview series includes the following:

- An introduction of CMB-OC's background, content and significance by **Linda (Na) Zhou**, Grants Manager at CMB;
- An overview of the CMB-OC review process by **Dr. Shufang Zhang**, coordinator of the CMB-OC review process;
- Five interviews with CMB-OC participants: **Drs. Xinglin Feng and Weiyan Jian** (interviewed by Jing Li), **Drs. Guoqing Hu and Li Zhao** (interviewed by Shuli Qu) and **Ms. Qian Li** (interviewed by Dr. Zhehui Luo).

CMB OPEN COMPETITION INTRODUCTION

美国中华医学基金会公开竞标项目介绍

By *Linda Zhou*, MA, the China Medical Board
周娜，硕士，美国中华医学基金会

Over the course of the 20th century, health in China has advanced significantly. Nevertheless, China still faces many challenges in providing universal, high quality, affordable healthcare to its people. The China Medical Board (美国中华医学基金会, CMB) is dedicated to supporting solutions to these challenges as part of its broader mission of promoting health in China and other Asian countries. In strengthening Chinese capacities in **health policy and systems sciences (HPS)** research and **health professional education (HPE)**, the CMB supports China's ongoing health reforms by encouraging the expansion of China's evidence-base for health policymaking.

Under the HPS umbrella strategy, **CMB Open Competition (CMB-OC)** research is designed to nurture individual capacity especially for **junior researchers** from eligible institutions and encourages **multidisciplinary** approaches. The program's strenuous merit-based peer review process seeks to identify excellent researchers or researchers with high potential, regardless of seniority. CMB-OC awards research funding of **25,000 USD - 150,000 USD per project for 2-5 years** and, and entitles awardees **opportunities for future collaborative learning, training, and mentorship**. The CMB-OC program has run for three consecutive years since 2011 and has awarded 20 grants with funding ranging from 57,000 USD to 150,000 USD. The program is highly competitive. For instance, in the 2012 cycle, CMB received 123 project applications, of which 29 abstracts were invited for full proposal development. Ultimately, 8 projects were approved for funding.

The CMB-OC supports projects in the following broad areas of HPS. As a central theme, in 2013 CMB-OC will prioritize equity in health and give special attention to the research that illuminates the measurement, causes, conditions, strategies and interventions to inequity in health.

- *Emerging health challenges in China*, especially research involving diseases with a high burden of disease in China (but excluding wet-lab based research); and
- *Health policies and health systems responses to address emerging health challenges*, such as those related to health governance, ethics, financing, human resources, care delivery systems, health technology assessment, pharmaceutical policies, and health informatics.

CMB OPEN COMPETITION REVIEW PROCESS

美国中华医学基金会公开竞标项目评审过程

By *Shufang Zhang*, PhD,
United Nations Research Institute for Social Development
张术芳，博士，联合国社会发展研究院

The key principle of the review process of CMB's Open Competition (OC) proposals is to ensure transparency and fairness. Reviewers of the OC proposals are chosen to ensure the balance of discipline representation as well as the academic rigor and credential in Health Policy and System Sciences (HPS) research.

The proposals are reviewed and assessed based on five main criteria: the likely value of the project, the appropriateness of the methods, feasibility, cross-disciplinary content and the research experience of the PI and Co-PIs. Among those five criteria, appropriateness of the methods carries the highest weight, followed by feasibility. These criteria are applied throughout the entire review process.

The review process of the CMB's Open Competition (OC) grants includes two major stages: the review of the proposal abstracts and the review of the invited full proposals.

At the review stage of proposal abstracts, each reviewer is asked to assess and score a proposal abstract based on the above mentioned 5 criteria, and make suggestion regarding whether the full proposal of the abstract shall be invited or not. The final decision on the full proposal invitation is made based on the combined results of recommendation made by each independent reviewer, whose views are weighted equally.

The review stage of the full proposal includes two steps. In step one, all submitted full proposals are reviewed and scored based on the same criteria mentioned above. Reviewers are asked to recommend based on his or her scoring whether a proposal definitely shall be funded, maybe funded conditional on revision, or not to be funded. Reviewers are also asked to provide brief comments of each proposal. The decision regarding whether a full proposal is invited for further revision is made based on the combined results of recommendations made by each independent reviewer, whose views are weighted equally. Applicants whose proposals are suggested to be funded or funded conditional on revision based on reviewer's recommendation are provided with reviewer comments of their full proposal and invited to submit a revised full proposals for final review in step two. In step two, reviewers are asked to assess and score the proposals based on the same criteria mentioned above and make final recommendations whether a proposal shall be funded or not, with brief comments of each proposal. The final funding decision is then made based on the consolidated review results and recommendations by the reviewers.

The review process follows the common standard and the decision is made purely based on the merits. In rare cases when a reviewer might have a conflict of interest, the proposals under concern are reviewed by other reviewers without conflict of interest for the proposals under concern.

In case an applicant has questions regarding the review results, CMB provides open channels for communication and clarification.

INTERVIEW WITH DR. FENG XINGLIN

冯星淋博士访谈

By *Jing Li*
李婧

Dr. Xinglin Feng is an associate professor in the Department of Health Policy and Administration at School of Public Health, Peking University. He is the Principle Investigator of the CMB Open Competition-awarded research proposal titled “How does provider payment method enhance/mitigate the effects of demand side subsidies in reducing medical impoverishment for delivery care?”

冯星淋博士是北京大学公共卫生学院卫生政策与管理学系副教授。他主持的研究项目“供方支付方式如何促进 / 缓和需方补助在减轻住院分娩带来的贫困中发挥的作用”获得了 CMB 公开竞标项目的支持。

Jing Li is a doctoral student in the Health Economics Track of Health Services and Policy Analysis program at University of California, Berkeley.

李婧为加州伯克利大学卫生服务与政策分析专业卫生经济方向博士生。

Jing: What are the most important considerations in the choice of research topic?

李婧：您此次选择研究课题时最重要的考虑是什么？

Dr. FENG: First, The CMB Open Competition is highly competitive for young researchers. I believed I have to show my previous research experience as evidenced by my publication records. We did some research to understand the coverage of institutional delivery and maternal, child and neonatal mortality in China. We found that changes in hospital delivery could fully explain the trends in maternal mortality and accounted for 48-70% change in neonatal mortality in China. The national strategy in institutional delivery in China has been successful. In 1988, only less than half of all women gave birth in hospitals, yet twenty years later hospital births have become nearly universal. Meanwhile, using national data, Long et al. (2011) reported that institutional delivery care accounts for a substantial proportion of a poor household's annual income. Based on these observations, we formulated our original idea to understand how households can afford the costs. I think this is the most important reason for choosing the topic.

Second, to achieve universal coverage of health care, demand side subsidies have been widely promoted in China, for which the New Cooperative Medical Scheme (NCMS) is a cornerstone. However, previous research findings on NCMS are mixed. For example, Wagstaff et al. (2009) reported that the NCMS have increased catastrophic spending, particularly among the poor. Zhang et al. (2010), on the other hand, found that the NCMS have promoted equity in health financing as poor inpatients can acquire more protection than the non-poor. We thought that there might be two reasons for the mixed findings in previous researches. Firstly, as methodological considerations, traditional economic analyses have focused on general uptake of inpatient or outpatient care, without qualifying the type or content of specific care received. Data have relied mostly on cross-sectional surveys where catastrophic expenditures have been measured using recalled expenditures and income. No study has investigated the actual consequences of catastrophic health expenditures on a family's impoverishment over time. Secondly, as health system considerations, former study designs considered the health system as a black box which limited the scope to inform policy by ignoring the interplay of dynamics of health system in the reform. It is widely acknowledged that incentives of Chinese health providers have long been distorted due to the retrospective fee-for-service (FFS) payment system. As a result, the poverty alleviating effects of government subsidies may be diluted or

even reversed. China's safe motherhood policy has a number of inherent characteristics that allow us to address the above limitations and therefore we choose this topic for the CMB OC.

冯星淋：首先，CMB 公开竞标项目在青年学者中的竞争是非常激烈的。我认为我需要用过去发表的文章来证实我在这方面的工作基础。我们曾做过有关中国医院分娩保险和妇女儿童及新生儿死亡率的研究，结果发现住院分娩率的变化能够完全解释妇女死亡率的变化，并能解释 48-70%的新生儿死亡率的变化。我国关于住院分娩的国家政策是较为成功的：1988年，只有不到一半的妇女在医院分娩，而二十年后几乎所有的妇女都在医院分娩。与此同时，Long et al. (2011) 报道了住院分娩费用在贫困家庭的年收入中占比很高。依据这些发现，我们形成了关于了解家庭分娩费用负担的最初构想。这是我们选择这一课题最重要的原因。

其次，为了实现全民医保，中国大力开展了需方补贴，新农合是一项标志性的政策。但是现有的关于新农合的研究结论却并不一致。举例来说，Wagstaff et al. (2009) 发现新农合增加了家庭大病卫生支出，在贫困家庭中尤其明显。Zhang et al. (2010) 却发现相对于非贫困家庭，新农合对贫困家庭对住院费用的保障程度更高，起到了促进公平的作用。我们认为两方面的原因可能导致了这样不一致的研究结果。其一，从研究方法的角度来说，既往的经济学研究只关注一般的住院或门诊服务，而不进一步细分卫生服务的种类和内容。所采用的数据也多来源于横截面调查数据，家庭收入和卫生支出往往依靠调查对象回忆获得，以此测量大病卫生支出的发生，而没有对卫生支出对家庭的长期影响进行追踪。其二，从卫生系统的角度来说，以往的研究多数把卫生系统看作一个黑匣子，忽略了卫生改革过程中系统内部各因素的互动作用，这样的研究对政策的贡献是有限的。中国目前按项目付费的制度为医疗服务者提供了扭曲的激励机制，因而政府为缓解贫困提供的补助有可能事倍功半，甚至适得其反。中国住院分娩政策的诸多特点能够让我们弥补这些过去研究中的不足，这也是我们选择这一课题的原因。

Jing: What is the proposed empirical methodology used in this study?

李婧：研究采取的实证方法是什么？

Dr. FENG: This is basically a cohort study. Three counties varying in their payment arrangement for delivery care will be studied. Women are included in the cohort 42 days after delivery and followed up 9-12 months later to observe the impoverishing effect of delivery care.

冯星淋：我们的研究采用队列研究的设计。调查选取了三个对于住院分娩采取不同支付制度的县，调查对象是 42 天内在医院分娩的妇女。我们对其进行 9-12 月的跟踪调查，从而观察住院分娩的因病致贫情况。

Jing: How the research results will impact health policy and systems sciences in China?

李婧：您认为研究结果对于中国卫生政策和系统科学有何影响？

Dr. FENG: Demand side subsidy is a major strategy in achieving universal coverage of health care. Firstly, by asking the "what" question, we want to find rigorous evidence on the impoverishing effect of delivery care giving substantial demand subsidies carried out in China. Further, by asking the "how" question, we want to understand how incentives induced by various payment arrangement affect providers' behaviors and therefore the actual financial protection effects. We think the two questions are both important to informing evidence-based policy.

冯星淋：需方补贴是促进全民医保的重要手段。我们首先问的问题是“是什么”。在现有的需方补助政策下，医院分娩对于贫困状况将产生什么影响？对此我们希望找到相对科学的证据。我们想问的另一个问题是“为什么”。我们希望了解不同支付制度产生的激励机制如何影响医疗服务者的行为，并最终如何影响医保的财务风险防范能力。我们认为这两个问题对医疗政策的制定十分重要。

Jing: What is your most important learning experience from the CMB OC grant application? How do you think it will affect your future academic career?

李婧: 您在此次 CMB 公开竞标项目申请过程中最重要的收获是什么? 您觉得这对您未来的学术生涯有怎样的影响?

Dr. FENG: The most important learning experience for me is to be persistent. We submitted the proposal for last year's CMB OC application and were offered a chance for the full proposal competition. We were not funded last year. I almost gave up this topic this year. However, a senior professor asked me to revise and submit it again. Actually, this might be the first barrel of gold for me to win the OC, of which the direct impact is that I can somehow continue my previous research. I am deeply grateful for CMB's support of the young generation of researchers in China to further their academic development.

冯星淋: 我最重要的收获是坚持。去年的 CMB 公开竞标项目我们提交了申请, 并且得到了提交完整研究计划的机会, 但最终没有通过。今年我几乎放弃了这一课题而转投其他的课题, 但是一位资深教授让我重新修改并提交原来的课题。事实上, 能够继续我之前的研究也许是我赢得公开竞标项目所收获的第一桶金。我非常感谢 CMB 对青年学者学术发展所提供的支持。

INTERVIEW WITH DR. WEIYAN JIAN

简伟研博士访谈

By Jing Li

李婧

Dr. Weiyang Jian is an associate professor in the Department of Health Policy and Administration at School of Public Health, Peking University. He is the Principle Investigator of the CMB Open Competition-awarded research proposal titled “Evaluating the impacts of DRGs Payment Reform in Beijing”.

简伟研博士是北京大学公共卫生学院卫生政策与管理学系副教授。他领导的研究项目“北京病组支付方式效果评估”为CMB公开竞标获奖项目。

Jing Li is a doctoral student in the Health Economics Track of Health Services and Policy Analysis program at University of California, Berkeley.

李婧为加州伯克利大学卫生服务与政策分析专业卫生经济方向博士生。

Jing: What are the most important considerations in the choice of research topic?

李婧：您此次选择研究课题时最重要的考虑是什么？

Dr. JIAN: There are two considerations in the choice of research topic: one is research interest, and the other is the need to address or provide scientific evidence for certain practical issues in China's health policy. We try our best to take into account both aspects.

简伟研：选择研究课题，一方面是研究兴趣，另一方面是当前中国卫生政策的实际问题中亟待解决或者需要提供科学证据的地方。我们努力把这两个方面考虑结合在一起。

Jing: What are the main obstacles in hospital data access and usage? Do you have any suggestions for researchers who intend to use administrative data records in their research?

李婧：您在获取和使用医院数据过程中最大的障碍是什么？您对希望在研究中使用医院管理数据的学者有什么建议？

Dr. JIAN: Hospitals submit reports as part of the health statistics system required by the Ministry of Health. The “discharge form” (the front page of a medical record) is at the patient-level and is similar to the discharge data in the United States. This is the main data source for our DRG research. There is significant cost involved in negotiating with multiple hospitals in accessing the data, and support from administrative departments is often needed in the process. There are several limitations in the discharge form data. First, the data only contain variables on medical treatments and expenditures, but no patient socio-demographics. Second, there is significant variation across hospitals not only in data quality but also in diagnosis and procedure coding systems, except in certain areas (e.g. Beijing). These are issues that need particular attention when we are using the discharge data.

简伟研：从常规数据来看，医院层面的报表主要是卫生部要求上报的“卫统”系列报告，其中“出院病人调查表”（即“病案首页”）是病人个体层面，与美国的“discharge data”类似，这是我们做DRG相关研究的主要信息来源。和多个医院协商使用这个数据的成本很高，因此，获取这些数据往往需要行政部门的支持。病案首页数据也有其局限。一方面是病案首页的变量局限在病人住院期间的诊治和费用信息，而没有病人社会经济情况；另一方面，数据质量在不同医院之间往往参差不齐，而且除了个别地区（如北京），各个医院之间诊断和操作编码的统一性不太好。这是使用病案首页数据时需要特别注意的问题。

Jing: How do you think the research results will affect health policy and systems sciences in China?

李婧：您认为研究结果对于中国卫生政策和系统科学有何影响？

Dr. JIAN: Provider payment reform is a hot topic in China's current health reform, and Beijing is the first city in China that adopted hospital DRG payment in a systematic way. Our research could not only help Beijing improve the local health policy, but also provide evidence for policymakers in other areas contemplating DRG payment reform. Moreover, there are many debates internationally regarding the benefit of DRG payment, and our research may be able to inform those debates by providing evidence from China.

简伟研：支付制度改革是中国当前卫生领域改革的热点问题，而北京是中国第一个系统使用 DRGs 支付医院费用的试点城市，这个研究不仅有助于北京完善本地的卫生政策，而且，对于其他计划引入 DRG 付费的地区，也能提供证据，供决策者参考。再者，国际上对 DRG 付费也有许多的争议，这次评估的结果，也可能为这些争议性问题提供中国的证据。

Jing: What is your most important learning experience from the CMB OC grant application? How it will affect your future academic career?

李婧：您在此次 CMB 公开竞标项目申请过程中最重要的收获是什么？您觉得这对您未来的学术生涯有怎样的影响？

Dr. JIAN: CMB's Open Competition has provided an opportunity for young scholars in China to compete for research funding as well as the freedom to select research topics based on our own interests. CMB has also organized a strong panel of external reviewers who provided applicants with excellent critique and advice. All of these would not only benefit the OC applicants but also provide additional resources that promote open competition among young scholars in China's HPSS field. I would like to express my sincere gratitude towards CMB and all external reviewers who contributed to OC!

简伟研：CMB-OC 项目为中国的年轻学者提供了公平竞争获取研究资助的机会，让大家可以根据自己研究兴趣自由选择研究题目。CMB 组织了强大的外部评审专家团队，为参评的学者提出了很好的意见和建议。所有这些，不仅有益于 OC 项目的申请者本人，更重要的是，在中国 HPSS 领域形成了另一个可以让年轻学者公开竞标的研究支持资源。衷心感谢 CMB 和所有为 OC 做出贡献的外部评审专家！

INTERVIEW WITH DR. GUOQING HU (PROFESSOR, CENTRAL SOUTH UNIVERSITY)

胡国清博士（中南大学教授）访谈

By Shuli Qu
曲姝丽

Dr. Guoqing Hu is a Professor and the Associated Chair of the Department of Epidemiology and Health Statistics at the School of Public Health, Central South University. Dr. Hu's research interests focus on injury prevention and public health emergency response. He serves as an editorial board member of *Injury Prevention* and *Injury Medicine* (electronic version), and referee for several international public health journals. Dr. Hu published over 50 peer-reviewed articles, and wrote or edited 12 books.

胡国清博士、中南大学公共卫生学院教授、流行病学与卫生统计学系副主任，主要研究方向为伤害预防和突发公共卫生事件应对，现担任《*Injury Prevention*》和《*伤害医学（电子版）*》的杂志编委，多家国际公共卫生期刊的审稿人，以第1作者或通讯作者身份发表学术论文50余篇，参与12部学术著作的编写。

Shuli Qu is an ORISE health economics research fellow.

曲姝丽是 ORISE 卫生经济学方向研究人员。

Shuli: Could you please tell us about your educational background, your research interests and describe your research proposal for the CMB OC grant application? How did you become interested in your focus area?

曲姝丽：请谈谈您的教育背景，研究兴趣和 CMB 公开竞标项目申请的研究课题。您是如何对您的研究方向产生兴趣的？

Dr. HU: I studied Public Health from 1994 to 1999 as an undergraduate at Xiangya School of Medicine (the former Hunan Medical College), Central South University. I received my Master's and PhD degrees in Epidemiology and Health Statistics in 2002 and 2006 respectively. In 2007, I had an opportunity to visit and study at Johns Hopkins Bloomberg School of Public Health, working with Professor Susan P. Baker and Professor Timothy D. Baker for a one-year postdoctoral training. During that time, I systematically studied injury prevention and began considering how to apply what I learned in the Chinese context. Given the huge burden of injury in China and that China is lagging far behind the world in injury prevention, I decided to focus my research in this area, even though it is very difficult to get funding in China for injury prevention research. The purpose of this CMB OC research proposal is to develop visual aids for children in the rural area in order to prevent road traffic injuries, because road safety in the rural area is still very underdeveloped compared to that in urban areas.

胡国清：我在 1994-1999 年间于中南大学湘雅医学院（前湖南医科大学）完成公共卫生的本科学习。稍后，我分别于 2002 年和 2006 年在中南大学湘雅医学院获得流行病学与卫生统计学专业的硕士和博士学位。2007 年，我幸运地得到了在美国约翰霍普金斯布隆伯格公共卫生学院 1 年的博士后培训机会，Susan P. Baker 教授和 Timothy D. Baker 教授是我的指导老师。在那期间，我系统学习了伤害预防知识和技能，并开始思考如何将所学知识应用于中国。伤害在中国造成了沉重的疾病负担，但中国的伤害预防工作非常落后，所以尽管在中国做伤害预防的研究很难拿到资助，我仍将大量研究精力集中在伤害预防上。由于农村对于道路安全的建设远落后于城市地区，我这次所申报的 CMB OC 标书主要目的是开发一个面向农村儿童的视觉支持干预，以促进农村的道路交通安全的发展。

Shuli: What are the main obstacles in preparing the proposal? What did you learn from this experience? How do you think it will affect your future academic career?

曲姝丽：您在准备申请的过程中最大的障碍是什么？您从这次经验中学到了什么？您认为对您未来的学术事业有怎样的影响？

Dr. HU: The greatest challenge I had in preparing the proposal was to develop a rigorous research design in order to implement the research idea and test the relevant hypotheses. Although I teach Medical Statistics in school, my training is not sufficient for the project. Unfortunately I was not able to recruit a biostatistician to join my team. Nevertheless, this experience is very helpful for my future participation in other international and domestic grant application. In the future, I will establish a long-term collaborative relationship with a biostatistician to support my injury prevention research.

胡国清：在本次标书撰写过程中，我面临的最大困难是做一个严格的设计，以实现我的研究想法，并检验研究假设。尽管我本人在学校里教医学统计学课程，但我接受的培训并不能满足这个课题的实际需要，遗憾的是我未能邀请一名生物统计学家加入项目组。不过这次的经验对我未来参与其他国际/国内的项目申请非常有帮助。今后我将与一名生物统计学家建立长期合作关系，以支持我的伤害预防研究。

Shuli: What are the implications of your project for health policy and systems science research in China?

曲姝丽：您的研究项目对于中国卫生政策与体系科学有怎样的意义？

Dr. HU: The major application of my project is to provide a viable option to prevent child road traffic injury in rural areas where road safety measures are scanty. Compared to other effective environmental and engineering interventions, visual aids are more likely to be accepted by policymakers and are easier to implement in rural areas. Once visual aids are proven to be effective, they can be easily incorporated in the design of school uniforms, backpacks, hat, scarf, etc.

胡国清：本项目的最大应用价值是为道路安全措施严重缺乏的农村地区提供一种预防儿童道路交通伤害的选择。与其他已被证明有效的环境和工程干预方法相比，视觉支持干预更容易被决策者接受，更容易在农村地区推广。一旦视觉支持干预被证明有效，它将很容易被应用于校服、书包、帽子、围巾等的设计。

Shuli: How do you plan to disseminate your research findings and to prevent road traffic injuries among primary school students in rural west China?

曲姝丽：您计划如何推广您的研究结果并在中国农村地区做好小学生道路交通伤害的预防工作？

Dr. HU: If the intervention is proven to be effective, I will submit a policy report to the Ministry of Education to promote the application of visual aids in preventing road traffic injuries among rural children. Further, I would like to develop an intervention with visual aids that are of standardized mode, style and size. I would also like to promote the use of visual aids in road traffic injury prevention via newspapers and the Internet in order to raise public awareness.

胡国清：如果视觉支持干预被证明是有效的，我将向教育部写一个政策建议报告，以推动视觉支持干预在农村儿童道路伤害预防中的应用，并进一步希望制定一个统一类型、款式和尺寸的视觉支持干预项目。另外，我还准备在报纸和网络上介绍视觉支持干预对预防农村儿童道路交通伤害的作用，以推广公众接受视觉支持干预措施。

INTERVIEW WITH DR. LI ZHAO (ASSOCIATE PROFESSOR, SICHUAN UNIVERSITY)

赵莉博士（四川大学副教授）访谈

By Shuli Qu
曲姝丽

Dr. Li Zhao is an associate professor at Sichuan University, adjunct professor at University of Kentucky, coordinator of West China Center for Rural Health Development, health education consultant of Sichuan Center for Disease Control and Prevention, and editorial board member of textbook *Health Management and Management Research Method*. Dr. Zhao's research mainly focuses on health and social behavior, health policy and management.

赵莉博士，四川大学副教授，美国肯塔基大学客座副教授，西部农村卫生政策中心项目协调员，兼任四川省疾病预防控制中心健康教育咨询专家，全国卫生管理专业规划教材《卫生管理学》、《管理研究方法》编委。主要研究领域研究方向为健康与社会行为，卫生政策与管理。

Shuli Qu is an ORISE health economics research fellow.

曲姝丽是 ORISE 卫生经济学方向研究人员。

Shuli: Could you please tell us about your educational background, your research interests and describe your research proposal submitted to the CMB OC Program? How did you become interested in your focus area?

曲姝丽：请谈谈您的教育背景，研究兴趣和 CMB 公开竞标项目申请的研究课题。您是如何对您的研究方向产生兴趣的？

Dr. ZHAO: I obtained my bachelor's degree in Education from Sichuan Normal University in 1997, and got my master's and PhD degrees in Health Behavior Research and Social Medicine and Health Management in 2002 and 2006 respectively from Sichuan University School of Public Health. In 2010-2011, I was supported by the China Medical Board (CMB) to study health management and policy in University of Kentucky School of Public Health. I became very interested in school-based injury prevention because road traffic injury among children is a growing public health concern. In China, national disease surveillance data showed that road traffic injury was the No. 2 cause of mortality among children. However, most published studies were conducted in developed countries which might not be applicable in developing countries.

赵莉：我 1997 年毕业于四川师范大学获教育学学士学位，2003 年毕业于四川大学获健康与社会行为学硕士学位，2009 年毕业于四川大学获社会医学与卫生事业管理学博士学位。2010-2011，受 CMB 资助到美国肯塔基大学公共卫生学院学习，研究方向为卫生政策与管理。我对基于学校的交通伤害预防感兴趣是因为在中国，道路交通伤害是威胁儿童健康的第二大杀手，是日益严重的公共卫生问题。而目前可得文献都是发达国家的项目，其结果并不适用于发展中国家。

Shuli: What are the main obstacles in preparing the proposal? What did you learn from this experience? How do you think it will affect your future academic career?

曲姝丽：您在准备申请的过程中最大的障碍是什么？您从这次经验中学到了什么？您认为对您未来的学术事业有怎样的影响？

Dr. ZHAO: The main obstacle in preparing the proposal is time -- preparing everything before the deadline. I think this experience will be beneficial for my future academic career.

赵莉：最大的障碍是时间，要赶在截止日期之前把一切都准备好。这次经验对我未来的学术事业很有帮助。

Shuli: What are the implications of your project for health policy and systems sciences research in China?

曲姝丽：您的研究项目对于中国卫生政策与体系科学有怎样的意义？

Dr. ZHAO: The major implication of this project is to provide affordable, effective and school-based road traffic injury prevention for children in rural areas where awareness of road safety behavior is lacking.

赵莉：本项目的最大应用价值是为道路安全意识缺乏的农村地区提供一种廉价，有效，基于现有学校系统的预防儿童道路交通伤害预防干预项目。

Shuli: How do you plan to disseminate your research findings and to prevent road traffic injuries among primary school students in rural west China?

曲姝丽：您计划如何推广您的研究结果并在中国西部农村地区做好小学生道路交通伤害的预防工作？

Dr. ZHAO: We will disseminate our research findings in the following ways: 1) the local government can use our results to develop appropriate policies and regulations to reduce road traffic injuries among children; 2) the local media can increase the publicity of road safety behavior through television, newspaper and the Internet; 3) The local education authority can incorporate road safety behavior as an integral part of the curriculum in primary and secondary schools, train teachers, and improve awareness of road safety among students and parents. My research and coordination team includes leadership from four local county governments, local traffic control authority, educational authority and schools in Chengdu City. They would be able to help in providing an effective channel to disseminate our findings.

赵莉：我们将通过以下几个途径推广此项研究成果：1) 当地党政机关可制定相应政策法规来预防减少道路交通伤害；2) 媒体部门通过电视、报纸、网络等途径加强道路安全行为的宣传；3) 当地教育部门可将道路安全行为规范统一编入中小学教材，对教师进行培训，并提高家长和学生的安全意识。我的研究和咨询团队中有成都市四个县政府的领导，交通管理部门的领导，成都市教育局领导和学校校长等，他们将为研究结果的传播扩展提供有效渠道。

INTERVIEW WITH MS. QIAN LI (RESEARCH FELLOW, SICHUAN UNIVERSITY)

李茜（四川大学研究人员）访谈

By Zhehui Luo
罗哲慧

Qian Li is a research fellow at the West China Research Center for Rural Health Development, Sichuan University. She is currently a doctoral student in Epidemiology and Health Statistics at Sichuan University School of Public Health. Ms. Li obtained a Master's degree in Clinical Medicine from Sichuan University School of Clinical Medicine in 2006 and a Master's degree in Health Policy at the London School of Hygiene and Tropical Medicine in 2011. Ms. Li's current research focuses on incentive mechanisms and policy of the health workforce, especially on how rural areas attract and retain health personnel. Her current projects include incentives in the decision of medical school graduates to work in the rural areas, satisfaction-based factors impacting attraction and retaining of rural health workers (Alliance for Health Policy and Systems Research, AHPSR) and policy analysis and evaluation of allocation and retaining of health workforce in China's underserved western areas (China Medical Board, CMB).

李茜，四川大学西部农村卫生发展中心研究人员，目前就读于四川大学公共卫生学院，流行病学与卫生统计学博士。2006年毕业于四川大学华西临床医学院，获临床医学硕士学位；2011年于伦敦卫生与热带病学院获卫生政策学硕士学位。她目前的主要研究领域为卫生人力资源激励机制和相关政策研究，特别是如何在农村地区吸引和稳定卫生人员的政策研究。目前承担和参与的主要项目有：医学毕业生赴农村地区就业激励对策研究；基于工作满意度的农村卫生工作者吸引和稳定影响因素研究(AHPSR)；中国西部卫生人力资源配置与保留的系统分析和政策评估(CMB)等。

Dr. Zhehui Luo is an assistant professor of Epidemiology and Biostatistics at the Department of Epidemiology and Biostatistics, Michigan State University in the US.

罗哲慧博士为美国密歇根州立大学流行病和生物统计学系副教授。

Dr. LUO: Please introduce you and your co-investigators.

罗哲慧：请介绍一下您和您此次公开竞标申请项目的合作者。

Qian: I am a research fellow at the West China Research Center for Rural Health Development, Sichuan University. My project is "How to attract medical graduates to underserved western China? A discrete choice experiment", which will be carried out in four provinces and autonomous regions-- Inner Mongolia, Ningxia, Sichuan and Guizhou-- that are diverse in socioeconomic, ethno-cultural and medical educational capacities. I met some of my collaborators from these regions through the CMB Rural Network. In addition, I work closely with my mentor, Dr. Mylene Lagarde at the London School of Hygiene and Tropical Medicine and other senior investigators I met from previous research projects, including Professor Lingui Li at Ningxia Medical University and Dr. Krishna D. Rao at Public Health Foundation of India. It is also a great pleasure to have my colleague, Dr. Jay Pan as a Co-PI when he joined our department last year. This multi-disciplinary team with researchers from human resources for health (HRH), health economics, sociology and epidemiology will provide various expertise needed for the project.

李茜：我是四川大学华西公共卫生学院的研究人员。我此次申请项目是“如何吸引医学院毕业生前往中国西部欠发达地区就业？——一项离散选择试验”。我们的项目将在内蒙古，宁夏，四川和贵州四个省和自治区开展。这几个地区在社会经济，少数民族文化和医学教育水平方面都有较大差异。我通过美国中华医学基金会(CMB)的农村网络认识了我在这些地区的合作者。另外，我和我在伦敦卫生与热带医学学院导师

Mylene Lagarde 博士以及我通过以往的研究项目认识的其他资深学者，包括宁夏医科大学的李林贵教授和印度公共卫生基金会的 Krishna D. Rao 博士都有密切的合作。我很高兴能够由去年加入我们院系 Jay Pan 博士担任我们此次项目的合作研究者。这支集合了卫生人力资源，卫生经济，社会学和流行病学等多学科的研究团队将为我们的项目提供其所需的各种知识和技能。

Dr. LUO: Why did you choose this topic and this area of research?

罗哲慧：您为什么会选择这一课题和研究方向？

Qian: Many rural areas in China are plagued by the problem of low health service capacity due to unbalanced distribution of health workforce between urban and rural areas. For decades, the government has expanded the enrollment of higher medical education aiming to increase quality and quantity of Human Resource for Health (HRH). However, the annual increment of actually employed health workers accounted for only 20-40% of medical graduates, indicating that many graduates do not enter clinical practice. Paradoxically, this surplus of medical graduates is accompanied by severe shortage of health workers in the rural area. As a result, my study aims to identify incentives that might attract new medical graduates to rural underserved areas and factors related to their career changes afterwards.

李茜：由于卫生事业劳动力城乡分配不均造成了中国许多农村地区的卫生服务能力低下。过去几十年来，政府不断扩大高等院校医学院的招生，希望通过这一方法提高卫生人力资源的数量和质量。但是每年增加的卫生工作者只占医学院毕业生总数量的百分之二十到四十，也就是说许多毕业生并未参加临床工作。在医学院毕业生过量的同时，农村地区卫生工作者的短缺十分严重。正因为如此，我研究的目的是发掘能够吸引医学院毕业生前往农村欠发达地区的激励机制，以及了解与他们职业改变相关的因素。

Dr. LUO: Do you anticipate any difficulties or problems in carrying out the project?

罗哲慧：您预计在项目实施过程中会出现怎样的困难和问题？

Qian: I have adopted a discrete choice experiment design which is an emerging quantitative method in HRH study. Because this is the first study of its kind in China, I expect there to be challenges related to the application of the methodology; however, with the support of my collaborators who have experience from similar studies in other developing countries, I feel confident to face these challenges. Moreover, because my study is a prospective cohort study, how to minimize levels of attrition and maintain an adequate sample size is also a challenge.

李茜：我此次项目采取了离散选择试验的设计，这是在卫生人力资源中刚刚兴起的一种定量研究方法。因为我们这一类型的研究在中国还是首例，我预计在方法实施的过程中会有一定的挑战。但是我的合作者有许多在其他发展中国家开展这类研究的经验，有他们的支持，我相信我们能够克服这些困难。另外，因为我的研究是前瞻性队列研究，如何最大程度的减少样本损耗从而保证足够的样本数量也是一项挑战。

Dr. LUO: How do you expect your research results to be used by other investigators to build the evidence base in rural health care?

罗哲慧：您认为您的其他研究者可以如何运用您的研究结果为农村医疗的实证研究作出贡献？

Qian: The phenomena studied in my project, namely high quit rates in medical career and over-supply of medical students in urban areas, are not isolated incidences. Other areas in health care can also use similar design to examine, for example, factors related to patient retention and treatment uptakes. My project will seek evidence as to what extent policies can reduce these problems.

李茜：在我项目中研究的现象，包括医学院毕业生放弃医学工作以及城镇地区的过度供给并非独立现象。医疗研究的其他领域也可以运用类似的研究设计，例如研究与病人留院和选择治疗相关的因素。我的研究将为如何运用政策解决此类问题提供依据。

Dr. LUO: What areas for future investment in rural health research would you recommend that CMB consider?

罗智慧：您建议 CMB 未来可以考虑在哪些有关农村卫生研究的领域进行投资？

Ms. LI: I have noticed that during the recent years, CMB has spared no effort in creating favorable nurturing environment for young researchers, including providing various training and grants opportunities. I would encourage CMB to continue its support to young researchers in the field of health policy and systems science and to promote exchange among young scholars. The established CMB rural network engaging 13 medical universities is an excellent platform to scale up rural health research. Collaborations among young researchers within the network should be incentivized.

李茜：我注意到近几年来，CMB致力于为年轻学者提供有利的成长环境，包括提供各类培训和研究经费申请的机会。我鼓励CMB继续为卫生政策和体系科学领域的年轻学者提供支持，并促进年轻学者之间的交流。已经成立的CMB农村网络包含了13所医科大学，为扩大农村卫生研究规模提供了非常好的平台。CMB应当继续鼓励网络内的年轻学者进行合作交流。

Dr. LUO: What is your most important learning experience from the CMB OC grant application? How do you think it will affect your future academic career?

罗智慧：您在此次CMB公开竞标项目申请过程中最重要的收获是什么？您觉得这对您未来的学术生涯有怎样的影响？

Ms. LI: The selection process of CMB OC grants was extremely rigorous: last year all awarded proposals had gone through three rounds of competition before final approval and each time we were asked to revise the proposal based on critical comments from reviewers. I think the journey to being funded by the OC Program is a valuable learning experience because you will learn how to improve your research design based on reviewers' comments from different perspectives, which is helpful especially for young researchers. This project will allow me to gather primary data to follow up a cohort of health workers, which is useful for future studies.

李茜：去年CMB公开竞标项目的筛选过程非常严格：所有获奖的申请书都经过了三轮的竞争，每一次我们都需要根据审稿人的意见作出修改。我认为此次项目的申请过程是一次宝贵的培训经验，因为审稿人的意见有许多不同的出发点，你能够从中学到如何完善研究设计。这对于年轻学者来说尤其重要。另外我还将通过此次项目收集原始数据并建立卫生工作者的队列，这对今后的研究有很大帮助。

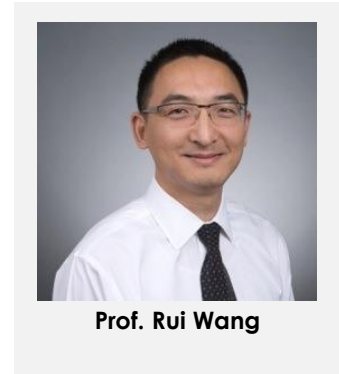
PERSPECTIVE

City Building and Public Health: Threats and Opportunities in China

城市建设与公共卫生：中国面临的挑战和机遇

By Rui WANG, Ph.D. and Assistant Professor, University of California, Los Angeles

Professor **Rui Wang's** research focuses on the policy analysis of sustainable urban development, particularly green transportation, climate change, air quality, public health, and environmental economic geography in the U.S. and/or China. His work appears in academic outlets such as *Atmospheric Environment*, *Environment and Planning C: Government and Policy*, *Journal of Economic Geography*, *Journal of Real Estate Finance and Economics*, *Transport Policy*, and *Urban Affairs Review*. Professor Wang teaches "Introduction to Environmental Policy" and "Transportation and the Environment" in the Departments of Public Policy and Urban Planning, directs the UCLA Chinese Planning Professional Training Program, and serves on the Editorial Board of U.S. DOT's *Journal of Transportation and Statistics*.



Summary

本文系统性地论述了当前中国由于经济高速增长和快速城市化，导致的生活方式相关的健康问题。王锐博士认为城市建设环境的结构性和功能性可能会通过缺乏体力活动和不良饮食习惯对健康产生影响。作者对三个方面的文献进行回顾，从社区和地区层面了解城市建设模式和健康之间的因果关系。鉴于此，王博士指出目前需要更多更完善的经验证据，来支持中国的城市建设决策。因为绝大多数的现有依据是基于横断面数据得到的，只能得到相关性而非因果关系。而且几乎所有的实证研究都基于工业化国家和地区，其现状与中国国情具有显著差别。基于以上原因以及中国各城市间的差异性，研究者需要分析中国不同地区的纵向数据，才能得到较强的因果关系推论。在中国，土地的国家所有权是中国政府进行城市建设规划的优势；然而，由于时间因素的限制，王博士建议研究人员应当尽快行动，研究城市建设规划对健康的影响；政策制定者应当基于现有的有限证据及时作出决策，为人口日益增长且老龄化的城镇居民建设健康城市。*

Abstract

Evidence suggests that the physical and functional aspects of the urban built environment may affect one's health through physical activity and access to healthy food. Rapid economic growth and urbanization have significantly changed China's urban built environment, which can have long-term effects on people's lifestyle and health. To build healthier cities for China's growing yet aging urban population, researchers should act now to develop robust evidence of the relationship between urban form and health behavior while policymakers need focus on timely decision-making with the limited evidence available.

Urbanization and health challenges in China

More than three decades of rapid economic growth in Mainland China has dramatically improved Chinese people's material well-being, although at considerable environmental and health costs (World Bank and SEPA, 2007). China is now the world's second-largest economy, the largest market for new automobiles, and the largest emitter of CO₂ and SO₂. The concentration of production and population in urban regions characterizes modern economic development throughout the world. The proportion of Chinese people living in urban areas increased from slightly below 20% in 1980 to just above 50% in 2012, with an average of over ten million urban dwellers added annually. While a significant contributor to economic growth and a better standard of living, urbanization has brought many socio-economic, environmental, and governance problems, among which pollution and "modern" lifestyles particularly challenge human health.

* This Chinese summary was prepared by Zongshuan (Jack) Duan, MPH Candidate.

As the primary driving force of urbanization, the development of industries remains a key source of pollution and environmental degradation in China. Numerous Chinese cities are on the list of the World Health Organization's most polluted cities in the world, largely a result of urban and regional industrial pollution. The economic costs of premature mortality and morbidity associated with air pollution was found to equal 1.16% to 3.8% of China's Gross Domestic Product in 2003 (World Bank and SEPA, 2007), and has probably further increased since, as both air pollutant concentration and population exposure tend to increase with urban population size (Bettencourt et al., 2007). In addition, rapid motorization caused by income growth has been shifting the source of air pollution to vehicle emissions, a main contributor to airborne fine particulates and ground-level ozone. This is especially evident in large Chinese cities. For example, Beijing's recent ambient PM_{2.5} concentrations ranged between 96.5 µg/m³ and 154.3 µg/m³, six to ten times the annual average limit (15 µg/m³) recommended by the U.S. Environmental Protection Agency (Chan and Yao, 2008). The non-attainment days for ground-level ozone (hourly ozone concentration >100 ppbv) accounted for more than 10% of days from 1999 to 2007 (Beijing Municipal Environmental Protection Bureau, 1999-2007).

This article, however, focuses on lifestyle, a source of public health problems different from environmental pollution. Many health problems, especially certain chronic but costly conditions such as type 2 diabetes, are perhaps more affected by lifestyle choices such as diet and exercise. According to Popkin (2008), China's number of overweight adult males tripled (and doubled for females) between 1989 and 2000, and nearly a quarter of all Chinese adults were overweight by 2004. Consistent with these trends, China has the world's largest and still rapidly growing diabetes population (Popkin, 2008).

At least two aspects of the urban lifestyle can be reasonably believed to have contributed to health problems in China. The first is the lack of physical activity, which is likely related to urban expansion and motorization. Urban spatial expansion has made daily travel distance too long to rely on walking or bicycling for many people. Although China as a whole is considered to have just reached the income threshold of rapid motorization, as much as one-third of trips made by residents of cities like Beijing are by car.* The "Bicycle Kingdom" has quickly given away its road space to cars and buses. The other aspect contributing to urban health problems is insufficient healthy (or too much unhealthy) food in one's diet. The urban landscape of food supply changes with the development of market economies. China is experiencing the world's fastest growth in supermarkets (e.g. Carrefour, Wal-Mart and their domestic clones), with sales at these stores growing by as much as 40% annually (Hu et al., 2004). These supermarkets are spreading to secondary cities and towns, and starting to reach higher-income populations in rural areas. It is common to observe the replacement of free markets (also called "fresh" or "wet" markets, where fresh groceries are often sold by local providers) with supermarkets that supply more processed food. Additionally, there has been an overwhelming increase of fast food restaurants that supply Western and Chinese variants of pizza, hamburgers, fried chicken, etc. Unlike the food from free markets, supermarkets and fast food restaurants more often provide food and drinks with higher fat and sugar content.

How does city building affect public health?

City building is an important channel for the government to intervene in social behaviors that may affect the economy, the environment, and public health. This does not come as a surprise, as our behaviors are constrained and shaped by the environment we live in, especially in the urban built environment. In particular, urban land use and transportation policies and planning are expected to mediate the environmental, energy and health consequences of urban growth. However, policy and planning decisions can both promote and hinder achieving social goals depending on how

* See <http://news.sohu.com/20130123/n364457668.shtml>.

they are designed. Efficient and equitable policy making for urban public health requires a thorough understanding of the causal relationships between policy instruments (e.g. planning) and outcomes (e.g. travel and food consumption behaviors and health).

At least three streams of literature have advanced our knowledge on the relationship between city building and health. The first group of studies, primarily reported by public health scholars, addresses the relationship between the built environment and public health, measured mainly by the level of physical activity and the occurrence of chronic health issues, such as obesity. There have been several reviews of this literature, such as Brownson et al. (2009), Frank and Engelke (2001), Gebel et al. (2007), Humpel et al. (2002), Kahn et al. (2002), Lee and Moudon (2004), and Papas et al. (2007). Most studies find that physical activity and health indicators, such as body mass index, correlate with the form of the built environment, measured by population density, land-use mix, access to recreational facilities, street pattern, etc.

A closely related stream of literature, which grew out of transportation and planning scholars' interests in improving the built environment in order to reduce driving, traffic congestion, and related environmental and health impacts, addresses the relationship between the built environment and travel behavior. Crane (2000), Ewing and Cervero (2010), Guo and Chen (2007), Mokhtarian and Cao (2008), and Stead and Marshall (2001) provide helpful reviews of these works. Most studies have shown that features of the built environment, such as the "three Ds" (density, diversity and design),* street network connectivity, and the clustering of high-density land uses in urban centers (or nuclearity), are often associated with travel behaviors, including mode choice, trip frequency, trip distance, etc.

Different from the above studies' focus on the physical form of the built environment, a third, yet smaller literature concerns access to community resources, or functional rather than physical aspects of the built environment, such as access to parks or healthy food. For example, Zheng (2008) and Edwards (2008) study the relationship between health behaviors (or indicators) and access to transit, while Jeffrey et al. (2006), Moore et al. (2008), and Raja et al. (2010) look at access to certain food outlets and health.

The different strands of literature increasingly converge towards a common goal of understanding how the physical and functional aspects of the built environment affect human behavior and welfare at the community or regional scale. For example, Frank et al. (2006) found that in typical American suburbs, an increase in neighborhood walkability is associated with more active travel time, fewer vehicle miles traveled, fewer CO₂ emissions per capita, and fewer cases of obesity. Younger et al. (2008) further connects the literatures with a broader review of studies from multiple disciplines.

To advance our understanding of the effects of urban form on health (and travel behavior, energy consumption, etc.), more and improved empirical evidence is needed for two reasons. First, the vast majority of existing evidence is based on cross-sectional data and only confirms the correlations between the built environment and health, leaving causality unexplained or inappropriately claimed. A small number of studies, mainly by transportation scholars, utilize a range of more sophisticated statistical strategies (e.g., propensity matching and simultaneous equations) to address the residential sorting biases (people's tendency to locate in areas consistent with their preferences). Nevertheless, most of the results are still suggestive (Guo and Chen, 2007; Mokhtarian and Cao, 2008) and do not seem to be very consistent with each other (Guo, 2009; TRB, 2009).

* Diversity refers to land use mix. Design refers to features of transportation corridors related to comfort, safety or the attractiveness to pedestrians, cyclists, and transit riders.

Second, almost all empirical studies are from industrialized countries and regions, where health background, lifestyle, and the speed of urbanization are very different from those in developing countries. Given that pollution, carbon emissions, and health challenges emerge rapidly along with urbanization and motorization in countries like China, data and analyses are very much needed to enrich our knowledge in the developing country setting. In fact, the rapid and significant socio-economic changes in cities of the developing world provide researchers with rich spatial and temporal variations in the urban built environment. The few available studies in China and South America (e.g., Cervero et al., 2009; Van de Poel et al., 2009; Zegras, 2010) find associations between certain aspects of urban form and health indicators, physical activity, or car ownership/use. Unfortunately, due to the potential residential sorting bias, none of these studies were able to infer strong causality between the built environment and travel behavior and/or health.

Building healthier Chinese cities

Promoting healthier cities in China has global significance given the size of China's population and its economy. The next couple of decades likely represent the remainder of the critical time window for policy intervention given China's rapid urbanization. Once an urban area is (re)developed, the physical infrastructure and land use pattern generally last for decades and impact the further development of adjacent areas. If city building can indeed serve as both a cure and as a threat to public health, then China's ongoing rapid urbanization provides both a crucial opportunity to build a lasting wealth and a time period for cities to make terrible mistakes that will chronically threaten human health and socio-economic sustainability. How can China's cities be planned, designed, and built, in terms of both physical and functional forms of urban space, to facilitate healthier urban lives characterized by active lifestyles and healthier diets?

The empirical question of whether, and to what extent, the physical and functional forms of cities affect behaviors and health calls for robust causal inference in the Chinese context. To better address the selection bias in cross-sectional data, a small number of studies in the U.S. have utilized panel data (especially data of the relocated individuals and households) and policy experiments to provide robust policy evaluations and decision support. For example, using longitudinal changes of households that moved in the Puget Sound area, Krizek (2003) examines impacts of local accessibility on travel behavior. Boarnet et al. (2005) survey parents of children to examine the impact of changes in the built environment on non-motorized travel as a result of California's Safe Routes to School Program. Using the National Longitudinal Survey of Youth, Eid et al. (2008) utilize the moves of young adults to detect the causal relationship between sprawl and obesity. However, the cross-country transferability of these research findings is unknown, thus calling for studies using local data from China. Although data collection can be difficult and costly, the massive and quick changes in China's urban built environment should enable abundant opportunities to observe how human behavior responds to changes in city form. To conduct such urgently needed research, China's central and local governments should provide more support for data collection and sharing. In particular, longitudinal data are crucial to addressing self-selection induced bias in estimating the built environment – behavior – health relations (see, e.g. Cao et al. 2009; TRB 2005, 2009). For example, using data from the China Health and Nutrition Survey, an international collaborative longitudinal survey of households and communities in China, Wang and Shi (2012) examine the effect of the urban food environment (density of wet markets, density of supermarkets, and density of fast food restaurants) on children's nutritional intake. Difference-in-difference analyses suggest that the density of wet markets, rather than that of supermarkets, positively predicts children's nutritional intake, especially those in households with lower socioeconomic status. Compared to findings based on cross-sectional comparisons, this study provides a more robust causal inference and thus a more reliable warning sign for decision makers, as wet markets are disappearing from urban China's food environment.

However, robust evidence on the causal relationship between city building and public health may take time to emerge in China. With the fast pace of urbanization, decision makers may not have much time to wait for stronger and clearer causal evidence. The government can, however, make decisions based on available evidence and choose options that bring co-benefits (preferably through mechanisms other than lifestyle). For example, in addition to facilitating public transit service and utilization, clustered development can leave more unpaved open spaces that reduce the effect of an urban heat island, which can decrease outdoor air quality in urban centers by increasing the concentration of photochemical oxidants (Narumi et al., 2009). Also, making streets and intersections safer for pedestrians is often worthwhile even without inducing more walking. On the other hand, when our understanding of the effects of a particular public intervention is limited, policymakers should be very careful with unintended consequences. For instance, although people benefit from active travel, the immediate adjacency of sidewalks and bicycle lanes to motor traffic may expose cyclists and pedestrians to much higher near-road air pollutant emissions (e.g., ultrafine particulates) compared to riders of transit and private vehicles (Quiros et al., 2013). Similarly, without effectively enforcing food safety regulations, the development of wet markets with a large number of small food (re)sellers may increase public health risks.

Given Chinese cities' different population sizes, resource availability, and geographic and climate patterns, applying one-size-fits-all type policies may be inappropriate. Local context-based analysis for the adjustment of policies should be conducted so that the "best practices" can be appropriately diffused to different cities. For example, in northern Chinese cities with very cold winters, non-motorized travel tends to be less appealing, and more attention should be given to public transit access.

The state ownership of urban land in China is to the advantage of the government to enforce policies and plans related to city building, as the government can often determine the form and type of land use before a land parcel is leased to a developer. However, the window of opportunity that Chinese cities currently have to promote long-lasting health benefits through city building will not remain open. It is crucial for researchers to act promptly to study city building's effects on health behavior (along with other socio-economic and environmental consequences) and for policymakers to focus on timely decision-making based upon available knowledge.

References

- Beijing Municipal Environmental Protection Bureau. (1999-2007). The communiqué on the Environmental Status of Beijing City.
- Bettencourt, L. M. A., Lobo, J., Helbing, D., Kühnert, C., & West, G. B. (2007). Growth, innovation, scaling, and the pace of life in cities. *Proc. Natl. Acad. Sci. USA.*, 104(17), 7301-7306.
- Boarnet, M., Day, K., Anderson, C., McMillan, T., & Alfonzo, M. (2005). California's Safe Routes to School Program: Impacts on Walking, Bicycling, and Pedestrian Safety. *Journal of the American Planning Association*, 71(3), 301-317.
- Brownson, R.C., Hoehner, C.M., Day, K., Forsyth, A., & Sallis, J.F. (2009). Measuring the Built Environment for Physical Activity: State of the Science. *American Journal of Preventive Medicine*, 36(4S).
- Cao, X., Mokhtarian, P. L., & Handy, S. L. (2009). Examining the impacts of residential self-selection on travel behavior: A focus on empirical findings. *Transport Reviews*, 29(3), 359-395.
- Cervero, R., Sarmiento, O., Jacoby, E., Gomez, L., & Neiman, A. (2009). Influences of Built Environments on Walking and Cycling: Lessons from Bogota. *International Journal of Sustainable Transport*, 3, 203-226.
- Chan C.K., Yao X.H. (2008). Air pollution in megacities in China. *Atmospheric Environment*, 42:1-42.
- Crane, R. (2000). The influence of urban form on travel: An interpretive review. *Journal of Planning Literature*, 15(1), 3-23.
- D.C. Quiros, E.S. Lee, R. Wang, and Y. Zhu. (2013). Ultrafine particle exposure of street users walking, cycling, and driving along an urban residential roadway, *Atmospheric Environment*, 73: 185-194.
- Edwards, R. D. (2008). Public transit, obesity, and medical costs: Assessing the magnitudes. *Preventive Medicine*, 46(1), 14-21.
- Eid, J., Overman, H., Puga, D., & Turner, M. (2008). Fat City: Questioning the Relationship Between Urban Sprawl and Obesity. *Journal of Urban Economics*, 63(2), 385-404.

- Ewing, R., & Cervero, R. (2010). Travel and the Built Environment. *Journal of the American Planning Association*, 76(3), 265-294.
- Frank, L. D., & Engelke, P. (2001). The Built Environment and Human Activity Patterns: Exploring the impacts of urban form on public health. *Journal of Planning Literature*, 16(2), 202-218.
- Frank, L., Sallis, J.F., Conway, T.L., Chapman, J.E., Saelens, B.E., & Bachman, W. (2006). Many Pathways from Land Use to Health: Associations between neighborhood walkability and active transportation, body mass index, and air quality. *Journal of the American Planning Association*, 72(1), 75-87.
- Gebel, K., Bauman, A. E., & Petticrew, M. (2007). The physical environment and physical activity. A critical appraisal of review articles. *American Journal of Preventive Medicine*, 32(5), 361-369.
- Guo, J. Y., & Chen, C. (2007). The built environment and travel behavior: making the connection. *Transportation*, 34, 529-533.
- Guo, Z. (2009). Does the Built Environment Affect the Utility of Walking? A Case of Path Choice in Downtown Boston. *Transportation Research D: Transport and Environment*, 14, 343-352.
- Hu, D., Reardon, T., Rozelle, S., Timmer, P., & Wang, H. (2004) The emergence of supermarkets with Chinese characteristics: challenges and opportunities for China's agricultural development. *Development Policy Review*, 22, 557-586.
- Humpel, N., Owen, N., & Leslie, E. (2002). Environmental factors associated with adults' participation in physical activity: A review. *American Journal of Preventative Medicine*, 22(3), 188-199.
- Jeffery, R., Baxter, J., McGuire, M., & Linde, J. (2006). Are fast food restaurants an environmental risk factor for obesity? *International Journal of Behavioral Nutrition and Physical Activity*, 3(1), 2.
- Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H., Powell, K., & Stone, E. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine*, 22(4), 73-107.
- Krizek, K. J. (2003). Residential relocation and changes in urban travel: does neighborhood-scale urban form matter? *Journal of the American Planning Association*, 69(3), 265-279.
- Lee, C., & Moudon, A. V. (2004). Physical activity and environment research in the health field: Implications for urban and transportation planning practice and research. *Journal of Planning Literature*, 19(2), 147-181.
- Mokhtarian, P. L., & Cao, X. (2008). Examining the impacts of residential self-selection on travel behavior: a focus on methodologies. *Transportation Research Part B: Methodological*, 43(3), 204-228.
- Moore, L.V., Diez-Roux, A.V., Nettleton, J.A., Jacobs, D.R. (2008). Associations of the local food environment with diet quality—a comparison of GIS and survey assessments: the multiethnic study of atherosclerosis. *American Journal of Epidemiology*, 167(8), 917-24.
- Narumi, D., Kondo, A., & Shimoda, Y. (2009). The effect of the increase in urban temperature on the concentration of photochemical oxidants. *Atmospheric Environment*, 43(14), 2348-2359.
- Papas, M. A., Alberg, A.J., Ewing, R., Helzsouer, K.J., Gary, T.L., & Klassen, A.C. (2007). The built environment and obesity. *Epidemiologic Reviews*, 29, 129-143.
- Popkin, B.M. (2008). Will China's nutrition transition overwhelm its health care system and slow economic growth? *Health Affairs*, 27(4), 1064-1076.
- Raja, S., Yin, L., Roemmich, J., Ma, C., Epstein, L., Yadav, P., & Ticoalu, A.B. (2010). Food Environment, Built Environment, and Women's BMI: Evidence from Erie County, New York. *Journal of Planning Education and Research*, 29(4), 444-460.
- Stead, D., & Marshall, S. (2001). The relationships between urban form and travel patterns. An international review and evaluation. *European Journal of Transport and Infrastructure Research*, 1(2), 113-141.
- TRB (Transportation Research Board). (2005). Does the built environment influence physical activity? Examining the evidence. *Transportation Research Board Special Report 282*.
- TRB (Transportation Research Board). (2009). Driving and the Built Environment: The Effects of Compact Development on Motorized Travel, Energy Use, and CO2 Emissions. *Transportation Review Board Special Report 298*.
- Van de Poel, E., O'Donnell, O., & Van Doorslaer, E. (2009). Urbanization and the spread of diseases of affluence in China. *Economics and Human Biology*, 7(2), 200-216.
- Wang, R., & Shi, L. (2012). Access to food outlets and children's nutritional intake in urban China: a difference-in-difference analysis. *Italian Journal of Pediatrics*, 38(30), doi:10.1186/1824-7288-38-30.
- World Bank & SEPA (State Environmental Protection Administration, P. R. China). (2007). *Cost of Pollution in China: Economic Estimates of Physical Damages*. Washington, DC: The World Bank.
- Younger, M., Morrow-Almeida, H.R., Vindigni, S.M. & Dannenberg, A.L. (2008). The built environment, climate change, and health opportunities for co-benefits. *American Journal of Preventive Medicine*, 35(5), 517-526.
- Zegras, C. (2010). The built environment and motor vehicle ownership and use: Evidence from Santiago de Chile. *Urban Studies*, 47, 1793.
- Zheng, Y. (2008). The benefit of public transportation: Physical activity to reduce obesity and ecological footprint. *Preventive Medicine*, 46(1), 4-5.

- Beijing Municipal Environmental Protection Bureau. (1999-2007). The communiqué on the Environmental Status of Beijing City.
- Bettencourt, L. M. A., Lobo, J., Helbing, D., Kühnert, C., & West, G. B. (2007). Growth, innovation, scaling, and the pace of life in cities. *Proc. Natl. Acad. Sci. USA.*, 104(17), 7301-7306.
- Boarnet, M., Day, K., Anderson, C., McMillan, T., & Alfonzo, M. (2005). California's Safe Routes to School Program: Impacts on Walking, Bicycling, and Pedestrian Safety. *Journal of the American Planning Association*, 71(3), 301-317.
- Brownson, R.C., Hoehner, C.M., Day, K., Forsyth, A., & Sallis, J.F. (2009). Measuring the Built Environment for Physical Activity: State of the Science. *American Journal of Preventive Medicine*, 36(4S).
- Cao, X., Mokhtarian, P. L., & Handy, S. L. (2009). Examining the impacts of residential self-selection on travel behavior: A focus on empirical findings. *Transport Reviews*, 29(3), 359-395.
- Cervero, R., Sarmiento, O., Jacoby, E., Gomez, L., & Neiman, A. (2009). Influences of Built Environments on Walking and Cycling: Lessons from Bogota. *International Journal of Sustainable Transport*, 3, 203-226.
- Chan C.K., Yao X.H. (2008). Air pollution in megacities in China. *Atmospheric Environment*, 42:1-42.
- Crane, R. (2000). The influence of urban form on travel: An interpretive review. *Journal of Planning Literature*, 15(1), 3-23.
- D.C. Quiros, E.S. Lee, R. Wang, and Y. Zhu. (2013). Ultrafine particle exposure of street users walking, cycling, and driving along an urban residential roadway, *Atmospheric Environment*, 73: 185-194.
- Edwards, R. D. (2008). Public transit, obesity, and medical costs: Assessing the magnitudes. *Preventive Medicine*, 46(1), 14-21.
- Eid, J., Overman, H., Puga, D., & Turner, M. (2008). Fat City: Questioning the Relationship Between Urban Sprawl and Obesity. *Journal of Urban Economics*, 63(2), 385-404.
- Ewing, R., & Cervero, R. (2010). Travel and the Built Environment. *Journal of the American Planning Association*, 76(3), 265-294.
- Frank, L. D., & Engelke, P. (2001). The Built Environment and Human Activity Patterns: Exploring the impacts of urban form on public health. *Journal of Planning Literature*, 16(2), 202-218.
- Frank, L., Sallis, J.F., Conway, T.L., Chapman, J.E., Saelens, B.E., & Bachman, W. (2006). Many Pathways from Land Use to Health: Associations between neighborhood walkability and active transportation, body mass index, and air quality. *Journal of the American Planning Association*, 72(1), 75-87.
- Gebel, K., Bauman, A. E., & Petticrew, M. (2007). The physical environment and physical activity. A critical appraisal of review articles. *American Journal of Preventive Medicine*, 32(5), 361-369.
- Guo, J. Y., & Chen, C. (2007). The built environment and travel behavior: making the connection. *Transportation*, 34, 529-533.
- Guo, Z. (2009). Does the Built Environment Affect the Utility of Walking? A Case of Path Choice in Downtown Boston. *Transportation Research D: Transport and Environment*, 14, 343-352.
- Hu, D., Reardon, T., Rozelle, S., Timmer, P., & Wang, H. (2004) The emergence of supermarkets with Chinese characteristics: challenges and opportunities for China's agricultural development. *Development Policy Review*, 22, 557-586.
- Humpel, N., Owen, N., & Leslie, E. (2002). Environmental factors associated with adults' participation in physical activity: A review. *American Journal of Preventative Medicine*, 22(3), 188-199.
- Jeffery, R., Baxter, J., McGuire, M., & Linde, J. (2006). Are fast food restaurants an environmental risk factor for obesity? *International Journal of Behavioral Nutrition and Physical Activity*, 3(1), 2.
- Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H., Powell, K., & Stone, E. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine*, 22(4), 73-107.
- Krizek, K. J. (2003). Residential relocation and changes in urban travel: does neighborhood-scale urban form matter? *Journal of the American Planning Association*, 69(3), 265-279.
- Lee, C., & Moudon, A. V. (2004). Physical activity and environment research in the health field: Implications for urban and transportation planning practice and research. *Journal of Planning Literature*, 19(2), 147-181.
- Mokhtarian, P. L., & Cao, X. (2008). Examining the impacts of residential self-selection on travel behavior: a focus on methodologies. *Transportation Research Part B: Methodological*, 43(3), 204-228.
- Moore, L.V., Diez-Roux, A.V., Nettleton, J.A., Jacobs, D.R. (2008). Associations of the local food environment with diet quality—a comparison of GIS and survey assessments: the multiethnic study of atherosclerosis. *American Journal of Epidemiology*, 167(8), 917-24.
- Narumi, D., Kondo, A., & Shimoda, Y. (2009). The effect of the increase in urban temperature on the concentration of photochemical oxidants. *Atmospheric Environment*, 43(14), 2348-2359.
- Papas, M. A., Alberg, A.J., Ewing, R., Helzlsouer, K.J., Gary, T.L., & Klassen, A.C. (2007). The built environment and obesity. *Epidemiologic Reviews*, 29, 129-143.
- Popkin, B.M. (2008). Will China's nutrition transition overwhelm its health care system and slow economic growth? *Health Affairs*, 27(4), 1064-1076.

- Raja, S., Yin, L., Roemmich, J., Ma, C., Epstein, L., Yadav, P., & Ticoalu, A.B. (2010). Food Environment, Built Environment, and Women's BMI: Evidence from Erie County, New York. *Journal of Planning Education and Research*, 29(4), 444-460.
- Stead, D., & Marshall, S. (2001). The relationships between urban form and travel patterns. An international review and evaluation. *European Journal of Transport and Infrastructure Research*, 1 (2), 113-141.
- TRB (Transportation Research Board). (2005). Does the built environment influence physical activity? Examining the evidence. *Transportation Research Board Special Report 282*.

SPECIAL INTERVIEW

INTERVIEW WITH HELENA WANG, ASIA EDITOR, THE LANCET

《柳叶刀》杂志亚洲主编王辉访谈

By Yi Pan, PhD, Emory University

潘羿，博士，艾默里大学

Helena Wang is Asia Editor of *The Lancet*. She is *The Lancet's* first point of contact with authors in Asia, building relationships with top researchers and research institutes within the region, and identifying and attracting submissions of the best research. She also does peer-review manuscripts, including fast track submissions, writes editorials, and develops *The Lancet's* presence in China through conferences and themed issues. She oversees the content of Chinese edition of *The Lancet*. She has published over 30 editorials and 3 commentaries in *The Lancet*.

Helena Wang holds a Master degree in Medicine from Tongji Medical College of Huazhong University of Science and Technology in China. She has received editorial training at *The Lancet* London Office and Oxford, and taken European Organization for Research and Treatment of Cancer course on Clinical Trial Statistics in Belgium.



王辉是《柳叶刀》杂志的亚洲主编。她是《柳叶刀》杂志亚洲地区作者的第一联系人，和亚洲顶级研究人员和科研院所建立合作关系，吸引高质量的研究投稿。她同时负责审稿，包括快速提交、撰写社论、并且通过会议和主题期刊推动《柳叶刀》在中国的业务和发展。她负责审查中文版的《柳叶刀》杂志的内容。她已在《柳叶刀》发表了 30 余篇社论和 3 篇评论。王辉拥有华中科技大学同济医学院医学硕士学位。她在《柳叶刀》杂志的伦敦办公室和牛津接受过编辑方面的培训，并在比利时接受了欧洲癌症治疗组织的临床试验统计课程。

Yi: *The Lancet*, the *British Medical Journal* (BMJ), the *Journal of the American Medical Association* (JAMA), and the *New England Journal of Medicine* (NEJM) are known as the big four medical journals. Compared with the other three journals, what do you think is the focus of *The Lancet*, and when it started to recognize the importance of health issues in China?

潘羿: 《柳叶刀》(*The Lancet*)、《英国医学杂志》(BMJ)、《美国医学会杂志》(JAMA)和《新英格兰医学杂志》(NEJM)，并称为“四大医学名刊”。您觉得相比于其他三本杂志，《柳叶刀》的侧重点是什么，从什么时候开始关注中国的健康问题？

Helena: *The Lancet* is one of the world's oldest peer-reviewed medical journals. It was founded in 1823. What makes it unique among other major medical journals is that *The Lancet* is not affiliated with any medical association or society but was founded by a surgeon, Dr. Thomas Wakley. As established by Dr. Wakley, the purposes of *The Lancet* are **to inform, to reform, to entertain**. In addition, *The Lancet* pays a great deal of attention on global health issues. Not only does it publish special issues on specific clinical topics such as cardiovascular diseases and diabetes but it also publishes special issues by geographic areas, such as China, India, Japan, Southeast Asia and Brazil. *The Lancet* is well known and highly respected in China and has published a Chinese version since 2004. *The Lancet* keeps a close eye on medical research and health care reform in China and has pledged long-term support to health professionals and health care policy reform. Since 2008, we have published three China themed issues. *The Lancet* China themed issue for 2013 will be published in June. In 2010, *The Lancet* set up its Beijing office;

it already has offices in London and New York. The position of Asia Editor was established for the first time and the position was based in Beijing China, which is closely related to development and medical research in China and the great support of China's national government on scientific research. In London office, The Lancet also has two Chinese editors. In the process, *The Lancet's* editor-in-chief Richard Horton and several editors from across the Lancet family of Journals visited China regularly, becoming very familiar with China's medical developments.

王主编:《柳叶刀》于 1823 年创刊, 是世界上最古老的同行评审的医学期刊之一。和其它几个医学名刊不同, 《柳叶刀》创刊之初就不隶属于任何医学团体或学会, 而是由一个外科医生——Dr. Thomas Wakley 创刊。Dr. Wakley 创办这本医学期刊的宗旨是: 提供更多的医疗咨询 (To inform)、改变读者的想法 (to reform), 为读者带来阅读上的喜悦 (to entertain)。此外, 《柳叶刀》非常重视全球健康的问题, 不仅出版心血管疾病、糖尿病等医学相关专刊, 还出版以国家地区为主题的特刊——中国专刊、印度专刊、日本专刊、东南亚专刊和巴西专刊等等。《柳叶刀》杂志在中国广为人知, 备受推崇, 从 2004 年开始《柳叶刀》中文版在中国出版发行。《柳叶刀》非常重视中国的医学研究和中国医疗卫生制度改革发展, 并承诺长期支持中国的医疗工作者和卫生政策改革。2008 年以来, 我们已经出版了三期中国专刊, 2013 年的中国专刊会在 6 月份出版 2010 年, 《柳叶刀》在北京开设除伦敦、纽约之外的第三个办公室, 并第一次设立亚洲编辑的职位, 并就职于北京办公室。这和医学研究在中国的发展以及中国政府对科技的大力支持密不可分。在伦敦办公室, 《柳叶刀》也有两位中国编辑。此外, 《柳叶刀》的主编 Richard Horton 和《柳叶刀》系列的几位执行主编都多次访问中国各大医学院校、研究机构, 对中国医学的发展情况非常了解。

Yi: Do you have specific suggestions for researchers from China regarding choice of article topics and research projects? Do you pay special attention to social medicine and health policy?

潘羿: 您对于中国作者在文章选题及科研项目有怎样的建议? 对社会医学和卫生政策等有没有特别关注?

Helena: My major responsibilities include reviewing submissions from Asia, especially those from China. I am also a member of fast track team, and peer reviewed many research submissions largely submitted from Europe and USA, covering different specialties. (For research papers, which will usually be randomized controlled trials, judged to warrant fast dissemination, *The Lancet* will publish a peer-reviewed manuscript within 4 weeks of receipt). Hence, I always asked myself what the major gap of medical research from China is. As I have found, it lies mainly in novelty and methodology. In addition, there are also ethical concerns.

My suggestion is that before starting a study, one needs to do his homework and put together a detailed research protocol. It is not rare in China for researchers to modify their study plans midstream or to not have detailed, specific plans at all. In terms of research methods, we will give priority to randomized controlled clinical trials, especially multi-center studies. We will also consider the generalizability of the results of the randomized controlled trials.

With respect to the research topics, I'd suggest that Chinese scientists think about whether and how their research can change clinical practice, whether the study will be scientifically meaningful, and whether their findings will have an impact on China's health policy and global health policy. Before they start their clinical research, clinicians should be familiar with research methods, and understand the essential concepts of randomized controlled studies, cross-sectional studies, case control studies, cohort studies etc. They therefore can decide if the study design is appropriate for the question they hope the clinical study to answer. It is best, at the beginning of clinical research, to consult biostatisticians about their research design such as power calculation and sample size. Researchers from China also need to think about their own research within a broader context, emphasizing the global significance and influence of their own research.

Many physicians believe that medical journals publish only articles about complex research. Therefore, they are surprised when they see that *The Lancet* also reports news and provides

perspectives. In fact, *The Lancet* also serves as medical news media. Dr. Wakley proposed to entertain when he founded the journal, which means the journal should be interesting to read. Aside from research articles in the red sections, *The Lancet* also has a blue section (Comment, World Report, Perspectives, Correspondence, etc), and a green section (Seminars, Reviews, Series, Viewpoints, etc). You can even read movie/book/exhibition reviews in *The Lancet*. Overall, the content of *The Lancet* is very comprehensive.

The Lancet will consider any original contribution that advances or illuminates medical science or practice, or that educates or entertains the journal's readers. Health policy and social medicine are indeed important areas and we have much contents in these areas. Our selection of articles is based on the significance and impact of the article on health policy. Of course, we hope that rigorous scientific research is used to evaluate policies.

王主编: 我的主要工作职责包括审理来自亚洲, 尤其是中国的投稿。同时作为快速通道小组的成员, 我也评审很多来自于欧美地区、涵盖多个研究领域的稿件。(对于某些科研文章, 通常是有对照组的临床试验, 经过评审为保证其快速发表, 《柳叶刀》能在收到投稿的四周之内发表同行评论版。) 所以, 我自己也经常思索与欧美地区的来稿相比, 中国的医学研究究竟有哪些差距我发现, 差距主要在于中国临床研究的方法学和创新性方面。此外, 医学伦理方面也有一些问题。

我的建议是在研究开始之前, 必须要做足功课: 也就是要有详细的研究方案 (protocol)。因为国内有些研究, 是一边做, 一边在修改方案, 或者是有研究方案, 却非常不详尽、具体。其次, 我们杂志对于研究方法更倾向于随机对照临床试验, 特别是多中心的研究, 这样的研究结果, 更具有推广性。

关于研究课题的选择, 我建议中国的科研工作者思考如下问题: 我的研究是否能改变临床实践、如何影响临床实践、是否有多学科的意义、对中国乃至全球卫生政策是否会有影响。开展研究之前, 临床工作者应当熟悉研究方法, 理解随机对照临床研究、横断面研究、病例对照研究、队列研究等相关概念。最好在开始临床研究时, 就研究设计咨询一下医学统计学专家, 比如统计学功效和样本量的计算。中国作者还需要有更广阔的全球视野, 也就是将自己的研究放在全球研究的背景中, 思考自己的研究的意义和影响力。

很多中国医生认为医学杂志只刊登方法学复杂的学术论文。因此, 当他们看到《柳叶刀》上还有关于医学新闻报道和时事评论时, 感到惊讶。其实, 《柳叶刀》作为一本医学期刊, 也有新闻性质。而且, 在创刊之初, Dr. Wakley 就提出过, “为读者带来阅读上的喜悦” (to entertain), 也就是一本医学期刊, 也应该让它的读者读起来觉得有趣。除了红色部分的研究文章, 《柳叶刀》杂志也有一个蓝色的部分 (评论, 世界报告, 展望, 通讯等), 绿色部分 (研讨会, 评论, 系列, 观点等)。你可能还会注意到我们还刊发影评和书评。总体而言, 《柳叶刀》杂志的内容非常全面。

《柳叶刀》杂志将考虑任何原创性推动或普及医学实践的贡献, 以及教育或娱乐读者的内容。卫生政策和社会医学确实是重要的领域, 在这些领域, 我们有很多的内容。我们选择的文章是基于对卫生政策的意义和影响。当然, 我们希望使用科学严谨的研究来评估政策。

Yi: Do you have any suggestions for researchers from China who are writing papers?

潘羿: 您对中国作者文章写作有什么建议?

Helena: First of all, some Chinese authors pay too much attention to language polishing. Although language use is important, research methods, novelty, and impact on clinical practice and policy are more important. Second, many Chinese authors do not seem to read the journal's "Information for Authors" before submitting their papers. Instead, they focus on the journal's impact factor but have rarely read articles published in their targeted journal and also do not know the specific requirements for submission. Submitting to a journal under those conditions is likely a waste of time. Third, authors from China need to pay more attention to available guidance and protocols. For example, reports of randomized controlled studies should comply with the CONSORT Statement (<http://www.consort-statement.org>), and reports of observational studies should follow the STROBE Statement (<http://www.strobe-statement.org>). The guidelines

can help the authors to be clear about what to write for each section in their papers. Finally, I suggest authors to pay more attention to writing their abstracts. Often, editors will focus on reading the abstract first. However, in many cases, Chinese authors do not follow the format of the abstract (which includes Background, Methods, Findings, Interpretation and Funding) or do not even write an abstract for their manuscript.

王主编: 首先, 我觉得中国作者过于纠结语言的问题。但我想强调的是, 语言虽然重要, 但更重要的还是研究方法、创新性和结论对于临床实践和政策的影响。第二, 很多中国作者投稿时, 从来都没有读过我们的投稿指南, 很多作者只从影响因子的角度来投稿, 但很少去读我们的杂志, 也不知道杂志对于投稿的具体要求和文章的倾向性在哪里。这样盲目的投稿, 很有可能浪费了作者自己的时间。第三, 中国作者可以多注意写作相关的指南, 来指导自己医学论文的写作, 比如 RCT 应该遵照 CONSORT 声明 (<http://www.consort-statement.org>), 观察性研究可以遵照 STROBE 指南 (<http://www.strobe-statement.org>) 来写作。这样在写作的时候, 会很清楚每个章节需要撰写哪些内容。最后, 我还是希望大家注意摘要的撰写, 很多时候, 编辑会重点读摘要, 但可能根据摘要的内容决定到底是否详细阅读全文。很多时候, 大家也不注意摘要的格式 (包括背景、方法、结果、讨论和资金来源), 甚至连摘要都没有写。

Yi: What special services do *The Lancet* provide to authors, including those outside China, such as fast-track publication? A second chance to have the paper reviewed? Could you give us more details?

潘羿: 《柳叶刀》提供给作者的特别服务包括哪些? 比如快速通道, 比如第二次评审机会? 能详细介绍一些吗?

Helena: We have already discussed the importance of the protocol in a study design. Chinese believe that a good beginning is half way to success. The Lancet provides protocol review, which will consider protocols of all types of research. For those protocols of studies that the editors consider likely to change practice, we will arrange peer-review. If accepted, The Lancet does not publish the protocol, but will post a summary on the journal website and will make a commitment to seek peer review of the resulting paper that reports the primary clinical data.

The Lancet publishes a weekly general medical journal and six monthly specialty journals in the fields of oncology, neurology, respiratory medicine, infectious diseases, diabetes & endocrinology, and global health. If a paper is considered specialized for the weekly general medical journal, it might be shown to the specialty journals to consider. Therefore, papers submitted to *The Lancet* might be considered twice: in the weekly journal and in a specialty journal.

The Lancet has a press office. When an article is accepted by *The Lancet*, we may also organize a press release with major international media outlets to promote the research coverage globally.

For research papers that are considered eligible for fast track, which usually are randomized controlled trials, *The Lancet* will publish a peer-reviewed manuscript within 4 weeks of receipt. Systematic reviews of randomized trials about diseases that have a major impact on human health also might warrant rapid peer review and publication.

王主编: 我刚才强调过试验方案的重要性。中国人也有句话说好的开始是成功的一半。《柳叶刀》有专门的方案评审, 适用于所有类型的研究。如果我们对认为某项研究有可能对医学实践带来重大改变, 我们会组织外审。如果一旦被我们接受, 我们不会刊登这个方案, 但是会在杂志网站上登载一个方案的概况并承诺对于这项研究的主要临床研究数据会组织外审。

因为《柳叶刀》除了每周出版的医学杂志, 下面还有六个每月发行的子刊, 分别为感染病、呼吸、神经、肿瘤、糖尿病和全球健康, 所以当《柳叶刀》觉得文章过于专业时, 会向各个子刊推荐, 所以对这篇文章, 实际上投到《柳叶刀》就可能有多次机会被总刊和子刊考虑。

《柳叶刀》还有新闻办公室。如果作者的文章一旦被《柳叶刀》接受，我们还可能组织新闻发布，向世界上各大重要媒体，广泛发布重要研究的进展。

如果文章研究结果需要尽快发布，这种情况多见于临床随机对照试验，我们的快速通道，会保证文章在四周内接收。对于临床随机对照试验的系统综述，而且这种综述可能对人类疾病健康产生重大影响的话，我们也会提供快速通道的审稿流程。

Yi: How should authors prepare a cover letter? What should they keep in mind when requested to revise and resubmit their manuscript? Could you give us an example based on your personal experience?

潘羿: 投稿时投稿信(cover letter) 的重要性以及应该如何写? 如果返回修稿应有什么对策? 您能否结合您的经历, 给我们举一些实际的文章投稿的例子?

Helena: The cover letter is another opportunity to communicate with the editor in addition to the paper itself. In a cover letter, you can tell the editor *why The Lancet is the proper journal to consider your paper*. Also if your study had been or will be presented in any major international conferences, please inform the editor as well. If you think that there are any particular reviewers who might have a conflict of interest to review your paper, you should let the editor know in your cover letter. If your paper has been rejected by other journals, I suggest that you be transparent about it in your cover letter. If the manuscript is returned for revision, it is best to address the reviewers' comments point by point in detail in the main text and make any necessary changes in the text to address their concerns. It has been my experience that some authors only answer the reviewers' questions but do not revise their paper accordingly. In addition, if the authors do not agree with a reviewer's point of view, they should be polite in their rebuttal and support it with relevant references.

王主编: 投稿信(cover letter)是除去论文之外, 另外一个宝贵的和编辑交流的机会。所以在投稿信里可以告诉编辑, 为什么你觉得要投到《柳叶刀》(或《柳叶刀》是合适的目标杂志), 还有如果你的文章曾经或将要在一些国际性的重要学术会议上做过专题报告, 这个时候告诉编辑。第三, 如果你觉得那些审稿人, 和你的研究有利益冲突, 不适合做这篇文章的审稿人, 也可以在投稿信中和编辑说明情况。第四, 如果曾经有被其他杂志拒稿的经历, 我建议尽量公开透明的告诉编辑。如果稿件有修稿的机会, 那么要尽量抓住这个宝贵的机会, 全面回答审稿人的问题, 并且在文中做相应的修改(我曾经碰到只回答问题, 不在文中做任何改动的中国作者), 此外, 作答时如果不同意审稿人的观点, 也需要客气礼貌提出你的反驳, 最好是有相关的参考文献来支持你的反驳的正确性。

Yi: How does *The Lancet* choose reviewers, especially when the paper is from Chinese researchers?

潘羿: 《柳叶刀》是怎样挑选审稿人, 特别是针对中国作者的文章的审稿人机制?

Helena: For papers about original research, we will pick at least three clinical reviewers and a statistician. For papers from Chinese authors or focusing on Chinese issues, if we decide to send them out for external peer review, we also try to invite an expert from China. In addition to choosing from our database of reviewers, *The Lancet* may also invite scientists who published similar studies in the same professional disciplines to serve as reviewers. And we also ask the reviewers to disclose their own conflicts of interest.

王主编: 对于原创性论文的审稿, 我们会挑选三个专业审稿人, 和 1 个统计学家, 对于中国作者的投稿和关注中国问题的投稿, 如果我们决定送外审, 我们也会希望加入一个中国的专家来审理。对于挑选审稿人, 我们除了自己有一个审稿人的数据库之外, 还可能去挑选在本专业学科里发表过类似研究的科研工作者作为审稿人, 我们在邀请审稿人时, 也会让他们申明自己的利益冲突。

Yi: As the Asia editor of *The Lancet*, what do you want to say to Chinese authors and medical researchers?

潘羿: 您作为《柳叶刀》的亚洲主编对于潜在的中国作者和医学研究者有什么寄予呢?

Helena: I am glad that researchers from China have made rapid progress in study design and scientific writing. In addition, the Chinese government provides strong support to research. But I would like to see authors from China learn more about the rules and requirements of submission to international journals, read more published journal articles before they submit papers, and stop focusing on a journal's impact factor. I look forward to the day when China leads the world not only in research quantity, but also in quality.

王主编: 我觉得可喜的是中国作者在研究设计和文章撰写时都进步很快, 国家也很重视科研, 但我希望中国作者能更多了解国际期刊投稿的规则和要求, 去阅读杂志已经发表的论著, 再有的放矢的投稿, 而不仅仅停留在杂志的影响因子上面。我也期待着有一天中国的科学研究论文不仅仅数量上领先于全世界, 也要在质量上领先。

Prof. Qiang Sun (Shandong University): What do authors need to pay attention to when submitting a paper on health policies to *The Lancet*? Does it have to be studies on large samples?

孙强 (山东大学): 卫生政策方面的研究文章向《柳叶刀》投稿时, 需要注意什么? 必须是大样本的研究?

Helena: We prefer rigorous research methods and original conclusions, and ideally, we want the study to have the potential to change health policies. Large sample size does not necessarily guarantee good research. The sample size should be adequate to address the clinical questions.

王主编: 如果是卫生政策原创性研究, 我们还是倾向于严谨的科研方法和创新性的结论, 看这个研究是否能改变医疗卫生政策。大样本不一定代表了好的研究。样本无论多少, 最重要足够能回答你的研究问题。

Qiang: With regards to the Chinese health care system especially in the area of health policy, what is *The Lancet* most interested in?

孙强: 《柳叶刀》杂志在中国卫生系统, 特别是卫生政策领域关注的主要问题有哪些?

Helena: *The Lancet* is interested in a variety of different aspects such as the Chinese health care reform, universal health insurance coverage, and the burden of disease in China.

王主编: 我们关注的面很广, 比如中国的医改、全民医疗保险和疾病负担。

RESEARCH TWITTER

Rongbao Gao, Bin Cao, Yunwen Hu, Zijian Feng, Dayan Wang, Wanfu Hu, Jian Chen, Zhijun Jie, Haibo Qiu, Ke Xu, Xuwei Xu, Hongzhou Lu, Wenfei Zhu, Zhancheng Gao, Nijuan Xiang, Yinzong Shen, Zebao He, Yong Gu, Zhiyong Zhang, Yi Yang, Xiang Zhao, Lei Zhou, Xiaodan Li, Shumei Zou, Ye Zhang, Xiyan Li, Lei Yang, Junfeng Guo, Jie Dong, Qun Li, Libo Dong, Yun Zhu, Tian Bai, Shiwen Wang, Pei Hao, Weizhong Yang, Yanping Zhang, Jun Han, Hongjie Yu, Dexin Li, George F. Gao, Guizhen Wu, Yu Wang, Zhenghong Yuan, and Yuelong Shu. **“Human Infection with a Novel Avian-Origin Influenza A (H7N9) Virus.”** *New England Journal of Medicine*, 2013, 368: 1888-97.

In March 2013, three urban residents of Shanghai or Anhui, China, presented with rapidly progressing lower respiratory tract infections and were found to be infected with a novel reassortant avian-origin influenza A (H7N9) virus. Respiratory specimens were tested for influenza and other respiratory viruses by means of real-time reverse-transcriptase–polymerase-chain-reaction assays, viral culturing, and sequence analyses. A novel reassortant avian-origin influenza A (H7N9) virus was isolated from respiratory specimens obtained from all three patients and was identified as H7N9. Sequencing analyses revealed that all the genes from these three viruses were of avian origin, with six internal genes from avian influenza A (H9N2) viruses. Substitution Q226L (H3 numbering) at the 210-loop in the hemagglutinin (HA) gene was found in the A/Anhui/1/2013 and A/Shanghai/2/2013 virus but not in the A/Shanghai/1/2013 virus. A T160A mutation was identified at the 150-loop in the HA gene of all three viruses. A deletion of five amino acids in the neuraminidase (NA) stalk region was found in all three viruses. All three patients presented with fever, cough, and dyspnea. Two of the patients had a history of recent exposure to poultry. Chest radiography revealed diffuse opacities and consolidation. Complications included acute respiratory distress syndrome and multiorgan failure. All three patients died. To conclude, novel reassortant H7N9 viruses were associated with severe and fatal respiratory disease in three patients.

Hai-Nv Gao, Hong-Zhou Lu, Bin Cao, Bin Du, Hong Shang, Jian-He Gan, Shui-Hua Lu, Yi-Da Yang, Qiang Fang, Yin-Zhong Shen, Xiu-Ming Xi, Qin Gu, Xian-Mei Zhou, Hong-Ping Qu, Zheng Yan, Fang-Ming Li, Wei Zhao, Zhan-Cheng Gao, Guang-Fa Wang, Ling-Xiang Ruan, Wei-Hong Wang, Jun Ye, Hui-Fang Cao, Xing-Wang Li, Wen-Hong Zhang, Xu-Chen Fang, Jian He, Wei-Feng Liang, Juan Xie, Mei Zeng, Xian-Zheng Wu, Jun Li, Qi Xia, Zhao-Chen Jin, Qi Chen, Chao Tang, Zhi-Yong Zhang, Bao-Min Hou, Zhi-Xian Feng, Ji-Fang Sheng, Nan-Shan Zhong, and Lan-Juan Li. **“Clinical Findings in 111 Cases of Influenza A (H7N9) Virus Infection.”** *New England Journal of Medicine*, 2013, 368: 2277-85.

The authors collected data on 111 patients with laboratory-confirmed avian-origin influenza A (H7N9) infection through May 10, 2013. Of the 111 patients studied, 76.6% were admitted to an intensive care unit (ICU), and 27.0% died. The median age was 61 years, and 42.3% were 65 years of age or older; 31.5% were female. A total of 61.3% of the patients had at least one underlying medical condition. Fever and cough were the most common presenting symptoms. On admission, 108 patients (97.3%) had findings consistent with pneumonia. Bilateral ground-glass opacities and consolidation were the typical radiologic findings. Lymphocytopenia was observed in 88.3% of patients, and thrombocytopenia in 73.0%. Treatment with antiviral drugs was initiated in 108 patients (97.3%) at a median of 7 days after the onset of illness. The median times from the onset of illness and from the initiation of antiviral therapy to a negative viral test result on real-time reverse-transcriptase–polymerase-chain-reaction assay were 11 days (interquartile range, 9 to 16) and 6 days (interquartile range, 4 to 7), respectively. Multivariate analysis revealed that the presence of a coexisting medical condition was the only independent risk factor for the acute respiratory distress syndrome (ARDS) (odds ratio, 3.42; 95% confidence interval, 1.21 to 9.70; P=0.02). During the evaluation period, the novel H7N9 virus caused severe illness, including pneumonia and ARDS, with high rates of ICU admission and death.

Benjamin J Cowling, Lianmei Jin, Eric HY Lau, Qiaohong Liao, Peng Wu, Hui Jiang, Tim K Tsang, Jiandong Zheng, Vicky J Fang, Zhaorui Chang, Michael Y Ni, Qian Zhang, Dennis KM Ip, Jianxing Yu, Yu Li, Liping Wang, Wenxiao Tu, Ling Meng, Joseph T Wu, Huiming Luo, Qun Li, Yuelong Shu, Zhongjie Li, Zijian Feng, Weizhong Yang, Yu Wang, Gabriel M Leung, and Hongjie Yu. **“Comparative epidemiology of human infections with avian influenza A H7N9 and H5N1 viruses in China: a population-based study of laboratory-confirmed cases.”** *The Lancet*, Early Online Publication, June 21 2013,. doi: 10.1016/S0140-6736(13)61171-X.

An integrated database was constructed with information about demographic, epidemiological, and clinical variables of laboratory-confirmed cases of H7N9 (130 patients) and H5N1 (43 patients) that were reported to the Chinese Centre for Disease Control and Prevention until May 24, 2013. The authors described disease occurrence by age, sex, and geography, and estimated key epidemiological variables. They used survival analysis techniques to estimate the following distributions: infection to onset, onset to admission, onset to laboratory confirmation, admission to death, and admission to discharge. The median age of the 130 individuals with confirmed infection with H7N9 was 62 years and of the 43 with H5N1 was 26 years. In urban areas, 74% of cases of both viruses were in men, whereas in rural areas the proportions of the viruses in men were 62% for H7N9 and 33% for H5N1. 75% of patients infected with H7N9 and 71% of those with H5N1 reported recent exposure to poultry. The mean incubation period of H7N9 was 3·1 days and of H5N1 was 3·3 days. On average, 21 contacts were traced for each case of H7N9 in urban areas and 18 in rural areas, compared with 90 and 63 for H5N1. The fatality risk on admission to hospital was 36% (95% CI 26-45) for H7N9 and 70% (56-83%) for H5N1. The sex ratios in urban compared with rural cases are consistent with exposure to poultry driving the risk of infection—a higher risk in men was only recorded in urban areas but not in rural areas, and the increased risk for men was of a similar magnitude for H7N9 and H5N1. However, the difference in susceptibility to serious illness with the two different viruses remains unexplained, since most cases of H7N9 were in older adults whereas most cases of H5N1 were in younger people. A limitation of this study is that it compared laboratory-confirmed cases of H7N9 and H5N1 infection, and some infections might not have been ascertained.

Hongjie Yu, Benjamin J Cowling, Luzhao Feng, Eric HY Lau, Qiaohong Liao, Tim K Tsang, Zhibin Peng, Peng Wu, Fengfeng Liu, Vicky J Fang, Honglong Zhang, Ming Li, Lingjia Zeng, Zhen Xu, Zhongjie Li, Huiming Luo, Qun Li, Zijian Feng, Bin Cao, Weizhong Yang, Joseph T Wu, Yu Wang, and Gabriel M Leung. **“Human infection with avian influenza A H7N9 virus: an assessment of clinical severity.”** *The Lancet*, Early Online Publication, 24 June 2013, doi:10.1016/S0140-6736(13)61207-6.

The authors obtained information about laboratory-confirmed cases of avian influenza A H7N9 virus infection reported as of May 28, 2013. They estimated the risk of fatality, mechanical ventilation, and admission to the intensive care unit for patients who required hospital admission for medical reasons. They also used information about laboratory-confirmed cases to estimate the symptomatic case fatality risk. Of 123 patients with laboratory-confirmed avian influenza A H7N9 virus infection who were admitted to hospital, 37 (30%) had died and 69 (56%) had recovered by May 28, 2013. The fatality risk for all ages was 36% (95% CI 26—45) on admission to hospital after incomplete data for 17 patients who were still in hospital were accounted for. Risks of mechanical ventilation or fatality (69%, 95% CI 60—77) and of admission to an intensive care unit, mechanical ventilation, or fatality (83%, 76—90) were high. With assumptions about coverage of the sentinel surveillance network and health-care-seeking behaviour for patients with influenza-like illness associated with influenza A H7N9 virus infection, and pro-rata extrapolation, the symptomatic case fatality risk was estimated between 160 (63—460) and 2800 (1000—9400) per 100 000 symptomatic cases. To conclude, human infections with avian influenza A H7N9 virus seem to be less serious than has been previously reported. Many mild cases might already have occurred. Continued vigilance and sustained intensive control efforts are needed to minimise the risk of human infection.

Franziska A. Bieri, M.Sc., Darren J. Gray, Ph.D., Gail M. Williams, Ph.D., Giovanna Raso, Ph.D., Yue-Sheng Li, Ph.D., Liping Yuan, Ph.D., Yongkang He, M.P.H., Robert S. Li, B.Inf.Tech., Feng-Ying Guo, B.A., Sheng-Ming Li, B.A., and Donald P. McManus, D.Sc. **“Health-Education Package to Prevent Worm Infections in Chinese Schoolchildren.”** *New England Journal of Medicine*, 2013, 368: 1603-12.

Soil-transmitted helminths are among the most prevalent sources of human infections globally. The authors determined the effect of an educational package at rural schools in Linxiang City District, Hunan province, China, where these worms are prevalent. They conducted a single-blind, unmatched, cluster-randomized intervention trial involving 1718 children, 9 to 10 years of age, in 38 schools over the course of 1 school year. Schools were randomly assigned to the health-education package, which included a cartoon video, or to a control package, which involved only the display of a health-education poster. Infection rates, knowledge about soil-transmitted helminths, and hand-washing behavior were assessed before and after the intervention. Albendazole was administered in all the participants at baseline and in all the children who were found to be positive for infection with soil-transmitted helminths at the follow-up assessment at the end of the school year. At the follow-up assessment, the mean score for the knowledge of helminthes was 90% higher in the intervention group than in the control group (63.3 vs. 33.4, $P<0.001$), the percentage of children who washed their hands after using the toilet was nearly twice as high in the intervention group (98.9%, vs. 54.2% in the control group; $P<0.001$), and the incidence of infection with soil-transmitted helminths was 50% lower in the intervention group than in the control group (4.1% vs. 8.4%, $P<0.001$). No adverse events were observed immediately (within 15 minutes) after albendazole treatment. The authors concluded that the health-education package increased students' knowledge about soil-transmitted helminths and led to a change in behavior and a reduced incidence of infection within 1 school year.

Yuqing Tang, Xiaopeng Zhang, Chunyan Yang, Lianping Yang, Hongtao Wang, and Xinping Zhang. **“Application of propensity scores to estimate the association between government subsidy and injection use in primary health care institutions in China.”** *BMC Health Services Research*, 2013, 13:183.

In 2009, National Essential Medicines System (NEMS) was implemented in China. The subsidy policy plays an important role in maintaining primary health care institutions. This study explores the impact of government subsidies on the injection use in primary health care institutions in China. 126 primary health institutions were included in this study. Institutions were divided into two groups (intervention and control groups) according to the median GS (General subsidy per personnel). Propensity score matching (PSM) was used to minimize the observed covariate differences in the characteristics of the primary institutions between the two groups. Kappa score was calculated to determine the consistency between the groups. Paired chi-square test and Relative Risk (RR) were calculated to compare the differences in injection use between the groups. Among all the investigated prescriptions, the overall percent of people who received an injection prescribed was 36.96% ($n=12600$). PSM showed no significant covariate difference among the 34 groups obtained through this analysis. Kappa score ($k=-0.082$, $p=0.558$) indicated an inconsistency between groups and paired chi-square test revealed a significant difference ($p<0.05$) in injection use between the two groups. Relative Risk= 0.679 (95%CI [0.485, 0.950]) indicate that high General subsidy per personnel is a protective factor for primary health care institutions to prescribe injections properly. The intervention group obtained a higher possibility of using injection properly. This study concludes that the overall effect of government subsidy on the use of injection was positively significant. However, the mechanism by which government subsidy influence injection administration remains unclear, and thus requires further study.

Sarah L. Barber, Michael Borowitz, Henk Bekedam, and Jin Ma. **“The hospital of the future in China: China's reform of public hospitals and trends from industrialized countries.”** *Health Policy and Planning*. 2013 Apr 23. [Epub ahead of print]

Hospitals compose a large share of total health spending in most countries and have been the target of reforms to improve efficiency and reduce costs. In China, the government implemented national health care reform to improve access to essential services and reduce high out-of-pocket medical spending. A key component is the comprehensive reform of public hospitals on a pilot basis, although it remains one of the least understood aspects of health care reform in China. This article outlines the main goals of the reform of public hospitals in China, progress to date and the direction of reform between now and 2015. It reviews experiences from industrialized countries and discuss the applicability to the Chinese reform process. Based on the policy directions focusing on efficiency and quality, and reflecting on how hospital systems in other countries have responded, the article concludes that the hospital of the future in China operates at county level. Barriers to realizing this are discussed.

Qing Luo, Qi Wang, Zuxun Lu, Junan Liu. **"Evaluation of responsiveness of community health services in urban china: a quantitative study in wuhan city."** *PLoS One*. 2013, 8(5):e62923.

This study aims to evaluate the levels and distributions of the responsiveness of community health services (CHS) in urban China and identify the relevant features to provide the government with policy advice on the improvement of CHS responsiveness. A total of 872 face-to-face interviews were conducted in community health centers (CHCs) from 2007 to 2009. Indicators of responsiveness that were recommended by the World Health Organization were adopted, and non-conditional logistic regression analysis was performed to explore the factors associated with the levels and distributions of the responsiveness of CHS. The responsiveness scored at a fairly 'good' level of 7.45, 7.45, and 7.46 for CHS in years 2007, 2008, and 2009, respectively. The representative responsiveness inequality indexes were 0.097, 0.101, and 0.109, respectively, indicating the moderately balanced distributions of responsiveness in these three years. During this period, the scores of responsiveness elements were highest at 7.44 to 8.34 in "dignity", "communication", and "social support", while lowest at 6.76 to 7.54 in "autonomy", "confidentiality", and "basic amenities". The results of the logistic regression analysis suggested that five elements (OR value), namely, "dignity" (1.414–3.345), "communication" (1.218–3.655), "basic amenities" (1.251–2.362), "prompt attention" (1.098–1.590), and "autonomy" (1.416–2.173), had significant associations with CHS responsiveness. The responsiveness of CHS in Wuhan City was fairly good but still requires further improvement, particularly on the working conditions of CHCs and communication skills trainings among CHS workers.

Xin Li and Wei Zhang. **"The impacts of health insurance on health care utilization among the older people in China."** *Social Science & Medicine*, 2013, 85: 59-65.

The authors examined the impacts of three different types of health insurance programs in China (Urban Employee Basic Medical Insurance (UEBMI), Urban Resident Basic Medical Insurance (URBMI), and New Cooperative Medical Scheme (NCMS)) on health care utilization among older people in two provinces of China – Zhejiang and Gansu. The data comes from the pilot survey of the China Health and Retirement Longitudinal Study (CHARLS) collected in 2008, which contains 2685 individuals in 1570 households. They used a two-part model to analyze outpatient care. For the inpatient care, the logistic regression is employed to predict the probability of being hospitalized. All analyses are weighted and marginal effects are reported. they found that compared with people without health insurance, people with UEBMI and URBMI are more likely to use outpatient services and people with UEBMI have less OOP payments in Zhejiang while in Gansu province, people with NCMS are less likely to have outpatient visits, while people with UEBMI are more likely to be hospitalized. Among those who have at least one outpatient visit, different insurance types do not make much difference in terms of the number of outpatient visits in both provinces. This study indicates that although the health insurance programs have some positive impacts on the health care utilization, these impacts are still limited.

Renjie Chen, Yuhao Zhang, Chunxue Yang, Zhuohui Zhao, Xiaohui Xu, and Haidong Kan. **“Acute Effect of Ambient Air Pollution on Stroke Mortality in the China Air Pollution and Health Effects Study.”** *Stroke*, 2013, 44: 954-60.

This study examined the associations between daily stroke mortality and outdoor air pollution (particulate matter <10 µm in aerodynamic diameter, sulfur dioxide, and nitrogen dioxide) in 8 Chinese cities. It used Poisson regression models with natural spline-smoothing functions to adjust for long-term and seasonal trends, as well as other time-varying covariates. It applied 2-stage Bayesian hierarchical statistical models to estimate city-specific and national average associations of air pollution with daily stroke mortality. It found that air pollution was associated with daily stroke mortality in 8 Chinese cities. In the combined analysis, an increase of 10 µg/m³ of 2-day moving average concentrations of particulate matter <10 µm in aerodynamic diameter, sulfur dioxide, and nitrogen dioxide corresponded to 0.54% (95% posterior intervals, 0.28–0.81), 0.88% (95% posterior intervals, 0.54–1.22), and 1.47% (95% posterior intervals, 0.88–2.06) increase of stroke mortality, respectively. The concentration–response curves indicated linear nonthreshold associations between air pollution and risk of stroke mortality.

POLICY AND PRACTICE UPDATES

大部制微调：食药监管酝酿整合 防止相互推诿

来源：新华网 2013年02月25日

<http://health.sohu.com/20130225/n366909169.shtml>

2月23日，中共中央政治局召开会议，讨论了《国务院机构改革和职能转变方案（草案）》，确定将其作为十八届二中全会的议题之一。据知情人士称，草案中的最大亮点是酝酿打造食品药品监管“大部”——将国务院食品安全委员会办公室与现由卫生部管理的国家食品药品监督管理局（下称“国家食药监局”）合并，并吸纳散落在农业、质检、工商、商务、卫生等部门的食品药品安全监管职能，成立正部级的国家食品药品安全监督管理局。

有研究食品安全监管的学者认为，食品生产经营根据其属性而言，是一个全周期的完整链条，但是由于种种历史原因，在我国，食品安全的监管被人为地划分了段落，由于多头管理，中国的食品药品安全监管体系存在颇多漏洞，国务院正试图通过新一轮“大部制”改革将这一体系理顺。

根据我国食品安全法和药品管理法规定，食品和药品的安全管理实行的是地方政府负总责的原则，意即实行地方分级管理的属地原则。在这种模式下，地方政府在接下来的机构改革中发挥创造性改革的空间很大，不一定完全根据中央的模式一刀切，但是总的思路还是要进行部门和职能的整合。

事实上，在监管体系整合方面，一些地方已经走在了中央的前面。例如陕西渭南则将农业、工商、质检、卫生、畜牧、水产甚至林业、环保和城管等部门所有有关食品安全的职能整合在一起。深圳设立的市场监督管理局，则将工商、质检、知识产权监管职能统一在一个机构下，并下设一个二级局负责食品安全监管。如果借鉴上述地方的经验，除食品药品安全监管之外，工商、质检、知识产权等市场秩序方面的监管职能亦可整合。不过，国家质监部门的一名工作人员对本报表示，虽然参照深圳模式构建大监管的思路也得到了热烈讨论，但目前尚未看到高层就此作出指示。

Integration of Drug and Food Administrations

CPC Central Committee Political Bureau held a meeting on February 23 and discussed “State Council Institutional Reform and Functional Transformation Program (the Draft)”, which will be a topic at the 18th Second Plenary Session. The Draft aims to create a Ministry of Food and Drug Safety at the national level to house the current fragmented food and drug safety regulatory bodies.

Researchers in food safety regulation points out that food production and distribution is a full-cycle process that should be administered as a whole. Due to various historical reasons, this process was broken up and regulated by multiple agencies, creating regulatory redundancy and loop holes.

Local governments will play a big role in this reform since they are the ones actually implementing food and drug safety regulations. In fact, some local governments are leading the way by combining food safety functions across multiple offices such as agriculture, commerce, quality monitoring, public health, livestock, fisheries, and even forestry and environmental protection. Experiences from local governments might serve as a blueprint for the national reform.

中国社会资本办医论谈在厦门举办

《中国行业研究网》 2013-03-02

<http://www.chinairm.com/news/20130302/090444870.html>

中国社会资本办医论坛当天在厦门举办，来自政府部门、公立和民办医院、投资方代表、相关社会团体和单位的与会者，共同探索符合中国国情的社会办医新路子。

此间，中国卫生部部长陈竺在论坛上表示，中国社会资本办医发展现状与国家“十二五”医改规划提出的目标尚有较大差距，要推进社会办医发展，加快形成多元化办医格局。当前，医改进入深水区、社会办医面临发展之际，越来越多有识之士将社会资本投入医疗卫生行业，但从整体上看，社会办医机构目前存在规模普遍偏小、地区间发展不平衡、人才结构不尽合理等问题，中国社会资本办医发展现状与国家“十二五”医改规划提出的目标尚有较大差距，要推进社会办医发展，加快形成多元化办医格局。

陈竺表示，从历史和实践看，社会办医有利于改善医疗服务体系结构、质量和效益，有利于促进医疗服务市场的竞争，促使公立医院拓宽思路、提高质量。所以，需要进一步引导和鼓励社会力量办医，推进社会办医发展，加快形成多元化的办医格局，一方面需要继续完善社会办医政策，另一方面需要在医院卫生服务需求和社会资本之间搭建桥梁，畅通渠道，互通信息。

据悉，目前中国社会办医机构数占全国总数的 47.9%，床位数占全国的 9.7%，卫生人员数占全国的 12.1%，已成为中国医疗体系的重要组成部分，对其办医质量的改革将对中国医改起到重要的影响。

Xiamen Held Debate on Private Capital Funded Hospitals

Xiamen hosted a debate on how best to use private capital to fund hospitals, with attendees from diverse backgrounds that include government agencies, public and private hospitals, investors, and related non-government organizations.

Minister of Health Chen Zhu stated that the current development in social capital funded hospitals is still far from the goals set by the Twelfth Five-Year Plan. There are existing problems that are hindering the process, such as small scale investment, uneven regional development, and less than ideal personnel distribution.

From a historical perspective, private capital funded hospitals are beneficial for reforming medical system, increasing medical service quality, and providing much needed competition for public hospitals.

Currently, 47.9% of hospitals in China are funded by private capital, occupying 9.7% of all hospital beds, and 12.1% of medical service personnel. They are an increasingly important component of the Chinese medical system.

医保并轨初起步

《财经》杂志 2013-03-25

<http://magazine.caijing.com.cn/2013-03-25/112617491.html>

2013 年 3 月 18 日，国务院总理李克强主持召开新一届国务院第一次常务会议，提出了“整合城镇职工基本医疗保险、城镇居民基本医疗保险、新型农村合作医疗的职责”这一工作动向。而在此之前的 3 月 10 日，国务委员兼国务院秘书长马凯在全国“两会”上作《关于国务院机构改革和职能转变方案的说明》中，也有对三大医保“由一个部门承担”的改革进行了表述。

中国政府之所以在近期将三大医保的并轨问题提上议程，则是由于伴随着覆盖面的不断扩大，原有的医疗保险管理体制越来越多地受到诟病。由于分属两个部门管理，新农合和城镇居民医保在大多数地方并行：两套经办机构、两套人马、两套信息系统。而两个经办机构的信息系统互不兼容，不但存在重复建设情况，更导致大量重复参保。统计显示，城镇居民和新农合的重复参保约占总人口的 10%，这无疑造成财政资金浪费。而这的结果不仅对医保制度本身造成损害，导致风险不能在更大范围内分担，加剧医保基金财务危机的可能，更使得

卫生部不堪“一手托两家”（既管医院，又管医保）的负重，行政人员不断增多，基层医疗机构甚至出现“再行政化”趋势。

因此，实现医保并轨，提高统筹层级，简化医保的行政负担，提高医保基金的抗风险能力，将医保政策和经办机构的统指挥，减少行政资源浪费的改革已势在必行。

Initial Steps in Combining Medical Insurances

On March 18, Premier LI Keqiang chaired the first executive meeting of the new State Council, and proposed combining three major medical insurances as one of the major tasks. The three main basic insurances are for urban workers, urban residents, and rural residents, and under the proposal, they will be managed under one ministry.

This proposal is a response to increasing criticism of the current medical insurance system as insurance coverage expanded. Currently, there are two co-existing systems that manage urban residents and works separate from rural residents. There are extensive overlap between the two systems, resulting in considerable waste, both in resources and personnel. About 10% of policy holders are insured under both systems. Health departments are required to manage both hospitals and medical insurances, and are straining under the pressure.

Based on these factors, it is of utter most importance to combine the three types of basic insurances under one system, to reduce burdens on the health departments and waste.

十二五医改路线公布 县级公立医院成试验田

《人民网》 2013-03-26

<http://js.people.com.cn/html/2012/03/26/93748.html>

3月21日，国务院印发《“十二五”期间深化医药卫生体制改革规划暨实施方案》，明确提出，“十二五”期间要在加快健全全民医保体制、巩固完善基本药物制度和基层运行新机制、积极推进公立医院改革三个方面取得重点突破，同时，统筹推进其他领域改革。分析人士认为，在上一轮医改，前两项任务已经取得了巨大成效，惟有公立医院改革迟迟未动。从《医改规划》可看出，公立医院改革将是未来几年内的重中之重。国务院医改办公室有关负责人也表示：“十二五”时期，改革的重心逐步从基层上移到公立医院，涉及到体制机制改革的问题更多更复杂。这是利益格局调整的深水区，医药卫生体制长期积累的深层次矛盾在这一时期集中暴露，需要逐一破解。”

作为医疗卫生服务终端的公立医院已成医改必须攻克的“堡垒”，相关部门曾经制定过很多政策试图解决此问题，但成效并不好。比如，2010年年初，《公立医院改革试点指导意见》出台，选取全国16个城市试点公立医院改革。从试点情况看，现在改革大多是围绕着外围项目转，如住院医师培训、信息化、医院管理等，对深层次的问题鲜有触及。对此，卫生部副部长马晓伟曾表示，公立医院改革在体制机制改革、结构性调整等方面仍然任重道远，主要表现为：补偿机制改革滞后、公立医院内涵建设和调动医务人员积极性的运行机制缺位、医疗资源总量不足分布不平衡、公立医院改革配套缺失以及药品生产流通体制、药品定价机制、基本医疗保障制度支付方式改革等工作推进缓慢。

对此，《医改规划》提出“十二五”期间要把县级公立医院改革放在突出位置，以破除“以药补医”机制为关键环节，统筹推进管理体制、补偿机制、人事分配、采购机制、价格机制等方面的综合改革；加强以人才、技术、重点专科为核心的能力建设，力争使县域内就诊率提高到90%左右，基本实现大病不出县。2015年要实现县级公立医院阶段性改革目标。

Twelfth Five-Year Plan Medical Reform Blueprint: Piloting in County-level Public Hospitals

The State Council recently released documents regarding the deepening of medical reform during the Twelfth Five-Year Plan. Of the three main goals, build a sound universal insurance plan,

reinforce basic drug list system, and push for public hospital reform, only the last one remains barely touched and will be the focus of the next round of medical reform.

During the Twelfth Five-Year Plan, the focus of medical reform will move from local hospitals to public hospitals, and the accompanying institutional reform problems will only become more numerous and complicated. Through this reform, many deep-seated conflicts relating to different interest groups will surface and need to be addressed one by one.

There have been several attempts at reforming public hospitals, the last “Fortress” in the medical reform process, with little to no results. Most attempts only addressed surface-level issues, without implementing any meaning change, such as reforming compensation system, building public hospital infrastructure, balancing distribution of medical resources, and ensuring repayment of basic medical insurance.

To address these issue, county-level public hospitals will become the center of attention during the new round of medical reform, and be able to provide medical care to 90% of the county population through comprehensive reform of management, repayment, personnel, purchasing, and pricing systems.

青海实施 5 项医改政策为民减负

《中国医疗保险》 2013-05-02

http://www.zgylbx.com/droqoyshnew47065_1/

从 2013 年 5 月 1 日起，青海省陆续出台实施“进一步提高城乡居民医保筹资标准并统一医保政策”“青海省城镇职工大病保险办法（试行）”“巩固完善基本药物制度和基层运行新机制”“建立青海省疾病应急救助制度”和“推进药物流通领域改革”五项今年医改的主要政策措施。

具体来说，第一，2013 年青海省将实行统一的城乡居民医保政策，将新农合和城镇居民医保并轨，实现统一的管理部门、筹资标准、州市级统筹、基本政策和信息系统，全面实现城乡居民医保一体化，为广大群众提供即时、便捷的服务；第二，青海省将实施城镇职工大病保险，减轻参加城镇职工医疗保险人员的高额医疗费用负担，职工大病保险实行州、市级统筹，省直机关、企事业单位以及中央驻省企事业单位职工大病保险实行省级管理；第三，青海省关于巩固完善基本药物制度和基层运行新机制的实施方案，明确了从完善药物采购和配送、加强基本药物使用和监管、深化夯实基层综合改革、加强基层医疗卫生服务体系建设、健全完善医药卫生监管机制五个方面进行改革；第四，青海省将建立疾病应急救助制度，主要是着力解决极少数需要急救但身份不明、无能力支付医疗费用患者的医疗急救保障问题，避免由于“等钱救命”等原因而导致严重后果的发生，切实保障人民群众生命安全，维护社会和谐稳定；第五，药品流通领域会加强对政府和基层医疗机构的监察，并建立由财政、民政、人力资源和社会保障部门联合监管和人大、政协委员、监察、审计、医学专家、捐赠人、媒体人士、群众代表等组成的基金监管委员会进行监督检查的监管机制。

Qinghai Implemented 5 Medical Reform Policies to Alleviate Residents' Medial Treatment Burden

Starting May 1 of this year, Qinghai provincial government introduced five new medical reform policies aimed providing more accessible care to its residents.

First, Qinghai province will integrate urban and rural residents' medical insurance policies under one management system to reduce waste in administrative personnel and provide faster and more convenient care to residents. Second, Qinghai province will provide serious illness insurance to urban workers to alleviate financial burden for medical care. Third, the province will reinforce and improve the essential drug list system, ensuring drug purchasing, distribution, and monitoring can be done at the local level. Fourth, the province will establish emergency care system for patients who are in dire need of medical care but whose couldn't provide identification at the time. Fifth, monitoring and supervising of the government and local medical institute will be strengthened

through coalition of various organizations such as financial, civic service, human resources, social welfare, media, and the general public.

山西“医改”迈新步 万余闲置床位被压缩

《新华网》 2013-05-08

http://news.xinhuanet.com/local/2013-05/08/c_115690432.htm

近来，山西推进公立医院改革迈出新步，对医疗资源布局、优化展开整体规划，已核减闲置医疗机构床位1.36万张。今后，床位使用率不足的医疗机构还将予以动态核减。山西省卫生厅医政处处长刘洋介绍说：“随着职能发生改变，一些乡镇卫生院和社区卫生服务机构转为公共卫生服务为主，住院病人数量已经非常少。一些厂矿医院也出现了不同程度的床位闲置问题。”其中，被压缩的病床主要集中在厂矿医院和部分基层医疗机构。

一个床位的投入究竟有多少？刘洋说，对大型医院来讲，床位投入约占其整个财政投入的5%左右。大量闲置床位的存在，导致财政投入增加、人员编制增多，维护费用也相应高涨。对于床位，基层流传着“不管用不用，放在那里就是钱”的形象说法。据介绍，此前山西医疗机构床位数为每千人4.26张，超过国家每千人4张的标准，紧跟北京、上海和广州，比周边省份都高。压缩之后，山西医疗机构床位数达到每千人3.85张。

“从全国范围来看，社会资本举办医疗机构数量占医疗机构总数约三分之一，其床位数仅占医疗机构总床位数的8%到10%，呈数量多、规模小的现状。”刘洋说，这种现状今后将得到逐步调整。因此，根据山西近来下发的通知，厂矿医院、乡（镇）卫生院等基层医疗机构闲置床位将逐步调整、核减，原则上基层医疗机构以观察床为主，不设置床位。存量床位将重点向短缺地区、社会资本举办医疗机构以及老年护理、康复等薄弱专科医院倾斜，以此优化医疗资源的配置，防治医疗基础设施的重复建设。

Shanxi Making Process in Medical Reform

Recently, Shanxi province made strides in streamlining the medical care system by reducing unused hospital bed by 13,600. Going forward, medical institutes with under-utilized hospital beds will continue this reduction based on needs.

How much does a bed cost for a hospital? For large-scale hospitals, bed investment costs about 5% of their overall finance. Large amount of unused or under-utilized beds leads to increased financial and personnel investments. Before the reform, Shanxi medical institutes have about 4.26 beds per 1,000 residents, exceeding the national standard of 4 beds per 1,000 residents. After reduction, there are about 3.85 beds per 1,000 residents.

In the future, local level health clinics will concentrate on observational beds, and surplus hospital beds will be taken to resource poor areas, private capital supported hospitals, elderly care and physical therapy facilities, to optimize and equalize distribution of medical resource.

ABOUT CHPAMS: FROM THE PLANNING COMMITTEE

REFORMING CHINA'S PUBLIC HOSPITALS: A ROUNDTABLE HOSTED BY CHPAMS

Prepared by *Lu Shi, PhD, Assistant Professor, Clemson University*

On June 9th, 2013, China Health Policy and Management Society (CHPAMS) hosted a roundtable discussion about China's public hospital reform during the 2013 Chinese Economists Society's annual meeting in Chengdu, China. As CHPAMS members initiated the discussion by introducing their recent paper about the privatization experience of township-village health centers, panelists from academia, government and the media shared their thoughts about where the public hospital reform in China should head for.

1. Introduction by Dr. Zhuo (Adam) Chen

The China Health Policy and Management Society (CHPAMS) has always intended to participate in China's health policy debate. We want to promote a dialogue between academia and policymakers. In addition, with the overseas education background of CHPAMS members, they could have many meaningful exchanges with scholars from within China. The reform of public hospitals in China is one of the hottest topics in China's health care reform agenda. Thus we host a roundtable forum at the 2013 China Economists Society's annual meeting in Chengdu, China and focus on the topic of public hospital reform, inviting panelists from academia, the government and the media to join the discussion.

The distinguished panel includes Professor Shanlian Hu, Director of the Shanghai Health Development Research Center, Shanghai Bureau of Health, and Professor, Fudan University; Professor Hengqiu Xu, Director, Office for Food Safety, Anhui Province, Deputy Director, Anhui Department of Health, Professor, Anhui Medical University; Professor Gordon Liu, Director, Institute for Health Economics, Peking University; and Lian Dai, Executive Editor, CN-healthcare.com.

CHPAMS member Lu Shi will open the discussion by introducing his recent paper on a descriptive study of the hospital privatization in Haimen County, Jiangsu Province*, which epitomizes the nationwide trends of township-village health center (TVHC, weishengyuan) reform in the past decade.

2. Panel Discussion

The following is a brief summary of the discussion points provided by Dr. Lu Shi, with inputs from Ms. Lian Dai. Note that the summary is only for the purpose of stimulating further discussion on this topic and has not been reviewed by the panelists. Any inaccuracies shall not be attributed to the panelists.

Dr. Lu Shi:

In 2002 local governments privatized many TVHCs only to find a serious exodus of TVHC employees following the privatization, coupled with significant revenue loss and caseload reduction among the privatized entities. Since 2008, there has been a new trend among local governments whereby the government bought back these privatized TVHCs and reassign the identity of "public

* Huang, J., Shi, L., & Chen, Y. (2013). Staff retention after the privatization of township-village health centers: a case study from the Haimen City of East China. *BMC Health Services Research*, 13(1), 136.

employees" to people working in TVHCs. What does this Haimen story of TVHC privatization tell us? Does it mean privatizing health care providers is infeasible without compatible reforms in health insurance and household registration system in China? If so, how do we still see successful private or for-profit hospitals in China? Or does the Haimen story of TVHC privatization merely reflect the depopulation of Rural China in the past decade?

2.1 Prof. Shanlian Hu: the difficulty of public hospital reform

There are mainly two aspects of our reform in public hospitals. The first is the fiscal part: the local governments are required to increase their fiscal input to health care; drug price will be adjusted to break the financial link between health care and drug sales. The second is the governance part: reform the personnel system, establish the corporate governance structure, build up the hospital network system, and diversify the ownership makeup.

The difficulty of health care reform in China is threefold: excessive physician workload due to demand increase, premature governance structure of health care providers, and lack of incentives for the hospital staff. In reforming public hospitals, we lack a legislated reform that changes the compensation scheme and have not moved the hospitals toward the patient-centered "accountable care organization."

The conclusion is: the health care reform in China needs to have a top-down design and long-term planning; reforming the public hospitals needs the support and collaboration from different government agencies; we need to look back at the experiences of this four-year reform

2.2 Dr. Hengqiu Xu

The Haimen story is not alone. As the TVHCs got "marketized" ordinary citizens can hardly find a place to see a doctor. The old cooperative health care scheme in Rural China collapsed and few people provided public health service there. Hence the big "buyback" trend, partly thanks to the New Rural Cooperative Medical Scheme.

For community health centers and TVHCs, the first problem is that we are short-staffed at the community health care level. Ordinary citizens still do not trust physicians at that level. The second one is that efficiency of service: TVHCs and community health centers now avoid high-risk operations that they do have the capacity to perform. For hospitals at or above the county level, the first priority is still to reform the compensation scheme. We need to increase the "sunshine income" of health care professionals while controlling those unnecessary expenditure items in pharmacological treatment and medical supplies.

2.3 Prof. Gordon Liu

Case study is a classic research method but we need to "get the big picture right." Do we really need public hospitals? Yes! The focus should be on the community level as you cannot afford to focus on both ends. Let the societal forces take care of the higher end and let the government's hand help the lower end.

Empirically, is it possible for non-governmental forces to operate high-end hospitals? I have data that compare the inpatient cost per hospitalization in Beijing and in Taipei. In Taipei the physicians' salary is ten times as high as that of Beijing physicians and 70% of Taipei hospitals are private whereas almost all hospitals in Beijing are public. You might think that a hospitalization in Taipei would cost more than one in Beijing, but in 2012 a hospitalization in Beijing cost more than 21,000 yuan while one in Taipei cost more than 17,000 yuan. My question is: where did our money go? If we allow societal forces to operate hospitals, our cost could actually be lowered rather than be increased.

My take is that the public hospital reform should encourage the societal forces to invest in the high end and then invest the very scarce government resources at the community level.

2.4 Ms. Lian Dai

I would like to share my perspective as a media person. First I would respond to Dr. Shi's Haimen case. In 2010 I did field work in Suqian, Jiangsu for more than ten days, covering townships and villages as well. I did a similar investigation in Anhui's villages and townships. And yes, Haimen is not alone. All reformed TVHCs experienced similar results. One reality is that before 2006 both private and public TVHCs were in really bad shape. TVHCs have very poor capacity in attracting talents, and it could take more than ten years to hire one university graduate. What caused such poor record in staff retention? Does ownership change alone cause it? When the ownership structure changed, does the government change its attitude toward the physicians in the privatized THVCs as well? Did the rating and training infrastructure disappear for the physicians in the privatized TVHCs? Did the expansion of the larger hospital attract a lot of people away from the privatized THVCs? I agree with Professor Shi's point that reforming public hospitals cannot be done without related reforms in household registration system and the personnel system. Does the "third way out" exist other than the public ownership and the private ownership (say, public-private partnership)? Or do we really need TVHCs at all? Can we just allow doctors to operate their own clinics?

My understanding of public hospital reform in China is not to reform the existing pool of hospitals. Rather we focus more on the new private hospitals, which grow in size, quality and number to challenge and change the way public hospitals operate.

My second question is: how shall we evaluate the reform of public hospitals? Professor Hu just mentioned that our goal is to set up an affordable health care system that satisfies the patients. But what about stakeholders like physicians? Our top-down design includes these stakeholders or not? The top-down design might need to be perfected, but besides a top-down design, will a bottom-up reform be more powerful?

My third question is, different agencies in the State Council have various expert panels to evaluate the health care reform. But none of the evaluation results have been shared with the public. We from the media want to know what the results are: what kind of reform cases will be informative to other places?

3. Responses and comments

Prof. Xu: I would respond Ms Dai's question as to whether TVHCs should exist. TVHCs should definitely exist. They have both the health care provider function and the health administration function. Villages and townships do not have health bureaus and the administrative functions at this level go to TVHCs.

Prof. Liu: I would respond to Ms Dai's question about reforming the existing hospitals vs the new hospitals. I think that both the establishment and the increment need to be reformed. Our existing public hospitals have very poor efficiency and thus reforming the establishment and reforming the increment are mutually supportive.

ABOUT CHPAMS: FEATURE MEMBER

Jing Hao, MD, MPH, PhD Candidate

Jing Hao (郝静) is a doctoral candidate in Health Policy and Management at the School of Public Health and Health Sciences, University of Massachusetts Amherst. Jing holds a MPH in Health Policy and Management and a MD degree in Clinical Medicine. Her research areas are pharmaceutical regulation, and economics and policy in the U.S. Jing's research projects include an analysis of the impact of regulation of pharmaceuticals on FDA approvals and patent life, an analysis of generics and combination drugs and their public health and economic impacts. Jing has presented her work in a number of prestigious academic conferences in the U.S., China, and other countries. Jing's review on "Public Health and Economics of Combination Drugs" received American Public Health Association (APHA) Annual Meeting 2012 Medical Care Section Student Presentation Award. Jing is a Public Health System Research Student Scholarship winner of 2013 sponsored by the AcademyHealth. Jing is also a receipt of the 2012 Westlake Youth Forum Travel Fellowship. Two of Jing's research papers are under review for publication in *Drug and Safety* and *Pharmacoeconomics*. Jing's long-term goal is to contribute to the provision of accessible, safe, and affordable medications in both the U.S. and China. Jing's other research interests include hospital delivery system efficiency, physicians' prescribing behavior and physicians' payment mechanism. Jing is a Planning Committee member of the CHPAMS since 2010.



Jing Hao, MD, MPH

1. *What inspired you?*

When I was in Shanghai Jiaotong University School of Medicine, I went to a seminar hosted by the College of Public Health. The invited speaker was a public health expert from Canada. He introduced and discussed with us the universal health care system in Canada. This probably was the first lesson which inspired me to start thinking about public health and how important health policy is in encouraging a better health system and improving population health.

2. *What apart from your family is the passion of your life?*

在卫生服务研究的领域不断探索，研究，并将取得的成果应用于提高人们健康水平的实践中。

3. *If you had not entered your current profession, what would you have liked to do?*

A TV host.

4. *What is your idea of a perfect day?*

Start the morning freshly with my favorite yogurt and apple, complete all that need to be done by end of the day, have one hour practicing yoga, and spend some nice evening time with beloved one(s).

5. *How do you relax?*

Online window shopping, spend some time outdoors with friends, talk with my parents on the phone.

ABOUT CHPAMS: MEMBERS' UPDATES

AWARDS

Dr. Yi Pan's publication "A new permutation-based method for assessing agreement between two observers making replicated quantitative readings" received the 2013 CDC and ATSDR Statistical Science Award for the Best Theoretical Paper. Dr. Pan is a mathematical statistician at CDC.

CAREER AND PROFESSIONAL APPOINTMENT

Dr. Yi Pan was appointed in June as a Mathematical Statistician in the Division of HIV/AIDS Prevention, Surveillance & Epidemiology at CDC.

Professor Dongfu Qian was appointed as the Associate Dean, School of Health Policy and Management at Nanjing Medical University, China.