2012

Health Economics, Management & Policy Abstracts

Eleventh Annual International Conference on Health Economics, Management & Policy
25-28 June 2012, Athens, Greece

Edited by Gregory T. Papanikos

THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH

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(In Alphabetical Order by Author's Family name)

Preface

This abstract book includes all the abstracts of the papers presented at the *11th Annual International Conference on Health Economics, Management & Policy, 25-28 June 2012,* organized by the Athens Institute for Education and Research. In total there were 27 papers and 28 presenters, coming from 16 different countries (Belgium, Canada, China, France, Germany, Iran, India, Indonesia, Latvia, Russia, Saudi Arabia, Spain, Taiwan, Turkey, UK and USA). The conference was organized into 8 sessions that included areas of Health Economics, Health Management, Contemporary Health Care Concerns, Hospital Economics and other related fields. As it is the publication policy of the Institute, the papers presented in this conference will be considered for publication in one of the books of ATINER.

The Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet in Athens and exchange ideas on their research and consider the future developments of their fields of study. Our mission is to make ATHENS a place where academics and researchers from all over the world meet to discuss the developments of their discipline and present their work. To serve this purpose, conferences are organized along the lines of well established and well defined scientific disciplines. In addition, interdisciplinary conferences are also organized because they serve the mission statement of the Institute. Since 1995, ATINER has organized more than 150 international conferences and has published over 100 books. Academically, the Institute is organized into four research divisions and nineteen research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

I would like to thank all the participants, the members of the organizing and academic committee and most importantly the administration staff of ATINER for putting this conference together.

Gregory T. Papanikos
President

FINAL CONFERENCE PROGRAM
11th Annual International Conference on Health Economics, Management & Policy, 25-28 June 2012, Athens, Greece
PROGRAM

Conference Venue: Metropolitan Hotel of Athens, 385 Syngrou Ave., 175 64, Athens, Greece

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C O N F E R E N C E P R O G R A M

(The time for each session includes at least 10 minutes coffee break)

Monday 25 June 2012

08:30-09:30 Registration

09:30-10:00 Welcome and Opening Remarks

- Dr. Gregory T. Papanikos, President, ATINER

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2. Li, X., Assistant Professor, Shanghai Jiao Tong University, China. The Impacts of Health Insurance on Health Care Utilization among the Elderly in China.
3. Audibert, M., Director, CERDI, France. Household Healthcare Demand and Health Expenditures in Senegal.
4. Wanyama, S.S., Ph.D Student, Vrije University Brussel, Belgium. The Relationship between Socioeconomic Status (SES) and Clinical outcomes among Cystic Fibrosis Patients in Belgium.

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2. Aldridge, R., Professor, Arkansas State University, USA. Perceptions of Empowerment in Physical Therapist in the United States.

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2. Lee, J.Y., Professor, National Chiayi University, Taiwan & Chen,

Y.C., Ph.D Student, National Chiayi University, Taiwan. Accounting for Carbon Dioxide Emissions in the Measurement of Productivity: An Empirical Study of Healthcare Sector.
3. Papachristou, C., Researcher, Charite University Hospital Berlin, Germany. A Regulated Market for Organs from Living Donors – Efficient and Equitable? Lessons Learned from Iran.

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2. Zafiropoulou, M., Researcher, Institute of Administration of Enterprises of Lille, School of Public Health of Rennes, European Commission, France. A Model of Refing Territorial Logics of Action for Reticular Organizations Acting in the Gerontology Sector: French, Swiss and Greek Case Studies. (Monday, 25th of June, 2012, afternoon)

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2. Sonsuz, A.A., Assistant of Nightshift Managers, Hacettepe University, Turkey & Agirbas, I., Assoc. Professor, Ankara University, Turkey. A Private Hospital Example for the th of June Analysis of Unit Costs in Hospital Enterprises.
3. Rahmawati, S., Lecturer, Public Health University of Tadulaco Central, Indonesia. Comparative Study of a Pre and Post Clinical Pathway based on Activity based Costing for Cesarean Section Undata Hospital in Indonesia.
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2. Yamabhai, I., Ph.D Student, Global Health Development Department, UK. Patent Role in Medicine Selection of the National List for Essential Medicines: a Probit Model Applied to Oncology Medicines in Thailand.
3. Lu, Y.H., Associate Professor, Ph. D., Department of Bio-industry and Agribusiness Administration, National Chiayi University & Hung, Y.C., Ph.D Student, National Chiayi University, Taiwan. Applied a New Metafrontier Approach to Evaluating Efficiency and Productivity of the Biotechnology Companies: A Cross-Country Analysis.
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2. Ugurluoglu-Aldogan, E., Assistant Professor, Ankara University, Turkey, Ugurluoglu, O., Lecturer, Ankara University, Turkey, Ozatkan, Y., Health Administrator, Ankara University, Turkey & Payziner-Doganay, P., Research Assistant, Ankara University, Turkey. The Relationship among Organizational Commitment, Job Satisfaction, Organizational Stress and Intention of Leaving the Job of Health Personnel. (Tuesday, 26th of June, 2012)
3. Akyurek, C.E., Researcher, Hacettepe University, Turkey & Toygar, S.A., Researcher, Gazi University, Turkey. Contracting Out in Hospitals: Evaluation of Hospital Managers. (Tuesday, 26th of June, 2012)
4. Aslan, S., Associate Professor, Selcuk University, Turkey. 4. The Effect of Emotional Intelligence, Optimism and Psychological Resiliency on Displaying Emotional Labor.

17:00-20:00 Urban Walk (Details during registration)

20:00-21:00 Dinner (Details during registration)

Wednesday 27 June 2012
Cruise: Details during registration

Thursday 28 June 2012
Delphi Visit: Details during registration

Cagdas Erkan Akyurek
Researcher, Hacettepe University, Turkey
&
Sukru Anil Toygar
Researcher, Gazi University, Turkey

Contracting Out in Hospitals: Evaluation of Hospital Managers

The aim of this study is to deal with the theoretic dimensions of Contracting Out which have been implemented widely in health institutions in Turkey since 1990 and accepted as a privatization application. In addition to this understanding the managerial dimensions of the Contracting Out implementations in The Ministry of Health and University Hospitals in Konya based on the assessments of hospital managers, the reasons for implementation and non-implementation as well as favorable and unfavorable results of the implementations were also other aims of this study.

This study covers all the state and university hospitals in Konya Metropolitan area. The questioannire which was developed by Ergin (2003) was used to collect data from the head physicians, head physician deputies, hospital managers and hospital manager deputies of these hospitals.

The most highlighted reasons of Contracting Out by managers are "To increase the quality of services", "To increase the patient satisfaction" and "The need for efficient service". The most underlined results of Contracting Out are "The increase in service quality", "The satisfaction of the need for efficient service" and "The compensation of shortcomings in personel quantity". In the dimension of the study which questioned the concerns about Contracting Out indicated to providing services away from the quality expectations set at the beginning, possible lower costs in case of providing services in-home and the difficulties in control.

Although the contracting out interventions in public sector are structured by legal procedures, the expectations of hospital managers from these interventions are to provide services more efficient, more effective and higher quality in lower costs. The results of the study indicates that the reasons and results of Contracting Out show parallelism. This also indicates to a perception that Contracting Out satisfies the possible reasons directed to itself.

Roy Aldridge
Professor, Arkansas State University, USA

Perceptions of Empowerment in Physical Therapist in the United States

Psychologists and business leaders have long been trying to determine what motivates individuals. It had been presupposed that inadequate performance was due to personal inadequacies innate in the individual. Through her observations at a large American corporation, Rosabeth Moss Kanter (1977) gathered data to dispute this widely held belief and developed a theory of empowerment in structural organizations.

The purpose of this study was to replicate the study by Miller, Goddard, & Laschinger (2001) using a sample of physical therapists in the United States. A descriptive, correlational survey design was used to examine relationship between the formal and informal systems available to physical therapists and the therapists' perceptions of access to the sources of empowerment. Participants were randomly selected from a list of the American Physical Therapy Association. The study provided valuable information about physical therapists' perceptions of empowerment and empowering processes. The data indicated whether a need exists for administrators to more purposefully attend to empowering processes.

Support for Kanter's structural theory of power in organizations was found among physical therapists who are members of the American Physical Therapy Association. Kanter's theory can provide useful information about the sources of job-related empowerment that exist in an organization. By recognizing organizational structures that provide access to the sources of empowerment, that is opportunity, resources, support, and information, and formal and informal power, physical therapists can better understand ways to become empowered.

Douglas Angus
Professor, University of Ottawa, Canada

Supporting Seniors at Home Through Integrated Health Care: Canada and France Compared

To better deliver better health care to the elderly population at home, France and Canada (like other countries) have been developing systems of integrated care that go beyond the traditional silos in their respective health systems. We analyze the role of regional governance of health (meso level) in encouraging and regulating innovative approaches to achieve more effective integration. We compare the practices of regional agencies in Ontario Canada (Champlain Region in Ottawa) and in the Provence-Alpes-Côte d'Azur Region of France (Marseille and its surroundings). This comparison is of interest because of the different historical trajectories taken by these two regional health authorities, and because of the different geographic size in which they operate. This comparison also is of interest because of the health organization logistics, which are different in these regions. Finally, we observe differentiated practices despite similar institutional contexts, in which there is an increased concentration of public governance at the regional levels (decentralization of authority from the traditional national/provincial foci). This analysis of regional practices of governance allows us to enrich our understanding of the notion of integrated care systems, which turn out to be a complex interweaving between integration and coordination. This analysis also sheds light on the role of regional governance, in particular: the importance of legitimizing and replicating innovative approaches initiated by local providers and stakeholders, and the importance of encouraging proactive roles for the regional health authorities.

Sebnem Aslan
Associate Professor, Selcuk University, Turkey

The Effect of Emotional Intelligence, Optimism and Psychological Resiliency on Displaying Emotional Labor

For the healthcare worker representation of emotional labor that face-to-face communication sector is intense, and hence the importance of patient satisfaction is an increasing importance factor. In this research, the emotional impact of emotional labor, intelligence, optimism and flexibility factors was made to investigate. In this research, four hospitals in the province of Konya were 330 health care employees. As a result of the study, superficial behavior, their feelings negatively affect the evaluation, whereas the behavior of a deep, positive impact on other people's feelings, and flexibility assessment. Implications of these results for research, theory and practice are discussed.

Martine Audibert
Director, CERDI, France

Household Healthcare Demand and Health Expenditures in Senegal

Aims: Studies on healthcare demand and expenditures usually concern the sickness occurrence during the past month. This approach may bias the true household health expenditures. In the context of growing cost of care and exemption policies, we tried to fill this gap by conducting a repeated survey in order to assess the annual health expenditures of Senegalese households and the demand behavior with respect to healthcare.

Methods: A random survey was conducted covering eight quarters of the town of Pikine (near Dakar). 450 households (5500 persons) were visited four times between November 2010 and November 2011. Each household member who had a sickness episode the six weeks preceding the interview was asked about his/her healthcare choice (self-medication, public hospital, private clinics, etc.) and health expenditures (consultation, drugs, transport, laboratory test, hospitalization, etc.). Data on individual and household characteristics were also collected. A multinomial probit model is used to estimate the determinants of the households' choice of medical providers.

Findings: About 446 individuals at each of the two first visits reported having suffered an illness of which 75% is due to fever. Self-medication concerns 15% of healthcare choices. Among those who seek care outside, 58% seek care at the primary level of health facility, 15% at the secondary level and 4% at the private provider. Health expenditures per illness episode (drugs and consultation) were on average 6500 FCFA (~10 euros), but this amount hides great disparities. The mean cost of transport is 900 FCFA (~1 euro) and concern about 15% of the individuals.

Estimations of the multinomial probit model are ongoing.

Sabine Bohnet-Joschko
Professor, Witten/Herdecke University
&
Claus Zippel
Phd Student, Witten/Herdecke University, Germany

The Potential of Inter-Hospital Knowledge Transfer Activities Resulting from Studies on Medical Device-Related Adverse Events

Background: Research into preventable medical errors and adverse events has highlighted the need to strengthen and improve patient safety and quality of care at hospitals and other healthcare facilities. Our project, funded by the German Federal Ministry of Economics and Technology, focussed on developing an inter-hospital knowledge transfer linked to medical device-related adverse events and, as a result, on improving internal processes in order to ensure the safe and effective application and management of medical devices and equipment.
Methods: We developed a concept for a cross-organisational web-based reporting platform, in which device-related incident reports could be transferred from several hospital-based and other (public) report and learning systems (MetaCIRS). A first study included reports related to anaesthesia units as devices that bear a heightened risk of causing significant patient harm. The main focus was on the many factors influencing clinical practice and, if applicable, the different types of unsafe acts as characterized by psychologist James Reason.
Results: Of the n=152 incident reports analysed, 67% occurred due to more than one risk factor. Most of the incidents were caused by task factors (56%), followed by individual staff (45%), technical (43%), team (21%) and work environmental factors (16%). The most frequent contributory factors were inadequate equipment checks (53%), inattentiveness/fatigue (36%), device failure/malfunction (21%) and communication problems (18%). The proportion of incidents due to human error was highest for routine violations (64%), lower for slips (19%), mistakes (9%) and lapses (7%).
Conclusions: Following these findings, it is possible to identify specific education needs and to qualify staff as well as to improve organisational processes such as the evaluation of training material, use of devices or device management. It also shows the potential of the MetaCIRS to close the knowledge gap within and among health care

organizations, which can lead to an improvement in patient safety, and from which both patients and users of medical devices can benefit.

Paul Contoyannis
Associate Professor, McMaster University, Canada

The Impact of Income on Health and Mortality: Results from Meta-Analyses and Meta-Regressions

The effect of Income on Health (and Mortality) has been investigated on multiple occasions without agreement on the magnitude (and sometimes the direction) of these effects. In this paper we use the techniques of Meta-analysis and Meta-Regression to provide summary effects of the relationship between Income and Health(and Mortality) and investigate heterogeneity in the results found in the literature. We utilize the elasticity estimates of a continuous (poor) health index with respect to income from 8 studies(55 estimates) for health, and the elasticity of the hazard rate of mortality with respect to income from 23 studies(213 estimates) for mortality. Our preliminary results suggest that the (random-effects weighted) average elasticity for the (poor) health elasticity is -0.183 with 94% of variability in reported estimates due to between study heterogeneity, while for mortality the (random-effects weighted) average elasticity is -0.177 with 99% of variability in reported estimates due to between study heterogeneity. We also present funnel plots and associated statistics to test for and estimate the magnitude of potential publication(or other selection bias). These suggest substantial bias in favour of large(in absolute magnitude) elasticities relative to precision being observed in the literature. Our preliminary meta-regression results suggest that our regression model for health can explain 87% of between estimate variability of results reported in the literature, with white only samples having statistically significantly larger elasticities(in absolute value) , while the number of regressors having the opposite effect, after accounting for publication bias. For mortality the comparable figure is 96%, with a substantial number of statistically significant variables explain true variability in results and publication bias.

Borja Garcia
Researcher, University of Las Palmas of Gran Canaria, Spain
&
I.Jelovac
Researcher, G Groupe d'Analyse et Théorie Economique, France

External Reference Pricing and Pharmaceutical Cost-Containment

This paper aims to find the best pharmaceutical firm strategy to sequentially launch a new product into the global market, given countries' pricing strategies, country sizes and countries' willingness to pay for a new pharmaceutical, in order to analyze the convenience of applying External Reference Pricing (ERP) as a complementary cost-containment strategy on pharmaceutical expenditure in combination with Cost-Effectiveness Analysis (CEA), instead of applying exclusively a blind ERP.

Based on a "take-it-or-leave-it-offer" procedure under symmetric and asymmetric information, a bargaining model is developed under sequential launching by one pharmaceutical firm that offers a new product across countries that accept or reject such offer. Private information is in the hands of countries. We consider one pharmaceutical firm as monopoly producer and four countries, two applying only CEA (referenced countries) and other two employing ERP either, as a complementary or as a blind strategy (referencing countries).

Results show that countries are generally better-off applying a cost-containment strategy based on ERP as a complementary pricing strategy than applying ERP as a blind pricing strategy. Also, ERP is not actually applied when it is a complementary pricing system with CEA unless the firm delays launch in countries with high willingness to pay. The best firm strategy under symmetric information strongly depends on the relative size of referencing country and their relative willingness to pay. Under asymmetric information, firm firstly offers a low price, if only if the relative size of referencing countries offsets the relative willingness to pay of referenced countries.

Tristan Gloede
Researcher, University of Cologne, Italy

Can Organizational Trust Translate Into Profits? An Analysis of the Transformation of Social Capital to Economic Capital in German Hospitals

Introduction: Social capital refers to trust, social cohesion, reciprocity, and common values. It can be understood as an organizational resource that facilitates the achievement of organizational goals. According to the social capital theory, social capital may be transformed into other forms of capital such as economic capital. The aim of this study was to analyze whether higher levels of social capital are associated with higher levels of economic capital in German hospitals.

Methods: We combined data from a cross-sectional study that was conducted with the medical directors of 1,224 German hospitals in 2008, with data derived from the annual financial statements of German hospitals. Each medical director's perception of the hospital's social capital was captured in the cross-sectional study with a 4-point-Likert scale consisting of six items. In order to capture economic capital, we derived six financial performance indicators from the annual financial statements of the responding hospitals. By median split, we calculated binary variables from the performance indicators. Finally, we conducted six logistic regression analyses using Stata 12.1, in order to estimate the impact of social capital on financial performance.

Results: The response rate of the cross-sectional study amounted to 45.02% (n = 551). We were able to identify annual financial statements for 151 of these hospitals, which were included in the regression analyses. In none of the regression analyses we found social capital to be a significant predictor of financial performance.

Implications: We were not able to identify a significant relationship between social capital and economic capital as captured by the selected financial performance indicators, for the 151 German hospitals. A possible explanation may be the strong regulation of hospital reimbursement in Germany leaving little impact to "soft" factors such as social capital. Another explanation may be the absence of possible mediator variables in our models. Thus, research should further analyze social and economic capital, paying special attention to potential mediators of this relationship.

Seda Kocabacak
Researcher, Hacettepe University, Turkey

Poverty of Women and Health of Women

Poverty is not only defined by a lack of material goods and opportunities and drawing of its borders is difficult. Poverty includes a lot of concepts such as not enough income, lack of education, in adequate nutrition and being unhealthy. Although poverty is serious problem for all of people, women are disproportionately poor. In Turkey (in 2009 year) the poverty rate 17.10 per cent for men is and 19.03 per cent for women (TurkStat).

Women face gender discrimination in their life such as schooling, employment and social life. Some social rules or poverty of families lead to keep girls away from school. Lack of education or low level of education cause unemployment or working in low-paying jobs that require no specific qualifications. In Turkey (in 2010 year) the labor force participation rate of women was 27.6 per cent. 45,9 per cent of women employed in the agriculture sector and 37,8 per cent of women worked as unpaid family workers (TurkStat 2010-August). Other important problem is that a lot of women are working in the informal sector. The unregistered employment is 60,5 per cent for women in Turkey (TurkStat 2010-August).

Gender equality or inequality is a major determinant of poverty and ill health. Above mentioned restrictions and inequalities have a direct effect on women's health and well-being. Especially educated women are useful for improving health of women, their children, their family, even communities. For example in Turkey rate of maternal mortality (100000 live births) in 2005 was 28,5 but in west Anatolia (large of amount of educated women) this rate decreased to 7,4.

The purpose of this paper is firstly to discuss relationship between poverty of women and their health and then evaluation of the current situation in Turkey will be done based on the statistics relation to women poverty and women health.

Jacek Kopec
Professor, University of British Columbia, Canada

Obesity and Health Status: Projections for Canada from the Population Health Model

Objectives: Two important factors that are expected to affect the health status of Canadians over the next 2 decades are population aging and the obesity epidemic. The purpose of this study was 1) to project obesity rates in Canada between 2010 and 2030 and 2) to assess the impact of 2 hypothetical obesity-reducing interventions on health status.

Methods: We performed a microsimulation study using Canada's Population Health Model (POHEM). Interventions were applied in 2001/2. In intervention 1, we assumed that the body mass index (BMI) could be reduced by 3 units in all persons aged 20+ who are obese or overweight (BMI≥25). In intervention 2, we assumed a 15-unit reduction in BMI (except in cases this would put the individual into the underweight category, in which case BMI was randomly assigned in the normal range). Health status was measured by the Health Utilities Index 3 (HUI3) on a modified scale where 0=death and 100=perfect health.

Results: Without any intervention, obesity rates (BMI>30) in Canadians aged 20+ are projected to increase from 17% in 2010 to 21% in 2030 (17% to 24% in men and 16% to 19% in women). Under the intervention 1 scenario, obesity would decrease to 10.7% in 2030. Under intervention 2, obesity would be virtually eliminated (<2%). Compared to no intervention, mean HUI3 in 2030 would be higher by 0.4 points under intervention 1 and 0.8 points under intervention 2.

Conclusions: Our model predicts a 4% increase in obesity rates in Canada between 2010 and 2030 and a greater increase in men than in women. Significantly reducing or even eliminating obesity would have a relatively small, but not ignorable, effect on the average health status of Canadians.

Jun-Yen Lee
Professor, National Chiayi University, Taiwan
&
Yu-Cheng Chen
Ph.D. Student, National Chiayi University, Taiwan

Accounting for Carbon Dioxide Emissions in the Measurement of Productivity: An Empirical Study of Healthcare Sector

Under the pressures of global warming and climate change, business decision makers need to consider CO2 emissions as an important factor in production efficiency measurements to stay competitive. In this paper, a non-parametric method—the data envelopment analysis (DEA) model—is introduced to measure relative productivity for healthcare companies.

The Metafrontier Malmquist-Luenberger (MML) Productivity Index proposed by Oh (2010) and four strategies (termed "No Good Output Growth", "Maximum Good Output Growth", "Mixed-Growth Strategy", and "Good Output Only") introduced by Arcelus and Arocena (2005) are both measured with respect to the undesirable (bad) output. According to our results, we develop strategies for healthcare companies, and also provide the recent production efficiency status of the healthcare sector with consideration of undesirable outputs.

Xin Li
Assistant Professor, Shanghai Jiao Tong University, China

The Impacts of Health Insurance on Health Care Utilization Among the Elderly in China

Introduction: To examine how different types of health insurance programs (Urban Employee Medical Insurance (UEMI), Urban Resident Medical Insurance (URMI), New Cooperative Medical Insurance (NCMI) and no insurance) affect the intensity of outpatient visits, individual out-of-pocket (OOP) outpatient expenditure, the length of stay (LOS), and individual OOP inpatient expenditure.

Design: Data comes from the pilot survey of the China Health and Retirement Longitudinal Study (CHARLS). We used a two-part model in the analyses. In the first part, we estimated the probabilities of outpatient visit and being hospitalized using logistic regressions. In the second part, the number of outpatient visits and LOS were analyzed by employing a zero-truncated Poisson model; individual OOP expenditures were estimated using a generalized linear model (distribution=gamma, link=log). All analyses were weighted. Marginal effects (ME) were reported and 95% confidence intervals (CIs) were generated by bootstrapping.

Results: 2,377 individuals were included in the study. People with UEMI are more likely to have outpatient visits than people with NCMS (ME =8%, 95% CI: 0.6%-15.4%). Among those who had at least one outpatient visit, people with UEMI had significant less OOP expenditure (ME=177.09, 95% CI: -298.76 – -55.42). The number of outpatient visits was not significantly different across the four groups. For the inpatient care, people with UEMI are more likely to be hospitalized compared with people with NCMS (ME=8%, 95% CI: 0.4%–16.5%). Among those who had at least one inpatient visit, people without insurance had significant less LOS than people with NCMS (ME = -2.98, 95% CI: -7.917– -1.962). There was no significant difference in inpatient spending for the four groups.

Discussion: Our results show that people with UEMI are more likely to utilize health services than those with NCMS. Further, conditional on seeking treatment, this group of people spend less per outpatient visit than people with NCMS.

Yung-Hsiang Lu
Associate Professor, Ph. D., Department of Bio-industry and Agribusiness Administration, National Chiayi University
&
Yu-Chiao Hung
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Applied a New Metafrontier Approach to Evaluating Efficiency and Productivity of the Biotechnology Companies: A Cross-Country Analysis

Biotechnology is a key technology of the 21st century, that biotechnology have a direct effect on our health and environment, even the animal and plant food what we eat, also changing our lives, rapidly, and in different aspects. In order to meet the challenges of the biotechnology era, governments actively support industrial R&D, with an aim to improve industrial technological and nation capability. Consequently, in the increasingly keen competition in global, operational efficiency of the biotechnology company get more important. Despite the growing interest of biotechnology industry development, less research has evaluated the operational efficiency with patent of the cross-country firms and reduced the problem of technology heterogeneity, let alone the time-lag between R&D and patent filings. The aim of the study is to evaluate efficiency of the global biotechnology companies as a new two-step stochastic frontier with metafrontier approach (Huang, Huang and Liu, 2011), by theoretical modeling, can be further specified as a function of environmental variables beyond the control of firms. The empirical analysis of this study utilizes a set of firm-level panel data that span 10 years from 2000-2009, subsumes the specific of patent's time-lag within model, and makes inter-regional comparisons of operating efficiency. Furthermore, employing generalized metafrontier Malmquist productivity index provide a detailed analysis and comparison of global biotechnology firms' productivity by consideration of five decompositions.

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Economic Growth, Human Development and Child Nutritional Status: The Gender Implications with Special Reference to India

There has been a growing debate over the choice between economic growth and human development in the literature of development economics for quite sometime. There are researchers who opine that once growth is ensured the human development aspect will be taken care of by growth itself and hence growth-promoting policy should be prioritised. The opposite viewpoint suggests that more attention is looked-for promoting human development and then only growth may augment. It could be an ideal mix if both can be attained simultaneously. Also the respective impacts of the policies on gender inequality have been captured in the literature separately. No unambiguous relationship between the variables under focus, are observed in respective case studies. On the other hand, the problem of child nutritional status has specific importance for a country like India where the magnitude of malnourished children is getting on the rise. There are incidences of health related hazards where female children appear to be more vulnerable than their male counterparts. Literature indicates that empowerment of women has a direct impact on reduction of hunger and it is mandatory for children too. They could be deemed as the most food insecure part of the population because food shortage, poverty and deprivation are likely to have the harshest effects on them given their vulnerability. This issue is closely linked with gender inequality in the health component and health status does have a strong link with nutritional status. In fact, under- nutrition is an appropriate representation of poor health status. This paper basically addresses two specific problems. Firstly, it seeks to find out the impact of gender inequality in growth vs. human development framework Secondly, it attempts to examine the linkage, if any, among income, quality of life, and child nutritional status incorporating gender inequality in a cross-state framework. The analysis has been done on some basic econometric framework. Findings are an important cross-state extension of existing research, utilising new measures that capture the development dynamic.

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A Regulated Market for Organs from Living Donors – Efficient and Equitable? Lessons Learned from Iran

Introduction:

Advances in surgery and in immunosuppressive therapy in the past 60 years have created the option of organ transplantation for patients with terminal organ diseases. The increasing gap between organ supply and organ demand has created the problem of a long waiting list with many patients dying on it. Deceased donation and living related donation are the main legal sources of organ procurement, next to a flourishing global black organ market. There have been many proponents of a regulated compensated organ market from living unrelated donors, in order to combat organ shortage and the negative consequences of the black market. Iran has been the first country to introduce such a program in 1988 and influenced further countries e.g. the Philippines to adopt a similar program.

Methodology:

The paper aims to answer whether the Iranian model is successful in terms of efficiency and equity, at what social cost and whether it can/should be adopted by other countries. The study is based on existing literature and results regarding the Iranian program of paid donation.

Results:

The Iranian model achieved its main target to eliminate the patient waiting list and gives a fair chance to assumedly all recipients for a kidney transplant with successful results. The model is clearly recipient-centered and displays major inefficiencies. It ends attracting mainly donors with a low socio-economic background who are driven to donate predominantly due to financial reasons (poverty). It appears to have negative to catastrophic emotional, physical and economic consequences for the donors due to inefficiencies in selection, in postoperative attendance and poor regulation regarding the amount and payment of the reward. Loopholes in regulation allow the gaming of the system by Iranian and global citizens, and the model clearly crowds-out altruism. The real social cost and trade-off in physical health and socio-economic wellbeing between recipients' and donors' remains unclear.

Conclusion:

Though the model has been an attempt to protect recipients and donors from the negative consequences of a black organ market and give an altruistic flair to it, it resembles a purely commercial organ donation model with some advantages compared to a completely unregulated black market. Proponents of a regulated organ market for living donors should take the above aspects into account and consider their priorities before introducing it. The paper will also attempt to discuss the transfer or adaptation in other contexts and its role in a global environment.

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Comparative study of a Pre and post Clinical Pathway Based on Activity Based Costing for Cesarean Section Undata Hospital in Indonesia

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Patient Information Preferences on Hospital Quality. Results of a Choice Experiment Based on Best-Worst Scaling

Introduction: In order to be able to make a differentiated choice between healthcare providers, people require information about their quality. An understanding of patient needs and preferences is crucial in providing helpful information regarding hospital quality. This study is the first comprehensive investigation in this field in Germany, focused on patient involvement in, and preferences for, information on hospital quality.

Methods: A patient involvement scale was developed to measure the subjective interest in hospital information. To analyse what particular information on hospital quality patients prefer a relatively new variant of choice experiment a Best-Worst Scaling (BWS) task was integrated into the questionnaire. Goodness of fit tests show good constructs quality. A total of 276 respondents participated including hospital patients and healthy persons (response rate 71%, representative sample regarding the variables age, gender and social class).

Results: The analysis showed a high involvement in information regarding hospital quality. A second-order confirmative factor analysis revealed three reliable components: general importance of information (0.70), need of certainty (0.85) and need of participation (0.57). In the measurement of information preferences (35 attributes/quality indicators), patients rated indicators of structure quality as the most important attributes. Information about process quality was moderately relevant from the patients' point of view. Objective results of outcome quality were more important for patients than subjective quality indicators. We identified two patient clusters (two-step cluster analysis): outcome orientated and service orientated patients.

Implications: Both the assessment of patient involvement in hospital quality information and the measurement of patient preferences in order to rank patients' perception provide important insights into information needs of patients. The BWS experiment is useful to investigate patient preferences, particularly in research designs with a larger number of items and a focus of the relative ranking of complete attributes (nut just levels within attributes).

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The Knowledge, Attitude and Behaviours of the Individuals Towards Alternative Medicine: A Study in Ankara City

Complementary and alternative medicine (CAM) has become an attractive and a popular issue between academicians and researchers in the last decades. CAM is mostly used by individuals to support or to substitute the medical treatment. The studies from different disciplines have shown that the use CAM is expanding all over the world but the prevalence and the types of its use still remain unclear. A descriptive study was conducted using a questionnaire as the data collection technique to describe the CAM use. The questionnaire was created by evaluating the recents studies in the literature and the expert views in the field. The objective of this study is to evaluate CAM use among the adults living in Ankara and to identify the Socio-demographic factors that are associated with CAM use. Considering the constraints, the scope of this study was limited with the adults living in the central provinces of Ankara. Stratified and simple random sampling method was used to determine the sampling number. Frequency distributions and Chi-square test were used to analyse the collected data. 2.256 adults from nine central provinces completed the questionnaires. Herbal therapies/products, vitamin supplement, massage and religious practices are the most popular and commonly used CAM methods. CAM is mostly preferred for the treatment of cold, waist/back problems, intestinal diseases and insomnia.

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A Private Hospital Example for the Analysis of Unit Costs in Hospital Enterprises

Health care is primarily provided by hospitals and up to now these hospitals have always been considered to be state institutions due to the type of services they provide. As a result of recent political and economical changes, private hospitals have been mentioned in healthcare nearly as much as state institutions.

The aim of this study was to determine the cost analysis of hospital enterprises, and to use these results to determine the unit costs of private institutions, out-patient and in-patient clinics.

In this study the financial, administrative and statistical data of a private Hospital in Ankara for the year 2009 was used as a baseline to determine the hospital's direct commodity and supply costs, direct staff costs and general production costs. These costs were distributed to 55 service centers in the hospital.

The total costs determined in the departments were distributed according to the other departments being served and the cost structure of the hospital was calculated. According to this data, the cost functions of the cost of services in the in-patient clinics, out-patient clinics and special care centers were analyzed and the unit costs were determined.

As a result, it was determined that the direct primary commodity and supply costs of a private hospital differed from those of the general literature and were found to be of the highest cost possible. As a result of the study, it was determined that of the total hospital costs 35.68% was attributed to direct primary commodity and supply costs, 32.78% was attributed to production costs and 31.54% was attributed to direct staff costs.

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The Relationship among Organizational Commitment, Job Satisfaction, Organizational Stress and Intention of Leaving the Job of Health Personnel

The most important factor of production in the health sector is the health personnel. In order to increase the productivity and efficiency of services provided, the levels of organizational commitment, job satisfaction, and stress need to be evaluated. In this context, managers have to shoulder the responsibility to increase the organizational commitment and job satisfaction levels of health personnel. In this study, the relationship between the levels of organizational commitment, organizational stress, and intention of leaving the job were analyzed. The data has been collected through a survey conducted on 89 health personnel working in a university hospital in Ankara, Turkey. While the 64% of the population of the study consisted of females, 36% of the population consisted of males. When the titles of the respondents were analyzed, it has been seen that 37.1% were medical doctors and nurses, and 62.9% were administrative staff. In order to analyze the relationship between the variables multiple regression analysis has been applied and according to the results it has been found that organizational commitment and job satisfaction of the health staff significantly affects organizational stress ($F(2,86)=30,922$, $p<0.05$). Organizational commitment and job satisfaction together explains the 42% of the total variance of organizational stress. The increase in the levels of organizational commitment ($t=-4,719$, $p<0.05$) and job satisfaction ($t=-3,093$, $p<0.05$) decreases the stress within the work place. Besides, it has been found that organizational stress, organizational commitment and job satisfaction significantly affects leaving the job ($F(3,88)=5,990$, $p<0.05$) and these variables together

explains the 18% of the total variance of intention of leaving the job. In the regression model the only significant relationship has been seen in organizational commitment ($t=-3,002$, $p<0.05$) and the increase in the organizational commitment decreases intention of health personnel leaving the job. According to these results, it can be stated that there is a significant and negative relationship between the organizational commitment and job satisfaction organizational stress perceptions and organizational commitment and intention of leaving the job of health personnel.

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From Hospital to Clinic to Network: Reconfiguring London's Health System

In 2007, NHS London published a strategy to deliver health care 'closer to home' and more cost-effectively than in major secondary care centres. This was a whole system transformation for the delivery of health services across the UK capital, initially focussing on plans to build intermediary 'polyclinics' in every health authority and then moving to mandate the development of networked 'polysystems' as a way of organising the commissioning and delivery of primary care. Such an approach is not new. Many international health systems feature polyclinics (in a variety of organisational structures) and the term was first used in the UK in the 1920 Dawson Report to describe health centres staffed by consultants offering specialist services. Since this time, a number of reviews have highlighted concerns about the underdevelopment of primary and community health services in London and the role of hospitals (Acheson Report 1981; Tomlinson Report 1991). As a result, recent policies can be viewed as part of a longstanding desire to localise and shift some services from hospital institutions to lower cost, more responsive community and social environments.

In 2009 an evaluation of seven polyclinics/systems was commissioned to assess the impact of the programme and provide real time feedback and learning to health service commissioners. The research team, a consortium consisting of LSHTM, Imperial College London and the Picker Institute, completed its final report in 2012. This paper presents findings from this unique, wide ranging study and explores some of the key problematics to emerge when re-scaling and reconfiguring public health systems. These include issues of policy confusion, organisational inertia, systemic fissures and misaligned incentives. We argue that until these contextual factors are understood, the shift of services across organisational boundaries will remain fraught with tensions. This is an important message in light of current attempts in the UK – under Coalition Government - to further radically rescale and restructure local health economies.

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The Relationship between Socioeconomic Status (SES) and Clinical outcomes among Cystic Fibrosis Patients in Belgium

Background: Studies have revealed the impact of socioeconomic status (SES) on the severity of many diseases. This study investigated links between socioeconomic factors and clinical outcomes amongst Belgian cystic fibrosis (CF) patients.

Methods: In a cross-sectional study, patients with CF visiting Belgian accredited CF centers were eligible. Socioeconomic data was collected via questionnaire while clinical outcomes were extracted from the patient registry.

Results: 294 out of 402 enrolled patients participated. Mean (SD) age was 20.8(12.0) years with 52.0% as adults. 85.0% were from households with < €2000pm equivalent. No income difference was noted across gender or with the general population. The average monthly bill on health expenses by households with a CF patient was €327 (national mean = €125). 52.7% (32.6%) of those from households using less (more) than €125pm on health had chronic Pseudomonas aeruginosa infection but after correcting for age and gender the difference was not significant. Those who spent less also had significantly worse lung function; the mean (SD) % of predicted FEV1 was 65.1(25.3) % compared to 76.7(23.8) % respectively. After correcting for gender and age, FEV1 was inversely associated with household income and only marginally associated with amount spent on health.

Conclusion: The amount actually spent on the healthcare was associated with more clinical outcomes compared to the household income, making it a potential SES indicator in this population. However, the direction of the association is unexpected. Unfortunately the relationship between the reported expenditure and exact healthcare costs is not known. Belgium has a universal medical insurance system. However differential reimbursements, exemptions and third party payments (public insurance and patient's association) advantage those with less income or with disabilities. These multiple sources of financial assistance make the reported health expenditures less reliable and may reduce the disparities occasioned by differences in socioeconomic factors.

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Study on Priority Setting for Health Resource Allocation in the Process of China's Health Care Reform

China is undertaking a new round of health care reform with the goal of nationwide health insurance coverage and better health service accessibility. There is an increasing demand to allocate resources systematically and fairly. One biggest obstacle is how to allocate scarce health recourses for 1.3 billion people to share. Because of the constraint of limited funding, it is required to set priorities and allocate resources more scientifically and strategically. Designing criteria for setting priorities and conducting a consensus building process is of vital importance, it is also a value-laden process which involves both technical and political aspects. Unfortunately, there's no explicit Health care priority setting in government's resource allocation in practice, policy decision-makers prefer to rely on implicit criteria and arbitrary methods such as historical precedent or political enforcement, it's a paradox for the governance of health resource allocation.

Our research is focusing on the priority setting design for china's health care resource allocation in three parts. First, we analyze china's policy and laws on allocation and the specific governance in practice. We find the government-led political operation is more important than any other factors, and stakeholder analysis shows health care supply side plays an important role in the policy formation while the demand side is much weaker and lack the voice in the form of public participation through the policy-making process. Second, we review international extensive experience and plentiful research papers on allocating health resource and summarize some beneficiary priority setting principles and criteria, the theories and good practice mode will be a comparative base for the third part——considering systematic formula and strategic plan for china's priority setting in health resource allocation, we design principles and criteria by using priority setting theory considering the characteristic of national social-political-economic status, we also hope this research can enhance the reasonableness and legitimacy of national health policy-making in a sustainable way.

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Patent role in medicine selection of the National List for Essential Medicines: a Probit Model Applied to Oncology Medicines in Thailand

Medicines (NLEM). If the medicine is not listed, patients have to pay and hence reduce access for those who are unable to pay. The objectives of this study are to determine the role of patent in NLEM selection and to assess the affordability of non-NLEM medicines. The study focuses on anti-cancer medicines because cancer has been the main health problem in Thailand. Probit model was used to determine NLEM selection. Explanatory variables are, patent, annual cost of treatment, number of patients, sales, product life, and monopoly status. The medicines characteristics affecting inclusion in the NLEM, such as quality-adjusted life year, life year saved and adverse effect are also considered. The number of days the lowest paid unskilled government worker would have to work to pay for one treatment course was used to assess affordability of non-NLEM.

The results suggest that patented medicines have 36% less probability of being included on the NLEM compared to non-patented ones. Likewise, higher sale value and long product life increase the probability of being selected by 20% and 7% respectively. Predicting from the probit model developed, by removing patent protection to buy generic version, five patented medicines would have been selected. In terms of affordability, it has been observed that it requires on average 8.5 and 11 working days wage to buy a daily dose of non-patented and patented non-NLEM respectively. Most of non-NLEM medicines were considered inaccessible for the lowest paid unskilled worker. In conclusion, patents on medicine play a significant role on inclusion to the NLEM and affordability of anti-cancer medicines in Thailand. In addition, including a wide range of medicine on the NLEM list improves access to medicine for the wider population.

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Determining the Levels of Communication Skills of Faculty of Health Sciences Students

The aim of this study is to determine the level of communication skills of Ankara University, Faculty of Health Sciences students. The population of the research consisted of 1,601 students studying at six different departments (Nutrition and Dietetics, Child Development, Midwifery, Nursing, Health Services Management and Social Work) during April 2012. In total 66% (1,062) of the students were reached, but 937 questionnaires were included in the evaluation due to missing data in the some questionnaires. In the research, personal information form and inventory of communication skills were used. Statistical comparisons were performed by using SPSS 15.0. Descriptive statistics were given by using the frequency, percentage, arithmetic mean and ± standard deviation. "Independent Samples t test (Student t test)" was used for comparison of two groups in analysis of the data normally distributed. One Way Anova was applied to determine differences between groups for more than two. Fisher's least significant difference test was used as the post-hoc analytical method to determine which means differed significantly ($p<0.05$). Cronbach's alpha reliability coefficient of the inventory was found to be 0.77. A statistically significant difference was determined between the dimension of mental communication skills and the total inventory to the gender of the faculty students surveyed. According to the department in which they were studying the difference was statistically significant between the behavioural dimension of communication skills and total communication skills. A statistically significant difference was determined in the dimension of emotional communication by the residence of students surveyed. As a result, it was found that the students were not affected by the age, years of study, family type, number of siblings and number of books read, but affected by gender, department and place of residence. Arrangement of different activities can be suggested in the level of education in order to develop communication skills of students of health sciences faculty who have important roles in delivering health services.

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A Model of Refing Territorial Logics of Action for Reticular Organizations Acting in the Gerontology Sector: French, Swiss and Greek Case Studies

The structural and functional changes of reticular gerontology organizations will be analyzed in this paper through the study of gerontology formal or informal networks as:

- Places of territorial governance based on proximity and regulation for better coordination
- Places of logic of action adapted and adjusted to the specificities of the sector in order to produce social innovation for the benefit of the patient.

Various questions arise: What is a "behavior" of a gerontology network? What is the origin of its logic of action? Are there some structural characteristics which program or regulate these logics of action? Which are the main variables that characterize each type of gerontology network?

In order to answer these questions we will adopt a multi-disciplinary and multi-level analysis according to a neo-institutionalist approach. Two doctrinal trends will be mobilized: the "tinkering" theory for the managers of healthcare sector(Norbert Alter, 2000) and the theory of social regulation (Jean-Daniel Reynaud, 1989). The model presented1 intersect two axes: the one of the proximity and the other of regulation of healthcare networks specialized in gerontology. Four logics of action will be presented in this graph corresponding to the articulation of these two elements. This model will put the accent at the territories of gerontology networks and at the regulation of theses spaces by healthcare policies and by various others stakeholders such us the old persons or their families. It will present the dynamic of gerontology sector and the strategies of healthcare managers in order to create social innovation.

Finally, the analysis of Greek, Swiss and French case studies through an interpretative qualitative methodology, will put some "relief" in this model.

[1]Which is used in the European project of Marie Curie- IRSES "VALUES".