The China Health Policy and Management Society

China Health Review

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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.

Instructions for Authors

China Health Review (CHR) is soliciting submissions of manuscript for the following sections: *Topical Review*, *Perspectives*, and *History Speaks*.

Topical Review is systematic, critical review and assessments of literature and data sources pertaining to a topical issue determined as appropriate by the Editorial team. The articles generally should be kept within 2000 words. Manuscripts in the ***Perspectives*** section are short reviews that, in most instances, highlight an article(s) that appears in the same or recent issue of the CHR. Perspectives that are not tied to an article are narrower in scope than Topical Review articles and allow more lively and timely discussion of a topical issue. The articles generally should be kept within 1000 words. ***History Speaks*** is devoted to historical events and prominent figures of significance to population health among the Chinese people within and outside of China. The articles generally should be kept within 1500 words.

In addition, the CHR welcomes short submissions to two other sections, *Research Twitter* and *Policy and Practice Updates*. ***Research Twitter*** provides brief summary of most recent research reports appeared in academic journals and grey literature that are relevant to health issues in China and Chinese people. ***Policy and Practice Updates*** provides brief summary of updates in health policy and practice that appeared in relevant policy briefs, news release, and popular news sources. Submissions to both sections should be kept within 200 words per summary in general. Please contact section Editors listed below for questions, information or submission.

All submissions should be typed, double-spaced, as Word documents only. Manuscripts should conform to the style of the fifth edition of the Publication Manual of the American Psychological Association. All submissions should be submitted electronically to the attention of the Editor. Authors must ensure that their manuscripts are appropriately identified. All submissions, if accepted, shall indicate author's consent to assign CHR rights to disseminate in its final form. However, authors retain the copyright. In particular, publication in the CHR does not preclude authors to submit and publish an edited version of the manuscript in a peer-reviewed journal or as a book chapter.

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

Contact Information: Inquiries about the CHR and submissions can be addressed to Dr. Zhuo (Adam) Chen (CHR@chpams.org). Submissions to the ***Research Twitter*** and ***Policy and Practice Updates*** should be addressed to Dr. Feijun Luo (frankie_luo@yahoo.com) and Dr. Xuezheng Qin (qin.econpku@gmail.com), respectively.

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China Health Review

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EDITORIAL INTRODUCTION

Season's greetings! While the world is turning the last page of the year 2011, we are pleased to present you with the latest issue of China Health Review.

In the *In Spotlight* section of this issue, Dr. Lingling Zhang interviewed Dr. REN Minghui, Director-General of the Department of International Cooperation, Ministry of Health (MoH) of the People's Republic of China. Dr. REN discussed various aspects of the health reforms in China, including critical drivers, key achievements, lessons learned, and areas that need further improvement. Dr. REN suggested more efforts could be made to collect and analyze micro data to support policy and decision-making.

In *Topical Review*, Dr. Yunwei Gai, Assistant Professor, Babson College, presented a brief introduction to four national health databases in the United States. The article offers insights on health surveillance for Chinese researchers and policymakers.

Research Twitter features ten recent publications on China's health issues, including cross-regional transfer of tuberculosis among migrant population in China, prenatal care, health insurance coverage, payment reform, tobacco control on campus, lifestyle and socio-demographic factors of overweight and obesity, as well as physical activity and mental health among urban adolescents in China. Wang, Zhang, Yip, and Hsiao documented an experiment in payment reform which reduced some unnecessary care but did not lower total costs. Chen and Jin suggested that the New Cooperative Medical Systems does not affect maternal and child mortality but does improve the school enrollment of six-year-olds. These results point to the need of further analyses on these topics.

Policy Practice and Updates includes six updates centered around hospital reform in China, ranging from the Shanghai Health Care reform, diagnosis-related group based payment strategy in major cities, public hospitals in Shenzhen, to pharmaceutical e-business.

In *About CHPAMS*, we introduce a relatively new member, Ms. Angela Ni, to our readers. You will also find a recent career update from Dr. Alex Fu and a summary of a recent CHPAMS meeting on elderly care in China in this section

You might note that we have added a new feature to the Review to include bilingual (Chinese and English) abstract and full-text wherever possible.

Wish you a healthy and productive New Year in 2012!

IN SPOTLIGHT

INTERVIEW WITH DR. REN MINGHUI, MINISTRY OF HEALTH, CHINA

By Lingling Zhang, ScD, Harvard University

任明辉博士, 现任中国卫生部国际合作司司长。1987 年 7 月毕业于西安医科大学医疗系，获医学学士学位；1993 年 6 月毕业于美国哈佛大学公共卫生学院，获公共卫生硕士学位； 2008 年 6 月北京大学医学部卫生政策与管理学系博士毕业，获社会医学与卫生事业管理专业医学博士学位。自 1987 起在卫生部工作。曾担任卫生部政策法规司政策研究处、医疗保险处副处长、卫生部办公厅部长秘书。 2001 年 1 月起，担任卫生部国际合作司副司长；2008 年 4 月起，任国际合作司司长。任世界卫生组织执委会 (Executive Committee) 委员、世界卫生组织结核病策略和技术顾问小组 (Strategic and Technical Advisory Group for TB, STAG-TB) 成员、联合国艾滋病规划署加速实现全面可及全球指导委员会 (Global Steering Committee on Scaling Up Towards Universal Access) 等委员会委员、全球抗击艾滋病、结核病和疟疾基金理事代表、财务与审计委员会副主席、政策与战略委员会委员，以及中美、中加、中法、中澳等国政府间卫生合作委员会、克林顿基金会、盖茨基金会、生物梅里埃基金会艾滋病、结核病等合作项目管理机制中方主席等职。

Dr. REN Minghui

Dr. REN is the Director-General of the Department of International Cooperation at the Ministry of Health (MOH) of the People's Republic of China. Throughout his career, Dr. REN has been involved in numerous health policy research projects including the "Health care systems research in rural China" (MOH), "Financing and organization of health care services in poverty areas of China" (World Bank), "The pilot study of health insurance reform in urban China" (Chinese State Council) and the "Experiment in community health protection-policy exploration, training and demonstration program" (UNDP). In recent years, as a senior representative of the Chinese government, he served as a leading board member in a number of international organizations including WHO, UNAIDS, and the Global Fund to Fight AIDS, TB and Malaria. He is also the point of contact for many Chinese bilateral cooperation mechanisms in health. Dr. REN received his MD, MPH and PHD from Xi'an Medical University in 1987, Harvard School of Public Health in 1993 and Peking University in 2008, respectively.

Dr. Lingling Zhang initiated this interview when she met with Dr. REN at the Harvard America-China Health Summit organized by the Harvard School of Public Health China Initiative. Dr. REN was one of the invited guests of honor at the Summit. Dr. REN responded to Dr. Zhang's questions in writing after he returned to China.

1. 重返哈佛 (Revisiting Harvard)

张玲玲: 我知道您是哈佛公共卫生学院的校友，再次回到这里不知您的最大感受是什么？

任明辉: 本次重返校园时间很短，但是感触很深，最大的感受是各方对中国卫生政策和卫生体制改革的高度关注和支持，以及相关研究分析的深入程度。此外，也对公共卫生学院近年的发展感到高兴和祝贺。

Lingling: As an alumnus of the Harvard School of Public Health (HSPH), what is your strongest feeling coming back here again?

Dr. REN: Although my return visit was short, I was very impressed with what I experienced during this visit. I was most touched and impressed by the Harvard community with its great attention and support for China's health policy and health system reform, as well as the depth of related

research. In addition, I am happy to see the development of HSPH in the recent years and would like to congratulate on its achievements.

2、中美医疗改革 (Health Reform in China and the United States)

张玲玲: 因为您来自国际司，从国际交流的角度来看，医疗改革对于中美两国的往来有什么正面影响吗？

任明辉: 从总体上看，近年中美两国关系不断发展，但是分歧不断。追求健康是人类共同的目标，卫生和健康是两国具有共同利益的领域，两国卫生交流与合作，特别是医改的交流，可以为两国人民交往带来共同福祉和积极的影响，并具有全球意义。因此，中美卫生医学合作与交流一直是两国关系发展最为稳定并愈加紧密的领域之一，呈现出政府、民间等多方参与，双边合作与多边协调同时推进，政策交流、科研合作、人员培训等广泛交流的良好局面。

Lingling: As you are an official from the Department of International Cooperation with the Ministry of Health of China, what positive impacts do you think China's health care reform have on the relationship between China and the US?

Dr. REN: Generally, Sino-American relations have been strengthened in recent years but dissonance also exists. Pursuit of health is the ultimate goal of human beings as well as the common interest of both China and the US. The exchange and collaboration between the two countries on their health care systems, especially health care reform, will bring benefits and positive impacts to their relationship, which has global significance. Therefore, collaboration and cooperation on health care and medical science has become one of the most stable areas between the two countries, and has been growing stronger and closer with the involvement of multi-stakeholders from the governments and civil societies, bilateral collaboration and multilateral coordination in many areas, including policy exchange, research collaboration, and workforce training.

张玲玲: 您认为中美两国同时在进行医疗改革是种巧合吗？

任明辉: 中美两国同时在进行医改，并不是一种巧合。中美两国人口众多，国情差异大，且处于截然不同的经济社会发展阶段，因此其医疗改革受到全球社会的高度关注。实际上世界主要国家都在进行医改，不断调整卫生服务的提供和筹资方式，比如英国、法国、澳大利亚、荷兰、墨西哥等。这是世界社会经济形势发展对健康需求、卫生服务提供影响的必然体现，是 21 世纪全球发展议程的体现。

Lingling: Do you think it is a coincidence that China and the United States are undertaking their health care reform at the same time?

Dr. REN: No, it's not a coincidence. Both China and the United States have large populations, yet the two countries are very different and are at different stages of their economic and social development. That's why their health care reforms have drawn great attention worldwide. As a matter of fact, many countries are undertaking their health care reform currently to adjust their health care delivery and financing. These countries include the UK, France, Australia, the Netherlands, Mexico, among others. This is inevitable and results from the demand of global socio-economic development on health needs and health care delivery. This represents the global development agenda in the 21st century.

3. 中国医疗改革 (Healthcare Reform in China)

张玲玲:您认为中国医疗改革借鉴最多的国际经验来自哪些国家？

任明辉: 中国医改方案广泛学习借鉴了国际经验和做法，包括其中的成功和不足，并充分考虑到中国的基本国情和卫生国情，因此很难说哪些国家的做法借鉴的最多。医疗卫生体制是一个国家社会体制和制度的组成部分，其形成和发展，以及不断的调整和改革，都无法脱离这个国家特定历史时期的基本政治经济制度、

社会环境，以及文化沿革。学习借鉴的关键不是照搬其它国家的做法，而是了解这些做法背后的核心价值，分析是否符合本国国情，并创造性地走出适合自己的卫生发展道路。中国医改抓住了普世原则，即医疗卫生服务的公平性，并从基本医疗服务和保障切入。从这一点上看，中国医改均有自己独得的“知识产权”。

Lingling: In your opinion, which countries' healthcare systems has China's healthcare reform drawn the most lessons from?

Dr. REN: China's health care reform plan has widely drawn lessons from other countries' experiences including both successes and weaknesses, with thorough considerations of China's own domestic characteristics and health systems. Therefore, it's hard to calculate which specific country has offered the most experience to China. The health care system is a component of a country's social and political system. Its formulation and development, as well as constant adjustment and reform have to be embedded in the political and economic system, social environment, and culture evolution at certain historical times. Hence, China's health care reform cannot simply replicate what other countries have done. We need to understand the core value of other reforms and to analyze whether they are compatible with China's system. Then a proper health care development can be creatively implemented within China. China's health care reform has seized universal principles of equity in health care services and used essential health care services and financing as a breakthrough. From this standpoint, China's health care reform has its unique “intellectual property”.

张玲玲:您认为中国医疗卫生体制中最棘手的问题是什么？如何解决您认为的棘手问题？

任明辉: 在当前医改 5 大重点工作中，公立医院改革是最困难的部分。基本医疗保障制度的完善、基本药物制度的建立、基本公共卫生服务均等化的实现，都在很大程度上依赖于公立医院的服务平台。如果公立医院改革无法顺利进行，整体医改的推进以及未来可持续都面临困难。然而，公立医院改革远远不是医院内部的管理问题，从根本上，就是财政投入、价格调控、行业监管等政府综合性职能，如何确保公立医院的“公益性”问题。我认为，公立医院改革的关键，是要明确公立医院的微观职能、宏观规模；其次，要明确各级政府对公立医院的作用和职责，特别是理顺财税、医保和价格政策，以及监管内容和路径。

Lingling: From your perspective, what is the toughest issue in China's health care reform? How would you propose to solve it?

Dr. REN: Among five major fields in the reform, public hospital reform is the most difficult one. Other reforms, i.e., improvement of essential health insurance system, establishment of essential medicine system, and equalization of essential public health services, are all greatly dependent on the services provided by public hospitals. If public hospital reform was not well implemented, the overall health care reform and its sustainability would face difficulties. However, the scope of public hospital reform goes far beyond the internal management of hospitals. It encompasses finance input, price control, regulation and other government functions, while ensuring public hospital's “public” nature. I think it is critical for public hospitals to have clear micro functions and macro scales. Also, governments at all levels should have a clear role and responsibility in managing public hospitals, especially in terms of tax, health insurance, and pricing policies, as well as regulatory actions and their formats.

张玲玲:您认为当前中国医改的优势和劣势各是什么？

任明辉: 当前中国医改是党中央、国务院和全国各级政府、社会各界上下一致的政治意愿，在医改总体方案的基础上，各部门分工负责，并与各地政府签订了责任状，明确了监测考核指标。这些是保证医改各项主要工作逐步有序、顺利推进的主要原因。然而，目前改革还没有解决深层次体制、机制性问题，比如各级财政增加投入的制度性安排，统一、高效、协调的卫生行政管理体制的构建等，这些都需要未来的改革逐步研究解决。

Lingling: What are the advantages and disadvantages of the current health care reform in China?

Dr. REN: The current health care reform is a widely accepted political will throughout the Central Government, all levels of local governments, and the society. Based on the general reform plan, the work was divided among various departments/ministries in central government, the accountability contract was signed by the central government agencies and local governments, and the monitoring and evaluation indicators were clarified for every stakeholder. All the above reasons ensure that health care reforms can progress smoothly on the schedule. However, the reform has not solved the fundamental, systematic and structural problems, for instance the systematic increase of fiscal investments at all government levels, and the establishment of a coherent, efficient, and coordinated health administration system. These emerging problems will need to be studied and solved gradually in the future.

张玲玲: 就政府进行医疗改革的执行力而言，您认为当前卫生部做得最好的是什么，需要继续努力的是哪方面？

任明辉: 医改涉及到国家发改委、财政部、人力资源和社会保障部等多个部门的参与，卫生部是医改的主要决策者、参与者和实践者。为顺利推进医改，卫生部建立了医改主要监测指标的定期收集、分析和报告制度，部领导与各主要业务司局和各地卫生厅局签署责任状，层层落实任务指标，这种问责制是本次医改工作的一大特色。需要继续加强上下综合协调工作，以及与公众的沟通工作，创造更加有利的医改大环境。

Lingling: From the perspective of health care reform implementation, what is the best the Ministry of Health has done and in which areas we need to devote more efforts?

Dr. REN: Health care reform has involved multiple government agencies and ministries, including the National Development and Reform Commission, the Ministry of Finance, and the Ministry of Human Resources and Social Security. The Ministry of Health (MoH) is a major decision maker, participant, and practitioner. In order to implement the health care reform, the MoH set up a system to periodically collect, analyze, and report surveillance indicators. MoH leadership, major operating departments, and local health bureaus have all signed an “accountability contract”. This accountability mechanism is a prominent characteristic of the current health care reform. More efforts are needed in strengthening general coordination through all levels of governments, improving communication with the public, and creating a more favorable environment for health care reform.

张玲玲: 您认为中国医疗卫生体制中值得他国学习的经验是什么？

任明辉: 中国医疗卫生体制坚持预防为主，加强公共卫生，重视妇幼保健，以及基层卫生服务体系。实践证明，这是符合中国国情的卫生发展之路，对其它国家也有借鉴意义。

Lingling: What are the positive experiences from China’s health care reform that are worth learning for other countries?

Dr. REN: China’s health care system puts prevention as a main focus, strengthens public health, and emphasizes on maternal and child health, and aims at local essential health services delivery. It has been proved that this is the appropriate way forward for China’s health care development, which can also offer a good reference to other countries.

张玲玲: 您认为中国医疗改革能成功的最关键因素是什么？

任明辉: 坚定的政治决策和强有力的执行力。

Lingling: What do you think is the key factor for a successful health care reform in China?

Dr. REN: The determined political decision and strong implementation, and execution capacity are critical for the success of China’s health care reform.

4. 寄语中国卫生政策与管理学会（Words to CHPAMS）

张玲玲: 您有什么话要对中国卫生政策与管理学会的成员及中国卫生评论的读者说吗？

任明辉: 中国医改是长期的任务，在基本原则和目标、方向确定之后，依然有大量需要探索研究和解决的问题，需要不断学习借鉴国际经验。在本次论坛上，我感觉中国方面还需要在微观方面的数据收集、分析，以及为政策决策服务方面下功夫。希望各位学会成员继续关心、支持中国的医改，并以更加主动、建设性的姿态，为中国的医改建言献策。

Lingling: What would you like to share with CHPAMS members and China Health Review readers?

Dr. REN: China's health care reform is a long march. Even though the basic principle and goals are already set, there are many problems that still need to be continuously explored, studied and resolved which requires continuing learning from international experiences. Based on the discussions at the Harvard America-China Health Summit, I think we need to put more efforts in micro data collection and analysis to better serve policy-making decisions. I hope all CHPAMS members will continue watching and supporting China's health care reform, and more actively get involved in and advocate for China's health care reform.

Note: This article was translated from the original responses in Chinese by Lingling Zhang, ScD, and edited by Zheng (Jane) Li, PhD. In case of ambiguities in the English translation, please refer to the original Chinese version.

TOPICAL REVIEW

A Brief Introduction to Four National Health Databases in the United States

Yunwei Gai, Ph.D. Babson College
Nadia Nelipa, MBA. Associate Director of Marketing Analytics, Harte-Hanks, Inc
Frederick Afonso, MBA. Life Sciences Division, Simon-Kucher & Partners

ABSTRACT

Health and medical care pervade every aspect of our lives. As the world population ages, an entirely new demographic stress will be put on healthcare systems. Some estimates project healthcare costs in the United States to account for 20% of GDP in the next few years. In comparison, China's total expenditure on health as a percentage of GDP has risen steadily and it is currently below 6%. However, with the rise of life expectancy, an aging population and higher living standards, health expenditure in China will continue to rise. Another challenge China faces is healthcare system reform to ensure equity and to reduce health disparity. To solve these challenges, accurate collection of health statistics at the national level is needed.

In this article, we introduce and compare four national health databases in United States, which are pillars for evaluating national health profile and for formulating national health policies. The four databases are National Health Interview Survey (NHIS), Medical Expenditure Panel Survey (MEPS), National Health and Nutrition Examination Survey (NHANES) and Behavioral Risk Factor Surveillance System (BRFSS). As an example, we illustrate how to derive the prevalence of cholesterol screening from the four databases. Despite differences, the overall distributions follow similar patterns across four datasets. These databases can be linked with other data sources to answer more complicated questions in health and healthcare.

Yunwei Gai, Ph.D.
Assistant Professor
Economics Division
Babson College
231 Forest Street
Babson Park, MA 02457-0310
Tel: 781-239-5052
Fax: 781-239-5239
Email: ygai@babson.edu

We hope that this article can draw the attention of Chinese health researchers and policymakers on the importance of health surveillance and can lead to more discussions and interest on how China can benefit from the U.S. experience in conducting health surveillance at the national level.

摘要: 医疗卫生关系着我们生活的方方面面.随着世界人口老龄化的**趋势**,医疗卫生系**统**正面临着新的**压**力. 在未来几年里,美国将花费其百分之二十的国民生产**总值**在医疗卫生方面.相比之下,虽然中国的医疗卫生开支在近几年持续增**长**,其份额在国民生产**总值**的百分之六以下, 但是随着人口寿命的增**长**,老龄化和生活水平的提高,医疗卫生开支将会继续上升.除此之外, 如何通**过**医疗体系改革去保证医疗公平,解决城乡差别是中国面临的另一大挑**战**. 要解决**这**些问题,准确的全国范围内的医疗卫生数据是一个必须条件.

在此文中, 我们简**单**介绍美国四个主要的全国范围的医疗卫生数据库: National Health Interview Survey (NHIS), Medical Expenditure Panel Survey (MEPS), National Health and Nutrition Examination Survey (NHANES) and Behavioral Risk Factor Surveillance System (BRFSS). **这**四个数据库是衡量美国健康卫生状况及制定医疗卫生政策的主要依据. 以全国范围内胆固醇检测率为例, 虽然结果有所不同, 但**总**的**趋势**在四个医疗卫生数据库中是相近的. **这**四个数据库可以与其他数据库连接以探讨更复杂的健康卫生问题.

我们希望本文能引起中国健康卫生研究人员及政策制订者**对**全国范围内的医疗卫生数据库的重**视**. 通**过**参考美国在健康卫生数据方面的**经**验及教训, **对**中国制订出一套符合其国情的,有效的,准确的卫生数据收集整理系**统**可以有所帮助.

INTRODUCTION

Health and medical care pervade every aspect of our lives. As the world population ages, an entirely new demographic stress will be put on healthcare systems. Some estimates project healthcare costs in U.S. to account for 20% of GDP in the next few years (Cutler, 2010). In comparison, China's total expenditure on health as a percentage of GDP has risen steadily and it is currently below 6% (World Health Organization, 2011). However, with the rise in life expectancy, an aging population and higher living standards, China's health expenditure will continue to rise. Another challenge China faces is health system reform to ensure equity and to reduce and eliminate disparity. To address these challenges, accurate collection of health statistics at the national level is needed. In this article, we introduce four national health databases in United States, which are the pillar for evaluating national health profile and for creating national health policies. We hope that this article can lead to more discussions and interest on how China can benefit from the U.S. experience in conducting health surveillance at the national and sub-national level.

In the United States, the National Health Interview Survey (NHIS), the Medical Expenditure Panel Survey (MEPS), the National Nutrition Examination Survey (NHANES), and the Behavioral Risk Factor Surveillance System (BRFSS) are the four most cited sources of information in various studies examining healthcare behavior and outcomes at the national level. They are widely used by both healthcare researchers and policy makers. For example, The Affordable Care Act (United States, 2010), signed into Law by President Barrack Obama in March of 2010, put in place health insurance reforms that were meant to enhance the quality and accessibility of healthcare to the American population. Implementation of the law will be phased in through 2014, and one of the provisions provides patients with access to recommended preventive services at no cost. Health plans effective on or after September 23, 2010 must cover certain preventive services without charging patients out-of-pocket costs (i.e. co-pays, coinsurance, and deductibles). On July 14, 2010, Departments of Health and Human Services, the Treasury, and Labor issued new regulations specifying which preventive services will be covered under new health plans. Regulations follow recommendations from the U.S. Preventive Services Task Force (USPSTF), an independent panel, and cover services such as diabetes screening, certain immunizations, and certain cancer screenings.

Throughout the entire process, the four databases are pillars for predicting costs, measuring utilization levels, and evaluating cost-effectiveness of interventions. The USPSTF used 2002 NHANES data, which indicated that 9.3% of the total US population 20 years of age or older had diabetes with an estimated total cost of the condition at $132 billion ($92 billion in direct medical and $40 billion in indirect costs) (Norris et al., 2008). A recently published article in the American Journal of Public Health (Ormond et al., 2011) estimated that a 5% reduction in diabetes and hypertension prevalence could lead to annual savings of approximately $9 billion. The savings were based on simulated counterfactual morbidity and medical care expenditures from the 2003 to 2005 MEPS Household Component data. Based on the distributions of age, gender, weight, blood pressure, cholesterol and an array of chronic conditions derived from 1999 to 2004 NHANES data, and the annual cost per disease estimated from multivariate regression analysis using 2000 to 2004 MEPS, Dall et al. (2009) simulated that modest to aggressive changes in diet can lead to a $60 to $120 billion reduction in annual health expenditures. The model in Dall et al. study measured potential health benefits and savings from intake reductions in calories, sodium, and saturated fats. Utilizing PubMed's search engine, we estimated that from 2000 to 2009 there have been over 400 published articles that used NHIS, 300 for MEPS, 1600 for NHANES, and 500 for BRFSS. Data from each of the four major national health databases often underpins major studies, which then are adopted for creating national health policies. For example, the Congressional Budget Office frequently used the information from NHIS and MEPS to estimate the health care expenditures, insurance coverage, potential impacts of health initiatives, and source of payments at the national level, based on which important policy considerations were derived (e.g., United Sates, 2003, 2007, and 2010).

THE FOUR NATIONAL HEALTHCARE DATABASES IN THE UNITED STATES

The following is a brief introduction of the four databases and their history.

NHIS: www.cdc.gov/nchs/nhis.htm

The National Health Interview Survey (NHIS) has been conducted since 1957, and monitors the health of the civilian non-institutionalized population in the United States. Data is collected by the National Center for Health Statistics (NCHS), which is part of the Centers for Disease control and Prevention (CDC). NHIS gathered information on demographics, socioeconomics, and on a broad range of health topics. The NHIS data is collected continuously throughout the year, and is a household cross-sectional interview survey. A two-part questionnaire was used from 1982-1996, which collected information on basic health and demographics and current health topics. In 1997 the questionnaire was revised into core questions and supplements in order to improve data collection regarding insurance, access, and health behavior information.

The survey consists of two stages: stage one collects a sample of 428 primary sampling units (PSUs), which can be a county, or group of counties, or a metropolitan area, and stage two assigns permit and area segments to each PSU. Sample design oversamples Black, Hispanic, and Asian persons through screening and oversampling area segments. Expected sample size is approximately 35,000 households with 87,500 individuals. Survey results have been used to track national health status (e.g. Pleis et al., 2008), health care access (e.g. Ye et al., 2011) and the trend of national health objectives (e.g. Mojtabai, 2011).

NHIS has been linked with several national databases including National Death Index (NDI), CMS Medicare data, Social Security Benefit History Data, and Medical Expenditure Panel Survey. The linked databases have been used to examine various health and healthcare questions that cannot be answered by each database alone. For example, Druss et al (2011) used the linked NHIS and the NDI data to analyze the premature death of persons with mental illness at the national level. The authors found that although metal illness is a significant risk factor for premature mortality, socioeconomic, healthcare, and other clinical risk factors also play an important role.

MEPS: www.meps.ahrq.gov/

The Medical Expenditure Panel Survey (MEPS) has been conducted since 1996, and monitors health services utilization, costs, payment methods, and health insurance related data across the U.S. The survey is broken up into a household sample component which collects data from families and individuals that participated in NHIS survey in the prior year, and an insurance component that collects on public and private employee health insurance plans. There is also a Medical Provider Component which supplements information collected from the household component. Each individual in MEPS is surveyed five times over two and a half years. The predecessors to MEPS are the National Medical Care Expenditure Surveys (NMCES) conducted in 1977 and the National Medical Expenditure Survey (NMES) conducted in 1987.[1]

Due to the extensive interview process, MEPS has a smaller panel than NHIS with approximately 15 thousand responders yearly. The survey is valuable in that it provides an in-depth view into the population's use and detailed expenses of health services. It is among the very few surveys that contain individual level medical expenditure/charge data besides the Medicare Current Beneficiary Survey and State Inpatient Databases.

[1] http://www.meps.ahrq.gov/mepsweb/about_meps/survey_back.jsp

MEPS have been linked with NHIS permitting longitudinal analyses over a 3-year period.[2] The confidential non-public use versions of MEPS contain State, County FIPS Codes, Census Tract and Block-Group Codes, which can be merged with other databases by these geographic linkages. For example, Gaskin et al. (2011) merged the 2006 MEPS with 2000 U.S. Census Summary File 1 by zip codes to analyze whether race/ethnic disparities in health care use were associated with residential segregation.

NHANES: www.cdc.gov/nchs/nhanes.htm

The National Health and Nutrition Examination Survey (NHANES) has been conducted since the early 1960s, and monitors health and nutritional data of U.S. children and adults. The survey collects information from a nationally representative sample of approximately 5,000 individuals annually through interviews and physical examinations of individuals. The interview portion takes place in respondents' homes and collects demographic, socioeconomic, dietary, and health-related information. The physical examination takes place in mobile medical centers and collects clinical measurements, nutritional and biometric variables, and laboratory test results, which is an advantage of NHANES in comparison to survey-based self-reported responses in NHIS, MEPS, BRFSS and many other health databases. For example, Stommel et al. (2009) found deviations of the self-reported Body Mass Index (BMI) values from clinically measured BMI values, particularly at the high and low ends of the BMI scale, which are large enough to result in substantial misclassifications of either underweight or obese people.

BRFSS: www.cdc.gov/brfss/

The Behavioral Risk Factor Surveillance System (BRFSS) has been conducted since 1984, and monitors health risk, preventive, and access related to chronic disease and injury across U.S. states. Data is collected monthly via telephone interview with coordination from the CDC. Standard core questions enable results comparison across states and on a national basis. The CDC also provides resources to states to customize surveys and also provides technical analysis and survey methodology assistance. The survey collects information from more than 400,000 adults across 50 states, the District of Columbia, U.S. Virgin Islands, and Guam.

Different from the other three surveys, BRFSS is state-based and collects information on respondent's county of residence and metropolitan area. It is thus more appropriate for evaluating state-specific health and healthcare status. State health agencies frequently use BRFSS results for targeting resources to reduce behavioral risks and tracking trends of health outcomes. CDC's Selected Metropolitan/Micropolitan Area Risk Trends (SMART) project is one of the many applications using BRFSS to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs at county, city, metropolitan and micropolitan levels. In addition, BRFSS has been linked with other data by geographic variables for more complex health and social problems. It has been linked with the Area Resource File at the county level to explore the relationships between race/ethnicity and area factors affecting access to health care in the United States (Coughlin et al., 2008); with state unemployment rate to examine the effect of business cycles on eating habits (Dave and Kelly, 2011). This unique feature of BRFSS may be appropriate to be adopted by local governments in China to collect and analyze data for public health policy-making.

A COMPARISON OF THE FOUR DATABASES

One advantage of having multiple national health databases is the possibility to validate the results, which can be used as an accuracy evaluation (Fahimi et al., 2008; Macek et al., 2002; Johnson et al., 2010; Carlson et al., 2009). Although the questionnaire and focus of each database is different

[2] http://www.meps.ahrq.gov/mepsweb/data_stats/download_data_files_detail.jsp?cboPufNumber=LINK_96-09MEPS/NHIS

across surveys, the data collection methodology is similarly based on multi-stage sampling. Each database provides sampling weights to derive healthcare statistics at the national level. In this section, we compare the utilization rate of blood cholesterol checkup across the four databases in 2008. There is a common question in all four databases on whether and when blood cholesterol checkup was performed. Table 1 is a comparison of the variables names, questionnaires and possible answers in each database.

Table 1. Variable names and questionnaires on cholesterol check in NHIS, MEPS, NHANES and BRFSS

Database	*Variable Name*	*Questionnaire*	*Possible Answers*
NHIS	CLCKTP	About how long has it been since you had your blood cholesterol checked by a doctor, nurse or health professional? (sample adults 18+)	Time since cholesterol checked: # units 00 Never 01-94 1 to 94 95 95 or more 97 Refused 98 Not ascertained 99 Don't know
MEPS	CHOLCK53	How long since last cholesterol check?	-9 Not ascertained -8 Do not know -7 Refused -1 Inapplicable 1 Within past year 2 Within past 2 years 3 Within past 3 years 4 Within past 5 years 5 More than 5 years 6 Never
NHANES	BPQ060	Ever had blood cholesterol checked?	1 Less than 1 year ago 2 1 year but less than 2 years ago 3 2 years but less than 5 years ago
	BPQ070	About how long has it been since {you/SP} last had {your/his/her} blood cholesterol checked?	4 5 years or more 7 Refused 9 Don't know
BRFSS	BLOODCHO	Ever had blood cholesterol checked?	1 Within the past year 2 Within the past 2 years 3 Within the past 5 years
	CHOLCHK	How long since cholesterol checked?	4 5 or more years ago 7 Don't know/Not Sure 9 Refused

We focus next on the adult population age 18 and above. For each database, we calculate the weighted percentage utilization within the past year, within the past two years, within past five years, and more than five years. The results are listed in Table 2.

Due to differences in sample sizes, questionnaire design, and contact methods, the blood cholesterol checkup rates are different across the four databases. The largest difference is between NHANES and NHIS on the percentage of cholesterol checkup within the past year. Despite these discrepancies, the overall distributions follow similar patterns across four datasets.

Another advantage of having multiple healthcare databases is the possibility to link one to the other to answer more complicated questions in healthcare. For example, Short, et al. (2011) linked MEPS with NHIS to provide national estimates of medical expenditures for all adult cancer survivors aged <65 years. Hanmer, et al. (2006) merged MEPS and NHIS to create nationally representative values for 7 of the most common health-related quality-of-life (HRQoL) scores, stratified by age and sex.

Table 2. National utilization rates of cholesterol check in NHIS, MEPS, NHANES and BRFSS

Utilization Time	NHIS (%)	MEPS (%)	NHANES (%)	BRFSS (%)
Never	20.68	17.52	24.44	18.69
Within past year	58.73	54.14	41.47	57.78
Within two years	7.21	11.22	12.81	10.55
Within five years	5.11	7.34	9.69	6.84
More than five years	2.40	3.83	4.80	3.14

Note: All percentages are weighted using Stata 10 command "svy: mean" to account for complex sample design.

DISCUSSION

In this article, we briefly introduced four major national health databases in the United States. Although they all collect respondents' demographic, socioeconomic and health related information, each one has its unique features which can be used to analyze different health issues. NHIS is mainly designed to track access to healthcare (e.g. health insurance, immunization, and access to medical care) and health status (e.g. obesity, diabetes, HIV and asthma) at the national level. NHANES and MEPS can be used to complement NHIS. Instead of self reports in NHIS, NHANES collects clinical information based on a wide range of physical examinations and laboratory tests. For a complete list of these examinations and tests please refer to their websites.[3] This important aspect of NHANES allows researcher to conduct interdisciplinary research that combines social science with medical science. MEPS excels in detailed health expenditure statistics including individual's expenditure for each medical event and medical condition (e.g. in-patient care, out-patient care, treatment for chronic conditions and different types of cancer, and prescription drugs) and the amount from each payment source (e.g. out-of-pocket payments and payments by private insurance, Medicaid, Medicare, and other sources). Researchers and policy makers use MEPS to analyze and project health expenditures and health insurance related topics. NHIS, NHANES and MEPS focus mainly on the national level. While it is important to track national level information, achieving better health in a country requires co-ordinations and better resource allocations at the local government level. One of the main purposes of BRFSS is to provide health information and risk factors at the state, county, and metropolitan levels for designing local health policies. In addition, researchers can link each of the databases with other data sources to investigate more complicated healthcare questions as discussed in earlier sessions.

To test the reliability, we compared the utilization rates of cholesterol checkup across the four datasets. Because each database has different purposes, questions, contact methods and sample selections may be different. This explains why for the same preventive service, cholesterol checkup, we find somewhat different utilization rates at the national level. Despite these differences, we find that the overall patterns are similar. If needed, researchers and policy makers can combine the results and get estimates of the upper and lower bounds.

[3] http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/varexam_f.htm, http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/varlab_f.htm, and http://www.cdc.gov/nchs/nhanes/nhanes2009-2010/non_public_09_10.htm.

U.S. has a long history in tracking national health statistics. Reliable sampling techniques have been developed, implemented and tested over decades. In comparison, China's health and healthcare data collection is at its nascent stage. To the best of the authors' knowledge, the following two databases are frequently used for studying China's health and healthcare: the China Health and Nutrition Survey (CHNS) and the China Public Health Statistical Yearbook. CHNS is an international collaborative project between the Carolina Population Center at the University of North Carolina and the National Institute of Nutrition and Food Safety at the Chinese Center for Disease Control and Prevention. The survey, first conducted in 1989, covers nine provinces and is composed of four parts including the household survey, individual survey, nutrition and physical examination, and community survey. The publicly available data can be downloaded online.[4] The CHNS website and Liu (2008) provide a detailed discussion on the survey design, methods and variables. CHNS has been widely used by researchers from China, U.S. and other countries to study the impact of various socioeconomic factors (e.g. family planning policies, local and national public health programs, infrastructures and income distribution) on nutrition, health behavior, and health outcomes. At a first glance, CHNS shares many features of NHIS, NHANES, MEPS and BRFSS. It collects overall health status, dietary and physical examination, income and health insurance information, and behavior and risk factors. However, the content of CHNS survey is rather limited in comparison to the four U.S. national health databases. CHNS only collects data from nine provinces mainly located in the eastern part of China. Heavily populated provinces including Jilin, Hebei, Shanxi, Shaanxi, Sichuan, Zhejiang, Anhui, Fujian and Guangdong are not in the survey, which limits the use of the data for designing local and national health policies.

China Public Health Statistical Yearbook is compiled by China's Ministry of Health.[5] It covers the whole nation including the 31 provinces, autonomous regions and municipalities. The yearbook contains rich information on health institutions and facilities, healthcare personnel, public health expenditure and programs, and health status by different age, gender and location groups. However, these data are mainly at the aggregate level and not accessible to the public. In addition to the two main databases, regional surveys have been conducted in an ad hoc fashion to address local healthcare problems such as the data on methadone maintenance treatment (MMT) patients in Kunming and Shanghai (Hser et al., 2011), a health survey conducted in seven of Mainland China's largest cities in 2002 (Sun et al., 2011), and a health survey of 15 counties in 2003 (Wagstaff et al., 2009). Because of its ad hoc and regional nature, it is difficult to track health and healthcare trends at the national level and at local levels consistently.

It is our belief that China can benefit from the history and experience of the United States and other developed countries in establishing its own national healthcare databases. Lessons and practices from other countries can help China establish its own health surveillance system that fits better the need and challenges of its 1.3 billion citizens.

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[4] http://www.cpc.unc.edu/projects/china/data/datasets

[5] http://tongji.oversea.cnki.net/oversea/engnavi/HomePage.aspx?id=N2010042070&name=YSIFE&floor=1

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RESEARCH TWITTER

Minmin Zhu, Jian Wang, Hassan H. Dib, and Zengzhen Wang. **"Enhancing the Management of Cross-Regional Transfer of Floating Tuberculosis Cases by Active Follow-up and Communication."** *European Journal of Public Health*, Advance Access.
This paper analyzes the effects of an intervention on cross-regional transfer of tuberculosis (TB) patients among migrant populations. On 1 October 2008, the 1-year intervention started by strengthening patients' health education, supervising medical treatments at critical phases, assisting in the transference of TB patients and persisting communication with TB dispensaries outside Shenzhen city. Primary outcomes were compared between the pre-intervention (from 1 October 2007 to 30 September 2008) and intervention periods. This paper finds that compared with those at the pre-intervention period, the rate of patients' informing doctors before leaving Shenzhen increased significantly (61.8% vs. 39.4%), the rate of successful transference mildly improved (60.0% vs. 50.0%), while the rate decreased dramatically for the re-registered patients at TB dispensaries outside Shenzhen (51.5% vs. 93.6%). This paper concludes that the intervention improves patients' adherence and enhances collaboration between TB dispensaries, establishes more practical mechanisms, which could be useful for TB control in China.

Jiun-Hau Huang, Yen-Yu Miao, and Pei-Chun Kuo. **"Pandemic Influenza H1N1 Vaccination Intention: Psychosocial Determinants and Implications from a National Survey, Taiwan."** *European Journal of Public Health*, Advance Access
A national computer-assisted telephone interview survey using random digit dialing was conducted during 28-30 October 2009 among residents of Taiwan aged >=15 years. Of the 1079 participants interviewed, 70.1% reported intention to receive pH1N1 vaccination. Multivariate logistic regression analysis showed that participants who perceived pH1N1 in Taiwan to be much more severe than that in other countries, who agreed or strongly agreed that contracting pH1N1 would have a great impact on their daily life, who perceived pH1N1 vaccination to be very effective in preventing pH1N1 and who considered receiving vaccination not very difficult or not at all difficult were more inclined towards getting vaccinated against pH1N1. These specific and modifiable health beliefs have practical implications for prevention and policy making, and highlight the importance of minimizing perceived barriers while convincing the public of the seriousness of the disease and effectiveness of vaccination when promoting vaccination programmes.

Bright I. Nwaru, Reija Klemetti, Huang Kun, Wang Hong, Shen Yuan, Zhuochun Wu, and Elina Hemminki. **"Maternal Socio-Economic Indices for Prenatal Care Research in Rural China."** *European Journal of Public Health*, Advance Access.
The authors constructed the socio-economic status (SES) indices for women in rural China for prenatal care research, and examined their relation to perinatal care and outcomes. This study utilized data of 4364 rural women having recently given birth, collected by a cross-sectional survey in three rural Chinese provinces in 2007. Principal component analysis (PCA) was used to construct the SES indices and multilevel logistic regression was use to relate the indices to low birthweight, short exclusive breastfeeding, childbirth at the county or higher level health facility, caesarean section, inadequate prenatal care and no postnatal care. Three separate SES indices (wealth, occupational and educational indices) were obtained from the PCA analysis. After adjusting for individual level factors, village and township wealth, higher levels of the indices were inversely associated with inadequate prenatal care. Higher occupational status was positively associated with short exclusive breastfeeding and childbirth at the county or higher level health facility, but inversely associated with no postnatal care. Higher educational status was positively associated with no postnatal care.

Hongwei Xu and Susan E. Short. **"Health Insurance Coverage Rates In 9 Provinces In China Doubled From 1997 To 2006, With A Dramatic Rural Upswing."** *Health Affairs*, 2011, 30: 2419-26.

The authors examined the distribution of health insurance in China during 1997–2006, a period when government interventions were implemented to improve access to health care. They analyzed data from a survey that follows households in nine provinces that are home to more than 40 percent of China's population. The analysis shows that the percentage of individuals with insurance increased from 24 percent in 1997 to 28 percent in 2004 and then rose dramatically, to 49 percent in 2006. Rural and urban levels of insurance coverage became more similar, reflecting a dramatic upswing in coverage in rural areas. The analysis also suggests that health insurance reimbursement rates to consumers for inpatient care might have declined in rural villages. Future efforts to reduce rural-urban disparities should address the quality of health insurance and the level of reimbursement in addition to coverage rates.

Hong Wang, Licheng Zhang, Winnie Yip, and William Hsiao. **"An Experiment in Payment Reform for Doctors in Rural China Reduced Some Unnecessary Care But Did Not Lower Total Costs."** *Health Affairs*, 2011, 30: 2427-36.

The authors conducted an experiment in rural China in which they changed the existing fee-for-service method of paying village doctors to a mixed payment method that included a salary plus a bonus based on performance. The new payment method also removed a feature that previously allowed doctors to purchase medications to prescribe to patients and earn a markup on each prescription. Changing these payment incentives reduced spending at the village level, curbed unnecessary care for healthier patients, and also decreased the prescribing of unnecessary drugs. However, other features of the arrangement encouraged doctors to refer sicker patients to township and county facilities, where costs were higher. As a result, total health care spending was not significantly reduced. The findings underscore that policy makers should design payment methods carefully to both contain costs and improve quality.

Yao Lu, Peifeng Hu, and Donald J. Treiman. **"Migration and Depressive Symptoms in Migrant-Sending Areas: Findings from the Survey of Internal Migration and Health in China."** *International Journal of Public Health*, Online First™.

China has experienced large-scale internal migration and growing mental health disorders. Limited research has examined the relationship between the two processes. The authors examined the association between labor out-migration and depressive symptoms of family members left behind in migrant-sending areas. The authors conducted a multistage probability sample survey of Chinese adults in 2008, including 787 people in rural migrant-sending areas. They used multivariate regressions and adjusted for a wide range of confounding factors and for the complex sampling design. They found that adults in households with labor out-migrants were more likely to report depressive symptoms than those in households without out-migrants. However, monetary remittances from labor migrants buffered the mental health costs of out-migration. The authors conclude that labor out-migration has important consequences for the mental health in migrant-sending communities and there is an urgent need to address the psychological costs of migration and to promote regular remittances.

Shu-Hui Chuang and Song-Lih Huang. **"Changes in Smoking Behavior among College Students following Implementation of a Strict Campus Smoking Policy in Taiwan."** *International Journal of Public Health*, Online First™.

This study was conducted in the third to sixth month after the implementation of the revised Tobacco Hazard Prevention Act in Taiwan. In-depth interviews were conducted with 22 smokers who were second and third year students of a college in Taiwan. Thematic analysis was used to categorize ideas into concept themes. In interviews, most smokers revealed some modification in their smoking behavior and attitude. The reasons cited by the students for behavior change were grouped into four major themes: a changed smoking experience, change in social norm, the respect for law, and concern for others' health. This study concludes that implementation of a strict smoking policy in college prompted smokers to markedly reduce smoking on campus.

SangNam Ahn, Hongwei Zhao, Ming Tai-Seale, Charles Huber, Matthew Lee Smith, Marcia G. Ory and Charles D. Phillips. **"The Longitudinal Effects of Behavioral, Health, and Socio-Demographic Factors on Body Mass Index among Older Chinese Adults."** *International Journal of Public Health*, Online First™.

Based on panel data from the China Health and Nutrition Survey, the authors used all available information on adults aged 60 years or older surveyed in 1997, 2000, 2004, and 2006 (N = 3,591). Body mass index (BMI) was dichotomized as normal (18.5–24.9 kg/m2) and overweight (25.0–29.9 kg/m2)/obese (=30 kg/m2). Generalized estimating equations were used to estimate population-averaged (marginal) effects. The authors found that the combined prevalence of overweight or obese was approximately 33%. Moderate or heavy non-leisure physical activities and smoking decreased the odds of being overweight or obese, while drinking alcohol increased the odds. For individuals in all income levels, the amount of non-leisure physical activity strongly affected the BMI among the older Chinese adults. The authors concluded that active lifestyle interventions may help counter what could otherwise be a growing obesity epidemic in China.

Yuyu Chen and Ginger Zhe Jin. **"Does Health Insurance Coverage Lead to Better Health and Educational Outcomes? Evidence from Rural China."** *Journal of Health Economics*, In Press.

Using the 2006 China Agricultural Census (CAC), the authors examine whether the introduction of the New Cooperative Medical System (NCMS) has affected child mortality, maternal mortality, and school enrollment of 6-16 year olds. Raw data suggest that enrolling in the NCMS is associated with better school enrollment and lower mortality of young children and pregnant women. However, using a difference-in-difference propensity score method, the authors find that most of the differences are driven by endogenous introduction and take-up of the NCMS. While the NCMS does not affect child and maternal mortality, it does help improve the school enrollment of six-year-olds.

Hui Cao, Qingwen Qian, Tingting Weng, Changjiang Yuan, Ying Sun, Hui Wang, and Fangbiao Tao. **"Screen Time, Physical Activity and Mental Health among Urban Adolescents in China."** *Preventive Medicine*, 2011, 53(4-5): 316-20.

This research tests the association between screen time (ST), physical activity (PA) and self-reported psychological problems among urban adolescents aged 11 to 16 years. In 2010, total 5003 boys and girls were analyzed from 4 junior high schools in Bengbu city of China. The Depression Self-rating Scale for Children, Screen for Child Anxiety Related Emotional Disorders and School Life Satisfaction Rating Questionnaire were administered to obtain information on current mental health. Self-reported ST, PA and dietary intake were also assessed. Logistic regression analyses were used to explore the effects of ST and PA on psychological problems. This research finds that high ST was a risk factor for depressive, anxiety symptoms and school life dissatisfaction. Sufficient vigorous PA (VPA) was a protective factor for depressive symptoms and school life dissatisfaction. The combination of high ST and insufficient VPA was associated with the highest prevalence of various psychological problems.

POLICY AND PRACTICE UPDATES

Shanghai Health Care Reform Plan Officially Launched
Source: 21st Century Economic Reporter 2011-5-18
http://www.21cbh.com/HTML/2011-5-18/3MMDAwMDlzODg3MA.html

After a period of public comments and subsequent amendments, the final version of Shanghai Healthcare Reform Plan was officially released on May 17th. Shanghai government set a higher goal for itself, promising not only to complete national goals, but to set up a basic healthcare network covering urban and rural residents by 2012.

It is worth noting that the plan has two new components. The first one is to reform the compensation method for public hospitals. Under the new mechanism, the drug mark-up will be abolished and public hospitals will be compensated through pharmaceutical service fees, medical service fees for high-end procedures and care, and government investment. The second change is to construct vertical regional medical consortiums among primary, secondary and tertiary hospitals and community medical centers. The consortiums will increase efficiency of health resources utilization. In anticipation of possible profit-sharing problems among medical institutions, Shanghai will adopt total budget system within consortiums, an idea borrowed from Zhenjiang, a pioneering region in medical reform.

New Cost Containment Policy: Diagnosis-Related Group (DRG) Based Payment Strategy Implemented in Major Cities
Source: 21st Century Economic Reporter 2011-4-27
http://www.21cbh.com/HTML/2011-4-28/4NMDAwMDlzNTM4Ng.html

Starting on May 1st, several cities and regions in China will implement the Diagnosis-Related Group (DRG) Based Payment Strategy to control the rapid increase in medical expenditure, which has been partially blamed on the itemized payment system. The reform will hopefully improve the quality of medical treatment, ensure medical safety and reduce medical costs.

DRG Based Payment in China is still in its experimental stage and faces many difficulties. For example, the new payment strategy should be based on a complete clinical pathway management system which is still new in China. The reform also requires realignment of the hospitals' interests and reconstruction of the relationship between hospitals and medical insurance departments. The cooperation of related departments plays a significant role in this reform that is a long-term process requiring at least two or three years.

Diagnosis-Related Group (DRG) Based Payment: Experience from Beijing
Source: 21st Century Economic Reporter 2011-5-19
http://www.21cbh.com/HTML/2011-5-19/3NMDAwMDlzOTA3Ng.html

DRG Based Payment will be implemented soon in Beijing, according to an officer of the Bureau of Public Health. The purpose of the reform is to control the rapid increase of medical expenditure, whose root cause was considered to be the itemized payment system. Under the traditional system, physicians have the incentive to prescribe unnecessary procedures or drugs to increase their income. The DRG payment system sets a uniform price tag per disease group. Once medical costs exceed the price tag, hospitals will be responsible for the balance, providing physicians a strong incentive to reduce procedures or drugs prescribed. Conversely, hospitals might be more likely to omit necessary medical items, lowering medical service quality. Therefore, a system of clinical supervision is indispensable.

Beijing University People's Hospital is among the early reform testing spots. In tackling the medical quality issues, the hospital set up a performance examination mechanism involving 88 quality control points before, during, and after medical procedures. The hospital intends to gradually separate physician compensation from medical cost, using the quality control mechanism to reduce over-prescription or low-quality care. People's Hospital also hopes the new system will encourage physicians to accept patients with difficult diseases, to demonstrate the value of a university affiliated and tertiary hospital.

"Medical Conglomerate" Experiment in Shanghai: A Multi-level Solution to the Accessibility Problem?
Source: Economic Observer 2011-05-21
http://insurance.jrj.com.cn/2011/05/21140010023083.shtml

Many people complain about the difficulty of getting medical services, while most community hospitals have few patients. To solve this problem, Shanghai began constructing medical consortia this year. In the Healthcare Reform Plan released on May 17th, experimenting and constructing medical consortium is one of the ten important tasks.

The construction of a medical consortium cannot be isolated from other healthcare reforms. The core purpose of the consortium is to reallocate resources among different levels of medical institutions, facilitate better cooperation, and encourage patients to choose hospitals according to need.

Ruijin-Luwan medical consortium was formed in January, consisting of 1 tertiary hospital, 2 secondary hospitals and 4 community medical centers. Patients could first go to the community hospitals, and if needed, transfer to higher level hospitals. Patients will be able to see physicians close to home, transfer to a different provider easily if needed, and book appointments with specialized doctors in tertiary hospitals. At the same time, data sharing platform and professionals exchanging mechanism could also be constructed to reduce unnecessary checkups and improve patients' experience.

However, consortia have been faced with many difficulties, the main cause being citizens' distrust of medical service quality at community medical centers. Experts believe the success of medical consortia depends on patients' trust and satisfaction, which are currently lacking.

At this experimental stage, management of medical consortium, cooperation, and profit sharing among hospitals in the consortium remain unresolved, and are still in many cases administered by the local government. There is still a long way to go in promoting medical consortium nationwide.

Public Hospitals in Shenzhen Decouple with Government: the Establishment of Hospital Administration Committee
Source: 21st Century Economic Reporter 2011-6-2
http://news.ifeng.com/mainland/detail_2011_06/02/6772199_0.shtml

On May 31, three public hospital reform plans were released in Shenzhen, with the guiding principle that public hospitals should do public good, and not operate in pursuit of profit or higher financial or professional gains. Under these reforms, the current hospital administrative ranking system will be abolished and replaced by the board of directors system. Once in place, each board will assume full financial and personnel responsibilities for the hospital under its supervision, including the hiring of hospital director and associate director.

A city-wide public hospital management committee will be formed to represent the government in making managerial and operational decisions, such as unified resource allocation within all city public hospitals and examination of financial budgets.

The city's Department of Health, originally providing oversight on public hospitals, will now only be responsible for constituting regulations and rules, formulating industry standards, evaluating performance, and setting entrance standards for hospital personnel.

Under the proposed system, hospital board of directors will be responsible for individual hospital's management, while the government-level management committee will be responsible for all public hospitals within Shenzhen. With this more divided and professional management system, the reformers hope to improve public hospitals' efficiency and effectiveness.

Jointown Pharmaceutical Collaborates with 360buy.com to Pioneer Internet Drug Selling
Source: 21st Century Economic Reporter 2011-6-30
http://finance.ifeng.com/news/20110630/4209043.shtml

Although not officially confirmed, cooperation between Jointown Pharmaceutical Group Co., Ltd and 360buy.com online shopping might be on its way. As the largest private pharmaceutical company in China with a sales volume of ¥22 billion RMB in 2010, Jointown seeks to break into the online B2C (Business to Customer) business, currently only accounting for a small fraction of the company's profit.

According to Nie Linhai, the Deputy Director of the Department of Information Technology within the Ministry of Commerce, the bottleneck for pharmaceutical e-business lies in logistics. Although many provinces and cities have been pushing for pharmaceutical e-business development, no company has exceeded ¥100 million RMB in sales.

Experts in the field point to the unique requirement of individualized, web-based medicine distribution. Since all drugs are controlled and tracked by their production lot number, there could be no mistake when dividing whole-sale drugs into individual orders, requiring extensive industry and drug knowledge. Using the current Jointown B2C platform as an example, the company normally provides wholesale drugs to downstream drug stores in large quantities, but has to break them down to single packages when fulfilling online individual orders. This process is very costly, and explains why Jointown has yet to turn a profit on their B2C platform.

With all the complications in sight, the healthcare e-business still offers great potential as the future venue for pharmaceutical trade. The Ministry of Commerce has adopted some policies to encourage the development of e-business and reduce transaction cost, and has estimated that the market volume for healthcare e-business might reach 17.8 billion RMB in 2011, with a projected 30% CAGR for the next five years.

ABOUT CHPAMS: FEATURE MEMBER

Angela Ni, B.A.

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Angela Ni is a consultant with the investment and government relations practice in APCO Worldwide's Beijing office, an international public affairs consulting agency. She has a range of experience collaborating with rural communities, government and non-governmental stakeholders.

Ms. Ni also co-organizes the Beijing Healthcare Forum, an informal networking and information-sharing group for individuals interested or working in the health sector in the Beijing area. Join the list-serve to get more updates on future events and resources by emailing beijinghealthcareforum@gmail.com.

Prior to joining APCO, Ms. Ni was a U.S. State Department-funded Fulbright research fellow working in China's southwestern-most province of Yunnan, where she studied rural health issues. Prior to this, she served as a research analyst at the Global Health Group based at the University of California, San Francisco, where she worked on the international health campaigns for government, corporate, and foundational clients. Ms. Ni has five years of experience in health. Her fields of expertise are public-private partnership development, health promotion and health care policy analysis. Ms. Ni has a BA in political economy from the University of California, Berkeley, and she is bilingual in English and Mandarin.

1. What has been the greatest achievement of your career?

Having the opportunity to conduct an independent research project on water and sanitation conditions in Yunnan, China while on a Fulbright Fellowship. My research examined the use of household biogas digesters, and the costs and benefits of scaling up this technology not only in China, but in other water and resource scare regions worldwide. During my Fulbright I also worked closely on environmental health projects with a local NGO, the Yunnan Health and Development Research Association.

2 Who was your most influential teacher, and why?

Dr. Meredith Minkler in the School of Public Health at the University of California, Berkeley was my mentor during my time studying at Berkeley. She taught me everything I know about the value of public health and inspired me to pursue health policy research.

3. What is the best piece of advice you have received, and from whom?

My mother once shared with me a quote from Max Erhmann's poem Disderata, "beyond a wholesome discipline, be gentle with yourself…Be cheerful. Strive to be happy."

4. How do you relax?

Yoga

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

I enjoy bringing people together with share common interests and helping them identify synergies.

6. What is your idea of a perfect day?

A perfect day is clear blue skies in Beijing

ABOUT CHPAMS: MEMBERS' UPDATES

CAREER UPDATES

Alex Z. Fu, Ph.D., Associate Professor at the Department of Quantitative Health Sciences in Cleveland Clinic, is taking a new position as an Associate Professor in the Cancer Control Program at the Department of Oncology at Georgetown University Medical Center on February 1st, 2012.

MEETINGS

On November 28th 2011, CHPAMS members (*Chen, Zhuo [Adam], PhD; Feng, Zhanlian, PhD; Li, Rui, PhD; Li, Zheng, PhD; Ni, Angela, BA; Shi, Lu, PhD; Zhang, Kun, MS; Zhang, Yusheng MD, MPH*) held a conference call with *Dr. Seth Goldenberg*, President of the Asia Pacific Bio Intelligence, LLC (APBI). Dr. Goldenberg introduced himself and his company, Asia Pacific Bio Intelligence, LLC. The aim of APBI is to serve as a bridge between U.S. and Chinese pharmaceutical, healthcare services, and medical device companies. *Dr. Zhanlian Feng* discussed his research on nursing homes in Nanjing, China. The group further discussed elderly care market in China and how the U.S. experience may be used to improve elderly care in China.

If you are interested in learning more about this topic, please refer to an earlier article by Dr. Feng, "Charting an Inevitable Course: Building Institutional Long-term Care for a Rapidly Aging Population in China", *China Health Review*, Volume 2, Issue 2, pages 2-5.