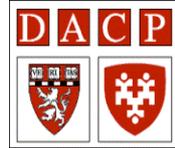




Xuan-wu  
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Care



## Course in Pharmaceutical Policy Analysis

Beijing, China

22 March 2009 – 31 March 2009

### COURSE REPORT

Submitted on behalf of the  
WHO Collaborating Center in Pharmaceutical Policy  
by  
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June 2009



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**ACRONYMS**

<b>BPHI</b>	<b>Beijing Public Health Insurance</b>
<b>CCPP</b>	<b>WHO Collaborating Center in Pharmaceutical Policy, Boston</b>
<b>DACP</b>	<b>Department of Ambulatory Care and Prevention</b>
<b>DPRG</b>	<b>Drug Policy Research Group</b>
<b>DRG</b>	<b>Diagnosis-related group</b>
<b>HMS</b>	<b>Harvard Medical School</b>
<b>HPHC</b>	<b>Harvard Pilgrim Health Care</b>
<b>ISPOR</b>	<b>International Society for Pharmacoeconomics and Outcomes Research</b>
<b>INRUD</b>	<b>International Network for the Rational Use of Drugs</b>
<b>MedIC</b>	<b>Medicines and Insurance Coverage</b>
<b>WHO</b>	<b>World Health Organization</b>
<b>XWH</b>	<b>Xuan-wu Hospital</b>

## INTRODUCTION

### Background

China faces major challenges in providing access to essential medicines for its 1.3 billion people, leading to preventable deaths, impoverishing illness, and large-scale financial losses. Fortunately, government policy is rapidly expanding medicines coverage through new health insurance arrangements. Policy makers, managers, and analysts within these systems will require appropriate conceptual frameworks and specific technical skills to address complex medicines policy questions with applied research.

With initial support from the Harvard China Fund, the WHO Collaborating Center in Pharmaceutical Policy at Harvard Medical School and Harvard Pilgrim Health Care in Boston, USA expanded the [Medicines and Insurance Coverage \(MedIC\) Initiative](#) to China, in collaboration with the Harvard School of Public Health; Capital University of Medical Sciences; Xuan-wu Hospital; the Beijing Public Health Insurance Committee; the Ministry of Health; and the World Health Organization in China. MedIC is an interdisciplinary global partnership between universities and insurance systems focused on strengthening capacity for medicines policy decision making in health care organizations and insurance schemes, and conducting focused research on policies to improve medicines access and use.

Through capacity building and applied research collaborations, MedIC seeks to support the development of evidence for policy decision making in China on issues such as: optimal reimbursement policies for medicines in the urban health insurance system; incentives to encourage cost-effective prescribing for insured members according to standard treatment guidelines; and a minimum medicines benefit package for members of the new Rural Cooperative Medical Scheme.

A first activity of MedIC in China was the [MedIC Course in Pharmaceutical Policy Analysis](#) for policy decision makers from hospitals, health insurance systems, and others interested in medicines policy issues, held in Beijing in March 2009.

### China MedIC Course Design

Conducted in English with sequential translation into Chinese, the 9-day highly interactive MedIC course consisted of brief lectures, small and large group case discussions, and small group hands-on analyses of health systems data. Participants presented characteristics of health insurance financing of medicines in Beijing, China. In teams consisting of hospital pharmacists, physicians and health insurance representatives, participants selected a specific medicines policy issue in their system, and developed a post-course strategy to design, implement, and/or evaluate a medicine policy intervention to improve key outcomes.

Course discussions centered on the following key themes:

#### Setting the Scene

- Medicines access and use: Significance, problems, and determinants
- Health insurance systems and medicines issues in participating countries
- An insurance framework for influencing medicines access and use
- Availability and use of data in health systems and insurance programs

### Core Tools

- Medicines coverage policy options
- Standard treatment guidelines
- Formulary decision making
- Designing a minimum benefit package

### Data for Decision Making

- Medicines coverage policy objectives and performance evaluation
- Evaluating changes in medicines coverage policies

### Working with Data

- Assembling data from different sources
- Detecting and solving data problems
- Organizing medicines and diagnosis data
- Analyzing data and disseminating policy findings

### Data to Policy

- Routine monitoring systems in insurance programs
- Implementing medicines policy change

In addition, facilitators presented on special topics, including the innovations for quality and value in health care in the U.S.; pharmacy benefit management in the U.S.; and the Pharmaceutical Benefit Scheme and National Prescribing Service in Australia.

## **Course Materials**

China MedIC course materials included a [Participant Guide](#) with recommended and required readings for each session; Powerpoint slide presentation copies; and materials for small group activities (including case descriptions, excel data sets, data analysis instructions, and solutions to data analysis problems). Participants received a CD with all course materials.

## **Course Preparations**

Dr. Anita Wagner from the WHO CCPP served as the International MedIC Course Director. Dr. Yu-Qin Wang and Dr. Lan Zhang at Xuanwu Hospital led the local course organizing team. Preparatory activities also included the following:

- Course participants were recruited by Drs. Yu-Qin Wang and Lan Zhang. Ten participants were selected from Beijing Public Health Insurance (BPHI) and Xuanwu Hospital, and three participants were chosen to participate from each of the other hospitals in Beijing. The participants from BPHI were selected from 8 country districts and the central office; each hospital selected their participants based on those who would represent the departments of pharmacy, insurance, clinical, medical management and IT.
- Local arrangements included organization of teaching facilities, hotel accommodation for the Course Facilitators, transport, catering and simultaneous translation of course.
- Collation and analysis of MedIC Health Insurance and Health Systems Surveys received prior to the start of the course from participants. This collation of data was organized and shared in teaching modules throughout the course.
- Dissemination of slide templates for health care organization and insurance system presentations and key readings to participants prior to the course.

## Logistics

The MedIC course took place at Xuan Wu Hospital of Capital Medical University, #45, Chang-chun Street, Xuan-wu District, Beijing, P.R. China 100053.

Forty eight participants from Beijing attended the Course. Thirteen facilitators from Australia, China, Switzerland, South Africa, Thailand, and the U.S. co-facilitated the course throughout the nine days.

## Course Description

A brief description of the MedIC Course follows. Annex 1 provides course facilitator biographies; Annex 2 lists course participant contact details; Annex 3 contains the overall schedule; Annex 4 contains the detailed schedule for the week; Annex 5 contains the objectives, outline, and suggested readings for each session; Annex 6 briefly describes participants' team projects; Annex 7 presents session and overall course evaluation results; Annex 8 includes participants' statements about the course; Annex 9 contains statements shared by MedIC leaders and policy makers about the MedIC Course; Annex 10 includes participant reviews and lists improvements that participants suggested for future MedIC Courses; Annex 11 includes photos from the Course; Annex 12 includes the agenda for the International Forum on Pharmaceutical Policy Issues in Health Insurance Systems.

## Course Opening

The MedIC Course formally opened with a dinner reception on Saturday 21 March 2009.

On the *first day* of the course, participants participated in the "Gallery of Experts" activity, an ice-breaker to elicit the wealth of knowledge and resources available to the group through the participants and facilitators. Participants and facilitators interviewed each other in pairs and produced a poster describing their partners. Individuals' descriptions remained posted on the classroom walls throughout the nine days of the course.

*Session 1* introduced the crucial role of medicines in curing disease and preventing morbidity and mortality. We discussed the interplay of stakeholders in the pharmaceutical sector and a behavioral framework for thinking about use of medicines and described common intervention strategies to improve their use. These issues were discussed in the context of the complex political, social, economic, and ethical aspects of health and health care. Key policy recommendations were also presented from the 2004 International Conference on Improving Use of Medicines.

During *Session 2* participants shared and described the hospitals and health insurance systems they represented. Participant presentations focused on the known processes, frameworks, and policies in their organizations that influence medicines use. Presenters also posed key questions on medicines access and use which, in the future, may be directed to senior administrators in their organizations.

Starting on the first day of the course and in each session following, participants worked in small groups to discuss a case or analyze data. These groups were formed so that participants' gender, affiliations, and background were balanced. Working in small groups was a particularly important aspect of the MedIC Course in China as it was a new learning method for all participants. The small group work provided participants with a unique opportunity to share ideas, collaborate on designs and learn from fellow experts – an opportunity that many participants had not had not previously experienced. In addition, at the close of each day throughout the course, participants assembled in country groups to work

together to develop a policy analysis or intervention on an important issue in their hospital or insurance programs. Participants received an outline and a slide template for their final presentations of group projects on the last day of the course.

In the morning of the *second day*, *Session 3* focused on the structures, processes and policy options to manage medicines in health care delivery and insurance systems. Throughout the morning, we discussed the economic impact of medicines on overall health care and individual household expenditures. Facilitators then worked with participants in an activity to apply a functional behavioral framework to understanding policy interventions to improve access to and use of medicines in health care delivery systems and insurance programs. The activity required participants to take these frameworks and examine how the systems in which they work carry out functions (or if functions are indirectly carried out through another organization). We encouraged participants to discuss which departments, committees, or people are involved in executing system functions, which data are used, which processes are more efficient, etc. Facilitators then discussed the rationales for, strengths, and potential (and unintended) effects of various policies and program options.

In *Session 4*, we provided the rationales for and uses of two key policy tools: standard treatment guidelines and formularies. We then outlined steps for developing a standard treatment guideline, incorporating into this discussion the responsibilities of those making formulary decisions, training requirements, ways to minimize conflicts of interest, and processes to make sound formulary decisions. We then applied these criteria to a formulary decision example involving debate over the inclusion of an expensive medication in a particular formulary.

In *Session 5* on the *third day*, we explored and discussed pharmacoeconomic principles to assist in policy decision making. We examined the rationale and purposes for the use of these principles in hospital and insurance policy decision making, as well as when such principles would not be appropriate; shared international examples of using pharmacoeconomic data in decision making; and then applied key pharmacoeconomic concepts to a formulary decision process.

During *Session 5* participants were challenged in a small-group activity to create recommendations to a hospital board or medical insurer with regards to formulary admission of five new drugs recently introduced to the market. In this exercise participants were asked to consider the five new drugs using the previously discussed Five Filter Model\*. On completion of their analysis within small groups, participants presented their findings and recommendations for or against each new drug.

*Session 6* focused on the importance of considering all stakeholders' interests when making policy decisions. We worked together to develop a comprehensive framework in which to promote evidence-based, effective, and fair policy decisions, while examining case examples in which different stakeholders would potentially be affected differently. In addition, we introduced research techniques – such as monitoring and evaluating interventions – to better inform the different policy making stages.

On the *fourth day*, in *Session 7* we discussed the availability and use of existing data in health care systems and insurance programs. The objectives of this session were to characterize the types of data that often exist in health systems and insurance programs and to

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\* The Five Filter Decision Making Model is an approach to scarce resource allocation based on a systematic way of structuring decision making. The model allows stakeholders to adjudicate new technologies. The five filters are: (1) Clinical Filter; (2) Economic Filter; (3) Financial Filter; (4) Funding Filter; (5) Marketing Filter.

illustrate their potential uses. Participants reviewed the compiled results from the MedIC Health Insurance and Health Systems Survey which was completed by participant teams prior to the course. The Survey included questions about which data exist routinely in systems, and in which form. We also discussed limitations of routinely available data and the need for, advantages, and disadvantages of ad-hoc data collection, giving examples of data from two existing household surveys on medicines access and use.

Following this discussion, we provided a tutorial on how to use Excel to analyze and display data, focusing on the use of pivot tables and charts. To illustrate ways in which insurance data can be used for policy analysis, participants analyzed de-identified claims data from a local health insurance program to explore utilization patterns and inpatient costs of care for different groups of members admitted to a local hospital for treatment of hypertension.

Later in the day we provided a *Special Topic Session* on drug safety assessment.

We provided a day off to participants on the *fifth day* of the course.

On the *sixth day*, in *Session 8*, we provided an overview of the key objectives of medicines policy options and considerations for strategies to measure the performance of a health care delivery or insurance system in relation to these objectives. We then discussed possible performance domains that could include equitable access to medicines, affordable medicines cost for patients and systems, clinical appropriateness of prescribing, adherence to therapy, achievement of clinical targets, and patient and provider satisfaction, using a hypothetical case study based on the New Rural Cooperative Medical Scheme in China.

Later that afternoon, in *Session 9*, we discussed different methods that can be used to evaluate the effects of medicines policy changes over time, illustrating the strengths and weaknesses of different policy evaluation designs. We then challenged the participants to both describe the detailed components of the specific policy intervention that they had discussed with their small group in a previous session activity. Participants were asked to design a study that would evaluate the effects of their proposed policy intervention, including evaluating both desired and potentially undesirable impacts.

On the *seventh day*, during *Session 10*, we worked again on analyzing data. The objectives of this session were to identify some of the key issues that arise when extracting, organizing, and analyzing health care delivery system and insurance program data. We illustrated how to identify and deal with common data problems that may distort results if not taken into consideration. We used spreadsheet-based analyses to assess data patterns, explore reasons for unexpected data patterns, establish rules to deal with inconsistencies, and to illuminate the steps to examining data quality.

In *Session 11* we worked with data from different systems to accomplish two tasks: (a) to describe some of the practical aspects and problems of assembling data from different sources within a health care delivery or insurance system for use in pharmaceutical policy analysis; and (b) to highlight the need for standardized coding of medicines, diagnosis, and procedure data. We demonstrated with examples how to organize medicines into chemical groups and therapeutic categories, and how to classify diagnoses and symptoms into meaningful health problem groups.

On the *eighth day* we provided optional *Special Topic Sessions* on innovations for quality and value in health care in the U.S.; pharmacy benefit management in the U.S.; and the pharmaceutical benefit scheme and national prescribing service in Australia. Almost all participants attended all three Special Topic Sessions.

On the *ninth day*, *Session 12*, we analyzed data and policy findings and described the process for conducting a longitudinal policy evaluation, interpreting the results, and disseminating

key information to policy makers. We discussed the importance of using visual displays (such as the ones we had generated through Excel pivot tables) of policy effects with policy makers, as graphs display the data in ways that are easy to interpret. We also discussed the importance of providing concise data briefs to policy makers that focus on figures displaying results and specific recommendations based on the results.

We then worked through an afternoon activity with participants that focused on a retrospective, interrupted time series case study where the impact of a hospital-wide generic dispensing policy on prescribing patterns and medication cost was being evaluated. We provided participants with a sample data set from a hospital in Thailand and asked them to prepare a brief presentation that would argue their position about the generic dispensing policy at this particular hospital and its implications for other hospitals, the national health insurance program, and the Ministry of Public Health pharmacy program. Within each participants' presentation, we asked that they include in their briefing one prepared figure or table that most effectively communicated the most important results they had found, as an activity to apply what was learned in previous sessions.

In *Session 13* we discussed the rationale for and design of monitoring systems using routine data on medicines and other health care services utilization in health care delivery systems and insurance programs. Participants were asked to identify possible domains of performance management, how to operationalize performance indicators, data needs, and use of performance data for management decisions.

On the *tenth* and *final day* of the course, in *Session 14*, we examined how to implement medicines policy changes in a health care delivery system or insurance program. We focused the session on understanding which stakeholders need to be involved, how to elicit their perspectives, and how to engage them in the process. We also discussed options for potential collaboration around important medicines policy topics within and across participants' institutions, system needs for implementing a policy change, and mechanisms for communicating policy changes effectively to all stakeholders. At the end of the session, we worked with participants through an activity that asked them to brainstorm ideas on how they would establish collaborations across their institutions to achieve common goals.

In *Session 15* we reviewed the previous 9 days of the course with participants and asked for suggestions on how to improve the course for future MedIC programs in China. In the afternoon, during *Session 16*, participants presented the results of their week-long collaborative projects and received input from course participants, facilitators and seniors policy makers who joined the last day of the course.

The group projects are described in Annex 5. Senior policy makers who joined the last course session were Mr. Zhang Zong-jiu, Director, Department of Surveillance and Regulation of Health Care, MOH; Mr. Ren-He, Vice-Director (Chairman) of Beijing Public Health Insurance; Professor Li-hong Wang, Vice President of Xuan-wu Hospital of Capital Medical University; Professor Xun-ming Ji, Vice President of Xuan-wu Hospital of Capital Medical University; Professor Lin Li, Chairwoman, Beijing Pharmacology Association; Vice Director, Beijing Geriatric Clinical and Research Center; and Dr. Hans Hogerzeil, Director of Essential Medicines and Pharmaceutical Policies at the World Health Organization. The policy makers provided comments and suggestions on the team projects and shared them in an informal discussion.

The course concluded with a wrap-up session in which participants evaluated the course, shared their impressions of which aspects of the course worked well for them, and which aspects of the course could be improved, and how they would wish to move forward jointly, building upon the momentum and network created by the MedIC Course. Annex 6

summarizes session and overall evaluation results and lists participants' suggestions for course improvements. Annex 7 includes participants' statements about the course. Annex 8 lists participants' suggestions for improvements for future MedIC Courses.

### **Contributors and Funders**

The first MedIC Course on Pharmaceutical Policy Analysis in Beijing, China was made possible through the generous support of several organizations in China and the United States, and the dedicated effort of numerous colleagues across the world.

We gratefully acknowledge the following organizations which supported the development and implementation of the first MedIC Course in Beijing: Xuan-wu Hospital of Capital University of Medical Sciences; the Beijing Public Health Insurance Committee; and the World Health Organization in Beijing, China; the Harvard China Fund of Harvard University; the China Initiative of Harvard School of Public Health in Boston, USA; and the Department of Ambulatory Care and Prevention (now Department of Population Medicine) of Harvard Medical School and the Harvard Pilgrim Health Care Institute, Boston, USA.

The following individuals worked diligently organizing, developing materials for, and facilitating in the Beijing MedIC course: Jian Zhang, Yu-qin Wang, Lan Zhang and their team from Xuan-wu Hospital; Joyce Cheatham, Sue John, Sarah Lewis, Mai Manchanda, Dennis Ross-Degnan, Anita Wagner and Frank Wharam from the Boston-based World Health Organization Collaborating Center in Pharmaceutical Policy, USA; Yuanli Liu and Alexander Walker from Harvard School of Public Health in Boston, USA; Hans Hogerzeil from the World Health Organization, Switzerland; Christine Lu from the University of South Australia; Sauwakon Ratanawijitrasin from Mahidol University, Thailand; and Tienie Stander from North West University, School of Pharmacy, South Africa.

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Dr. Hogerzeil is the editor of several WHO books on essential medicines policies, quality use of medicines, medicines in emergency situations and essential medicines for reproductive health. He has published more than 50 scientific papers in peer-reviewed journals and teaches every year at international courses all over the world. In 1996 he was invited to become a fellow of the Royal College of Physicians in Edinburgh, Scotland, and in 1998, he received an honorary Doctorate of Science from the Robert Gordon University in Aberdeen, Scotland.

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Dr. Stander is an extraordinary professor at North West University, School of Pharmacy and an external moderator of the School of Pharmacy of North West University. In this role he is lecturing, assisting and advising in research projects on pharmacoeconomics for PhD and Masters students. He is currently President of ISPOR South Africa and is a member of ISPOR International.

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Dr. Wagner conducts research to inform evidence-based policy decisions intended to improve access to and use of medicines for vulnerable populations in the United States and particularly in developing countries. Her teaching activities focus on building capacity in health care and insurance systems to design, implement, and evaluate medicines policies. For the WHO Collaborating Center in Pharmaceutical Policy, she co-leads the global Medicines and Insurance Coverage (MedIC) Initiative and directs its MeIC Courses in Pharmaceutical Policy Analysis.

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Dr. Wharam's research interests include empirically analyzing health policy trends to inform evidence-based, ethical, and effective policy reform. His studies have examined the impact of high-level cost sharing on health services utilization and the ethical implications of paying physicians based on patient outcomes. He teaches in the Patient-Doctor II class at the Harvard Medical School.

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Dr. Lan Zhang is currently the Vice Director of the Department of Pharmacology, Xuan-wu Hospital of Capital Medical University in Beijing. Her work focuses on promoting rational use of medicines in hospitals. In the future, Dr. Zhang will focus on evidenced-based pharmaceutical policy decision making in hospitals, insurance schemes and at the national level.

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**ANNEX 3: OVERALL SCHEDULE**

Time	Sunday March 22	Monday March 23	Tuesday March 24	Wednesday March 25
8:30-9:00	Overview	Key points	Key points	Key points
9:00A- 10:00A (1h)	Gallery of Experts	<b>Setting the Scene:</b> 3. Structures, processes and policy options to manage medicines	<b>Core Policy Tools:</b> 5. <u>Pharmacoeconomics</u> in policy decision making	<b>Data for Decisions:</b> 7. Availability and use of data
Break 10:00A-10:30A				
10:30A-11:30A (1h)	Gallery of Experts (cont.)	(cont.)	(cont.)	(cont.)
11:30A-12:30A (1h)	<b>Setting the Scene:</b> 1. Medicines access and use: Significance, problems, and determinants	(cont.)	(cont.)	(cont.)
Lunch 12:30P-1:30P				
1:30P-2:30P (1h)	<b>Setting the Scene:</b> 2. Medicines management in participating organizations	<b>Core Policy Tools:</b> 4. Standard treatment guidelines and formularies	<b>Core Policy Tools:</b> 6. A systematic approach to evidence-based, effective, and fair policy making	(cont.)
2:30P-3:30P (1h)	(cont.)	(cont.)	(cont.)	<b>Special Topic:</b> Drug safety assessment
Break 3:30P-4:00P				
4:00P-5:00P (1h)	(cont.)		(cont.)	(cont.)
5:00P-5:30P (0.5h)	<b>Special Topic:</b> The policy making process (5:00P-6:30P)	<b>Team project work:</b> Identify key medicines issue(s)	<b>Team project work:</b> Identify policy options	<b>Team project work:</b> Identify available data
Evening 7:00P-9:00P				

Time	Friday March 27	Saturday March 28	Sunday March 29	Monday March 30	Tuesday March 31
8:30-9:00	<b>Key points</b>	<b>Key points</b>	<b>Key points</b>	<b>Key points</b>	<b>Key points</b>
9:00A– 10:00A (1h)	<b>Data for Decisions:</b> 8. Medicines policy objectives and performance evaluation	<b>Working with Data:</b> 10. Detecting and solving data problems	<b>Special Topic:</b> Innovations for quality and value in health care in the U.S.	<b>Working with Data:</b> 12. Analyzing data and disseminating findings	<b>Data to Policy:</b> 14. Potential next steps among participating organizations
Break 10:00A-10:30A					
10:30A-11:30A (1h)	(cont.)	(cont.)	<b>Special Topic:</b> Pharmacy benefit management in the U.S.	(cont.)	(cont.)
11:30A-12:30A (1h)	(cont.)	(cont.)	<b>Special Topic:</b> The Pharmaceutical Benefit Scheme and National Prescribing Service in Australia	(cont.)	<b>Review of Course</b> 15. Summary and course evaluation
Lunch 12:30P-1:30P					
1:30P–2:30P (1h)	<b>Data for Decisions:</b> 9. Designing studies to evaluate change	<b>Working with Data:</b> 11. Using data from different systems	Afternoon free	<b>Data to Policy:</b> 13. Routine monitoring	<b>Data to Policy:</b> 16. Team project presentations
2:30P-3:30P (1h)	(cont.)	(cont.)		(cont.)	(cont.)
Break 3:30P-4:00P					
4:00P-5:00P (1h)		(cont.)		(cont.)	(cont.)
5:00P-6:00P (1h)	<b>Team project work:</b> Design intervention study	<b>Team project work:</b> Design analysis plan		<b>Team project work:</b> Finalize presentation	<b>Policymaker comments on team projects</b>
Evening 7:00P-9:00P					<b>Conclusion (6pm-6:30pm)</b>

## ANNEX 4: DETAILED PROGRAM

### Evening of Saturday, 21 March

5:30P – 6:30P      Arrival and registration  
 Evening              Welcome reception and dinner

### Sunday, 22 March

08:30 – 09:00      Course overview  
 09:00 – 10:00      Gallery of experts  
 10:00 – 10:30      Break  
 10.30 – 11.30      Gallery of Experts (cont.)  
 11:30 – 12:30      *Session 1: Medicines access and use: Significance, problems, and determinants*  
 12.30 – 13:30      Lunch  
 13:30 – 15:30      *Session 2: Medicines management in participating organizations*  
 15:30 – 16:00      Break  
 16:00 – 17:00      *Session 2: Medicines management in participating organizations(cont.)*  
 17:00 – 18:30      Special Topic: The policy making process

### Monday, 23 March

08:30 – 09:00      Key points from Day One  
 09:00 – 10:00      *Session 3: Structures, processes and policy options to manage medicines in health care delivery and insurance systems*  
 10:00 – 10:30      Break  
 10:30 – 11:30      Activity 1: A functional framework for managing medicines in health care delivery and insurance systems  
 11:30 – 12:30      Activity 2: Expanding medicines coverage – policy goals and potential effects  
 12.30 – 13:30      Lunch  
 13:30 – 14:30      *Session 4: Standard treatment guidelines and formularies*  
 14:30 – 15:00      Activity 1: Formulary decision making and the pharmaceutical industry  
 15:00 – 15:30      Activity 2: Formulary decision about an expensive medication  
 15:30 – 16:00      Break  
 16:00 – 17:00      Activity 2: Formulary decision about an expensive medication (cont.)  
 17:00 – 17:30      Team project work: Identify key medicines issue(s)

### Tuesday, 24 March

08:30 – 09:00      Key points from Day Two  
 09:00 – 10:00      *Session 5: Pharmacoeconomics in hospital and insurance policy decision making*  
 10:00 – 10:30      Break  
 10.30 – 12.30      Activity 1: Considering economics in decision making: vaccines and biologicals  
 12.30 – 13:30      Lunch  
 13:30 – 14:30      *Session 6: A systematic approach to evidence-based, effective, and fair policy making*

- 14:30 – 15:30 Activity 1: Evaluating the fairness and effectiveness of a potential policy change: Are physician incentives for generic prescribing a “good policy option”?
- 15:30 – 16:00 Break
- 16:00 – 17:00 Activity 1: Evaluating the fairness and effectiveness of a potential policy change: Are physician incentives for generic prescribing a “good policy option”? (cont.)
- 17:00 – 17:30 Team project work: Identify policy options

### **Wednesday, 25 March**

- 08:30 – 09:00 Key points from Day Three
- 09:00 – 10:00 *Session 7: Availability and use of data in hospitals and insurance systems*
- 10:00 – 10:30 Break
- 10:30 – 11:15 Activity 1: Availability of data in hospitals and insurance systems
- 11:15 – 12:00 Activity 2: Working with Excel
- 12:00 – 12:30 Activity 3: Cost of care for stroke patients
- 12:30 – 13:30 Lunch
- 13:30 – 14:30 Activity 3: Cost of care for stroke patients (cont.)
- 14:30 – 15:30 Special Topic: Drug safety assessment
- 15:30 – 16:00 Break
- 16:00 – 17:00 Special Topic: Drug safety assessment (cont.)
- 17:00 – 17:30 Team project work: Identify available data

### **Thursday, 26 March**

No MedIC Course sessions

### **Friday, 27 March**

- 08:30 – 09:00 Key points from Day Four
- 09:00 – 10:00 *Session 8: Medicines policy objectives and performance evaluation*
- 10:00 – 10:30 Break
- 10:30 – 12:30 Activity 1: Outpatient coverage for hypertension medicines
- 12:30 – 13:30 Lunch
- 13:30 – 14:30 *Session 9: Designing studies to evaluate change in medicines policies*
- 14:30 – 15:30 Activity 1: Designing a policy evaluation in your system
- 15:30 – 16:00 Break
- 16:00 – 17:00 Activity 1: Designing a policy evaluation in your system (cont.)
- 17:00 – 18:00 Team project work: Design intervention study

### **Saturday, 28 March**

- 08:30 – 09:00 Key points from Day Five
- 09:00 – 10:00 *Session 10: Detecting and solving data problems*
- 10:00 – 10:30 Break
- 10:30 – 12:30 Activity 1: Identifying and solving problems in dispensing data
- 12:30 – 13:30 Lunch
- 13:30 – 14:30 *Session 11: Using data from different systems*

- 14:30 – 15:30 Activity 1: Diagnosis, therapeutic class, and medicines identifiers in policy analysis
- 15:30 – 16:00 Break
- 16:00 – 17:00 Activity 1: Diagnosis, therapeutic class, and medicines identifiers in policy analysis (cont.)
- 17:00 – 18:00 Team project work: Design analysis plan

**Sunday, 29 March**

- 08:30 – 09:00 Key points from Day Six
- 09:00 – 10:00 Special Topic: Innovations for quality and value in health care in the U.S.
- 10:00 – 10:30 Break
- 10:30 – 11:30 Special Topic: Pharmacy benefit management in the U.S.
- 11:30 – 12:30 Special Topic: The Pharmaceutical Benefit Scheme and National Prescribing Service in Australia
- 12.30 – 13.30 Lunch
- 13:30 – 17:30 No MedIC Course sessions - afternoon free

**Monday, 30 March**

- 08:30 – 09:00 Key points from Day Seven
- 09:00 – 10:00 *Session 12: Analyzing data and disseminating findings*
- 10:00 – 10:30 Break
- 10:30 – 12:30 Activity 1: Analyzing the effects of a generic dispensing policy
- 12.30 – 13.30 Lunch
- 13:30 – 14:30 *Session 13: Routine monitoring*
- 14:30 – 15:30 Activity 1: Designing routine medicines policy monitoring in your system
- 15:30 – 16:00 Break
- 16:00 – 17:00 Activity 1: Designing routine medicines policy monitoring in your system (cont.)
- 17:00 – 18:00 Team project work: Finalize presentation

**Tuesday, 31 March**

- 08:30 – 09:00 Key points from Day Eight
- 09:00 – 10:00 *Session 14: Implementing policy change - potential next steps among participating organizations*
- 10:00 – 10:30 Break
- 10:30 – 11:30 Activity 1: Ideas for collaboration on medicines policy issues
- 11:30 – 12:30 *Session 15: Review of course*
- 12.30 – 13.30 Lunch
- 13:30 – 15:30 *Session 16: Team project presentations*
- 15:30 – 16:00 Break
- 16:00 – 17:00 *Session 16: Team project presentations (cont.)*
- 17:00 – 18:00 Policymaker comments on team projects
- 18:00 – 18:30 MedIC course conclusion

## **ANNEX 5: SESSION BRIEFS**

### **Course Overview and Gallery of Experts**

#### **Objectives**

The main objectives of this session are to provide an overview of the course and to introduce participants and facilitators to each other. The gallery of experts will also begin to build a foundation for experience sharing and group development.

#### **Outline**

- Brief overview of course
- Activity to create a Gallery of Experts to introduce participants and facilitators

#### **Readings (key readings in bold)**

None

#### **Discussion Questions**

None

#### **Learning Points**

- Each participant and facilitator comes to the course with his/her own perspective, background, experiences, and skills.
- The learning in this course happens through discussion of information, experiences, and perspectives among participants and facilitators.
- Participants are valuable resources for each other in the learning environment of this course and in collaborative work in their settings after the course.

### **Session 1: Medicines access and use: Significance, problems, and determinants**

#### **Objectives**

This session will introduce the crucial role of medicines in curing disease and preventing morbidity and mortality. We will discuss a behavioral framework for thinking about use of medicines and describe a framework for intervention strategies to improve their use. These issues will be discussed in the context of the complex political, social, economic, and ethical aspects of health and health care. We will also present some key policy recommendations from the 2004 International Conference on Improving Use of Medicines.

#### **Outline**

- Roles of medicines in society
- Pharmaceutical sector framework and behavioral perspective
- Determinants of medicines use by health care providers and consumers
- Overview of intervention strategies to change medicines use behavior

**Readings (key readings in bold)**

**Laing RO, Hogerzeil HV, Ross-Degnan D. Ten recommendations to promote improved use of medicines in developing countries. Health Policy Plan 2001; 16(1): 13-20.**

Policies and Programmes to Improve Use of Medicines: Recommendations from ICIUM 2004 (<http://archives.who.int/icium/icium2004/recommendations.html>). See especially the following sets of recommendations: 8. Economic issues: pricing; 11. Generic prescribing and dispensing; 14. Insurance coverage; 18. Medicines use in the private sector 25. Improving hospital prescribing.

**Discussion Questions**

1. What factors influence medicines use in China and what are major problems in the way medicines are used?
2. How effective are current policies and programs to influence prescribing and dispensing by health care providers and use of medicines by consumers?
3. What opportunities exist in your system for implementing tailored interventions to improve key problems in medicines use?

**Session 2: Medicines management in participating organizations****Objectives**

The objective of this session is for participants to describe the hospitals and health insurance system they represent to course participants and facilitators. Participant presentations should focus on processes, frameworks, and policies in their organizations that influence medicines use. Presenters should also pose key questions on medicines access and use which senior administrators in their organizations would wish to answer.

**Outline**

- Presentations (10 minutes each) by participating hospitals and the Beijing Public Health Insurance
- Discussion of key questions

**Readings (none)****Discussion Questions**

1. Which are key structures, processes and policies related to medicines in your organization?
2. What are key medicines issues your system is facing?

**Session 3: Structures, processes, and policy options to manage medicines in health care delivery and insurance systems****Objectives**

The first objective of this session is to discuss the economic impact of medicines on overall health care and individual household expenditures. We will then present frameworks of structures, processes, and policy options that can be used to manage medicines in health care

delivery and insurance systems. We will apply a behavioral framework to understanding policy interventions to improve access to and use of medicines in health care delivery systems or insurance programs and discuss the rationales for, strengths, and unintended effects of various policies and program options.

## Outline

- Importance of medicines in health care and risk protection
- Functional frameworks for managing medicines in health care delivery and insurance systems
- Medicines policy options to improve access to and use of medicines

## Readings (key readings in bold)

Aaserud M, Dahlgren AT, Kösters JP, Oxman AD, Ramsay C, Sturm H. Pharmaceutical policies: effects of reference pricing, other pricing, and purchasing policies. *Cochrane Database of Systematic Reviews* 2006, Issues 2. Art. No.: CD005979.

Academy of Managed Care Pharmacy. Maintaining the affordability of the prescription drug benefit: How managed care organizations secure price concessions from pharmaceutical manufacturers (<http://www.amcp.org/amcp.ark?p=AAAC630C>).

Academy of Managed Care Pharmacy. Pharmacy benefit communication grid (<http://www.amcp.org/amcp.ark?p=AA8CD7EC>).

[Austvoll-Dahlgren A](#), [Aaserud M](#), [Vist G](#), [Ramsay C](#), [Oxman AD](#), [Sturm H](#), [Kösters JP](#), [Vernby A](#). Pharmaceutical policies: effects of cap and co-payment on rational drug use. *Cochrane Database Syst Rev* 2008;1:CD007017.

Chen Y, Schweitzer SO. Issues in drug pricing, reimbursement, and access in China with references to other Asia-Pacific region. *Value Health* 2008;11(Suppl1):S124-S129.

Goff VV. Pharmacy benefits: New concepts in plan design. *National Health Policy Forum Issue Brief No.772*. Washington, DC; George Washington University: 2002.

Hoadley J. Cost-containment strategies for prescription drugs: Assessing the evidence in the literature. Kaiser Family Foundation, March 2005 (<http://www.kff.org/rxdrugs/7295.cfm>).

Kaiser Family Foundation. Prescription drug trends. September 2008. ([http://www.kff.org/rxdrugs/upload/3057\\_07.pdf](http://www.kff.org/rxdrugs/upload/3057_07.pdf))

McIntyre D, Thiede M, Dahlgren G, Whitehead M. What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts? *Social Science & Medicine* 2006; 62: 858–865.

Meng Q, Cheng G, Silver L, Sun X, Rehnberg C, Tomson G. [The impact of China's retail drug price control policy on hospital expenditures: a case study in two Shandong hospitals](#). *Health Policy Plan* 2005; 20: 185-96.

Nguyen A. What is the range of policy options that can be used to promote the use of generic medicines in developing and transitional countries? Draft for review and comment, 2007.

Schneeweiss S. Reference drug programs: Effectiveness and policy implications. *Health Policy* 2007; 81:17-28.

**Seiter A, Lakshminarayanan R. Pharmaceuticals: Cost containment, pricing, reimbursement. HNP Brief. No. 7. Washington DC; The World Bank: August 2005.**

Sun Q, Santoro MA, Liu C, Eggleston L. Pharmaceutical policy in China. *Health Aff* 2008;27:1042-1050.

[van Doorslaer E](#), [O'Donnell O](#), [Rannan-Eliya RP](#), et al. Catastrophic payments for health care in Asia. *Health Econ* 2007; 16:1159-1184.

Vermeulen LC, Rough SS, Thielke TS, Shane RR, Ivey MF, Woodward BW, Pierpaoli PG, Thomley SM, Borr CA, Zilz DA. [Strategic approach for improving the medication-use process in health systems: the high-performance pharmacy practice framework](#). *Am J Health Syst Pharm* 2007; 64(16):1699-710.

Wang H, Zhang L, Hsiao W. Ill health and its potential influence on household consumptions in rural China. *Health Policy* 2006;78:167-177.

Wagner AK, Ross-Degnan D. The potential for insurance systems to increase access to and appropriate use of medicines in Asia Pacific countries. In: Eggleston K, ed. *Prescribing Cultures and Pharmaceutical Policy in the Asia-Pacific*. Walter H. Shorenstein Asia-Pacific Research Center, Stanford University, forthcoming in 2009 from Brookings Press.

Walley T, Mossialos E. Chapter 10: Financial incentives and prescribing. In: Mossialos E, Mrazek M, Walley T, editors. *Regulating pharmaceuticals in Europe: Striving for efficiency, equity and quality*. European Observatory on Health Systems and Policies Series. Open University Press: 2004, 177-196  
([http://www.euro.who.int/eprise/main/WHO/Progs/OBS/Publications/20040527\\_2](http://www.euro.who.int/eprise/main/WHO/Progs/OBS/Publications/20040527_2)).

### **Discussion Questions**

1. How are medicines financed in your organization?
2. What structures and processes does your organization use to manage medicines?
3. Are the poor able to obtain access to essential medicines in your health care delivery or insurance system?
4. How can a health care delivery system or insurance program influence medicines access, use, and costs?
5. What challenges do systems face in determining which medicines to allow for prescribing or reimbursement?

### **Session 4: Standard treatment guidelines and formularies**

#### **Objectives**

The objectives of this session are to describe the rationales for and uses of two key policy tools: standard treatment guidelines and formularies. We will outline steps for developing a standard treatment guideline. We will describe the responsibilities of those making formulary decisions, training requirements, ways to minimize conflicts of interest, and processes to make sound formulary decisions and apply criteria to a formulary decision example.

#### **Outline**

- Rationale for implementing standard treatment guidelines
- A process for developing a standard treatment guideline

- Formulary policy options and their expected effects
- Processes for formulary decision making
- Case discussion of an insurance program's formulary decision and a pharmaceutical manufacturer's reaction

### Readings (key readings in bold)

Academy of Managed Care Pharmacy. The AMCP format for formulary submissions, version 2.1. A format for submission of clinical and economic data in support of formulary considerations by health care systems in the United States. Academy of Managed Care Pharmacy, April 2005.

American Society of Health System Pharmacists. ASHP guidelines on the pharmacy and therapeutics committee and the formulary system. *Am J Health-Syst. Pharm* 2008; 65: 1272-83.

(<http://www.ashp.org/Import/PRACTICEANDPOLICY/PolicyPositionsGuidelinesBestPractices/BrowsebyTopic/FormularyManagement.aspx>)

Martin DK, Hollenberg D, MacRae S, Madden S, Singer P. Priority setting in a hospital drug formulary: a qualitative case study and evaluation. *Health Policy* 2003; 66(3): 295-303. doi: 10.1016/S0168-8510(03)00063-0.

### **Holloway K, Green, T. Managing the formulary process. Chapter 3 in Drug and Therapeutics Committees: A Practical Guide. World Health Organization, 2003.**

Coalition Working Group. Principles of a sound drug formulary system. Academy of Managed Care Pharmacy, October 2000. Available at <http://www.amcp.org/>.

Dillon MJ. Chapter 6. Drug formulary management. In Navarro RP. *Managed Care Pharmacy Practice*. Aspen Publishers; Gaithersburg, MD: 1999, 145-165.

Chapter 10. Managing drug selection. In: Quick JD, ed. *Managing drug supply: The selection, procurement, distribution, and use of pharmaceuticals*. West Hartford, CT: Kumarian Press, 1997; 121-136.

Savelli A, Schwarz H, Zagorski A, Bykov A. Stage II. Develop Drug Formulary List. In: *Manual for the Development and Maintenance of Hospital Drug Formularies*. Management Sciences for Health, 1996.

<http://erc.msh.org/mainpage.cfm?file=2.2.htm&module=dtc&language=English>

Sullivan SD, Lyles A, Luce B, Grigar J. AMCP guidance for submission of clinical and economic evaluation data to support formulary listing in U.S. health plans and pharmacy benefit management organization. *J Managed Care Pharmacy* 2001;7:272-282.

### Discussion Questions

1. What are the clinical and economic benefits of standard treatment guidelines?
2. What information and practical steps are needed to develop and implement an evidence-based standard treatment guideline?
3. What are the clinical and economic benefits of formularies?
4. How are formulary decisions made in your system?

## Session 5: Pharmacoeconomics in hospital and insurance policy decision making

### Objectives

The objectives of this session are to explore and discuss pharmacoeconomic principles as tools to assist in policy decision making.

### Outline

- Describe pharmacoeconomic principles
- Discuss the rationale and purposes for their use in hospital and insurance policy decision making, and when their use would not be appropriate
- Outline challenges in generating quality pharmacoeconomic data
- Share international examples of using pharmacoeconomic data in decision making
- Apply key pharmacoeconomic concepts to a formulary decision process

### Readings (key readings in bold)

**Bao Peng L, Qing Tan C, Min Wan X, Cui W. Cost-Utility China: Differences and difficulties compared with developed countries. Pharmacoeconomics 2007;25:619.**

Chen Y, Schweitzer SO. Issues in drug pricing, reimbursement, and access in China with references to other Asia-Pacific region. *Value in Health* 2008; 11(Suppl 1):S124-129.

Cheung YB, Thumboo J. Developing health-related quality-of-life instruments for use in Asia: the issues. *Pharmacoeconomics* 2006;24: 643-650.

Cyranoski D. China's deadly drug problem. *Nature* 2007;446:598-599.

**Lau EW, Leung GM. Is the Hospital Authority's drug formulary equitable and efficient? Hong Kong Med J 2008;14:416-417.**

Marshall DA, Douglas PR, Drummond MF, Torrance GW, MacLeod S, Manti O, Cheruvu L, Corvari R. Guidelines for conducting pharmaceutical budget impact analyses for submission to public drug plans in Canada. *Pharmacoeconomics* 2008;26:477-495.

McCabe C, Claxton K, Culyer AJ. The NICE cost-effectiveness threshold: what it is and what that means. *Pharmacoeconomics* 2008;26:733-744.

Meng Q, Cheng G, Silver L, Sun X, Rehnberg C, Tomson G. The impact of China's retail drug price control policy on hospital expenditures: a case study in two Shandong hospitals. *Health Policy and Planning* 2005;20:185-96.

**Singer ME. Cost-Effectiveness analysis. Developing nations left behind. Pharmacoeconomics 2008;26:359-361.**

Wang YR. Price competition in the Chinese pharmaceutical market. *International Journal of Health Care Finance and Economics* 2006;6:119-129.

Xie X, Vondeling H. Cost-Utility analysis of intensive blood glucose control with Metformin versus usual care in overweight Type 2 Diabetes Mellitus patients in Beijing, P.R. China. *Value in Health* 2008; 11(Suppl 1):S23-32.

Yuan Y, Iloeje U, Li H, Hay J, Yao BG. Economic implications of Entecavir treatment in suppressing viral replication in chronic Hepatitis B (CHB) Patients in China from a

Perspective of the Chinese Social Security Program. *Value in Health* 2008;11 (Suppl 1):S11-22.

Zhou B, Yang L, Sun Q, Gu H, Wang B. Social health insurance and drug spending among cancer inpatients in China. *Health Affairs* 2008;27:1020-1027.

### Discussion Questions

1. What could be done to improve the acceptance of pharmacoeconomics as a tool for decision making in China? (See article by Mendel E Singer)
2. How could access to local pharmacoeconomic analysis results assist decision makers in allocating scarce healthcare resources?
3. Based on the correspondence from Bao Peng et al., in your opinion, what are the barriers that affect acceptance of pharmacoeconomic studies in China. Debate the reasons given in the article by Bao Peng et al.
4. Discuss how the Five Filter approach can be used and applied in China for policy decision making.

### Session 6: A systematic approach to evidence-based, effective, and fair policy making

#### Objectives

The objectives of this session are to discuss the importance of considering all stakeholders' interests when making policy decisions; to present a framework to promote evidence-based, effective, and fair policy decisions; and introduce research techniques that can inform the different policy making stages.

#### Outline

- Discuss the need for fair and evidence-based implementation of health policies
- Describe a framework that explores the values underlying policies and that optimizes benefits and minimizes risks to key stakeholders
- Discuss key elements needed to implement such a framework
- Discuss research techniques to identify key stakeholders and their values, to predict benefits and risks to stakeholders, and to monitor the effects of policies

#### Readings (key readings in bold)

Daniels N. Justice, health, and healthcare. *Am J Bioeth.* 2001 Spring;1(2):2-16.

Hudelson PM. Qualitative Research for Health Programmes. WHO. Available at: [http://whqlibdoc.who.int/hq/1994/WHO\\_MNH\\_PSF\\_94.3.pdf](http://whqlibdoc.who.int/hq/1994/WHO_MNH_PSF_94.3.pdf)

Rice PL, Ezzy D. Rice PL and Ezzy D. *Qualitative Research Methods: A Health Focus.* New York: Oxford University Press, 1999.

Sabin JE, Cochran D. Confronting trade-offs in health care: Harvard Pilgrim Health Care's organizational ethics program. *Health Aff (Millwood).* Jul-Aug 2007;26(4):1129-1134.

Teagarden RJ. Pharmacists, ethics, and pharmacy benefits. *Am J Pharmaceutical Education* 2003;67: Article 28, 1-6.

Teagarden RJ. Prior authorization in prescription drug benefit management: An apologia. *Hospital Pharmacy* 2004;39:493-498.

Teagarden RJ, Daniels N, Sabin JE. A proposed ethical framework for prescription drug benefit allocation policy. *J Am Pharm Assoc* 2003;43:69-74.

[Sturm H](#), [Austvoll-Dahlgren A](#), [Aaserud M](#), [Oxman AD](#), [Ramsay C](#), [Vernby A](#), [Kösters JP](#). Pharmaceutical policies: effects of financial incentives for prescribers. [Cochrane Database Syst Rev](#) 2007;3:CD006731.

**Wharam JF, Daniels N. Toward evidence-based policy making and standardized assessment of health policy reform. *JAMA*. Aug 8 2007;298(6):676-679.**

Wynia M, Cummins D, Flemig D, Karsjens K, Orr A, Sabin J, Saphine-Bernstein I, Witlin R. Improving fairness in coverage decisions: performance expectations for quality improvement. *American Journal of Bioethics* 4 (3): 87-100, 2004.

### Discussion Questions

1. Have you encountered medicines policies that had unexpected results? Describe your experience.
2. Who are the stakeholders affected by pharmaceutical policies at your institution?
3. What techniques might you use to predict effects of new policies on these stakeholders?
4. Provide examples when the values of different stakeholders were in conflict related to a policy change? What processes were used to resolve these?
5. What systems or personnel would be needed at your institution to monitor the effects of a new policy on poor and illiterate patients?

### Session 7: Availability and use of data in hospitals and insurance systems

#### Objectives

The objectives of this session are to characterize the types of data that often exist in health care delivery systems and insurance programs. Existing data can include information on enrollees, patients, providers, medicines, episodes of hospital care, outpatient visits, and procedures. To illustrate the ways in which these types of data can be employed for policy analysis, we will use data from a hospital to analyze costs of care for stroke patients over time.

#### Outline

- Comparison of data available in the systems of course participants with a comprehensive list of possible data elements
- Use of data to quantify patterns of use and cost of care
- Example: Analysis of inpatient data to quantify health care expenditures
- Collecting ad hoc data to study a problem in depth

### Readings (key readings in bold)

**Chapter 29. Investigating drug use. In: Quick JD. Managing drug supply: The selection, procurement, distribution, and use of pharmaceuticals. West Hartford, CT: Kumarian Press, 1997; 431-449.**

Chan KA et al. Development of a multipurpose dataset to evaluate potential medication errors in ambulatory care settings. AHRQ 2005.

International Network for Rational Use of Drugs. How to use applied qualitative methods to design drug use interventions (draft). Chapter 1: Overview of Methods.

([http://www.inrud.org/documents/How\\_to\\_Use\\_Applied\\_Qualitative\\_Methods.pdf](http://www.inrud.org/documents/How_to_Use_Applied_Qualitative_Methods.pdf))

Jollis JG, Ancukiewicz M, DeLong ER, Pryor DB, Muhlbaier LH, Mark DB. Discordance of databases designed for claims payment versus clinical information systems: Implications for outcomes research. *Ann Intern Med.* 1993; 119: 844–850.

Strom BL. Overview of Automated Databases in Pharmacoepidemiology. In Strom BL, ed. *Pharmacoepidemiology, Fourth Edition.* Chichester: John Wiley & Sons Ltd, 2005, 219-222.

Zhao Y, Ash AS, Ellis RP, et al. Predicting pharmacy costs and other medical costs using diagnoses and drug claims. *Med Care* 2005;43:34-43.

### Discussion Questions

1. Which types of data tend to exist in most systems? What are their strengths and weaknesses?
2. Which data would be needed to describe a key medicines problem in your system? Could you obtain these data?

## Session 8: Medicines policy objectives and performance evaluation

### Objectives

This session explores the key objectives of medicines policies and programs, and considers strategies for measuring the performance of a health care delivery or insurance system in relation to these objectives. Possible performance domains may include equitable access to medicines, affordable medicines cost for patients and systems, clinical appropriateness of prescribing, adherence to therapy, achievement of clinical targets, or patient and provider satisfaction.

### Outline

- Case study: Building the case for coverage of outpatient medicines for patients with hypertension
- Identifying the domains of intended policy effects
- Defining criteria for useful performance measures
- Mapping performance measures within policy domains
- Identifying data and operationalizing performance measures
- Uses of performance measures for policy evaluation, routine monitoring, or performance-based contracting

### Readings (key readings in bold)

Friedman YM, Hanchak NA. Chapter 9. Pharmacy program performance measurement. In Navarro RP. Managed Care Pharmacy Practice. Gaithersburg, MD: Aspen Publishers, 1999.

**Katz A, Soodeen R-A, Bogdanovic B, De Coster C, Chateau D. Can the quality of care in family practice be measured using administrative data? HSR: Health Services Research 2006; 41(6): 2238-54.**

NCQA. Desirable attributes of HEDIS® measures. NCQA, 1998. Available at <http://www.ncqa.org/programs/hedis/desirable%20attributes.html>.

Selected sections from The Health Plan Employer Data and Information Set (HEDIS®) Volume 2, Technical Specifications, NCQA, 2008.

World Health Organization. How to measure drug use in health facilities: Selected drug use indicators. EDM Research Series No. 07. Geneva: WHO/DAP, 1993 (<http://www.who.int/medicinedocs/en/d/Js2289e/1.html>).

Yip W, Hsiao WC. Non-evidence-based policy: How effective is China's new cooperative medical scheme in reducing medical impoverishment? Soc Sci Med. 2009 Jan;68(2):201-9.

### Discussion Questions

1. In your system, which stakeholders would be interested in assessing system performance in the area of medicines coverage, and why?
2. Which policy domains and performance areas related to medicines coverage would be the most important to assess in your system?
3. Which aspects of medicines coverage could you assess using routinely collected data in your system?
4. Which performance measures might be the most useful to compare across different health care delivery systems and insurance programs?

## Session 9: Designing studies to evaluate change in medicines policies

### Objectives

The objective of this session is to discuss methods that can be used to evaluate the effects of medicines policy changes over time. We will illustrate the strengths and weaknesses of different policy evaluation designs.

### Outline

- Discussion of policy evaluation designs – pre-post versus longitudinal studies, use of different types of control groups
- Designing and implementing a policy evaluation – defining study objectives; study group selection; data collection; study time frame; planning for analysis

### Readings (key readings in bold)

**Cook TD, Campbell DT. Chapter 5. Quasi-Experiments: Interrupted time-series designs. In Cook TD, Campbell DT. Quasi-Experimentation. Design and Analysis Issues for Field Studies. Boston: Houghton Mifflin Company, 1979.**

Kanavos P, Ross-Degnan D, Fortess E, Abelson J, Soumerai SB. Chapter 5. Measuring, monitoring, and evaluating policy outcomes in the pharmaceutical sector. In: Mossialos E, Mrazek M, Walley T, editors. *Regulating pharmaceuticals in Europe: Striving for efficiency, equity and quality*. European Observatory on Health Systems and Policies Series. Open University Press: 2004, 177-196. Available at [http://www.euro.who.int/eprise/main/WHO/Progs/OBS/Publications/20040527\\_2](http://www.euro.who.int/eprise/main/WHO/Progs/OBS/Publications/20040527_2).

O'Malley AJ, Frank RG, Kaddis A, Rothenberg BM, McNeil BJ. Impact of alternative interventions on changes in generic dispensing rates. *HSR: Health Services Research*. 2006; 41(5): 1876-94.

**Perera R, Heneghan C, Yudkin P. A graphical method for depicting randomised trials of complex interventions. *British Medical Journal* 2007; 334:7585 (127-129). (reading for Activity 1)**

Ray W. Policy and program analysis using administrative databases. *Ann Intern Med* 1997;127:712-718.

Shojania KG, Grimshaw J. Evidence-based quality improvement: The state of the science. *Health Affairs* 2005; 24(1): 138-150.

Soumerai SB, Ross-Degnan D, Fortess EE, Abelson J. A critical analysis of studies of state drug reimbursement policies: Research in need of discipline. *Milbank Quarterly* 1993; 71(2): 217-252.

### Discussion Questions

1. What is the potential for designing controlled or longitudinal policy evaluation studies in your setting?
2. Who would be the audience for a policy evaluation in your system and what would they most like to know about the impact of medicines policies?

## Session 10: Detecting and solving data problems

### Objectives

The objectives of this session are to identify some of the key issues that arise when extracting, organizing, and analyzing health care delivery system and insurance program data. We will illustrate how to identify and deal with common data problems that may distort results if not taken into consideration. These data problems include changing populations; missing data; extreme values; seasonal variation in medicine use; inconsistent units of measurement; different dosage forms; pre-policy effects; lag periods following policy implementation; and changing codes. We will use spreadsheet-based analyses to assess data patterns, explore reasons for unexpected data patterns, and establish rules to deal with inconsistencies.

### Outline

- Common data issues and how they influence results
- Identifying data issues using frequencies of cross-sectional data and longitudinal displays of data patterns
- Resolving common data issues

**Readings (key readings in bold)**

Lin CC, Lai MS, Shy CY, Chang Sc, Tseng FY. Accuracy of diabetes diagnosis in health insurance claims data in Taiwan. *J Formos Med Assoc* 2005; 104:157-163.

Maclure M, Nguyen A, Carney G, Dormuth C, Roelants H, Ho K, Schneeweiss S. Measuring prescribing improvements in pragmatic trials of educational tools for general practitioners. *Basic Clin Pharmacol Toxicol*. 2006; 98(3):243-52.

**Platt R. Speed bumps, potholes, and tollbooths on the road to panacea: making best use of data. *Health Aff (Millwood)* 2007; 26:w153-5.**

Tyree BT, Lind BK, Lafferty WE. Challenges of using medical insurance claims data for utilization analysis. *Am J Med Quality* 2006; 21(4): 269-75.

**Discussion Questions**

1. In which ways can routine data from a health care delivery or insurance system be incorrect or misleading?
2. What are some of the known or suspected data problems in your setting and what steps have been taken to address these problems?
3. What are the potential effects of different types of data problems on interpreting policy analysis results?

**Session 11: Using data from different systems****Objectives**

The objectives of this session are to (a) describe some of the practical aspects and problems of assembling data from different sources within a health care delivery or insurance system for use in pharmaceutical policy analysis; and (b) highlight the need for standardized coding of medicines, diagnosis, and procedure data. Standardized codes are required to organize the data conveniently for defining problems, evaluating the impacts of interventions, and for routine monitoring. We will show examples of how to organize medicines into chemical groups and therapeutic categories, and how to classify diagnoses and symptoms into meaningful health problem groups. We will also discuss strategies to sample data when data need to be abstracted from paper records or a subset selected from large electronic administrative databases.

**Outline**

- Brief description of data sources, data collection processes, and resulting data structures
- Challenges in assembling, cleaning, analyzing, and interpreting data
- Sampling data from health care systems
- Rationale and requirements for coding systems of medicines, diagnoses, and procedures
- Description of commonly used coding schemes
- Linking text information to standardized codes

**Readings (key readings in bold)**

**Chapter 46. Computers in drug management. In: Quick JD, ed. *Managing drug supply: The selection, procurement, distribution, and use of pharmaceuticals*. West Hartford, CT: Kumarian Press, 1997; 728-746.**

Description of the ATC/DDD System. WHO Collaborating Center for Drug Statistics Methodology, Oslo. Available at <http://www.whocc.no/atcddd/>.

INRUD and WHO Action Programme on Essential Drugs. How to investigate drug use in health facilities: selected drug use indicators. (DAP Research Series N°7. WHO/DAP/93.1) World Health Organization; Geneva: 1993. Chapter 3: Study design and sample size, pp.25-31.

Tamblyn R, Lavoie G, Petrella L, Monette J. The use of prescription claims databases in pharmacoepidemiological research: The accuracy and comprehensiveness of the prescription claims database in Quebec. *Journal of Clinical Epidemiology* 1995; 48 (8): 999-1009.

Unauthorized Guide to Multum's Lexicon. Cerner Corporation, 2005. Available at <http://www.multum.com/LexGuide.pdf>.

### Discussion Questions

1. What are key issues in assembling data from various data sources in your systems?
2. What are the implications of missing data (e.g., diagnosis, individual medicine cost, amount dispensed) and lack of precise codes for diagnoses, medicines, and procedures?
3. What recommendations about data recording and quality checking would you make for health care delivery systems and insurance programs for using data for policy evaluation?
4. Which coding systems are commonly used to classify medicines, diseases, and procedures? Which systems are currently used in the systems of course participants?
5. How would you identify cases of diabetes if you had only medicines data; only diagnosis data; and medicines, diagnosis, and procedure data?

## Session 12: Analyzing data and disseminating policy findings

### Objective

The objective of this session is to describe the process for conducting a longitudinal policy evaluation, interpreting the results, and disseminating key information to policy makers.

### Outline

- Setting up longitudinal data for analysis
- Using excel-based pivot charts and tables to create visual displays and summaries of data over time
- Interpreting results in light of design strengths and weaknesses
- Summarizing results and making evidence-based recommendations for policy change

### Readings (key readings in bold)

Brufsky JW, Ross-Degnan D, Calabrese D, Gao X, Soumerai SB. Shifting physician prescribing to a preferred histamine-2-receptor antagonists. *Medical Care* 1998;36: 321-332.

Ross-Degnan D, Soumerai SB, Fortess EE, Gurwitz JH. Examining product risk in context. Market withdrawal of zomepirac as a case study. *JAMA* 1993; 270: 1937-1942.

Soumerai SB, Avorn J, Ross-Degnan D, Gortmaker S. Payment restrictions for prescription drugs under Medicaid. Effects on therapy, cost, and equity. *N Engl J Med* 1987; 317: 550-556.

Soumerai SB, Ross-Degnan D, Gortmaker S, Avorn J. Withdrawing payment for nonscientific drug therapy. *JAMA* 1990; 263: 831-839.

**Wagner AK, Soumerai SB, Zhang F, Ross-Degnan D. Segmented regression analysis of interrupted time series studies in medication use research. *J Clin Pharm Therapeutics* 2002; 27:299-309.**

Wagner AK, Ross-Degnan D, Gurwitz JH, Zhang F, Gilden DB, Cosler L, Soumerai SB. Effect of New York State regulatory action on benzodiazepine prescribing and hip fracture rates. *Ann Intern Med* 2007; 146:96-103.

Weinberg M, Fuentes JM, Ruiz AI, et al. Reducing infections among women undergoing cesarean section in Colombia by means of continuous quality improvement methods. *Arch Intern Med* 2001; 161: 2357-2365.

### Discussion Questions

1. What questions arise when conducting policy analyses?
2. Who should be involved in interpreting findings from policy evaluations?
3. What are the most useful strategies for communicating results to policy makers?

### Session 13: Routine monitoring

#### Objectives

The objectives of this session are to discuss the rationale for and design of monitoring systems using routine data on medicines and other health care services utilization in health care delivery systems or insurance programs. Participants will identify possible domains of performance measurement, how to operationalize performance indicators, data needs, and use of performance data for management decisions.

#### Outline

1. Reasons for routine monitoring, including strategic planning, performance assessment, and fraud detection
2. Discussion of which performance indicators to monitor, which data can contribute to these indicators, and how, for whom, and how frequently the resulting monitoring data should be presented
3. Templates to report data from routine monitoring systems

#### Readings (key readings in bold)

Brown JS, Kulldorff M, Petronis KR, et al. Early adverse drug event signal detection within population-based health networks using sequential methods: key methodologic considerations. *Pharmacoepidemiol Drug Saf* 2009 Jan 15;18(3):226-234.

**Friedmann YM, Hanchak NA. Chapter 9. Pharmacy Program Performance Measurement. In Navarro RP. Managed Care Pharmacy Practice. Gaithersburg, MD: Aspen Publishers, 1999, 199-220.**

Selected sections from The Health Plan Employer Data and Information Set (HEDIS®) Volume 2, Technical Specifications, NCQA, 2008.

Sokol L, Garcia B, Rodriguez, J, West M, Johnson K. Using data mining to find fraud in HCFA health care claims. *Top Health Inf Manage* 2001;22:1-13.

### Discussion Questions

1. Which performance indicators would be relevant to different stakeholders in your system?
2. In which format would they need to see performance data to be able to act on them?

## Session 14: Implementing policy change – potential next steps among participating organizations

### Objectives

The first objective of this session is to discuss how to implement medicines policy changes in a health care delivery system or insurance program. We will focus on understanding which stakeholders need to be involved, how to elicit their perspectives, and how to engage them in the process. The second objective is for participants to discuss options for potential collaboration around important medicines policy topics within and across their institutions, system needs for implementing a policy change, and mechanisms for communicating policy changes effectively to all stakeholders.

### Outline

- Political, social, and systems requirements for successful policy change
- Discussion of systematic analysis of policy content, positions and power of major stakeholders, opportunities and obstacles to policy change, and strategies for change
- Identifying options for collaborations on medicines policy issues within and across participating institutions

### Readings (key readings in bold)

Bengzon AR. Chapter 4. The national drug policy. In: Bengzon RA. Programs, process, politics, people: The story of the DOH under the Aquino administration: 1986-1992. <Publisher, year>;138-182.

Glassman A, Reich MR, Laserson K, Rojas F. Political analysis of health reform in the Dominican Republic. *Health Policy and Planning* 1999;14:115-126.

**Reich MR. The politics of health sector reform in developing countries: Three cases of pharmaceutical policy. *Health Policy* 1995;32:47-77.**

Roberts MJ, Hsiao W, Berman P, Reich MR, eds. Chapter 4. Political Analysis and Strategies. In: Roberts MJ, Hsiao W, Berman P, Reich MR, eds. *Getting Health Reform Right. A Guide to Improving Performance and Equity.* Oxford: Oxford University Press, 2004:61-89.

### Discussion Questions

1. Who are the key stakeholders with respect to medicines issues in your country as a whole, as well as in your health care delivery system or insurance program?
2. What concerns would your stakeholders have about changes in the specific medicines policy you have been considering in this course?

3. What systems are in place for communicating effectively with stakeholders about policy changes in your setting?
4. How could course participants collaborate on policy changes and evaluation?

### Session 15: Review of course

#### Objective

The objective of this session is for participants and facilitators to summarize key learning points of the course and next steps for continued collaboration on medicine policy questions. Next steps may include collaborating on developing tools, guidelines, and protocols for decision making; and implementing and evaluating the policy intervention projects described in the previous session.

Participants will also complete a formal evaluation of the course.

#### Outline

- Summary of key learning points
- Summary of potential next steps for within and across system collaboration
- Summary of which aspects of the course worked well and which could be improved

#### Readings (none)

#### Discussion Questions

1. What are the main points that the course has highlighted for you?
2. How will what was discussed in the course influence your work after the course?
3. What changes should course organizers make to the course?

### Session 16: Team project presentations

#### Objective

The objective of this session is for participants to present the projects developed during the course on a priority medicines issue facing their health care delivery or insurance system, and to receive constructive input from other participants, facilitators, and senior policy makers.

Please use the framework outlined below and the slide template provided for the presentation of your group project.

#### Framework for Presentations on Key Medicines Policy Issues

Domain	Questions to Consider
Problem	What is the key medicines policy issue you have decided to address?
Causes	What are possible causes for the medicines problem?
Stakeholders	Who has an interest in the problem and what are their positions?
Previous Actions	What has been done about the problem so far? What have been the outcomes?

Domain	Questions to Consider
Proposed Policy Change	Which policy change(s) do you suggest?
Evaluation of Proposed Policy Change	<p>How would you evaluate the proposed policy change(s)?</p> <ul style="list-style-type: none"> <li>• Which evaluation design would you use and why?</li> <li>• Which are the most important data elements you would need, and where would you obtain them?</li> <li>• How would you define key outcome indicators?</li> </ul>
Implementation Plan	How would you implement the policy project (approach, timing, duration)? How would you consider stakeholder interests?
Disseminating Results	How, to whom, and when would you disseminate the results of your policy evaluation?

## **ANNEX 6: BRIEF DESCRIPTIONS OF TEAM PROJECTS**

### **Group #1**

#### **Title: The rational use of antibiotics for elderly inpatients in XuanWu Hospital with insurance coverage**

The economic burden of elderly patients in Beijing is on the rise, as costs in healthcare continue to increase with 50% of healthcare costs attributing to drug costs. In China, and usually with the elderly, the overdosing of antibiotics is a large problem. Elderly patients are generally over-prescribed medicines, averaging about 6 medication prescriptions each. Additionally, the quality of drug utilization – especially for antibiotics – is poor. The most commonly overused antibiotics are Amikacin, Vancomycin, and Imipenem/Cilastatin, which presents a large dilemma as these three drugs depend on kidney function and have the capacity to permanently damage the kidney's ability to function. Potential causes to this problem are attributed to the fact that there are no clinical pharmacists in the XuanWu Hospital geriatrics ward at present, and that drug information available to physicians is sparse.

The proposed quasi-experimental time series study will focus on the dosing patterns and antibiotics prescribed to a targeted group of patients aged 65 and older with an infectious disease. The group plans to work with a pre-post design and a comparison group to measure the satisfaction of the physicians and pharmacists before and after the proposed intervention is implemented. The group plans to begin the policy change with implementing computer alerts and feedback reports to physicians and clinical pharmacists. Medical records data will be used in evaluation of the cost of prescribed antibiotics, antibiotic use and dosage, patient characteristics, and the length of stay in the hospital per patient.

The initial stage of this implementation plan will involve providing educational materials to all staff regarding these over-prescribed antibiotics. To improve communication, the pharmacists will be responsible for implementing a new computer system that provides for an electronic database connecting all physicians to all pharmacists at XuanWu Hospital. The new policy will allow pharmacists to overstep the recommendations of the physicians and will require pharmacists to provide feedback to the physicians. After three months there will be a review of the implemented record experience and feedback will be communicated to both physicians and pharmacists, as well as the hospital administrators, insurance managers, and, perhaps one year from now at the National Medicine Symposium in 2010.

The group hopes that this intervention will provide them the data needed regarding the treatment for the elderly at XuanWu Hospital, and will foster cooperation with the insurance department, BPHI, specifically with regard to limiting polypharmacy of antibiotic drugs that severely affect kidney function.

### **Group #2**

#### **Title: Uterine Fibroids Pay for DRG's**

This second group involves a collaborative effort among four different hospitals in Beijing. Their aim is to encourage BPHI to decrease the cost of treating uterine fibroids to the patient by increasing the insurance coverage for treatment of this condition in their hospital DRG. Current coverage for this condition is insufficient and is a severe cost burden to the patient. Presently, the invasive operative method is covered by health insurance. However, physicians prefer to conduct a more minimally invasive procedure, which would also cost less in health care costs. There is also an overuse of antibiotics administered to and

expensive titanium clamps used for patients with uterine fibroids, both of which have increased the cost of treating this condition for the patient.

This group plans to use medical records data from the last 12 months. To begin the proposed intervention, the group plans to conduct a survey in two of the group's four hospitals represented to examine whether the physicians and pharmacists at these respective hospitals are comfortable with the proposed plan and the information provided. The evaluation of the intervention at these first two hospitals will include a satisfaction survey, analysis of the data indicators each month, and a time series analysis of the two hospitals' healthcare, medication and materials costs, the length of hospitalization and the satisfaction of the physicians and patients, with a comparison of the previous year's data. After the first 12 months, this group plans to examine the data from these two hospitals and determine which method to reduce the costs of treating uterine fibroids was most successful. The group then plans to implement this policy with the other two hospitals if this first intervention proves successful.

This group proposes to disseminate their findings to their respective hospitals' gynecologic departments (especially the gynecological nursing staff), hospital management (i.e. insurance, Office on Quality Control, the President of the hospital), and to publish their findings in academic journals in China.

### **Group #3**

#### **Title: Evaluate the impact of implementation of proposed clinical pathway for insured patients with cerebral infarction**

Cerebral infarction accounts for 80% of inpatient diagnoses at this hospital in Beijing. Two and a half million people are affected by cerebral infarctions per year in China, and two thirds of these patients do not survive. Those who do survive have permanent disabilities that burden the healthcare system and account for long-term spending for the hospital. Currently, the medical cost of cerebral infarction is high and not covered by health insurance.

Furthermore, hospitals lack a standardized diagnosis and treatment guideline due to the multifaceted nature of this disease, which presents different complications in every patient. Additionally, there exists no guidance or accountability with regard to the present clinical pathway.

In 2006 a study was conducted on the treatment of this same condition, which included an intervention and comparison group. Unfortunately, this former study did not examine clinical outcomes of the patient nor the quality of the treatment. The aim of the 2006 study was to try to decrease the cost of treatment – which did occur because the length of hospital stay decreased. However, since then, the medication cost has increased dramatically. A new study is in order to examine current medication costs for this disease and how these costs can be decreased.

This group plans to examine one hospital at a time, educating all pharmacists, nurses and physicians participating in the intervention at this first hospital. The comparison group will take place at a different ward of the hospital (or at a different hospital), with different doctors. Information between the hospitals will not be shared so as to fairly indicate if the intervention was successful. Data will be collected which relates to managerial/outcome costs data. The group plans to survey physicians in three, three-month cycles (at 3, 6 and then 9 months) and provide a comprehensive review at 12 months. The level of adherence to and satisfaction of the intervention will be analyzed. After implementing this plan the group will have a feedback loop to continuously inform them of improvements that can be made to the intervention.

## Group #4

### **Title: The rational Use of Ondansetron in post-operative patients**

Post-operative vomiting is estimated to affect about 20% of patients receiving care directly after surgery. Since 2006, different specialists in anesthesia have collaborative worked together to find out how to decrease this rate of post-operative vomiting in their patients. The problem in several Beijing-based hospitals is that physicians administer Ondansetron to their patients to decrease the risk of vomiting, but the cost of this high-priced drug is not covered by health insurance. In addition to this drug being too expensive for patients to afford, physicians are also faced with needing to work around a general misunderstanding among patients that post-operative vomiting is a sign of failure with the operative procedure. Many physicians administer Ondansetron to post-operative patients to avoid potential lawsuits that patients or their family members may bring upon the physician or surgeon in charge. The challenge for health insurance companies is determining, per case, whether or not the use of Ondansetron is rational.

This group plans to stratify the patients into two different groups; high and low risk post-operative patients with the study group being the low-risk group. Such an effort will include the development and distribution of informational cards to anesthesiologists, physicians and nurses to educate them on the reasons to limit the use of Ondansetron with their post-operative patients. Physicians will be provided a checklist to complete for each post-operative patient, which will help expose the different trends in prescribing Ondansetron among low-risk post-operative patients. The group plans to review the data retrospectively for 6 months.

The medical records this group plans to examine will include whether post-operative nausea was experienced by the patient and which medications were administered after each patient's surgery. This information from the medical records will aide in understanding rate of vomiting due to nausea both before and after the intervention. The group hypothesizes that, after analyzing the medical records before and after their intervention, the data will demonstrate that the use of Ondansetron in low risk post-operative patients is unnecessary. These findings may lead to decreased spending on behalf of the hospital for Ondansetron, and perhaps uptake in coverage for this drug on behalf of the insurance company, as the rate of administration of the drug may substantially decrease.

## Group #5

### **Title: An evaluation of a clinical pharmacist intervention to improve adherence to antifungal (AF) prescribing**

The patients of the ICU ward of this hospital in Beijing currently face high costs with their co-pays of antifungal medicines. In addition, this hospital lacks standardized treatment guidelines on the appropriate use of antifungal medicines.

This group first plans to administer a baseline survey among clinicians in the ICU ward to educate physicians and pharmacists on the appropriate use of antifungal medicines with the hope that this will improve pharmacist compliance to the guidelines. After the first three months, patients' rational drug use rates will be evaluated (i.e.. Compliance rate = # of patients treated with first antifungal drugs recommended by new treatment guidelines / total # of patients treated with antifungal drugs) and feedback from pharmacists will be collected regarding patient utilization and pharmacist compliance to the guidelines. The group also plans to work with health insurance to reduce the high cost of antifungal co-pays for the

patient. The group plans to conduct a second evaluation sixth months from the start of the intervention.

The group plans to disseminate the results of their proposed intervention in the form of published articles and perhaps incentives to pharmacists for complying to treatment guidelines.

## **Group #6**

### **Title: Pilot Study on Hospital-made Compounds for Skin Conditions Available to Other Hospitals**

ShijiTan and Xuanwu Hospital are experiencing a shortage and inconsistent supply of hospital compounds (such as lotion of senile puritus, chloralose mixture for children, and wound disinfectant). These hospitals also suffer from insufficient formularies that allow physicians the flexibility to provide effective care. In addition, hospitals in Beijing have been restricted by the National Health Policy since 2000 by a policy that was passed to limit utilization of all hospital-made compounds for skin conditions to the hospitals producing the compounds.

This group plans to work with patients experiencing Eczema from six secondary care hospitals in Beijing lacking GPP standardized manufacturers. Three of the six hospitals will be involved in the study and the other three will serve as comparison groups. Three hundred cases will be evaluated as experimental and three hundred will be evaluated as comparison cases.

This group first plans to provide educational materials about the skin compound/medication to clinicians at the three hospitals that will be studied. They also plan to provide training to physicians who will be prescribing these skin medications. In addition to these first steps, this drug will be entered into the formulary at these three hospitals.

During the initial phase of this intervention, the hospitals will produce compounds for the skin conditions being treated and will be in communication with the target hospitals that will later receive these compounds for the purpose of the study. On the first day during the initial phase of this intervention, Eczema patients involved in the study will receive medication information and will be educated on medication usage. On the third and fifth day, patients will be surveyed by telephone to follow up with the results of the treatments they received. The three comparison groups will also be surveyed by telephone on the third and fifth day.

In the first four weeks of the study, a pre-intervention test will be conducted to collect relevant data and to evaluate the progress of the intervention. In the fifth week physicians will be educated on the properties of the hospital compounds being used, as well as the rational use and treatment guidelines for administering these compounds. From the sixth to the ninth week, this group plans to collect data regarding the use of these hospital compounds from at least 300 patients they expect will participate in this study. In the tenth and final week of the intervention, this group plans to evaluate the outcomes of this intervention and present their results to the participating hospitals.

The group plans to disseminate their results of the study to government officials and publish their findings in an academic journal.

## Group #7

### **Title: The effect of different payment terms on antibiotic use**

This group found that among the hospitals represented, an unreasonable allocation of resources has caused hospitals to focus their efforts away from improving patient care. An overwhelmingly large majority of resources are allocated to medication revenue. This group plans to improve communication and the efficiency of their hospitals' internal management processes, with the goal to improve the overall quality of care for their patients.

The group has narrowed their focus to reducing unnecessary use of antibiotics within their respective hospitals. They chose to create interventions for two conditions that have to do with sterile procedures and currently overuse antibiotics, with the goal to decrease the unnecessary prescribing of antibiotics among physicians, which, in turn, will decrease the economic burden for patients in their payment for service. The intervention will compare two groups of patients, one of which will evaluate patients who pay for each service individually (fee-for-service); the other will evaluate patients who make a package payment in which the payment is determined by the condition. The group plans to evaluate the effect of their intervention based on changes in claims rates; the rational use of antibiotics; the level of individual economic burden to the patient and whether this amount increases or decreases; as well as the change in rate of a patient requiring a second hospitalization.

The data the group plans to use will be from patient medical records and claims accounts. Before and after the intervention takes place, the group plans to collect information relating to patients' access to treatment, rational use of antibiotics, the affordability of treatment for patients and for health insurance, and whether or not providers are reasonably allocating their resources to effectively improve the health of their patients (i.e. reduce the unnecessary use of antibiotics use). The group plans to examine the claims data for each disease before and after the intervention to determine if claims rates for each disease increased or decreased. They also intend to measure the rate of patient compliance with rational use guidelines, as well as the rate of patients who must return to the hospital for a second hospitalization to measure compliance with rational use guidelines.

To ultimately decrease the unnecessary use of antibiotics, the group plans to share their results with the drug research project team within their hospitals as well as with leaders within their medical institutions, and publish their findings so as to promote similar interventions in other hospitals where there may be an unnecessary use of drugs.

**ANNEX 7: COURSE EVALUATIONS**

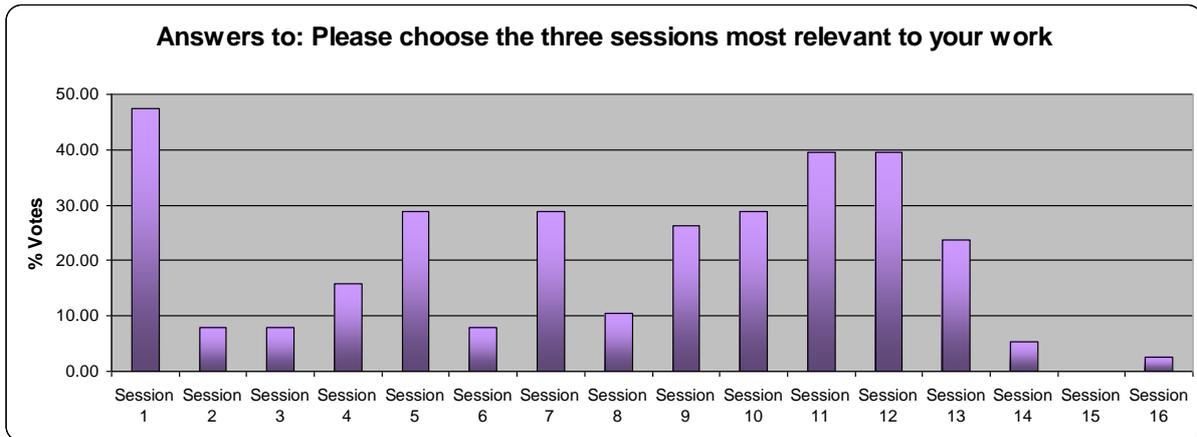
**Summary of Session Evaluations**

Participants evaluated each MedIC Course session. The following table summarizes session evaluation results.

Characteristic rated (9=strongly agree). Mean ratings (out of 9 maximum) are listed below.

	Block 1 (Sessions 1, 2, and 3)			Block 2 (Sessions 4, 5 and 6)			Block 3 (Sessions 7, 8, and 9)			Block 4 (Sessions 10, 11, and 12)		
Objectives clearly defined	7.5			8.3			8.2			8.5		
Amount of material appropriate	7.1			8.1			8.3			8.3		
Depth of content appropriate	7.3			7.7			8.1			8.4		
Participant guide clear and useful	7.4			8.0			8.3			8.3		
AV materials clear and useful	7.9			8.1			7.4			8.3		
Information helpful in my work	7.4			8.1			8.2			8.7		
Instructor clearly explained topic matter	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	S 9	S 10	S 11	S 12
	7.7	8.2	7.8	7.7	8.6	8.0	8.2	8.1	8.1	8.8	8.5	8.7
Instructor's management of the class	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	S 9	S 10	S 11	S 12
	8.3	8.3	8.3	7.9	8.7	7.7	8.0	7.9	7.4	8.6	8.7	8.6
Session length just right (% yes)	82.1%			67.0%			76.2%			62.5%		

Participants identified the three sessions most relevant to their work. The Figure below illustrates that more conceptual sessions (Session 1), as well as sessions focused on topics such as pharmacoeconomics (Session 5), the availability and use of data in hospital and insurance systems (Session 7), sessions more tools-oriented (Sessions 9 and 10), and data driven sessions (Sessions 11 and 12) were considered as being among the most relevant to participants' work.



### Summary of Overall Course Evaluations

On the last day of the MedIC Course, participants evaluated the course overall. Results are summarized below.

Characteristic rated	Mean Rating
Objectives clearly defined (9=strongly agree)	8.4
Defined objectives achieved (9=strongly agree)	8.2
Amount of material covered appropriate (9=strongly agree)	8.5
Depth of coverage of the material appropriate (9=strongly agree)	8.1
Information will be helpful in my work (9=strongly agree)	8.2
Overall, I would say the quality of the instruction was (9=excellent)	8.4
Training facilities (9=very satisfied)	8.0
Pace of the course (9=very satisfied)	7.4
Style and format of the sessions (9=very satisfied)	8.2
Instructional materials (9=very satisfied)	7.9
Length of the training course (9=very satisfied)	7.1
Difficulty level of the training course was just right (%yes)	92.3
Small and large group exercises were very useful (%yes)	79.5
This course was valuable and I will recommend it to my colleagues (%yes)	89.7

**ANNEX 8: PARTICIPANT STATEMENTS ABOUT THE MEDIC COURSE**

“It is great important that the benefit of stakeholder should be considered in making drug policy. The interactive teaching model impressed me a lot. With the help of Dennis and Anita, I made a proposal about rational use of antibiotics for elderly patients. At the same time, I also learn about how to design research plan for policy change and evaluate the policy. After course, as a team member, I talk about our project with facilitator. I was moved by the their professional dedication. I will continue to study rational use of antibiotics for elderly patients and try to publish my paper in journal.”

*Xiangrong Bai, Master of Medicine, pharmacist  
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Email: baixiangrong@yahoo.com.cn  
TEL: 8610 83198352*

“As for my feelings, I want to thank you very much for your work. Our teachers’ dedication impressed me, and I like the way of teaching which made me feel easy and pleasant. The course contents are very useful and can be directly used in practical work. The multidiscipline’s nature of the course is also very helpful for my future work and research. If you want a suggestion, I would say I hope the similar courses can be conducted continually in China.”

*Gu Hongyan  
Pharmacist  
Beijing Shi Ji Tan Hospital*

“Three weeks of exposure to the MedIC had benefited me. Even in the following days after finished the course studying, I can still feel the excitements in many ways, and my reflections are more or less all about MedIC. Although studying made me very tired, my heart feels so happy and here are my thoughts.

“1, language:

(1) made progress – By following with other people, I translated a lot of training materials. I think my English translation skills improved through the work. I practiced my oral English intensively even before met guests at airport. Although not too much used, I think I made progress. After three weeks, I can at least say that in English translation "I can".

(2) Known the weakness; I realized that my oral English was not good enough, but didn't know what need to be done. One thing happened during the course taught me that more listening practice is important. And more vocabulary is important as well. Affixed and roots are the keys to increase vocabulary.

“2, the spirit level:

(1) patriotism education: I sent Professor Zhang Mengyun back to Thailand. On the way to the airport, we talked a lot. I will never forget that she wanted me “to be proud of being a Chinese ". She cited a number of economic figures to prove to me China's remarkable growth and how difficult in managing such a large country and why Chinese people should be proud of their progress. During Dennis’ closing speech, my heart felt the same shock. He said

China's current problems encountered like none of the world's countries have encountered, and can not be resolved. We are currently doing well and can do better in the future. Through the exchange with teachers from different countries, I found our problems or defects also existed in other countries. Although I love my country, I suddenly found that I love my county more than ever.

“2) The real meaning of facilitator: During the translation of training materials, I had been puzzled by the word. The teacher should be called teacher. Why should we call teacher facilitator? It is an unusual word to me, not good to remember and not good to read. Looking for a dictionary I knew "facilitator" means “catalyst”, but I didn’t feel good to call our teachers “catalysts”. Why called a facilitator? Isn’t it Strange? After 10-day course finished, I finally understood the true meaning of the facilitator: helping people, respecting people but not shaping people. They treat people equally. They do not feel above us because of their advanced knowledge. Instead, they thanked me for everything I did for them (such as typing). (In fact, I think it is my duty to serve them). Their attitude is always to search for the truth and there is nothing right or wrong. They often felt excited when we studied hard. There were many touching stories. I want give one or two examples. On the first day, I was nervous about my English language proficiency. I thought the teacher will ask me to closely follow her lecture. Instead, Anita said: "I am sorry we do not speak Chinese. Please tolerate our 10 day lectures". On another occasion, Anita asked me to type out the group discussions by using a computer. She knew my English level, and asked me to find somebody else to translate it. I think she is right and I didn’t feel anything wrong. But she quickly realized that this might hurt me and apologized to me. This made me feel respected. Many this kind of examples showed their kind attitude which really impressed me. I feel happy as a facilitator!

“3, the professional level:

- (1) we learned the research methods and ideas. Needless to say, everyone was benefited.
- (2) We learned the teaching methods: interactive teaching, such as raising hands, debates, waiting in line. I have tried to use these in my teaching;
- (3) Inspiration for Clinical Pharmacist - the management type / research type clinical pharmacists: During the training program, I had a discussion with Christine. This course was about the policy decision-making, management training. To our work it is new and we might not have a chance to participate in decision-making. But I gradually realized that clinical pharmacists can use the concepts in their work. Some management tools can be used to monitor the clinical treatment. Clinical pharmacists’ work can be transformed from the "case detection" into development of "policy management" of the intervention and the achievement of "the management of care" to ensure rational drug use.”

MedIC courses brought a lot more than I could write here. There are many sweet memories and the course will have a long term effect.

*Dan Jia*

*Pharmacist*

*Xuanwu Hospital, Capital Medical University*

“First, Course Contents:

1. Views updated:

Original views: 1) policy research is difficult, and should be carried out by specialized research institutions;

2) policy making and evaluation are high-level leadership’s business;

Current views: 3) policy research has its associated methods, and it will be more meaningful if research is conducted by our front-line units.

4) we can provide evidence for decision-making. The policy making and evaluation not only are senior leaders' business, but also closely related to our daily work.

“2. New contents:

- 1) We learned Health insurance and the drug policy;
- 2) We learned relevant very helpful policy research ideas, design methods and scientific research implementation.

“3. New method:

- 1) routine data collection and routine monitoring are important to our research.
- 2) Excel programs and drawing tools can quickly and easily handle large data.

“4. English proficiency: listening and oral expression improved. As a first time interpreter, I learned a lot.

Second, Teaching methods:

1. PBL approach with Harvard characteristics:

Harvard is famous for its unique teaching methods. The Harvard teaching methods with distinct features are different from ours. They usually give a brief explanation or lecture, and then the group discussions. Each group then report the discussion to all and teachers give guidance and comments. PBL is a unique teaching methods.

2. Effects: students can actively involve in the classes and apply their knowledge and practice in classes.

3. Application of the Teaching methods:

1) use the methods in Capital Medical University's clinical pharmacology class:

Previous PBL teaching: students do not have the time to conduct discussion or group discussion.

Use the current method: We will give lectures only on basic contents in the classroom, and then organize related group discussions. The effects will be better.

2) community pharmaceutical staff training:

Past teaching methods: "duck-feeding" methods. The training participants did not have a chance to improve their problem-solving ability, and some students were so passive that they didn't know the syllabus, and did not even bother to read the texts (These are the Health Bureau's teaching feedback);

The method plan to adopt: To use Harvard's PBL, we may try to give brief lecture, and following by discussions and exercises. Let students familiar with studying guidelines and help students themselves to acquire new knowledge and skills.

“Third, the training preparations:

1. Airport pick up and drop off
2. Classroom equipments

“Fourth, the lessons learned:

1. cooperation, participation, dedication;
2. Responsibility breakdown into specific tasks
3. Pay attention to details.”

*Dechun Jiang*

*Physician*

*Associate Chief Physician*

*Associate Professor  
Xuanwu Hospital, Capital Medical University*

“I just checked my email box today. Thank you for your excellent service, and thank all the experts who gave the lectures. In the good learning environment for everyone in these days, I could feel your love and dedication to our country and our job. I learned advanced concepts and management tools on health insurance and pharmaceutical policy, and learned medical insurance and drug policy progress in other countries. The courses broaden my views on health insurance and will allow me to use the knowledge and to implement policies more accurately in my future work. I will be able to effectively work by using scientific investigation and research to solve problems. It is like “a long time drought meets the rain shower”, and I have substantial improvement of capability. I hope this is a good start. The future cooperation between all parties will further help health insurance and rational use of drugs. Once again thank the training program organizers and teachers.”

*Zheng Jichun  
Staff member at BPHI*

“At first, I got the message of pharmaceutical policy and medical insurance system abroad. Although the pharmaceutical policy and medical insurance system of china are different from other countries because of different national situation, we can use for reference the advanced policy framework and the successful experience.

“Secondly, I understand the establishing, implementation, monitoring and evaluation of pharmaceutical policy. The facilitators of the course not only told us information, but also taught us the thoughts and methods to work out a solution. It is significant for me to be competent enough for my job.

“Thirdly, I communicated with my partners successfully in teamwork project. In our team, there are doctors, pharmacists, the professional of medical insurance department and medical affairs department. Maybe we had different point of view on some issue, but we had the same goal to complete a outstanding teamwork report. Everyone tried his/her best to talk without any restraint. Our report had got favourable comment.

In conclusion, this is precious and fruitful learning experience for me. Thanks for the facilitators, my partners and everybody contributed to the course.”

*Tang Jing, Pharmacist  
Department of Pharmacy, Xuanwu Hospital, Capital Medical University  
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“I participated in preparation of MedIC Forum and Training Course from last September and have much experience on MedIC. I summarized 2 aspects.

## I. Significance of MedIC

(1) MedIC compiled with Chinese health reform

Chinese health reform scheme was proclaimed in April 6, 2009. There are 5 main tasks in Chinese health reform scheme. The first 2 items are also contents we learned in MedIC course.

- a. Speed up construction of medical security system
- b. Construct national essential medicine policy

(2) MedIC enhances standing and prestige of Xuanwu Hospital. MedIC peak forum invited important leaders from Chinese health system and famous experts from WHO and Harvard Medical University. Most listeners are directors from department of Pharmacy and Medical Insurance Office in large hospital.

(3) MedIC strengthens cooperative relationship between Xuanwu Hospital and WHO and Harvard Medical University.

(4) MedIC constructs a interdisciplinary and multi-department study model. The participants in MedIC Course are from different department such medicine, pharmacy, medical insurance system and administration.

(5) MedIC displays a brand-new teaching mode

- a. MedIC lays stress on practical effect; Learn EXCEL operation, especially use PivotTable to analysis data; After 10-day training, establish 7 projects and get good instructions from facilitators.
- b. Interactive teaching methods; This teaching mode impresses all participants. Most of all like it.

## II. My gaining:

I learned knowledges of medical insurance and medicine policy, and improved skills of analysis data by EXCEL. I also improve listening and speaking English. I accumulated experience of preparing large conference in preparation of MedIC.”

*Xiaoling Li, Doctor of Medicine, Assistant professor, pharmacist*

*Department of Pharmacy, Xuanwu Hospital, Capital Medical University, Beijing, China*

*Email: zhaozhao0104@126.com*

*TEL: 8610 83198685*

“I benefited a lot during the 9 days of training program. Group discussions made each of our students more active in the specific case analysis, discussion. We exchanged our views on hospitals and health insurance management based on the relevant data. After the study, I had the knowledge of data applications for specific drug policy issues, and the knowledge of practical research and solutions. Most importantly, we learned advanced concepts and analytical techniques through interactions with different people from different background.”

*Huang Lin*

*Department of Pharmacy, Peking University People's Hospital*

“March 21 to 31, 2009, I had the privilege to participate in the drug policy and health insurance management Summit and training programs. I have some deep feelings to share.

“First, prepare everything in advance

Previously I participated in a variety of large or small conferences and training courses. As participants, I didn't know how difficult to organize such a large forums and training programs. Because this one is sponsored by the Xuanwu Hospital, I have the chance to experience how to prepare large-scale conference. Although I did not fully participate in the

preparatory work, but as a member of the clinical pharmacy, I have the opportunity to witness how Zhang Lan, Li Xiao Ling, Bai Xiangrong, Jiang Dechun worked diligently under the leadership of the Director before and during the conference.

“They made alternative plans well in advance and took responsibilities by division of labor. Their work ensured the Summit and training courses a success.

“Second, interactive teaching methods

The training program was full of contents. I originally thought that the learning effects will be negatively affected by language barriers. But the Harvard interactive teaching methods used in the training made each participant actively involved in the teaching process. The training fully mobilized the enthusiasm and passion for learning. Together with discussions and review after each module, students can understand the training contents well and this approach will be adopted in our future teaching.

“Third, scientific thinking

In the training program, we learned that the development of drug policy needs to take into account various factors. We learned EXCEL function tables. The most important, we learned a certain way of scientific research thinking. By examining the problems, we listed the possible reasons, and finally identified the main reason. We took appropriate intervention measures, and evaluate the effectiveness of interventions.

“Fourth, English learning

In the training program, I realized that to improve English is really important. I am very envious of the young graduate student's English proficiency. Once again I know I need spend more time and energy on English studying especially to improve the listening and speaking ability.

*Qian Shen*

*Associate Chief Pharmacist*

*Associate Professor*

*Department of Pharmacy, Xuanwu Hospital, Capital Medical University*

“Among the courses we participated, this course is new, interactive and useful in the sense of approach and content. As a pharmacist, I was involved in many aspects of management and rational use of drugs, but I never cautiously think about the details. This course taught us how to analyze the interests of stakeholders, and I recognized that it is necessary not only to meet the needs of stakeholders, but also to allocate total resources rationally.

As for the implementation of intervention policy, I think what Chinese need are detailed, feasible and practical plans. Also, we lack of the thorough analysis of the trends of patients' medication usages and doctors' prescriptions. In the future work, we will analyze drug issues as thorough as possible and make hospital executives understand more about drug use. We will also take efforts to implement Ondansetron plans in hospitals.”

*Xing Ying*

*Pharmacist*

*Beijing Ji Shui Tan Hospital*

**ANNEX 9: SENIOR MEDIC LEADERS AND POLICY MAKER STATEMENTS ABOUT THE MEDIC COURSE**

“As a large top-tier public health facility, Xuan-wu hospital provides the basic and essential care of the community health covering a large proportion of metropolitan area of Beijing. In light of the national health care reform, MedIC project offered us a great opportunity to study the concepts, strategies, technology, experiences and continuing research products from various international experts in the fields. It will provide great help in the reform process of national health care, health insurance system and public hospitals in China. The MedIC Forum and Course on Pharmaceutical Policy Analysis in Health Insurance System started a new chapter of the collaboration of Harvard Medical School, WHOCCPP center and our hospital. As the leading team in China, our hospital will give full support for the future development of MedIC project in China. Collaborating with other sister teams, we will conduct various pharmaceutical researches, including appropriate use of medicines as well as policies of health insurance expense and share the research products.”

*Prof. Zhang Jian*

*President*

*Xuan-wu Hospital of Capital Medical University*

“It is a great honor to sponsor the MedIC International Forum and Course on Pharmaceutical Policy Analysis in Health Insurance System on behalf of Beijing Public Health Insurance (BPHI). It is well-known internationally that public health reform is difficult. It is more difficult for China in her early steps. As a government agency overseeing health insurance, BPHI focused on how to manage the cost in an effective way. Our goal is to “provide good services using a small budget” to satisfy the general public’s basic health service demand. Since Beijing health insurance was imposed in 2001, the quality of our city’s health services has been improved gradually. At the same time, the health cost has also been increased in a fast speed. Thus it brought a great deal of challenges to manage the cost to us as well as other health departments. Suddenly, “access to health care” and “affordability of health care” are our society’s focus. We believe that the solutions lie in the management reform. There is an old Chinese saying, “learn from others and apply to us”. Europe and the US had a lot of health reforms and their results are encouraging. We want to learn from their advanced management concepts and management experiences. About 30 officials from all 10 rural counties, 8 city districts and from our central office of public health insurance departments in Beijing attended the MedIC International Forum on Pharmaceutical Policy Analysis in Health Insurance Systems. We selected 10 management representatives from this larger group to attend the MedIC training Course on Pharmaceutical Policy Analysis in health Insurance Systems (which followed the Forum), with the expectation that the experts from Harvard University, WHO and other organizations will use their expertise in health insurance management, pharmaceutical policy and health economics to broaden our staff’s mind, optimize their management techniques, improve their overall management skills and use all what learned to make the health reform more efficient. Our staffs give us a great feedback about the training. They conclude that it is a wonderful opportunity to learn so many new materials and what they learned can be easily translated into daily work life for many practical problems. They are very satisfied with the training. We are very thankful that international friends as well as scholars from Harvard University provided us the excellent training and help. We are also thankful that our long time collaboration partner, Xuan-wu hospital gives us the constant support. I hope that we can continue to collaborate with various

partners from the world to improve the health insurance system in Beijing, in China and make our people benefit from it.”

*Mr. Ren-zhong X*  
*Director (Chairman)*  
*Beijing Public Health Insurance*

“It is our great honor to sponsor the MedIC International Forum and Course on Pharmaceutical Policy Analysis in Health Insurance System and serve the new and old friends within China and from abroad. The MedIC Course is a great success and the most important people to be thankful are the instructors. They work enthusiastically to introduce the trainees into a new field full of challenge and interesting materials. Professors presented world-class concepts and the most advanced techniques using a simple and clear structure. The diligence on behalf of participants to study, the inspiring teaching spirit and broad multidisciplinary knowledge from Harvard deeply impressed and profoundly benefited all the trainees and will make long-lasting impacts for their careers.”

“There are 48 members attending this training. They are from center offices, city districts, counties of Public Health Insurance, 11 large teaching hospitals and 2 renowned medical schools. Trainees are coming from a wide spectrum, 22 pharmacists, 10 health insurance management officers, 3 medical quality control officers, one physician and one IT technician. Ten of them are masters and seven of them are doctors. They are the best students I have seen. Their diligent attitude, effective communication and team vs team debating make the whole training full of passion and lead to quicker mastering. Multidisciplinary and cross-department research teams are formed.

“We are grateful that Harvard China Fund gives strong support for the MedIC project development in China. It enabled the Chinese trainees to broaden their sights, to increase their knowledge base, to form research teams and to initiate the collaboration. We hope that we all meet again in Thai in 2010. Our trainees will present their research products in the international meeting of appropriate use of medicines. Thus contribute to the improvement health care for China and the world.”

*Prof. Yu-qin Wang*  
*Director*  
*Department of Pharmacy*  
*Xuan-wu Hospital of Capital Medical University*

“Quite a few directors of the pharmacies representing big hospitals in Beijing and I attended the training course on the appropriate use of medicines in Thai sponsored by WHO. The 10-day course helped us in a great deal to improve the appropriate use of medicine in China. It makes me to believe a well-designed training agenda and enthusiastic teachers and learners could find solutions for some important challenging issues. The MedIC Forum and Course on Pharmaceutical Policy Analysis in Health Insurance System were also 10-day events. They provided excellent technical training and improved the skill sets to the participants to help strengthen their ability to design pharmaceutical policy for the procurement and use of the medicines in national health government, health insurance agencies and large hospitals. They also set up a wonderful research team which is multidisciplinary involving multiple entities, including government health insurance agencies, health care organizations and academic

institutes. It will greatly improve the scientific, preciseness and soundness of the design of the pharmaceutical policies based on scientific evidences.”

*Mr. Zhang Zong-jiu*

*Director*

*Dept. Surveillance and regulation of health care*

*Ministry of Health*

## **ANNEX 10: SUMMARY OF PARTICIPANTS' REVIEW OF THE COURSE**

On the last day of the course, participants shared perspectives of their learning experience and suggested improvements for future MedIC courses.

Participants felt that the MedIC course supported them in:

- identifying problems in health care systems
- understanding different health care policy options
- understanding different stakeholder perspectives and the need for communication among stakeholders
- effectively and systematically approaching problems via analysis of existing data using Excel pivot tables
- presenting policy analysis findings to policy makers
- realizing their roles as important stakeholders in health care policy decisionmaking

Participants offered the following suggestions for future MedIC courses:

- a smaller course size to allow more time for discussion
- an increased focus on cultural and health systems issues that specifically pertain to China
- increased participation from local policy makers throughout MedIC courses to initiate dialogue and collaboration in the area of health care policy reform.
- presentation of group projects to foreign policy makers who could help participants analyze their findings objectively and from a global perspective
- additional courses to be conducted in China to further strengthen existing collaborations between Chinese colleagues, Harvard Medical School, and Harvard's Kennedy School of Government
- a more intensive, higher level MedIC Course to teach advanced policy analysis techniques

**ANNEX 11: IMPRESSIONS OF THE MEDIC COURSE**



Dr. Dennis Ross-Degnan and Dr. Christine Lu instructing a MedIC Course session.



Dr. Frank Wharam working with a team of colleagues.



MedIC participants working together during one of the small-group breakout sessions.



Dr. Tienie Stander sharing the fundamentals of pharmacoconomics.

**ANNEX 12: AGENDA FOR THE INTERNATIONAL FORUM ON PHARMACEUTICAL POLICY ISSUES IN HEALTH INSURANCE SYSTEMS**

Time	Topic	Presenter
08:30A-09:30A (1.0h)	Welcome – China hospital Association Welcome – WHO-China Welcome – Representative from BPH Welcome – Xuan-wu Hospital MEDIC Certificate ceremony	Ronggui Cao Chairman of China hospital Association Sarah Barber Representative of WHO-China Dafa Zhang Representative from BPH Jian Zhang Presentative from XWH
09:30A-10:00A (0.5h)	Policy of Chinese <b>Essential Medicines</b>	Hong Zheng Director of Dept. Pharmaceutical Policy and Essential drug, MOH
10:00A-10:30A (0.5h)	Global medicines issues and system approaches to improving access, use, affordability	Dennis Ross-Degnan, Harvard Medical School, USA
<b>Break 10:30A-11:00A</b>		
11:00A-11:30A (0.5h)	Surveillance and regulation of Rational drug use in the hospital of China	Zongjiu Zhang Director of Dept. Surveillance and regulation of health service,MOH
11:30A-12:00A (0.5h)	The role of health insurance systems in medicines access and use globally	Anita Wagner, Harvard Medical School, USA
12:00P-12:30P (0.5h)	Discussion	
<b>Buffet Lunch 12:30P-1:30P (1.0h)</b>		
1:30P–2:00P (0.5h)	Use of insurance databases for monitoring drug safety – An American Perspective	Alexander Walker, Harvard School of Public Health, USA
2:00P-2:20P	Using hospital data to inform medicines policy decision making in Thailand: Challenges and opportunities	Sauwakon Ratanawijitrasin, Mahidol University, Thailand
2:20P-2:40P	Management study on rational drug use in large hospital of Chinese city	Vice President Li-hong Wang, Xuanwu Hospital of Capital Medical University
<b>Break 2:40P-3:00P</b>		
3:00P-3:30P (0.5h)	The Prescribed Minimum Benefit in South Africa: Challenges and opportunities	Tienie Stander, North West University, South Africa
3:30P-4:00P (0.5h)	Beijing Public Health, Current and Future	Dafa Zhang, BPHI
4:00P-4:30P (0.5h)	Discussion	
4:30P-5:00P (0.5h)	Concluding remarks	Andreas Seiter, World Bank, USA