

2013

# Health Economics, Management and Policy

## Abstracts

12<sup>th</sup> Annual International  
Conference on Health  
Economics, Management and  
Policy

24-27 June 2013, Athens, Greece

Edited by Gregory T. Papanikos

THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH





12<sup>th</sup> Annual International  
Conference on Health  
Economics, Management and  
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Greece

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# Preface

This abstract book includes all the abstracts of the papers presented at the 12<sup>th</sup> Annual International Conference on Health Economics, Management and Policy, 24-27 June 2013, organized by the Athens Institute for Education and Research. In total there were 35 papers and 43 presenters, coming from 25 different countries (Australia, Austria, Canada, China, Czech Republic, Ethiopia, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Libya, New Zealand, Nigeria, Saudi Arabia, South Africa, Spain, Sweden, The Netherlands, Turkey, UAE, UK, USA). The conference was organized into VIII sessions that included areas of Health Economics: Socio-Economic Aspects, Health Management, Health Management: Innovation and New Technologies 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**  
**1<sup>st</sup> Annual International Conference on Industrial, Systems and  
Design Engineering, 24-27 May 2013, Athens, Greece**  
**PROGRAM**

**Conference Venue:** Titania Hotel (52 Panepistimiou Avenue)

**ORGANIZING AND SCIENTIFIC COMMITTEE**

1. Dr. Gregory T. Papanikos, President, ATINER.
2. Dr. Nicholas Pappas, Vice-President, ATINER & Professor, Sam Houston State University, USA.
3. Dr. Panagiotis Petratos, Vice-President of ICT, ATINER & Associate Professor, California State University, Stanislaus, USA.
4. Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
5. Dr. Chris Sakellariou, Vice President of Finance & Associate Professor, Nanyang Technological University, Singapore.
6. Dr. Paul Contoyannis, Associate Professor, McMaster University, Canada & Head, [Health Research Unit](#), ATINER.
7. Dr. Zoe Boutsoli, Deputy Head, Health Research Unit, ATINER.
8. Dr. John Roufagalas, Head, Economics Research Unit of ATINER and Professor, Troy University, USA.
9. Dr. Cleopatra Veloutsou, Head, Marketing Research Unit, ATINER & Senior Lecturer, University of Glasgow, UK.
10. Dr. Andy Stergachis, Professor, University of Washington, USA.
11. Dr. Melina Dritsaki, Research Fellow, Brunel University, U.K.
12. Dr. Stefanos Nastis, University of Wyoming, USA
13. Ms. Persefoni Kritikou, Researcher, ATINER & Ph.D. Student, University of Athens, Greece.
14. Ms. Lila Skountridaki, Researcher, ATINER & Ph.D. Student, University of Strathclyde, U.K.
15. Mr. Vasilis Charalampopoulos, Researcher, ATINER & Ph.D. Student, University of Stirling, U.K.

**Administration**

Fani Balaska, Stavroula Kiritsi, Eirini Lentzou, Konstantinos Manolidis,  
Katerina Maraki & Celia Sakka

CONFERENCE PROGRAM

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

**Monday 24 June 2013**

**09:00-09:30 Registration**

**09:30-09:45 Welcome and Opening Remarks**

- Dr. Gregory T. Papanikos, President, ATINER
- Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
- Dr. Zoe Boutsoli, Deputy Head, Health Research Unit, ATINER.

09:45-12:00 Session I (Room A): Health Economics: Socio-Economic Aspects I  
Chair: Zoe Boutsoli, Deputy Head, Health Research Unit, ATINER & Gregory T. Papanikos, President, ATINER.

1. \*Vincent Pohl, Assistant Professor, Queen's University, Canada, Christopher Neilson, PhD Student, Yale University, USA & Francisco Parro, Coordinador de Mercado Laboral, Ministerio de Hacienda, Chile. The Effect of Health Shocks on Earnings. Evidence from Chile.
2. \*Gulcin Gumus, Assistant Professor, Florida Atlantic University, USA, Michael T. French, Professor, University of Miami, USA. Fast Times during Spring Breaks: Are Traffic Fatalities another Consequence?
3. Chaowei Fu, Associate Professor, Fudan University, China. The Healthcare Cost was Inversely Related to the Quality of Life of COPD Patients in Urban China.
4. Mateo Migheli, Assistant Professor, University of Torino, Italy & Cinzia di Novi, Assistant Professor, University of Venezia Ca' Foscari, Italy. The Impact of the North- South Gradient on the Informal Caregivers Mental and Physical Health in Europe.
5. Marina-Selini Katsaiti, Assistant Professor, United Arab Emirates University, United Arab Emirates & Amany A. El Anshasy, Assistant Professor, United Arab Emirates University, United Arab Emirates. Determinants of Obesity in the UAE.

12:00-13:30 Session II (Room A): Health Policy: Health Care Reforms  
Chair: \*Vincent Pohl, Assistant Professor, Queen's University, Canada

1. \*Ronald Donato, Program Director, University of South Australia, Australia. The Interaction of Economic and Institutional Perspectives in Analysing Private Health Insurance Reform in Australia.
2. Simona Olivadoti, Researcher, National Agency for Regional Health Service, Italy, Cesare Cislighi, Professor and Chief of Unit Research, National Agency for Regional Health Service, Italy, Valentina Arena, Researcher, National Agency for Regional Health Service, Italy, Francesca Giuliani, Researcher, National Agency for Regional Health Service, Italy & Antonella Sferrazza, Researcher, National Agency for Regional Health Service, Italy. Equity in Disinvestment in Healthcare.
3. Javkhlanbayar Dorjdagva, Ph.D. Student, University of Eastern Finland, Finland. Enkhjargal Batbaatar, Ph.D. Student, University of Sannio, Italy, Jussi Kauhanen, MD, Ph.D., Professor, University of Eastern Finland, Finland. Assessment of Experience with Hospital Privatization and Contracting in Mongolia.
4. Nan Zhao, Hong Kong. Health-care Reform in Rural China: Issues and Prospects.

**13:30-14:30 LUNCH**

14:30-16:00 Session III (Room A): Health Economics

Chair: \*Gulcin Gumus, Assistant Professor, Florida Atlantic University, USA

1. Susmita Dasgupta, Lead Environmental Economist, World Bank, USA, Brian Blankespoor, Environmental Specialist, The World Bank, USA, Abdelaziz Lagnaoui, Senior Environmental Specialist, World Bank, USA & Subhendu Roy, Consultant, World Bank, USA. Health Costs and Benefits of DDT Use in Malaria Control and Prevention.
2. Fei Yan, Professor, Fudan University, China & Wei Wang, Lecturer, Fudan University, China. How the Elderly Seek Health Care in China?
3. \*Emmanouil Mentzakis, Lecturer, University of Southampton, UK, Marc Suhrcke, Professor, University of East Anglia, UK, Bayard Roberts, Lecturer, London School of Hygiene and Tropical Medicine, UK & Martin McKee, Professor, London School of Hygiene and Tropical Medicine, UK. Estimating the Casual Effect of Alcohol and Alcoholism on Mental Well-Being for a Cross-Section of 9 Former Soviet Union Countries.
4. Richeal Burns, PhD Candidate, J.E. Cairnes School of Business & Economics, NUI Galway, Ireland. Examining Factors Driving Inequality in Survival Trends among Patients with a Diagnosis of Prostate Cancer in the Republic of Ireland.

16:00-17:00 Session IV (Room A): Health Management: Innovation and New Technologies

Chair: \*Ronald Donato, Program Director, University of South Australia, Australia.

1. Daniel Johnson, Chair and Professor of Economics & Business, Colorado College Economics & Business, USA, Jeffrey Moore, Professor, Colorado College Economics & Business, USA & Kristina Lybecker, Professor, Colorado College Economics & Business, USA. The Healing Arts: Analysis of the Knowledge Flows between Successive Generations of Innovation in the Pharmaceutical Sector.
2. Sabine Bohnet-Joschko, Walcker Endowed Professor of Management and Innovation in Healthcare, Witten/Herdecke University, Germany. Innovation and Cooperation Behavior in the German Medical Device Industry: Status and Perspectives.

17:00-18:30 Session V (Room A): Hospital Economics and Management

Chair: \*Emmanouil Mentzakis, Lecturer, University of Southampton, UK

1. \*Jana Votapkova, Ph.D. Candidate, Charles University in Prague, Czech Republic. Efficiency of Hospitals in the Czech Republic using DEA Alternative Models and DRG-Adjusted Data.
2. Ilkay Sevinc Turac, Research Assistant, Hacettepe University, Turkey & Ozlem Ozer, Hacettepe University, Turkey. Finance Analysis in Health Institutions: A Sample Application.
3. Rajasulochana Subramania Raju, Researcher, Indian Institute of Technology Madras, Spain & Umakant Dash, Associate Professor, Indian Institute of Technology Madras, Spain. An Analytical Framework for Efficiency Measurement: A study based on CEMONC Centres in Tamil Nadu, India.

**21:00-23:00 Greek Night (Details during registration)**

**Tuesday 25 June 2013**

09:00-11:00 Session VI (Room A): Health Economics: Socio-Economic Aspects II  
Chair: Dr. Nicholas Pappas, Vice-President, ATINER & Professor, Sam Houston State University, USA.

1. Deborah Schofield, Professor and Chair of Health Economics, University of Sydney, Australia, Rupendra Shrestha, Researcher, University of Sydney, Australia, Simon Kelly, Professor, University of Canberra, Australia, Megan Passey, Lecturer, University of Sydney, Australia, Richard Percival, Researcher, University of Canberra, Australia & Emily Callander, Researcher, University of Sydney, Australia. The Economic Impacts of Retiring Early Due to Illness: Impacts on Individuals and on Government.
2. Nicola North, Associate Professor, , Ngaire Kerse, Professor, Sarah Andrews, Project Manager, & Faith Mahoney, Research Fellow, all of University of Auckland, New Zealand. Implementing a Restorative Model of Support for Older Persons: Lessons from an Evaluation.
3. Muhammad Tanweer Abdullah, Professor, King Abdulaziz University, Saudi Arabia, Khadija Nowaira Abdullah, Professor, King Abdulaziz University, Saudi Arabia & Omar Zayyan Al-Sharqi, Professor, King Abdulaziz University, Saudi Arabia. Hospital Governance as Embodied Experience: Ubiquity and Inclusivity of Resources and Ethics.
4. Alice Sanwald, PhD Student, University of Innsbruck, Austria & Engelbert Theurl, Associate Professor, University of Innsbruck, Austria. Atypical Employment and Health: A Meta-Analysis.
5. \*Ogochukwu Chinelo Okanya, Lecturer, Institute of Management and Technology, Nigeria. The Health of Women in Post Conflict Situations. The Case of Jos, Plateau State.

11:00-13:00 Session VII (Room A): Health Management

Chair: \*Natascha Wagner, Researcher, Erasmus University Rotterdam, The Netherlands

1. Abdel Hakim Saad El Sadig, Head of Quality Department, Sirte University, Libya. The View of Management on Quality of Health Services Diagnosis in Physical Therapy Centers in Libya. The Example of Zanzowr Center in Tripoli.
2. Khadija Nowaira Abdullah, Professor, King Abdulaziz University, Saudi Arabia, Muhammad Tanweer Abdullah, Professor, King Abdulaziz University, Saudi Arabia & Omar Zayyan Al-Sharqi, Professor, King Abdulaziz University, Saudi Arabia. Challenges of Qualitative Health Research in Saudi Arabia.
3. Aysegul Yildirim Kaptanoglu, Associate Professor, Marmara University, Turkey. Sustainable Management of Health Care Costs and New Health Commissioning Approaches in Health Management.
4. \*Mattias Lundback, Researcher, Ratio Institute, Sweden. Limited Responsibility HMO:s-Solving the Coordination Problem in Health Care.
5. Chux Gervase Iwu, Acting Head of Department, Lecturer, Cape Peninsula University of Technology, South Africa. Quality of Life: An Outcome of a Satisfied Health-Related Professional.
6. Hanna Assefa Negash, Medical Doctor, Debretabor Hospital, Ethiopia. A Two Years Retrospective Analysis of Psychiatric Admissions to Jimma University Specialized Hospital, Southwest Ethiopia, Jimma.

**13:00-14:00 Lunch**

14:00-16:00 Session VIII (Room A): Health Policy: Children's Health

Chair: \*Mattias Lundback, Researcher, Ratio Institute, Sweden.

1. \*Natascha Wagner, Researcher, Erasmus University Rotterdam, The Netherlands & Matthias Rieger. Child Health, its Dynamic Interaction with Nutrition and Health Memory – Evidence from Senegal.
2. Bryan Coughlan, Research Assistant, National University of Ireland, Galway, Ireland, Edel Doherty, Ciaran O'Neill & Brian McGuire, National University of Ireland, Galway, Ireland. The Association between a Child's Psychosocial Outcomes and their Participation in Sporting, Cultural and Community Activities.
3. Victor Beguerie, Ph.D. Student, CERDI, CNRS-Université d'Auvergne, France, Catherine Araujo Bonjean, Researcher, CERDI, CNRS-Université d'Auvergne, France & Martine Audibert, Director, CERDI, CNRS-Université d'Auvergne, France. Impact of Energy Access on Child Malnutrition in Burkina Faso.
4. Ozgur Ozdamar, PhD Student, IMT, Institute for Advanced Studies Lucca, Italy. The Impact of Female Legislators on Public Expenditures on Maternity Benefits and Child Health Outcomes.
5. Sebnem Aslan, Associate Professor, Selcuk University, Turkey, Adnan Celik, Professor, Selcuk University, Turkey, Anil Toygar, Research Assistant, Gazi University, Turkey and Demet Akarcay, Research Assistant, Selcuk University, Turkey. Decision Making in Healthcare Organizations.
6. Ergun Zuhrem, Research Assistant, Selcuk University, Turkey. The Effect of Market Versatility in Health Institutions on Organizational Commitment.

**17:30-20:30 Urban Walk (Details during registration)**

**21:00-22:00 Dinner (Details during registration)**

**Wednesday 26 June 2013**

Cruise: (Details during registration)

**Thursday 27 June 2013**

Delphi Visit: (Details during registration)

**Khadija Nowaira Abdullah**

Professor, King Abdulaziz University, Saudi Arabia

**Muhammad Tanweer Abdullah**

Professor, King Abdulaziz University, Saudi Arabia

**Omar Zayyan Al-Sharqi**

Professor, King Abdulaziz University, Saudi Arabia

## **Challenges of Qualitative Health Research in Saudi Arabia**

Saudi Arabia has a distinguished production and documentation of institutional-level quantitative health research that is mostly empirical, however the volume and quality of qualitative research into the health services is poor, especially towards organizational and structural reforms. The quantitative data is derived from mechanistic methodologies and statistical analysis that typically draws our attention away from the ground realities whilst some bureaucratic restrictions also undermine the quality and utility of this evidence.

This paper offers benchmarking insights into challenges of qualitative health research in Saudi Arabia and identifies inherent weaknesses, gaps, and fragmentation in the planning, production, and implementation. We suggests three levels of such challenges: policy, institutional, and individual, whereby establishing the value of quantitative methods in establishing relationships between variables but weak in identifying the reasons for such relationships. *First*, the need to promote qualitative research in design and assessment of 'policy tools' to bridge inherent gaps in macro-policy and its contextual implementation. *Second*, qualitative research mainstreaming would allow institutional empowerment and effective implementation. *Third*, the need for research into individual-level behaviours: from patients' complex mindsets and workplace attitudes of health managers to individual life-styles towards 'diseases of affluence' like obesity and diabetes. Here, the choice of qualitative approaches could help enhance the value of research outcomes.

This multi-dimensional model serves as a comprehensive (re)orientation to KSA health services research leadership – academics, policymakers, planners, and managers, to help identify gaps in policy, implementation and individual-level behaviours.

**Muhammad Tanweer Abdullah**

Professor, King Abdulaziz University, Saudi Arabia

**Khadija Nowaira Abdullah**

Professor, King Abdulaziz University, Saudi Arabia

**Omar Zayyan Al-Sharqi**

Professor, King Abdulaziz University, Saudi Arabia

## **Hospital Governance as Embodied Experience: Ubiquity and Inclusivity of Resources and Ethics**

### Purpose

This paper introduces hospital governance as a resource-specific domain. It points to an unattended embodied effect of ethical management on an effective, efficient, and equitable utilization of hospital resources, and characterizes *resources* and *ethics* as essentially one inclusive domain of hospital governance.

### Design

It outlines a conceptual framework of five domains for hospital governance: (1) managerial/clinical functions; (2) resources; (3) purpose; (4) criteria; and (5) implications. This framework identifies and explains ethical ubiquity and inclusivity of these domains in mainstream governance and performance.

### Findings

First, this paper identifies the five domains as: (a) classical managerial/clinical functions; (b) resources: both tangible and intangibles (human, financial, equipment, information, and space, as well as, time and goodwill); (c) purpose - justifies resource creation and utilization, explaining the 'hospital context': public vs. private sector, developed vs. developing countries, and rural vs. urban; (d) '3Es criteria' - efficiency, effectiveness, equity; and (e) implications in decision-making across individual, institutional, and societal levels.

Second, the five-domain framework defines clinical governance across the vertical *levels* (strategic, tactical, and operational) and horizontal/functional *categories* to serve as guidelines for consultants and practitioners in the fields of hospital design, planning, and strategy.

### Practical implications

The ubiquity and inclusivity among the five domains produces an initial draft of a multiple-utility Resource-Specific Index (R-SI) for hospital governance. RSI offers benchmarking insights for multi-

disciplinary and inter-disciplinary research on hospitals and health systems. It also guides towards evolving a viable hospital governance curriculum, management/clinical audit, and ethical standards, both in countries that are resource-constrained and resource-conscious, normally viewed as the developing and the developed worlds, respectively.

Originality/value

It identifies the ubiquity of resource-specific ethical competencies in hospital governance, and views utilization of hospital *resources* and practice of governance *ethics* as essentially inclusive.



**Sebnem Aslan**

Associate Professor, Selcuk University, Turkey

**Adnan Celik**

Professor, Selcuk University, Turkey

**Anil Toygar**

Research Assistant, Gazi University, Turkey

**Demet Akarcay**

Research Assistant, Selcuk University, Turkey

## **Decision Making in Healthcare Organizations**

The act of decision making appears both in our private life and work life, as a fact of our life. Decision making implies the choices which are made in respect of the issues such as wages, processes, activities of markets, voting for a party and betting in which a discipline like politics, psychology, system analysis work and especially economy. Decision-making is also one of the vital and crucial part of the management. Starting from the planning up to the control process in all management functions, decision-making are used certainly. The organizational planning is an act of decision making and therefore, the act of decision making composes the basis of management. The activities of decision making, which are the indicator of the achievement of the manager, solving the problems occurred, the hit rate of decisions which the manager has made, indicate the organizational achievement. It could be resulted in organizational failure to stay undecided or to make incoherent decisions. Thus, decision making is an important mechanism for the organizational management. At the same time, decision-making in healthcare organizations is crucial in terms of meeting the patient demands and expectations in order to increase the health quality of the community. The process of decision-making could be expressed by taking two main aspects into consideration from the patients and also from the managers. In other words, decision-making in healthcare organizations is pivotal due to effects on patients' lives and also providing effective management process.

**Victor Beguerie**

Ph.D. Student, CERDI, CNRS-Université d'Auvergne, France

**Catherine Araujo Bonjean**

Researcher, CERDI, CNRS-Université d'Auvergne, France

**Martine Audibert**

Director, CERDI, CNRS-Université d'Auvergne, France

## **Impact of Energy Access on Child Malnutrition in Burkina Faso**

Since a decade, the lack of energy is considered to have a key role in the underdevelopment of Sub-Saharan rural Africa. In this context, several West African countries implemented a programme aiming at installing multifunctional platforms (MFP) for energy access in rural areas. These platforms comprise a small diesel engine turning different type of milling machinery and a generator for production of electricity. We focus in this paper on the experience of Burkina Faso.

Questions and objectives

MFP allows women to grind their cereals mechanically instead of manually.

Beyond the direct improvement of women livelihoods, it is expected that the mechanization of the tasks will have a positive effect on children health. The time saved by women can be used to develop income generating activities thus increasing their ability to pay for children health expenses and get for their families more regular and diversified meals. Women can also devote more time taking care of their children. More generally, it is expected that women will acquire a greater autonomy and take more part in the decision-making within the household.

This paper aims at analysing the impact of multifunctional platforms on child malnutrition.

Methodology and results

Our data come from an original panel household survey led in 2009 and 2011 in Burkina Faso on a sample of 2 400 households living in 200 different villages. We use several impact evaluation methods (pipeline approach, propensity score matching and double difference) to estimate the impact of MFP on child nutritional status. Using the cross section framework of the survey, we found a significant impact on child malnutrition. This impact was confirmed by the double difference analysis we used on the panel framework of the survey. Some methodological issues were also discussed through a critical review of the different impact evaluation methods.

**Sabine Bohnet-Joschko**

Walcker Endowed Professor of Management and Innovation in  
Healthcare, Witten/Herdecke University, Germany

## **Innovation and Cooperation Behavior in the German Medical Device Industry: Status and Perspectives**

Background: German medical device firms represent a large and growing technical advanced industry that is characterized by a high level of innovation with short product life cycles. In order to stay ahead of the competition in this rapidly changing sector, the mostly small and medium-sized firms need to develop innovative products that fit their customers' requirements and needs. To explore the status of innovation and cooperation behavior as well as innovation barriers in medical device firms, a questionnaire survey was carried out at the end of 2010.\*  
Method: We conducted a German-wide telephone survey among a sample of 270 different-sized medical device firms.

Results: A total of 148 medical device firms were reached (return rate: 54.8 percent). Of these, 87 percent reported the very frequent use of customer knowledge as a valuable source for new insights and innovative ideas. 41.6 percent of the manufacturers involve innovative lead users in development processes; other communication modes include customer surveillance and innovation workshops. 19.5 percent of the firms reported the implementation of open-innovation instruments like an innovation portal, through which all customer groups can make suggestions for product development and design. From the small firms, only 5.1 percent used such tools.

Conclusions: The study results show a trend of opening innovation processes in the medical device sector. Nevertheless, there is still a huge potential for further development both in knowledge transfer and cooperation models. In particular this applies to small firms, which possess a comparatively high patent density. This can then lead to innovative products contributing to improving diagnosis and treatment options in healthcare.

**Richeal Burns**

PhD Candidate, J.E. Cairnes School of Business & Economics, NUI  
Galway, Ireland

## **Examining Factors Driving Inequality in Survival Trends among Patients with a Diagnosis of Prostate Cancer in the Republic of Ireland**

### **Background**

As cancer control strategies have become more successful, issues around survivorship have become of increasing importance to researchers and policy makers. This paper examines the role of a range of clinical and demographic variables in explaining variations in survival and how this changes over time among prostate cancer patients in Ireland; particular attention is given to the role of private insurance.

### **Methods**

Data were extracted from the National Cancer Registry Ireland, for patients diagnosed with prostate cancer (PCa) from 1998-2009 (N=26,183); this represented approximately 97% of all those diagnosed with PCa. A series of multivariate Cox proportional hazards regression models and logistic models for varying survival length were undertaken controlling for age, stage and tumour grade. Factors examined included marital status, smoking status, socio-economic status, geographical region and private/public patient status. Hazard ratios, Log rank tests for inequality and Kaplan Meier curves were estimated.

### **Results**

Across the diagnosis period a small but significant increase in survival for those who had access to private care at some point in their care pathway was evidenced. If a patient was treated in part or wholly in a private setting, they had a 5.1% ( $P<0.01$ ) increased likelihood of surviving following a diagnosis of PCa compared to those who were treated solely as public patients. Censoring the follow-up at 36 months and 84 months, the increased likelihood of survival was 8.6% ( $P<0.01$ ) and 5.9% ( $P<0.01$ ) for private payers, respectively. The role of age, cancer stage and tumour grade, consistent with intuition, indicate the importance of early diagnosis. The role of other variables, including region and socio-economic status which were also significant, also warrant further research.

**Conclusion**

Care is warranted in interpreting results given survival is based on all-cause mortality. The role of private insurance may give rise to concerns on equity grounds as to the operation of the Irish healthcare system and warrants further investigation

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## **The Association between a Child's Psychosocial Outcomes and their Participation in Sporting, Cultural and Community Activities**

Many studies have investigated the relationship between participation in sporting, cultural and community activities and the physical outcomes of children. However, considerably less research has explored the relationship between participation in these activities and the psychosocial outcomes of children. Using the Growing Up in Ireland survey, this paper undertakes a multivariate analysis to determine the associations between participation in sporting, cultural and community activities and a range of psychosocial outcomes of nine year old children in Ireland. These measures are taken from the Pierre's Harris and Strengths and Difficulties questionnaires, as reported by the study child, their main carer and their teacher. We find that there are significant positive outcomes associated with participation in sporting and cultural activities. However, these are either absent or negative in the case of a third category, "community activities". We also see differences in how other variables such as parental social welfare status, ethnicity, whether the parents participate in voluntary activities and the family's religious status, impacts on the psychosocial outcomes of children as reported by the child, parent and teacher. The implications for policy are discussed.

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## **Health Costs and Benefits of DDT Use in Malaria Control and Prevention**

The Millennium Development Goal of achieving near-zero malaria deaths by 2015 has led to a re-examination of wider use of DDT (dichloro-diphenyl-trichloro-ethane) in indoor residual spraying as a prevention tool in many countries. However, the use of DDT raises concerns of potential harm to the environment and human health, mainly because of the persistent and bio-accumulative nature of DDT and its potential to magnify through the food chain. This paper quantifies the adverse effects of DDT on human health based on treatment costs and indirect costs caused by illnesses and death in countries that use or are expected to re-introduce DDT in their disease vector control programs. At the global level where the total population exposed to DDT is estimated around 1.25 billion, the findings indicate that while the use of DDT can lead to a significant reduction in the estimated \$69 billion in 2010 U.S. dollars economic loss caused by malaria, it can also add more than \$28 billion a year in costs from the resulting adverse health effects. At the country level, results suggest that Sub-Saharan African countries with high malaria incidence rates are likely to see relatively larger net benefits from the use of DDT in malaria control. The net health benefits of reintroducing DDT in malaria control programs could be better understood by weighing the costs and benefits of DDT use based on a country's circumstances.

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## **The Interaction of Economic and Institutional Perspectives in Analysing Private Health Insurance Reform in Australia**

The relatively late introduction of Australia's universal system in 1984 (known as Medicare), which was layered onto an already well-established voluntary private health insurance (PHI) system, has resulted in the development of a highly pluralistic health system structure. In addition to publicly-funded universal entitlements, 45% of the Australian population also hold *subsidised* voluntary PHI which provides primarily duplicate coverage as well as supplementary coverage to the Medicare scheme. Given growing government budgetary concerns, calls to reform PHI along the lines of managed competition similar to those adopted in Bismarkian countries such as the Netherlands and Germany have gained increasing attention in the health policy debate in Australia.

This paper draws upon the interaction of both institutional and economic analysis to explain and understand the nature of health policy development in Australia and to inform on policy formulation and prescription which can enhance system performance. Economic analysis can inform institutional analysis by highlighting the nature of endogenous forces and potential 'seeds of change' impacting on health policy development by identifying incongruities and tensions which exist within existing regulatory arrangements that run counter to system efficiency. By the same token, institutional analysis can contribute towards economic analysis by identifying the constraints facing policymakers and assess the prospects of implementing alternative policy reform options by analysing the institutional context and dynamics within which particular reforms are situated. More specifically, the paper utilises a combined perspective to analyse whether a directional move towards managed competition, which hitherto has been considered a 'radical' proposal, represents an appropriate and potentially feasible longer term reform option in the Australian context. In doing this, the paper attempts to contribute to establishing a closer discourse between explanation and prescription, and between agency and structure. For scholars of health reform, Australia offers the prospect of providing important insights regarding the nature and extent to which competition ought to be extended to encompass third-party purchasers.



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## **Assessment of Experience with Hospital Privatization and Contracting in Mongolia**

**Background:** After the socioeconomic transition in Mongolia, the privatization process in the health sector started in 1997 in order to enhance health sector functions, effectiveness of healthcare providers and quality of care, hospital governance and financing. These have not extensively been studied in Mongolia.

**Objective:** The aim of the study was to assess the implementation of the privatization process for the hospitals of Mongolia.

**Design:** The study involved 173 physicians and health workers, 157 inpatients and 50 outpatients of six hospitals with three different ownerships. Directors and senior managers of the public hospitals and privatized hospitals were divided into focus groups and interviewed about governance, financial autonomy and procurement procedures at the hospitals. Evaluation of hospital indicators was based on secondary data from Ministry of Health and Ulaanbaatar City Health Authority.

**Results:** Hospitals operating under privatization contract demonstrated better governance, financially stabilized, better organization of procurement procedures. Public hospitals are strongly dependent on regulatory bodies. For instance, procurement procedure is long and there is dissatisfaction regarding to the quality of equipment. Patients' complaints related to health services quality registered to quality control departments continually declined in all hospitals during past decade; however, the quality control departments consist of solely internal hospital physicians without external representative bodies. Percentage of patients satisfied with doctors visits and diagnostics was excellent 89.6% to 97.1% in all three types of hospitals. But in the case of health professionals' satisfaction on leadership skill of the hospitals, it was the lowest in privatized hospital (66.7%) and the highest in public ones (90.7%).

**Conclusions:** Although governance, financing and procurement procedures of hospitals under management and privatization contracts has improved, quality indicators of these hospitals were similar to those of the public hospitals.

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## **The Healthcare Cost was Inversely Related to the Quality of Life of COPD Patients in Urban China**

**Aims:** This study was aimed to explore the relationship between the quality of life(QoL) and the healthcare cost of chronic obstructive pulmonary disease (COPD) patients in urban China.

**METHODS:** A cross-sectional study was carried out in 15 community health centers and hospitals of Beijing, Guangzhou, Shanghai and Chengdu in March to June, 2011. Totally, 678 COPD patients were recruited into this study with a response rate of 94%. Data of healthcare cost were collected based on the medical charts and self-reports of subjects. EQ-5D health questionnaire were applied to assess QoLs. The estimation of EQ-5D utility was based on the Japanese population index set. The annual direct medical costs and QoLs of EQ-5D utilities were analyzed by comparing the top 25th percentile with the lower 75th percentile. The associations between the healthcare costs and the QoLs of patients were estimated using crude odds ratio (OR) and 95% confidential intervals (CI), and adjusted OR (aOR) and 95% CI in logistic regression model. The ethic approval for this study was issued by IRB of School of Public Health, Fudan University.

**RESULTS:** Of the 678 eligible study subjects, the median of age was 71.8 years old (mean: 70.4±10.1) and 73% were male. Logistic Regression analysis was applied with the covariates variables as city, age, gender, monthly income, severity and duration of COPD, medical insurance and co-morbidities , it was found that annual direct medical cost was independently associated with quartiles of utility of EQ-5D with statistical significance (lower 75th vs. top 25th, OR=3.28,95%CI:2.09,5.13 and aOR=2.10, 95%CI:1.29,3.44).

**CONCLUSIONS:** In urban China, the direct medical cost for COPD care was inversely related to QoLs of patients, which suggests that to improve QoLs may help to decrease the medical costs of COPD patients.

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## **Fast Times during Spring Breaks: Are Traffic Fatalities another Consequence?**

In the United States, it is estimated that every year more than 2 million students travel for spring break, spending well over \$1 billion. Since the 1930s, Florida has been the most popular spring break destination, with some students traveling thousands of miles for sunny beaches and warm winter temperatures. Coastal cities in Florida may receive significant economic benefits from increased tourism income and employment due to this travel phenomenon. However, they may also suffer adverse impacts such as increased traffic crashes, crime, public intoxication, hospitalizations, and noise pollution due to overcrowding and associated risky behaviors in the spring break environment. The existing literature has shown that college students often use spring break vacation with the intent of engaging in extreme party behaviors, including excessive alcohol use and risky sexual behavior.

In this paper, we focus on traffic safety specifically and examine the impact of spring break periods on fatal passenger vehicle crashes. We use monthly city-level longitudinal data on passenger vehicle fatalities from the 1985-2010 Fatality Analysis Reporting System (FARS). The FARS is the surveillance system administered by the National Highway Traffic Safety Administration and it collects detailed information on every motor vehicle crash in the United States that occurs on a public road and results in a fatality within 30 days after a crash. The FARS database allows us to decompose total fatalities by the level of the driver's blood alcohol content. We conduct separate analyses by age groups as well as by alcohol involvement in the crash. Our findings contribute to the spirited policy debates on spring break restrictions as school administrators and parents try to improve student safety while they are on vacation and destination cities investigate whether the economic benefits generated by spring break visitors compensate for the variety of negative externalities.

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## **The Healing Arts: Analysis of the Knowledge Flows between Successive Generations of Innovation in the Pharmaceutical Sector**

This paper examines the location of innovations within pharmaceutical technology, using U.S. patent citation data to trace the knowledge flows over time. It is clear that knowledge clustering is certainly present. Our study utilizes multivariate left-censored Tobit regression analysis to control for identifiable factors, to examine whether over time the distance between successive innovators has changed. We find the distance to be increasing significantly over time, both when considering all citations and only inter-city transfers.

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## **Quality of Life: An Outcome of a Satisfied Health- Related Professional**

Research has consistently shown that health establishments face a constant challenge of retaining health professionals. However, rarely have the occupational needs of health-related professionals been investigated. Essentially, this study; set in South Africa, focused on health-related professionals in with the hope of understanding their practice/occupational needs so that these needs can be better served. Un-served needs of any type (or even level) of worker can result in a number of ugly circumstances for any organisation. In the case of health establishments, an unhappy band of health-related professionals can terribly threaten the lives of those who live in the country.

Health-related professionals comprise a diverse group of practitioners working in both private and public sectors; delivering high quality care to patients across a wide range of care pathways and in a variety of settings. They include nurses, optometrists, radiographers, pharmacists, laboratory technologists/technicians, and emergency medical services.

Utilising factor analysis, the study identifies a number of factors which on the basis of the study would ensure that health-related professionals fare better in their service delivery. These factors are Role clarification and job design; Equitable performance management; and Integrated leadership and knowledge sharing. The others include Self-efficacy; Family-friendly work environments (FFWE's), Leader credibility and innovation and Excellent customer relations and technology. The study recommends however that management of health establishments pay attention to these factors and makes attempt at understanding the specific needs of each health-related professional. The researcher calls for this because of his understanding and given numerous empirical findings that each individual would react differently to different stimuli.

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## **Sustainable Management of Health Care Costs and New Health Commissioning Approaches in Health Management**

Governments of all the countries want to reduce health care costs for managing health services by the most effective way. Consequently, they are trying various new methods. The Government's ambition of countries to deliver health outcomes are based mainly on same principles such as having a good communication with customer that is called patient in health care services, trying to give them more information and choice, focusing on healthcare outcomes, quality standards, empowering frontline health professionals with a strong leadership role.

Health professionals mainly physicians therefore must ensure that they are leading and governing in an open and transparent way their health institutions. Strictly by these new procedures, they can be able to serve their patients and population effectively. These new approaches were called clinical commissioning that will be very different from other new health policies in the health care organizations. Contemporary health care management must be built on the primary health care practices. Even, for managing inpatient treatment institutions like hospitals, tertiary care institutions etc the first step is the effective management of outpatient care.

Health commissioning is simply not a needs-based purchasing. It is a strategic planning function in delivering health services either in primary, secondary and tertiary care as follows:

- Evaluation of health and social care needs of the target population to which health care services are given;
- Resources allocation for those needs in line with local and national targets;
- Contracting with providers for purchasing services such as monitoring and evaluating outcomes.

So, a new approach called health commissioning could bring systematic and comprehensive clinical leadership across a country in order to drive up outcomes, handle health inequalities. This new approach will improve value for every euro spent on healthcare services.

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## **Determinants of Obesity in the UAE**

How natural resources affect economic growth is a complicated process in which numerous economic, political, and institutional factors overlap. This paper focuses on the natural resources-health channel. It attempts to empirically assess the impact of resources on health, on the one hand, and of health on resource-abundant countries' growth, on the other. Resource booms raise income in the short-run, despite low or even deteriorating productivity, allowing resource-abundant economies to maintain high consumption levels. This prosperity would create a false sense of what Gylfason 2001 called "overconfidence" that can reduce the incentive to invest in human capital. Therefore, more resource-endowed countries seem to devote lesser proportion of their income to health and have shorter life expectancy. Other health indicators such as diabetes, obesity, TB success rates also reveal worse health status. In the long-run, the depletion of both natural and human capital would put these countries on a lower growth path.

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## **Limited Responsibility HMO: Solving the Coordination Problem in Health Care**

The fragmentation of health care organisations is a prevailing problem in most countries around the world. The underlying reason for the lack of coordination of health care production is often attributed to the lack of central cost accountability for each individual patient. The rather few health care producers that manages to coordinate health care all the way from primary care to tertiary care are often used as good examples, e.g. *Veterans administration*, *Kaiser Permanente*, *Intermountain Health Care* and *The Mayo Clinics*.

However, due to large cost variability amongst patients (economic risk), information asymmetries and agency problems, the provision of health care is rarely coordinated. More commonly, the delivery of health care production is reimbursed in a non-coordinated way that creates incentives for sub-optimisation and suppresses entrepreneurship among producers.

In this paper we use data from the *Medical Expenditure Panel Survey* and computer simulations to illustrate that limiting a provider's cost responsibility for each patient is a much more efficient way of reducing provider risk than to increase the number of patients. Our simulations illustrate that introducing an individual yearly cost-ceiling of 20 000 US-dollars per patient reduces risk as much as increasing the number of patients from 5 000 to 100 000.

The results indicate that it might be possible to create the advantageous opportunities for coordination in managed care organisations, such as those mentioned above, without exposing providers to extensive risk. Reimbursements systems of the type used in *Medicare Advantage* might thus be slightly adjusted to reduce the barriers of entry (economic risk) and promote the entry of integrated care providers on the market.



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## **Estimating the Casual Effect of Alcohol and Alcoholism on Mental Well-Being for a Cross-Section of 9 Former Soviet Union Countries**

While the adverse health and economic consequences attributable to alcohol consumption and caseness alcoholism are widely acknowledged, its impact on psychological wellbeing and mental health are less well understood. This is to a large extent due to challenge of establishing causal effects of alcohol when using standard single-equation econometric analyses. Using a unique new dataset from nine countries of the former Soviet Union, a region with a major burden of alcohol related ill health, we address this problem by employing an instrumental variable approach to identify causal effects of alcohol consumption and alcoholism on mental well-being. Alcohol consumption is taken as the amount of pure alcohol consumed in a typical drinking session, while alcoholism caseness is defined by the CAGE alcoholism screening instrument. Using information collected on the individuals' neighborhood characteristics, availability of 24-hour alcohol sales outlets and number of alcohol advertisements are used as instruments for the consumption and caseness equations, respectively. The validity of both instruments is based on theoretical reasoning and statistical testing, while confidence intervals robust to weak instruments are also reported. Controlling for a number of individual characteristics common in the well-being literature, we find that increased alcohol consumption and caseness alcoholism significantly decrease well-being and worsen mental health and that ignoring endogeneity leads to a large underestimation of these effects. The findings add a further and previously under-appreciated dimension to the expected benefits that could be achieved with more effective alcohol policy in this region.

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## **The Impact of the North- South Gradient on the Informal Caregivers Mental and Physical Health in Europe**

### **Objective**

In Europe both as a consequence of population ageing and traditional culture, a large part of care giving to the elderly is provided by relatives at home. Starting from this premise, we will investigate on how the cultural and socio-economic differences between Northern and Southern Europe may influence the health and the life quality of sandwiched parental caregivers. We test whether this relationship differs across European macro regions according to a North-South gradient. While there is strong emphasis on family all throughout the country, there is substantial evidence, in fact, that there are cultural differences between Northern and Southern Europe, which motivate such focus.

### **Background**

Medical journals usually focus on the most dramatic consequences of population ageing that is often associated with increasing rate of adverse outcomes such as hospitalization and use of formal and informal care services. Due to the very rapid ageing process occurring over the last few decades, the European population over 65 is becoming a larger and larger share of the total population. This phenomenon is due to the lengthening of life expectancy on the one hand, but also to a particularly accentuated drop in birth rates on the other, which has reduced the consistency of the younger generational cohorts.

The ageing process has been characterized firstly by a decrease in the proportion of young people and successively by a large increase in the working age group before leading later to an unavoidable increase in the oldest age group. Within this last group, younger retired people largely contribute to the long term care of very elderly people by providing informal care to their parents. This active retired generation, called the "sandwich" or "pivotal" generation, will have to play a greater part in the future (Robin, 2007). Due to ageing population, the pressures of care giving are projected to intensify for the next quarter of the century, especially for sandwiched caregivers (for women in particular). For the purposes of this study, the sandwich generation is defined as those individuals between the ages of 50 and 65 who are

currently providing some assistance (e.g., financial help with bills or taxes, transportation, shopping, housecleaning, meals, personal hygiene) to one or more parents (Robin, 2007; Pickard, 2008).

### **Data and Methodology**

The individual-level data employed in this study are drawn from the first two waves of SHARE. Specifically, we use data from Wave 1 and Wave 2, which were collected by personal interviews in 2004 and 2006/07 respectively. The main purpose of this survey is to provide detailed and specific information about the living conditions of people aged 50 and older for several countries in Europe. SHARE collects information on demographics, employment and retirement, physical and mental health, social support and networks, housing, income and consumption, both at household and individual level.

Information on caregivers' health status is provided by two variables: one noting the self-assessed health (SAH) and another noting the Health Related Quality of Life (HRQL) that was measured using SF-12, from which a Physical Component Score (PCS) and a Mental Component Score (MCS) were obtained. The following standard self-assessed health status question was asked: 'would you say that in general your health is: excellent, very good, good, fair, poor'. SAH was measured with a five-point scale from 'excellent' (score 5) to 'poor' (score 1), and treated as an ordered categorical variable. SAH is supported by a literature that shows the strong predictive relationship between people's self-rating of their health and mortality or morbidity (Idler and Benyamini, 1997; Kennedy et al., 1998). Moreover, self-assessed health correlates strongly with more complex health indices such as functional ability or indicators derived from health service use (Unden and Elofsson, 2006).

The SF-12 is a multipurpose short form survey with 12 questions, all selected from the SF-36 Health Survey introduced in the United States during the 1980s (Ware, Kosinski, and Keller, 1996). The questions were combined, scored, and weighted to create two scales that provide glimpses into mental and physical functioning and overall health-related-quality of life. The SF-12 is a generic measure and does not target a specific age or disease group. It was developed to provide a shorter, yet valid alternative to the SF-36, which has been seen by many health researchers as too long to administer to studies with large samples. The SF-12 is weighted and summed to provide the Physical and Mental Health Composite Scores (PCS and MCS respectively). A very low level (about under 20 points) of PCS corresponds to a condition of "substantial limitations in taking care of oneself and in physical, social and personal activity; important physical pain; frequent tiredness; health are considered as poor". A low value of MCS indicates

“frequent mental trouble; important social and personal trouble due to emotional problems; health is considered as poor”.

The methodology to be used involves propensity score matching and average treatment effect. In order to calculate the propensity score, we adopt binary probit models, including all possible covariates known to be associated with the informal care giving and health, regardless of their statistical significance (Caliendo and Kopeinig, 2005; Oakes and Johnson, 2006).

Analytically, this method calculates an index for each individual, as a function of confounders and represents the conditional probability of being informal care givers (vs. no providing care to elderly parents), given all observable individual characteristics.

The PS can be considered as a balancing score, meaning that among subjects with the same propensity to be exposed, treatment is conditionally independent of the covariates. We first compute the propensity score through a probit model. The dependent variable is a dummy indicator that is equal to 0 if the individual does not provide care to elderly parents and 1 if he/she provides care; controls include age, sex, marital status, education, occupation, individual income and family composition. Secondly the matching is carried out through algorithms which form “statistical twins” that differ only in their “informal care giving” status and not in other observed characteristics in order to account for self-selection. We perform the matching through the Nearest Neighbor, Radius (with size of the caliper of 0.1) and Kernel Matching technique (see, e.g., Caliendo and Kopeinig, 2008, and Imbens and Wooldridge, 2008, for recent overviews).

Finally, well-being of matched individuals is then compared to estimate the average effect of being informal caregiver. Specifically, we are interested in the average effect of the treatment on the treated (ATT) i.e. in the difference between the health outcomes for informal caregivers with respect to the counterfactual unobservable outcome which would have prevailed for them who do not provide care to elderly parents. Given the information provided by SHARE we draw three different samples each of which belongs to a European macro region: North, Centre and South. The target population of this study is individuals between the ages of 50 and 65 who provide care to elderly parents. All analyses are carried out separately by gender to account for the pronounced differences between women and men.

### **Expected Results**

Given the cultural differences between Northern and Southern Europe, we expect large and significant impact on sandwich caregivers’ self-reported health due to the North-South gradient. In addition we also expect to detect a gender effect, i.e. impacts of different magnitude between men and women, for a given level of care giving.

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**A Two Years Retrospective Analysis of Psychiatric  
Admissions to Jimma University Specialized  
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## **Implementing a Restorative Model of Support for Older Persons: Lessons from an Evaluation**

**Introduction:** New Zealand's "Ageing in Place" policy encourages independent living in the community in preference to residential care. With rising demand and costs, a large public health service in Auckland embarked on a transformational programme based on a restorative philosophy of care and involving large-scale restructuring and changes to funding and service delivery. Only some objectives were achieved. Drawing on restorative model research and Lewin's theory of change, we critique the ambitions and implementation process.

**Methods:** An independent evaluation was conducted in 2012 using a mixed methods design to capture multiple stakeholder perspectives and included: individual interviews with managers, care-givers, clients and others; focus groups; analysis of planning documents, reports, and client triage and assessment records.

**Results:** The clients had a mean age of 83 years, were assessed as needing medium to high levels of care and had complex needs, limiting potential to return to independence. The understanding of the underlying restorative model differed depending on where in the service structure the person was located, also compromising implementation of the model. During the 3-year change process there were multiple concurrent changes reducing the smooth running of processes; e.g. existing staff were deployed to new roles for which they did not have the skills; information systems used by different departments and organisations involved were not compatible; and estimates of workloads for different agencies were incorrect. Some objectives were not achieved, but in the case of others improvements were evident.

**Conclusions:** The results of the evaluation highlighted that in visionary and ambitious change projects, it is critical that component infrastructure, systems and processes are addressed so that the parts would work together. Introducing a restorative model is more likely to

be acceptable to new clients who have a good chance of returning to independence after the present decline.

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## **The Health of Women in Post Conflict Situations. The Case of Jos, Plateau State**

Achieving universal coverage of all persons is among the national health priorities of all countries and this can only be possible by promoting the concept of equity in health care from both geographical and financial perspectives. This paper highlights the case of Jos, Plateau state where conflicts of an ethno-religious nature has impacted significantly on the ability of women to access health care. The conflicts which came to light since September 2001, have led to the town being divided along lines of ethnicity and/or religion with the Muslims living separately from the Christians, with each group not wanting to cross into perceived 'hostile territories' for fear of attacks. However the fact that hospitals and most health centers are located in the more Christian populated areas has meant that one set of women (mostly the Muslim women) are unable to access health care and so it follows that attaining a reasonable degree of equity has proved difficult in Jos. This paper therefore not only investigated the poor levels of health care accessibility among the women in Jos, but goes further to suggest strategies that could promote the health of women which include setting up more primary health facilities and the use of community health extension workers.



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## **Equity in Disinvestment in Healthcare**

The effects of economic recession on national health systems are very complex. In fact, there are compensating factors that, in health, during times of economic crisis, allow to limit the adverse effects on health. In times of crisis, for example, governments should learn to use more effectively their health budgets by using more generic drugs and adopting new social protection measures.

In this paper, we'll reflect on hospitals in Italy, to dwell on that now plays the role of the hospital and the policies to implement to achieve the best level of health care. The hospital sector has been the subject of significant changes related to address national and regional programming, which has led to a reduction in the number of facilities and beds. The State-Regions Agreement of 23 March 2005 shows the regional fulfilment, including monitoring of expenditure, keeping the beds and the development of de-hospitalization.

The de-hospitalization is a tendency of modern health care, caused by the narrowness of economic resources and the need to identify the priority and use the funds available.

Italian hospital in the activity, in 2006-2010 there was a slight reduction in the volume of total hospital beds, going from 3.94 beds per thousand inhabitants in 2006 to 3.52 in 2010.

About the costs of hospital care in Italy, even in this field in recent years, there has been slight decrease. In fact the share of health expenditure for the hospitalization was 46.47% in 2006, 45.73% in 2009 and 44.79% in 2010.

Therefore, we'll assess the repercussions of the new policies in the health care utilization and expenditure in the National and Regional level. In addition, we'll show some repercussions in the field of equity, that is, if the same need for health and hospital care, there will be no geographical, social or ethnic.

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**The Impact of Female Legislators on Public Expenditures on  
Maternity Benefits and Child Health Outcomes**

Although existing single-country studies have theoretically ambiguous results, prior cross-country findings on the relationship between maternity leave durations and child mortality outcomes establish a negative strong correlation. Using data from 21 OECD Countries from 1970-2009, my empirical estimates, in addition to prior research, reevaluate this relationship by also considering government spending on maternity benefits as important governmental policies beside maternity leave durations. This paper contributes to our understanding of the relationship between public spending and child development outcomes and helps to explain an astonishing result that public spending often do not serve for the expected improvements in child development outcomes. Consistent with existing studies, Fixed OLS estimates support the idea that increasing weeks of paid maternity leave significantly reduce the different types of child mortality rates (e.g infant, neonatal, post-neonatal, under-five). Same fixed OLS estimates support the positive efficiency of cash maternity benefits on child health as well. Neither finding a solution to reverse causality nor heteroskedasticity problem remove the existence of this negative relationship between maternity benefits and child mortality. However, relevant findings are not robust to adding additional covariates and to different estimation methods which are designed to solve some other econometric problems. For instance, the implementation of Wooldridge test on this fixed OLS specification rejects the null hypothesis of no serial correlation. Once, I implement heteroscedastic and autocorrelation consistent Newey-West type standard errors and variance covariance estimates for serial correlation and add new variables for robustness checks, the negative relationship between maternity benefits and child health outcomes disappears. Correspondingly, I seek to assess empirically the interaction among public spending, governance and development outcomes to see how the link between public spending and child health outcomes is strengthened with improved governance. Past studies emphasize that higher numbers of women in parliaments contribute stronger attention to policies concern women and child issues. Female political participation is one of the essential prerequisites of good governance which is a key element to achieve sustainable development outcomes through their tendency to investing more across sectors like health. After I address the endogeneity problem using instruments for

the relevant public spending and perform several robustness checks, my results support three basic hypothesis; The link between maternity benefits with child mortality rates is not always negative but the efficacy of public spending in lowering child mortality increases with female representation into politics. Increasing number of female legislators into parliaments is an important indicator for good governance and contributes the development effectiveness of public spending.

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## **The Effect of Health Shocks on Earnings. Evidence from Chile**

Absenteeism due to sickness imposes large costs on firms and workers. While firms experience production loss, workers potentially suffer from lost earnings. Thus, from a policy perspective, it is important to understand the role of health in productivity and earnings losses. A large literature in health economics estimates the relationship between individuals' health and their labor market outcomes, but due to endogeneity and measurement issues, a causal relationship between health and labor market outcomes is difficult to establish. In this paper, we exploit accidents and other unpredictable health shocks as sources of identifying variation. Therefore, we avoid these problems and estimate the causal effect of health shocks on earnings and labor supply. Using Grossman's (1972) model of health investment we predict that health shocks lead to lower labor supply and reduced earnings. Moreover, higher levels of education and access to better health care act as protective mechanisms and reduce the negative effect of health shocks on earnings.

To test these predictions we use administrative data from Chile. The earnings data come from the unemployment insurance system, and we merge them with the universe of hospital discharge records. Our data include all Chilean workers in the formal sector, and we have detailed information on health shocks between 2003 and 2007 as well as on monthly earnings through 2011. In particular, the hospital records contain detailed diagnosis codes that allow us to isolate exogenous health shocks such as car accidents. We also have information on workers' education and health insurance (public or private), allowing us to test the additional model predictions. We employ fixed effects and difference-in-differences matching methods and use workers without health shocks as a control group. Our results show an average decrease in both employment and earnings of about 10 and 12 percent, respectively. These negative effects persist over time. Finally, we find that individuals with higher levels of education and private health insurance experience smaller reductions in earnings. These results imply potentially large welfare losses due to lower than optimal levels of education and access to health care.

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## **The View of Management on Quality of Health Services Diagnosis in Physical Therapy Centers in Libya. The Example of Zanzowr Center in Tripoli**

The goal of the research is to know The impediments on quality and diagnosis in Physical therapy & medical rehabilitation centers in Libya. It also shows the extent the medical services. the patients satisfaction for diagnosis, and the views of patients about quality of health services in Libyan physical therapy and medical rehabilitation. Besides, the search aims at explaining the quality of health services concepts and to know the impediments which face the health services in these centers as follows:-

1. Decrease of the level of quality of health services in physical therapy and medical rehabilitation centers in Libya
2. Decrease of performance in physical therapy and medical rehabilitation centers.
3. No credibility and reliability between patients and these centers, for these reasons consumers are travelling abroad for treatment.

To accomplish the study objectives, the researcher formulated research questions about the patients' points of view to articulate the true medical quality situation in Libya. The study Endeavour's to answer the following questions:

1. What is the views of patients about quality of health services in physical therapy and medical rehabilitation centers?
2. What the level of satisfaction about diagnosis & medical services?

The research aims at knowing the level of quality in "Zanzowr" physical therapy and medical rehabilitation center, and the factors which effect quality services and diagnosis complexity, also to give recommendations for health services generally, that help the difficulties which affect the quality in physical therapy and medical rehabilitation centers in Libya.

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## **Atypical Employment and Health: A Meta-Analysis**

**Background and Objective:** Atypical employment is an important characteristic of modern labour markets. There is an abundance of empirical evidence on the link between atypical employment and the health status. However more narrative overviews of these studies conclude that the results vary widely. In this meta-analysis we provide a quantitative review of the empirical literature on the relationship between the design of working contracts and the health status.

**Methods:** We used electronic databases (e.g. EconLit, PubMed) and complemented the findings by manual search. Only empirical and peer-reviewed studies published in English and using permanent, full-time employment as reference group were included. In the end we examined 37 studies (covering 25 countries, 171 effect sizes from 1984 – 2010). We applied a random effects model with odds ratios as effect size. For the summary statistics we investigated the relationship between seven employment contracts with decreasing security states and five health outcomes. We used the  $I^2$  statistic to examine variation across studies and performed a meta-regression analysis to determine sources of heterogeneity.

**Principal Findings:** Summary findings show a higher risk of occupational injuries for temporary employees. Our tests (Egger's linear test and Rosenthal's fail safe N) did not reveal significant evidence for publication bias. Temporary employment increases mental and physical complaints, has a negative impact on the health-related behaviour and reduces sickness absences. Less secure contracts and results from south-east Asia have significant effects on heterogeneity whereas the unemployment rate, GDP growth and the year of publication doesn't cause study variation.

**Conclusions:** The included studies support consistently negative health effects due to temporary employment. Moreover, the instability of employment contracts and socioeconomic factors increases health risks. As far as long-term effects, problems of endogeneity and the selection bias are concerned additional research is strongly recommended.

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## **The Economic Impacts of Retiring Early Due to Illness: Impacts on Individuals and on Government**

As the population ages, those in the preretirement years of 45 to 64 will make up an increasing proportion of the labour force. However, early retirement due to ill health is a common occurrence in this age group, reducing the overall available workforce and creating both immediate and long term economic impacts on individuals and governments. Using Health&WealthMOD, an Australian microsimulation model specifically designed to analyse the impacts of ill health on labour force participation, we estimated the immediate costs to government of lost taxation revenue and increased transfer payments and the costs to individuals of lost income and lost wealth, and in the long term, the reduced retirement income of those who have been forced to retire early due to ill health. It has been found that as a result of illness-related early retirement amongst the 45 to 64 year old population there is an annual national loss of income of over AU\$17 billion, an annual national increase of AU\$1.5 billion in spending on government support payments, and an annual loss of AU\$2.1 billion in taxation revenue. At the individual level, persons out of the labour force due to illness had significantly lower incomes (AU\$218 per week as opposed to AU\$1 167 per week for those employed full-time), and for those who retired early due to ill health had around 85% less wealth than those in full time employment with no chronic health condition. By the time they reach the traditional retirement age of 65 years, those who have retired early due to ill health will also have 97% less accumulated wealth with which to derive an income stream to finance their retirement. It was also found that effective prevention and treatment of illness significantly reduces the negative economic impacts of illness-related early retirement.

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## **An Analytical Framework for Efficiency Measurement: A study based on CEmONC Centres in Tamil Nadu, India**

- **Background:**

Efficiency measurement especially that of public hospitals is a crucial step for improving hospital management as well as rationalizing resource allocation. There is an increasing trend in hospital efficiency studies from low and middle income countries, though most studies are limited to estimating technical efficiency especially that of public hospitals using DEA or DEA-based Malmquist index. These studies have ignored the need to select appropriate variables in the DEA model for efficiency measurement.

- **Purpose:**

The purpose of this study is to develop an analytical framework for efficiency measurement and ranking of Comprehensive Emergency Obstetric and Newborn Care (CEmONC) centres within public hospitals of Tamil Nadu, India.

- **Methods:**

The study uses the performance indicators of performance indicators for the year 2010-11 of CEmONC centres obtained from the Tamil Nadu Health Systems Project (TNHSP) office. Efficiencies are calculated for 15 different specifications of DEA model thereby examining whether the efficiency scores remain stable when variables are considered in different combinations. Principal component analysis is carried on the results obtained so as to explore what is behind a DEA score.

- **Results:**

The results show that the efficiency of CEmONC centres can be explained by means of two principal components, and also the similarity as well as the dissimilarity between the specified models can be easily assessed using this approach.

- **Contribution to the field:**

The methodology of multivariate analysis of efficiency scores adapted to public hospitals provides valuable information on different patterns of efficient behavior; there is no single path to efficiency in CEmONC centres.



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## **Finance Analysis in Health Institutions: A Sample Application**

The purpose of this study is to provide directors with the data that they will use in decision making in order to give a more effective service through making monthly cost analysis for a dialysis center. All the financial data that belong to March 2010 of the dialysis center and medical statistics form up the research sample. In order to define the cost and expenture flow, record of dialysis center, the statistics of accounting and buying departments have been used in the study. Also, staged stepdown method has been applied. According to the data gathered from the research, the breakeven point of the dialysis center is monthly 883,01 [dialysis](#) applications. When the number of dialysis sessions during March (1878) is taken into consideration, the total cost of [hemodialysis](#) for the [dialysis](#) center is 185.486,34 Turkish liras. The total income of the Center is monthly 311.855,09 Turkish liras. The most important cost component of the center is direct labour expense. The monthly capacity of the center is 9360, the capacity use is 7512 and the unutilised capacity is 1848 hours. The unit cost for per patient is 1078.41 liras, the unit sale is 1813,11 and the unit profit is 734,71 liras.

**Jana Votapkova**

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## **Efficiency of Hospitals in the Czech Republic using DEA Alternative Models and DRG-Adjusted Data**

The paper estimates cost efficiency of 84 general hospitals in the Czech Republic during 2006 – 2010 using the input-oriented Data Envelopment Analysis (DEA).

We evaluate inpatient care and the way total inpatient costs are transformed to outputs, such as total number of patients treated at acute wards weighted by DRG (the system of diagnostic related groups) indicator and patients treated at nursing wards. We also test for specification when publication output is included among outputs, because costs related to teaching and research activities are high for hospitals with teaching status (publications collected from the Web of Science and alternatively from the Czech national database RIV).

However, prior to the analysis, we search for potential influential observations using multiple methods (e.g. Simar, 2003; Wilson 1993) not to have our frontier distorted by outliers. We aim to perform consequently a second stage analysis, where the DEA efficiency score will be regressed upon the set of environmental variables (e.g. the share of the elderly in municipality, profit status of a hospital, size of the hospital, size of the municipality, presence of a highly specialized center in the hospital or percentage of doctors striking). Our second stage analysis includes testing for the separability and independence assumptions as well as for the optimal model with respect to the distribution of efficiency scores resulting from the first step.

No clustering of hospitals of any kind in terms of the efficiency distribution was found. In overall, however, average efficiency from the first step is quite low, reaching 0.6 for variable returns to scale and 0.5 for constant returns to scale technology. We assume that the second step analysis will explain a portion of the inefficiency.

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## **Child Health, its Dynamic Interaction with Nutrition and Health Memory - Evidence from Senegal**

Child malnutrition is pervasive in developing countries and anthropometric measures such as weight- and height-for-age have proven reliable indicators of short-term underweight and stunting. Rather than studying these indicators separately, we look at their interaction and carve out child health dynamics. Considering height-for-age a child's health stock and weight-for-age a proxy for nutritional inputs, we develop a child health production function that features self-productivity of past health stocks and dynamic complementarity between accumulated health and contemporaneous nutritional inputs. We test the model on a Senegalese panel of 305 children between 0 and 5 years employing dynamic panel methods to control for endogeneity in the production function. We find that child health stocks are quickly depleted and need constant updating. Simultaneously they are self-productive and child health produced at early stages raises the productivity of nutritional inputs at subsequent stages. This demonstrates the importance of health memory and that malnutrition cannot be fought with snapshot interventions. Our health simulations show that a positive, one-time nutritional shock during early life is already depleted at the age of 2. Consequently, sustainable nutrition interventions have to be long-term and yield higher returns the earlier they reach the children.

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## **How the Elderly Seek Health Care in China?**

**Objectives:** The study aimed to describe and understand how the elderly as one of the vulnerable group seeking health care, to analyze the critical determinants of health decision making for the elderly in China and propose policy recommendations on the propriety of health reform areas.

**Methods:** Using purpose sampling method selected three provinces (Shanghai, Hubei and Ningxia) represent east, middle and west part of China. Focus group discussion and in-depth interview were applied. 5 groups and 7 individuals of elderly people in 3 urban areas and 6 groups of elderly in 3 rural areas were interviewed. A thematic framework analysis was applied.

**Results:** The study showed health service needs of chronic and catastrophe diseases prevention and treatment for the elderly in China were high. The health demand and utilization were different by areas due to individual and district environment, including individual demographics, education, working career and life experience, knowledge and custom on health, family structure, income, health insurance, and social support. "Too expensive to see a doctor" was a key issue to complain in all areas. The elderly health seeking patterns of a given stage of the disease were diverse in the different socio-economic developing regions, The participants' perspective on the barrier to access to the health care, which affected decisions making further lied in the perception of social security, health insurance benefit, family support, and the availability and performance of community health care.

**Conclusions:** Aiming at realize accessibility, affordable and equity of health care services for the elderly, the findings have implications for the development of better health policies, including to deal with the improvement of social security system for the elderly especially who are living in rural, health insurance scheme, community functions and health care for the elderly.

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## **Health-care Reform in Rural China: Issues and Prospects**

In 2009 China started the new round health-care reform and unveiled the ambitious goal of supplying basic health care service to all citizens by 2020. The reform had three apparent characters: the 850 billion Chinese Yuan plan, the powerful government-domination implementation model and the inclined investment within urban-rural. Alongside detailed plans and projects, the reform did change the rural health care service to some extent, including more available medical equipment, expanded medicine reimbursement list and added subsidies to increase health insurance coverage. Accomplishing nearly universal insurance coverage in such a short time is commendable. However, the farmer's health care expenditure did not reduce obviously and there is no significant change of health care system. This paper firstly gives a briefly introduction of the reform background and summarizes the difficulties and obstacles faced by central and local governments, it then focuses on analyzing the major underlying reasons for the situation. Finally we concludes that without fundamental reforming the service provider payment, making the fund operation sustainable, upgrading the management level and attracting fresh blood to work in the countryside, the goal of providing basic health care for all cannot be achieved.

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## **The Effect of Market Versatility in Health Institutions on Organizational Commitment**

Individuals want to get safe health care by contacting the health care providers, to meet their health needs. The rapidly developing technology in health sector, increased demand for quality health care and health care services which become into more complex structures brings with it some risks for service providers and purchasers. Mistakes that occur during health care services directly affects the health, endangers life and can lead to irreversible consequences. For this reason, the safety of the patient and the employee has an important place on the health agenda of all countries. During the presentation of health care, both patients and health care workers may face plenty situations that threaten the safety of patients. It is stated that the environments, where most likely to make mistakes in hospitals are the operating theaters due to a very fast circulations, intensive care units and emergency departments. These results shows the importance of the patient safety concept in healthcare process, in particular risky environments such as operating rooms. In the operating room where surgical interventions are in process, encountered problems due communication deficiencies, problems with hospital management, decision-making issues and registry mistakes. To identify the operation room, which has a complex structure, and the factors that affect the safety, the operating room should be analyzed very well. It is aimed to specify attitudes of operation room staff about patient safety and the factors which affects their attitudes, by evaluating of various statistical analyzes with the obtained findings by performing this study on the personnel of operating room, which works in the Hospital of Selçuklu Medical Faculty.