

# Conference Contributions

Working Conference

Health Services Research in Europe

The Hague, the Netherlands,  
8-9 April 2010

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# **Conference contributions**

**Working Conference**

## **Health Services Research in Europe**

***- Where research and policy meet -***

The Hague, the Netherlands, 8-9 April 2010

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# 1 Introduction

A warm welcome to all participants of the HSR Europe Conference!

This conference on the interface between health policy and research is bringing together a rich diversity of experts from different fields. This will create a unique opportunity for exchange, resulting in an improved contribution of health services research to the health policy process in Europe.

This book contains an overview of all conference contributions, provided by expert from across Europe and beyond. The contributions are primarily meant to be used as inputs to the discussions at the conference, but also as a reference for continued exchanges between policy makers and researchers after the conference.

We would like to thank all abstract contributors for preparing their findings or viewpoints on a variety of topics within the broad field of health services research. We hope that this book will contribute to the conference and that both will help you to strengthen the interaction between those who are responsible for health policy and those involved in health services research.

The conference organisers



## 2 Programme and guide to abstract contributions

Key element of the conference will be interactive workshops among policy makers and researchers. These are devoted to specific areas of HSR, prepared prior to the conference and based on the inputs that participants provide. These inputs go beyond the usual abstract for a paper but instead should help guide discussions and generate high quality ideas for a policy supportive health services research agenda.

This book of conference contributions presents an overview of all accepted contributions, clustered by conference session. Poster sessions offer a platform of display for all contributions. In addition, selected groups of abstracts are highlighted in specific parallel sessions and workshops. A small share of abstracts appears more than one occasion in the book, as they are used as input for both a parallel session and a workshop.

Both researchers and decision makers were invited to submit an abstract contribution, within the broad field of HSR. Abstract submissions could follow one of four types of inputs, described below. As a result of these different types of inputs, abstracts may vary in size and approach. E.g., some may pose questions e.g. by addressing policy issues for discussion, while others provide answers e.g. by presenting new research findings. Per contribution the type of submission is indicated with the following numbers:

### ***Type 1: Innovative research projects***

Inputs by participants provide the (preliminary) results of research projects that address new topics, new theoretical insights and/or methodologies. Emphasis is on innovative health services research. PhD students and recent post-docs were especially encouraged to submit and showcase their research in this category.

### ***Type 2: Overview of research programme line***

These are inputs from research groups/ institutes/ collaborations who present an overview of policy relevant research programmes within the scope of HSR. This may refer to national or international (comparative) programmes.

### ***Type 3: The impact of HSR on policy***

Inputs describe the use of a specific piece of health services research within a countries' policy, and the conditions that have contributed to its success of failure from the viewpoint of policy and/or research. This can include an evaluation of the research problem and main findings, as well as its outputs and policy impacts (both expected and unexpected). As it can either have the research perspective or the policy maker's perspective, both policy makers and researchers were invited to submit their case descriptions to this category.

### ***Type 4: Policy problems and related priorities for research***

Inputs describe problems or policy areas in health care where there is need for evidence-informed policy. Problems are currently under-researched from a policy perspective. They affect the need and priorities for HSR in the near future. Policy problems that have an international dimension were especially welcomed.



### **3 Plenary session ‘Research & Policy’**

*Thursday 8 April 2010, 11.00 – 13.00 hours*

#### **Format of the session:**

Overview state-of-the-art & panel discussions

#### **Contents**

1. **Research in Progress: How do the definitions and uses of research and evidence in ‘informed’ decision-making change across the policy process?**  
Ms. Sarah E. M Caldwell
2. **BRIDGE: Scoping study of approaches to Brokering knowledge and Research Information to support the Development and Governance of health systems in Europe**  
Professor John N. Lavis
3. **Determining research knowledge infrastructure for healthcare systems**  
Dr. Moriah E Ellen
4. **Implementing Pay for Performance: the role of researchers**  
Ms Verna May Smith
5. **Tracing EU Funded Health Research**  
Ms. Kelly Ernst
6. **Assessing health system performance and the road to action; the intricate relationship between research and policy.**  
Prof. dr. Gert Westert
7. **General Conditions for the HSR in the Czech Republic**  
as. Prof Ivan Malý
8. **How research findings on factors influencing patients’ cost of care in community nursing services for frail elderly led to a reform of the resource allocation method in France.**  
Dr Karine Chevreul
9. **Strengthening health research in European countries**  
Prof Mark McCarthy
10. **Slow pace of change in Slovenian health care - the need to re-think the old concepts and to involve HSR**  
Mr Tit Albreht
11. **Health services based trials - a method to evaluate health services and policy**  
Prof. Elina Hemminki



## 1. **Research in Progress: How do the definitions and uses of research and evidence in 'informed' decision-making change across the policy process?**

Ms. Sarah E. M Caldwell

London School of Hygiene and Tropical Medicine, Health Services Research Unit, United Kingdom

Additional authors: Mays, Nicholas

Keywords: **evidence-informed decision-making; knowledge translation; health policy; health services research**

Type of abstract: 1

The Policy Process in the Age of Evidence-Informed Decision-Making

Research in Progress:

Has the use of research in the policy process changed with the rise of evidence-informed decision making? How do analysts and decision-makers understand and use research and 'evidence', and does this change according to function, e.g. agenda setting, implementation or evaluation? Calls to improve public sector management in the 1990s emerged concurrent with the ascendance of evidence-based medicine. What followed was a flurry of interest in research and evidence as tools to 'inform' the development, management and governance of 'good' health care policy. But did the enthusiasm for 'evidence' as a tool to improve decision-making come at the expense of first understanding the nuances of how policy and decision-makers define and use research and evidence in the policy process, and whether these change at different points of the process? This poster will present the early phases of a doctoral dissertation on the origins of evidence-informed decision-making in health policy, and the use of research and evidence at different points in the policy process.

A conceptual framework will utilize the (imperfect) stages heuristic of the policy process – agenda setting, implementation and evaluation – to look at how research and evidence are defined and used in decision-making. Case studies and purposive interviewing will be used to look at factors such as: organizational structure (including leadership and policy capacity); formal and informal hierarchies of evidence; and, opportunities for policy to interface directly with research and evidence. Both qualitative and quantitative methods are being considered, and analysis of policies and the decision-making environment will be drawn from the Ontario Ministry of Health and Long-Term Care (Canada), the Scotland Department of Health and the UK Prime Minister's Strategy Unit.

When complete this research will have implications for both theoreticians and policy decision-makers, and will inform the theory-practice gap in both the health policy and knowledge translation/ exchange literatures. Results will help health services researchers contextualize their findings for different policy windows and purposes, but will also aid practitioners in working with the research community to effectively incorporate research and evidence into policy.

## 2. **BRIDGE: Scoping study of approaches to Brokering knowledge and Research Information to support the Development and Governance of health systems in Europe**

Professor John N. Lavis

McMaster University, Canada

Additional authors: Figueras, Josep; Permanand, Govin; McDaid, David; Rottingen, John-Arne; Leys, Mark

Keywords: **Knowledge brokering; Research information; Health systems; Europe**

Type of abstract: 2

Good health systems depend on well-informed decision making. However, health system managers and policymakers often formulate strategies and reforms without finding and using relevant data and research evidence about the underlying problem, options for addressing it, and key implementation considerations. It is not that information is not being produced. There are countless statistical agencies, academics and research organizations generating information. Nor is it that the focus of their work is always irrelevant to the challenges being faced by health system managers and policymakers. The disjuncture between evidence and action is complex. It relates to problems with:

- the quality and timeliness of information production;
- the way broad-brush topicality translates into policy-specific relevance;
- how knowledge is actually transferred into policy;
- the effectiveness of existing knowledge brokering; and
- policy making itself and the way it intersects with technical inputs.

What seems to be missing is a truly effective brokering mechanism to bridge the gap between policy makers and the information being generated. This two-year scoping study is exploring these issues within a European context. We are mapping existing initiatives, mechanisms and practices and identifying what we know about what works and what does not. The scoping study will:

- develop a framework for organizing and understanding the translation of research into action with European health systems, and explain concepts, mechanisms and organisational models for knowledge brokering;
- describe and compare European Union (EU) member states' and European Free Trade Association (EFTA) member states' experiences with information-packaging and interactive knowledge-sharing
- describe and compare organizational models for knowledge brokering within EU and EFTA member states; and
- undertake country case studies to explore how mechanisms and models intersect with and support policymaking in practice.

The study is being organized by the European Observatory on Health Policies and Systems and will lay the groundwork for comparative research on the organisation and management of healthcare information systems in the European Union.

### 3. Determining research knowledge infrastructure for healthcare systems

Dr. Moriah E Ellen

McMaster University, Canada

Additional authors: Lavis, John, N; Ouimet, Mathieu; Grimshaw, Jeremy;

Keywords: **Knowledge translation, infrastructure, research information, health systems**

Type of abstract: 2

Consistent evidence shows that health systems globally fail to optimally use evidence with resulting inefficiencies, reduced quantity and quality of life for citizens, and lost productivity. The growing emphasis on knowledge translation (KT) has led to the establishment of an interdisciplinary field of Knowledge Translation research. Knowledge Translation Canada is a national network that encourages collaboration across various KT research teams. The Research Knowledge Infrastructure (RKI) project is one of the projects being conducted under the KT Canada umbrella.

Physical and cognitive barriers to finding and using research evidence are challenges to KT for health system managers and policymakers. This study examines RKIs found in managers' and policymakers' organizations that include pull and/or exchange components. Pull activities focus on the efforts by health system managers and policymakers to find and use research evidence. Exchange activities focus on building and maintaining relationships between researchers and managers and policymakers. The objective of the study is to profile the RKI of two key types of healthcare organizations -- regional health authorities and hospitals -- in the two Canadian provinces of Ontario and Quebec to determine:

Phase 1

1. what mix of components can a regional health authority or a hospital theoretically have in its RKI;
2. what is the current state of knowledge regarding the effectiveness of these components, as well as regarding the problems they are addressing, other features of RKIs that may influence their design, and related implementation considerations; and
3. what is the mix of components these types of organization currently have in their RKI; and

Phase 2

4. to develop a pilot novel RKI in Canadian health care organizations.

Phase 1 will comprise: 1) an environmental scan of current RKI in two Canadian provinces and a review of key reports about RKI in three countries to which Canada is often compared, namely France, the United Kingdom and the United States; 2) a scoping review of the research literature on RKI models and components; 3) in-depth semi-structured telephone interviews with a senior management team member, library / resource centre manager, and a knowledge broker in five purposively sampled regional health authorities and in one purposively sampled hospital in each purposively sampled

region in two Canadian provinces; and 4) a cross-sectional survey of regional health authorities and hospitals in the same Canadian provinces. Phase 2 will comprise the design, development and evaluation of an RKI-strengthening intervention targeted at healthcare organizations. Ontario and Quebec employ a mix of health system governance, financial and delivery arrangements. Quebec has had strong regional health authorities and moderately strong hospital boards. Ontario has small nascent regional health authorities and strong hospital boards.

The RKI project will hopefully be a springboard to cross-organization and cross-system research to better understand how to match particular RKI elements to different contexts.

#### 4. Implementing Pay for Performance: the role of researchers

Ms Verna May Smith

Accident Compensation Corporation, New Zealand (the researcher is employed by this organisation: the main research is towards a PhD conducted through Victoria University of Wellington School of Government), New Zealand

Keywords: **pay for performance; policy community; evidence-based research; interest intermediation**

Type of abstract: 3

The policy problem within general practice in the United Kingdom in 1999 was uneven quality and poor alignment with public health goals. The morale, motivation and ability of general practitioners to improve their service was low. The UK government decided to use the 2003/4 General Medical Services Contract negotiations to introduce a pay for performance framework based on rewarding general practitioners for achieving quality and outcome targets. This has resulted in significant improvements in the achievement of public health goals in relation to the health of the general population, though these have levelled off in recent years, and a faster rate of improvement in reported general practice quality in areas of high deprivation.

This paper presents selected results from a larger qualitative study of two cases of implementing pay for performance in primary health care. The full study documents the way the UK and the New Zealand governments each interacted with a variety of policy actors, and explores the kind and quality of these relationships, in the process of policy design of their respective pay for performance schemes during 2003-6. In this extract of findings from the UK case study, the data exhibits the role of a powerfully integrated policy community of academics, public officials and medical professionals which was at times difficult for decision makers to penetrate, requiring careful interest intermediation.

It shows the importance policy actors placed on evidence-based research in two aspects of this policy design process. Firstly the negotiation teams were supported by independent academic members whose role was to provide clinical evidence relating to a wide range of public health problems. These academic members assisted in the design of a programme of best practice clinical interventions whose outcomes could be measured. Secondly the academics presented the evidence base for design of an effective pay for performance framework (a policy device which can have high levels of risk of gaming and perverse outcomes) and advised the negotiating teams on risks associated with different aspects of the framework.

The policy design and implementation process was completed over a period of three years, gaining widespread support amongst general practitioners. A key factor in the high level of acceptance was the credibility of the evidence-based approach to policy design. As a pay for performance scheme it set an international benchmark for scope and size of impact on public health outcomes. However there is evidence that targets were set too low and decision makers were not advised of this. Subsequent changes to the scheme were required to contain resulting over-expenditure.

This paper will also report early findings from the evaluation of a second pay for performance scheme in New Zealand in which a strong evidence base has been utilized to motivate general practitioners to change their practice of prescribing time off work for recovery from injury. The pay for performance scheme is being implemented by the Accident Compensation Corporation and combines an offer of financial incentives and presentation of a substantial clinical case for a change in prescribing behavior. Early indications are that the primary driver of change in behavior is the clinical evidence. Academic

advisers are central to the process of design, prototyping and implementation of the pay for performance scheme though are not part of a New Zealand based policy community.

These case studies provide rich detailed analysis of the use of health services research in the design and implementation of public policy. They set out both strengths and weaknesses of the collaboration which occurred between researchers, government officials and health interest groups in the field in these cases.

## 5. Tracing EU Funded Health Research

Ms. Kelly Ernst

European Observatory on Health Systems and Policies, Belgium

Additional authors: Wismar, Matthias; McKee Martin; Irwin, Rachel; Charlesworth Kate; Galsworthy, Mike

Keywords: **Health research, European Community-funded research, Research dissemination, Databases; information management, Information platform**

Type of abstract: 3

The European Union (EU) is a major funder of health and health services research. Since 1984, the EU has supported research by means of a series of Framework Programmes. However, research can only be used to influence policy if its results can be found and used. To this end, the EU has developed CORDIS, an interactive information platform designed to facilitate access to EU funded research through a publically available website. The "Health Research for Europe" (HR4E) project sought to assemble and disseminate findings of health and health services related EU-funded research within the EU's Fifth (1998-2002) and Sixth (2002-2007) Framework Programmes (FP5 and FP6) by using information available on CORDIS.

HR4E screened titles and abstracts of all projects funded within FP5 and FP6 to identify health and health services-related projects (approximately 5,000 projects) followed by allocation of such projects to one of the 47 themes of the European Union's Health Portal. Key findings relevant for policy and practice were extracted from data on the CORDIS database and questionnaires were sent to a subset of 182 projects selected from five themes, to try and assess the scientific and policy impact.

The HR4E project found that research is of little value if arrangements for access, data management, and preservation are an afterthought. The information held on CORDIS does not allow it to fulfil its stated objectives of facilitating and disseminating EU research. Data were rarely updated after the project had been funded and it became clear that the often lengthy reports generated from EU research projects are essentially lost once the reports enter into the system.

HR4E found a clear need to review the systems designed to manage the CORDIS platform to allow EU-funded research to become more accessible. One way to enable research to be accessed widely to influence policies is for the EU to place at least as great an emphasis on the outputs of the research as is presently places on the inputs. The CORDIS database needs considerable investment and resources to allow it to be verified and updated regularly with emphasis placed on what each project actually achieved, rather than what it planned to do.

Ensuring that findings from European Union funded research are widely disseminated can only be seen as beneficial for policy making throughout the EU and beyond.

## 6. **Assessing health system performance and the road to action; the intricate relationship between research and policy.**

Prof. dr. Gert Westert

RIVM, the Netherlands

Keywords: **performance assessment; health policy**

Type of abstract: 3

Health services research is far from boring. Our countries' health systems seem to be under permanent (re)construction. Most of the OECD countries go through extensive health care reforms or are preparing for it. Many questions arise in these circumstances. Do industrialized countries (OECD) vary in performance and on what health care dimensions? What are the underlying themes and inadequacies in health care systems that trigger the sometimes radical system reforms? And, what are the (dis)similarities in the underlying themes across countries? These are important and research questions steering the agenda of the HSR community and our Ministries of Health, worldwide. Are the themes picked up by the research community the same as the ones finding their way in health policy? How can HSR give rational input to often irrational policy processes?

In the Netherlands RIVM has been commissioned to assess the performance of the Dutch health care system and to compare the Dutch indicator scores internationally. Every second year the Dutch Health Care Performance report (DHCPR) is released and key messages presented to the Minister of Health. The report uses 125 indicators and covers the performance domains accessibility, quality and costs of Dutch health care. The third report will be released in May 2010.

The question is: how do the DHCPR findings translate into action, into health policy? How can we get a policy cycle going that starts with the assessment (DHCPR) and gets a response in plans to action (policy agenda)? During the conference I'd like to share my experiences with three DHCPR's about the intricate relationship between (health services) research and (health) policy.

## 7. **General Conditions for the HSR in the Czech Republic**

as. Prof Ivan Malý

Masaryk University, Faculty of Economics and Administration, Czech Republic

Additional authors: Darmopilová, Zuzana

Keywords: **HSR, capacities, needs, outcomes**

Type of abstract: 3

The aim of the contribution is to evaluate general conditions for the HSR in the Czech Republic and its impact on health policy.

The contribution starts with the presentation of Czech institutional provision of the research in the health policy domain. Authors consider the tradition of national-level HSR interrupted in the Czech Republic and not re-established. The HSR is still conducted by certain universities, but authors suppose that the human capacities are not sufficient given the small number of universities curriculums focused on the health policy topic. Besides the national – level institutions and universities, there exist some independent voluntary bodies in the Czech Republic that are active in the HSR. There is a real and doubtless need for a HSR of good quality in the Czech Republic; the authors do not believe that the conditions for such research are created neither in terms of human capacities neither in terms of national support. These factors mean that there is a very little impact of HSR on the real health policy and authors try to identify the possible solutions of such a situation.

## 8. How research findings on factors influencing patients' cost of care in community nursing services for frail elderly led to a reform of the resource allocation method in France.

Dr Karine Chevreul

Paris health economics and health services research unit (URC Eco IdF), AP-HP and LIC EA 4393, University Paris 12, France

Additional authors: Canape Serge; Bahrami Stéphane, Com-Ruelle Laure

Keywords: **Reform, Financing method, Frail elderly, Modelling, Cost**

Type of abstract: 3

Problem description:

Across Europe, the development of services providing a comprehensive, coordinated and integrated range of personal and maintenance care in the frail elderly home is encouraged.

In France, this was called the «maintaining at home» policy of which community nursing services (CNS) are a cornerstone. They provide care to 92,000 elderly at a cost of over €1billion per year, and their number is expected to rise rapidly. However, they face a financing problem: difference in patients' needs for care results in wide variations in cost per patient when services are funded on a simple per capita basis.

Research conducted:

HSR study, conducted for the Ministry of Health (MoH) on 2178 patients in 36 services, used a micro-costing approach and hierarchical modelling to measure and to identify factors explaining variations in patients' costs.

Findings show that elderly patients' cost of care ranges from one-tenth to three times the capitation lump sum while the average cost is below. CNS financing problem is therefore mainly related to bad resource allocation mechanisms. Cost depends on 14 characteristics describing patients' level of disease and of disability, and the informal and formal helps received beyond CNS.

Policy impact:

As a consequence, Health services researchers (HSRers) developed with the MoH a new resource allocation method. This includes a part covering overhead costs and a part covering the specific needs of a patient estimated with variables of our model. This innovative method, based on the evaluation of needs, is currently implemented and should improve the use of CNS and the efficiency of the overall system after January 2011. Health services researchers (HSRers) technically support the implementation stage.

Success factors:

The successful transformation of the HSR findings into policy actions was due to the involvement of both HSRers and all stakeholders (regulators: 2 departments of the MoH and funders: National health insurance and the national fund for solidarity and autonomy) at every stage of the process: problem identification, problem solving (the reform working group was led by HSRers who produced the model), and the implementation stages. Moreover, representatives of community nursing services were included in the problem identification stages.

## 9. Strengthening health research in European countries

Prof Mark McCarthy

University College London, United Kingdom

Additional authors: Conceicao, Claudia

Keywords: **europe, research on research**

Type of abstract: 4

Health services research is a valuable part of health research at population level. In SPHERE, a support action funded by the European Commission with EUPHA as a partner, bibliometric studies showed substantial variations in publication rates across Europe, and especially deficits in eastern and southern European countries. For a new study, STEPS, we made visits to ministries of health and ministries of science in the twelve EU new member states, to determine responsibilities for health

research policy and support. There is a paucity of social and statistical sciences. Institutes of public health are still focused on service work for disease surveillance, and are separate from institutes for clinical subjects. Some countries have introduced competitive bids for funds through science councils, but in most countries the ministry of health is not aware of the science calls and agendas. Although EU research calls include these countries, few lead successful proposals in HSR fields, ministries of health know of DG Sanco funding calls rather than DG Research calls, and the research National Contact Points are not close to health service researchers. STEPS is organising national stakeholder workshops in the 12 countries during March 2010 to determine current positions and seek solutions, and will bring countries together for international debate at the next EUPHA conference in November 2010. As well as structures, new sources of finance (eg the Structural Funds), career support (tenure tracks, integration between researchers and healthcare workers) and community partners (including patient groups) can contribute. This presentation will provide early reports of the workshops and offer discussion with conference participants on how health services research can be strengthened in all EU countries.

## **10. Slow pace of change in Slovenian health care - the need to re-think the old concepts and to involve HSR**

Mr Tit Albreht

National Institute of Public Health of Slovenia, Slovenia

Keywords: **health system, health policy, transition, health system impact assesement, health services research**

Type of abstract: 4

Slovenia carried out a significant change of its health care system in 1992. Some of the changes to be implemented through other strategic and planning documents did not take place as they were adopted too late or not at all. Especially the strategic governance role of the Ministry of Health was weakened by these failures. A number of different level reform attempts were launched since 2000. The most complex was the White Paper Reform drafted in 2003 but never really put into action. Between 2005 and 2007 there was activity on preparing a new health plan. Finally, early in 2008 a speedy development of a resolution, which included a health plan, led to its adoption in the summer of 2008. None of these attempts has really changed any of the key system issues. The common characteristic of all these reforms was that health services research was invited late in the process or, as it is still often the case, it was just used as a parallel activity for a few selected descriptive tasks in the development of the document.

In the very last attempt started in 2009, the Ministry of Health is seeking to reform the system directly through changes of the key legal acts. This process also ran almost entirely within the Ministry of Health with little involvement of the health services researchers. As such the first of the two key acts, the Health Services Act, was faced with complex criticism from different key players in the health care system in Slovenia.

It would be necessary to develop an objective assessment of the previous changes and their impact on the system and then prepare models for future options. Research could contribute through modelling and by preparing policy options, including legal alternatives for the different health policy priorities.

The most important role for health services researchers is to convince policy makers that there is a need for involving health services research prior to the preparation of any finalised proposals for reform changes. The most important goal of researchers would be to be invited to the design phase of the changes and to provide policy makers with the adequate retrospective analyses and tools for them to be able to set up alternative prospective options for reforms. Slovenia is not alone in this development and researchers could provide for a comparative analysis with other similar countries and bring in evidence that could evaluate the changes or reforms that had already been successfully implemented in other countries.

## 11. Health services based trials - a method to evaluate health services and policy

Prof. Elina Hemminki

National Institute for Health and Welfare, Finland

Keywords: **methodological approach, experiments, research regulation**

Type of abstract: 4

Health services based trials (HSB trials) is a methodological approach, using experimental designs to find, through experimental research, the best form of action in health services or health policy. It aims to produce results which are directly applicable to practice. It is not (yet) a text-book method, even though used with various methodological modifications, especially outside health field. Various terms have been used, such as health services based trials, complex interventions, community trials, interventions in health care, social experiments, cluster (randomized) controlled trials, randomized field tests, randomized social experiments, field experiments, trials for policy research.

In HSB health care intervention is given/ received in such a way that different groups are defined by the researcher to be reliably compared. The classification is not clear cut from other types of trials. Contrasting a typical individual based randomized trial, a HSB trial often uses cluster randomization or other allocation method than individual randomization, there is no informed consent (from the targets), usual health (care) system is doing the intervention(s) (research is integrated into normal services), and compared interventions/ exposures are usually already in practice. It differs from practice change having a group allocation by researchers. Both intended and unintended effects of the intervention(s) are of interest.

HSB offers a useful tool to study the impact of changes in health service provision in situations in which there is no (politically) agreed view of the need or type of changes. HSB trials are facilitated by the need for evidence based health care and policy (including the coverage with evidence/ only in research - development of big health care payers, particularly in USA and UK) and increasing health care costs. In Finland HSB trials could be facilitated by public health care system, research being valued by service providers, well-educated population and good health registers. Main hindrances are the novelty of the approach and its unfamiliarity to research community and, particularly, research norms and laws. Research regulations need changes to allow HSB-trials and proper ethical evaluation. A key issue is informed consent: whether and from whom it should be asked. Ethics committees are gate-keepers regulating what kind of research can be made. The current rules (in Finland) do not recognize HSB trial methodology, and such trials are usually dealt as programs, not research

## **4 Parallel session 1: 'Health care systems'**

*Thursday 8 April 2010, 14.00 – 17.00 hours*

### **Format of the session:**

Overview state-of-the-art & carousel round discussions on:

- Methods to evaluate health care reforms
- Markets and competition / Role of private sector
- Workforce planning and professional mobility

### **Contents**

- 12. Challenges of securing GP workforce in the public sector in Finland: Recent and current trends in the professional interests of physicians in a changing welfare state**  
Ms Meri M. Larivaara
- 13. Markets, medicine, management: Hospital physicians' reactions to NPM reform in Norway**  
Dr Pål Erling Martinussen
- 14. Competitive behaviour in health care and provider motivation**  
Prof. Hannu J Valtonen
- 15. From staff-mix to skill-mix and beyond: a systemic approach to optimizing the health care workforce**  
Prof. Carl Ardy Dubois
- 16. Methodological approach for measuring health system performance in Quebec, Canada**  
Dr Anna Koné
- 17. Factorial validation of a balanced-scorecard framework for measuring health system performance**  
Dr Anna Koné
- 18. Migration of health care personnel: Poland**  
Dr Marcin Kautsch
- 19. Development and application of an instrument for measurement, monitoring and evaluation of 10 essential public health functions in Republic of Macedonia**  
Dr. Dance Gudeva Nikovska
- 20. Overcoming the challenge of policy evaluation: health economics research and system reform**  
Professor Maria K Goddard
- 21. Health workforce in Europe – managing mobility and staff turnover**  
Dr. Matthias Wismar
- 22. Evaluating the impact of the 2007 structural reform on the quality of care in Hungary**  
Péter Mihalicza
- 23. The impact of the methodology of "Osservasalute" on policy and decision making**  
Mrs Silvia Longhi
- 24. Using process models to inform policy evaluation decisions in stroke care**  
Professor Charles D A Wolfe
- 25. Health care reform in Lithuania: why there is no need for evidence-informed policy**  
Professor Irena Miseviciene
- 26. Effects of the Maximum Billing system on health care consumption and financial access to health care**  
Mrs. Carine Van de Voorde

27. **Is competition and integration incompatible conditions?**  
Dr Bengt Ahgren
28. **Future Societal Scenarios for Health Services**  
Professor Michael J Rigby
29. **Systematic reviews in all areas of health services research: design, reporting and implementation**  
Professor Mike Clarke
30. **For-profit hospitals. A comparative and longitudinal study of the for-profit hospital sector in four different countries**  
Mr. Patrick Jeurissen
31. **Health care reform – a well considered and prudent policy or politics of will**  
Dr. Ilze Aizsilniece
32. **Privatization of health care in Poland – aims, models and effects**  
Dr Agnieszka Zemke-Gorecka
33. **Public Health Services– evaluation and reforms in Bulgaria**  
Prof. Tatiana Simeonova Ivanova
34. **Mental health care reforms and the use of evidence in policy making**  
Prof dr Mark Leys
35. **The Impact of Healthcare Reforms on Management Practice in Ireland**  
Stiofan DeBurca
36. **Public-Private Partnerships in the Portuguese Health Sector**  
Jorge Simões

## 12. Challenges of securing GP workforce in the public sector in Finland: Recent and current trends in the professional interests of physicians in a changing welfare state

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Keywords: **General practitioner, labour leasing companies, primary health care, public sector, welfare state**

Type of abstract: 1

General practitioner (GP) as an occupation in the Finnish health care system has suffered from a loss of attractiveness over the last two decades. Although the increase in newly-graduated physicians and the economic recession have alleviated the lack of physicians in primary health care centres, the number of posts with permanent holders is decreasing. At the same time an increasing amount of GP services are purchased from private companies. The study analyses recent and current professional interests of physicians in order to understand the development of the relationship between medical profession and welfare state in Finland. In addition, the study strives for developing tools to attract more physicians to primary health care centres.

The theoretical framework proposed by DeVries (1993) for studying multidimensional interests of professions that provide welfare services will be applied in the study. The interests of the physicians are analysed as intertwined with health and welfare policy (Wrede 2001).

The data of the study consist of thematic interviews and articles published between 1992 and 2008 in the journals of Finnish Medical Association and Junior Doctors' Association. Interviews with 30 physicians who work at primary health care centres in different parts of Finland either as employed by public sector or by labour leasing companies are conducted in the winter 2009-2010. The time span of the articles covers the period from the unemployment of physicians to the rising lack of GPs and the subsequent surfacing of labor leasing companies. Qualitative content analysis of the data will be directed by the theoretical framework of the study.

The preliminary findings suggest that the physicians employed by public sector are committed to their role as welfare professionals in public health care, but they feel that current managerial and economic pressures together with the national welfare policies jeopardise the conditions for meaningful and rewarding work. They find it difficult to influence the attempts to reform primary health care and their voice is weak in professional journals. Findings of the physicians working for labour leasing companies will be available by April 2009.

In order to secure permanent labour force at public sector GP posts, grassroots perspectives of the practicing physicians need to be taken into account in the primary health care reform. The study design is innovative in combining new sources of qualitative data in finding solutions to the decreasing attractiveness of public sector GP career.

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Wrede, S. (2001). *Decentering Care for Mothers: The Politics of Midwifery and the Design of Finnish Maternity Services*. Turku: Åbo Akademi University Press.

### 13. **Markets, medicine, management: Hospital physicians' reactions to NPM reform in Norway**

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Additional authors: Professor Jon Magnussen

Keywords: **New Public Management Reform, public healthcare systems, medical professionals, clinical impacts, Norway**

Type of abstract: 1

The research on the role of professions in health reforms inspired by New Public Management (NPM) has mainly focused on the role of medical professionals as leaders and managers, while little is said about how they actually view such reforms in terms of their practical effects for the patient-related activities. Norway has been a forerunner among the Scandinavian countries in terms of restructuring the healthcare sector, and the hospital reform of 2002 intended to obtain several specific objectives: to clarify the lines of responsibility between hospital owner and hospitals, to increase equality in service accessibility, to raise the medical quality of the services, to improve hospital organisation, and to increase hospital productivity.

The purpose of this paper is to address the subject of health reform from the perspective of hospital physicians. The analysis builds on a survey conducted among Norwegian hospital physicians in 2006. Earlier descriptive analyses of the data have shown that the hospital physicians are very negative towards the reform. Combining the survey with data on hospital organisation and activity, we here employ multi-level techniques to uncover the role of both individual and hospital-specific factors for the physicians' views.

The individual factors incorporated in the empirical model are age, gender, professional position, share of patient-related working time, and medical speciality, while three sets of hospital-specific variables are introduced, reflecting internal organisation structure (dispersion of NPM-tools, department mergers, share of department leaders with medical background, centralisation of economic competency), structural and economic conditions (patient-mix, size, economic result), and geography (health region).

Gender and age are of little relevance for the assessments of the reform and its objectives.

Department chief physicians are as expected more positive in their evaluations, while share of direct patient-related working time has the opposite effect. Of the indicators of internal hospital organisation, the share of department leaders with medical background is deemed important both for the general view of the reform, as well as for obtaining clearer lines of responsibility, better medical quality and better hospital organisation. The structural conditions of hospitals also play a role for the evaluations: the tendency to evaluate the objective of increased accessibility, better hospital organisation and increased productivity increases with economic result. The empirical results uncover little geographical variation in the physicians' evaluations.

### 14. **Competitive behaviour in health care and provider motivation**

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Additional authors: Kankaanpää, Eila; Llinosmaa, Ismo

Keywords: **Competition, provider motivation, public and private**

Type of abstract: 1

In this paper, our research problem is the effect of competition in Finnish pharmaceutical markets and competition in occupational health care markets with public and private providers. The data are panel data analysed with various regression models.

Competition should sharpen incentives and improve providers' performance. Eggleston and Zeckhauser (2002) conclude that public providers resemble private for-profit providers if the environment is competitive. Empirical results from the US health care show that public providers react to market competition, and their performance is more dependent on other hospital and market characteristics than ownership. There is evidence that high market concentration is connected to higher prices, but conflicting results about the effect of ownership on quality. Markets with many

providers producing similar services may not as such induce competitive behaviour and yield societal benefits. The reaction of providers to incentives from market structures depend on the motivational basis of the provider (e.g., for-profit, altruism, high professional ambition).

We found that the reactions of both public and private health service providers and pharmaceutical firms to increased competition are not straightforward, and may not be those that can be expected from basic economic theory. By the introduction of generic substitution (GS) in the Finnish pharmaceutical markets in 2003 the number of producers and products in the markets increased. However, the effect of increased competition on the prices was small. Most of the GS –effect on prices took place when pharmaceutical firms changed their behaviour after the introduction of the GS; a direct (non-competition) consequence of the GS. The firms made an interpretation of the reform, and changed their behaviour accordingly. In the occupational health services the public providers were exposed to competition with other producers after reforms in 1990s. Increased competition has led to increased prices and increased total revenues for both public and private providers, but it has had no effect on the productivity, the intensity, and the service mix of public or private providers.

Reactions to market structures arise from the behaviour of the providers and that varies depending on the interpretation of their incentive structure. The attainment of the societal benefits of various market structures requires deep understanding of the motivation and the reactions of the health care providers. Even in markets with only two providers there might be fierce competition, and markets with several providers there might be no competitive behaviour.

In this study, we are emphasizing importance to study the motivation of the provider and the interpretations of market conditions to be able to understand the reactions to competitive elements in health care.

## **15. From staff-mix to skill-mix and beyond: a systemic approach to optimizing the health care workforce**

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Additional authors: Singh, Debbie

Keywords: **health care workforce, staff mix, skill mix, workforce optimization, human capital**

Type of abstract: 1

### **Problem:**

The demands on health care services are greater than ever before. Having the best mix of staff and skills is essential for developing high quality and sustainable health care, but much research suggests that the health care workforce is not used optimally. With looming workforce shortages and economic pressures, policy-makers and managers are exploring innovative ways of developing and managing staff. This research summarises the main approaches to health workforce deployment, examines their limitations and identifies alternative pathways policy makers and practitioners can use to overcome those limitations.

### **Methods:**

A structured review of published literature identified 250 articles for inclusion in the research. Papers were evaluated and sorted according to their theoretical foundations, their relevance and validity (research design, sampling and methods of analysis). Interpretative synthesis was used to collate the findings.

### **Findings:**

The research found that there is an urgent need to rethink our workforce policies and practices. Many workforce deployment initiatives focus on staff-mix, i.e. achieving a specific mix of different types of personnel, based on numbers of personnel, ratios of qualified workers, ratios of senior staff, mix of disciplines. However there is limited evidence of benefit. Such approaches emphasise numbers and types of personnel, giving less attention to the more important aspects of staff skills, how these are used, and the work environment.

Other initiatives that embrace options such as role enhancement, role enlargement, substitution and

delegation reflect a more dynamic solution, focused on the range of roles, functions, responsibilities and activities each staff member can perform. There is a growing body of evidence about the value of such options, but the evidence is not always clear-cut. The impact of these initiatives depends on factors that operate at organisational and health system level, emphasising a whole systems approach for policy-makers and workforce planners.

Policy implications:

An effective system of human resource optimisation cannot be restricted to considering the numbers and types of personnel. Wider perspectives, which focus on how workforce skills can be differently managed, go some way towards conceptualising how best to use the workforce in the dynamic realm of health care. In order to be fully effective, policy-makers, managers and practitioners need to consider the organisational and environmental factors that frame workforce deployment.

Innovative character of the research:

Recent efforts to develop new ways of optimising human capital in healthcare lack a solid theoretical foundation. This research helps to fill this gap. The results demonstrate the importance of a systemic framework to take account of the broad range of factors that are likely to have an influence on workforce optimization.

## 16. Methodological approach for measuring health system performance in Quebec, Canada

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Keywords: **Health system performance, benchmarking, evaluation framework, core functions dependencies, EGIPSS**

Type of abstract: 1

Statement of the research problem: Researchers from the GRIS have developed a system for evaluation of health services performance (ÉGIPSS) in order to promote evidence-based practices for governance and decision-making. According to this model, performance is defined as the capacity for an organisation to (1)realize its mission; (2)obtain and control resources; (3)productively provide quality services and (4)develop and maintain common values. An organization must also establish and maintain balance between these core functions.

Based on this framework, we developed a methodology in order to provide a valid and useful profile of healthcare organizations performance in Quebec.

Theory and research methods: The study is based on administrative data from all Quebec organizations members of the association of health services. The first step of analysis was the operationalization of multiple indicators with various administrative databases. It involves the definition of indicators covering the different functions of the global evaluation system EGIPSS. Besides the computation of raw scores for each establishment throughout the province of Quebec, we worked on judgment of performance considering norms or empirical standards. Thus, we used rescaling method to create relative scores, varying between 50 and 100 according to the following formula:  $score = 50 + [50 / (upper\ limit - lower\ limit)] * (observed\ raw\ value - lower\ limit)$ . Upper and lower limits were chosen empirically (percentiles) or theoretically (international standards, ministry's norms). We also refer to confidence intervals compared to provincial mean for appreciation of some outcomes measures. All the analyses were performed in order to allow comparisons between organizations that have some common characteristics (mission, number of beds and budget). Temporal variations and relationship between the core functions were also considered as well as the presentation of results for a better understanding and utilization by target public. Assessment of relationships was based on empirical summated scales per function of performance.

Principal findings: The analyses include 138 organizations: 17 teaching hospitals, 6 psychiatric hospitals, 9 long-term care organisations, 4 rehabilitation hospitals and 95 health and social service centres (in 5 groups). Eight organisations were not classified due to their particular status. The use of benchmarking make it possible to evaluate and compare performance. Thus, we observed a lot of variation between health organizations performance in Quebec even within homogeneous groups. A

cluster analysis revealed that no organization has the ideal performance profile as proposed by the EGIPSS model. In fact, there can be a positive balance between some dimensions but not all and there is no obvious profile. Conclusion and policy implications: Operationalization of indicators and benchmarking is important in evaluating performance but it is really challenging to find best criteria for judgment. In addition, there is a need for future research for framework validation and advanced analysis about clusters and relationships between performance core functions. Such study is especially relevant considering the complexity of healthcare systems and the difficulty for management and decision making in the field of performance. Indeed, the multiplicity of actors, diversity and problematic issues related to health, as well as the pressure on health systems are all aspects to be taken into account in the management of healthcare services. Consequently, looking for appropriate and efficient methods to measure, evaluate and improve performance in the health sector appears unavoidable and could help managers in improving healthcare quality.

## 17. Factorial validation of a balanced-scorecard framework for measuring health system performance

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Additional authors: Wodchis Walter, HSPRN

Keywords: **Health system, factorial analysis, performance framework, dependencies**

Type of abstract: 1

Statement of the research problem:

Demonstrating high quality and efficient health-care outcomes and encouraging the pursuit of excellence in health organizations require an evaluation of performance. Performance constitutes a complex concept, which cannot be assessed by a single indicator. Multiple systems have been developed that allow measuring performance by means of several indicators. In Ontario, a balanced scorecard based on Kaplan and Norton's has been used since 1999 to publicly report on the performance of hospitals. Multiple indicators are included in this framework grouped into four quadrants. However, there is a lack of empirical evidence to sustain and validate this framework. This study aims to validate the factorial structure of the Ontario Hospital Report balanced scorecard in order to strengthen theory and improve the process of performance measurement.

Theory and research methods:

Publicly reported indicators from the Ontario Hospital Report in 2007 and 2008 were used. We used exploratory factor analysis to evaluate the clustering of indicators in different quadrants and confirm dimensions over-time. Comparisons were based on commonalities, percentage of variance explained, regression coefficients and Cronbach's Alpha. Analyses began with principal components analysis in order to reduce if needed, the number of variables and only include the most important ones in principal factor analysis (PFA). The PFA provides the most important results, as the objective is to derive the underlying performance traits from the common variance. Latent variable modeling was also used to confirm the factors and analyze relationships.

Main findings:

The results show that the performance quadrants largely hold but some indicators appear on a factor different to the conceptual dimension. The analysis revealed a unique dimension respectively for system integration and client satisfaction as expected. Financial outcomes dimension was assessed with only a few of the original quadrant indicators and the clinical outcomes dimension included two factors (utilization-related outcomes and quality of care). Nevertheless there were some unexpected negative correlations for example between staff-related outcomes and patient satisfaction.

Conclusions and policy implication:

This study employed a rigorous methodology to improve and support the use of the balanced scorecard performance framework. The results also highlight the need to better understand the relationships between performance functions and explore whether there can be some tradeoffs in healthcare management. Such project contributes to growing body of knowledge for a deeper comprehension of performance at the health system level by creating rigorous science. In addition, providing evidence for relevant and valid measures will contribute to effective reporting and utilization

of performance information. The results on causal relationships will contribute to improve hospitals' performance and quality of patient care.

## 18. Migration of health care personnel: Poland

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Additional authors: Katarzyna Czabanowska

Keywords: **migration**

Type of abstract: 1

### Background:

The accession of Poland into the European Union (EU) has had a considerable impact on the migration process of medical personnel, becoming a serious issue. Low pay, difficulties in accomplishing professional development and personal costs confronted with better income, job satisfaction and career opportunities were driving forces for outward migration.

### Methods:

The search of databases related to migration of Polish healthcare personnel was carried out using several searching engines (Google Scholar and Meta search of relevant scientific databases) as well as OECD and EUROSTAT. Furthermore, specific web pages of professional organizations within the EU were searched, including physicians and nurses chambers, and the Polish Ministry of Health whose prominent representatives were interviewed. The professional chambers were also contacted to receive more detailed data. The analysis of the scope of Polish health professionals' migration was carried out based on numbers of professional qualification certificates issued by the Physicians or Nurses and Midwives Chambers.

### Results:

Emigration rapidly intensified after accession to the European Union and almost equally rapidly subsided owing to increased salary levels of health professionals in Poland, the beginning of which should be placed in 2007. Most popular destinations for emigration were: the United Kingdom followed by Germany, Ireland and Scandinavian countries (Sweden, Denmark). The migration phenomenon had impact on Polish health care system and staffing shortages were especially observed in the anesthesiology and intensive care as well as emergency medicine specialties. On the whole around 3000 medical doctors registered in EU15 countries. Little is known about the exact number of nurses but this number is most likely to be much lower than that of doctors.

### Conclusion:

The recent migration is not likely to constitute a lasting problem. Since it is a relatively new phenomenon it has not been studied extensively yet. Health professionals return to Poland attracted by increasing salaries and differences in currency exchange rates. Market forces contributing to remuneration increases, rather than well thought-through retention policies encourage those health professionals who are considering emigration to stay at home or encourage emigrants to return.

## 19. Development and application of an instrument for measurement, monitoring and evaluation of 10 essential public health functions in Republic of Macedonia

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Additional authors: Tozija Fimka, Gjorgjev Dragan, Lazarevik Vladimir

Keywords: **Good governance, essential public health function, evaluation**

Type of abstract: 1

The main goal of the analysis of good governance in public health sector in Republic of Macedonia was to develop and apply an instrument for evaluation of 10 essential public health functions (EPHF) that are responsibility of health authorities, in order to identify "grey zones" and provide

recommendations and directions for improvement.

The analysis has been performed using the standardized questionnaire developed by US CDC and PAHO, translated and adapted to be used in Macedonian context. The instrument incorporates 11 areas (EPHF) and outlines 49 indicators that are evaluated through answers on questions for measures and sub measures in the defined area. It was agreed to exclude EPHF#11 Reducing the impact of disasters and emergencies to health, in order to provide more detailed analysis of the other 10 EPHF.

The survey was performed throughout three stages:

- (1) Translation of the instrument, pre-testing on representative sample of government officials and necessary adaptations made to be used in Macedonian context,
- (2) Interviews with 3 groups of respondents – central government officials, representatives of government institutions at local level and representatives of NGO and
- (3) Summary of the results and preparation of final report, including recommendations for remedial activities.

Comparative analysis of all 10 EPHF, applying conventional interpretation of results, shows that none of the EPHF prove optimal results, a score shared by all three groups of respondents. Highest overall score is recorded for EPHF#1 Monitoring, evaluation and health situation analysis, while lowest score is documented for EPHF#3 Health promotion, EPHF#8 Human Resource Development and Training in Public Health and EPHF#10 Research in Public Health.

Assessment of the specific indicators for each EPHF has identified existence of “grey zones”, which were used to perform subsequent SWOT analysis of governance in public health sector. Strengths point to existence of guidelines and processes for monitoring population health status; sound epidemiology surveillance network; activities for health promotion; development of norms for healthy behavior; initiatives for strengthening NGO involvement into decision making processes; partially defined health priorities at national and local level; random M&E and modification of regulatory framework; advocacy and initiatives for improvement of access to essential health services; respectable portrayal of public health professionals; activities for improvement of patient satisfaction and activities for development of institutional capacities for public health research. Identified weaknesses refer to weak technical support for M&E of the population health status; insufficient capacity and expertise for public health surveillance; absence of national planning and coordination of strategies for health promotion; lack of technical assistance and support to local level institutions for strengthening of civil sector involvement; lack of institutional capacity development for management of public health institutions; insufficient technical assistance and support for institutions at local level in development and enforcement of laws and regulations; absence of knowledge, skills and mechanisms for improvement of the access to essential health services; unsatisfactory capacity building for public health professionals to provide culturally sensitive services; lack of defined standards and evaluation for improvement of the quality of health services and absence of agenda for public health research. Opportunities are foreseen into adopted Strategy for development of integrated health information system; accreditation of the system for laboratories QA; existing strategies (alcohol, illicit drugs, tobacco, food and nutrition, adolescent health, convention for narcotic drugs); programs which involve citizen associations; opening of Center for Public Health and organization of training for managers of health institutions; activities for EU integration and involvement into local self-governance; constitutionally guaranteed rights for health protection of each citizen and widely accessible network of health institutions; Health Strategy 2008-2015; strengthening of human capacities in local communities; existing Strategic plan at the Ministry of Health. Possible threats bring in dysfunctional health promotion bodies at central level; lack of coordination mechanisms with the civil society; delay of the decentralization and EU integration processes, in addition to absence of continuity of health reforms; privatization process and risk imposed with for the access to high quality health services; inadequate human resources policy and high unemployment rate of both medical and non-medical personnel; decision making that is not evidence based.

Recommendations include: improvement of technical support for M&E of the health status of the population; strengthening public health surveillance capacities; timely and efficient response to unanticipated public health risks, particularly at local level; establishment of intra- and intersectorial coordinated system for health promotion at national and local level, in addition to technical assistance and support to local institutions; establishment of efficient mechanisms and technical support for active involvement of the civil sector in decision making and policy development processes; institution of efficient system for monitoring of implementation of public health policies with technical support to local levels; creation of capable system for monitoring, evaluation and modification of implementation

of regulations, with special emphasis to technical support to local level institutions; strengthening the institutional and human resources system for monitoring and evaluation of the access to essential health services and appropriate technical support to local level; promotion and amplification of capacity building of health professionals to provide high quality health services; re-definition of quality standards for health services as to comply with EU regulations, with particular emphasis on patient satisfaction and their active involvement; launch of Strategy and Action Plan for public health research with active involvement of civil society and local self-government, as well as call attention to attain financial resources for strengthening technical and human capacities for research.

## 20. Overcoming the challenge of policy evaluation: health economics research and system reform

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Keywords: **policy evaluation, methodology, health economics**

Type of abstract: 2

(1) & (2) The evaluation of health care policies presents many challenges. Although these may be well-known (e.g. identification of policy aims, lack of a counter-factual, difficulties in timing of evaluation, problems in attributing change to specific policies and many more), they are also enduring and we must not let them become obstacles in our attempt to assess the impact of health policies in a robust and systematic way. In England, as in many other countries, the last 10 years has seen an explosion of policy reform at all levels of the health care system, addressing a range of diverse issues and affecting commissioners of services, providers, regulators and patients. The policies have often had multiple explicit and/or implicit aims, have been introduced across the board, simultaneously and without piloting and sometimes appear to work in opposing directions. The challenge is to undertake research that sheds light on the impact of these policies.

(3) Over the last 10 years, researchers at the Centre for Health Economics, University of York, have undertaken health economics research to evaluate the impact of a wide range of reforms in the NHS, including policies relating to reimbursement mechanisms, patient choice, provider re-organisation, commissioning and equity in primary care provision. These have been approached largely (but not exclusively) from a quantitative perspective, making use of a variety of rich sources of secondary data. The choice of analytical technique has been made in order to maximise the robustness of the results, overcoming as far as possible, some of the problems of policy evaluation outlined earlier. The research has always been undertaken in close collaboration with policy colleagues and this has influenced both the research questions posed and the approaches taken.

(4) and (5) The purpose of drawing together the individual pieces of research into a theme is to highlight that by careful design and methodology, research can usefully inform policy development by producing reliable and generalisable results in a difficult evaluation context. The specific topics covered and also the approaches used are relevant beyond the UK and the discussion of data, methods and design and results will all be of interest in the broader European context. Future policy developments and potential research and evaluation challenges will be addressed, informed by previous experience of the research-policy relationship.

## 21. Health workforce in Europe – managing mobility and staff turnover

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Keywords: **workforce, health professionals, mobility, working conditions, staff turnover, quality of care**

Type of abstract: 2

1) Statement of the research problem:

Health systems need a high performing workforce to improve the health of the population and to meet

patients' expectations. How effectively the workforce can contribute to achieving these health system objectives depends on the number and types of health providers available, their skills, their motivation and professionalism, their deployment, and the settings and environment they work in.

The size and composition of a country's workforce, however, is changing constantly. Health professionals leave the workforce, permanently for retirement or they may leave temporarily for family reasons or choose to work in another sector. In parallel, there will be influx to the workforce as new health professionals are trained and as new health workers enter the workforce. Cross-border mobility of health professionals and staff turnover is one factor that attracts high levels of scientific and political attention, however important questions remain about the impact of this phenomenon.

What is the magnitude of cross-border mobility and staff turnover? How does it impact on health systems and the quality of care? Is it possible to manage it in order to improve health systems performance, quality of care and job satisfaction of professionals?

2) Main approach:

The three major EU funded projects in this area will present their early findings from country case studies, secondary data collections, focus group interviews on motivation factors for moving across borders, primary data collection on staff turn over, job satisfaction and quality of care, analysis of workforce projection mechanisms and projections of mobility trends. Following the presentation there will be a panel discussion on the key themes and the opportunity for questions and answers from the audience

3) Description of the research team and collaborators:

The work is lead by three research consortia co-funded by the EU-research programme:

- MoHProf ([www.mohprof.eu/LIVE/about.html](http://www.mohprof.eu/LIVE/about.html))
- PROMeTHEUS ([www.euro.who.int/observatory/Studies/20090211\\_1](http://www.euro.who.int/observatory/Studies/20090211_1))
- RN4CAST ([www.rn4cast.eu](http://www.rn4cast.eu)). The consortia include international agencies and international NGOs. While focussing on the EU countries from Africa, America and Asia are covered by the research.

4) Linkages to policy:

The projects are linked to the development of the EU green paper on workforce. In parallel, many countries in Europe are exploring 'self-sufficiency' strategies for which the findings are highly relevant.

5) Implications for future research or future research plans:

Workforce issues will grow in importance over coming years due not least to demographic change. Research must support countries in their efforts balancing turnover and mobility with health system objectives.

## 22. Evaluating the impact of the 2007 structural reform on the quality of care in Hungary

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Additional authors: Belicza, Éva; Surján, György

Keywords: **quality of care, health reform, monitoring, indicators, Hungary**

Type of abstract: 2

1) Research problem:

The project's main aim is to monitor the impact of the 2007 Hungarian health policy reforms on the quality of services and to develop a monitoring tool for continuous evaluation of Hungarian health policy.

2) Main approach and outcomes:

We used quality indicators and a "before-after" study design to evaluate the impact of reform measures. By "quality" we meant the following four components:

1. access

2. timeliness
3. appropriateness
4. effectiveness

We calculated indicators in the following four professional areas:

*1. Cardiology and stroke care:*

No direct effect of the 2007 structural change can be identified based on our indicators. Access to PCI and its timeliness ameliorated substantially, but the territorial differences are still large. Despite the surge in the volume of PCI treatments, only slight progress can be seen in effectiveness. Considerable differences can be observed among counties.

Regarding appropriateness, the rate of stroke patient diagnosed with CT is low and it worse in women.

*2. Oncology care*

The situation of oncology care is quite hectic, when it is examined from the standpoint of access or appropriateness. No association with capacity restructuring can be measured concerning access or appropriateness.

At the timeliness indicator, the restructuring of capacities made a significant short-term impact on the practice of care and delayed the beginning of care for many patients.

*3. Psychiatry-addictology*

Indicator values on the national level show no substantial effect of the 2007 structural reform measures, however, on the local level we might find some correlation.

The access indicator could not have been calculated.

*4. Obstetrics-neonatology*

Both the access and effectiveness indicators substantially ameliorated in the examined period (2004–2008). Based on trend-lines we can conclude that the structural change in 2007 did not have substantial effect on these indicators.

Timeliness and appropriateness indicators could not have been calculated.

3) Research team and collaborators:

The coordinator was the National Institute for Strategic Health Research, Hungary (NISHR). The research team: Éva Belicza from Health Services Management Training Centre at the Semmelweis University, György Surján and Peter Mihalicza from NISHR.

4)+5) Linkages to policy and implications for future research or future research plans:

The project was part of the 2008-2009 Biannual Collaborative Agreement between the WHO and the Hungarian Ministry of Health. After the closure of this phase we will try to improve the monitoring tool by testing new indicators and by doing the detailed causal analysis. The desired final outcome of this project is to establish a continuous monitoring that is able to give feedback to decision makers and health professionals on the properties of health provision, thus contributing to the formulation of evidence based health policy making.

## 23. The impact of the methodology of “Osservasalute” on policy and decision making

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Additional authors: Murianni Laura; Sferrazza Antonella; Ricciardi Walter

Keywords: **health indicators, health policy, decision making, improving**

Type of abstract: 3

Background:

The National Observatory on Health Status was created in 2003 with the intent to study and analyze the health status of the Italian Regions, in view of the federalist process and its impact on the Regional Systems organization.

For this reason the activity of the Observatory is focused on understanding how to better measure health care systems through a multidisciplinary collaboration of different professionalities (public health care experts, clinicians, epidemiologists etc.).

The final aim of the research is the promotion and improvement of the individual and collective health

conditions.

#### Methods:

The National Observatory on Health Status has developed a methodology based on the following points:

- 1) collection of comparable regional data from different sources;
- 2) use of specific indicators validated at the international level;
- 3) production of annual reports and web pages; organization of press conferences and specific events.

The selection of indicators represents a pilot experience, with the intention to create a methodological basis to compare Regions data and to have useful experiences in order to identify the excellence throughout the country and its factors.

The collection of these indicators is published every year on the "Osservasalute Report" with the aim to spread a public health care control tool.

#### Results:

The health status of Italian people is generally good but there are a lot of differences among geographical areas and among gender.

In the period 2003-2008 the Life Expectancy has grown of 1.5 years for men (78.7 in 2008) and 1.2 year for women (84.0 in 2008). The longest value for men is in Marche Region and for women in Trentino-Alto Adige Region; the lowest in Campania for both gender. The chronic diseases are growing. The risk and behaviour factors have an important impact on health status: in particular increasing of obesity and alcohol consume, high differences among immunization coverage, increasing in injuries etc.

The 1,2 % of people living in family (aged 6-64 years) have got an important disability; while there are a lot of elderly people who live alone. The 40% of people with disability living in family (aged 6-64 years) perceive their health status as "bad" or "worst".

#### Conclusions:

During the last six years the Observatory Report has been making a very high impact on decision making in order to improve the health care systems in Italy.

The Observatory Report results have been considered and cited in a lot of annual reports and planning of health care organizations from the central level to the local level.

The use of the health service research through a framework of indicators is an effective mechanism for developing useful recommendations in terms of priority actions to be taken.

However, in many fields it is not possible to analyse immediately the impact and the implementation of the recommended actions.

## 24. Using process models to inform policy evaluation decisions in stroke care

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Additional authors: Saka, Omer; McGuire Ali

Keywords: **stroke;policy;health economic modelling**

Type of abstract: 3

We have developed a discrete event simulation (DES) to evaluate the costs and effectiveness of the changes to the provision of stroke care since the establishment of the National Stroke Strategy in England and the implications of future improvements on the resource needs. The DES model structure is flexible enough to allow the evaluation of services based on a national/local service provision criteria, provide an invaluable tool to decision makers demonstrating resource requirements in the case of different care provision policies and also it can evaluate macro policy decision (current care provision vs. care provision after changes) or micro policy decisions (provision different treatments). The model is designed to reflect a stroke patient's journey for 10 years from the onset of stroke. It consists of three main sections, ambulatory care, inpatient care and post-discharge care (ESD). It allows the comparison of the cost effectiveness of different policy options when one or more than one care provision pattern is changed. For this exercise we have used data from South London Stroke Register (SLSR). The SLSR is a population based register, initiated in 1995, which currently consists of over 3000 patients living in a specific geographical locality (South London). Costs are evaluated

from a health care perspective and outcomes are measured in Quality Adjusted Life Years. Health care perspective is used for costing the services.

The model is programmed to provide a very rich variety of outputs which have been used by the National Audit Office to evaluate the costs of treating stroke and cost effectiveness of different scenarios to inform Parliament. The model outcomes demonstrates that the improvements in the provision of stroke services since 2007 have been cost effective, however there is still room for cost-effective improvement (Incremental Cost Effective Ratio £4,500). The model also evaluates the effect of improving the provision of stroke unit services, early supported discharge services, patient awareness campaigns, effectiveness of ambulance services. The current healthcare environment is conducive for the use of such models to integrate best evidence to be used at various levels of policy and decision making.

## **25. Health care reform in Lithuania: why there is no need for evidence-informed policy**

Professor Irena Miseviciene

Kaunas University of Medicine, Institute for Biomedical Research, Lithuania

Keywords: **health policy, public health research, health systems research**

Type of abstract: 3

Twenty years passed from declaration of independency in Lithuania. From the first years independent Lithuania have created and started to implement new National Health Concept. The Health Concept was based on WHO Health for All Strategy and primary health care was among priority areas of Health Concept development. The planned health care reforms were based on public health research data, which was gathered before nineties.

What happened, that later each second year or annually coming new ministers of health or leading political parties had different priorities among health problems and were using different strategies for their solutions? Why the continuity was absent? The reasons for such situation and barriers for positive changes could be classified to several levels:

- professional, i.e. no priorities for public health and health systems research from one side and not enough competencies and experience in health systems research area;
  - cultural, i.e. no understanding about public health and health systems research as independent branch of health sciences and as an equal area of research among other fields of sciences;
  - political, i.e. health policy is not priority among other policies, lack of understanding of health determinants, no practice for decision making on evidence-based research data at national or international levels, no experience for multisectorial collaboration the solution of health problems.
- More than thirty year public health research development in Lithuania will be presented and correlation between political decisions and health profile of Lithuanian population will be shown. Changes of research priorities will be described also and place of health sciences among all fields of sciences will be touched.

## **26. Effects of the Maximum Billing system on health care consumption and financial access to health care**

Mrs. Carine van de Voorde

Belgian Health Care Knowledge Centre (KCE), Belgium

Additional authors: Erik Schokkaert, Joeri Guillaume, Ann Lecluyse, Hervé Avalosse, Koen Cornelis, Diana De Graeve, Stephan Devriese, Johan Vanoverloop

Keywords: **social protection; co-payments; microsimulation; maximum billing; health insurance**

Type of abstract: 3

Policy problem:

The search for an acceptable equilibrium between efficiency and equality of access in the Belgian health care system resulted in the introduction of the maximum billing system (MAB) which puts a ceiling on the amount of co-payments to be paid by households, dependent upon their income (a stop-loss).

Three considerations remain however prominent in the actual debate:

- The question arises whether it is not possible to offer the same level of social protection at a lower cost to society.
- There is a growing concern about the remaining (and apparently increasing) out-of-pocket payments for the weaker groups in society.
- The debate about the selectivity (or universality) of the Belgian health insurance system has remained unsettled. While the selectivity of the MAB lowers its global cost, it raises the question of the long-run sustainability of a compulsory health insurance system with a broad coverage.

Research:

Traditional policy evaluation calculates overall costs and average effects – possibly complemented with a description of the impact on specific “types” of individuals or households. Distributional effects of the policy can not be assessed. A microsimulation approach calculates effects for individual micro-units (households or individuals), but for a representative sample of the population so that it yields a complete picture of the effects of the policy.

Costs and distributional effects of already introduced policy measures (e.g., change in definition of household) and future design reforms (e.g., one ceiling instead of five plus budget-neutrality; equivalent income; substitute gross for net income) were assessed by the technique of microsimulations. Moreover, they allow illustrating the importance of ethical choices for the basic design features of social protection mechanisms such as the MAB.

Policy and other impacts:

At the time the study was conducted, a MAB for the chronically ill was planned by the decision makers. Five possible selection criteria for defining the group of the chronically ill were identified in the study and three specific designs of the MAB for the chronically ill were simulated (an individual ceiling for the chronically ill, a reduced MAB-ceiling for all households with at least one chronically ill patient and an exemption from co-payments for chronically ill patients). Based on the simulation results (costs and distributional effects), decision makers defined the features of the MAB for the chronically ill in 2009.

Evaluation of success and failure factors:

- Availability of detailed and reliable data (e.g., health care expenditures and income)
- Transparency in research methods and interpretation of results
- Close collaboration with decision makers
- Clear distinction between empirical results, ethical choices and constraints (economic, political and administrative feasibility of social protection)

## 27. Is competition and integration incompatible conditions?

Dr Bengt Ahgren

Nordic School of Public Health, Sweden

Keywords: **Competition, integrated health care, choice of care, local health care**

Type of abstract: 4

Despite of an insignificant track record of quasi-market models in Sweden, new models of this kind have recently been introduced in health care; commonly referred to as “choice of care”. This time citizens act as purchasers; choosing the primary care centre or family physician they want to be treated by, which generates a capitation payment to the chosen unit. Policy makers believe that such systems will be self-remedial, that is, as a result of competition the strong providers survive while unprofitable ones will be eliminated. Because of negative consequences of the fragmented health care delivery, policy makers at the same time also promote different forms of integrated health care arrangements. One example is “local health care”, which could be described as an upgraded community-oriented primary care fitting the needs of a local population. Accordingly, the content and organisation of services may differ from one area to another.

This study reviews if it is possible to combine this kind of integrated care with a competition driven model of governance, or if they are incompatible. The findings indicate that choice of care could hamper the development of integration in local health care. However, geographical monopolies like

local health care, enclosed in a non-competitive context, lack the stimulus of competition that possibly improves performance. Thus, it could be argued that if choice of care and local health care should be combined, patients ought to choose between integrated health care arrangements and not among individual health professionals.

Nevertheless, although Swedish policy makers promote both choice of care and local health care; it seems like more faith is placed in competition than in integration. More emphasis has to be placed on incentives to develop local health care into the integrated networks they are designed to be. The two policy initiatives will thereby have more equal conditions and possibly also develop a mutualistic relation, that is, a state where both concepts derive decisive benefits.

## 28. Future Societal Scenarios for Health Services

Professor Michael J Rigby  
Keele University, United Kingdom

Keywords: **life expectancy; societal expectations; scenario modelling; funding; health workforce**

Type of abstract: 4

A current objective for much research of a clinical or health service nature is popularly seen as “saving lives”. However, this is a clear fallacy, as each human life has to end sometime. Thus broad research goals such as ‘conquering cancer’ may be seeking to pursue a worthy cause, but without thinking of the consequences. If no one died of cancer, the number of chronically ill, frail and confused dependent members of society would increase. And more people would spend their last years in confused and dependent oblivion. Of course, other research goals are to prevent dementia, and so on. What is clear is that many of these laudable objectives seek simply to put off the inevitable, but unthinkingly substitute one form of human demise for another – or assume potentially eternal life.

As research and service development lead to the population-wide prolongation of life, there is a need to be more realistic in debate with both public and politicians, and this needs underpinning research. There are two elements.

The first is to be more open in the difficult area of ‘saving lives’, which should be recognised as ‘prolonging life’ or ‘postponing death’. Many causes of early death, particularly infant mortality and infectious disease, have been conquered. A shared priority is likely to be the prevention of premature death, and this should lead the debate out of the solely disease based and clinical arena into issues such as responsible road use, eating and drinking patterns, and other lifestyle and environmental issues. But at the same time public debate, fuelled by a different type of research, should open up the public debate about a satisfying yet finite period of later life.

This leads on to the second area, which is modelling and other consideration of the patterns, costs, and workforce needs of caring for an ageing society, and one where many working adults may be caring for two generations of dependents – an older one as well as a younger one, though there may be some compensation where the older generation can provide family support if the family has not dispersed. But modelling of other societal patterns is needed too, including lifestyle support for the frail in new forms of supported living with new service patterns, estimation of how the healthcare burden of more frail and chronic survivors can be funded (including pension and welfare costs) and supplied in terms of workforce, and consumer expectations and information literacy.

## 29. **Systematic reviews in all areas of health services research: design, reporting and implementation**

Professor Mike Clarke

UK Cochrane Centre, United Kingdom

Keywords: **Systematic reviews; Cochrane Collaboration; meta-analyses; effectiveness and efficiency**

Type of abstract: 4

There are now more than 4000 full Cochrane systematic reviews of the effects of healthcare interventions, representing a vast amount of research in their own right. Furthermore, these reviews bring together information on tens of thousands of studies, which recruited millions of patients and cost billions of euros. The procedures for preparing the reviews are now relatively streamlined, although considerable challenges remain in maintaining them and keeping them up to date.

The topic to be discussed here is how the research that has gone into these reviews, and into the thousands of other systematic reviews produced by other organisations and individuals that are currently available in the healthcare literature, can be used more widely within health services research and policy.

Systematic reviews should provide the scientific and ethical justification for all new studies, and many funding agencies and ethics committees now require this, but it is not universal. An updated systematic review should also be used to place the findings of new research in context, to show how the new research fits in with, or contradicts, what has gone before. But this is rare. And, policy and decision makers should make more use of systematic reviews as a key source of the evidence they need to inform their actions.

Cochrane and other systematic reviews are known to be widely used in guidelines, are cited frequently in the scientific literature and every few seconds of every day the full text of a Cochrane review is downloaded somewhere in the world. However, more needs to be done to improve the accessibility, usefulness and use of systematic reviews in health care. This workshop will provide an opportunity to explore ways to achieve this.

## 30. **For-profit hospitals. A comparative and longitudinal study of the for-profit hospital sector in four different countries**

Mr. Patrick Jeurissen

Department of Health Welfare and Sport, Netherlands

Keywords: **Reasons behind for-profit development, most notable the role of policies**

Type of abstract: 4

- 1) In many Western countries for-profit hospitals entered the scene or grew rather rapidly over the past decades. However, there are large differences between individual countries both over a time as well as in a comparative sense. How can this be explained?
- 2) For-profit growth is much disputed and empirical studies that compare quality, efficiency, and equity do not support a strong case to for-profit ownership. However, such evidence does not seem to influence the policy debate. Governments often did not deal directly with the ownership issue. However, a profitable business model depends on the possibility to gain an investment return as well as to add value to physicians. Here policy does matter.
- 3) To explain the actual growth and variety among for-profit hospital development, the necessary research needs to be both institutional, comparative, and longitudinal. Today this is not available. This research fills this gap for 4 Western countries.
- 4) The research provides new hypothesis that explain the development of for-profits both across countries and over time. It opens new policy perspectives to decisionmakers that often are not able to just say yes or no to 'for-profits' on the basis of cross-sectional economic analysis.

### 31. Health care reform – a well considered and prudent policy or politics of will

Dr. Ilze Aizsilniece

Ģimenes ārstu prakse, Latvia

Keywords: **Necessity for consultations (assistance) at EU level for HC reform**

Type of abstract: 4

Since the regaining of independence, Latvia's health care system has been subject to never ending reforms. Starting from the Soviet model in 1991, within the next five years, it was remodelled into a German-like system of sickness funds. In 1997 mandatory health insurance was introduced. In 2002 it was proposed that all public funds were to be administered by private insurance companies. In 2004 mandatory health insurance was abandoned in favour of funding by means of general taxation. In 2009 reintroduction of mandatory health insurance was again being considered.

Primary health care became the main focus of reforms supported by WB. In 2000, mandatory re-education, within 18 months, of primary health care physicians (paediatricians and internists) to become family doctors, was proposed. At the same time, capitation with fund holding was introduced, as the provider payment system for PHC and DRG was planned for secondary care.

During these sixteen years secondary health care was the least reformed. The master plan, developed in 2000, as part of a WB project for secondary HC reform, was introduced, partially due to party politics. The economic crises in 2009 forced the MoH to start reducing the number of beds and closing hospitals, in accordance with the new plan. At the same time, the new Minister of Health pushed for changes in the PHC. Its main element is the reintroduction of paediatricians as PHC providers.

The lack of direction and a long term strategy for HC in Latvia has led to a weakening of the system, resulting in decreased effectiveness and responsiveness to community needs. Since 2008, the economic crisis has had a great impact on the funding of HC, but even before the crisis, Latvians paid about 40 % out of their own pockets for HC services. Health data shows that Latvia is among the worst compared to other EU countries. It is also clear that the health care reform in Latvia is guided by politically motivated actions, without proper analysis.

Direct consultations at EU level might improve the situation. It could also be useful for different stakeholders at the national and international level, e.g. parliamentary committee members and NGO's could apply for consultations in cases when the MoH is pushing through unjustified reforms. New tools for evaluating the proposed health care reforms could be developed by means of SWOT analysis and House of Quality methodology. A summarized good practice/successful example database from the EU and other countries might also be useful.

To develop the necessary tools and implement this kind of policy much work is required. Vast amounts of data have to be evaluated and consultations at international and national levels done. It should be a very dynamic process, with periodical renewal of data. By means of this process better collaboration and exchange of information between countries might be ensured.

### 32. Privatization of health care in Poland – aims, models and effects

Dr Agnieszka Zemke-Gorecka

University in Bialystok, Poland

Keywords: **Privatization of Health Care, Health Care Unit, Managment Privatization, Organizational Privatization**

Type of abstract: 4

The institution that was called in the People's Republic of Poland "health service" was an organized part of the state administration where, according to the concept of civil rights to health services, the entire population was provided with health care financed from the State budget. In 1989, together with the transformation of the political system, a debate on the health reform was started and a part of public law institutions was replaced with the instruments of private law. Privatization is one of the most important elements of the system transformation covering various spheres of social life. From the

beginning of the 1990s we have been dealing with a gradual realization of a multilevel privatization process. Health protection as one of a few economy sectors has not lived to see separate regulations in the scope of subject privatization, however, economic changes have forced and are still forcing health care organizers to undertake actions aiming at privatization of public property in order to assure its appropriate use. Apart from marketizing health care units, the aim of privatization actions is perceiving privatization as a solution guaranteeing effective development of a health care sector through the influx of external capital efficiently supporting this sector. Although Poland lacks legal acts regulating health protection privatization, at present its task, management and organization formula is being applied.

A specific nature of health services, which are difficult to become subjects of economic rules, is an obstacle in the health protection privatization. In such a special sphere which saving people's life and health is, profit is not the only category justifying the existence of the subject obliged to provide health services. In 1999 the attempts were made to marketize medical services through changing principles of their financing and introducing such categories as price, demand and supply into the system. Due to the lack of a real market of medical services, the Act of 6th February 1997 on National Health Insurance<sup>1</sup> appointed sickness funds which took over a function of a "remitter" of medical services. Perceiving infrastructural shortages of public medical sector and assuring a possibility of concluding agreements for the provision of health services between administrators of public funds and non-public health care units, the legislator created a basis to form close connections between subjects obliged to satisfy society's health needs and a non-public sector of health services. The foundation of transformations in the health system was separation of the organ forming a unit – the owner, from an administrator of financial funds. The structures of budget entities were transformed into independent units, privatization of services was introduced, practices of family physicians and individual and group practices of specialist physicians were established on an unprecedented scale. The second level of changes was the introduction of contracts instead of previous budget system of financing health services. The government administration remained a "remitter" only in the scope of highly specialized health services.

Privatization of public tasks in the sphere of health protection does not create a uniform legal institution because it reflects a collective term for a group of legal solutions covering any manifestations of deviations from performing tasks by the subjects of public administration operating in forms of public law. The issue of privatization of public tasks may be considered from the subject point of view, i.e. a category of subjects capable of taking over tasks of public administration, as well as the object category, i.e. the category of tasks that may be covered by this process.

Management privatization is connected with functioning of independent public health care units and covers three formulas: quasi privatization of management, subcontracting and outsourcing. Organizational privatization, which may also be called wild privatization in Poland, is worth distinguishing among forms of privatization too. It adopts two forms. The first one – financial privatization, is connected with a change of ownership of the organized property of a liquidated public health care unit, whereas the other one – system privatization, causes a change of the features of the public subject performing tasks into a subject of private law. In the case of financial privatization we deal with both privatization of property and privatization of public tasks. The system privatization leads to a change of a status of an independent health care unit into a non-public health care unit run by a commercial law company/partnership (whose capital belongs to the unit of local self-government). Weak proprietary control of the subjects of public administration as well as the necessity to gain private capital, the need to introduce professional management of health institutions and suppression of physicians' moral risk speak for purposefulness of privatization processes. Privatization should not be the aim in itself but a tool enabling achieving assumed social goals. It also means a decrease of public sector's burdens in the scope of the provision of public services.

1 Journal of Laws - Dz. U. of 1998 No. 133, item 872.

### 33. Public Health Services– evaluation and reforms in Bulgaria

Prof. Tatiana Simeonova Ivanova

National Center of Public Health Protection, Bulgaria

Keywords: **public health services, health system, assessment, decision making**

Type of abstract: 4

The growing role of public health services within the health system in recent years determines the need for assessment of its functions and activities. Consideration of this issue for the countries of South-eastern Europe, including Bulgaria as part of the SEE Health Network is based on a joint project.

The evaluation was carried out on the bases of :

- specially designed Questionnaire for the Evaluation of Public Health Services
- information collected for the specially developed self-assessment TOOL
- National report developed reflecting the established facts, assessments, problems and conclusions based on the questionnaire and self-assessment tool.

Achievements:

- adequate legislation, appropriate mechanisms and procedures for assessment of risk from environmental and other factors
- existence of a policy document with well defined goals and priorities adopted by the Council of Ministers together with an Action Plan
- adequate number of human resources in relation to the scope of specialties (medical and non-medical), educational and training systems

Weaknesses:

- insufficient financing of the health system including PHS;
- insufficient number of specialists in some specialties ( epidemiology and communicable diseases, infectious diseases, occupational medicine, sanitary inspectors, GPs );
- insufficient health promotion, disease prevention, assessment of population satisfaction with provided services and population involvement in decision making in the field of public health;
- the well defined national goals and priorities are not supported by indicators and criteria for assessment;
- health technologies assessment not introduced;
- inadequate use of information by decision makers.

Results:

- The assessment is carried out for the first time in Bulgaria and for all other South-eastern countries.
- the assessment makes it possible to define the progress, difficulties and challenges in the performance of the public health sector in Bulgaria.
- the information is a good basis for future reforms of PHS.

### 34. Mental health care reforms and the use of evidence in policy making

Prof dr Mark Leys

Vrije Universiteit Brussel, Belgium

Keywords: **mental health care, policy reforms, evidence, complex interventions**

Type of abstract: 4

The policy problem: Many countries are going through an important process of mental health reforms. These reforms are largely inspired by the deinstitutionalisation movement, which is a normative movement, in which societal values prevail in the organisation and provision of care: needs-based, patient centred, destigmatising, close to the patient living area, accessible services aiming at social inclusion and participation. These core values have a major impact on how services are to be organised, as can be observed from the international choices. It is now generally accepted that one should strive for a balanced care approach. However, research is demonstrating that implementing these core values is not a straightforward process, requiring a consideration a complex set of issues.

The research problem: Re-organising mental health services falls under the category of complex interventions. The evaluation and development of evidence and knowledge on complex interventions requires more complex methodological evaluation approaches than what is available. The currently available knowledge and evidence does not offer clear-cut answers on organisation issues in mental health care organisation. More multi-disciplinary collaboration and a better organisation evaluation research agenda is certainly needed on an international level.

Evidence in HSR: With regard to the evidence debate, and in developing policy programmes a clear analytical distinction has to be made between treatment intervention level, care approaches or care methods level, functional components level, and organisational configuration level. In a first step reflections are needed on the functional level: a functional approach allows to conceptualise care needs along (potentially) occurring episodes or phases in the disease and illness trajectory of (different groups of) people with mental disorders. The functional approach offers the framework to reflect on the different professional and non-professional services needed to provide in the functional components. These services can be disentangled in "general services", specialised services and highly specialised services. This functional approach is for instance found in the development of care programmes. Debates on the organisational configuration should focus on the means along which providers are structured and operating to provide in the functional components. It should be expected that evidence based treatment and rehabilitation interventions are offered within these configurations. On this level reflections should start on the one hand on inter-professional collaboration, which is distinctive from the collaboration of organised providers in terms of networks. Organisational configuration can be adapted to local contexts. This explains why different countries use different configurations while trying to provide in the same functions.

### **35. The Impact of Healthcare Reforms on Management Practice in Ireland**

Stiofan DeBurca

University of Limerick, Ireland

Additional authors: Peter Williams, Denis Doherty

Type of abstract: 1

The reforms associated with the establishment of a unified healthcare structure (Health Service Executive) in 2005 have been problematic. We report on a national survey of healthcare managers' perceptions of change, based on a conceptual framework underpinned by culture, governance and planning elements. A web-based instrument was developed and tested with managers, yielding a response rate of 30%.

The findings indicate concordance between individual managers' disengagement with the HSE organisation, and disimprovement in its culture and overall governance. This contrasts with the experience of other health sectors. Disimprovement in values, trust, and cohesion across the organisation is consistent with a predominantly autocratic corporate style which contrasts with a strong democratic orientation at local level. This is consistent with a reported highly centralist control where more than 50% of managers do not have a budget, while only 19% report a budget of €10m or more. Major disimprovement is reported for governance for all levels, in contrast with clear improvement in the quality approach and clinical governance. This is reflected in the absence of improvement in management capacity and systems performance for functions, particularly in the operation of HR. Again, this contrasts with other health sectors, apart from a common concern about financial and human resources.

All sectors report improvement in performance standards, indicators and measures, while HSE shows no change for shared goals and agreed targets. Quality improvement has distinctly progressed, more internally-driven than external. There is however, a disimprovement in individual and organisational learning and sustainable achievement at HSE area/regional/corporate levels.

Consensus is evident across sectors of strong progress for Cancer and CVHD services nationally, but not for Mental Health and Intellectual Disability. Primary care has improved, but there was no clear change on internal or external integration of services, especially in community/continuing care.

In drawing implications for policy, there is a paradox in HSE responses between general disimprovement in most aspects of culture and governance in contrast with performance management activities and progress in some high-profile services.

It is suggested that the future of the HSE is linked with fundamental questions of trust and control. In that regard, the contrast with aspects of the public voluntary and private sectors is noteworthy. The

aspiration of person-centredness for both users and providers necessitates local empowered units of management to assure high quality reliable service. Already there are signs of a return to an organisational design that had been abandoned.

## 36. Public-Private Partnerships in the Portuguese Health Sector

Jorge Simões

Universidade de Aveiro, Portugal

Additional authors: Pedro Pita Barros, Marta Temido:

Type of abstract: 3

### 1. Introduction:

Public-Private Partnerships (PPP) appears in Portugal only at the dawn of the new century. A major difference of the PPP in Portugal to most of other PPP in health care is the inclusion of clinical activities within the scope of the PPP, on top of the infrastructure building and maintenance activities. The main findings from the analysis of the conceptual model of the Portuguese PPP are the following. Firstly, the administrative delays in the whole process to create a PPP. Secondly, the strong ideology position of several agents regarding the role of PPP in the health sector results in unnecessary conflict. Thirdly, the scarce experience with PPP suggests that a demanding technical assessment is required during the tender process and the execution phase as well.

### 2. Centro de Medicina de Reabilitação do Sul (CMR Sul) PPP experience:

Currently, in Portugal, the only PPP experience that can be currently assessed in the hospital field is the one in CMR Sul. In 2008/2009 a study was carried out with the purpose to compare the performance of this unit with two comparable units: Centro de Medicina de Reabilitação da Região Centro and Centro de Medicina de Reabilitação do Alcoitão.

These three units have the common feature of composing the regional vertices of the hospital referencing network of physical medicine and rehabilitation. Its main distinctive feature across them is the different legal status and management models. In the comparative analysis, three core areas were considered – structure, processes and results – and several dimensions were taken into account. Regarding the structure, we considered the interventional general context for activity, the general characterisation and the legal framework; regarding the processes, the internal organisation model, the management tools, the human, financial and material resources, the information and communication technologies and the innovation of the offer potential and regarding the results, the costs, the effectiveness, the efficiency, the equity and the quality.

### 3. Conclusions:

The PPP health care model, launched in 2002, fits in this context and, as happens in other countries, is seen as a mechanism to attract private capital for the construction or renovation of the hospital infrastructures, lightening the public sector accounts and capturing the gains associated with private management. However, except for the CMR Sul case, thus far, the Portuguese PPP experience can only be assessed in terms of tender processes.

From our analysis, there is no evidence that a causal link could be established between the best, or worst, rehabilitation centre's performance indicators and its management model. The main responsible factor for a better positioning of one of the centres in some indicators is related to the contractual instrument that regulates the relationship.

## **5 Parallel session 2: 'Health care organisations in primary and secondary care'**

*Thursday 8 April 2010, 14.00 – 17.00 hours*

### **Format of the session:**

Overview state-of-the-art & carousel round discussions on:

- Integration of care across organisations
- Patient-centred care and patient involvement in health care settings
- Evaluating the skill-mix, organisation and delivery of care

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Dr Jose M Valderas
65. **Determinants of Effectiveness of Community Mental Health Teams in Ireland**  
Professor Stiofan DeBurca
66. **Health 2.0 – Extending primary care services to communities of citizens using web 2.0 paradigms**  
Professor Luís Velez Lapão
67. **Overview of DRG-based payment system in Estonia**  
Dr Kristiina Kahur

### 37. Evidence based health services planning

DI Dr. Stefan Mathis

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Keywords: **evidence based medicine; health services planning; evidence based practice; planning process**

Type of abstract: 1

Problem:

The arrangement of community health services (HS) is preceded by the conceptual step of health services planning (HSP). We aim to identify ways to increase scientific support and evidence based practice (EBP) in the process of HSP.

Methods:

A literature search and conceptual review on EBM and HSP was performed. Elements of EBP were compared with the processes of HSP and analysed.

Findings:

National definitions of basic terms in the context of HSP are frequently nonexistent or inconsistent. This could lead to overrate particular groups of HS. In HSP various ways to “act evidence based” can be outlined, e.g.: systematic literature searches, evaluations of benefits and harms of intended health technologies (HTs), consulting experts, community participation methods, explicit transparency of the planning process (PP) and basic facts, defined feedback loops to the PP and models to calculate future utilisation. A problem of learning from the past in HSP may be given due to non-immediacy and/or unaddressed responsibility for planning decisions.

Conclusions/policy implications:

A discussion of basic concepts and methods is necessary for any HSP attempts. This includes concepts of health care needs (HCN) and of health benefit (HB). In case of HCN we should consider if and how far needs are defined by epidemiologically recognized health problems (HP), by individual (relative) needs and/or by already installed or available HTs. We also should discuss how non-beneficial HTs can be eliminated and how unsolved HPs (without lobbies) can systematically be addressed. In a discussion on HB we should consider, whose HB we want to induce (that of individuals, of the community, of industry by means of jobs?) and how HB is measured (clinical outcomes, self reported outcomes, epidemiology?). From the analyses of used/needed methods in HSP it can be concluded, that we should discuss to strengthen participative and active methods that directly address HSP purposes. Additionally it can be concluded, that transparency of steps in HSP is essential.

Innovative character:

While evidence based health care, decision making, policy making and public health (along with EBM and EBP) have been addressed in several articles, evidence based HSP has very rarely been addressed yet. Besides overlapping topics, focussing on planning as a process gives unique insights and shows the need of several discussions, including basic concepts as well as innovative methods.

### 38. A systemic view of healthcare continuity

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Keywords: **Continuity of care, social networks**

Type of abstract: 1

Research problem:

Patient health is promoted by caring and service delivery. The latter is better understood – at least as regards quantitative modelling and assessment. Both are intertwined with informational, managerial and personal continuity of care, and (primary care organisation) cultural and contextual (understanding

of the background community from which the patient population is drawn) continuity. Healthcare service delivery rests in part on collection and exchange of information linked to diagnosis and service provision and (often) patient understanding and compliance; continuity is required to join them up. Often, events are triggered by episodes of ill-health or specific conditions, but patients and providers span such episodes as reflected in 'patient-centredness' (patient as focal point of holistic treatment to empowered patients as key members of the decision-making process), practice organisation and management and the linking of various elements starting from primary care. There is therefore a need for operational indicators and models of aspects of continuity and its relation to health outcomes.

#### Theory and methods:

Healthcare is viewed as a complex adaptive system whose evolution is driven by a institutional factors patient experience. These individual experiences are on both sides mediated by social interactions. Network models describe how patient selection and incentives (e.g. to present, follow advice, etc.) are affected by connections and also how the pattern of these connections evolves in response to e.g. health outcomes (diagnosis of a chronic or referable condition) and patient choice. Patterns of referral and consultation among healthcare providers can be modelled by similar methods. This research uses routinely-collected management and survey data to model network evolution taking into account the strength, directionality and duration of patient and provider links. These models will be used to: develop indicators for a broader study of the evolving connection between continuity, patient-centredness and health outcomes; simulate the impact of reforms addressing such concepts as the 'medical home' capable of distinguishing the activities involved in the reform from the adoption of a common vision or model; and to identify summary measures (e.g. continuity and centredness) and structural parameters (e.g. path-length, clustering and centrality) that are empirically valid predictors of health outcomes across different institutional settings.

#### Main findings:

Continuity is differently valued by e.g. poor elderly patients with multiple morbidities and richer, younger and/or healthier patients; combination of different groups in a single practice creates tensions that might be remedied by matching approaches to patient characteristics – in other words, equitable treatment can usefully be distinguished from equal (identical) treatment. On the structural side, complexity and variety of patients and institutions give rise to very different connectivity structures and to different levels of efficiency and resilience.

#### Innovative aspect:

Use of game-theoretic network and behavioural models.

### **39. Evaluation of a grassroots- intervention programme designed to challenge mental health discrimination and improve wellbeing**

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Additional authors: Evans-Lacko, Sara

Keywords: **mental health, wellbeing, discrimination, empowerment**

Type of abstract: 1

Discrimination experienced by people with mental illness has a detrimental impact on social ties, human rights, health or life itself. Time to Change (TTC) is the largest programme ever undertaken in England, designed to change discrimination behaviours around mental health.

This abstract focuses on the evaluation of 28 local community based projects (run by UK non-governmental organisations) which aim to improve empowerment and wellbeing of people with mental illness and reduce external discrimination. The projects are unique and offer about 24,500 adults aged 18 to 65 activities promoting a healthier lifestyle from: gardening/conservation to gym classes and cultural activities, with an ethos of user involvement.

Little is known about the effectiveness of physical activity in reducing discrimination and social exclusion. Increased exercise is recommended for its therapeutic effects in fostering a work/life

balance, reducing the burden of mental health problems as a public health issue. The evaluation is based on a conceptual framework of a mental health intervention in naturalistic settings, providing alternative options to those offered by mental health services.

We hypothesised that through participation of the program there will be:

- A significant improvement in the a) overall average Warwick –Edinburgh wellbeing scores and b) the overall Rogers & Chamberlin empowerment scores
- A reduction in the levels of experienced discrimination as evidenced in the Discrimination and Stigma Scale (DISC)

The preliminary findings to date demonstrate that the local projects may be contributing to a modest, but significant improvement in wellbeing at 3-months follow-up. There was no significant change in the overall level of empowerment. We will present the main findings from the outcomes of wellbeing, empowerment and discrimination, collectively (baseline to 6-month follow up).

The evaluation is novel in capturing the impact of an integrated intervention promoting choice in healthcare. This work contributes to policies at a local and wider level supporting physical and mental wellbeing. This has further implications in addressing the needs of individuals who experience disproportionate levels of mental ill health, including older people and people from minority ethnic communities.

The next steps will involve assessing the economic benefits of the local projects and identifying which projects are the most cost effective in enhancing wellbeing and challenging discrimination.

#### **40. Chronic care in the Netherlands: from policy to patient satisfaction**

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Additional authors: Vrijhoef, Hubertus, J.M.; Spreeuwenberg, Cor; Duimel-Peeters, Inge, G.P.

Keywords: **chronic disease; policy analysis; disease management; patient satisfaction**

Type of abstract: 1

Research aim:

As part of the research project 'DISMEVAL: Developing and Validating Disease Management Evaluation Methods for European Health Care Systems', which is funded by the Seventh Framework Programme (FP7) of the European Union and coordinated by RAND Europe, a study was conducted in the Netherlands with the aim of explaining chronic patients' positive attitude towards the Dutch health care system – as assessed by the 2008 Commonwealth Fund (CWF) International Health Policy Survey – based on a systematic analysis of recent health care policies addressing chronic disease.

Methods:

Expert consultations and document study led to the identification of five relevant Dutch health policies, ranging from a health law revision to the introduction of a new chronic care approach. During a consensus meeting between three researchers, links were identified between these five policies and the items of the CWF survey, which concerned four topics: access to care, care coordination and transitions, safety, and chronic care management.

Results:

Most links between recent policies and aspects of patient satisfaction (survey items) were found in those sections of the CWF survey where the Netherlands scored relatively poor: care coordination and transitions and chronic care management. The two remaining topics – access and safety – were not a focus area of Dutch policy in recent years. Nonetheless, the Netherlands scored particularly well on these issues, indicating proper policymaking in the past.

Conclusions and policy implications:

Dutch policymakers are focusing on the right targets in improving chronic care, i.e. care coordination

and chronic care management (where patient satisfaction is poor). However, recent policies to increase quality have not yet translated into improved patient satisfaction. As the timing of the CWF survey perhaps was too early, such improvements should be visible in an equivalent future survey, if the new Dutch approach to chronic care is effective. To solve problems related to care coordination and transitions, additional efforts are necessary, as the effects of current policies may prove too limited. We recommend researchers from other countries included in the CWF survey to conduct a similar study, as it provides a more in-depth explanation of the (dis)satisfaction of chronic patients with their health care.

Innovativeness of the research:

This study contributes to scientific knowledge by providing a preliminary judgment of the effectiveness of Dutch policies aimed at improving the quality of chronic care (an important indicator of which is patient satisfaction), but may also aid other countries in further improving chronic care, by explaining – from a policy perspective – chronic patients' positive evaluation of Dutch health care. To our knowledge, there are no other studies that systematically link policies concerning chronic care to aspects of patient satisfaction.

#### **41. Measuring clinical pathway adherence**

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Additional authors: Gorissen, Pascal; Zeemering, Stef

Keywords: **clinical pathways, adherence, modelling, measuring**

Type of abstract: 1

As clinical pathway adoption continues worldwide, it is necessary to establish adherence measurement methods in order to understand the difficulties and results of implementation. Adherence measurement literature mostly provides binary measurements of adherence to guidelines regarding individual medical activities over patient groups. The resulting measurements are of limited value in view of the pathways actually followed by individual patients. We develop and test dynamic programming formulations for adherence measurement in clinical pathways - based on partially ordered data in medical records and pathway definitions. With these new methods at hand, we analyze clinical pathway adherence at the Cardiovascular Center of Maastricht University Medical Center.

#### **42. The moderating effect of co-worker support in the quantitative workload - physiological strains relationship in hospital practice**

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Institute of Health Care, University of Malta, Malta

Keywords: **Co-worker support, Hospital practice, Multilevel modelling, Physiological strain, Two-way interaction, Quantitative workload**

Type of abstract: 1

Introduction:

It is well known that health care professionals working in public acute hospitals are often faced with high quantitative workload (Cox, Griffiths, & Cox, 1996; Dollard, LaMontagne, Caulfield, Blewett, & Shaw, 2007; Firth-Cozens, 2003). Quantitative workload, which refers to the sheer pace and volume of work required of employees, is perceived to be a crucial work stressor and results of previous research in various contexts are consistent with a theoretical job stress framework (Spector, 1998). A high quantitative workload is predicted to impact on physiological strain in terms of its potential negative influence on the employees' physical and mental well-being (Spector, Dwyer & Jex, 1988). The implications are that this may be a potential detriment to the patients receiving care. This study proposes that consistent with the social support and social influence theories, support provided by co-workers buffers hospital employees faced with huge quantitative workload from physical illness.

Method:

Based on the interactional model of stress namely, the demand-control/support model, this cross-sectional study utilises the survey approach and aims at investigating whether co-worker support acts as a moderator of the relationship between quantitative workload and physiological strain, such that it is hypothesised that higher levels of co-worker support will minimise (*buffer*) this relationship. The sample comprises 1,137 hospital staff nested in 136 units in one general hospital, in recognition that clusters of hospital employees share the same social environment within their unit.

Results and Discussion:

The study shows surprisingly statistically significant negative correlations between quantitative workload and physiological strains as well as between quantitative workload and co-worker support. This may be explained by the highly active units in hospital providing more interesting and challenging work to the health care professionals in contrast to the less active but potentially more boring work. Using multilevel hierarchical linear modelling, this study demonstrates in accordance with theory that there is a statistically significant two-way interaction involving co-worker support as moderator, and therefore implies the buffering effect in the quantitative workload-physiological strain relationship.

Conclusions:

This study provides important implications for health services organisational theory, management and practice. Moreover, the study recommends that by putting in place the human resource practices that foster good working relationships between co-workers, organisations are more likely to have less strained staff and enjoying better health.

#### **43. The Assessment of Patient Safety Culture in Healthcare Establishments: the Case in Bulgaria**

Ms. Mina D. Popova

National Center of Public Health Protection, Bulgaria

Keywords: **patient safety culture, adverse events, medical errors, reporting system**

Type of abstract: 1

Objective:

To examine the level of existence of patient safety culture in Bulgarian hospitals of different types

Introduction:

Patient Safety is a serious concern in most of the countries around the world. Many studies constantly show that medical errors or adverse events (AEs) occur in around 10% of the hospitalized patients. It is estimated that every third of the errors / AEs causes death or disability and half of them could be preventable. A study to examine and evaluate whether the healthcare establishments in Bulgaria identify, respond and communicate in regard to adverse events within the health system is under conduction.

Methods:

Hospitals of different types (university, regional, municipal, private) are invited to participate in the study. Questionnaires to assess the opinion of the physicians, nurses and patients were developed. The questions were grouped into three main parts: patient safety, medical errors / AEs, general. The Questionnaires adopted 3-point scale: agree, disagree, and I can't judge.

Results:

The preliminary results with regard to physicians and nurses show that they are familiar with the existing rules and documentation that are supposed to assure the safety during the treatment process; they do not feel very confident if they have to report AEs but they are open to discussions and analyses of the events in order to prevent from occurring in the future. The patients' perception is that the occurring medical errors / AEs is neither physician's nor nurses' personal fault but rather comes from the weaknesses in the organization. All respondents consider the implementation of AEs and medical errors reporting system as a very important condition to decrease their level and to improve safety.

Conclusions:

Due to the interest, the survey will be expanded to engage more hospitals also from the countryside. Then, recommendations will be made offering opportunities for cultural changes, training, and improved compliance with policies.

The implementation of adverse event / medical errors management system will bring about tangible improvements in patient safety. It would build confidence in the public when an adverse event / medical error occurs, the response will be open and effective. The primacy of patient safety can only be reached with clear leadership commitment and fostering of organizational culture.

#### **44. Integration and continuity of care in Portugal: how to ensure easy links and seamless transitions for patients?**

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Additional authors: Simões, Jorge

Keywords: **integration of care; continuity of care; transitions; patient centered**

Type of abstract: 1

The integration of care appears to be a key strategy to reforming health systems, however its success depends on the right combination of resources, processes and practices to satisfy patient's diverse needs. The ultimate purpose of integration is to improve patient's access to the services they need, in the right time and place, in a sustainable manner. The provision of care is complex because a number of institutions and professionals from different sectors can be providing care to the same patient. So, the integrality of the process must be a fundamental premise and the performance of the various parts involved must only be perceived as excellent if the final result is excellent. So, integration of care demands structures that allow inter-agency collaboration and teamwork, so that the right and available knowledge is promptly identified, on behalf of the patient. On the other-hand, the system approach can introduce changes in the allocation of resources, probably resulting in improvements in system performance, clinical outcomes, quality and patient satisfaction. Nevertheless, the creation of this 'shared space', demands a firm commitment from the different parts of the system and a motivation to be more autonomous and accountable for the management of scarce resources. The purpose of this exploratory study is to identify the building blocks of integration of care as well as the right combination between strategies, structures, resources and processes to achieve the goals of integrated care. As a result of a revision of existent bibliography in this research area and the inputs of Portuguese experts on health issues, we could identify the following constructs, to be developed in forthcoming work: the governance model; the financing model; the patient empowerment; the human resources and the integration of patient information.

#### **45. Re-conceptualising power in the Portuguese NHS: an actor network approach**

Catarina Aguiar Diogo

Universidade do Algarve - Faculdade de Economia, Portugal

Keywords: **ANT; power; social technology**

Type of abstract: 1

The year of 2002 was marked in Portugal by big political reforms. One of them was the approval of a new hospital management law that changed the concept of the 'NHS Hospital' to the new concept of 'Network of Health Care providers', which includes four types of hospitals. The type that the government gave priority was the corporate hospital.

This research focuses on the changes that are taking place inside the corporate hospitals, giving a special focus to the modifications that occurred in the power structures of these hospitals, whose power positions were before dominated by the doctors and are now dominated by the managers.

The empirical domain of this research is Hospital A, where new control mechanisms recently introduced by the managers created some conflicts between them and the doctors. The methodology

being used is ethnography, regarding that its application is particularly suitable in handling complexity without simply filtering it out, thus capturing the meaningful relations that exist in a network.

We give a particular emphasis to the re-configuration of the medico-management power relations, arguing that using a traditional conceptualisation of power to look at this organisation would not capture the complexity of the dynamics that are taking place, especially after the introduction of EmerSoft – an innovative software introduced in the emergency service. This new technological artefact, a non-human element, is interacting with both managers and doctors and therefore needs to be part of this story. For that purpose, we need to use a language and a set of concepts that does not treat it as a 'powerless' entity.

Actor Network Theory (ANT) is particularly well adapted to the study of contemporary organisations that act in a complex and always-in-the-move environment, based on its acceptance of humans and non-humans as being ontologically equal, and on the absence of aprioristical obligations that force the actors to adopt certain behaviour. It is essential in a very unstable environment that is in constant mutation, to use an instrument that is 'elastic' enough to map the practices and processes that happen in an uninterrupted way.

Using an ANT language, notions of power and control are problematised, by showing how power - if conceptualised as an effect of a set actions – can assist managers and doctors to make sense of their roles in a different way; and how forms of long distance control can be used by the actors in order to create durable networks.

This research also aims at understanding how humans and technologies can work together, how they influence one another, how they negotiate, and how they need one another if they want to create a durable network. It is not possible to find *technology-free* organisations, so it is necessary to learn to 'talk' to the non-human and understand complex heterogeneous systems.

#### **46. How can patients and carers be involved in research to improve care: developing a model of involvement in policy-related research**

Bridie Angela Evans

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Additional authors: Snooks, Helen; Rea, David; Service User Steering Group;

Keywords: **involvement in research, participation, chronic condition management**

Type of abstract: 1

Statement of research problem:

Chronic disease causes 80% of European deaths; 20% of the European population has a long term illness. Numbers are predicted to rise. One third of adults and two-thirds of over-65s in Wales have at least one chronic condition, the highest UK proportion.

Research was commissioned to assess impact of the new Chronic Conditions Management policy in Wales. We wanted service users' knowledge and understanding to contribute to developing and implementing that research.

Theory and research methods:

Service user involvement in health and social care research is increasingly encouraged to improve research quality, relevance and accountability. Empowerment research values people's skills and experience. Key domains within effective involvement are collaboration, mutual education and acting on user priorities. We used a participative approach to develop a mechanism for involving service users in evaluating impact of the Wales Chronic Conditions Management policy. This facilitated and supported the contribution and acknowledgement of all participants' views.

Main findings:

We identified 23 patients and carers through two national service user networks.

Through workshops and discussion, participants decided the following involvement mechanism:

- Service user steering group
- Flexible meeting arrangements to reflect unpredictable health status/ability to travel
- Group provide support to patients and researchers
- Task-and-finish groups for specific regional/topic/role involvement
- Alternatives means of communication

- Task-led activity to provide focus and achievable outcomes
- Representatives to attend strategic research planning meetings: structured reporting-back process to ensure communication of all views

During its first year, activity included:

- Strategic research planning meetings with academics and policy makers
- Research management meetings
- Research participation: qualitative analysis; data extraction; piloting questionnaires and interview schedules, contributing to dissemination
- A forum connecting researchers and service users

Evaluation is underway, to document the model and provide evidence of effectiveness.

Conclusions and policy implications:

Patients and carers have experience and knowledge relevant to policy makers and researchers reviewing healthcare services. This project provides a mechanism linking these groups. Service users have fed their views into meetings covering project-specific and strategic topics from an early research stage.

Innovative character of the research:

Service user involvement in policy evaluation is not widely reported and best methods not known. A mechanism to do this and description of involvement will contribute evidence of this aspect of participative research.

#### **47. Overview of Health Services Research (HSR) programme line at the Scientific Institute of Public Health (IPH), Operational Direction Public Health and Surveillance (OD-PH&S), Brussels, Belgium**

Dr Viviane FA van Casteren

Scientific Institute of Public Health, Belgium

Keywords: **health care quality, health care quality improvement, benchmarking, quality control, care trajectory**

Type of abstract: 2

Since 1994, the IPH is involved in cancer epidemiology related projects, with meta-analyses for health technology assessment (e.g., the evaluation of new screening technologies), the development of European guidelines for cancer screening (especially cervical cancer screening), interventions-related analyses and international trend analyses of cancer.

Since 1999, the IPH carries out health care quality improvement projects, by collecting information on the management of patients and providing feedback on own results compared with those of the other participating health care providers (benchmarking). Projects are mainly commissioned by the National Institute for Sickness and Invalidity Insurance (RIZIV). They are carried out in the framework of "revalidation conventions" signed between reference centers for specific conditions and the RIZIV or in the framework of RIZIV-based clinical pathways.

The cited reference centers have high expertise in a specific condition. They have to ensure multidisciplinary follow-up of the patients, providing optimal medical, paramedical, psychological and social care. They have to participate in a data collection on the care provided to their patients, in the framework of a quality of care improvement project. Data are sent to the IPH, OD-PH&S for analysis and benchmarking. Presently, data collections are running in the framework of a revalidation convention with 113 adult diabetic reference centers, 13 children and adolescent diabetic centers, 20 diabetic foot clinics, 7 reference centers for cystic fibrosis and 6 reference centers for neuromuscular diseases.

Besides the latter activities, another research project is situated in the framework of 2 RIZIV-based clinical pathways: one on diabetes type 2 and another on chronic renal failure, both for some specific subgroups of patients. A contract is signed between the patient in the care pathway, his general practitioner (GP) and a specialist, with the purpose of organizing the management and follow-up of the patient, optimizing the collaboration between GP, specialist and other care providers, with the final

goal of high quality in delivered care. In order to evaluate the impact of the inclusion in these clinical pathways on the quality of care, EPR-based (electronic patient record) quality of care indicators are to be sent by all GPs to the IPH, OD-PH&S for analysis and benchmarking, by the end of 2011.

The sentinel network of GPs, existing since 30 years, has also been progressively more involved in studies on care provided for specific groups of patients, such as end of life care.

10 FTE researchers are involved in the research projects.

The RIZIV and the policymakers are more and more interested in quality of care and methods for care improvement.

In the future, the IPH will probably be involved in new projects with the RIZIV concerning domains such as rare diseases, hemophilia and clinical pathways for e.g., heart failure.

#### **48. Using community-generated evidence to inform service improvement policy for vulnerable groups**

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University of Sheffield, United Kingdom

Additional authors: Evans, D; Springett RJ; Pollard KC

Keywords: **evidence based policy making; evaluation; health inequalities**

Type of abstract: 3

National datasets in England, as with many other countries, point to the disparity in outcomes between different groups. These disparities relate to age, disability, ethnicity, gender, religion, and sexual orientation. The Department of Health commissioned a national initiative in 2004 to explore how these differences may relate to accessing services, experiences of treatment, and outcomes. Evaluations are being conducted using findings from equality and diversity innovations and improvements to reduce health inequalities for service users and communities. Participating hospitals and primary care organizations were asked to use community engagement and a Plan-Do-Study-Act approach to service improvement. The aim of the initiative was to involve relevant stakeholders in service co-design and re-design to address health inequalities for vulnerable groups.

Involving communities in service co-design is a new approach for many in the UK health system. Participants in over 100 projects have identified meaningful outcomes related to the process of working with communities. These include increasing awareness of how to access services, promoting understanding of E & D issues, improving patient experience, and producing improved outcomes. In a number of cases, the project findings and community-based recommendations for service delivery are now being contested both in local and national policy-making arenas. Issues include disagreement with the 'evidence-based' for service delivery; the relative weight of expert and lay opinion; dissonance with previously agreed models; and misalignment with emerging policies to reorganise and rationalise services. In some cases community engagement revealed service gaps and patient safety issues, with no clear line of responsibility for a policy response.

This poster presents cross-cutting examples of the issues arising when trying to use community-generated evidence in policy making.

#### **49. The Evaluations of the Primary Healthcare Institutions' Personnel about the Application of Performance Based Supplementary Payment System**

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Additional authors: Sahin, Bayram, Associate Professor

Keywords: **Primary Care Health Services, Revolving Fund, Performance based Related Payment**

Type of abstract: 3

The objective of this study is to evaluate the impact of the performance-based contribution payment system on healthcare service provision and to determine the potential problems with their solutions.

The research was carried out at 16 (15 %) local health centers selected based on random sampling method into 104 local health centers in Ankara. In order to evaluate the impact of the performance-based contribution payment system on healthcare service provision in selected local health centers, a two stage process study was carried out and qualitative and quantitative research methods were used. In order to built the questionnaire used for gathering information, in-depth interviews were made with selected local health centers' head doctors (n=16) and head nurses (n=16).

The interviews consisted of three questions aimed at learning the suggestions about positive and negative sides of the performance-based contribution payment system as well as solution suggestions of the problems. The questionnaire based on these opinions, was applied to all physicians and auxiliary health staff in chosen local health centers. In the qualitative study, 18 positive, 22 negative opinions, and 22 suggestions were received. Based on the research findings, statistical methods were used to find out if there are significant differences between Central Health Group Headship of the local health centers, gender, occupation, having an administrative position or not, knowledge about performance-based contribution payment proportion or not, and total working period and the negative, positive opinions, and the solution suggestions of the problems of the performance-based contribution payment system. According to research findings, the most prominent positive statements are; "It provides economic benefit", "It increases the efficiency by means of providing service for more patient in less time", " It reduces the sick leaves and permissions", the most prominent negative statements are; "It causes to remove the improvement of the salaries out of the agenda", "It slows down the retirement", "The major difference between supplementary payment of physicians and auxiliary health staff is lowered enthusiasm of the auxiliary health staff", "The workload of the staff is increased", the most prominent suggestion statements are; "The differencess of the infratructure between the local health centers should be removed", "Improvement of the salaries should be done instead of supplementary payment" and "Automatization system should be installed for monitoring the unnecessary service usage". Furthermore, "In order to obtain additional income, revolving fund supplementary payment is improved working motivation" statement has a significant difference in total working period and "The major difference between supplementary payment of physicians and auxiliary health staff is lowered enthusiasm of the auxiliary health staff" statement has a significant difference in gender and occupation. The results of the study displays the imacts of the performance- based contribution payment system on healthcare service provision in local health centers that are perceived at the main components of the primary health care services from the eyes of the physician and auxiliary health staff.

#### **50. Homogeneous Waiting Groups (RAO - Raggruppamenti di Attesa Omogenei ): a model for an Italian Region, Umbria**

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Additional authors: Casucci Paola, Bernardini Ilaria

Keywords: **Waiting Groups, Clinical Governance, Priority Requirements**

Type of abstract: 3

The waiting lists are surely the highest problem for the National Health Care System (SSN - Servizio Sanitario Nazionale) and represent a fundamental factor in the perceived health status. In Italy the Ministry of Health and the Regions have attempted to solve this question and various models of

"clinical priority" have been tested in the healthcare system. The Homogeneous Waiting Groups (RAO - Raggruppamenti di Attesa Omogenei) model is proposed as an approach that uses "keywords clinics" associated directly with the level of priorities defined by time parameters (maximum time of waiting). The RAO model involves all of those are part of the process of providing specialist services: the general practitioner (GP), the booking service (CUP) and the specialist. In Umbria region, the 2006-2008 regional plan for the reduction of waiting lists take advantage of the RAO model, extended to all Local Health Centre (ASL).

The implementation of this model defines some priority classes available right at medical prescription: class B (short), class D (deferred) and class P (programmed), corresponding to the original priority classes A, B and C (RAO A = max 3 days from the booking; RAO B max = 10 days; RAO C = max 60 days). The working groups (GPs and specialists) were integrated for the definition of clinical priority indications and keywords; the ASL has provided the training for GPs and specialists before and during the activation of the RAO model and waiting times have been published on websites; besides that, monitor of requirements and priority booking is performed regularly and output data are disseminated. Discussion The introduction of the RAO in Umbria, as an instrument of government demand, has allowed to reduce the waiting time for prescriptions and addressed the critical issue of prescriptions relevance. The establishment of working groups has introduced a collaboration between GPs and specialists based on evidence of good clinical practices. Currently the RAO model is applied for a small number of specialities and it needs to increase the RAO's usage and to overcome the differences of monitoring. A systematic opinion poll between citizens about their satisfaction has not been performed; however we believe that the introduction of the RAO method represents a novelty in the management of demand, because it allows an interaction between general practitioners and specialists, and monitoring data can be used as a basis for clinical audit.

## 51. Implementation of DRG payment model to hospitals in Macedonia

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Additional authors: Kalanj Karolina

Keywords: **DRG, payment model, hospitals, reforms, health sector**

Type of abstract: 3

Health reforms in the transition societies in CEE and Balkans have been extensive and not always linear with their own objectives; often severely influenced by internal and external factors, reforms were excessively exposed to various policy models from the neighborhood and international donor community.

One of the very difficult elements of health reform in Macedonia was the transformation of the healthcare financing and in particular hospital payment system; the recent introduction of Diagnosis Related Groups (DRG) payment model to hospitals was a challenge to the Government in Macedonia, but to the healthcare settings alike. The main objective was to centralize the overview and surveillance over the public health expenditures in hospitals.

The principal objective of this research is to present positive effects of the introduction of the DRG model for data collection and eventually for hospital output based payment: centralized surveillance and monitoring of public health expenditures on hospital level, increase in efficacy and effectiveness of hospital provision of services and split of functions of service provision (hospitals) and service purchase (National Health Insurance Fund, HIF).

Methodology employed was based on direct comparison of previous costs of hospitals (historical cost) invoiced for payment to the HIF with the newly employed model of payment for service provision measured per referred DRGs. First results showed variable participation of the DRG budget in the total budget of hospitals, depending on the scope, volume and complexity of services provided in each hospital separately.

Study indicated that the budgets of hospitals should be adjusted and modified according to two parameters: the DRG share of payment (only acute inpatients and selected services in hospital settings) and additional portion for provision of services which are non-acute inpatient and outpatient (so called specialistic-consultative services). The study pointed out that there is still a discrepancy between historical costs invoiced to HIF and real current costs as per DRG reference prices. Costing

approach should be performed for all services selected and adjustment of the reference prices should follow accordingly.

Given that the implementation of DRGs in Macedonia is already a formal policy enacted in the by-laws governing the funding of health services, it is not appropriate to refer to the cost impact study that has been assigned to this project as a feasibility study - instead we referred to it as a cost impact evaluation. There are various models for such an evaluation but the intention of this one was understood to be to:

- a) Make transparent the costs of implementing the DRG activity measurement tool as a health service monitoring, funding or payment mechanism.
- b) Provide some reasonable estimates of the potential efficiency and productivity gains that can be expected from using this mechanism based on experiences in implementations in other settings and taking account of similarities and differences in the Macedonian circumstances.

More than half of the countries in the world are now using DRGs in some way to influence the funding and performance of their hospital inpatient services. With the growing application of the DRG payment model in the region, the challenges are evident but also possible to overcome with model adjustments based on the national specificities of healthcare financing system. This model presents a sound base for future comparison among different hospitals in their efficacy and effectiveness, and a starting point for comparison of performance in hospital sector with other countries using the same model of payment.

## **52. Reform efforts and viability of the primary health care system in Greece: learning from the past**

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Keywords: **primary health care system, Greece, reform, integrated primary care, healthcare reform**

Type of abstract: 3

In Greece, even though primary health care has been officially included among healthcare reform priorities from as early as the beginning of the 1980s in view of the Alma Ata declaration, its development has since remained limited without essentially implementing global recommendations. It has been recognized that rarely health care reforms have been endorsed by an integrated health care planning and less frequently cost effectiveness issues have influenced their implementation at a national level. The aim of this report is to highlight the need for the development of effective integrated primary care services in Greece, by taking into consideration the health policy gaps and weaknesses of the past.

A literature search from national and international bio-medical publishing sources between 1999 and 2008 was carried out focusing on the overall status of primary care services by discussing peculiarities of the health care system and policy in Greece and it has been recently reported (Lionis, et al. *Int J Integr Care*. 2009 Jul 30;9:e88). In line with the findings of this report, matching roles and responsibilities between general practitioners and other health professionals (e.g. nurses, social workers or mental health providers) within primary care are not yet unanimously perceived as key priorities for future system innovation and chronic disease management. Although, continuity of services and family oriented care offered by the same primary health care team over time, are often addressed as missing goals of previously undertaken reform efforts, health policy decisions to reverse similar gaps are still lacking. The use of a 'universal' electronic medical record system has frequently been among the objectives of several research initiatives during the last decade. However, deficits of implementation further have led to enhance phenomena of care fragmentation. It is likely that weaknesses within effective resource allocation and clinical governance implementation have been related to greater productivity loss and 'ageing of the system'.

Conclusively, it is crucial to safeguard the viability of the health care services by stressing the need for effective integrated primary care initiatives in order to overcome health disparities and reduce cost.

**53. The development of Hospital at home (HAH) in France: Implications of research on reasons of admission and on the determinants of patients' cost on the pricing reform and on the rapid expansion of services**

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Keywords: **Reform, Pricing method, Hospitalization at Home, Modeling, Cost**

Type of abstract: 3

**Problem description**

Hospital at Home (HAH) is an original model of organisation of hospital care at home. HAH provides acute, technical and coordinated care to patients in their own homes rather than hospital. International researches have shown its medical, human and economic interests. Since fifty years in France, the HAH « à la française » remains marginal (3 950 places in 2000, stable from 1992) due to administrative and financial disincentives and despite a political will to adapt the health care system to the increasing population needs. Studies conducted by Irdes since 1992 contributed to give light on the HAH field and demonstrate the inadequacy of the prices used.

**Research conducted**

ENHAD 2000 (HAH national study), conducted for the Ministry of Health (MoH) on 1 860 patients in 29 structures, described patients and used a micro-costing approach and hierarchical modelling to identify factors and measure variations in patients' costs.

Results show that HAH improves coordination between primary care and hospital in providing acute and rehabilitation health care and offering a solution for chronic diseases. The daily cost mainly depends on medical protocols delivered, patients' dependency level and length of stays; it varies from 1 to 10 times.

**Policy impact**

In the view of the results, changes in regulations were made in order to withdraw identified disincentives and Health services researchers (HSRers) developed with the MoH a new pricing method. This is called HAH-DRGs (T2A-HAD). It is based on the identification of the types of health care delivered and the evaluation of real costs. It uses 10 groups of homogeneous tariffs. Implemented since 2005, along with the DRG reform for acute hospitals, it has improved the use of HAH and the efficiency of the overall system. Indeed, HAH has expanded rapidly since 2006 (7 547 places in 2007) with the objective to reach 15 000 HAH places in 2015.

**Success factors**

The successful transformation of the HSR findings into policy actions was due to 1) the strong demand of regulator and funders for information on patients and cost structure and determinants 2) the quality of the research results and their detailed presentation to policy makers that made them understanding the reasons for the slow expansion of HAH 3) the involvement of both HSRers and policy makers (regulators and funders) in the development of the new pricing method.

**54. Patient-centric Integration of Health, Social and Other Care**

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Additional authors: Hill, Penny

Keywords: **Health; social care; care planning; patient records; care scheduling; terminology**

Type of abstract: 4

Personal health is not solely dependent on healthcare and illness treatment. To ensure the maintenance of health as a state of physical, mental, and social wellbeing (as defined by the WHO), and not merely the absence of disease, many persons need additional support such as personal care, nutrition, safe housing, and hygiene. Health systems alone cannot support (for example) the frail elderly, the mentally ill, or those convalescing from severe illness, especially where family support is

unavailable. Integrated care approaches are needed to support health, involving both healthcare and other agencies. As individuals live longer, the number of frail or vulnerable people in the population increases, and health systems must undergo a sea-change in their approach to providing person-centric care: inter-agency message-based exchanges will no longer suffice. Care services must deliver holistic packages customised to the patient and delivered in partnership by different agencies, rather than being a set of parallel (though hopefully coordinated) plans.

Three research aspects are required. One concerns the finding of common understanding, vocabulary, care objectives, and long-term goals for the individual patient, paralleled by mutual understanding of roles and competencies. When linked to record keeping and care planning, this needs convergence of (paper-based and electronic) patient identifiers, terms, care plans, confidentiality protocols, schedules and diaries, and agreements on recording also of informal family and community carer circumstances and capacity.

Secondly, at system and community level, research is required that identifies the commonalities and differences between clinical and social care, along with further investigation into key enabling social environmental issues such as social capital, developing informed ('expert') communities, and assessing the effectiveness of services (especially preventative ones) in terms of personal health and wellbeing.

Thirdly, research is needed into the role of information and information technology as enablers of care, informing and supporting individuals' choice and control, assisting care practitioners, and delivering innovation in services.

Not only are national subsidiarity-based contexts important, but there is also major scope for studies that can be paralleled and comparative across Europe to find common understandings and solutions while taking into account the differences in local systems.

## **55. Coming Home: Can the new US concept of the "Medical Home" offer useful insights for European primary care?**

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Keywords: **Primary Care; Continuity of Care; US Health Care Reform**

Type of abstract: 4

1) a description of a policy problem or development (national or international)

The debate on healthcare reform, in the United States has included considerable discussion of the concept of the "Medical Home." Although variously defined, it is essentially the re-invention of a European primary care model, typical in the UK General Practice setting.. In the recent 11-country Commonwealth survey, US primary care did not receive a good rating. US primary care is said to be expensive, over-interventionist, unresponsive to need and lacking in continuity of care.

2) policy solutions that are being undertaken and/or considered

In the US there is a groundswell of opinion that primary care might be changed for the better by introducing the Medical Home to emulate the best elements of UK general practice and to remedy some of the problems. The Medical Home provides a key element of the UK primary care model - continuity of care. Continuity of care is defined in the literature and in the Medical Home as consisting of three overarching dimensions: informational continuity - the ability to have a patient's records available when they consult, treatment or management continuity – provision of a context within which a proactive treatment management plan can be defined and executed, and personal continuity – continuity of caring personnel.

3) the types of research necessary to contribute

We need multidisciplinary US/UK collaborative research consisting of economists, health services researchers (both qualitative and quantitative), operations researchers, primary care practitioner-

researchers and organisational researchers who are interested in researching the Medical Home and UK primary care and in mutual exchange beneficial to changing policy. Our conceptual framework broadens the definitions of continuity of care to include both cultural and contextual continuity as well as informational, management, and personal continuity.

#### 4) evaluation of success and failure factors to realise this research

Previously in the UK, continuity in General Practice has tended to be an assumed 'good' with attention given to improving continuity with and in other health and social care services. Successful research will incorporate a critical approach to the concept of the Medical Home; to continuity and to policy change in the UK

and the US – with an understanding of the relative priorities of effectiveness including patient outcomes, patient centred care, and continuity. Success in research in this area will also vitally incorporate understanding of the role of continuity in primary care - types of continuity, provided for whom and by whom, when and in what contexts and in what form.

Research in this area will inform the US primary health care reform debates and debates over recent policy change in European primary care.

## **56. The ongoing Primary Health Care (PHC) reform in Lithuania: newly presented problems and possible ways for their solutions.**

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Additional authors: prof. habil. Dr. Miseviciene Irena

Keywords: **PHC quality, family medicine**

Type of abstract: 4

#### Introduction:

PHC reform in Lithuania has been started since 1991 and is ongoing: there were newly presented family medicine institution. The researches during PHC reform have been assessing if the challenges for PHC reform have been developing properly.

#### Aim:

To reflect the most problematic areas in PHC level during PHC reform in Lithuania.

#### Method:

There were analyzed majority of the surveys' related to PHC assessments, provided during PHC reform in Lithuania: majority of them were based on family physicians' and patient' attitudes evaluations.

#### Results:

There were revealed several important problems in Lithuanian PHC, which require attention of policy makers. Teamwork in Lithuanian PHC level is missing: social institutions are separated from the health care; there is shortage of community nurses and their functions are not adequate to European understanding of community nurse. Family physicians are lacking competence and the provision of disease prevention and health education. The provision of health care services is unequal: the referral rates to specialists are less frequent between family physician working in rural areas vs. physicians working in cities. Also the provision of health care services differ according family physicians qualification. The work load of family physicians seems to be excessive and physicians suffer from additional working hours after their work. Family physicians are dissatisfied with their job and they rate their health more poorly than other physicians. Dissatisfied family physicians more frequently noted that they were unhappy with their salary, excessive paper work and were lacking continuing medical education. Patients assess PHC very positively, though most frequently they are dissatisfied with the waiting hours, work of community nurses, and co-payments. Also patients lack activity in self health care.

#### Conclusions:

The mentioned results prove the need of appropriate solutions by politicians and authorities. It is obvious that health care policy should be based on continuing monitoring of the ongoing health care reform: it helps to identify and new legislations regulating Lithuanian family physicians' professional norm, especially regarding physicians' workload, work scope and remuneration should be reconsidered. The regular surveys assessing patients' attitudes need some improvements, aiming to reflect their negative position regarding the provision of their health care.

### **57. Colorectal Screening and Surveillance amongst Diverse Healthy People and Patients with Ulcerative Colitis. Improved Delivery through Participatory Meetings.**

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Keywords: **Colorectal cancer screening participatory meetings**

Type of abstract: 4

#### Description of the policy problem:

Minority populations have a low uptake of cancer screening programmes in the UK. Barriers exist at individual and access levels, but little has been done to overcome them. Socio-demographic factors do not explain suboptimal participation and further research is essential. Participatory meetings amongst diverse groups where barriers exist will identify methods for overcoming them.

In simple terms the hypothesis underlying this research is that when we know which groups are not receiving adequate care and when empowered to define how such care should be delivered the community itself will develop solutions.

#### Policy solutions that are being considered:

1. To involve communities in developing ways to overcome barriers of access to equitable care through participatory meetings
2. To bring together clinicians and the community and to encourage communities to develop their own solutions to the more appropriate delivery of care.
3. Pilot studies of the effectiveness of community developed interventions will be conducted at sites in Leicester and London and their impact on patients and clinicians evaluated.

#### Types of research necessary:

Participatory meetings will ensure community involvement from diverse groups in the shaping and more appropriate delivery of care and surveillance. The lessons learned from these exercises will have direct and immediate benefit to patients with colitis and also to healthy people entering preventive colorectal cancer screening programs.

#### Evaluation of success and failure factors to realise this research:

The introduction of participatory meetings will ensure that barriers between clinicians, nurses and patients are minimised and that there is local ownership of the methods of health care delivery. As a consequence clinicians will be better educated in the views and needs of their patients. Success will be demonstrated by the number of primary and secondary care units which adopt this approach. In the specific example under investigation these changes will ensure that there is better surveillance in ulcerative colitis and a wider participation in national colorectal cancer screening programs. This will lead to earlier detection of cancer in more people with a consequent lessening of morbidity and mortality.

Once demonstrated to be effective these techniques can be applied immediately throughout Europe and have a direct impact on health care, especially amongst those for whom this has been problematic.

## 58. **Innovating hospital governance: towards sustainable health human resource management**

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Keywords: **health human resource management, hospital governance, health professions, integrated solutions, Germany**

Type of abstract: 4

The development and implementation of more efficient models for health human resource management is a policy problem across countries. Shortage and inefficient use of qualified staff together with changes in the composition of the professional workforce by age, gender and citizenship create an urgent need for action; ongoing financial problems add further pressures towards innovation. Challenges are strongest in the hospital sector covering a broad span of occupational groups from highly specialised professionals to health support workers. Consequently, we focus on hospital governance in order to explore policy solutions.

No national healthcare system has so far developed comprehensive solutions but cross-country comparison can help identifying examples of 'good practice' in some areas. However, single interventions are no longer sustainable as changes often intersect and create complex dynamics. The aim is to develop a sustainable and integrated concept of health human resource management that can be implemented in practice; close collaboration between researchers and decision-makers in hospital management is therefore essential. Key demands are: to use the competencies of a diverse professional workforce more efficiently (e.g. collaborative care teams, task shifting, new professional groups); to explore new sources (e.g. the reservoir of women doctors and older professionals who dropped out as a consequence of organisational deficits), and to monitor and target migration flows, including quality assurance.

Preliminary results point towards four dimensions of professional dynamics that need further empirical investigation: (1) task shifting and skill mix, and new emergent professional groups; (2) an aging health workforce; (3) changing gender relations and increase in women doctors; (4) migration and European mobility of health professionals. The research design must comprise different steps and methods in order to develop a robust model that flexibly responds to organisational conditions. An explorative case study design seems to be most appropriate as first step towards evidence-based policy development. Here, developments in the German hospital sector in one of the (western) federal states serve our analysis as an empirical case.

Research and practice must be closely linked; implementation of health human resource management must be piloted and subsequently monitored and evaluated. Finally, feeding back the results into the European context can contribute to policy learning across countries.

## 59. **Health care for the 'Hard to Reach' - The Opportunities and Challenges of Participatory Research in Policy Contexts**

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Keywords: **Service User Involvement, Participatory Research**

Type of abstract: 4

There is a public health concern that certain populations – namely the most socially and economically disadvantaged groups in society - are less well provided for by mainstream health services. There is also, at present, an increasing awareness of the need to include patients in the design and evaluation of health services. The Greater Manchester Public Health Network, Bolton Primary Care Trust and the University of Bolton have been involved in discussions around proposed programmes of research which link experiential knowledge with interventions that can be seen to have an impact on reducing health inequalities and improving health outcomes. Such collaborative working is also desirable in the opportunities it offers for shared learning and knowledge transfer.

The overall aim of the proposed scheme of work was to employ participatory research methodologies in order to engage with vulnerable groups and develop interventions that are not only acceptable to

these groups but can be demonstrated to improve their health.

There is a variety of participatory research approaches which seek to generate knowledge and evidence from the perspective of the researched, and which may be used for their benefit. In essence, participatory research models provide processes which link 'knowing' to 'learning' and 'action' which have been shown to:

1. See disadvantaged or 'hard to reach' groups and individuals as a resource in identifying and addressing their health issues
2. Provide linkages between professionals and the groups and individuals they work with
3. Help with the development of programmes and interventions which take into account the specific conditions and circumstances they face

Therefore, we may anticipate that by bringing together a series of participatory research projects which engage with groups and individuals who are deemed 'hard to reach' within key priority areas for health, we should gain deeper insights into the complexities of the challenges of meeting health needs. Our approach should also improve the effectiveness of service provision designed to meet the needs of the target groups and populations.

## 60. Certification and accreditation of hospitals

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Additional authors: Brubakk Kirsten; Munkeby Berit H; Vist Gunn E

Keywords: **Certification, accreditation, quality improvement, process evaluation**

Type of abstract: 4

Background:

Many European countries have or are implementing certification and accreditation of hospitals and health services institutions. Suggestions have now also been made that health institutions in Norway should be certified. Processes needed to initiate and endorse certification and accreditations are work and resource intensive. The Department of Health and the Directorate of Health have asked for the evidence to be available for consideration.

Methods:

We searched for systematic reviews and primary studies with the following designs: randomized controlled trials, controlled before and after studies, and interrupted time series in seven electronic databases. We included studies regarding all types of hospitals as long as the intervention included certification or accreditation.

Results:

The literature search identified 522 unique references. None of them fulfilled our inclusion criteria regarding study design; none of the identified studies had included a control group. We did not find any studies of the effect of certification or accreditation of hospitals.

Discussion:

We think it is interesting to note that such large interventions as certification and accreditation of hospitals are being implemented so widely without rigorous evaluation. We suggest that more research and planned evaluation of implementation should be directed towards large and resource intensive interventions such as certification and accreditation.

Conclusion:

There is a lack of documentation to assess the effect of certification and accreditation of hospitals. There is a need for well planned and controlled studies of the effect of certification and accreditation of hospitals.

## 61. Introduction of diagnosis-related groups in Bulgaria - key areas for research and evidence-based policy

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Additional authors: Grancharova Gena

Keywords: **diagnosis-related groups, evidence-based policy, hospital care**

Type of abstract: 4

### Description:

Hospital care in Bulgaria under the Semashko health system was characterized with efficiency, quality and resource allocation problems. The policies of the post-communist governments (after 1989) were directed towards reducing excessive hospital capacities and improving efficiency and quality by introducing a new method for hospital reimbursement.

### Solutions:

In 2001 the hospital reform in Bulgaria was launched by introducing clinical pathways (CPs) as a method for hospital reimbursement. The government chose to apply CPs' approach as "a transition" measure on the way of introducing diagnosis-related groups (DRGs).

In 2003, a strategical plan for implementation of DRGs in Bulgarian hospitals was signed. The strategy is based on the pilot projects (which started in 1993) and sets the particulars of incorporating the DRG system in hospitals. Some of the accomplishments of the pilot projects are: translation of the International Classification of Diseases, testing of coding system and accounting software in the pilot hospitals, developing strategies, road maps and action plans for DRG implementation, training of trainers, accountants, and hospital managers, compilation of observation data base, calculation of relative hospital weights (case-mix adjustments), running hospital budget simulations.

### Type of necessary research:

Further research is needed before implementing DRGs in Bulgarian hospitals. The research areas should be focused on developing policies for tackling DRG creep and early discharge problems, differentiating costs between teaching and non-teaching hospitals, and developing evidence-based tools for case-mix calculation.

### Success and failure factors:

The experience and collected data base from the pilot projects could be a strong success factor for realising this type of research. However, the lack of political will and the strong opposition from health professional bodies could impede the research process.

## 62. Development of an European Chronic Disease Management Matrix (European Forum for Primary Care)

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Additional authors: European Forum for Primary Care

Keywords: **Chronic disease; disease management; primary care; international comparison**

Type of abstract: 4

Health care systems in Europe struggle with inadequate coordination of care for people with chronic conditions. Moreover, there is a considerable evidence gap in treatment of chronic conditions, lack of self-management, variation in quality of care, lack of preventive care, increasing costs for chronic care and inefficient use of resources. In order to overcome these problems, several European countries have developed and implemented chronic disease management to improve the management and coordination of chronic conditions. Chronic disease management supports the physician- or practitioner-patient relationship; it emphasizes prevention of complications using evidence-based practice guidelines and patient empowerment strategies; and is supposed to evaluate clinical and economic outcomes on an on-going basis.

However, the limitations of chronic disease management are obvious as well. Chronic disease management constitutes a single-disease approach and tends to neglect co-morbidities. Moreover, by

definition, chronic disease management becomes active only after individuals have developed a particular chronic disease. As a consequence, chronic disease management is unable to prevent the advent of chronic conditions. What is more, most chronic disease management approaches are not integrated systematically in the health care delivery system. Although chronic disease management require an increasing amount of resources, the (cost-) effectiveness of chronic disease management approaches often are not known.

In order to draw a clear picture of the actual situation of how in Europe health systems are dealing with chronic diseases, the European Forum for Primary Care plans to develop a "European Chronic Disease Management Matrix (EFPC)". In the matrix, the European Forum will collect information about the actual state-of-the-art of chronic disease management in European countries and describe essential features of chronic disease management and financing mechanisms. A critical appraisal of the information collected in the matrix will serve as a starting point for discussion with policy makers in European countries about the future development of chronic disease management.

### **63. Developing and validating disease management evaluation methods for European health care systems (DISMEVAL)**

Dr Ellen Nolte

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Additional authors: on behalf of the DISMEVAL Consortium

Keywords: **chronic disease, disease management, evaluation methods, evaluation metrics**

Type of abstract: 4

Problem description:

Chronic diseases place a substantial burden on individuals, their carers and society. They frequently go untreated or are poorly controlled until more serious and acute complications arise. Even when chronic conditions are recognized, there is often a large gap between the evidence base and current practice.

Policy solutions:

Structured management of chronic conditions has been proposed to enhance the quality and reduce the cost of care, and to improve health outcomes for the chronically ill. Many countries are experimenting with new models of healthcare delivery, frequently involving elements of structured disease management to better meet the needs of patients with chronic conditions. However, the evidence on the ability of such approaches to actually do so remains uncertain. Our understanding about the impact of structured disease management is mainly based on small studies on high-risk patients, often undertaken in academic settings.

Types of research needed:

There is a need to learn more about the effects of large, population-based approaches using universally accepted evaluation methods that are scientifically sound and practicable in routine settings. The DISMEVAL project aims to support this process through testing and validating methods and metrics for disease management evaluation, utilising data from existing programmes in six European countries (Austria, Denmark, France, Germany, the Netherlands, Spain). Findings will feed into a guidebook on evidence based disease management evaluation methods and metrics, outlining choices, options and trade-offs, alongside recommendations and their rationale.

Evaluation of success and failure factors to realise this research:

The DISMEVAL project is in its second year and work on testing and validating evaluation methods and metrics is in progress, so providing considerable opportunities for contributing to European health services research. However, the first project year has revealed challenges both at the conceptual and methodological level. Conceptually, European countries vary widely in their approaches to what can be broadly subsumed under the heading of 'disease management' (DM). Thus, some countries have considerable experience in implementing DM, and the challenges related to this, whilst others are in the early stages of developing such approaches. Methodologically, challenges arise from the differences in the importance attached to robust evaluation research in different settings. This diversity has implications for the development of common research protocols and the identification and accessibility of suitable administrative data sources. At the same time, the diversity of partners from

different countries provides a productive environment for mutual learning and cross-fertilisation of ideas which has stimulated the development of analytic approaches to disease management evaluation that are unlikely to have developed in isolation.

#### **64. Multimorbidity and Comorbidity in Europe: measuring its impact, identifying challenges for the provision of health services, offering solutions.**

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Keywords: **comorbidity, chronic condition, organization, process of care**

Type of abstract: 4

Despite the apparent popularity of conceptualizations of health that promote its positive aspects, health systems are essentially disease oriented, and health services tend to be organized around the bodily systems. Planning and evaluating services on a disease-based paradigm of illness is directly counter to the holistic view of health. It also ignores that as the population ages, health care increasingly relates to the management of people with multiple co-existing diseases and that comorbidity is increasingly the norm rather the exception.

The results of prevalence studies reveal a complex picture of coexisting diseases. Although some fragmented information is available on the magnitude and impact of comorbidity in European populations, reliable and representative data are very lacking. More research is needed for the description of the phenomenon, including both acute and chronic conditions. We now require a clear conceptual framework that includes consistent measures of multimorbidity and permits comparisons between studies.

The study of multimorbidity is particularly appropriate for the international research community. Appropriate collaboration may minimise redundancy and guarantee research that is both efficient and timely. Different countries have varied access to administrative data on different health structures, processes, and outcomes that could be used to paint a broad picture of how care for people with multimorbidity is organized and delivered. International collaboration may result in patient centered and low tech care practices that can be translated into practice in varied settings and across different healthcare systems.

#### **65. Determinants of Effectiveness of Community Mental Health Teams in Ireland**

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Additional authors: Claire Armstrong (UL), Pat Brosnan (HSE), Peter Williams (UL)

Type of abstract: 3

The aim of this project is to identify key structure and process variables that influence performance of Community Mental Health Teams (CMHTs) in Ireland.

This national study used internationally validated instruments (CMHTQ, TLQ), a mixed-method case study (SUQ and team focus group discussions with Template Analysis), and secondary data (HRB and DoHC reports). The output was triangulated using five emergent overarching categories: Defining Effectiveness, Performance Measures and Monitoring (internal and external), Multidisciplinarity (MD) and Patient Focus.

MD effectiveness is a product of availability, team characteristics, processes, and interdisciplinary engagement. Compositional difference is significant at a threshold level (A2/B1). A higher degree of MD enables effective team performance. Beneficial team characteristics are longer tenure, age, female staff combined with team processes and meeting frequency. Adverse features are team size,

and work-load. Differences in variances between disciplines point to three disciplinary groups (psychiatry, nursing, other therapists). A traditional medical model predominates.

Based on secondary data, a high MD group of teams paradoxically does not necessarily yield all of the best results, although they score well on internal contextual indicators (ICNs, PIs, frequency of meetings, interdependency).

Patient Focus is demonstrated in a reasonable level of access, contact, information, and patient engagement in the care planning process, although the recovery concept is not seen to be applicable in all circumstances. Users confirm the limited progress in MD participation in teams. The dominant role of the doctor and nurse in routine practice in crises is undisputed.

A few teams are becoming truly MD in action, but the system appears to have a long way to go. The HSE leadership at all levels is stated to have “no involvement or understanding”, to be a “contact in crisis”. A structural account is insufficient to explain performance in practice, and aspects of climate and process need priority attention. Disciplines need multidisciplinary education and training in the relevant collaborative skills, and to be purposely selected, or else the concept will remain at an early stage of development. Also, the role and nature of team leadership, management and membership must be addressed in a systemic context.

The absence of team-level performance measures, indicators and monitoring mechanisms is a fundamental deficit, requiring the adoption and implementation of an appropriate performance based information system and minimum data set.

There are as yet unidentified contextual SP&O variables and performance at team level, which are confounding but remain hidden.

## **66. Health 2.0 – Extending primary care services to communities of citizens using web 2.0 paradigms**

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Keywords: **Health 2.0, Innovation, healthcare services management, citizen centred approach**

Type of abstract: 3

We present the first results of the SAUDE2.0 project as a Health 2.0 research project to develop new primary-care services. Internet could be used as another channel to further explore the e-Government opportunities to improve value distribution to citizens. This represents a new front for research and development of healthcare services by improving the degree of interactivity and individualization between healthcare units and citizens and communities. The concept aims at increase in the quality of services by Improving the participation (and responsibility) of citizens. At the same time enhancing the delivery of the care adjusted to the citizens' real needs.

Primary-care Reform (PCR) is undergoing a strong debate in Europe since the 1990'. The European Health Observatory has suggested that one should pay attention to more flexible frameworks. For the last decade healthcare managers have been pushed towards change and innovation mostly due to the need to cope with the increasing services' costs and the perception of significant inefficiencies. In order to tackle the PCR, the Portuguese Government created a task force (MCSP) in 2005: to develop a new governance model based on the introduction of ACES (group of health-centres) with management autonomy and responsible for a set of functional units. These functional units serve personalized primary-care through contracted services focusing on improving access, flexibility, effectiveness, efficiency and quality (Lapão, 2008).

We are going to address both the use of the information systems (IS) and the participation of citizens in healthcare by taking in hand the Health 2.0 paradigm. Indeed, Health 2.0 goes way beyond the pervasive social networking technology to consider the participation of patients, and therefore defining a new way of how healthcare should be delivered. Hughes et al.(2009) argues about the main

tensions in the Health 2.0 literature, that represent research opportunities: the lack of clear definitions; issues around the loss of control over information perceived by doctors; safety and dangers of inaccurate information; and issues of ownership and privacy.

#### Methods:

These new ways of sharing and interacting indeed represent an opportunity to further enhance the citizens' empowerment in the healthcare process, which could lead to the improvement of the services' outcomes through management innovation. Smith (1999) and others have also proposed that only IS could bridge the gap between services' offer and demand, because it represents a hope to assist change by aligning both services and citizen and by allowing the creation of new services focused on citizens' needs. The issues here are both whether citizens know what are the best options for them and if they act accordingly. It is therefore necessary to develop learning strategies with citizens to adequately watch and learn about their needs and behaviours in order to align them with the healthcare services' delivery strategy. We have been working with selected healthcare units studying the impact of web 2.0 healthcare services and the behaviour of citizens and communities regarding these services.

Project "SAUDE2.0" joints together researchers, primary-care professionals and managers and technology vendors since 2006 to develop services targeting primary-care customers. The success of this approach largely depends on the learning ability throughout the change process, supported by a feedback mechanism between providers and customers. Two other factors are relevant: improving healthcare services access and encouraging the sharing of relevant clinical information with citizens. The use of the web as a valuable two-way communication channel in healthcare could also contribute to assist citizens enhancing their responsible input in healthcare management. The approach should be integrated with the practice: when patient-focused practice groups are to be implemented one would look to (learn how to) bring together all the professionals and delivery systems that relate each patient/condition in a cohesive manner. For this purpose the "action research" methods have been applied. Lapão et al.(2007) presented a framework for the alignment of marketing strategies with healthcare services, comprising a communication programme that supports interactive and innovative actions to take place regarding citizens' needs.

#### First Results:

A set of learning initiatives have been developed with interesting results so far:

- 1) Guideline for reducing waiting list on Internal Medicine Consultations at a Healthcare Trust. The Trust's website and a Business Intelligence system have been used to collect Internal Medicine's Consultations and primary-care information to understand patterns of behaviour. With this knowledge a new guideline was defined to better respond to demand. A 32% reduction in the waiting list occurred already in 12 months time (i.e. from 90 days to 60 days).
- 2) The Diabetes' community portal. A web portal was developed to join a selected community of persons with diabetes, where they can share information among themselves and with physicians and nurses, complementarily to monthly meetings.
- 3) Healthcare Trust web Portal, which was built with the purpose of communicating with the population of the region. The main goal was to support new services and timetables. Two other areas were included: detailed services' information to avoid more visits to emergency, and an online interactive "question and answer" mechanism to allow the communication between citizens and a healthcare specialist (one from each department). So far selected citizens are using the system to test it functionalities.
- 4) Healthcare website for Children at School. Together with a couple of primary-care centres and Primary Schools and High Schools close by, we are developing a web portal to address children's health behaviour. Examples include information, movies and games about food, hygiene, body posture and basic sexual education, presented in a way to promote interactivity.

We have a multi-disciplinary team to tackle the many unknown variables of behaviour, economics, management and technology. The use of health 2.0 concepts in healthcare should mean more than just another channel of communication. By managing to adapting services to the needs of a diverse set of patients, one could add value to these services when delivered online (at any time and avoiding many times the need for a visit to the physician). But which services are to be deployed and for which citizens through the web interface are the main questions that need to answer.

## 67. Overview of DRG-based payment system in Estonia

Dr Kristiina Kahur

Estonian Health Insurance Fund, Estonia

Keywords: **DRG-based payment, benchmarking, cost containment, coding quality**

Type of abstract: 3

In 2001, the Estonian Health Insurance Fund (EHIF, the main purchasing agency of health services) decided to introduce DRG-based payment system. A central argument for the introduction was that it provides the opportunity to increase the transparency of hospital output. Another argument was related to efficient use of health insurance resources. The FFS system (main payment mechanism before DRG system was introduced) led to a rise in the average cost per case, which increased more than 30% between January 2000 and September 2002 (the official price increase was only 13% during that period). Financial constraints in health system were and are tight and the EHIF is unable to spend more than its budget, since it is not able to increase health insurance contributions. Due to well-developed electronic data transmission systems, Estonia had already a relatively transparent overview of the output of hospitals. Therefore the main motivation to introduce DRG system was rather financial, bearing in mind the particularly strict financial constraints of the health insurance budget.

The responsibility of development of DRG-based system in Estonia relies on EHF. It is carried out in line with four-year DRG development plan approved by management board of EHIF.

The strategic goal of DRG system is to contribute to increased efficiency in the use of health insurance resources. In order to achieve this goal, the EHIF is applying different measures like 1) improving the coding quality, 2) developing DRG-based analysis and benchmarking and 3) developing transparent pricing and funding principles. The improvement of coding quality involves among other activities the correct and unified use of primary classifications (ICD and NCSP) by health care providers, the improvement of assessment of coding quality etc. The use and development of DRG system for analysis and benchmarking started in 2005 and has developed in the course of time. Since 2009 the range of indicators was broadened and hospitals are provided the data accessible via webpage of EHIF giving the opportunity to compare and assess different performance indicators. Actions to develop transparent methodology of DRG pricing and funding principles includes among others e.g. the regular update of DRG grouping version with aim to increase clinical relevance and resource homogeneity in DRGs.

As a conclusion, during the first years of the adoption of DRG payment system in Estonia the set objective has been met, i.e. the DRG system has contained the average cost per case compared to if only fee-for service based payment system had been used. However the results show the differences between different hospitals. Therefore, bearing in mind the strategic goal of DRG system, the further development and fine-tuning of the system is carried out according to four-year DRG development plan.

## **6 Parallel session 3: 'Health Technology Assessment'**

*Thursday 8 April 2010, 14.00 – 17.00 hours*

### **Format of the session:**

Overview state-of-the-art & carousel round discussions on:

- Assessing the wider impact of health technologies (e.g. organisational aspects)
- Improving the links between HTA and policy
- Assessing technologies which challenge the common HTA framework

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## 68. Economic aspects of health services in alcohol addiction treatment

Mr. Philipp Radlberger

Ludwig Boltzmann Institute for Health Technology Assessment, Austria

Additional authors: Zechmeister, Ingrid; Wild, Claudia;

Keywords: **mental health; alcohol; economic evaluation; addiction treatment services;**

Type of abstract: 1

- 1) Increasingly, psychiatric and socio-medical therapeutic institutions have to deal with the discussion and measurement of their outcomes. Given this fact, the project aims to produce a synthesis of published knowledge and its analysis in order to gain new knowledge about methodology and concrete evaluations of therapeutic institutions.
- 2) Three parts: literature review of systematic treatment approaches, standardisation and evaluations; analysis of international models of good practice of integrated care in alcohol addiction treatment; applied evaluation, clients and experts interviews, and cost consequence analysis for two different treatment institutions.
- 3) In services organisation several highly heterogeneous approaches exist, such as easily accessible out-patient therapies, day-care, or in-patient services. There is little comparative evidence of clinical effectiveness of the different approaches, treatment results and costs. In cost consequence analyses based on clinical data, the definitions of outcome parameter such as the therapy adherence and quality of communication management as well as the diversity of institutions and outcome-relevant actors are crucial.
- 4) It is not possible to identify the exact point where a successful alcohol addiction treatment takes place, and it is sure that therapeutic institutions are not the only players involved. Even more one has to be aware, that a lack of resources in addiction treatment affects not only the clinical treatment but also the research on methodologies. Studies that interlink existing clinical knowledge with applied acute needs can contribute to concrete patient relevant and institutional improvements as well as to the development of the research evidence.
- 5) The project reviews an actually poorly developed field, receives main ideas and experiences from internationally leading projects and brings them back into applied research in the field in direct contact with clients and professionals of therapeutic institution. It connects methodological research with concrete evaluation. This approach is likely to be useful for several fields suffering under a lack of adequate research tools.

## 69. The impact of NICE guidance on the timing of elective caesarean deliveries in England

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Keywords: **Elective caesarean section, clinical guidelines, guideline impact**

Type of abstract: 1

Problem:

Elective caesarean sections (CS) performed before 39 weeks gestation increase rates of respiratory distress syndrome in newborns. In 2004, the National Institute of Clinical Excellence (NICE) guideline on caesarean section recommended that elective CS should not be routinely carried out before 39 weeks. We examined the national trends and variation across English NHS maternity units in the timing of elective CS for low-risk singleton deliveries before and after the publication of the guideline.

Methods:

We analysed data from a cohort of women with uncomplicated pregnancies who had an elective CS after 34 weeks gestation in 63 English NHS trusts. Data were extracted for the period between April 2000 and February 2009 from Hospital Episodes Statistics (HES). The impact of the NICE guidance on the monthly rate of elective CS deliveries performed after 39 weeks was estimated using an interrupted time-series design with autoregressive integrated moving average (ARIMA).

#### Results:

The overall proportion of elective CS performed after 39 weeks steadily increased from 39% in 2000/01 to 63% in 2008/09. There was a statistically significant increase in the proportion of elective CS performed after 39 weeks after the publication of the NICE guidance ( $p < 0.01$ ) but the effect was small. Despite the increase over time, there was still significant variation across NHS trusts in 2008/09, with the proportions of elective CS done after 39 weeks ranging from 28% to 89% (Inter-quartile range: 54% to 72%).

#### Conclusions:

Overall compliance with recommended practice has improved over time, but clinical practice did not change abruptly with the guideline publication. The substantial differences between NHS trusts in 2008/09 suggest there is room for improvement.

#### Innovation:

Increasing numbers of women are having elective CS and we demonstrate the utility of routinely collected HES data to monitor the quality of care in an important aspect of maternity care.

## 70. Health Technology Assessment based outcome research in routine care – challenges and opportunities

Dr. MPH Brigitte Piso

Ludwig Boltzmann Institute for Health Technology Assessment, Austria

Keywords: **evidence-based outcome research, Health Technology Assessment based outcome research, evidence based Health services research**

Type of abstract: 2

#### Research Problem:

Clinical trials give information about efficacy and safety of medical interventions. To assess the effectiveness of a medical intervention under “real-life” conditions and to answer policy-relevant/-specific questions different approaches are necessary. Health Technology Assessment (HTA) based outcome research, for example, is motivated by the idea to interconnect patient relevant measurable endpoints/ outcomes to reimbursement decisions. Since 2006 the Ludwig Boltzmann Institute for Health Technology Assessment (LBI-HTA) in Vienna conducts projects on outcome evaluation of routine health care. Ongoing projects cover different medical fields like cardiac or neuro-rehabilitation, alcohol-addiction treatment or child and adolescent psychiatric care.

#### Main approach/ outcomes:

Despite the heterogeneity of the topics similarities can be identified. Compared to EBM-questions, the value of systematic literature searches is limited in HTA-based outcome research: many research projects, especially national approaches, are not being published. Therefore hand searches and contact with experts are indispensable to identify relevant information. Beyond that, results of published trials or international field reports cannot be transferred to the national health care system one by one. Studies that investigate complex treatment algorithms often use differing –hardly comparable- endpoints. It often remains unclear if results can be attributed to the single intervention or other influencing factors in the health care system. The prioritisation of indicators as well as instruments or methods for outcome measurement is limited by the small number of published studies, the heterogeneity of study quality and endpoints and the lack of transferability of results. Thus, the results of systematic literature reviews in the field of health services research are restricted to the demonstration of options for action.

#### Research team and collaborators:

Most projects are conducted within the cooperation agreement between the LBI-HTA and its partners (e.g. the Federation of Austrian Social Insurance Institutions or Regional hospital cooperations) An interdisciplinary team of researchers works on each topic.

#### Linkage to policy:

Decision makers can suggest and prioritise topics that should be worked on by our institution. Though the definition of research questions is finally done by researchers, decision makers are involved in

main parts of the research process (e.g. the scoping period during the writing of the research protocol as well as the discussion of results and their relevance/ applicability).

Implications for future research:

In early stages of HTA-based outcome research, knowledge is mainly based on published work. To meet the national health care context and gain meaningful and practice-relevant results, real life data should be collected and confronted with the scientific evidence (systematic reviews) on efficacy. For that reason, independent, coordinated pragmatic studies on an adequate financial basis would be necessary.

## **71. The Scottish Health Technologies Group: a knowledge broker for Scotland's health networks**

Ms Karen Macpherson

NHS Quality Improvement Scotland, United Kingdom

Keywords: **Health Technologies; Health Technology Assessment; Knowledge transfer; Health policy**

Type of abstract: 2

Health policy makers internationally are faced with making decisions about which new health technologies should be funded and how these technologies should be introduced into the care pathway. Health Technology Assessments (HTAs) provide reviews of the clinical and economic evidence, and may also cover the social, ethical, legal and organisational issues surrounding the implementation of a technology. However HTAs with their detailed scientific description of the evidence do not translate directly into information for local policy making.

The Scottish Health Technologies Group (SHTG) which comprises representatives from the Scottish Government, Directors of Planning, Finance, Public Health and Chief Executives from NHSScotland and is supported by the Health Services Research and Effectiveness Unit from NHS Quality improvement Scotland, aims to bridge this gap between Health Technology Assessment and decision making on implementing technologies. By bringing together decision makers within government, providers of services in the NHS and health services researchers able to offer support in identifying and interpreting evidence, the group produces advice for NHSScotland which translates international scientific evidence into local practice.

The SHTG produces and circulates widely a quarterly report which identifies all recently published UK and International HTA reports for technologies likely to have a major impact on healthcare delivery in Scotland. For each technology, summaries are produced, local contextual information added and an advice statement written. The group also prepares HTAs, systematic reviews and rapid reviews in response to requests from healthcare professionals in Scotland, taking into account work being done elsewhere. These may relate to topics covered in the quarterly report or other current areas of interest. Increasing support in the form of rapid reviews is being given to a newly formed National Planning Forum created to facilitate centralised planning decisions for NHSScotland. The group also produces costing tools and clinical and resource impact reports for key pieces of guidance likely to have a large impact on the health service eg. NICE MTAs and SIGN guidelines. Feedback on the work of the group is sought regularly and the outputs shaped accordingly. Identification of technologies suitable for disinvestment has been highlighted as a priority for future research.

The role of the SHTG can be seen as that of a knowledge broker and the programme of work provides practical examples of the translation of research evidence on health technologies into policy relevant information.

## 72. Facilitating evidence-informed health policymaking: the SUPPORT tools

Dr. Simon Lewin

Norwegian Knowledge Centre for the Health Services, Norway

Additional authors: Lavis, John, N; Oxman, Andrew, D; Fretheim, Atle

Keywords: **evidence-informed, policymaking, tools, systematic**

Type of abstract: 2

Statement of the research problem:

Knowing how to find and use research evidence can help policymakers and those who support them to do their jobs better and more efficiently. More systematic processes and tools can be used to support evidence-informed policymaking, identify needs for research evidence, find and assess evidence to address these needs, and go from research evidence to decisions.

Main approach:

A series of tools has been developed that can be used by those involved in finding and using research evidence to support evidence-informed health policymaking. These SUPPORT tools address four broad areas:

1. Supporting evidence-informed policymaking
2. Identifying needs for research evidence in relation to three steps in policymaking processes, namely problem clarification, options framing, and implementation planning
3. Finding and assessing both systematic reviews and other types of evidence to inform these steps, and
4. Going from research evidence to decisions.

Each article describing a tool begins with scenarios designed to help readers decide on the level of detail relevant to them when applying the tools. Most of the articles describing the tools are structured using a set of questions that guide readers through the proposed tools and show how to undertake activities to support evidence-informed policymaking efficiently and effectively. These activities include, for example, using research evidence to clarify problems, assessing the applicability of the findings of a systematic review about the effects of options selected to address problems, and organising and using policy dialogues to support evidence informed policymaking. In several articles, the set of questions presented offers more general guidance on how to support evidence informed policymaking. The SUPPORT tools have been written for high-, middle- and low-income settings and, wherever possible, examples and additional information resources have been drawn from disparate settings.

Description of the research team and collaborators:

The SUPporting POlicy relevant Reviews and Trials (SUPPORT) project, an international collaboration funded by the European Commission's 6th Framework ([www.support-collaboration.org](http://www.support-collaboration.org)).

Linkages to policy:

By focusing on how to support the use of research evidence in health policymaking, the SUPPORT tools are meant to aid the use of the best research evidence available at the time that it is needed and in the time available to compile such evidence.

Implications for future research:

Some of the activities to support evidence-informed policymaking that are addressed in the SUPPORT tools have received considerable attention in research while others have received less attention. We are now engaged in work that attempts to build a more rigorous evidence base for some of these areas, such as how to organise and use policy dialogues. Feedback on ways to improve the tools is welcome.

### **73. Embedding knowledge translation into research programs to influence policy – The case of Canada’s Global Health Research Initiative**

Mr. Marc Cohen

Global Health Research Initiative (GHRI) , Canada

Additional authors: Nafissatou Diop, Carol Clemenhagen

Keywords: **knowledge translation, evidence based policy, capacity building, program features**

Type of abstract: 2

#### 1) Statement of the research problem:

In recent years, the contribution of global health research to the achievement of the United Nations health-related Millennium Development Goals has received increasing attention. The need to develop better means to improve the uptake of research evidence into policy-making has been identified as one of the building blocks for progress in strengthening health systems. The literature on knowledge translation and exchange (KTE) is unanimous: it is essential to involve decision-makers as early as possible in the research process and to develop effective strategies to enhance decision-makers’ skills for using research results in the decision making process.

#### 2) Main approach, state-of-affairs and/or outcomes:

The Global Health Research Initiative (GHRI) is a research funding partnership of five departments and agencies of the Government of Canada. The partners are the Canadian International Development Agency (CIDA), the Canadian Institutes of Health Research (CIHR), Health Canada , the International Development Research Centre (IDRC) and the Public Health Agency of Canada (PHAC). GHRI funds research projects, including projects on health services, through a competitive grants process.

To increase the likelihood that research can productively influence policy, GHRI uses multiple strategies, including merit review committees composed of both researchers and decision-makers; a requirement that a knowledge translation and exchange component be included in proposals submitted for funding; and active involvement of decision-makers in project teams. In addition, funded teams can be awarded supplementary grants. These grants support research activities specifically focused on KTE, improving KTE capacity at the institutional level, and reinforcing opportunities to influence policy that arise throughout the life of a project. Examples include development of a graduate knowledge translation course in Kenya, and linking decision-makers and researchers working on same issues in both Western and Eastern Africa.

#### 3) Description of the research team and collaborators:

The GHRI program officers work closely with the funded teams to gather learning experiences related to knowledge translation, exchange, and uptake into the decision-making process.

#### 4) Linkages to policy:

Compiling and synthesizing evidence from research projects, and highlighting what works and what does not work in different environments, is key if the GHRI approach to KTE for linking research with policy and practice is to be standardized.

#### 5) Implications for future research plans:

The GHRI approach is expected to foster linkages between decision-makers and researchers and increase the skills of the two communities to better work together and understand each other’s needs.

## 74. Implementing a process for the rapid support of evidence based decision making

DI DR. Stefan Mathis

Ludwig Boltzmann Institut Health Technology Assessment, Austria

Keywords: **Process implementation, scientific format, PICO, GRADE, PRISMA**

Type of abstract: 2

Using best evidence for health care decisions is necessary nowadays. One assignment in Austria is to update the catalogue of medical services: Decision makers must decide whether or not to include new health services (HSs)/health technologies (HTs) for reimbursement. The same HS or HT may also be under evaluation in other countries, because new services and technologies are globally distributed. The collaboration in evaluation efforts between nations is therefore advocated by the European Community (e.g. "Mutual Recognition"). But the exchange of knowledge may be limited due to non-standardised processes, differing methods for data analysis and presentation of results.

We identified ways of best practice in summarising the evidence and developed a prototype scientific format. Additionally we implemented an according work flow that is continuously updated by adaptation/learning from the past.

The "MEL-Format" starts with defining the scientific question in the PICO format (determining population, intervention, control-intervention and outcomes), continues with reporting the systematic search and hand searching by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) and assesses the level evidence by GRADE (Grading of Recommendations Assessment, Development and Evaluation). Additionally we collaborate with Germany's NUB (new examination and treatment methods) initiative by means of announcing the ongoing topics to each other and synergistically realigning the labour. Within our collaboration with EUnetHTA partners we also plan to adopt the EUnetHTAs Core Model (a project of transnational sharing of health technology reporting elements) into the MEL-Format. The report structure and the processes are optimized under several aspects (e.g.: specialisation by defined roles, paralleled actions, templates and check lists, adjustment to decision maker's schedule, and quality by external review)

The MEL-Format directs to an easy to handle information for decision makers, with proven validity and (even transnational) impact. The implemented best practices of performing and presenting evidence evaluations contribute to this handiness. Using GRADE specifically help to show, where evidence is missing and to focus primarily on patient relevant outcomes.

Challenges in optimizing the process are how to deal with "umbrella questions" (groups of indication, groups of interventions), how to be more transparent (e.g.: Internationalized tables) and improved exchange of topics.

## 75. The Norwegian Council for Quality Improvement and Priority Setting in Health Care: A review of how a national body can be instrumental in promoting priority setting questions as well as quality and safety issues in a national health care setting, based on research evidence

Mr. Ånen Ringard

Norwegian Knowledge Centre for the Health Services, Norway

Additional authors: Berit Mørland, John-Arne Røttingen, and Ånen Ringard

Keywords: **Priority, Quality, Research evidence, HTA**

Type of abstract: 3

Internationally it is often asked how a society can meet population health care needs in a fair way, under limited resources. Priority setting, and quality and safety issues, has remained on the policy agenda in Norway for the last 2-3 decades. Explicit criteria for priority setting were included in legislation in 2001 (The Patient Rights' Act). Priority should be given to interventions according to 1) severity of the condition, 2) the expected outcomes from the intervention, 3) a reasonable cost-effectiveness. In 2005 a national strategy for quality improvement, covering the period 2005-2015, came into effect. Both documents provide challenges to the evidence informing policy decisions.

From principles to policy advise and decisions: National health plan (2007-2010)

The current National health plan underlines the need for a more comprehensive approach to priority setting and quality. A key feature of the plan was the establishment of a National Council (NC). The

NC consists of 25 health care executives, but does not assume authority from other institutions within the system. Instead, it offers an arena for responsible actors to discuss, through a transparent process, difficult topics of national concern. The Council bases its discussions on the best documented evidence available (often HTAs). The aim is to reach decisions considered legitimate by all stakeholders.

*The Norwegian Minister of Health,*

*“This Council will make us more confident that we are making wise choices”*

The main areas for discussion:

- 1) Social- and geographical inequalities in health care provision;
- 2) Introduction of new (and costly) treatment options;
- 3) Division of work and functions;
- 4) Initiation of national guidelines;
- 5) Coordination between primary and specialist health care services.

Results:

More than 50 cases have been discussed, and most of them been implemented by the responsible authorities. Most cases have, so far, focused the hospital sector and the topic of introduction of new technologies.

The processes and the results of the NC's deliberations will be illustrated through examples:

Introduction of new and costly technologies (MAbs in cancer treatment)

Population based public health interventions (screening, vaccines)

National guidelines (prevention for cardio-vascular disease, treatment of sleep apnoea)

Prioritization (cochlea implantation for adults)

Conclusions:

- The NC has based its debates on best evidence but also asked for inputs that illustrate the dilemmas and elements of uncertainty.
- The importance of broad discussions and transparent processes among all relevant stakeholders prior to decisions has been proved.

The members of the NC who have executive positions responsible for the regulation or provision of health care have to a large extent been able to take necessary initiatives for the follow- up in their respective positions.

## **76. The impact of pharmacoeconomic assessment on national formulary decisions: a comparative analysis of three Asian Pacific countries and three European co**

Mrs. Saskia van der Erf

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Additional authors: Chow Wai Leng; Lim Jeremy Fung Yen

Keywords: 'pharmacoeconomic assessment' 'formulary decisions' 'comparative analysis'

Type of abstract: 3

Policy Problem:

As healthcare costs increase globally, striking a balance between societal affordability and individual access to life saving pharmaceuticals, becomes increasingly significant. Important policy issues are raised when national authorities establish procedures to determine which medicines to reimburse. Governments ideally want to allocate subsidies based on best available evidence on clinical and cost effectiveness of the drugs under review. But do governments always choose to do so?

Objective and Method of Comparative Analysis:

The objective of this comparative analysis is to describe the impact of pharmacoeconomic assessment on national formulary decisions for three Asian Pacific countries (Australia, Hong Kong and Singapore) and three European countries (United Kingdom (UK), Germany and France). Information was obtained from published literature and policy documents on official websites of various healthcare authorities and international institutes. Local and foreign experts were interviewed.

*Policy Impact of Pharmacoeconomic Assessment:*

For Australia, similarly as the UK, national formulary decisions are heavily based on pharmacoeconomic assessment as it is the main criterion to decide if a drug should be listed, with a known range of Incremental Cost Effectiveness Ratio's where eligibility for subsidy would be most likely.

For the other countries reviewed, pharmacoeconomic assessment is only one of the deciding considerations with other factors such as effectiveness and innovative nature being evenly or more important. Hong Kong takes into account overseas reimbursement status, while Singapore looks at burden of disease while making reimbursement decisions. In Germany, formal cost effectiveness analysis initially was not part of the formulary decision-making process. However, in 2008 it developed its own cost-benefit assessment method. Likewise in France economic evaluation of drugs has been made compulsory only recently in 2008.

**Evaluation:**

Pharmacoeconomic assessment has profound impact on policy decisions in Australia and the UK but less so and in less direct fashion in other countries. Relying on cost-effectiveness, the Australian Pharmaceutical Benefits Advisory Committee advises the Health Minister, who is unable to include a drug in the formulary without a positive recommendation. In the UK, treatments recommended by the National Institute for Clinical Excellence need to be funded and provided by public healthcare providers.

Cost-effectiveness analyses have less policy impact in the other countries studied, as it is only one of the decision criteria. Moreover only in Hong Kong the Drug Advisory Committee decides whether a new drug will be included in the national formulary, whereas appraisal committees in the other countries prepare recommendations for the Ministry of Health to decide which drugs to include in the formulary.

**77. A health technology with multiple indications but little evidence: how can HTA help policy makers?**

Ms Karen Macpherson

NHS Quality Improvement Scotland, United Kingdom

Additional authors: Ritchie, Karen

Keywords: **Hyperbaric oxygen therapy; Health Technology Assessment; Evidence synthesis; Health policy; Commissioning**

Type of abstract: 3

Hyperbaric oxygen therapy (HBOT) is considered standard therapy for decompression illness. However, it is also used in numerous other indications, for which the evidence base has been questioned. The UK Specialised Services Public Health Network wished to prepare a commissioning policy for NHS England such that funding would only be available for indications with evidence of benefit. To inform this policy, they requested NHS Quality Improvement Scotland to undertake an HTA examining the clinical and cost effectiveness of HBOT for all documented indications. The review aimed to group indications into: those of proven benefit and cost-effectiveness, so should be used in the NHS; of proven benefit but not cost-effective, so should not be used in the NHS, of unproven benefit but with sufficient suggestion of possible benefit to be used in trials; of proven lack of effectiveness so should not be used. Given the range of possible indications, a large amount of literature was retrieved. To manage this literature, a hierarchical approach to evidence selection was adopted, and the review built upon existing secondary evidence where possible. It emerged that the majority of secondary evidence was based upon a small number of primary studies of generally poor quality and that there were few additional well-conducted studies. Consequently it was only possible to group indications according to those for which: there was clinical effectiveness evidence, or consensual evidence supported by a theoretical basis, to support the use of HBOT; there was insufficient evidence to support the routine use of HBOT; the evidence did not support the use of HBOT. The findings have been translated into a commissioning policy based upon a traffic light system of red, orange and green indications. This policy is now being used to promote consistent,

evidence-based practice across England, and also to ensure that outcomes data is gathered, enabling evidence gaps to be filled. Some healthcare commissioners have indicated that they would like to have seen HBOT compared with the complete range of therapies available for each indication considered and the advice set in this context. Although this would undoubtedly be the optimal approach for informing decision making, it would appear to be impossible to adopt for a technology with multiple indications each with multiple comparators.

## 78. Evidence-informed screening policy in Finland

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Additional authors: Leipälä, Jaana; Mäkelä, Marjukka

Keywords: **screening, HTA, decision makers, evidence**

Type of abstract: 3

Screening programmes have effects on large populations and demand good collaboration between many health service units. Decisions about national screening programmes should therefore be based on solid evidence on effectiveness, harms, and cost. Where screening once has been introduced, it is difficult to discontinue it even for sound reasons.

In Finland, national screening programmes are familiar since screening of tuberculosis in early 1900s. Cervical cancer screening started in 1960s and breast cancer screening in 1980s, and legislation on these two programmes was passed in the 1990s.

The national unit for health technology assessment, Finohta, collaborates with the Ministry for Social Affairs and Health in the National Working Group for Screening. Finohta provides information about the effectiveness, cost, and harms of screening, as well as about the ethical, organisation, and social effects linked to various programmes.

New umbrella legislation on screening policies was passed in 2007. Here all previous legislation was collated, and screening for foetal abnormalities was added as a national programme. The programme on breast cancer screening was also updated. All changes were based of extensive health technology assessment (HTA) reports that the Ministry had commissioned from Finohta.

Based on the HTA reports, Finohta has also produced information materials for citizens as requested by the Ministry. For breast cancer screening, we have renewed all information materials used in invitations to mammography. The aim has been to provide sufficient information for citizens to make informed decisions about participation. All service providers can use these materials without a fee, and local health centres can build links to the website materials.

Screening for foetal structural and chromosomal aberrations during pregnancy is a touchy topic. After an extensive HTA report, Finohta has also produced information leaflets for expectant families in Finnish, Swedish and English. For professionals participating in the screening, a booklet advises on successful ways of giving ethically touchy information, and discusses best practices in practical screening situations. These and complete training materials are also freely available on the website.

Next, the National Screening Group is prioritising all possible screening programmes and discussing the national approach. Screening decisions need to be supported by up-to-date, multiprofessional information. Collaboration between the Ministry and the HTA institute thus continues.

## 79. Managed Uptake of Medical Methods (MUMM) - a tool for decision making

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Keywords: **emerging technology, systematic review, decision making, effectiveness, assessment**

Type of abstract: 3

Numerous new medical methods emerge every year. New technology is often expensive, and safety is not always well established.

In Finland the national programme entitled Managed Uptake of Medical Methods (MUMM) started in December 2005. Our aim is to create common procedures in implementing new medical methods in specialized care and to assure sufficient effectiveness, safety and costs of the new implemented technology. MUMM is a joint programme between the twenty Finnish hospital districts and Finohta (Finnish Office for Health Technology Assessment). Finohta is responsible for the MUMM review process, and the Advisory Committee with hospital districts' deputies gives its recommendations based on the review.

The suggestion of a new technology for evaluation process will be presented with a miniHTA formula describing technology, patient, organisation and finance. Hospitals can adopt a miniHTA procedure for their own use while making changes in their practice.

MUMM Advisory Committee including a chief doctor from each hospital district has two main tasks

- 1) to identify emerging new technology for the MUMM review
- 2) to give recommendations about new technology: whether to use or not to use, or use with caution before more evidence of safety or effectiveness has cumulated.

Finohta forms a review group to evaluate the method. Two clinicians, familiar with the method, will be invited to the group. Participation in the review group makes evidence based practice familiar to the clinicians and lowers the threshold to search evidence. The rapid systematic MUMM review with an English abstract will be published in the peer reviewed Finnish Medical Journal and on Finohta's website.

MUMM Board includes seven clinical experts with a broad outlook of health care. The Board prepares a recommendation for use of the technology based on the published review to the Advisory Committee meeting. The Committee gives its recommendation with green (use), yellow (be watchful) or red (do not use) light with possible restrictions, e.g. if any expertise, education or centralization is needed. By the end of year 2009, 18 recommendations have been given: seven green, ten yellow, one red.

Evaluation of the MUMM success is going on measured with recommendation adoption in hospitals. The only red light was given to the technology already widely used. Only two hospitals decided to stop using the method. There was no evidence supporting its efficacy but instead there were some safety concerns. Results from an ongoing randomized controlled trial are expected to update the review.

## 80. Slovene Network for HTA. Wishful thinking or possible solution?

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Keywords: **Slovenia, health technology assessment, network, cost effectiveness**

Type of abstract: 3

Introduction:

Due to the fast development of health technologies, better availability of information to the patients and the rising number of chronic patients, and on the other hand the limitation of financial resources in health care system, Slovenia experiences increased need of priorities setting for resource allocation in health care. Several countries have integrated HTA into policy, governance, reimbursement or regulatory processes. As a scientific field it can importantly affect and improve processes and quality of decision making in health care.

In Slovenia the systematic approach towards health technology assessment is in process and the article presents and explores the idea of Slovene Network for HTA.

Methods:

Based on the literature search and its analysis the basic definitions were explored and the different systems of organizing HTA were researched and compared. The suitable combination of elements was combined to formulate the idea for organization of HTA in Slovenia.

Since it is assumed that without HTA in the last decades in Slovenia the technologies used in health care are not cost effective or are not used cost effectively, three health technologies were selected (based on predefined criteria) that were introduced in 2007 and the consequences of their introduction on patients as well as on providers and payer (Health Insurance Institute of Slovenia) were researched.

#### Results:

The analysis of the impact of the introduction of new health technologies into health system showed, that their introduction had an impact on resource allocation among the hospitals as well as among health care programmes. On the other hand, it was shown, that the providers were not able to provide the data on patients that would prove the cost effectiveness of the technology as was described in the application for the introduction of the technology. The data were not collected or were collected only partially and the follow up on the patients was not carried out. Moreover, the payer never demanded such data from the providers, but is still paying for the programme, although its results are not clear and measured. The conclusion is that systematic approach to HTA is needed and the health technologies, foremost expensive and innovative ones need to be followed and their impacts measured.

Due to objective constraints existing in Slovenian health care system the best form of organizing health technology assessment field in Slovenia is to organize it in a form of network on very democratic principles excluding the principles of hierarchy and institutions. Although the final decision will come from political background, the professional form based on contextual factors talks in favour of HTA network, that would connect all interested and knowledgeable stakeholders.

## 81. Consequences of population screening for abdominal aortic aneurysm (AAA) – a health technology assessment

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Additional authors: Jensen, Lotte G.; Loevschall Claus; Bech, Merete; Ehlers, Lars

Keywords: **decisionmaking, screening, health technology assessment, abdominal aortic aneurysm**

Type of abstract: 3

#### Background:

Abdominal aortic aneurysm (AAA) is a severe pathology with a prevalence of 4-8% in men over 65 years of age. AAA rarely gives rise to symptoms until its rupture, which shows very high mortality rates (70-95%). The evidence base for treatment is relatively clear. Its diagnosis is established by means of ultrasonography, which is of low cost, well accepted and has a high sensibility and specificity. Depending on the size of the aneurism elective repair is offered in order to avoid rupture.

#### 1. Policy problem:

The objectives of this health technology assessment was to assess the evidence base for the effect of AAA population screening and to evaluate the consequences of implementing a screening programme for men aged 65-74 in Denmark, also including patient-related, organizational, economic and ethical consequences.

#### 2. Type of research:

The analysis of the evidence for the effect of AAA population screening and of the patientrelated aspects including an ethical analysis were based on a systematic review of published HTA reports, reviews and primary studies. The analysis of organizational and economic aspects was based partly on a literature survey and partly on collected data and register data.

#### 3. Impact:

AAA screening for men aged 65-74 reduces the mortality related to this pathology. The assessment also found that the introduction of AAA screening is not cost-efficient provided that a willingness to pay threshold of approx. £ 30,000 per QALY is adopted. Other aspects related to the patient, organization and ethics does not provide any clear indication as to whether AAA screening should be recommended or not.

#### 4. Evaluation:

The assessment of the different aspects of implementing a screening programme compared to alternative strategies shows a complex of pros and cons towards implementation. The literature review

shows that AAA screening of males aged 65-75 years can reduce AAA mortality, however screening does not seem to be cost effective. The following decisionmaking process has shown that handling the different perspectives on the findings during the decisionmaking process is crucial if the research findings is expected to provide impact.

## 82. The value of a threshold for the cost per QALY gained for health care decision making in different health care systems

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Additional authors: Neyt, Mattias; Thiry, Nancy; De Laet Chris; Leys Mark

Keywords: **Health Technology Assessment, cost-effectiveness analysis, incremental cost-effectiveness ratio, reimbursement decision making**

Type of abstract: 3

### 1) Policy problem:

Health care policy makers responsible for the allocation of scarce health care resources use several criteria in the decisions making process. One of the criteria is efficiency or value for money. Efficiency of health interventions is assessed by means of cost-effectiveness analysis (CEA). CEA informs decision makers about the best way to allocate scarce health care resources to obtain maximum health. A typical result of CEA is the cost per quality adjusted life year gained (cost per QALY), i.e. the incremental cost-effectiveness ratio (ICER). The ICER as such gives no information as to whether an intervention is worthwhile implementing. To be useful for decision making, therefore, the ICER of an intervention must be compared to some kind of threshold value for the ICER, above which an intervention would no longer be considered worthwhile.

### 2) Type of research:

This study is a reflection on the value of CEA, as part of health technology assessment, for health care policy making. It thus makes the link between health technology assessment and health services research.

### 3) Policy and other impacts:

We explore how basic differences between different health care systems (social security systems versus national health care services systems) impact upon the potential usefulness of the ICER threshold value. The objective is to establish realistic expectations of the opportunities and limitations of CEA for policy decisions in different health care systems.

### 4) Evaluation of success and failure factors:

We argue that a single and unique ICER threshold value cannot be maintained, defined or measured and should not be used as a policy making tool, neither in a fixed budget system nor in a flexible budget system. In practice, the ICER is still limited in its capacity to take societal values such as equity and preference for life-saving treatments into account. None of the solutions explored up till now (such as weighing QALYs or defining the threshold as the maximum societal willingness to pay for a QALY) can turn the ICER threshold into an absolute decision criterion. However, despite the limitations associated with ICERs and ICER threshold values, ignoring economic considerations in health care policy making would be unethical.

Rather than trying to turn it into a rational quantitative process it is more important to increase transparency in the decision criteria used and their relative importance in each decision. Results of cost-effectiveness analyses should be reported in disaggregated form, "unpacking" the ICER as well as presenting other economically relevant outcome parameters that can be derived from the economic evaluation but that are not necessarily visible in the ICER estimate.

### 83. **Reviews of reviews: the highest level of evidence or a step too far?**

Ms Karen Macpherson

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Additional authors: Ritchie, Karen

Keywords: **Systematic reviews; evidence synthesis; Health Technology Assessment; Rapid reviews**

Type of abstract: 4

With the growth in primary literature has come a corresponding increase in secondary level evidence, which can itself be synthesised. Time constraints when undertaking rapid reviews to inform policy making mean that synthesis of this secondary level evidence, when it is available, is often the approach adopted for these products. Given the newness of this type of synthesis and lack of relevant methodological literature, there is a need to explore the purpose and problems of synthesising the findings of systematic reviews and HTAs.

Two recent systematic reviews commissioned from NHS Quality Improvement Scotland<sup>1,2</sup> have involved synthesising previously conducted systematic reviews and HTAs and these provide case studies for examination of the technique. We found that while synthesis of secondary literature can offer substantial time savings, and in some cases offer greater confidence in conclusions drawn, assessing the quality of systematic reviews can be problematic. We also noted that there can be differing coverage and interpretation of primary results within the secondary literature and that there is a potential for inaccuracies in the primary literature to gain wider dissemination. A further issue is that the evidence base can be artificially inflated where there are numerous reviews all based upon a small amount of primary literature.

There are number of uncertainties regarding this type of synthesis and the way ahead is not clear cut. As such there is a need for debate on the merits of synthesising secondary evidence. Consideration needs to be given to the worth of this approach relative to adopting or adapting the most recently undertaken and/or highest quality systematic review or indeed returning to the primary literature. One of the products of the European Network for HTA (EUnetHTA) collaboration project was a tool for adapting existing HTAs<sup>3</sup>. Growing pressure on researchers to interpret secondary literature to provide advice to policy makers, means such discussion is urgent.

1. Ritchie K, Baxter S, Craig J, Macpherson K, Mandava L, McIntosh H, Wilson S. The clinical and cost effectiveness of hyperbaric oxygen therapy. HTA Program: HTA systematic review 2: May 2008. NHS Quality Improvement Scotland: Glasgow; 2008.
2. Macpherson, K. Computed Tomography (CT) Colonography. A Health Technology Assessment Scoping Report. NHS Quality Improvement Scotland: Glasgow; 2007.
3. [http://www.eunetha.net/upload/WP5/EUnetHTA\\_HTA\\_Adaptation\\_Toolkit\\_October08.pdf](http://www.eunetha.net/upload/WP5/EUnetHTA_HTA_Adaptation_Toolkit_October08.pdf)

### 84. **Evidence-informed policy and complex interventions – a methodological gap?**

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Additional authors: Macpherson K; Holdsworth L

Keywords: **complex interventions; realist review; rapid review; health technology assessment**

Type of abstract: 4

Since the early 1990's there has been wide acceptance for the requirement of an evidence base to support many aspects of clinical care including the use of health care technologies such as drugs, devices and diagnostic tests. This has been reflected particularly during the last decade in the exponential growth in the number of systematic reviews published by the Cochrane Collaboration, the increasing number and influence of evidence-based clinical guidelines and the growth of HTA agencies across the world.

As evidence-based policy formation becomes the norm for drug reimbursement and other health technology adoption decisions, decision makers are also requesting that an equally robust evidence base is established for other more complex interventions for example health improvement initiatives.

Methodologies for appraising complex interventions are much less well developed than the systematic review and meta-analytical approaches have been established for healthcare technologies as was recently debated by Shepperd et al.(1) Those methods, such as narrative synthesis and realist review involve time consuming processes and result in lengthy documents which policy makers may find, inaccessible in that they are difficult to interpret and unsuitable for the development of policy decisions.

One of the drawbacks of the systematic review process used is the time taken to produce the synthesised evidence base eg 28 months for SIGN guidelines, and 18 months for a full health technology assessment. As decision makers are now routinely expected to use robust evidence when developing policy, methods have been developed to reduce the time taken to develop this evidence base. Models such as the Scottish Medicine Consortium approach to drug evaluation, which is completed within 3 months of manufacture submission have, therefore, been duplicated across the world.

Our organisation is regularly requested to develop an evidence base for complex interventions and has recently been asked to review the evidence to allow development of the curriculum for maternity unit delivered parenting classes for NHS Scotland. This review is required within a two month period – a very challenging assignment given the volume and heterogeneous nature of the literature. Similar issues are faced by policy developers internationally.

We have therefore identified an urgent need to develop methods to rapidly assimilate and review the evidence of effectiveness of complex interventions and to make this available to inform policy development.

We are currently examining the processes required to develop and test a streamlined but robust methodology to meet the requirements of policymakers.

1) Sheppard S, Lewin S, Strus S et al. Can we systematically review studies that evaluate complex interventions. 2009 PLoS Medicine 6(8) e1000086

## 85. The challenges for the prevention in the upcoming millennium: the case of vaccines and the Health Technology Assessment

Dr. Chiara de Waure

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Additional authors: La Torre, Giuseppe; Specchia, Maria Lucia; Gualano, Maria Rosaria; Capizzi, Silvio; Nicolotti, Nicola; Kheiraoui, Flavia; Mannocci, Alice; Chiaradia, Giacomina; de Belvis, Antonio Giulio; Ricciardi, Walter

Keywords: **Health Technology Assessment, vaccine, prevention, resources allocation**

Type of abstract: 4

Policy issue:

National policies should be adopted in order to gain health with a reasonable resources allocation. Albeit non-communicable diseases will be the leading cause of morbidity and mortality in the future, policy-makers should be on the lookout for new and re-emerging communicable diseases. A huge number of vaccines will be moreover available in the future and decision-makers will be asked to identify how to best invest resources.

Policy solutions:

Throughout the years different criteria such as efficacy and cost-effectiveness have guided the decision-making process being anyway never comprehensive in highlighting all the aspects of the introduction or the implementation of a health technology. In fact, the efficacy and the economic criteria represent by now prerequisites for considering potential benefits of a health technology.

Necessary research:

The Health Technology Assessment (HTA) is a multidisciplinary approach aimed at evaluating all the implications of the use of a health technology; it requests a wide expertise and different abilities. Key elements of the HTA approach are: the application of epidemiological methods, the economic analysis, the management skills and the sociological and ethical evaluation. The HTA approach is becoming more and more widespread and it is used for evaluating different health technologies, mainly drugs. Since the poor amount of resources nowadays dedicated to prevention and Public

Health and the foreseeable organisational, economic, epidemiological and social implications of the new vaccines, HTA could represent the way to account for their analysis.

Successes and failures of HTA for vaccines:

In Italy the HTA approach has been successfully applied to Human Papillomavirus (HPV) vaccines introduction pointing out the important HPV burden of disease, the cost-effectiveness of vaccines introduction, the efficacy of vaccines, the need for harmonising and implementing sensibilisation strategies and vaccination campaigns and the level of knowledge and compliance of people in relation to HPV prevention. The advantages and strengths of applying HTA to vaccines could be really promoted integrating it in the decisional and political processes. This means that the most important current barrier to HTA is represented, in Italy, by the separation of policy-makers and researchers. Anyway virtuous examples in HTA application let us trust in its future development and utilization in order to support informed and evidence based policies.



## **7 Parallel session 4: 'Benchmarking & Performance indicators'**

**Thursday 8 April 2010, 14.00 – 17.00 hours**

### **Format of the session:**

Overview state-of-the-art & carousel round discussions on:

- Research on the validity of indicators
- Requirements for national information infrastructures
- Use and misuse of performance indicators

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- 102. The Need for Health Informatics Policy and Practice Research**  
Professor Michael J Rigby
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Prof Aldo Rosano
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- 106. Italian National Outcome Programme for comparative evaluation of health services**  
Dr Carlo Perucci

## 86. Evaluation of international benchmarking in eye hospitals

Mr Dirk F. de Korne

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Additional authors: Sol, JCA; Van Wijngaarden, JDH; Klazinga NS

Keywords: **benchmarking, hospitals, international, performance indicators**

Type of abstract: 1

### Research problem:

Benchmarking has become very popular to improve quality among managers in the private and public sector, but little is known about its applicability in international hospital settings. The purpose of this study is to evaluate the applicability of two international hospital benchmarking initiatives in eye hospitals.

### Theory and methods:

To assess the applicability, an evaluation frame was constructed on the basis of a systematic literature review. The frame is applied longitudinally to 1) a case study of 9 hospitals that use a set of 19 performance indicators for total quality benchmarking and 2) a case study of 7 hospitals that use a set of 10 performance indicators for efficiency benchmarking. Document analysis, questionnaires, semistructured interviews with stakeholders in each hospital are used for qualitative analysis.

### Findings:

The evaluation frame consisted of four areas with key conditions for benchmarking: purposes of benchmarking, performance indicators, participating organizations, and performance management systems. In case study 1, we found that the international benchmarking between eye hospitals scarcely met these conditions. The used indicators were not incorporated in a performance management system in any of the hospitals. Despite the apparent homogeneity of the participants and the absence of competition, differences in ownership, governance structure, reimbursement and market orientation made comparisons difficult. Benchmarking, however, stimulated learning and exchange of knowledge. It encouraged interaction and thereby learning on the tactical and operational levels, which is also an incentive to attract and motivate staff. A paper with details about case study 1 is in press\*. Case study 2 is currently performed and we expect the first results in March 2010.

### Conclusions and implications:

Although international hospital benchmarking seems to be a rational process of sharing performance data, case study 1 shows that it is highly dependent on social processes and a learning environment. It can be useful for diagnostics, helping local hospitals to catalyze performance improvements.

### Innovative character:

The research is performed with a multidisciplinary, international team with both academic, hospital and policy participants.

\* De Korne DF; Sol JCA; Van Wijngaarden JDH; Van Vliet EJ; Custers T; Cubbon M; Spileers W; Ygge J; Ang C-L; Klazinga NS. 'Evaluation of an international benchmarking initiative in nine eye hospitals.' *Health Care Management Review*, in press.

## 87. A novel framework for the routine production of EU indicators: the BIRO system

Dr Fabrizio Carinci

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Keywords: **health information systems, diabetes, quality and outcome indicators, benchmarking, performance evaluation**

Type of abstract: 1

The research problem:

Despite of an overwhelming amount of individual data recorded on a routine basis, health information across Europe is still fragmented, underutilized and insufficiently summarized for the needs of policy makers. The EU Programme of Community Action in the Field of Public Health included actions to produce comparable information on health and health-related behaviour of the population, diseases and health systems. Sustainable systems to produce structural, process and outcomes indicators on a continuous basis are increasingly required.

Theory and research methods:

The BIRO project (<http://www.biro-project.eu>) developed a new method to realize a transnational information system, using diabetes as a testbed application. Client software incorporates routines mapping local definitions to EU standards, transforming data into a common format, and running statistical analysis to produce fully comparable "local" reports of quality and outcomes indicators. Aggregate data resulting from the calculation of on-site indicators are transmitted towards a central repository, which maintains and runs server software to deliver overall the European "global" report on a dedicated web portal.

Main findings:

The system has been fully implemented, is stable and shows high levels of performance. The architecture has been validated against principles of the EU Data Protection Directive through a formal procedure of privacy impact assessment. The uptake is facilitated by a model that is completely based on open source. The case of Cyprus has been particularly successful: in only three years, the Government created a first diabetes clinic in Larnaca, started a local BIRO registry now including over 1,000 patients, and now announces the launch of a national network of diabetes clinics. The system is now being rolled out to partners from 20 EU countries in the framework of the EUBIROD project ([www.eubirod.eu](http://www.eubirod.eu)).

Innovative character of your research:

The BIRO system is ideal to connect institutions that have full access to linked databases. It can distribute the workload of statistical analysis and share the results obtained without any information loss or threat to individual privacy. The system can produce risk adjusted standardized indicators, using multivariate logistic regression on top of finely tuned aggregated data. Through its general approach, it can allow a rapid implementation of European systems of quality indicators e.g. those used by the AHRQ in the US.

## 88. Evidence based Health Informatics: guidelines and the road ahead

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Additional authors: Rigby, Michael; Khaled, Mehdi

Keywords: **evaluation, guidelines, evidence base, post-market surveillance**

Type of abstract: 1

IT is considered to be indispensable for modern health care delivery. The vision is that by meaningful use of IT the quality of health care can be improved, costs and more important medical errors can be reduced. There is a tendency to stimulate a widespread application of IT as to achieve these expected benefits even though evidence of the real impact of the broad application of IT in health care is scarce. Implementation of such systems is not trivial, nor is the evaluation of the impact those

implementations have on the organization, the workflow and the quality of the care delivered. Tasks and responsibilities of the various health care providers are affected by the implementation of the IT. It is more rule than exception that the benefits and costs of the implementation are not shared by the same stakeholder. To be able to effectively implement IT in health care it is essential that a proper evidence base exists of the costs and benefits of the various IT applications, not only of the financial aspects but also of the socio-organisational aspects and health related aspects.

In 2003 the ESF funded a workshop on evaluation of Health IT. Participants in this workshop underlined the ethical imperative to evaluate Health IT like any other intervention in Health Care. In addition the need for guidelines to plan, execute and report evaluation studies was recognized. From this meeting the HIS-EVAL group emerged. Members of this group of experts in evaluation of Health IT have developed guidelines for reporting and are developing guidelines for good evaluation practice. The reporting guidelines – STARE-HI – have been endorsed by the board of EFMI and adopted by the general assembly of IMIA. Thereby these guidelines have gained broad international support.

Furthermore they are listed on the Equator network alongside widely recognized and used reporting standards for all kind of clinical studies, like CONSORT for RCTs in health care. Innovative applications of ICT in health care require proper evaluation, not only whether clinical benefits are realized but also of the human factors and usability aspects of the implementation of the ICT in real (clinical) settings. Evaluation should not be seen as a one time activity. Continuous evaluation is required to detect hidden defects that may emerge only during routine clinical use of the systems. A system for IT incidents reporting should complement evaluation studies. This will not only support improvement of the systems in use, but also to improve patient safety and to educate others on the potential harms that exist in using those systems.

Broad adoption of the mentioned guidelines will contribute to the formation of a solid evidence base of Health IT, which will inform the policy and decision makers on how to provide high quality health care for all in an aging population.

## **89. Explaining mortality amenable to health services: The role of health care and patient related factors**

Prof Ilmo Keskimäki

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Keywords: **health services, amenable mortality, register based research, socioeconomic factors**

Type of abstract: 1

Research problem:

Mortality amenable to health care, i.e., deaths that should not occur in the presence of timely and effective health care has been proposed as an indirect indicator of potential weaknesses of the health care system. Amenable mortality is a significant public health hazard accounting for 15-36% of the total untimely death under 75 years of age in industrialized countries. However, factors contributing to the level of amenable mortality are not well known. The aim of the study is to investigate determinants of amenable mortality in Finland in 1991-2007. Accordingly, we examine the role of (1) health service related factors (health care resources and characteristics of local health care organization at different levels of the Finnish health care system), (2) deprivation, socioeconomic and geographical variation in quality of care and (3) factors related to patients' comorbidity and medical history in amenable mortality.

Theory and research methods:

The study will use data for the years 1991-2007 compiled through a linkage scheme linking individual data from several administrative registers including causes of death, health and social care, and health insurance registers as well as sociodemographic data from the population database, using the unique personal identifier. Statistical techniques applied to register based health services research will be used in statistical analyses, including age-standardised rates using the European standard population, Poisson regression models and multilevel Poisson regression models.

Main findings:

Amenable mortality has decreased in Finland and most other industrialised countries faster than

mortality due to other causes. However, its levels display large variations between socioeconomic groups and regions in Finland suggesting a further potential to reduce the numbers of amenable deaths.

Conclusions, policy implications and innovative character of the research:

The results of this study will disentangle the contribution of social deprivation and socioeconomic and geographical variation in quality of care to socioeconomic and regional differences in amenable mortality. Considering the targeting of potential interventions to reduce the numbers of these unnecessary deaths, the Finnish health registers offer an excellent research platform to investigate amenable mortality and to address the contribution of patient level factors as well as factors related to health care organisation and care processes.

## **90. Associations between diagnosed and undiagnosed disease prevalence, quality of care and hospital admission rates: ecological cross-sectional study**

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Keywords: **Disease prevalence, quality indicators, hospital admission**

Type of abstract: 1

For most common long term conditions there is evidence that only a proportion of prevalent cases are known to health services. Key questions in health services research and quality improvement are whether lack of diagnosis results in worse outcomes, and whether undiagnosed cases are more likely to require unplanned hospital admission.

The UK Quality & Outcomes Framework (QOF) incentivises general practice (GP) teams to find and manage effectively patients with QOF diseases, and provides high quality data on diagnosed prevalence, care delivery and intermediate outcomes. Associated epidemiologic prevalence models estimate the numbers of cases expected in each practice. The objectives of our study are firstly to investigate at practice level the associations between rates of hospital admission for QOF diseases and population factors (deprivation), quality of care (percentage of QOF points achieved/points available), QOF registered/diagnosed prevalence rates, expected prevalence rates, and undiagnosed prevalence rates i.e. expected minus QOF registered prevalence rates. Secondly, we aimed to investigate associations between QOF quality scores and rates of undiagnosed disease.

An ecological cross-sectional study design is being used. Participants are 152 English primary care trust (PCT) populations, approximating 50 million people. An earlier analysis of QOF data for coronary heart disease and diabetes showed weak correlations at PCT level between QOF-registered prevalence, area socioeconomic scores, and admission rates. The strongest relations were seen between area deprivation scores and elective and unplanned hospital admissions. We have extended this analysis to additional practice factors (individual effectiveness and access indicators), expected and undiagnosed prevalence, and other QOF diseases (chronic obstructive pulmonary disease, stroke and hypertension). We also present results of the practice-level analyses, and we are planning further work using linked primary and secondary care datasets.

Individual PCTs are already using the prevalence models to target case-finding work with practices, and early results suggest significant levels of undiagnosed disease. This research will help to develop cost-effective screening and case-finding strategies, will inform resource allocation to practices, and possibly reduce health inequalities.

## 91. **Factors associated with poor quality linkage when looking at long-term patterns of care: Finding previous deliveries of women giving birth in English NHS hospitals**

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Keywords: **Longitudinal data, data linkage, maternity care**

Type of abstract: 1

Aim:

In Hospital Episodes Statistics (HES), a unique patient identifier (the HESID) is assigned to episodes of care in NHS hospitals that belong to the same patient. HES data are available since 1997 but it is unclear how accurately HESIDs link patient episodes several years apart. We investigated this by examining whether the previous deliveries of multiparous women could be found in earlier years of HES data.

Method:

We extracted records from HES of women who delivered in English NHS hospitals between April 1997 and February 2009. We defined women who gave birth after 1 April 2008 as a reference cohort, and used their HESID to find earlier deliveries during the previous years. The nulliparous / multiparous status of women in the reference cohort was derived from the parity field in the HES maternity tail, restricting the cohort to hospitals with good quality parity information. For deliveries in 2008/09, we also collected the woman's age at delivery, ethnicity, and area of residence (10 regions).

Results:

The reference cohort contained 230,609 patients from 61 NHS trusts. The proportion of multiparous women in this cohort was 63% for women aged 20+ years, and 23% for women under 20 years. Overall, a previous pregnancy was found in 76% of women labelled as multiparous. Previous pregnancies were also found for 3% of nulliparous women. The proportion of previous pregnancies found among multiparous women was similar for those aged 20+ years (77% for 20-24, 79% for 25-29; 77% for 30-34, and 73% for 35+) but was lower for women under 20 (53%). The proportion of the previous pregnancies found for multiparous women also varied by ethnicity (White = 79%, Afro-Caribbean = 63%, Asian = 78%, Other = 59%) and between regions (median 77%, range = 65% to 83%) with London (65%) being lower than other regions.

Conclusion:

Linked HES data matched information about parity held in HES to a moderate degree, except for women aged under 20 years and women who deliver in London. Some errors will arise because HES data are incomplete and because of mistakes in the recorded parity. However, errors also reflect inaccuracies in the assignment of the HESIDs and these errors do not affect patient populations equally.

Innovation:

There is increasing interest in investigating long-term patterns of care using routine and linked datasets. Caution is required as episodes linked over several years may be incomplete and errors are not uniform across patient groups.

## 92. **Multidrug Resistant Tuberculosis as an Indicator of Health System Failure**

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Additional authors: Martin McKee

Keywords: **Drug Resistance; Tuberculosis; Health Systems; Health Services**

Type of abstract: 1

Multidrug-Resistant Tuberculosis (MDR-TB) is a human-generated amplification of a naturally occurring phenomenon. MDR-TB only began to emerge once treatment for tuberculosis became available and has been controlled in those settings where treatment regimes are well-managed. This

research seeks explanations for the emergence of MDR-TB in terms of weaknesses in TB programmes and health systems, and ultimately in wider issues of governance. The hypothesis is that the function of health systems has a downstream impact on the national incidence of MDR-TB. This research employs an original conceptual framework. The periphery of this model is framed with a series of contextual factors (e.g. dependency, economy etc.) in which health systems, disease control programmes, and human factors are framed. These external influences are presumed to be primary influences of the internal structures. Drug-resistance is depicted as a smaller subset of the total TB population that arises in response to upstream (contextual, health system, programme and human) factors. The conceptual model utilises, several theoretical perspectives, including: The Economic Modernization Perspective; Social Modernization Perspective; Political Modernization Perspective; and the Dependency Perspective. To further refine the framework, a systematic literature review will be conducted to enhance the rigour of the already completed narrative review. Propositions derived from the framework will form the basis of six in-country case studies. The case studies will seek to achieve literal replication in three high-incident MDR-TB countries, and theoretical replication in three low-incident countries. Data from these case-studies will provide an in-depth exploration of the conceptual framework. Due to limitations in global MDR-TB data, this study will further undertake a comprehensive critique of existing quantitative data, with recommendations presented. The biological mechanisms involved in the genesis of MDR-TB are well understood. However, the contribution of weaknesses in TB programmes and wider health systems are less well understood. This research seeks to contribute to this area of study. This poster presentation will allow the authors to present the conceptual framework and research methodology for peer review and feedback. This is a preliminary presentation of the research design that is being undertaken as a part of a PhD dissertation. Input is recognized as being essential in undertaking a study of this magnitude and complexity. The final products of this research will provide further evidence to support upstream policy and financing decisions with regard to MDR-TB.

### **93. Recording of adverse events in English general practice: analysis of data from electronic patient records**

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Additional authors: Majeed A, Banarsee R, Gnani S, Aylin P

Keywords: **Administrative data, adverse events, measurement methods, patient safety, primary care**

Type of abstract: 1

Research problem:

Reliable and validate instruments to measure and monitor patient safety in primary care are required. Routinely collected data have been applied to develop patient safety indicators in secondary care. The potential to build similar adverse event screening tools in primary care needs exploring and was assessed in a pilot study in England. This study will help determine the volume and nature of patient injuries that are recorded in primary care administrative data.

Methods:

Data from the Clinical Information Management Systems at Brent Teaching Primary Care Trust in London was obtained by the Department of Primary Care and Public Health, Imperial College London, through the West London Research Network. The dataset contained records for patients registered in 2007. Adverse events potentially attributable to medical care were identified through Clinical Terms, mapped to Read Code chapters of "Injury and Poisoning", "Causes of injury and poisoning", and "External causes of morbidity and mortality". Descriptive analyses and rates of adverse events were performed by age, sex, and ethnicity.

Findings:

Data was available for 69,682 registered patients from 25 out of 79 practices in Brent, consisting of 680,866 consultations. The rate of complications due to surgical and medical care was 0.72 cases of per 1,000 consultations (n=492). There were 855 cases of adverse drug reactions, with a prevalence of 1.26 reactions per 1,000 consultations. Systemic antibiotics, drugs affecting the autonomic nervous

system, and those affecting the cardiovascular system were commonly associated with adverse reactions.

#### Conclusions:

This study demonstrates that there is scope to develop adverse event measures using routinely collected data in UK primary care. Patient harm incurred in other care settings may also be detected using this data source. However, limited clinical detail and the coding structure specific to the Read classification system may restrict the range of events that is detectable. Assessments of preventability and processes of care involved in patient harm are not possible using this type of data alone. With increasing recognition from policy makers and the English government for the need to improve safety research in primary care, better mechanisms for safety surveillance are needed.

#### Innovation:

This research is innovative as little research on patient safety has been carried out in primary care in England and other countries, especially when applying routinely collected data for safety monitoring. There is potential for incorporating a robust new set of safety indicators into existing and new quality and performance schemes, such as the English NHS Quality and Outcomes framework. With other countries in Europe and elsewhere taking great interest in the UK's pay for performance system, there is potential for increasing the profile of new screens that provide early detection of adverse events in primary care.

## 94. Possible approaches to Benchmarking Voluntary Health Insurance Funds in Bulgaria

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Additional authors: Hristov, Nikolai

Keywords: **voluntary health insurance, market, comparing methods, benchmark index**

Type of abstract: 1

Following the adoption of the Health Insurance Law in Bulgaria (1999), which provided the legal framework for the development of the voluntary health insurance, several health insurance funds had been established. Bulgaria had two licensed voluntary health insurance funds in 2001; in 2003 their number grew to six; and in 2009 this number stands over twenty. Despite the increased number of funds in recent years, their share of healthcare spending stayed at 1-1.5%, which is below European average.

To this date, there are no serious and profound studies in the field among the scientific community in Bulgaria. The economic data published by the Commission of Financial Surveillance (CFS), conforms to EC regulations, but do not allow non-specialists to assess realistically voluntary health insurance funds (VHIF).

This article introduces a methodology for comparing VHIF and establishment of a complex index (Benchmark Index - BI) based on 5 groups of indicators, related to several available variables. This index is intended as a tool for analyzing the voluntary health insurance sector and managing resources through a set of analytic indicators and variables. It can be used to create a certain type of ranking of VHIF.

## 95. Development and application of the Benchmarking method in hospital management

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Additional authors: Hristov, Nikolai M.; Kundurdjiev, Todor G.

Keywords: **hospital, management, benchmarking**

Type of abstract: 1

The aim of the project was the development of methodology and the creation of index for comparing and assessing hospitals (Hospital Benchmark Index - HBI). A meta-analysis was conducted, on selected hospital management literature. A national inquiry using questionnaires of treatment facilities on the territory of the Republic of Bulgaria was conducted, regardless of their status or ownership. The investigation received support from the Ministry of Health and the National Health Insurance Fund (NHIF). We received data on the activities and results of hospitals for 2006, 2007 and 2008 from the NHIF. Inquiries were conducted among heads of hospital wards and clinics; physicians and nurses; patients and hospital managers. The aim of the inquiry «Organizational stability and personnel motivation» among physicians and nurses was to assess motivation and organizational stability and create a „Stability index ® of the organization (hospital)” – cumulative for the country and for each region. The aim of the inquiry in patient attitudes was to assess patients satisfaction and create a „Satisfaction index” - cumulative for the country and for each region. When developing the HBI all treatment facilities were compared in the following clusters: multi-profile hospitals, specialized hospitals, dispensaries and specialized hospitals for rehabilitation. The questionnaires and methods developed during the duration of the project are useable for expert assessments in the whole national healthcare system. As a follow-up to the project an Internet site will be established, providing opportunities for better informing the patients and hospital management teams.

## 96. Variability, quality of care and services consumption in primary care in Europe

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Keywords: **Primary Care, Variability, Quality, Depression, Accessibility**

Type of abstract: 1

Statement of the research problem:

Variability in clinical practice is one of the main factors of inequality in health services' provision. It's necessary to know which aspects contribute to this inequality for improving it. Primary Care (PC) Research on variability is limited, due to poor implementation of computer records, lack of unified criteria in the European Union, and other poorly investigated factors (geographic accessibility, health system features, individual characteristics,...). The analysis of these factors will make possible comparability between health systems. This will decrease the variability on pathologies diagnosis, and therefore will improve their prognosis and monitoring.

Depression is a highly prevalent pathology, mainly monitored on the PC, and whose patterns of resource consumption and treatment are assumed to be quite different. We propose it, as relevant pathology and appropriate to test the proposed model.

Objectives:

1. Estimating real prevalence of depression, standardized by age and gender
2. Describing geographical variability in diagnosis and services' consumption in depression in PC
3. Identifying patient's and/or health services' factors that may influence this variability
4. Determining the feasibility of use of various Bayesian models and the usefulness of thematic mapping to identify different distribution patterns
5. Describing and comparing the quality of care provided.

Research Methods.

Retrospective, observational and analytical project. The proposed approach is:

1. Description of standardized rates.
2. Database Analysis for the proposed diagnoses.
3. Descriptive and qualitative analysis audit-style.
4. Construction of mixed spatial Bayesian models.
5. Conducting thematic mapping to allocate and distribute the most significant variables.

#### Main findings

Nowadays variability on quality care and service consumption PC is difficult to assess due to lack of standardized criteria for description and analysis of service consumption in European health systems. We conducted a pilot study involving 25 health centers working with a total of 647,751 people registered for the study of 652,720 people in Incidence and Prevalence Study, using the design and methodology proposed. We found that the prevalence of depression is 55.4 per thousand patients of an inter-center variability of between 28.6 and 82.1. The incidence reached is 11.2 per thousand patients (5.8 -20.0). The new mapping tool will be presented in an annexed graphic.

Policy and other impacts. innovation of our proposal:

Our proposal is to develop links with other European groups interested on the analysis of diagnostic variability in PC health services. The main strength of our research is the use of a new tool for mapping that allows to describe spatial patterns and to complement clinical record systems for each country in a friendly way. This will also allow to analyze inequalities in terms of different variables, and to look for proposals to unify the record systems. The final objective would be to recommend policies to decrease variability of quality of care across Europe.

## 97. **Research Case Study: Assessment of Good Governance in Public Health in Republic of Macedonia**

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Keywords: **essential public health functions governance**

Type of abstract: 1

The analysis of good governance in Public Health in order to identify the “grey zones” and to provide recommendations and directions for its improvement. has been performed applying the instrument for evaluation of the essential public health functions (EPHF) - standardized questionnaire developed by US CDC & PAHO. The instrument incorporates 11 areas (essential public health functions) and outlines 49 indicators that are evaluated through answers on questions for measures and sub measures in the defined area. EPHF#11 Reducing the impact of disasters and emergencies to health, has been excluded in order to provide more detailed analysis of the other 10 EPHF. The translated instrument has been pre-tested on representative sample and adapted to be used in Macedonian context.

The survey interviews were performed in 3 stages on a representative sample of 3 groups of respondents – central government officials, representatives of government institutions at local level and representatives of NGO. Results from the three groups have been analyzed and summarized in a final report.

Comparative analysis of all 10 EPHF, applying conventional interpretation of results, shows that none of the EPHF prove optimal results, a score shared by all three groups of respondents. Highest score is recorded for EPHF#1 Monitoring, evaluation and health situation analysis, while lowest score is documented for EPHF#3 Health promotion, EPHF#8 Human Resource Development and Training in Public Health and EPHF#10 Research in Public Health.

Assessment of the specific indicators for each EPHF has identified existence of “grey zones”, which were used to perform subsequent SWOT analysis of governance in public health sector. Based on this analysis, the following recommendations for remedial activities have been given and presented to the key stakeholders in the public health sector.

Assessment of the specific indicators for each the functions has identified existence of “grey zones”, which were used to perform subsequent SWOT analysis of the governance in public health sector. Based on this analysis, recommendations were prepared and discussed at the meeting with key players in the public health sector.

**98. Shorter length of stay in the stroke unit and equally satisfied patients; a population based comparison between the 1990s and the 2000s**

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Additional authors: Ytterberg, Charlotte; von Koch, Lena

Keywords: **stroke, stroke unit, length of stay, inpatient rehabilitation, patient satisfaction**

Type of abstract: 1

The process ruling length of stay (LOS) in the stroke unit and subsequent inpatient rehabilitation is complex and knowledge about the significance of LOS and further about changes over time in LOS is lacking. Thus, the purpose of this study was to examine whether there are differences regarding LOS in the stroke unit and subsequent inpatient rehabilitation and patient satisfaction by comparing two samples of patients with mild to moderate stroke of which one sample received care in a stroke unit in 1993/96 and one in 2006/07.

Research method:

Two population based samples were recruited at the stroke unit at Karolinska University Hospital, Sweden, one in 1993/96 (n=40) and one in 2006/07 (n=43). Inclusion criteria were; independent in feeding and continent according to the Katz Index of ADL, Mini Mental State Examination >23, remaining needs of rehabilitation and LOS in the stroke unit  $\geq$  5 days.

Data regarding LOS was collected from the Stockholm County Council computerized register and patient satisfaction was assessed 3 months post stroke using a questionnaire based on Ware's taxonomy of patient satisfaction and covering different dimensions of care. Comparisons were performed between the two samples and between subgroups; patients independent with regard to the personal activities of daily living (P-ADL) (INDEP) and patients dependent in P-ADL (DEP).

Main findings:

The LOS in the stroke unit was shorter for the 2006/07-sample (median; 8 days) compared to the 1993/96-sample (13 days) ( $p < 0.001$ ). In the 1993/96-sample, there was a difference in LOS in the stroke unit between subgroup INDEP (12 days) versus subgroup DEP (15.5 days) ( $p = 0.03$ ) but no corresponding difference was seen in the 2006/07-sample. No difference between the samples was seen regarding LOS in subsequent inpatient rehabilitation or for the total LOS (stroke unit and subsequent inpatient rehabilitation). The two samples were equally satisfied with all assessed dimensions of care.

Conclusion and policy implications:

There has been a decrease in LOS in the stroke units for patients with mild to moderate stroke between 1993/96 and 2006/07. The LOS in the stroke unit has become more standardized in 2006/07 with the same LOS whether the patient is independent in P-ADL or not.

The results:

indicate that the initial care and rehabilitation provided during the shorter stay in the stroke unit is most likely to be continued in a rehabilitation unit with equally satisfied patients. Further, none of the patients had received early supported discharge (ESD) which has been proven beneficial and cost-effective for patients with mild to moderate stroke and the results consequently implicate a potential for development of ESD-service.

This study offers a unique possibility to compare changes in LOS and patient satisfaction between two population based samples of patients with the same severity of stroke, cared for in the same stroke unit but 11 years apart.

## 99. Relevance of Prescribing Quality Indicators (PQI).

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Keywords: **Prescribing Quality Indicators; Healthcare Quality**

Type of abstract: 2

Prescribing Quality Indicators (PQI) for benchmarking, feedback and policy.

Methods:

Triangulation of methods in different projects focusing on PQI for diabetes is used, combining qualitative and quantitative methods systematic literature review, systematic development of diabetes PQI combining evidence with expert opinion, assessment of concurrent and predictive validity of different approaches (cross-sectional versus longitudinal) using electronic health records (EHR), qualitative interviews on preferences of relevant stakeholders.

Main outcomes:

Many face and content valid PQI exist that are feasible to obtain from administrative datasets or EHR. Operational definition of the PQI needs close scrutiny because of its impact on the PQI score. Sample size and case mix problems undermine the reliability of PQI. Although several solutions have been developed for these problems, they still form a barrier for external quality assessment. Longitudinal PQI showed the best concurrent validity. Despite all stakeholders indicating the need for information on PQI, they are underrepresented in national sets of QI. A need for uniform set of indicators emerged from the qualitative interviews with stakeholders. Since all parties showed a preference for safety and undertreatment issues, these PQI should be included in a set of QI shared by stakeholders. Other PQI are specific for the aim of a specific stakeholder, e.g. costs for third party payers. First-choice drugs PQI had a lower priority because of the dynamic nature of evidence.

The research team consists of UMC Groningen, Radboud UMC Nijmegen (drug utilization, pharmacy, public health, implementation research, diabetology) collaborating with the GPs in the region. European collaboration includes University of Gent, Belgium and University of Southern Denmark. Information on valid PQI is relevant for and used by policymakers in benchmarking, pay for performance, and quality assessment. Effective implementation needs valid and credible PQI.

Future plans:

- The development of minimum set of feasible PQI using the following approaches:
  - o Choosing PQI that represent best the prescribing quality of a GP (factor analysis)
  - o Quantifying the additional value of PQI in overall quality assessment by assessing the impact of PQI on composite scores of widely used QI.
  - o Selecting indicators with highest predictive validity patients intermediate and hard outcomes in a cohort of 10000 patients
- Implementation of valid PQI in actual policy

## 100. Geography of health care in Spain or the quality of health services in Spain under Scrutiny

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Additional authors: Garcia-Armesto, Sandra

Keywords: **performance assessment; clinical practice variations; geographics of healthcare; international comparison**

Type of abstract: 2

Background:

The research problem. Geography is destiny. This statement, coined by Jack Wennberg and colleagues, entails most of the rationale underlying our nationwide HSR program around the analysis of unwarranted variations in medical practice and uneven healthcare outcomes. Our aim is to describe

and map this variability determining the underlying associated factors and suggesting ways to reduce it. Main approaches: Two methodologies: a population-based approach and a hospital-specific one. In the first, main endpoints are rates of procedures or hospitalizations per 10,000 inhabitants living in a healthcare area; small area analysis and diseases mapping are the main tools. In the latter, the main endpoint is the incidence of events per 1,000 patients at risk; risk adjustment and multilevel analysis are the main analytical strategies. Atlas VPM has published six atlases and several reports covering general surgery, orthopaedics, paediatric hospitalizations, cardiovascular procedures, mental health hospital care, oncologic surgery, avoidable hospitalizations, c-section rates, patient safety or mortality in cardiovascular procedures. Research translation into practice entails a web-based analytical tool targeted to help Healthcare Authorities in replicating analysis for their own area of influence and a Digital Interactive version of the Atlas, aimed at easing the understanding and use of the research results. Research team and collaborators: The network includes researchers and officials working for Regional Authorities. Using an interactive and continuous learning process, the project deals with healthcare authorities' knowledge needs while using solid scientific methods; firstly, it poses relevant questions and provides reliable knowledge supporting decision-makers at local level in interpreting results; secondly, it elicits knowledge gaps to guide better use of the research capacity. Linkages to policy: Spanish NHS is deeply decentralised to regions and planned around healthcare areas; thus, unwarranted variations become a crucial issue directly linked to policy decision making: Is access to an appropriate diagnostic or surgical procedure dependant on where a person lives? Does the risk for a patient to suffer unneeded treatment -and risk an adverse event- differ upon the provider where he or she is admitted? Which is the societal opportunity cost of providing more services more intensively and which the marginal health benefit? Future research plans: At National level, Atlas VPM has raised numerous new hypotheses about inequities derived from uneven access to best practices, avoidable costs associated to unwarranted variability, or the effect of innovations adoption on the levels of unwarranted variability. At international level, ECHO project, a European Collaborative project funded by 7th FP, intends to explore all these questions, comparing 6 European countries.

## 101. The rise and fall of the Umbria “Document for the Evaluation of Health Determinants and System Strategies” (DVSS)

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Keywords: **health outcomes evaluation, health planning, quality indicators, clinical governance**

Type of abstract: 3

The policy problem:

The Italian Health System releases national health plans without a structured system of evaluation. Regional planning in Umbria has been never evaluated until 2003. The “Document for the Evaluation of Health Determinants and System Strategies” (DVSS) was conceived as a well-defined product to strengthen a continuous quality improvement cycle for policy and planning, through an evaluation based upon a structural cooperation between research and practice.

Type of research:

The DVSS started in 2005 with a group of research projects selected through open competitive calls by the Region to complete the Document. Chapters were assigned to professional organizations (e.g. hospitals, districts, etc) involved in research projects, supported by field experts and qualified researchers. Three rounds of competitive calls were released until 2008. Statistical analysis was performed developing specialised procedures on top of administrative databases. The activity was supported by the Regional Observatory through regular meetings and targeted events.

Policy and other impact:

All (18/18) professional groups involved in the program were able to identify outcomes indicators for each organizational level, focusing on high priority diseases (e.g. diabetes, myocardial infarction, stroke, etc). Among professional groups, only 1/18 was unable to define details for the estimation of indicators and did not deliver the assigned chapter. A total of N=225/258 standardized indicators were properly estimated.

Evaluation of success and failure factors:

Recent experiences show that comprehensive evaluation systems adopting international standards are easier to organize at the regional level in Italy. The DVSS program created valuable capacity, but failed to establish a direct link between evaluation and policy making. Despite of the continuous political stability and the successful delivery of the program, the application of the DVSS method has not been repeated in Umbria. The uptake of results for policy making seems to be hampered by the lack of precise action points publicly agreed by policy makers. The program should have directly involved the regional political and administrative powers in the specification of corrective directions and formal commitments, including by design the direct participation of citizens to the evaluation process.

## 102. The Need for Health Informatics Policy and Practice Research

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Additional authors: Talmon, Jan; Khaled, Mehdi

Keywords: **Health informatics; health IT; e-health; evidence; effects; implementation**

Type of abstract: 4

All countries in Europe, and many health delivery organisations, are earnestly pursuing strategies to implement health informatics systems. In their many forms these technology applications change the way care is delivered by health professionals, from record keeping and patient management through to clinical decisions and treatment delivery. Informatics systems must thus be seen as clinical interventions which directly impinge on professional practice and organisational processes. They are generally disruptive technologies rather than assistive and simply enabling current processes.

All other health interventions and clinical processes have to be tested rigorously before their introduction is allowed, and clinical processes (and therapeutic policies) have to be strongly evidence based. For a clinician to deliver a new form of care without there being supporting evidence is seen as potential malpractice.

Yet health IT is exempt, though the scientific evidence for such applications is often minimal, and policies are based on hope or aspiration. For some specific systems such as digital picture archiving there is generally sound evidence, but for many applications from telemedicine tools to electronic record systems the evidence is weak and mixed, while the track record for large systems is not robust when compared to the cost, disturbance, and risk. There is clear-cut evidence of some systems causing harm to patients, even leading to death. Too often pilot project proof-in-use is seen as evidence of effectiveness, when it is strongly atypical and not widely replicable; marketing is based on promises not proof, and proven European CE-Marking principles do not apply. Even the influential US Institute of Medicine report on computerised patient records was aspirational and devoid of sound proof. IT systems are often implemented without thought to the necessary supporting care systems, or the impact on organisations and healthcare workforce structures.

More informed commentators in Europe, and globally, are seeking better evidence to support effective IT applications, more selectivity, and also evidence of necessary best implementation practice and structured maintenance and updating. This is becoming an increasingly urgent call. Both pure research and scientific evaluation are needed to build the evidence-base, as is a trusted incident reporting scheme. Europe needs to address this urgent research and policy issue, and could also stimulate a global awakening.

### 103. **Appraisal of the use and impact of national confidential enquiries in high income countries**

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Additional authors: Black, Nick

Keywords: **confidential enquiries, methods, effectiveness, high income countries**

Type of abstract: 4

#### Objective:

To describe the use and methodological characteristics of national confidential enquiries (NCEs) into adverse outcomes of health care in high income countries, to review the evidence of the impact of the three longest established NCEs in the UK, and to make recommendations about the contribution of NCEs to stimulating improvement in the safety of health care in high income countries today.

#### Method:

Systematic search of relevant electronic bibliometric databases supplemented by review of cited references and search of governmental websites for all NCEs worldwide. Information on 11 characteristics of the identified NCEs extracted and a descriptive review performed. A second search for studies evaluating the impact of three NCEs. Data were extracted, tabulated and a narrative review conducted.

#### Results:

The establishment of national confidential enquiries has been quite limited in high income countries with only 27 examples identified in over 50 years and only 11 currently functioning. They have been particularly popular in the nations of the UK (17 of the 27) and in services around childbirth (15/27). NCEs vary methodologically: most include all cases; include adverse outcomes both during and after the initial hospital episode; and the annual volume of cases varies from 4 to over 6000. With one exception, NCEs are case series making no attempt to compare with 'controls'.

Evidence of the impact of the recommendations from three of the largest and longest running NCEs is very limited in scope and rigour, with no time-series analyses or experimental studies, and restricted to considering their impact on the structure and process rather than outcome of care.

#### Conclusions:

The lack of evidence about the impact of NCEs on improving safety combined with the uncertain validity of their recommendations, their high cost and the lack of connection to assessment of the effectiveness of care suggest the need to reconsider their contribution. One option is to nest NCEs within prospective national clinical audits.

### 104. **Trend analysis of preventable hospitalization rates in Italy**

Prof Aldo Rosano

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Additional authors: Sferrazza Antonella;

Keywords: **Preventable hospitalization, policy for dehospitalization, trends, Italian regions,**

Type of abstract: 4

#### 1) Description of the policy problem and considered solutions.

In Italy, as well as in many European countries, National and Local Health plans report as main objective the reduction of hospitalization and the strengthening of primary care.

#### 2) Rationale and methods

Hospitalization for Ambulatory Care Sensitive Conditions (ACSC), also known as potentially avoidable hospitalization, has been proposed as an indicator of the accessibility and overall effectiveness of primary health care.

Hospitalization rates are declining in many developed countries, including Italy, because of the budget

reduction within the acute care sector (cut of hospital beds and shorter length of stay). Trends in preventable hospitalization (PH) rates are also decreasing along with general hospitalization rates, in particular for chronic diseases.

Such a decline in PH rates has been interpreted in a positive light as suggesting that access to effective primary care is improving. However this could be only the effect of general reduction of the recourse to hospital care .

The objective of the study is to examine the PH trends among the Italian regions of hospital admissions for ACSC adjusted for the general trend.

Data. Hospital discharge data aggregated at regional level occurred from 2001 to in 2007 were analysed by type of ACSC.

Methods. Main outcome measures were general and specific for ACS conditions regional hospital admission rates. Expected rates \*based for ACSC based on general trend of hospitalization rates were compared with observed rates using the chi square test.

### 3) Results and evaluation

Preliminary results concerned two of the main ACSC: diabetes and asthma. In the studied period hospitalization for asthma declined in all the 21 Italian regions, with an average decrease of 20,2%, for diabetes of 27,0%. When considering the expected rates for diabetes and asthma calculated on the basis of observed trend for total hospitalization a significant decrease was observed in 14 out of 21 regions for asthma and 18 out of 21 for diabetes.

Conclusions. Through our analysis we were able to single out the regions with real decrease in hospitalization for selected ACSC. This tool can be used to evaluate the effectiveness of policies tended to reduce hospitalization for preventable conditions

## 105. Incorporating primary care patient experience in pay-for-performance schemes: Emerging evidence from policy initiatives in England

Mrs. Josephine M. Barbieri

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Keywords: **pay-for-performance scheme, patient experience, primary care, policy, England**

Type of abstract: 4

### Problem description:

Pay-for-performance schemes have mostly focused on technical or clinical aspects of care. Systems to measure patient experience are less well developed and less commonly included in P4P schemes.

### Policy solutions to measure patient experience, and use it in pay-for-performance schemes:

In England, since 2009, a large national survey (5.5 million randomly sampled participants) has been used to patient experience of primary care. Financial rewards are attached to responses to questions on the availability of physician appointments (urgent consultations and ability to book ahead for non-urgent appointments).

### Type of research necessary to contribute to the evaluation and development of relevant policies:

There is limited evidence about the ability of patient questionnaire surveys to reliably measure primary care patient experience. There is uncertainty about

- a) Survey participation rates, and representativeness of respondents
- b) Reliability of assessment of patient experience
- c) The importance of non-response bias

To address these uncertainties, we examined the representativeness of the 2.2 million respondents by comparing them with the general English population. We assessed the reliability of survey responses by estimating the proportion of the variance of physician group scores attributable to true differences between them, and assessed non-response bias by examining the association between physician group response rates and survey scores

#### Evaluation findings:

The overall response rate was 38.2% (2.2 million responses). Men, young adults, and people living in deprived areas were under-represented among respondents. However, there was no systematic association between response rates at the level of physician group and reported patient experience. We found no evidence that low response rates or selective non-response bias would lead to systematic unfairness in payments attached to questionnaire scores. Questions linked to pay-for-performance were reliable measures of doctor group performance, with average reliability coefficients >93%. Fewer than 3% of doctor groups had fewer respondents than the number required for conventional reliability levels of 90%. However, a detail of the payment formula meant that random variation had an unexpectedly high impact on physician payments.

#### Conclusion:

We provide lessons for European policy-makers considering the use of patient experience as part of pay for performance schemes.

## 106. Italian National Outcome Programme for comparative evaluation of health services

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Additional authors: Fusco Danilo, Davoli Marina, Arcà Massimo, Moirano Fulvio

Keywords: **National Outcome Programme, Outcome Indicators, Risk adjustment, public disclosure**

Type of abstract: 4

#### Statement of the research problem

Regional outcome research programmes have shown an extremely high variability for different outcomes in many clinical areas among hospitals and Local Health Units (LHU) in Italy. No systematic comparative evaluation of outcomes at national level had been conducted in the past.

#### Theory and research methods

The Italian National Agency for Regional Health Care (AGENAS) is just launching its National Outcome Programme aimed to provide comparative evaluation of outcomes between hospitals and LHUs in Italy using available Health Information Systems.

This programme is focused on outcomes of inpatients services, based on the results of previous regional and national research programmes. A pilot programme has been conducted in Lazio, the Region surrounding Rome;

#### Main findings

The Lazio Programme (PReValE [http://151.1.149.72/vislazio/vis\\_index.php](http://151.1.149.72/vislazio/vis_index.php)) defines and estimates outcome indicators on several clinical areas (cardiac, cerebrovascular, orthopaedic, obstetric, respiratory, digestive). Crude and adjusted rates have been estimated for 2006-8, controlling for potential confounding due to individual characteristics and comorbidity; populations/institutions have been compared to a reference groups including the "best performers" (populations/institutions with lowest rates of mortality/complications, etc.). "Variable life-adjusted" control charts were also developed. We report examples of heterogeneity of outcome indicators:

- 30-day mortality rate after myocardial infarction: 17234 episodes has been selected with an average mortality of 12.2%. The adjusted mortality rates ranges from 7.8% to 24.5%, across hospitals.
- proportion of primary caesarean delivery: 71765 women with no previous caesarean section with an average proportion of 33% were included. The adjusted proportions ranges from 18.6% to 85.0%.
- proportion of surgical treatment for hip fracture within 48 hours in the elderly: 11118 hospitalizations, average value 5.0%. The adjusted proportions ranges from 0.6% to 10.5%.

#### Conclusions and policy implications

Outcome Evaluation Programmes represent important operative tools to promote a process of clinical and organizational audit and to support political decision-making processes. Risk adjustemt methods must be continously adapted and improved. The impact of public disclosure of healthcare performance information should be evaluated.

## **8 Workshop: 'Systematic reviews of organisational interventions: usefulness and transferability'**

*Thursday 8 April 2010, 17.00 – 18.00 hours*

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## 107. Increasing the impact of stroke and coronary heart disease research in Europe

Dr Annette L Boaz

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Additional authors: Baeza, Juan Dr; Fraser, Alec Mr

Keywords: **implementation, research impact, systematic review, stroke research**

Type of abstract: 1

The research problem:

Despite significant investment in research, challenges remain in translating health research into policies and practices that improve patient care. This research aims to advance the application of evidence based healthcare in the management of stroke care. First, by identifying best practice in the implementation of evidence based care at the patient (micro), organisation (meso) and national policy (macro) across selected European health care settings. The second stage of the project involves the development and testing of an implementation score for stroke and coronary heart disease research in Europe.

Theory and research methods:

There are numerous different theoretical models of the research implementation process. These have potentially great value in planning and evaluating improvement interventions, but most focus on the micro and meso levels, often leaving out the policy level. This project will combine elements of current implementation theory to capture the different levels of implementation. The theory will be tested with an empirical, data driven approach. This paper reports on the first stage of the research, namely, two systematic reviews. The first was a review of existing systematic reviews of the relevant health literature on the evidence of effectiveness of currently used implementation methods in translating research findings in to practice. The second reviews the relevant social science literature on research implementation (to include change at the macro level).

Main findings:

The first review identified 47 systematic reviews of the medical literature on the evidence of effectiveness of currently used implementation methods in translating research findings in to practice. The studies report on the effectiveness of a range of methods including: audit and feedback, educational outreach visits, financial incentives and use of opinion leaders. The second systematic review will identify macro level interventions in the health services research and social science literature.

Conclusions and policy implications:

In order to improve the impact of research on health policy and practice, it is essential that theories are developed that reflect the diverse mechanisms involved in implementation. With a growing focus on accountability and learning in health services research, the development of an evidence based implementation score is particularly timely.

Innovative character of the research:

This research combines medical, health services research and social science literature on research implementation. These literatures will be used to develop a theoretical framework which will be tested empirically in the second part of the research. There has been little empirical work in the field of research implementation, particularly in the field of stroke care.

## 108. A Systematic Review- The Association between Inappropriate Prescribing in Care Homes and Adverse Patient Outcomes

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Additional authors: Majeed, Azeem; Franklin, Bryony D.

Keywords: **older people, patient safety, adverse drug reactions, prescribing quality**

Type of abstract: 3

There is a growing interest in medication safety in care homes as highlighted in the recent outcry over the misprescribing of antipsychotics in dementia patients. As there is little research into prescribing quality in care homes in the UK, there is a limited evidence base to inform policy making. Whilst the USA had incorporated the assessment method in its Omnibus Budget Reconciliation Act 1990, current policy in the UK suggests that there is no great evidence base to work from of tested solutions. The little data available have mostly focussed on the prevalence of inappropriate prescribing (IP) and their assessment methods were largely adopted from the USA. Some studies had examined the association for community residing elderly in which positive associations were reported for adverse drug reactions, costs and emergency department visits. However, very few studies have been conducted in the care homes to demonstrate such an association. The aim of this systematic review is to examine the relationship between IP in care homes and hospitalisation and/or mortality with the hypothesis that IP causes adverse drug reactions which can result in adverse patient outcomes. Published literature from 1980 to November 2009 was searched using keywords and resulted in 1849 articles. Five English articles which evaluated the relationship between IP in care homes and the likelihood of hospitalisation and/or mortality were included. These were reviewed by two authors using the Critical Appraisal Skills Programme 2004 Checklist and discrepancies resolved by a third author. IP was assessed using Beers criteria and measured drugs to be avoided in elderly; incorrect dosage; drug-drug/disease interaction; duplication and acute drugs used for chronic conditions. Gupta, Klarin and Raivio found no significant associations for any of the outcomes whilst Lau found that the likelihood of mortality and hospitalisation increased regardless of time of IP exposure and Perri found that the odd of having at least one outcome is doubled in the presence of IP. The heterogeneity in results can be explained by variation in settings and some analysis not stratified; wider age groups; selection bias with high risk of polypharmacy and newly admitted residents. In conclusion, there is mixed evidence to support the association of IP in care homes with adverse patient outcomes. Two high quality studies demonstrate the possibility of an association. Insufficient evidence does not mean that there is no association instead it probably highlights a lack of research within this field. Whilst there are various adverse outcomes an older patient will experience (falls and adverse drug reactions) due to IP, we had obviously set the benchmark very high by measuring death and hospitalisation as outcomes. None of the studies were conducted in the UK which implies that these findings cannot be extrapolated to the local settings and as such there is an urgent need for more research in the UK that can then be utilised to inform policy makers.

## 109. Health Services Research in Greece: A Systematic Review

Professor Christos Lionis

Clinic of Social and Family Medicine and Master of Public Health and Health Management, School of Medicine, University of Crete, Greece, Greece

Additional authors: Foukaki, Evagelia; Fournari, Charikleia; Giannakoudaki, Ekaterini Kuriaki; Kouskourida, Fragkoula; Kurou, Ioanna; Mamatzaki, Eleftheria; Maragkaki, Pagona; Markomanolaki, Kuriak; Maurogiannis, Basileios; Mavrogiannaki, Vasiliki; Mpolikas, Emmanouil; Nazik, Elfadl; Panagiotaki, Eirini; Psaltaki, Eirini; Tampoudi, Maria; Tsimvragou, Andromachi; Xalkiadaki, Ioanna; Xatzigeorgiou, Charikleia; Xochlidaki, Maria.

Keywords: **health care services, Greece, primary health care, health policy**

Type of abstract: 3

Clinic of Social and Family Medicine and Master of Public Health and Health Management, School of Medicine, University of Crete, Greece.

#### Background:

Over the past years, Greece has undergone several endeavors aimed at modernizing and improving national health care services with a focus on Primary Health Care. However, the extent to which research in health care services being a key issue in the current literature as a contributor to health policy agenda is still questioned.

Purpose: This paper explores the extent of health services research in Greece, reporting its content and methodology and highlighting its future need for a policy perspective in this Southern European country.

#### Methods:

A systematic review in Medline and Scopus was undertaken by a group of master students in order to initiate a health services research topic in Greece and to identify original papers in the English language. A set of pre-defined Medical Subject Heading (MeSH) terms used in accordance to the topic [{Health Services} AND {Research} AND {Greece}] OR [{Health Services Research} AND {Greece}].

#### Results:

The search in Medline revealed 211 papers, while this in Scopus 126. These numbers were reduced to 74 and 68 correspondingly, when a broad definition of health care services was considered. The results of this systematic review after their appraisal would be discussed in the conference.

Supervisor: Professor Christos Lionis

Participants: Foukaki, Evagelia; Fournari, Charikleia; Giannakoudaki, Ekaterini Kuriaki; Kouskourida, Fragkoula; Kurou, Ioanna; Mamatzaki, Eleftheria; Maragkaki, Pagona; Markomanolaki, Kuriak; Maurogiannis, Basileios; Mavrogiannaki, Vasiliki; Mpolikas, Emmanouil; Nazik, Elfadl; Panagiotaki, Eirini; Psaltaki, Eirini; Tampoudi, Maria; Tsimvragou, Andromachi; Xalkiadaki, Ioanna; Xatzigeorgiou, Charikleia; Xochlidaki, Maria.

## 110. Systematic reviews in all areas of health services research: design, reporting and implementation

Professor Mike Clarke

UK Cochrane Centre, United Kingdom

Keywords: **Systematic reviews; Cochrane Collaboration; meta-analyses; effectiveness and efficiency**

Type of abstract: 4

There are now more than 4000 full Cochrane systematic reviews of the effects of healthcare interventions, representing a vast amount of research in their own right. Furthermore, these reviews bring together information on tens of thousands of studies, which recruited millions of patients and cost billions of euros. The procedures for preparing the reviews are now relatively streamlined, although considerable challenges remain in maintaining them and keeping them up to date.

The topic to be discussed here is how the research that has gone into these reviews, and into the thousands of other systematic reviews produced by other organisations and individuals that are currently available in the healthcare literature, can be used more widely within health services research and policy.

Systematic reviews should provide the scientific and ethical justification for all new studies, and many funding agencies and ethics committees now require this, but it is not universal. An updated systematic review should also be used to place the findings of new research in context, to show how the new research fits in with, or contradicts, what has gone before. But this is rare. And, policy and decision makers should make more use of systematic reviews as a key source of the evidence they need to inform their actions.

Cochrane and other systematic reviews are known to be widely used in guidelines, are cited frequently in the scientific literature and every few seconds of every day the full text of a Cochrane review is downloaded somewhere in the world. However, more needs to be done to improve the accessibility,

usefulness and use of systematic reviews in health care. This workshop will provide an opportunity to explore ways to achieve this.

## 111. Reviews of reviews: the highest level of evidence or a step too far?

Ms Karen Macpherson

NHS Quality Improvement Scotland, United Kingdom

Additional authors: Ritchie, Karen

Keywords: **Systematic reviews; evidence synthesis; Health Technology Assessment; Rapid reviews**

Type of abstract: 4

With the growth in primary literature has come a corresponding increase in secondary level evidence, which can itself be synthesised. Time constraints when undertaking rapid reviews to inform policy making mean that synthesis of this secondary level evidence, when it is available, is often the approach adopted for these products. Given the newness of this type of synthesis and lack of relevant methodological literature, there is a need to explore the purpose and problems of synthesising the findings of systematic reviews and HTAs.

Two recent systematic reviews commissioned from NHS Quality Improvement Scotland<sup>1,2</sup> have involved synthesising previously conducted systematic reviews and HTAs and these provide case studies for examination of the technique. We found that while synthesis of secondary literature can offer substantial time savings, and in some cases offer greater confidence in conclusions drawn, assessing the quality of systematic reviews can be problematic. We also noted that there can be differing coverage and interpretation of primary results within the secondary literature and that there is a potential for inaccuracies in the primary literature to gain wider dissemination. A further issue is that the evidence base can be artificially inflated where there are numerous reviews all based upon a small amount of primary literature.

There are number of uncertainties regarding this type of synthesis and the way ahead is not clear cut. As such there is a need for debate on the merits of synthesising secondary evidence. Consideration needs to be given to the worth of this approach relative to adopting or adapting the most recently undertaken and/or highest quality systematic review or indeed returning to the primary literature. One of the products of the European Network for HTA (EUnetHTA) collaboration project was a tool for adapting existing HTAs<sup>3</sup>. Growing pressure on researchers to interpret secondary literature to provide advice to policy makers, means such discussion is urgent.

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3. [http://www.eunetha.net/upload/WP5/EUnetHTA\\_HTA\\_Adaptation\\_Toolkit\\_October08.pdf](http://www.eunetha.net/upload/WP5/EUnetHTA_HTA_Adaptation_Toolkit_October08.pdf)

## **9 Workshop: ‘Bridging research & policy: not only a European problem’**

***Thursday 8 April 2010, 17.00 – 18.00 hours***

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## 112. **Research in Progress: How do the definitions and uses of research and evidence in 'informed' decision-making change across the policy process?**

Ms. Sarah E. M Caldwell

London School of Hygiene and Tropical Medicine, Health Services Research Unit, United Kingdom

Additional authors: Mays, Nicholas

Keywords: **evidence-informed decision-making; knowledge translation; health policy; health services research**

Type of abstract: 1

### Research Problem:

Calls to improve public sector management in the 1990s emerged concurrent with the ascendance of evidence-based medicine. What followed was a flurry of interest in research and evidence as tools to 'inform' the development, management and governance of 'good' health care policy. But did the jump to 'do something' happen before understanding how policy and decision-makers define and use research and evidence, and whether these differ according to the point in the policy process?

### Theory and Method:

Using 'identification', 'formulation', 'implementation' and 'evaluation' as heuristic stages in the public policy process this poster will highlight the early stages of a doctoral thesis looking at whether, and how, the definition(s) and use(s) of research and evidence change according to policy stage. And, the degree to which there is penetration and/or shared understanding of 'definition' and 'use' within public policy environments committed to 'informed' decision-making. The project will use qualitative and quantitative methods for an international survey of health policy analysts and decision-makers, and draw from policy case examples from Ontario, Canada and the National Health Service of Scotland.

### Main Findings:

A conceptual framework of the definition(s) and use(s) of research and evidence in policy, developed from a literature review of both social sciences and health policy literatures, will be presented alongside the study design for this doctoral work. Presentation of this phase of the work will allow me to receive feedback on the concept, and build a network of potential participants for both the survey and policy case examples.

### Conclusions and Policy Implications:

When complete this research will have implications for both theoreticians and policy decision-makers, and will inform the theory-practice gap in both the policy and knowledge translation/ exchange literatures. Results will help health services researchers contextualize their findings for different policy windows and purposes, but will also aid practitioners in working with the research community to effectively incorporate research and evidence into policy.

### Innovativeness:

While I present this work as a doctoral student, I am also a policy maker (currently on leave from the Ontario Ministry of Health and Long-Term Care). This affords me unique insight and understanding into both sides of the 'evidence-informed' theory-practice gap.

## 113. **From staff-mix to skill-mix and beyond: a systemic approach to optimizing the health care workforce**

Prof. Carl Ardy Dubois

University of Montreal - Faculty of Nursing Sciences, Canada

Additional authors: Singh, Debbie

Keywords: **health care workforce, staff mix, skill mix, workforce optimization, human capital**

Type of abstract: 1

### Problem:

The demands on health care services are greater than ever before. Having the best mix of staff and skills is essential for developing high quality and sustainable health care, but much research suggests that the health care workforce is not used optimally. With looming workforce shortages and economic

pressures, policy-makers and managers are exploring innovative ways of developing and managing staff. This research summarises the main approaches to health workforce deployment, examines their limitations and identifies alternative pathways policy makers and practitioners can use to overcome those limitations.

**Methods:**

A structured review of published literature identified 250 articles for inclusion in the research. Papers were evaluated and sorted according to their theoretical foundations, their relevance and validity (research design, sampling and methods of analysis). Interpretative synthesis was used to collate the findings.

**Findings:**

The research found that there is an urgent need to rethink our workforce policies and practices. Many workforce deployment initiatives focus on staff-mix, i.e. achieving a specific mix of different types of personnel, based on numbers of personnel, ratios of qualified workers, ratios of senior staff, mix of disciplines. However there is limited evidence of benefit. Such approaches emphasise numbers and types of personnel, giving less attention to the more important aspects of staff skills, how these are used, and the work environment.

Other initiatives that embrace options such as role enhancement, role enlargement, substitution and delegation reflect a more dynamic solution, focused on the range of roles, functions, responsibilities and activities each staff member can perform. There is a growing body of evidence about the value of such options, but the evidence is not always clear-cut. The impact of these initiatives depends on factors that operate at organisational and health system level, emphasising a whole systems approach for policy-makers and workforce planners.

**Policy implications:**

An effective system of human resource optimisation cannot be restricted to considering the numbers and types of personnel. Wider perspectives, which focus on how workforce skills can be differently managed, go some way towards conceptualising how best to use the workforce in the dynamic realm of health care. In order to be fully effective, policy-makers, managers and practitioners need to consider the organisational and environmental factors that frame workforce deployment.

**Innovative character of the research**

Recent efforts to develop new ways of optimising human capital in healthcare lack a solid theoretical foundation. This research helps to fill this gap. The results demonstrate the importance of a systemic framework to take account of the broad range of factors that are likely to have an influence on workforce optimization.

## **114. Measuring health system performance in Quebec, Canada**

Dr Anna Koné

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Additional authors: Champagne François, Contandriopoulos André-Pierre , Sicotte Claude, Ste-Marie Geneviève, AQESS

Keywords: **Health system performance, benchmarking, evaluation framework, core functions dependencies, EGIPSS**

Type of abstract: 1

**Statement of the research problem:**

Researchers from the GRIS have developed a system for evaluation of health services performance (ÉGIPSS) in order to promote evidence-based practices for governance and decision-making. According to this model, performance is defined as the capacity for an organisation to (1)realize its mission; (2)obtain and control resources; (3)productively provide quality services and (4)develop and maintain common values. An organization must also establish and maintain balance between these core functions. Based on this framework, we developed a methodology in order to provide a valid and useful profile of healthcare organizations performance in Quebec.

**Theory and research methods:**

All Quebec organizations members of the association of health services were included. Helped by various administrative databases, we first defined and operationalized different indicators covering the functions of EGIPSS framework. Then, we established a judgment on performance considering norms or empirical standards. We used rescaling method to create relative scores, varying between 50 and 100 according to the following formula:  $\text{score} = 50 + [50 / (\text{upper limit} - \text{lower limit})] * (\text{observed raw value} - \text{lower limit})$ . Upper and lower limits were chosen empirically (percentiles) or theoretically (international standards, ministry's norms). We also referred to confidence intervals for appreciation of some outcomes measures. All the analyses were performed in order to allow comparisons between organizations with comparable characteristics. Temporal variations and relationship between core functions were also considered. Assessment of relationships was based on empirical summated scales per function.

#### Principal findings:

The analyses include 138 organizations. The use of benchmarking makes it possible to evaluate and compare performance. Thus, we observed a lot of variation in performance level between health organizations in Quebec even within homogeneous groups. A cluster analysis revealed that no organization has the ideal performance profile as proposed by the EGIPSS model.

#### Conclusion and policy implications:

Operationalization of indicators and benchmarking is important in evaluating performance but it is really challenging to find best criteria for judgment. In addition, there is a need for future research for framework validation and advanced analysis about clusters and relationships between performance core functions. Such study is especially relevant considering the complexity of healthcare systems and the difficulty for management and decision making in the field of performance. Indeed, the multiplicity of actors, diversity and problematic issues related to health, and the pressure on health systems are all aspects to be taken into account in the management of healthcare services. Consequently, looking for appropriate and efficient methods to measure, evaluate and improve performance in the health sector appears unavoidable and could help managers in improving healthcare quality.

## 115. Factorial validation of ontarian framework for measuring health system performance

Dr Anna Koné

University of Toronto, Canada

Additional authors: Wodchis Walter, HSPRN

Keywords: **Health system, factorial analysis, performance framework, dependencies**

Type of abstract: 1

#### Statement of the research problem:

The need of high quality in health-care system and the pursuit of excellence in health organisations undoubtedly go through the evaluation of performance. Performance constitutes a complex concept which cannot be assessed by a single indicator. Multiple systems have been developed that allow to measure performance by means of several indicators. In Ontario, a framework has been developed since 1998, according to Kaplan and Norton's work on balanced performance and improved throughout the years. Multiple indicators are included in this framework and regrouped into four quadrants or functions (system integration, clinical outcomes, financial performance and patient satisfaction). However, there is a lack of rigorous methodology to sustain and validate this framework. Thus, this study aims to realize a factorial validation of the Ontarian framework in order to strengthen theory to help the process of performance measurement.

#### Theory and research methods:

Hospitals reports data from 2006 to 2008 are considered. We used explanatory factorial analysis to evaluate the clustering of indicators in different quadrants and confirm dimensions over-time. Comparisons are based on commonalities, percentage of variance explained, regression coefficients and Cronbach's Alpha. We begin with principal components analysis (PCA) in order to reduce if needed, the number of variables and only include the most important ones in principal factorial analysis (PFA). Then, indicators with commonality <20% in PCA are eliminated. The PFA brings the most important results as the objective is to derive the underlying performance traits from the variance

that is common to the indicators.

#### Main findings:

The results show that the performance quadrants largely hold. In fact, the analysis revealed a unique dimension for system integration and client satisfaction. Financial outcomes is assessed with less indicators and outcomes dimension is divided into two factors (utilization outcomes and quality of care). Nevertheless there are unexpected negative correlations for example between staff-related outcomes and patients' satisfaction.

#### Conclusions and policy implication:

This study provides rigorous methodology to improve and support the use of Ontarian performance framework. The results also highlight the need to do more in order to understand the relationships between performance functions and explore whether there can be some tradeoffs in healthcare management. Such a project could contribute to growing body of knowledge for a deeper comprehension of performance at the health system level by creating rigorous science. In addition, relevant and valid measures will contribute to effective reporting and utilisation of performance information. The results on causal relationships will contribute to improve hospitals' performance and quality of patient care.

## **116. Embedding knowledge translation into research programs to influence policy – The case of Canada's Global Health Research Initiative**

Mr. Marc Cohen

Global Health Research Initiative (GHRI) , Canada

Additional authors: Diop, Nafissatou; Clemenhagen, Carol

Keywords: **knowledge translation, evidence based policy, capacity building, program features**

Type of abstract: 2

### 1) Statement of the research problem

In recent years, the contribution of global health research to the achievement of the United Nations health-related Millennium Development Goals has received increased attention. The need to develop better means to improve the uptake of research evidence into policy-making has been identified as one of the building blocks for progress in strengthening health systems. The literature on knowledge translation and exchange (KTE) is unanimous; it is essential to involve decision-makers as early as possible in the research process and to develop effective strategies to enhance decision-makers' skills for using research results in the decision making process.

### 2) Main approach, state-of-affairs and/or outcomes

The Global Health Research Initiative (GHRI) is a partnership of five departments and agencies of the Government of Canada. The partners are the Canadian International Development Agency (CIDA), the Canadian Institutes of Health Research (CIHR), Health Canada (HC), the International Development Research Centre (IDRC) and the Public Health Agency of Canada (PHAC). GHRI funds research projects, including on health services, through a competitive grants process.

To increase the likelihood that research to influence policy, GHRI uses multiple strategies: merit review committees composed of both researchers and decision-makers, a requirement that a KTE component be included in proposals submitted for funding, and active involvement of decision-makers in project teams.

In addition, funded teams can be awarded supplementary grants. These grants support research activities specifically focused on KTE, improving KTE capacity at the institutional level and reinforcing opportunities to influence policy they emerge throughout the life of a project. Examples includes: development of a graduate knowledge translation course in Kenya, linking decision-makers and researchers working on same issues in both Western and Eastern Africa

### 3) Description of the research team and collaborators

The GHRI program officers work closely with the funded teams to gather learning experiences related to KTE and uptake into the decision-making process.

#### 4) Linkages to policy

Compiling and synthesizing evidence from research projects, highlighting what works and what does not in different environments is key if GHRI approach to KTE for linking research with policy and practice is to be standardized.

#### 5) Implications for future research plans

The GHRI approach is expected to foster linkages between decision-makers and researchers and increase the skills of the two communities to better work together and understand each other's needs.

## 117. Implementing Pay for Performance: the role of researchers

Ms Verna May Smith

Accident Compensation Corporation, New Zealand (the researcher is employed by this organisation: the main research is towards a PhD conducted through Victoria University of Wellington School of Government), New Zealand

Keywords: **pay for performance; policy community; evidence-based research; interest intermediation**

Type of abstract: 3

The policy problem within general practice in the United Kingdom in 1999 was uneven quality and poor alignment with public health goals. The morale, motivation and ability of general practitioners to improve their service was low. The UK government decided to use the 2003/4 General Medical Services Contract negotiations to introduce a pay for performance framework based on rewarding general practitioners for achieving quality and outcome targets. This has resulted in significant improvements in morale amongst general practitioners and improvements in the achievement of public health goals in relation to the health of the general population.

This paper presents selected results from a larger qualitative study of two cases of implementing pay for performance in primary health care. The full study documents the way the UK and the New Zealand governments each interacted with a variety of policy actors, and explores the kind and quality of these relationships, in the process of policy design of their respective pay for performance schemes during 2003-6. In this extract of findings from the UK case study, the data exhibits the role of a powerfully integrated policy community of academics, public officials and medical professionals which was at times difficult for decision makers to penetrate, requiring careful interest intermediation.

It shows the importance policy actors placed on evidence-based research in two aspects of this policy design process. Firstly the negotiation teams were supported by independent academic members whose role was to provide clinical evidence relating to a wide range of public health problems. These academic members assisted in the design of a programme of best practice clinical interventions whose outcomes could be measured. Secondly the academics presented the evidence base for design of an effective pay for performance framework (a policy device which can have high levels of risk of gaming and perverse outcomes) and advised the negotiating teams on risks associated with different aspects of the framework.

The policy design process was completed within one year and implemented the following year, gaining widespread support amongst general practitioners. A key factor in the high level of acceptance was the credibility of the evidence-based approach to policy design. As a pay for performance scheme it set an international benchmark for scope and size of impact on public health outcomes. However there is evidence that targets were set too low and decision makers were not advised of this. Subsequent changes to the scheme were required to contain resulting over-expenditure.

This paper will also report early findings from the evaluation of a second pay for performance scheme in New Zealand in which a strong evidence base has been utilized to motivate general practitioners to change their practice of prescribing time off work for recovery from injury. The pay for performance scheme is being implemented by the Accident Compensation Corporation and combines an offer of financial incentives and presentation of a substantial clinical case for a change in prescribing behavior. Early indications are that the primary driver of change in behavior is the clinical evidence. Academic

advisers are central to the process of design, prototyping and implementation of the pay for performance scheme though are not part of a New Zealand based policy community.

These case studies provide rich detailed analysis of the use of health services research in the design and implementation of public policy. They set out both strengths and weaknesses of the collaboration which occurred between researchers, government officials and health interest groups in the field in these cases.

## **118. Measuring the results of complex partnerships – The case of Canada's Global Health Research Initiative**

Dr. Nafissatou Diop

Global Health Research Initiative (GHRI) , Canada

Additional authors: Clemenhagen, Carol; Cohen, Marc

Keywords: **evaluation, performance measuring, Canada, global health, partnership**

Type of abstract: 2

### **1. Statement of the research problem**

The Global Health Research Initiative (GHRI) is a partnership of five departments and agencies of the Government of Canada that came together in 2001 to fund international research collaborations on global health.

The partners are: the Canadian International Development Agency (CIDA), the Canadian Institutes of Health Research (CIHR), Health Canada, the International Development Research Centre (IDRC) and the Public Health Agency of Canada (PHAC).

GHRI is governed by a Steering Committee with members from each partner. Day to day management is coordinated by a Secretariat. The Initiative is currently administering six programs of research; in the past 5 years, the number has tripled.

Projects typically involve teams of researchers and research users from developing countries and Canada. Topics are varied, including health services. Funding is awarded through a competitive merit review process.

The uniqueness of GHRI calls for careful measurement of performance, including documenting processes, and exploring the benefits of the partnership.

### **2. Main approach, state-of-affairs and/or outcomes**

Evaluation relies on a three-level approach: 1) GHRI overall, 2) program level, and 3) project level. Levels 1 and 2 are addressed by a GHRI evaluation strategy. Level 3 relies on individual project evaluation plans. Mixed evaluation methods are used. A conceptual framework and a performance monitoring plan guide the use of indicators. Other methods include review of literature, repositories and web-based resources; focus group discussions and in-depth interviews with key stakeholders; and exchange with other funding agencies in global health. Case studies and special studies complete the strategy.

### **3. Description of the research team and collaborators**

The evaluation team works closely with GHRI program officers assigned to monitor individual projects. Consultants and interns are called in as needed.

### **4. Linkages to policy**

Evaluation findings will be used to report on progress and results to the GHRI partners. It is anticipated that findings will nurture collaboration between partners, inform Canadian approaches to global health research and stimulate ongoing investment in global health research.

### **5. Implications for future research plans**

Findings will advance knowledge by sharing lessons learned and best practices. Particular attention will be given to documenting innovative approaches to global health research and to facilitating use of

research findings by those who can put them into action. Opportunities to communicate findings include reports, presentations and posters, peer-reviewed articles, and capacity building activities.

## 119. **Spanning sectors: linking the 45 and Up Study with administrative data from health and community care**

Prof Louisa R Jorm

The Sax Institute and the University of Western Sydney, Australia

Additional authors: Louisa Jorm, Sanja Lujic, Scott Walter

Keywords: **research partnerships, ageing, home care, data linkage, cohort studies**

Type of abstract: 3

### Policy problem:

In Australia, the Home and Community Care (HACC) program is the major public provider of services to frail elderly people living at home and their carers. More than 830,000 people annually use HACC services, including home nursing, delivered meals, home help and maintenance, transport and shopping assistance. As the population ages, the demands for HACC services will increase, and they might be an ideal setting for cost-effective delivery of preventive health interventions to those at high risk. However, very little was known about the health of HACC clients.

### Type of research conducted:

We investigated the health-related factors that are associated with use of HACC services in a large, population-based sample. We used questionnaire data from Australia's largest cohort study—the 45 and Up Study<sup>1</sup>—linked with administrative data relating to HACC services. The questionnaire captured information about demographic factors, lifestyle and habits, medical history, and physical and psychological health, while HACC data included information on living arrangements and HACC services received. The analysis data set included questionnaire data for 103,041 persons and 16,371 linked HACC records relating to 4,978 persons.

The analysis demonstrated that HACC clients have high rates of modifiable lifestyle risk factors and health conditions that are amenable to primary and secondary prevention, presenting considerable potential for implementing preventative health care programs in the HACC service setting.

### Policy impacts (actual .v. expected):

The research was funded by the state government agency that is responsible for delivering HACC services, the Department of Ageing, Disability and Home Care (ADHC). Staff of ADHC actively participated in the research by providing data, commenting on analyses and reports, and organising a series of high-level briefings within the agency, and to the Ministerial Advisory Council on Ageing. In all, around 80 people attended these briefings. Interest in the research snowballed, and it was presented, by invitation, at two national meetings of HACC service providers, attended by more than 1,000 people in total. Findings have been used to inform the state government action plan on Ageing, and in the design of outcome indicators for this plan. An ongoing program of data linkage and research is now being developed in partnership with ADHC.

### Evaluation of success and failure factors

Key success factors included the presence of several highly motivated champions within the policy agency, and stability in these staff over several years, enabling the establishment of a trusting relationship with the researchers. Other contributors to success included the very active current policy environment in the area of ageing and the high public profile, and scientific credibility of the 45 and Up Study. The challenge will be to create a stable ongoing partnership research program, in the face of potential political instability and changes in key policy agency personnel.

<sup>1</sup> Banks E, Redman S, Jorm L, Armstrong B et al. Cohort profile: The 45 and Up Study. *Int J Epidemiol* 2008; 37(5):941-947.



## 10 General poster session

*Thursday 8 April 2010, 17.00 – 18.30 hours*

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## 120. **Assessing the routine use of clinical evidence in primary care: application of the Normalisation Process Theory**

Professor Bie Nio Pauline Ong  
arc National Primary Care Centre, United Kingdom

Additional authors: Foster, Nadine E

Keywords: **evidence; primary care; changing practice; Normalisation Process Theory**

Type of abstract: 1

### Statement of research problem:

Health policy increasingly emphasises the use of evidence-based care, yet the uptake of best practice guideline recommendations tends to be slow and patchy. Many studies have explored this, but only a small number examined the social context within which new approaches are adopted and how subsequent change in clinical practice occurs.

We selected low back pain treatment in primary care as the exemplar, and focused on how new evidence-based approaches to subgrouping and targeting treatments for patients are used in everyday practice by general practitioners and physiotherapists.

### Theory and research methods:

The new intervention to be studied is defined as a 'complex intervention' in that it entails multiple changes: in assessment and classification of back pain problems supported by computer and paper-based decision tools to subgroup patients, followed by different treatment options and referral decisions informed by the subgroup into which patients are classified. The Normalisation Process Theory (NPT) is a theory which explains how and why complex interventions do or do not 'normalise', that is, become implemented and then embedded into routine practice. The NPT focuses on the work that individuals and groups have to do for a new approach to become normalised. The theory is based on four theoretical constructs and allows for a detailed analysis of the processes, social norms and structures that shape the uptake and normalisation of new approaches

The research includes observations of meetings (5 GP practices and their associated physiotherapy services), interviews (32 GPs and 16 physiotherapists at baseline and 12 GPs and 9 physiotherapists 12 months after) and questionnaires (44 GPs and 32 physiotherapists at baseline and 27 GPs and 21 physiotherapists at follow-up). The data are analysed thematically using the constant comparative method, and the results are mapped against the constructs of the NPT.

### Main findings:

By the time of the workshop we will have completed our analysis, but early findings highlight: the need to differentiate between current and new approaches, the role of a 'product champion' throughout the process, the need for IT systems' use and consultation style to be compatible, the alignment with incentives and policy drivers.

### Conclusions and policy implications:

Planning new approaches requires an appreciation of the receptivity of individuals and groups, the facilitative processes and mechanisms required, and understanding the context or system that is the object for change. Theory-based analysis allows for optimising the content and context of new approaches, and to predict their potential for normalisation.

### Innovative character:

This study uses a theoretical framework which extends previous implementation or quality improvement theories by examining the total process from introduction of new interventions to routinisation, and by analysing these within context. Thus, it aids both the development and evaluation of interventions driven by the policy of evidence-based care.

## 121. Expediency and Coincidence in Reengineering a Health System: An Interpretive Approach to Implementation of Family Medicine in Iran.

Dr Amirhossein Takian

Department of Practice & Policy; The School of Pharmacy, University of London, United Kingdom

Additional authors: Arash Rashidian MD, PhD, Mohammadjavad Kabir, MPH

Keywords: **Family Medicine, Rural Insurance (Behbar), Implementation, Multiple Streams, Policy networks**

Type of abstract: 1

### Background:

Accumulating the evidence generated over decades, the World Health Report 2008 recommended further investment in, and expansion of primary healthcare (PHC) to achieve better population health, lower health disparities, higher equity and lower costs. Over the last two decades, the Iranian model of PHC has given rise to performance on population health indices that matches the best in the region (UNDP 2009; WHO 2008; PRB 2009). However, despite the extensive PHC networks in rural areas, the Iranian healthcare system has expanded private out-patient specialist care and hospital-based services rather than primary care. Over the last decade, this model had shown itself to be inadequate to meet the evolving health needs of the population and increasingly difficult to afford (Takian 2009a). In response, a Family Medicine (FM) programme has been implemented since August 2005, funded through Behbar (Rural insurance for all), a form of social insurance.

### Aim:

Identification of facilitators of and barriers to implementation of FM in Iran based on a four-fold analytic framework comprising of administrative, bargaining, interpretative and institutional frames (Harrison 2004).

### Methods:

Data was collected through semi-structured interviews at national (19 interviews), provincial (9), and local (43) levels, plus a purposive document analysis. The framework approach was used for analyzing interviews. Document analysis followed a narrative contextual framework. We interpreted data using an interpretive framework consisting of multiple streams (Kingdon 2003) and network theories (Marsh & Rhodes 1992).

### Results:

The introduction of Behbar provided FM advocates with the opportunity to skillfully couple the two policies and deliberately define FM as the only solution to fulfill Behbar. However, the manner in which policy was formed was the main obstacle to desired FM implementation.

### Conclusion:

The interpretive framework links the concept of enhancing equity to rationing health services at an opportune moment in Iran. However, using windows of opportunity for implementing a major policy change, if it results in sacrifices in planning and preparedness, may harm the policy and the future success in achieving its objectives.

## 123. Colorectal Screening and Surveillance amongst Diverse Healthy People and Patients with Ulcerative Colitis. Assessment of Clinical Practice

Dr Affifa Farrukh

University Hospitals of Leicester NHS Trust, United Kingdom

Additional authors: Mayberry, John F

Keywords: **Colorectal cancer screening diversity**

Type of abstract: 1

### Research Problem:

Minority populations have a low uptake of cancer screening programmes in the UK. Barriers exist at individual and access levels, but little has been done to overcome them. The purpose of this research

is:

1. To compare the delivery of screening and surveillance for colorectal cancer amongst patients with ulcerative colitis (UC) and healthy by diverse groups, including age, gender, ethnicity, religion, sexuality and ability/disability.
2. To make these comparisons using agreed national standards.
3. To develop a simple audit tool which can be applied throughout Europe so as to identify groups who receive sub-standard care.

Theory and research methods:

1. Patients diagnosed with UC between 1996 – 98 will be identified through interrogation of computer based pathology records in Leicestershire, Tower Hamlets and Newham.
2. Case notes will be retrieved and data collected on a standard proforma developed from national guidelines on care of patients.
3. Standards of care will be compared between diverse groups and those groups receiving substandard care will be identified

Main findings:

The initial findings from Leicester indicate that the standard of care measured against national guidelines over a 10 year period fails to reach expected standards in all groups. However, certain diverse groups, such as the deaf, South Asians and other migrants, such as Somalis appear to be at significant disadvantage.

The proforma used to collect the data was simple to administer and could be used in the primary and secondary sector to identify groups who receive lower standards of care.

Conclusions and policy implications:

People from diverse groups with a chronic condition, such as ulcerative colitis, do not receive comparable long term care. There is a need to audit such care on a regular basis and to develop local responses from within these diverse communities to overcome these barriers of access to surveillance and treatment.

The innovative character of your research:

This is the first attempt within the specialty of gastroenterology to consider whether diverse groups receive equitable care and to develop a simple audit tool which will identify those groups. It will encourage clinicians and policy makers to consider the needs of clients and to develop community based responses.

## 124. Evaluation within the field of child and adolescent psychiatry

Dr. MSc Roman Winkler

Ludwig Boltzmann Institute for Health Technology Assessment , Austria

Keywords: **child and adolescent psychiatry, evaluation, outcome measurement, generic instruments**

Type of abstract: 1

Research problem:

Increasing quality requirements are core to this project dealing with evaluation processes in the field of child and adolescent psychiatry. The significance of this issue is threefold: 1. There is a lack of evaluation studies particularly focussing on mentally disordered children und adolescents. 2. There is little empirical evidence on 'generic' evaluation indicators (i.e. indicators that are not limited to particular mental disorders). 3. Evaluations are linked to the assumption that early and adequate interventions may help to avoid or mitigate intense treatments in the adulthood. Against this backdrop, the proposed evaluation project involves two parts:

Theory and research methods:

First, a comprehensive overview of already existing evaluation studies covering relevant evaluation dimensions, indicators and instruments. A systematic literature review turned out to be the relevant

research method to conclude on 'good practice' cases. Second, the project foresees field research in co-operation with an Austrian University Hospital for Child and Adolescent Psychiatry. The latter step has already been designed and is supposed to start forthcoming spring 2010. The main purpose is to translate theory into practice and to learn how evaluation approaches match with patients' experiences and needs.

#### Main findings:

The literature review resulted in 3 relevant evaluation dimensions that represent the methodological basis of 14 selected studies. Dimensions include the therapeutic outcome, treatment satisfaction and life quality aspects of patients and parents. Relevant indicators involve the clinical symptomatology, the willingness to co-operate and the 'communication culture' among involved actors. Consequently, a set of evaluation instruments has been chosen that will be implemented during the evaluation phase at the above mentioned University Clinic in 2010.

#### Conclusions:

While conclusions on the field work cannot yet be provided, the systematic review brought about valuable insights concerning the usability of existing indicators and instruments. Indeed, there is an evident demand for research about long-term outcomes such as educational performance or professional developments of mentally disordered children.

#### Innovative character:

This project intends to bridge evaluation theory and practice. On the one hand, this extends the value and practice relevance of the provided theoretical implications; on the other hand, our 'field' approach is well-founded on evidence helping to evaluate concrete treatment processes for mentally impaired children and adolescents.

## **125. Implications for health policy of long-term conditions for both mental and physical health: comparison of rheumatoid arthritis and schizophrenia**

Dr Heidi K Lempp

Comprehensive National Institute for Health Research Biomedical Research Centre, Guy's and St. Thomas Foundation Trust/ King's College London and King's College London Academic Department of Rheumatology, Weston Education Centre, 10 Cutcombe Road, London SE5 9PJ, UK

Additional authors: Graham Thornicroft PhD, Morven Leese PhD, Naomi Fearn MSc, Helen Graves MSc Bernadette Khoshaba PhD

Keywords: **long term conditions, primary care, co-occurring conditions, health related quality of life, rheumatoid arthritis, schizophrenia, chronic illness**

Type of abstract: 1

#### Problem:

To investigate whether people with long term conditions, whatever their specific nature, need to be assessed and treated for the full range of mental, physical and social problems. Main question investigated: that rheumatoid arthritis and schizophrenia will be associated with significantly greater impairment across the sub-scores of the SF36 scale than in reference general population samples. Specific hypothesis tested: while rheumatoid arthritis and schizophrenia will impair both physical and mental functioning, when comparing the two groups there will be a greater difference between the physical component scores than there will be between the mental / emotional component scores of the Short Form Health Survey (SF-36).

#### Theory and Methods:

Cross sectional comparison of SF-36 sub-score profiles of cohorts of: (i) people with rheumatoid arthritis attending specialist Rheumatology outpatient clinics in five London hospitals (n=446), and (ii) people with schizophrenia treated by community psychiatric teams in four sites in Europe (n=409).

#### Results:

Both groups had greater impairments across the whole spectrum of mental and physical problems assessed by the SF-36 than age specific normative data for the general population. The results also support our hypothesis that, comparing the people with rheumatoid arthritis and schizophrenia, we did

find that there is a greater discrepancy between the physical scales than there is between the mental / emotional scales of the SF-36.

**Conclusions and policy implications:**

These findings show that whether the primary long-term condition is presenting as physical or as mental disorder, health policy specialist and primary care practitioners should ensure that the full range of physical, mental and social problems is assessed and treated.

**Innovative character of the research:**

The quality of life is rarely directly compared between physical and mental disorders. The results of this study show that whichever is the main presenting condition, that both physical and mental health related disabilities commonly co-occur and that a comprehensive assessment of need is therefore required. The implication for health service policy maker is to ensure that such comprehensive assessments are available and affordable to persons with long term conditions.

## **126. Home care in Europe: growing interest among decision makers, but little information available for policy development**

Mrs. Nadine Genet  
NIVEL , Netherlands

Additional authors: Wienke Boerma on behalf of the EURHOMAP-consortium

Keywords: **homecare, comparative study, Europe, health care systems.**

Type of abstract: 1

**Research problem:**

Integrated systems of home care are assumed to be an adequate response to current and future challenges to health and social services that result from demographic and social developments. The interest in home care systems and the willingness to learn from foreign experiences is growing among policy makers, both at European level and in Member States. However, as comparable and up to date information on home care is lacking, it is unknown to what extent citizens in Europe have access to home care services and to what extent home care systems in Europe are prepared for growing demand and changing client preferences. The EU funded EURHOMAP-study aims to reduce the information gap on home care in Europe.

**Methods:**

An extensive set of information items has been developed on the basis of a systematic literature review and expert consultations. The items are grouped under the following headings: governance and regulation; financing; service delivery; needs assessment and allocation of services; and clients and informal carers. In 2009 and the beginning of 2010, the EURHOMAP consortium has gathered detailed information in 30 countries, on the basis of which structured country reports were written. Besides, panels of key informants in each country have answered standard questions related to hypothetical case descriptions concerning people in various needs of care.

**Main findings and conclusions:**

The EURHOMAP study has shown that in most European countries, in some way, home care has become a policy focus. However, the scope of home care (in terms of the proportion of the population receiving home care; expenditures on home care; and eligibility to publicly financed home care services) differs strongly across Europe. European countries have many problems with home care in common, such as lacking financial and human resources and poor coordination between social and home health care services, but responses are different. The information gathered will provide an overview of the situation of home care in Europe and enable the exchange of national experiences and solutions. Results from the EURHOMAP project serve to set a European agenda on home care and will result in suggestions for further research in this field.

**The link between research and policy:**

This project has been commissioned by the European Commission as a consequence of priorities formulated in the EC's Programme of Community Action in the field of Public Health (2003-2008). In addition to this direct link with the Commission the project's dissemination strategy has a strong focus

on decision makers and researchers in all Member States. Experts that have been involved in each country will have an active role in dissemination and publication at the national level. Furthermore, international organizations that are involved in this project as Collaborative partners will be active in disseminating the results to their networks, which consist of policy makers and scientists. The Collaborative partners are the European Observatory on Health Systems and Policies; the European Forum for Primary Care; and the European Public Health Association (EUPHA).

## 127. Extending the VMD computerization: Umbria Region (Italy) experience and expected results

Dr Ilaria Bernardini

Department of Surgical and Medical specialities and Public Health, University of Perugia (Italy), Italy

Additional authors: Federici Stefano, Casucci Paola, Panella Vincenzo, Minelli Liliana

Keywords: **Multidimensional Assessment, Case-mix, services network**

Type of abstract: 1

The multidimensional assessment (VMD) is a method to standardize the nature of health problems (physical, psychological and functional) for no self-sufficient people. The method is focused on recognize the event criticality's and build a coherent plan of treatment.

The system RUG III (Resource Utilization Groups-version III) is a tool for assessing the case-mix of nursing home residents and it has been activated throughout the Region of Umbria.

In this Region, within the Local Health Centre (ASL) number 4, a research activity is ongoing about the use of a regional informative system on the residential and care home computerization. The informative and computing system is implemented by the ATLANTE system, that manages the entire path of health and social welfare of the person using a common language shared in different stages of the process.

Goals:

- Making easier the relationship between citizens and the improved service performances given by the VMD, and validating the rightness of activated care pathways;
- Monitoring of care pathways could follow in time the paths of each patient in the network of services;
- Standardize some of the communication models between institutions and citizens.

Methods:

The organizational model is made up of a system extension through an hardware platform for the management of data on residential and domiciliary care. To do that, we are using the single access point (PUA), a very important chance for the people to have a one-way access to social and health care services.

The subjects involved are the Region Government of Umbria and the ASL number 4.

Expected results in terms of innovative governance:

The centralized solution will provide an immediate data availability over all the region. Given the chance of managing and monitoring their data, the ASL will be able to reply promptly to general and specific needs of users accepted in the ASL residential structures or managed at home .

We believe that the computerization of residential home care structures is an original way of managing the public health care, testing new models of governance for the facilities and services provided according the people health conditions.

## 128. Investigating the impact of immigrant status and case-mix on Pediatric Primary Care Services utilisation

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Additional authors: Gimeno, Luis; Antiusina, Julija; Calderón, Amaia; Bordonaba, Daniel; Prados, Alexandra

Keywords: **Emigration and Immigration, Primary Care, Health services use, Child, Case-mix**

Type of abstract: 1

The Spanish National Health System offers universal coverage even to those immigrants who are in an irregular administrative status. The impact of this situation on the utilization of Primary Care Services is yet unclear. The objective of this study was to analyse children's use of Pediatric Primary Care Services considering their immigrant status and after adjusting for case-mix.

An observational retrospective study was carried out based on the electronic health records of the pediatric population assigned to three urban Health Centres in Zaragoza (2007). Binomial negative models were applied to regress annual consultation rates against children's immigrant status. All models were adjusted by age, sex and case-mix (ACG Version 8.2®).

Among 7,865 children aged under 14, 2,058 (26.2%) were immigrants. The age/sex-adjusted pediatric consultation rate per patient was lower among the immigrant population compared to the native population (4.6 vs 6.2, OR= 0.74 95%CI: 0.70-0.78). Similar results were obtained when considering all types of visits to the Health Centre —nursery, physiotherapy, social work, odontostomatology and diagnostic tests— (6.3 vs 7.8, OR= 0.81 95%CI: 0.76-0.85). When adjusting for case-mix, lower consultation rates were still observed among the immigrant population, although these differences were slightly smaller in the case of both pediatric (OR= 0.92 95%CI: 0.89-0.96) and total consultations (OR= 0.98 95%CI: 0.95-1.02).

Immigrant individuals show lower consultation rates compared to the native population. The fact that these differences decrease when adjusting for case-mix supports the recognized healthy immigrant effect. Lastly, these results reveal existing inequities in terms of need-based access to health care. The innovative character of the present research lies in:

- Investigating the impact of the immigrant population on the utilization of Pediatric Primary Care Services within a national health system that offers universal coverage to both native and immigrant individuals.
- Comprehensively analysing variables related to the immigration status, case-mix, and consultation rates with the aim of deepening understanding of the determinants of Primary Care Services utilization.

## 129. Investigating the impact of immigrant status and case-mix on Primary Care Services utilisation

Mrs. Amaia Calderón

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Additional authors: Gimeno, Luis; Antiusina, Julija; Poblador, Beatriz; López, Anselmo; Prados, Alexandra

Keywords: **Emigration and Immigration, Primary Care, Health services use, Case-mix**

Type of abstract: 1

The Spanish National Health System offers universal coverage even to those immigrants who are in an irregular administrative status. The impact of this situation on the utilization of Primary Care Services is yet unclear. The objective of this study was to analyse patients' use of Primary Care Services considering their immigrant status and after adjusting for case-mix.

An observational retrospective study was carried out based on the electronic health records of the adult population assigned to three urban Health Centres in Zaragoza (2007). Binomial negative models were applied to regress annual consultation rates against individual's immigrant status. All models were adjusted by age, sex and case-mix (ACG Version 8.2®).

Among 61,202 patients aged 14 and over, 10,982 (17.9%) were immigrants. The age/sex-adjusted

general practice consultation rate per patient was lower among the immigrant population compared to the native population (5.3 vs 3.3, OR= 0.79 95%CI: 0.76-0.81). Similar results were obtained when considering all types of visits to the Health Centre —nursery, physiotherapy, social work, odontoestomatology, midwife and diagnostic tests— (8.7 vs 4.7, OR= 0.78 95%CI: 0.76-0.80). However, when adjusting for case-mix, these differences disappear in the case of both general practice (OR=1.03 95%CI 1.01-1.06) and total consultations (OR=1.01 95%CI: 0.99-1.04).

Immigrant individuals show lower consultation rates compared to the native population. However, these differences disappear when adjusting for case-mix supporting the recognized healthy immigrant effect. These results confirm the equity of the Spanish National Health System in terms of need-based access to health care.

The innovative character of the present research lies in:

- Investigating the impact of the immigrant population on the utilization of Primary Care Services within a national health system that offers universal coverage to both native and immigrant individuals.
- Comprehensively analysing variables related to the immigration status, case-mix, and consultation rates with the aim of deepening understanding of the determinants of Primary Care Services utilization.

### 130. Evaluation of a Targeted Anti-Stigma Mental Health Training Programme

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Keywords: **mental health, stigma, discrimination, evaluation**

Type of abstract: 1

Stigma is one of the greatest challenges facing people with mental illness and often has a negative effect on relationships, employment, housing, and self-esteem. Research has shown that both education and social contact can be effective in reducing stigma and discrimination. Education Not Discrimination (END) is a targeted anti-stigma mental health training programme created by the mental health charity Rethink that is being delivered to medical students, trainee teachers, educational professionals, and staff at GP surgeries. END is unique in that it combines both education and social contact through a mental health facts and figures lecture, a talk by service users and carers about their experiences, and either a play about a boy's first psychotic episode or (for medical students only) a patient role play training session.

The aim of this research is to evaluate the impact of the END intervention on these groups in relation to stigma and discrimination by assessing whether they display an improvement in mental health related knowledge, attitudes, behaviour, and empathy. To evaluate this programme, we are using a pre-post survey design, with surveys collected immediately before, immediately after, and six months after the intervention. This abstract discusses results from surveys handed out immediately before and after the medical student and trainee teacher interventions. There is a comparison with a control group for the medical students, but not for the trainee teachers. Our survey includes basic demographic information and indicator measures of participants' knowledge, attitudes, behaviour, and empathy towards people with mental illness, and is novel in that it is designed to assess multiple facets of discrimination. Our hypothesis was that the intervention group would show a significant improvement in all four areas when compared to the control group.

The results of the first follow-up indicate that the intervention is having a positive effect on medical students and trainee teachers. Although there was no control group for the trainee teachers, this group showed a significant shift in a positive direction on knowledge, attitudes, behaviour, and empathy following the intervention. The medical students also showed a shift in a positive direction (pre/post) on knowledge, attitudes, behaviour and empathy. However, differences between the intervention and control group were only significant for knowledge.

Thus, while more research is necessary to gain more conclusive evidence of the programme's impact, there does seem to be at least some positive improvement in relation to stigma as a result of the training. This means that targeted training which combines both education and social contact may be

a powerful force for combating mental health stigma and discrimination in the future and that such programmes should be further studied if we aim to improve the lives of those with mental illness in years to come.

### 131. EUPRIMECARE: Quality and Cost of Primary Care in Europe

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Additional authors: Segovia, C; Cediél, P; Gerhardus, A; Breckenkamp, J ; Bowles, D; Kalda, R; Maaros, H.I; Mihalicza, P; Borbas, I; Koko, S; Keskimaki, I; Jarvelin, J; Valius, L; Liseckiene, I; Jaruseviciene, L; Fattore, G; Compagni, A; Balog, S

Keywords: **Primary care, quality, cost**

Type of abstract: 1

Statement of research problem:

While literature reviews of health systems are plentiful, a common framework to describe primary health care models in the EU is not available. In addition, a trans-national consensus on how to define quality of care in health systems does not currently exist. Costs of primary care are not well identified in national accounting systems. Research tends to focus more on secondary care due to higher budgets and technology intensive procedures. This is particularly relevant as an ageing population can be served by a capable, responsive and accessible primary care sector. EUPRIMECARE is a project funded by the 7th Framework which aims to analyse the costs and the quality of care – including access, equity and satisfaction– of different primary care models in Europe. The consortium has significant experience in the analysis of primary care representing 7 countries with a variety of health systems: taxation (Spain, Italy, Finland) and insurance-based (Germany, Estonia); centralised (Hungary, Lithuania, Germany) and decentralised (Italy, Spain); family medicine is 100 % gate-keeping role (Lithuania) and partial gate-keeping (Estonia).

Theory and research methods:

Models of primary care will be defined according to the organisation (solo or group work, gate keeping function, availability of diagnostic techniques, type of funding, management structures and functions). Costs will be analysed from the societal point of view, from the point of view of the health care provider and the patient or the citizen receiving services. Quality will include access, equity and satisfaction as basic dimensions.

Main findings:

The outcome of the project will be a set of research methods and tools to measure quality and efficiency of primary care services.

Conclusions and policy implications:

The results of the project have the potential to create a valid framework and propose a common set of quality indicators for primary care at the EU level, providing information about the association between quality and costs of primary care. The consortium aims at providing evidence to inform policy decisions on primary care keeping equity, social cohesion, sustainability and quality of health systems as the values underlying the design of primary care models.

Innovative character:

Assessing the structural components of primary care systems – financing, organisation, payment and regulation – will be the base of our description of primary care models. This will be a relevant contribution, since there is no systematic identification of primary care models in the literature. Another contribution will be the analysis of the relationship and consistency between structural and process quality information. Costs will be related to primary care models and to quality, thus providing an estimation of efficiency.

### 132. **Primary care approaches in The Netherlands, England and Ontario (Canada): a comparative analysis**

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Additional authors: Starfield, Barbara (Professor, Johns Hopkins University)

Keywords: **Primary care, health system performance**

Type of abstract: 1

#### Research problem(s):

What are the characteristics of 'good' primary care across various health system governance levels, and how can they be assessed, analyzed and compared cross-nationally?

#### Theory & research methods:

The study builds on findings from an ongoing PhD research project, comparing health system governance approaches in The Netherlands, England and Ontario using Type 2 diabetes care as a tracer. The comparative case study analysis, using documentary research and semi-structured interviews, provides insights into the diverse conceptualizations and operationalizations of primary care. By analyzing their theoretical underpinnings, we reconcile the different approaches to present a framework of health system and clinical practice characteristics of 'good' primary care. We test the framework, by applying it to compare primary care approaches in The Netherlands, England and Ontario, highlighting the conceptual and methodological challenges faced, and potential opportunities for improvement and cross-learning.

#### Main findings:

From a theoretical and conceptual perspective, primary care models and frameworks need to move away from specific disease management approaches towards being more patient-centered, taking into account comorbidities, health inequalities and the complex, dynamic impact of wider social determinants of health. From an operational and technical standpoint, there is a shortage of reliable, meaningful, comparable and timely data on primary care in the three constituencies – despite the fact that the three countries are often referred to as having some of the most advanced primary care systems in the world. In the absence of good comparable data, in-depth research evaluating each constituency showed variable performance in the various dimensions of primary care, requiring further in-depth explanatory analysis.

#### Conclusions & policy implications:

On an academic level, there is a need to reflect upon and critically analyze the theoretical underpinnings of the various models and frameworks of primary care, and to address the methodological challenges of comparative cross-national governance research. Recent research in primary care has emphasized the importance of frameworks and indicators that account for comorbidities, health inequalities and the integration of care, by focusing on patients and their absolute risk profiles, rather than relative risks associated with specific clusters of diseases. On a policy level, the main issue is political and technical, relating to the lack of useful data, specifically in terms of data collection and reporting. Addressing this data deficiency is a precondition towards developing evidence-informed primary care policies.

#### Innovative character of the research:

The research develops a theoretically-robust conceptualization of 'good' primary care, highlighting its key characteristics across macro financing and regulatory, meso organizational and micro patient care governance levels. This provides a framework of analysis that can be used to cross-nationally assess, analyze and compare primary care approaches, within and between different epidemiological, regulatory, political and socioeconomic contexts – towards strengthening the link to their differential impact on health outcomes.

### **133. Physical activity promotion in public health nursing practice in Finnish child health clinics – a focus group study**

Dr. Tarja Helena Javanainen-Levonen

SAMK -Satakunta University of Applied Sciences, Faculty of Social Services and Health Care, Finland

Keywords: **child health care, focus group, health promotion, physical activity, public health nursing**

Type of abstract: 1

Physical activity promotion is one of the key health policy areas in European public health – particularly in early childhood. The Finnish child health clinic [CHC] system provides an example of a population-based service for every child below school age and the family. Therefore, CHC practice reflects health policy implementation. This qualitative research explored physical activity promotion in these CHC settings. The aims of this research were, firstly, to explore how public health nurses [PHNs] working in child health clinics approach physical activity, and secondly, to describe physical activity promotion in CHC practice. The data were gathered by a purposive sample of 24 nurses in five regional focus groups in Western Finland. In all, 92.3% of the invited nurses participated. Frame analysis of transcripts revealed that PHNs approached physical activity from the environmental frame, the family frame, the natural frame, and the well-being and health frame. After analysing nurses' concrete statements (N=223) related to physical activity promotion by qualitative content analyses and after computing the frequencies, either evaluative or activating and supportive statements could be observed. In all, 78% of these statements were child-centred. Family-centred statements focused on a family member, usually the mother, rarely on the whole family or the father. According to the focus group data, child-centred evaluation provided by PHNs dealt with motor development and fundamental motor skills, as well as with play, outdoor activities, and exercising habits. Family-centred evaluation dealt with general activity level of the family and family's resources for physical activity. Furthermore, activation and support included the same topics brought up during check-ups, as a basis for counselling, or infrequently, for reinforcement. Forcefulness of statements showed that assessment of physical abilities was the only topic applied with every child. Other topics were more selectively targeted for children with additional needs, e.g. overweight and clumsiness, concurrently implying a more curative approach to health promotion. Rural PHNs seemed to have the best options for individualized physical activity promotion thanks to better knowledge of their clients. According to the research findings, nurses' multidimensional approaches did not explicitly turn into reality in routines with every child and family. Therefore, regarding preventive and promotional issues, more emphasis should be placed on physical activity of every child and physical activity of the whole family. Research and development actions are warranted concerning the training of health professionals as well as concerning the public health nursing practice in order to facilitate future efforts to meet the growing needs of physical activity promotion when working with young families with children.

### **134. Supply and demand of Public Health courses in the framework of life long learning in Europe**

Dr. Katarzyna Czabanowska

Department of International Health, School for Public Health and Primary Care (CAPHRI), Faculty of Health, Medicine and Life Sciences, Maastricht University, Finland

Additional authors: Helmut Brand

Keywords: **education, Europe, life long learning, public health, survey**

Type of abstract: 1

Background:

Public health is a dynamically evolving field therefore its workforce should be able to upgrade their competencies to fill the possible knowledge gaps. Little is known about the supply-demand gaps in public health courses delivered in European institutions. Our aim was to assess the supply and demand of public health courses in the framework of Life Long Learning (LLL) in the European Public Health educational system.

#### Methods:

An online survey about supply and demand for LLL courses in public health area included 45 Schools of Public Health (SPHs) [57% of all SPHs] and 20 members of the European Public Health Association (EUPHA) [54% of all EUPHA members].

#### Results:

The findings of the study suggest that, with respect to the demand side, deficit areas exist between the supply and demand of LLL provision in Public Health area. The SPHs stated a multitude of "LLL courses" which in fact were part of the regular university-curricula (bachelor and master programmes). Institutions within the structure of Medical Schools/Faculties took for granted the existence of various courses provided within the format of continuous medical development, listing some of them in their Public Health offer. Moreover, these schools were more likely to offer a majority of courses in 'traditional' public health areas such as: Epidemiology & (Bio-) statistics and Health management & Administration. The most required areas on the demand side were: 'Management, Planning, organisation', 'Leadership', 'Teamwork', 'Research' and 'Analytical & Critical thinking'.

#### Conclusions:

Findings of this study can be used as a starting point to explore in-depth the LLL topic in the European Public Health context. Future studies should focus on very specific needs that have not been precisely articulated to date. Furthermore, there is a need to develop training programs which would meet the demand of public health workforce. Further research is needed on what impact specific LLL provision has on practice outcomes and whether it is change conducive.

### 135. Adherence to antihypertensive drug treatment

Dr. Marcel Leppée

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Additional authors: Culig Josip; Boskovic Jelena

Keywords: **adherence, antihypertensive drugs, Zagreb**

Type of abstract: 1

The determinants of adherence to antihypertensive therapy are related to drug treatment such as drug tolerability and regimen complexity. Other potential determinants of adherence may be related to the demographic factors (age, sex, education), the patient's perception of disease, the health care provider's mode of delivering treatment, the relationship between patients and health care professionals, the socioeconomic factors (price, access, supply). The objective of this study was to investigate the adherence to medication in patients with the primary hypertension in Zagreb. Patients with diagnosed chronic diseases filled self-reported questionnaire during visit to the pharmacy where they collect their prescribed drugs. The questionnaire was standardized in the previous study on drug. The extent of adherence to medication was estimated according to the answers on the specific questions. There were 16 reasons offered for not taking medication as agreed. There were 634 self-reported questionnaires collected from the 114 various community pharmacies in Zagreb. The most significant cohort was the primary hypertension patients (357/56,3%). The relationship between patients and pharmacist was evaluated through a part of the questionnaire. There were more women than men among the study population. There was no difference between adherent and non-adherent patients according to the sex. Also, there was no significant difference according to the age distribution. Patients with primary hypertension (n=357) fulfilled the questionnaire. It was estimated that 39,2% (140) were adherent, and 60,8% (217) were non-adherent. The two leading reasons are patient forgetfulness and „ran out of pills“. The next three are connected with treatment characteristics: drug side-effects, polypharmacy in chronic illness and inconvenient dosing time. The defective supply of local pharmacy is unexpectedly high on the 6th place of the list. In the middle of the list is the frequent changes of prescribed therapy. The adherence to long term therapy in the primary hypertension is inadequate. Most of the studies estimated adherence to antihypertensive therapy above 50%. We found it even lower (39,2%). Two of the most important factors contributing to poor adherence are the asymptomatic and lifelong nature of the disease. According to the answers given in our study, two most important factors are that patients simply forgot to take a pill and they forgot to renew supply of drugs. It has been suggested that the interventions should be pointed to a patient behavioural change. The patients should be provided with knowledge of importance to sustain

a medication-taking behaviour. The patient's adherence to antihypertensive medication in Zagreb is low. The strategy for better management should be implemented. The pharmacist-patient relationship is an important resource that might be improved in the intervention strategies.

### **135. The Viewpoint discrimination survey - the extent of discrimination faced by mental health service users in England**

Miss Valdeep Gill

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Additional authors: Corker, Elizabeth, A.

Keywords: **Stigma, Discrimination, Mental health service users**

Type of abstract: 1

#### Research Problem:

The Viewpoint study collects data to benchmark mental health consumers' experience of stigma and discrimination, prior to the launch of a national anti-stigma programme in England. We report here the results of the baseline survey undertaken in 2008. The study provides evidence of experienced discrimination in a number of different life areas; which can help point towards areas to be addressed by future policy.

#### Method:

537 participants using NHS mental health services took part in a telephone survey, using the Discrimination and Stigma Scale (DISC). Data include 21 items relating to experiences of discrimination, 3 items on anticipated discrimination and 4 items on positive discrimination in the last 12 months.

#### Main Findings:

Most (91%) participants reported experiencing discrimination in at least one life area out of a possible 21. Discrimination from family and friends is common. Employment discrimination is widespread, and fear of this discourages many participants from seeking work. Discrimination in physical healthcare is also a significant problem.

#### Conclusions and Policy Implications:

Experience of discrimination and its anticipation by mental health consumers in England are the norm. Our findings support the need for anti-stigma programmes, targeting family, friends and health professionals. Our findings suggest that the continuing high levels of discrimination in employment hiring practices need to be addressed, and that more needs to be done to ensure that employees with mental health problems are treated fairly.

#### Innovative Research:

The DISC asks interviewees to consider whether they have been treated differently, and worse, than other people, because of their diagnosis of a mental health problem. They are asked, if possible to give an example of this treatment, and then to rate their experience as severe disadvantage, moderate disadvantage, slight disadvantage, or no different treatment.

Much of previous research on discrimination focuses on non-service user's intended behaviours and attitudes towards mental health. The DISC quantifies the prevalence of discrimination experiences, and seeks to measure people's actual behaviour rather than intended behaviours. We believe this approach provides a stronger measure of the extent and types of discrimination.

### 136. The impact of mental health service user interviewers in The Viewpoint discrimination survey

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Additional authors: Gill, Valdeep

Keywords: "**Service user interviewer**" "**stigma**" "**discrimination**" "**research policy**"

Type of abstract: 1

Statement of the research problem and the innovative character of research:

An important methodological development over the past few years has been the involvement of service users in mental health research. Effective involvement can ensure research is relevant and that study designs are appropriate. Collaboration in analysis can also provide new and valuable insights. However, no published mental health studies have examined the impact of interviewers' own mental health experiences on the collection of interview data. This study investigates the impact of service user and non-service user researchers on findings of anticipated and experienced discrimination among people with mental health problems supported by the Care programme Approach (CPA) in England.

Theory and research methods:

The social attribution model is often used to explain interviewer impact on responses and argues that respondents modify their answers depending on what they perceive interviewers' expectations to be. This is particularly considered to be the case with sensitive or potentially stigmatising topics; participants make assessments about what an interviewer's expectations are, based on characteristics that are known to them. Therefore, in relation to this model, potential participants were randomly assigned to one of three study groups: disclosing peer (service user) interviewers, non-disclosing peer interviewers and non-peer interviewers. It was hypothesised that participants would be more willing to participate and would report more discrimination to a known peer interviewer.

Main findings:

537 telephone interviews were carried out. Across the whole sample, 91% reported experiencing discrimination. Respondents interviewed by a disclosing peer answered significantly more questions than the other groups ( $p=.001$ ), but no significant overall differences were found between groups in the levels of reported discrimination.

Conclusions and policy implications:

Findings suggest that interviewers' own experiences of mental health problems broadly do not impact the response option endorsed by participants collected in structured interviews demonstrating that service user involvement does not introduce problems with data reliability and should not pose problems for the credibility and of research. Importantly the findings also suggest that use of disclosing peer interviewers may improve participant response rates. Future research policy should consider increased involvement of service users in research.

Caution is needed when generalising findings due to low response rate and overrepresentation of women and white participants.

### 137. The relevance of hierarchically structured populations in health service research

Dr Sandra C. Buttigieg

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Keywords: **Hierarchical**, **Multilevel**, **Health Service Research**,

Type of abstract: 1

Social, medical and biological sciences are often characterized by hierarchically structured populations which necessitate the use of multilevel analytical techniques. This paper provides a brief explanation of multilevel modelling. It draws upon recent epidemiological and health services literature to highlight applications and methodological advances in these techniques. Multilevel models, which are also referred to as hierarchical linear models, generalised linear mixed models, and nested models, are statistical models of parameters that vary at more than one level, and are concerned with

partitioning random error in order to make better estimates of parameters. Therefore, multilevel modelling analyses hierarchical data where observations may be nested within higher levels of classification. Hospital practice provides a clear example in which individuals are subject to the influences of grouping. Patients receive care in wards; wards are managed within clinical departments; and departments are administered within hospitals. The units in such a system lie at four different levels of hierarchy. Patients are assigned to level-1, wards to level-2, clinical departments to level-3, and hospitals to level-4. Exploration of variations in the efficacy of health care practices, comparisons of hospital units' performance, and resource allocations are major areas that could benefit greatly from these techniques. Multilevel models have become more popular as a result of the growth of computing power and availability of software.

### **138. Quality of life of senior citizens hospitalized for psychiatric disorders in gerontopsychiatric ward representing an institutional form of psychiatric care – an example from the Czech Republic**

Dr. Jan Luzny

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Additional authors: Ivanova Katerina, Bellova Jan

Keywords: **seniors, psychiatric morbidity, psychiatric hospital, quality of life**

Type of abstract: 1

Senior citizens form a very heterogeneous part of the population (Šipr, 1997, pp. 9-12). They differ one from another in aspects of individual well-being, individual level of health (both somatic and mental), level of autonomy, adaptability, gender or socioeconomic status (Kalvach, Onderkova, 2006, p. 7). Calls emphasizing the importance of further research of ageing appear both in international and national projects -such as Active Ageing: A Policy Framework (WHO, 2002), Research Agenda on Ageing for the 21st Century (OSN, IAG, 2002), SHARE / COMPARE project, or project ADEL (Advocacies for Frail and Incompetent Elderly in Europe) in which a Czech research team took part actively (Ivanova et al., 2009) etc.

In the Czech Republic we researched the quality of life of senior citizens in the Kromeriz region (Lužný, 2009) monitoring three different subpopulations of seniors: (1) seniors living in the community with no actual requirements on institutional health care services, (2) seniors hospitalized due to any somatic condition on the geriatric ward of somatic hospital in Kromeriz and (3) seniors hospitalized due to any psychiatric condition on psycho geriatric ward in the Psychiatric hospital in Kromeriz. Research was designed as a cross sectional study. Techniques of inspection, interview (psychiatric examination), questionnaires (questionnaires of quality of life WHOQoL BREF, WHOQoL OLD, psychiatric evaluating scales Mini-Mental State Examination, Geriatric Depression Scale, questionnaire evaluating suicidal intentions, Barthel's test of Activities of Daily Living, list of sociodemographic data) and technique of studying documents (patient records) were applied in each of the three studied groups.

Our results support hypothesis of heterogeneity in the elderly, even considering the quality of life. The worst quality of life was detected in senior citizens hospitalized due to psychiatric disorder in the Czech traditional psycho geriatric ward. These seniors achieved significantly worst level of autonomy measured by Barthel's test of ADL's, higher level of suicidal ideations or suicidal behaviour, higher prevalence of severe dementia and higher prevalence of depression, compared to senior citizens living in community or senior citizens hospitalized for somatic condition in a geriatric ward of the geriatric hospital. Our results showed significant gender differences among senior citizens of studied subpopulations, with a worse quality of life and decreased level of autonomy in women, as compared to men. In conclusion, further research of quality of life of seniors respecting the broad range of heterogeneity in the elderly is highly recommended, with special attention to seniors with psychiatric disorders who seem to be extremely frail and predisposed to loneliness, loss of autonomy, competence and social exclusion.

### 139. Nosocomial Pneumonia in Patient with acute Pancreatitis in the context of Patient Safety

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Additional authors: Radev R., Getov I., Stoikov D., Radev VI., Stavrova R.

Keywords: **nosocomial infections, acute pancreatitis and nosocomial pneumonia in ICU, safety, prevention and infection control**

Type of abstract: 3

#### Summary:

Pneumonia is one of the most common extraabdominal complications in patients with acute pancreatitis. Nosocomial pneumonia in the postoperative period in patients with acute pancreatitis passed through the Anesthesiology and Intensive Care Unit has been retrospectively studied covering period of 5 years in order to analyze the risk factors for its development and the basic causes for it. Systematization of the typical errors in the treatment of patients with nosocomial pneumonia is done. A scheme for prevention and treatment of nosocomial pneumonia is given. Results indicate that in recent years there has been no significant change in the microbiological characteristics of the nosocomial pneumonia.

### 140. Evaluation of the National Time to Change Mass-Media Campaign: 1st Year Results

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King's College London, Institute of Psychiatry, United Kingdom

Additional authors: Henderson, Claire; Rusch, Nicolas; Thornicroft, Graham

Keywords: **public health, mental health, media campaign, stigma**

Type of abstract: 1

#### Statement of the research problem:

Media campaigns are being used increasingly as a way to reach the public, modify health behaviours or promote specific health issues. Scientific evaluation of such campaigns, however, is often lacking. In view of the high costs of mass-media campaigns, it is important to understand whether it is possible for a media campaign to have significant population effects. The Time to Change (TTC) anti-stigma campaign, launched in January 2009, intends to make fundamental improvements across England in: public knowledge, attitudes and discriminatory behaviour in relation to people with mental illness. Running through 2011, the campaign focuses on target audiences derived from consultation with mental health service user/carer groups. Year one activity was comprised of two main bursts of media including: national TV, press, online advertisements, outdoor and public relations activity. This study assesses the effectiveness of the TTC campaign on improving public knowledge, attitudes and behaviour as pertains to mental illness.

#### Theory and research methods:

Online panel interviews were performed pre, during and post each burst of campaign activity. As recommended by the National Institute for Health and Clinical Excellence (NICE), our evaluation included validated outcome measures of mental health-related knowledge (as measured by the Mental Health Knowledge Schedule [MAKS], attitudes (as measured by the Community Attitudes towards Mental Illness [CAMI] scale) and behaviour (as measured by the Reported and Intended Behaviour Scale [RIBS]), in addition to campaign awareness. The sample (n=1,100 for burst 1 and n=908 for burst 2) was restricted to the campaign target population (i.e., residents of England, aged 25-45 and of middle income socioeconomic groups) and was recruited via a market research panel. We investigated overall changes in the target population pre/post campaign burst and association between campaign awareness and outcomes when controlling for other covariates.

#### Main findings:

Initial findings will be presented for bursts one and two. Specifically, we will present: (i) overall population changes in knowledge, attitude and behaviour pre/post campaign activity and (ii) the level

of association between campaign awareness and outcome measures.

Conclusions and policy implications:

This study sheds new light on the potential impact of anti-stigma campaigns on population and social processes. Further investigation is needed regarding the maintenance of these changes over time and the potential additive impact of subsequent bursts. Policymakers should consider the evidence from media campaigns as a method for improving public health.

Innovative character of your research:

To our knowledge this is the first study to rigorously evaluate changes in knowledge, attitudes and behaviour related to mental health among the general public.

## 141. Measuring barriers to change: the effects of staff perceptions

Ms Caroline J Laker

Institute of Psychiatry, United Kingdom

Keywords: **Barriers to change; acute in-patient; mental health**

Type of abstract: 1

VOCALISE:

Addressing the challenges in measuring staff perceptions of barriers to change is vital to enhance our understanding of how these perceptions influence service developments. This project generated a novel measure, 'VOCALISE', using a participatory method that captures staff perceptions of barriers to change in acute in-patient settings.

The Europe wide agenda for health systems change has seen a move away from hospital centrism resulting in resource reductions. Concurrently, policy initiatives designed to meet social expectations around staff and client involvement, have evolved. The goal is to allow frontline staff more involvement in service developments aimed to improve efficiency in care delivery and implement changes as a directly translational benefit. These aims have seen little success in practice perhaps because our understanding of staff perceptions of barriers to change is limited.

The VOCALISE measure was developed in an inner London mental health trust. An initial reference group met to identify an interview schedule. Then, staff perceptions of barriers to change were explored through individual interviews. A thematic analysis revealed commonly occurring barriers to change which were converted into items on the measure. Psychometric testing was undertaken using standard criteria. Qualitatively, staff reported that changes imposed from the top down did not acknowledge the difficulties in their clinical areas. Frequent crises on the ward, risk management, intensity of workload and negative team dynamics were manifestly expressed as barriers to change, with the attitude of some team members inhibiting the success of planned changes by decreasing motivation in the whole team. An interaction between motivation and blame was intimated by many staff as perpetuating a cycle of resistance to change. Many staff felt burned out by the volume of changes imposed.

VOCALISE was then used in a programme of planned change. At baseline, quantitative data were collected from a sample of (n=125) nursing staff of the same trust, to explore the effects of incident rates, length of staff employment, work satisfaction, staff perceptions of the ward environment and burnout on staff perceptions of barriers to change. Subgroups were also examined to assess whether differences existed between boroughs or staff groups. The baseline analyses that will be presented, detail the current context for nursing staff ahead of planned changes. Future analyses will look longitudinally at the effects of staff perceptions of barriers to change on the successful outcomes of those changes.

This method of measure development produced a psychometrically sound measure, with high face validity which is sensitive to differences in subgroups. VOCALISE can be used by ward staff to highlight barriers to change at the outset of service developments which may assist in developing feasible changes.

#### 142. The care of depression and suicide: a research programme to support policy in Flanders

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Additional authors: Scheerder, Gert

Keywords: **depression, suicide, prevention,**

Type of abstract: 2

1. Depression and suicide are important public health problems in Flanders. There is a high prevalence of depression, with a huge impact on economic resources. Suicide is a leading cause of premature death. Although there is evidence that depression can be treated effectively, depression care knows many challenges.
2. Evidence based practice to prevent depression and suicide consists in a multilevel approach with: the capacity building of GP's and community facilitators (such as pharmacists), the improvement of knowledge about depression in the general public and the reduction of perceived stigma and poor adherence by patients.
3. The Flemish research team consists in 3 psychologists, 1 sociologist and 1 public health worker. They are part of the European Alliance Against Depression (EAAD).
4. To set up evidence based policy, baseline data on current practices and barriers regarding depression care and suicide are needed. Until now our research programme has this as the central aim.
5. After the cross-sectional research we would like to focus on prospective studies to evaluate the impact of interventions on the practical skills of health professionals.

#### 143. FinDM II – Register-based measurement of the prevalence and incidence of diabetes and its long-term complications

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Keywords: **diabetes, register-based research, diabetes complications, health care**

Type of abstract: 2

Research problem:

The prevalence of type 1 diabetes is especially high in Finland and the incidence of type 2 diabetes is increasing rapidly both in Finland and elsewhere. The purpose of the FinDM II project is to improve monitoring of the incidence and prevalence of diabetes and its long-term complications on the basis of national administrative registers. The objectives are (1) to create a suitable research register for the monitoring, (2) to harmonise the indicators used in monitoring, (3) to report trends in diabetes 1997-2007, (4) to examine the prevalence and outcomes of its major complications, and (5) to scrutinize mental health problems among persons with diabetes.

Main approach:

The FinDM II aimed at compiling a large register database and to use it to examine diabetes from different perspectives, approaches, study designs and methods. The study cohort was identified from all major Finnish administrative registers with national coverage using personal identification codes. The final cohort comprised of 637 585 individuals potentially suffering from diabetes. Follow-up data on comorbidity and drug and health care use were then linked to these individuals from 12 register sources. The coverage of register data were validated by comparing part of it to the contents of an independent local diabetes register.

The research team and collaborators:

The FinDM II project is a joint venture of the National Institute of Health and Welfare and the Finnish Diabetes Association. The project has a steering group of national experts of diabetes and diabetes care and several research groups concentrating on specific research questions collaborate with FinDM II.

Linkages to policy and future research plans:

The project has reported trends in the prevalence and incidence of diabetes and is currently evaluating its major complications and the development of treatment practices among patients with complications, e.g. cardiovascular complications, amputations, kidney complications, cancers and mental health problems linked to diabetes. Additionally, the project examines mortality among persons with diabetes and plans to examine socioeconomic differences and trends in diabetes complications and treatment practices. In addition to providing information for policy makers on the trends and prevalence of diabetes, the project can therefore, be of use when developing treatment practices for patients with diabetes and evaluating equity in the use of health services.

## 144. Determinants of Primary Care Services Utilization

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Keywords: **Primary care, efficiency, equity, resource allocation, case-mix**

Type of abstract: 2

There is solid evidence concerning the three main determining factors of primary care services utilization which is dependent on the attended population, the health care professionals and the health care setting. As a result, important variations have been identified with reference to the clinical practice of healthcare professionals which entails a high opportunity cost for all individuals as well as important implications regarding the quality and safety in health care. Thus, large-scale studies focusing on the efficiency and the effectiveness of primary care services are currently needed within the European context.

Such studies require an extensive overview of the following aspects:

- characteristics of information systems and the opportunities for comprehensive analyses
- structural and organisational elements of resource allocation systems
- measurement of morbidity as the main determinant of utilization
- specific utilization patterns regarding patients and health care professionals
- relation between health care costs and clinical adequacy
- facilitating equity in health services provision by accounting for differences in morbidity of different population subgroups

To that end, a European Research Network in Primary Care Services has been established with partners representing both academia (Karolinska Institute in Sweden, Aarhus University in Denmark, Imperial College in UK and University of Klaipeda in Lithuania, ACG International Team of Bloomberg School of Public Health in the US) and governmental organizations (Aragon Health Sciences Institute in Spain).

Special emphasis is given to the applicability of the results which will derive in the creation of policy guidelines for the achievement of universally accessible and equitable primary care systems that respond to the health needs of the community at a cost that countries can afford to maintain.

Future steps should consider other components of health care systems, such as specialised care, inpatient and emergency services in order to achieve a broader picture of health care resource utilization patterns.

## 145. How to capture impact of policy – developing a framework for policy research and evaluation

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Additional authors: Snooks, H; Howson H;

Keywords: **chronic conditions, policy evaluation, evaluation framework**

Type of abstract: 2

### Statement of research problem:

With ageing populations and rising levels of long term illness across Europe, management of people with chronic conditions will change or increase demands on health care systems. Complex needs mean current health provision, with its emphasis on acute and speciality care, is unsustainable.

A new national policy for Chronic Conditions Management (CCM) was developed in Wales 2006 - 8 and is now being implemented. Policymakers commissioned researchers develop a Framework for research and evaluation to capture impact of the policy over time.

### Main approach and outcomes:

The Framework needed to cover overall impact at national and local levels, impact of local initiatives and include formative and summative evaluation using mixed methods. It also had to be accessible and to support evaluation at local level.

The Framework we developed presented stakeholder consultation, a commissioners' survey (n=22) and in-depth interview results (n=5) about evaluation approaches with local commissioning boards for health services in Wales. It incorporated an overall strategy for evaluation at national and local level. The Framework included a decision tree for local evaluation planning with the key decision point centring on whether evidence of effectiveness already exists. If so – carry out clinical audit/service evaluation assessing processes of care (where possible against explicit standards); if not – plan primary research to gather evidence of effectiveness, with appropriate methods, sample size and academic partners.

We carried out evaluation workshops, training and provided an advisory service. We assessed local plans for policy implementation, including evaluation components, against an explicit structure. Implementation and evaluation plans were vague and lacked detail. Uptake of the advisory service was limited. Restructuring of local commissioning arrangements has disrupted local plans.

### Research team and collaborators:

A research team of academics and service users works closely with policy makers to develop an integrated policy evaluation strategy. Regular strategic research planning meetings, also including service commissioners and support agencies, review and coordinate research activity.

### Linkages to policy:

The Framework integrates evaluation and policy objectives through its multi-strand approach focusing on impact, effectiveness and efficiency with reporting structures to inform ongoing policy development and review.

### Implications for future:

Research and evaluation of national policy is crucial and needs to be planned alongside policy development and implementation. CCM policy development and implementation in Wales has been undertaken 'hand in hand' with researchers. Even then there are many challenges to local, small scale evaluation that need to be overcome if we are to truly learn the impact of changes in service structure and delivery.

## 146. The impact of financial and economic crisis on health care sector in Lithuania

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Keywords: **Financial and economic crisis, impact of crisis, health care sector, quality of life indicators**

Type of abstract: 3

Financial and economic crisis is one of the major problems of health policy in many countries. average.

The aim:

of the study is to evaluate the impact of the current economic and financial crisis on the health care sector as well as to present information regarding the policy measures taken or planned by the Lithuanian Government in order to mitigate its effects in Lithuania.

Materials and methods:

Comparative analysis using the data from 2008 and 2009 were used in order to compare the changes of the indicators before and during financial economic crisis. The structural set of indicators in three groups of possible impact was assessed: financial impact, indicators of quality of life impact and political decisions impact.

Results:

### *Financial impact*

Health care budget was decreased by 6,4 percent as it was approved for 2009, but has remained the same as in 2008. Cost-sharing and out-of-pocket payments for health care have increased. Funding of health prevention and promotion programs was reduced but in comparison with 2008 even 4 mln LT more is planned for those programs. The first reduction of the budget for health care institutions was performed under the strategy not to increase an unemployment rate. The first reduction of health care budget made minimal impact to the access to health care: total number of treated in the hospitals patients have increased by 1 percent. State health insurance fund reports that the services of long term care were increased by 3.4 percent.

### *Impact for the quality of life indicators*

The death rate is decreasing from the most courses of deaths by 3 percent except suicide and circulatory system's diseases. Avoidable deaths courses show positive tendency. Reduction in numbers of patients death with communicable diseases by 25 percent also show that there were no critical impact in public health sector as one of the indicator of social economic life changes. Some indicators as increased numbers of acute myocardial infarct and overall cardiovascular system diseases as well as some mental disorders have to be in a special attention analyzing future changes and tendencies. Total medical leave days remained the same.

### *Impact of political decisions*

In early 2009 the reform the health insurance system by introducing separate health insurance contribution was performed. The reform social and health insurance systems during the period 2009-2010 has started by including persons still not involved in them and unify the principles of involvement of persons in the system under equal conditions. Some political decisions concerning alcohol consumption, tobacco and accidents prevention were accepted. Tax on alcohol and cigarettes were increased, regulation for purchasing was introduced prohibiting selling tobacco products to young people. Smoking was prohibited in cafeterias and public places. There is evidence that quality of life indicators were improving due to the alcohol policy measures in the country. The plan of major restructuring of health care institutions is under preparation now. The plan for rationalization of the price policy and improvement of the access to medicines was approved by the Ministry of Health. Reorganization of public health and state institutions subordinated to the Ministry of Health is currently under implementation. There are plans to introduce supplementary health insurance.

Conclusion:

The impact of financial and economic crisis and the first round of economic stability measures for the two quarters of 2009 had very small impact for health care sector, but the plans of health care sector restructuring might affect it in future.

#### 147. **Impact of Health Services Research on refundability policies of anti-VEGF drugs by Italian National Health Service.**

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Keywords: **health services research; evidence-based decision making; refundability policies; anti-VEGF drugs; Italian National Health Service.**

Type of abstract: 3

Statement of the policy problem:

Age-related macular degeneration (AMD) is the most common cause of adult blindness in Western developed countries. Recently new medications have been introduced for the treatment of AMD with choroidal neovascularization (CNV), based on intravitreal injection of anti-vascular endothelial growth factor drugs (anti-VEGF). Anti-VEGF are represented by ranibizumab, pegaptanib and bevacizumab. The first two are on label, evidence-based (EB) and higher cost, the third is off label, not sufficiently EB and lower cost. Until December 2008, ranibizumab and pegaptanib, differently from bevacizumab, were not reimbursable by Italian National Health Service (SSN). Therefore, in Italy there was a scenario characterized by the availability of first class medications, for citizens able to pay, and second class medications, for the others.

Type of research conducted:

As parts of a wider process of Health Technology Assessment of ranibizumab, a survey on anti-VEGF use among the most important ophthalmic Italian centres, and a review on anti-VEGF refundability policies by SSN were carried out.

The survey showed that the most used anti-VEGF was bevacizumab. The legislation expressly states that the use of off label drugs can be justified only by: the absence of an effective therapeutic alternative; the availability of scientific evidences clearly demonstrating a sufficient efficacy and appropriateness of the off label drug use. Neither condition was met for bevacizumab.

Policy and other impacts:

As a result of our research, on December 18th, the Italian Drug Agency (AIFA) stated the refundability by SSN of pegaptanib and ranibizumab; during March 2009, AIFA established the exclusion of bevacizumab for the treatment of AMD with CNV from the list of repayable off-label drugs. New AIFA statements answer for principles of evidence based medicine and fair access to treatments.

Evaluation of success and failure factors:

The application of HSR criteria to the decision making process resulted to be successful thanks to a clear and open relationship between researchers, industrial companies and policy makers. This is one of the first examples in the Italian context which should be implemented in other healthcare fields by involving patients and consumers representatives.

Public health choices should always be based on a strong dialogue between policy makers and researchers, in order to promote appropriate health policies and to avoid not EB decisions.

#### 148. **Problems in health policy implementation and need for research: experience from Lithuania**

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Keywords: **health policy, health care system, health system, inequities, evidence based decisions**

Type of abstract: 3

Lithuania belongs to the group of countries that have low infant and high adult mortality of its population. This phenomenon per se requires adequate research as it is the case with search of causes for increasing trends of adult mortality that started after the year 2000. Research done so far demonstrates that this could not be explained by the aging of population or decline in quality of health

care service operations. At the same time it was found that social inequalities and related inequities in health within last decade has substantially increased. As a result, e.g. the difference between top and bottom quintile of all cause mortality in 2008 as assessed by district level (44 all-together in a country) reached more then two-fold (23/1000 highest and 11/1000 lowest quintile).

Reduction of inequities in health and health care is declared as one of top priorities in national health policy implementation. However, even recognizing fundamental differences between definitions of health and healthcare systems the implementation of health policy in Lithuania still is understood as major responsibility of health care services. At the same time only 1% of the national health account in 2008 was spent for prevention and public health at large. It is obvious that more research needs to be done to back up evidence based decisions for health policy implementation aimed at improving health promoting actions through intersectoral collaboration, support to primary health care and making health care services more active and effective in prevention. The search for political and strategic decisions through well thought and structured research projects needs to be based on mobilizing resources from different sectors of the society. The concept of a national programme for integrated prevention and control of major noncommunicable diseases might be one of the examples to follow.

#### **149. Primary Health Care Needs-based Resource Allocation through Financing of Health Regions - Innovation in the Portuguese Health System**

Ms. Ana Sofia Ferreira

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Additional authors: Lourenço; Alexandre

Keywords: **risk adjustment; primary healthcare financing; innovation**

Type of abstract: 3

1) A statement of the policy problem:

Primary health care (PHC) in the Portuguese Health System has experienced a major reform since 2005, with the creation of 229 "Family Health Units" (Jan 2010) within Health Centers (HC), as well as a change in the organization of 287 HC, reorganized into 68 Health Centers' Groups (HCG), since March 2008. PHC is directly financed by 5 Health Region Administrations (HRA), which are allocated a budget within the NHS budget. Allocation criteria and financing models are defined by the Central Administration of the Health System (ACSS). NHS budget is 8,15B€ in 2010, with Hospital and Local Health Units (which include a component of PHC) contracts costing 3,7B€ and transfers to HRA for the financing of PHC summing 3,4B€. Resource allocation of the NHS budget to HRA has mainly been decided on a traditional basis, but in 2009 a revision of the financing model was developed by ACSS. Its aim is to introduce a shift from a cost-based approach to a needs-based approach, using a risk-adjustment method, in order to incentive equity & efficiency in the PHC funding.

2) The type of research conducted:

The new risk-adjustment method for the financing of PHC relies on:

- Population & PHC cost data at "municipality" (concelho) level (278 observations for 2008); PHC costs computed or estimated from human resources costs, plus medication and costs of private contracting (convenções) of ancillary tests by the NHS; Population data also for the HCG level (2008);
- Regression of quintiles, as the adequate method for estimating risk-adjustment allocation for per capita PHC costs;
- Selected explaining variables for risk-adjustment were: Education (% of population with mandatory education level); Index of per capita purchasing power; Total dependency ratio; Sex ratio; Unemployment rate; Age-standardized death rate (for ischemic heart disease<65Y).

International benchmarking of risk-adjustment formulae and financing methods for PHC, as well as scientific validation of chosen methodologies by experts' panels, was assured.

Pseudo R<sup>2</sup> = 0.44 for risk-adjustment of PHC costs - similar to what is described for other countries in health economics literature, and confirming the fact that historical PHC costs are mainly dependent on supply-side characteristics and are not primarily needs-based. R<sup>2</sup> raises to 0.87 when we take population into account in PHC costs prediction. I.e., risk/needs determines very little the present structure of historical costs, but there is some per capita risk-adjustment in budget setting.

3) Policy and other impacts (actual versus expected):

For 2010, HRA's budgets were not set on the basis of the pure risk-adjustment new model (approved by Government in Dec 2009), but the new financing model informed the path of HRAs' budget convergence to new normative values. Rationale for convergence-path is to ensure no HRA budget-cuts, in a context of severe budget constraints (NHS budget grew only 0,62% in 2010).

Communication of new model to several stakeholders by ACSS, explaining efficiency and equity incentives of new methodology is the next step. The new financing scheme, combined with innovative methodologies for PHC contracting which are under implementation, is expected to produce effects in health promotion, rational medication and ancillary tests prescription, as well as on health planning at the micro level.

4) Evaluation of success and failure factors:

Not yet possible.

## **150. Current view of the administrative-bureaucratic system of health care in the Czech Republic in the mirror of economic theory and management theory.**

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Additional authors: Pirožek Peter, Karásková Hana, Kandilaki Daniela, Lešetický Ondřej.

Keywords: **health care, inconsistent goals, information asymmetry, administrative-byrocratic system**

Type of abstract: 3

Contribution represents current view of the health care in the mirror of economic and management theory. We describe the administrative-bureaucratic system of health care in the Czech Republic, mainly the downside of the system, as well as comparison with some European healthcare systems. Finally, we note the previous errors in the implementation of different approaches in the administrative-bureaucratic system of health care.

Theoretical background:

The health care system is a non-linear, complex-adaptive system of elements and relations, aimed to provide health services (HS) in an environment with limited financial resources. From an economic point of view, the system deals with two inconsistent goals. Economic objectives (limited resources) and professional goals (optimal structure and quantity of HS).

HS delivery system consists of:

- Patients
- Healthcare providers
- Insurance companies (a form of payment to a third party)

Administrative-bureaucratic (AB) access to health care services ignores the actual demand for health care. It does not accept the patient as a customer. The patient should act as a customer and demand adequate HS (a patient must pay for some medical services - direct payment). It must abandon the myth of information asymmetry as a factor that contributes to market failure in health care. Information asymmetry in the health care sector same as in other fields of business may be removed by the patient

(Feedback of effectiveness). From this perspective, managerial and ownership responsibility is essential because of the efficient use of scarce resources.

In the AB system nowadays the concept of feedback does not work and it leads to the deformation of health care financing.

Largest segments of the healthcare market with the greatest influence on macro-and microeconomic balance are:

- Hospital Services
- Ambulatory Services
- Pharmacotherapy

#### Recommendations:

The Czech Republic's AB system tends to close over the external environment. Creation of following roles would lead to open system:

- The role of informed patient – patient decides about the use of the scarce resources in the environment where the health insurances compete and where the patient co-finances the HS.
- The role of health care providers - may be twofold: as a medical professional as well as an owner of the medical facility.
- The role of insurance companies is to partly pay for provided HS in an environment of competing insurance companies.

#### Conclusions:

The problem within most European healthcare systems, including the Czech Republic is the lack of knowledge of the price for HS which leads to ineffectiveness. The market price equilibrium will be created in a competitive environment under the action of supply and demand.

#### Major problems in the Czech Republic:

- Closed AB system with a tendency to isolate themselves from external environment
- The absence of prices for HS leads to micro-and macro-economic ineffectiveness repeatedly resolving into financial deficit.
- Lack of co-financing leads to ignorance of the patient as a client, who pays for medical service and unavailability of some services.
- Lack of economic feedback and competitive environment leads to reduction of the pressure on the quality of HS. Therefore the stability of the system is affected and it leads to state administrative and bureaucratic interference.

#### Key words

Health care, inconsistent goals, patient, provider, insurance, information asymmetry, governance and organizational management, administrative-bureaucratic system, the role of interested parties, price, price functions, problems of the health system.

## **151. Building bridges between evidence based medicine and change management: a case study in primary care.**

Dr Ana Clavería

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Keywords: **clinical indicators, multimorbidity, primary care, change management**

Type of abstract: 3

#### Justification:

Implementation of electronic health records (EHRs) affords an excellent opportunity to reduce the gap between clinical practice guidelines (CPGs) and practice or policy. Nevertheless, such projects must encompass scientific-technical as well as organisational aspects. Scope: primary care, in the context of a public health service.

#### Type of research:

Indicator selection. A definition of relevant and useful clinical indicators for 20 prioritised diseases. Methodology involved CPG selection, enumeration of recommendations and consensus-based selection by primary-care professionals. In a second stage, with the participation of external primary- and specialised-care reviewers, RAND methodology was used to assess which indicators required continuous monitoring and so needed EHRs. Indicators were reviewed and refined, using the Delphi method.

#### Policy and other impacts:

The NHS Sustainability Model was applied: a) implementation embedded in the "2007-2011 Primary Care Improvement Plan" (budget €65 million) and health information system projects (annual spending €30 million); b) extension of knowledge of CPGs and prioritised indicators through online training and virtual library; c) accessibility in professional health practice by incorporating indicators into EHRs; d) measures to improve availability of professionals' time, with modifications to staff and organisation; and e) professional management and incentive model targeted at implementing EHRs and monitoring prioritised disease indicators. Improvement in health outcomes not yet monitored.

Evaluation:

Success factors: a) clinician leadership; b) policy-maker involvement; c) results for health professionals personally experienced: 2,400 (100%) trained primary-care physicians with access to virtual library, 98% of health professionals with computerised consultation and 50% of professionals with access to EHRs; and d) results for population: 95% with access to electronic prescribing and 50% with additional access to electronic dispensing. Failure factors: a) tools for indicator exploitation and monitoring not yet implemented; b) change-management activities and tools under different administrative authorities; and c) difficulty in assimilating the experience and learning from other environments.

Discussion:

a) a complex intervention project in a complex adaptive system is difficult to model, measure and compare; and b) the science of implementation in healthcare is still a young science.

## **152. Health management and needs for professional continuing education: perspective of leaders of health care institutions**

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Additional authors: Gustaityte Ausra, Kalediene Ramune

Keywords: **Health care institution, health management, professional education**

Type of abstract: 3

Managerial effectiveness and success of health care system in the country depend greatly on the competences of health managers.

Aim of the study:

To evaluate the attitudes of leaders of health care institutions towards health management and their needs for professional continuing education.

Methods. Questionnaire survey, aimed at disclosing perceptions and the needs of training in health management was carried out during November 2008 – February 2009. The anonymous questionnaires were e-mailed to majority of the Lithuanian chief doctors and heads of health care institutions. Altogether 400 questionnaires were distributed, out of which 216 were returned as valid (response rate 54%).

Results:

The results of the survey demonstrated great diversity in understanding of health management. The most common perceptions (based on answers to open-ended question) of health management were "planning", "organizing", "managing", and "control". About one fifth of respondents (18.4%) – more often women, having less than 34 years of work experience, and without master degree in management or public health – emphasized the lack of knowledge in management. The main considered functions of health manager were coordination of institutional activities and decision making; meanwhile the main functions of the management process were correction and control. The main criteria for institutional effectiveness were demographic processes in the population of interest and impact on the society. In decision making, the leaders usually followed WHO directions and social aspects. The majority of respondents considered management of strategic and human resources as crucial competences. More than half of the study participants were willing to improve their competences in quality management and strategic management. Master degree in management or public health has been obtained by 17.0% of respondents – more often by men, of younger age, having smaller experience of work and management, and by hospital heads. All of them emphasized

application of new knowledge in practice. However, the major lacking knowledge was in the area of health management, law, psychology and information technologies. Heads of hospitals were mainly concerned about clinical disciplines as an area where they lack knowledge. Study participants mentioned management as the most relevant subject for continuing education, while European law was considered as the least important. However, for the youngest respondents, with smallest work experience, for heads of hospitals, and those who obtained master degree almost all health management topics were relevant.

**Conclusions:**

The study specified the needs in health management training and disclosed the variety in conceptual understanding of health management among Lithuanian health care managers. The necessity of further intensive training and updating the knowledge and competencies of health managers was demonstrated.

### **153. How do people with chronic conditions experience care in Wales? A baseline study**

Ms Bridie Angela Evans

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Additional authors: Snooks, H; Porter, A; Howson, H;

Keywords: **patient experience, chronic conditions,**

Type of abstract: 3

**Policy background:**

Healthcare systems across Western Europe are struggling to cope with an aging population and rise in chronic conditions. Rates in Wales are the highest in the UK, affecting 1 in 3 people. A new national policy for Chronic Conditions Management (CCM) aims to delay onset or deterioration; improve quality of life and ability to self-manage; and reduce the burden on health and social care services.

**Research conducted:**

To evaluate impact of the new strategy on patients, we assessed patient experience pre-policy implementation, to provide a baseline against which to measure change.

We undertook a national telephone survey which identified 23,656 eligible households from whom 6,600 interviews were completed (28%). 25 face-to-face interviews were undertaken with a purposive sample of responders to explore individual patient stories in detail. Questions explored knowledge of condition, confidence and skills for self-management; health status; experience of healthcare. Quantitative data were analysed using SPSS; qualitative data using NVIVO.

**Patient impact pre-policy:**

The most frequently reported chronic conditions were high blood pressure (43%); arthritis (41%); asthma/respiratory (27%); high cholesterol (26%); angina/heart condition (25%) and diabetes (21%). Two thirds reported more than one chronic condition. Most felt health professionals worked well together (64%), although 10% disagreed. One third said they wanted more advice about self-managing, higher amongst younger respondents (47% of under-45s). 68% reported they were involved in decisions about their care, although 12% said they were not, more common amongst younger respondents and those with more than one condition. Patient activation scores varied widely by condition: participants with high blood pressure, high cholesterol, diabetes reported feeling most actively involved in their own care; participants with mental illness reported least involvement. Health service usage was high (in last 12 months 87% used GP; 40% seen hospital consultant; 13% been hospital inpatient). Those reporting lowest patient activation scores were more likely to have used emergency and acute care. 75% said they had no care plan.

Interviewees said family and friends gave emotional and practical support through difficulties such as making appointments, enduring waiting lists for operations, self-managing conditions and maintaining work and domestic commitments. Many had sought healthcare outside the NHS through private specialists and complementary therapists. Themes of adaptation and acceptance came across strongly. Respondents were highly motivated to self-manage but found this a challenge.

Policy impacts:

Experience varied widely by condition and age of respondents and was clarified by the mixed methods approach. Evaluating impact of new healthcare policies in terms of patient experience is vital to gain an understanding of how services actually affect people who live with and manage a limiting long-term condition

## 154. Reducing avoidable overdose deaths: patterns, presentations and opportunities in the prehospital setting

Ms Bridie Angela Evans

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Keywords: **prehospital, overdose, non fatal poisoning,**

Type of abstract: 3

Policy problem:

UK deaths from opiate overdose are among the highest in Europe. UK drug strategies receive significant resources but government reduction targets are not being met. Up to 1 in 10 drug misusers who die have attended an Emergency Department within the previous 12 months. But a lack of UK data on fatal and non-fatal poisonings limits efforts to plan and allocate resources to reduce drug related deaths. Research was commissioned to describe patterns of nonfatal overdoses for which 999 calls are made and the information pathway to identify and retrieve these data, to inform development of care within emergency settings to reduce drug overdoses.

Research conducted:

Data were gathered from Welsh Ambulance Service NHS Trust call centre records (dispatch codes) and Patient Clinical Records (PCR) related to 999 calls coded by crews as overdose or treated with naloxone, December 2007 - February 2008. Data were analysed descriptively.

A total of 92,331 999 calls were made during the study period of which 3923 were coded in the 999 call centre as overdose/poisoning (4.2%). 1827 PCR forms categorised as overdose by attending ambulance staff were identified manually. 1287 of these were identified from call centre data (26.18%).

1827 patients were included. A wide range of substances had been taken: opiates (n = 306) (heroin n = 93); stimulants (n = 89); sedatives (n = 930); ecstasy (n = 34); cannabis (n = 33); prescribed medication (n = 441); over the counter medication (n = 591); other substances (n = 96). The largest single drug taken was paracetamol (n = 438). Over half took more than one substance (n = 998). 999 calls were spread across day and night, with most received in the evening (16:01 – 00:00 n = 462). Incidents were spread across Wales, with concentrations in South Wales, particularly of heroin overdoses (Cardiff: 302/1827 poisonings, 16/93 heroin poisonings; Swansea: 281/1827 poisonings, 24/93 heroin poisonings). The most frequent treatment administered was naloxone, given as first medication 120 times, and administered up to four times (n = 10). Sixty two patients were not conveyed to hospital. Twenty of these had taken opiates; 8 had reduced consciousness on scene, and 9 had been administered naloxone.

Impacts:

This study reports new data related to patterns of presentation of nonfatal poisoning. Current 999 clinical and management information systems do not allow routine identification of these cases limiting ability to monitor impact of any changes in care following policy changes and service developments.

Future opportunities:

Routine identification of nonfatal overdose cases presenting to 999 and Emergency Departments could allow wider understanding of presentation patterns to inform care. Clinical and operational information systems need to be developed and linked. Identifying high risk individuals creates opportunities for targeted and appropriate care. Opportunities need to be explored through research before change is implemented.

## **155. Health services research and privacy protection in Europe: where is the balance? Bridging the gap to optimise the impact of the EU Data Protection Directive**

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Sereatrix snc, Italy

Additional authors: Carinci Fabrizio

Keywords: **EU Data Protection Directive, privacy, data linkage, health services research**

Type of abstract: 4

### The policy problem:

Health services research can highly benefit from improved access to high quality information, including enhanced computerized data linkage across multiple sources. However, using sensitive data poses fundamental ethical questions that cannot be underestimated and should be faced by citizens, health professionals, health care organizations, and policy makers. The recent literature shows that in several Member States the balance between privacy protection and health services research, as envisaged by the EU Data Protection Directive, has been tipped in favour of the individual right to privacy.

### Policy solutions:

To favour the correct interpretation of the Directive, a new set of recommendations are needed, balancing the secure use of health data with the implementation of studies that should not be unnecessarily complex and can deliver high levels of information content. More details on the specific features of research studies in relation to privacy protection should be collected directly from researchers. There is a need to clearly identify options implemented for any relevant item of the Directive, to understand how properly they are perceived across Europe in terms of privacy, information content and technical complexity.

### Types of research:

A forum among researchers is needed to collect objective information on data protection procedures that are crucial to conduct health services and systems research. The definition of objective metrics requires the application of advanced statistical methods for the production of adjusted estimates that would adequately quantify the impact of privacy on research, taking into account different sources of variability, including between studies and within-country cluster correlation. Such an approach would provide the European Commission with evidence-based explanations of excessive variability in the interpretation and application of the Data Protection Directive.

### Evaluation of success and failure factors:

A productive collaboration between two different types of users is required to overcome the misinterpretation of the Directive. Researchers should consider protecting personal data as a fundamental need. Lawyers should interpret EU regulations giving adequate consideration to the needs of scientists. The European Commission must be involved in this process at all steps, to translate the results obtained from scientific analysis into practical recommendations for legislative revision.

## 156. Obesity Prevention - What Works??

Ms Tracey O'Neill

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Additional authors: K. Balanda, J. Wilde, F. Kee

Keywords: **Obesity, Prevention, Partnerships, Obesity Observatory**

Type of abstract: 4

Obesity is one of the greatest public health challenges of the 21st century. Overweight and obesity are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases, hypertension, and cancer. Internationally at least 400 million adults are obese, and by 2015, approximately 2.3 billion adults will be overweight and more than 700 million will be obese (WHO 2004). In Ireland a recent survey showed that one-quarter of respondents in both the Republic (24%) and Northern Ireland (25%) are 'obese' according to their BMI. A further 39% in the Republic and 36% in Northern Ireland were 'overweight' (data from the SLÁN 2007 and NIHSWS 2005 surveys). The UK Foresight Project: Tackling Obesity, predicts that if no action is taken, by 2050, 60% of men, 50% of women and 25% of children will be obese in the UK.

The Northern Ireland Health Committee inquiry into obesity recognised the complex nature of the problem, and recommended prevention strategies based on the Life Course Approach that takes into account health inequalities and the need to address the higher levels of obesity in areas of social deprivation. Recommendations included a comprehensive audit and evaluation of all obesity prevention interventions to enable policymakers to implement effective strategies at the population level. One difficulty is that obesity prevention strategies are multi-factorial and in order to be implemented effectively they require cross-departmental partnership working.

An online obesity knowledge hub has been established by the Institute of Public Health in Ireland in collaboration with the Centre of Excellence for Public Health (NI) led by Queen's University Belfast (QUB) and the HRB Centre for Health and Diet Research led by University College Cork (UCC). The 'hub' will monitor the demographic and socio-economic patterns in obesity and obesity-related conditions. There will be six catalogues (e.g. data, research, policy, interventions) which will facilitate the searching and synthesising of literature and resources on the topic of obesity prevention. The interactive hub will act as a forum for debate and discussions and will allow information to be disseminated to professionals working in research, policy and practice. The obesity hub is the first hub to go live, information on forthcoming hubs can be found at [www.irishhealthwell.com](http://www.irishhealthwell.com)

## 157. Female migrants: participation and health

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Sociaal en Cultureel Planbureau, Netherlands

Keywords: **health, participation, gender, migrants**

Type of abstract: 4

In the Netherlands (as well as internationally) inequalities in health exist between men and women, and between people from different ethnic backgrounds. Turkish and Moroccan women report poor health more often than Turkish and Moroccan men, and more often than Dutch women. About half a million women in the Netherlands report health problems as a reason for not being able to participate in paid work. One in four Turkish women receive a disability pension.

In the last fifteen years, there has been almost no policy concerning inequalities in health between different social groups. In 2010, the Dutch government pays for an exploratory research project, in which these differences will be mapped. Also, the relationship between paid work and health will be investigated. Though only tentative, the results show that paid work might be a crucial factor in the way people experience health. More research, as well as policy development, will be necessary to challenge inequalities in health between men and women, and between people from different ethnic backgrounds. Policy aimed at diverse target groups (ethnicity, gender) is therefore imperative.

## **158. Researching Factors Affecting Location of Death to Promote Policy and Planning in Advance of a Doubling in Annual Decedents**

Dr Donna M Wilson

University of Alberta, Canada

Additional authors: Cohen, Joachim; Williams, Allison

Keywords: **hospitalization, location of death, place of death, end-of-life care, historical synthesis research**

Type of abstract: 4

Location of death is becoming a focus of research internationally, with interest among policymakers also becoming evident in various countries, such as the UK where there is a shift now of dying people back into hospitals. In Canada, hospital care is publicly funded, a circumstance of the national Canada Health Act that has led some to believe that Canadian hospitals are over used, particularly for the use of futile or ineffective treatments and ongoing care near the end of life. However, a recent population-based study on location of death (published in 2009 in the journal *Social Science & Medicine*) found a major ongoing and almost universal shift of death and thus dying and end-of-life care out of hospital since 1994. This shift occurred without any direct policy initiatives to support death and dying elsewhere. A review of federal and government policy documents revealed much discussion and general support for the notion of "aging in place" but almost no recognition of end-of-life care options that are needed now and increasingly will be needed to address the anticipated doubling in the number of decedents that will naturally occur with population growth and population aging over the next 15-20 years.

An historical systematic review of professional journals and other documents published after 1994 was undertaken by a multi-disciplinary team to provide insight into why this shift of death and thus dying and end-of-life care occurred across Canada. This type of synthesis research is recommended for two main reasons: (a) it provides an incredible amount of insight that is immediately policy-relevant, such that policy-makers can enact or revise policy to support this shift out of hospital and prevent it from reversing as has occurred in the UK, and (b) it is a form of research that can be easily and readily accomplished, without the need for research ethics approvals and experiments or other research efforts aimed at effecting change in location of death.

## **159. Older People are High Users of Hospitals - This and Other Myths Affecting Policy-making**

Dr Donna M Wilson

University of Alberta, Canada

Keywords: **aging, hospital utilization, high users, seniors, myths, hospital data analysis**

Type of abstract: 4

Many people including healthcare administrators and policy-makers think most health care services are typically only used by older people. Older people are also normally thought of as high users of hospitals as it is common to believe that people are ill when they are old. Considerable wide-spread concern about health services use by older persons is evident now, with population aging leading some to say that health systems such as the Canadian publicly-funded one is unsustainable. Population aging is slowly but surely happening in Canada and other countries. The 2006 census found 13.7% of Canadians were 65 years of age or older, with 25% anticipated in 2031. Alberta is a Canadian province that is remarkable for having only 10.7% or 353,410 persons aged 65 or older, and for having population-level health services data available to researchers.

As governments often do not analyze the data that they routinely collect, it is important for university researchers to do studies to get evidence for health services planning and public policy. The data provided to researchers does not include any patient names, addresses, or other information that could identify individuals. An analysis was recently done on all hospital data collected on all people admitted to every hospital in Alberta in the two most recent years of complete data (April 1, 2006-March 31, 2007 and April 1, 2007-March 31, 2008). This study was done to compare the use of hospitals by older and younger persons to clarify who uses hospitals. Among other findings, two are of

particular note: (1) 76.4% of the persons admitted to hospital in these two years were under 65 years of age. Babies who were not yet one year old were the most common (17.4%) patients. The average age of hospitalized patients was 39.5, with ½ under the age of 36. These findings are remarkable, as they show a surprisingly heavy share of hospital use by people who are younger than the baby boomers (born 1946-1966, who currently range in age from 43 to 63), and (2) 1.0% of Albertans (2,854 people) who were hospitalized the first year and 1.4% of Albertans (3,992 people) who were hospitalized the second year were admitted 2 or more times each year to hospital. Albertans who were admitted 2+ times to hospital each year averaged 57 years of age. Just over half (52%) were under the age of 65. Babies less than 12 months old were the most common to be admitted 2+ times a year, and people who were admitted 2+ times each year were twice as likely to be from a rural area (25.1% of high users were from rural Alberta). Mental illnesses were often identified as diagnoses among these patients. These findings show people of all ages can have serious health problems and repeat hospitalizations. Research is important for correcting myths about aging and preventing ageism. Ageism is intended or unintended prejudice against older people that can be reflected in policy and programs.

## **160. What is the impact of European integration? Future European policy scenarios and their influence on UK health reform**

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Additional authors: Meads, Geoff

Keywords: **European Union; integration; policy futures; extended primary care**

Type of abstract: 4

The European Union has been progressively extending its influence in social policy, gradually harmonising Member State policies via legal and regulatory mechanisms. The extent of policy integration is open to debate; however a future 'European health policy' remains a possibility. It is then surprising that so little work has been undertaken to investigate current EU policy trajectories and implications for Member States' health policy. To address this, we examine the formative influences on EU integration, identify key policy scenarios and explore implications of each for UK health reform on extended primary care. We draw on interviews with 12 UK-based stakeholders and ten expert witnesses in European institutions; alongside 12 case studies of innovative primary care sites across Europe and a 'round table' of international experts.

Initial findings indicate four European policy scenarios, each with repercussions for UK health reform and extended primary care. In Scenario One an integrated 'European Health Space' emerges as a result of legal rulings from the European Court of Justice and the influence of informed patients; with UK health policy focusing on incentives for users (rather than professionals), addressing restrictive practices of primary care organizations, and learning from integrated models of primary care such as the extended 'Health Home' similar to that found in Macedonia. In Scenario Two, a federal model of Europe emerges with networks and alliances facilitating common agreements and guidelines that translate into national health policy and continental leadership exercised covertly through knowledge management by key West European states, requiring the UK to proactively seek out European allies and learn from, for instance, emerging Dutch health centres. In Scenario Three the emphasis is on synchronisation of health policy, with Nordic and central European countries leading the way in terms of addressing long term conditions and with UK primary care potentially faltering on requirements for early prevention and CDM, opening the door to alternative models to group medical practice found in, for instance, Finnish municipal health and community centres. In Scenario Four a separated Europe emerges characterised by national independence and sovereign control over health systems, leading to a defensive UK nation state situated on the edge of Europe and, with models such as the Hungarian Medical Office dominating, few prospects for effective integrated primary care and a UK focus on networking general practices. Final analysis will be presented during the conference however; preliminary conclusions suggest that Scenarios Three and Four are most likely and require additional HSR work to: (i) plan for the impact of European integration; (ii) shift UK policy learning from 'across the pond' to 'across the Channel'; and (iii) examine implications for other Member States.

## 161. Policy design and Healthcare Innovation Projects: the design of implementation innovation policy instruments

Dr Maria Kapsali

Imperial College London, United Kingdom

Keywords: **Policy implementation instruments- healthcare projects**

Type of abstract: 4

### Research problem:

This study explains how policy implementation instruments affect the management of healthcare innovation projects and then identifies which instruments are best to successfully implement innovation policies through projects.

### Theory and research methods:

This study focuses on the central theoretical issues about the implementation of innovation policy and links-triangulates the policy implementation literature with the literature on the management of projects. Without prior research, this study looks at the interface of the policy and practice domains.

The method is 12 embedded multiple case studies, which provide generalizable results through 'within-case' and 'cross-case' comparative analysis. The case studies are explanatory (looking for causal explanations) and investigate two different project-based EU healthcare innovation policies and their implementation in two EU countries.

### Findings:

The findings suggest that policy implementation affects the management of innovation projects in three ways. First, implementation instruments create unrealistic expectations from projects. Second, by the tension between policy goals and implementation instruments. Third, the policy implementation instruments confine project management action and cause tensions in managerial choices. Project management handle these tensions through prioritizing and compromising project goals.

### Conclusions and policy implications:

The study concludes that there is a positive analogous relation between the application of systemic policy implementation instruments and the effectiveness of project management to deliver policy goals. Fieldwork evidence provided proof that lack of systemic policy instruments leads to low and ceremonial deployment of innovation in healthcare operations due to the obstacles it creates for the successful management of innovation projects. The contributions are useful to academics, policy makers and project managers involved in healthcare innovation. The results provide policy makers with a new Systems perspective for the creation of more effective innovation policy instruments for the successful management of innovation deployment projects.

### Innovative character of research:

Because the future of healthcare depends on the successful creation, adoption and use of innovation, this study raises attention to the issue of the implementation of policy through specific instruments. This area is underresearched and conceptual gaps in theory and practice exist because it is not clear exactly how policy can intervene in innovation processes and which kind of instruments are compatible with the needs of innovation projects for flexible operations and intense interaction. There is currently no prior research in this particular subject in the area of healthcare and it touches a very sensitive point at the interface of the policy and practice domains.

## 162. Implementation of breast cancer centers in North Rhine Westphalia, Germany – effects on geographical access to care

Prof. Dr. Max Geraedts

Institute for Health Systems Research, University of Witten/Herdecke, Germany

Keywords: **access to care, centralization/regionalization of health care, quality of health care**

Type of abstract: 4

Policy development:

In Germany, the 16 Federal States plan the number and location of hospitals, and the scope of services provided. In 2004, the biggest German state, North Rhine Westphalia (NRW) with a population of 18 million, included quality criteria for breast cancer care in the planning process. Out of a total of 233 hospitals providing breast cancer care before 2004, the state appointed 51 breast cancer centers with 98 hospitals to perform breast cancer care. These centers are required to fulfill minimum volumes, so that their implementation tends to centralize breast cancer care. Against this background, we analyzed the effects of the implementation of breast cancer centers in NRW on the number of operating hospitals, and on geographical access to care.

Method to evaluate success or failure:

We used data on breast cancer care provided by the agency for quality assurance in NRW and performed statistical (t-tests, chi-square tests) and geographical analyses (travel time to hospitals).

Results:

Between 2004 and 2006 the number of breast cancer cases increased from 10,737 to 12,860 whereas the number of hospitals performing breast cancer surgery decreased from 233 to 209. The proportion of cases in hospitals officially appointed (N = 98) and fulfilling the minimum volumes increased from 31% in 2004 (operated in 21 hospitals) to 57% in 2006 (operated in 44 hospitals). For patients the travel time by car to the next hospital performing breast cancer surgery did not change. But the proportion of the population with access to an appointed breast cancer center within 20 minutes by car increased from 69% in 2004 to 86% in 2006.

Conclusion:

In North Rhine Westphalia, the implementation of breast cancer centers did not affect geographical access to care adversely.

## 163. Health-care assistance in Member States for Community citizens and the reimbursement of the costs

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Additional authors: Oleaga José I

Keywords: **European Union, freedom of movement of people, cross-border healthcare assistance, reimbursement**

Type of abstract: 4

1. Freedom of movement and of residence throughout the EU and the provision of health assistance for the Member States (MS) is a complex problem, with implications in aspects such as quality, safety, health care services, financing and the legal responsibility of the States. In its health policy development, the MS share universal values (accessibility, equity and solidarity), but by the “principle of subsidiarity”, each country has the freedom to choose its own organizational and financial system
2. The European Parliament approved in 2009 a proposal for a Directive on the application of patients' rights in cross-border healthcare, which includes the right to move and to receive diagnostic or therapeutic procedures in another MS.  
At the same time, there are established financial management channels through which the costs incurred from providing health-care assistance in a given place to citizens of the MS can be reimbursed

Spain is a country which receives Community citizens (tourists, workers or retired people) and our National Health Service is not incompatible with the appropriate invoicing for services rendered. But Spain recuperates a minimal part of what other countries should be paying for having cared for their citizens. Among other reasons the lack of correct performance of the administrative tasks to effectuate payment for the service rendered; the existence of "health tourism" and of "false residents" and the total absence of invoicing for pharmaceutical products

3. The Health in Europe Observatory (OSE) of the Andalusian School of Public Health has taken on the issue of cross-border health-care assistance, focussed on the health-care services rendered to European citizens during a temporary stay or habitual residents in our country and in the recuperation of the incurred costs. Over the last 2 years, the matter has been revised and debated deeply.

At present, the OSE works in a research project to determine how far those responsible for the Board-of-Health and the Andalusian Health Service (SSPA) planning and management are aware of the issue and have included it in their work agenda, and whether it is feasible in practice to put the recommendations of improvement into action

4. Main results:

- The recuperation of costs for health-care services rendered to uninsured foreigners in Spain should be a Health Service priority
- Progress has been made in hospital invoicing, the big challenge however is that the assistance in health centres is low
- Invoicing problems are fundamentally of an administrative nature
- The lack of incentive and the low motivation of the professionals could be a cause of inadequate invoicing for health-care services rendered

The results have been disseminated by means of specific OSE products (Strategic report, a specific publication and a debate Forum) with the aim of creating opinion and raising awareness of managers and directorial posts of the SSPA.

## 164. New challenges require new types of health services research

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Additional authors: Sara Willems, PhD

Keywords: **primary health care, equity, chronic disease, comprehensive care**

Type of abstract: 4

Taking into account the actual demographical and epidemiological developments, and the effects of the recent crisis (e.g. on social inequities in health), new types of health services are needed.

We propose the following spear points for research in the forthcoming years:

- a. Assessment of the effects of the financial economic crisis on social inequities in health and responses from the health care services and society with a special focus on effects in the field of mental health and problems of access to specific services (e.g. dental services, preventive services, primary health care).

- b. The need for a shift in chronic care: from "Chronic Disease Management" to "Participatory Patient Management".

Nowadays, based on the findings of Evidence Based Medicine and the guidelines that are derived from those findings, Disease Management Programs have been developed. Most of those programs are orientated towards one disease and have a vertical kind of design.

However, multimorbidity will be increasingly frequent in patients with chronic conditions. Therefore, one can wonder about the appropriateness of vertical mono-disease oriented management programs. Sometimes, guidelines for the different conditions may be contradictory. How to deal with this challenge?

One of the ways forward could be a paradigm-shift from "Problem Oriented" to "Goal Oriented Care", looking at functioning of the patient, social participation,... as important outcome-indicators,

apart from biomedical indicators.

Health Services Research could look at how services may integrate this paradigm-shift.

Moreover, in many countries, specific access to services is conditioned by the diagnosis of the patient. This may lead to a new kind of "inequity", the "inequity by disease". It is worthwhile studying what is the actual presentation of this phenomenon, and what could be done to handle it appropriately. How will market forces and commercialisation play a role in this development?

c. Comprehensive primary health care and community orientation.

The World Health Report "Primary health care: now more than ever" and the Resolution of the World Health Assembly (WHA62.12) emphasize the importance of the development of primary care. So, the way health care services may build "person-centered" comprehensive primary health care-teams is worthwhile researching. How can expectations of the public be reconciled with possibilities of care providers and would it not be important to look at "provider-wellness" as a quality-indicator of a health system? Moreover, there is a need for integration of personal and community health care. What are the organisational consequences? Is the Community-Oriented Primary Care a feasible and acceptable strategic approach?

d. Global health-systems impact assessment.

Swanson RC, Mosley H, Sanders D, Egilman D, De Maeseneer J et al, have advocated in a paper in The Lancet in 2009 for a "Global health-systems impact assessment". How could this be incorporated in research designs in the field of health services research (see: <http://ghsia.wordpress.com/sign-onto-the-call-for-ghsias>) ?

## 165. Health manpower planning in European Union countries: Explaining cross national variation

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Additional authors: Batenburg, Ronald

Keywords: **health manpower planning, cross-national comparison, human resources for health, European Union**

Type of abstract: 4

### Introduction:

Human resources for health are critical for the performance of health care systems, in organizational, demographic and economic terms. They currently face challenges related to the progressive ageing of the European population, the epidemiological transition and the permanent technological evolution. However, human resources for health are the least strategically planned element in most health care systems, being most of the times managed as a mere administrative function. This results in: insufficient numbers of available health professionals; unemployed or under-employed health personnel; inadequate or inappropriate training of workers for the jobs they are expected to do; and poor functional and geographic distribution of the workforce. Health manpower planning assumes a prominent role in a health care system as a tool to mitigate these problems. There is a number of approaches available for health manpower planning: models of care or service target based; needs based; utilization or demand based; effective need based; health workforce to population ratio; effective infrastructure; and adjusted service target approach. Yet little is known about which methods are chosen by European Union (EU) countries and why. Identifying, describing and comparing such methods can inform which manpower planning approaches are being used by different health care systems to tackle the same problem: how to provide the best care at the lowest cost; it can also help to more effectively address the issue of global migration of highly qualified health workers.

### Goal:

The global objective of this study is to identify and characterize health manpower planning approaches applied by EU countries and to explain cross-national variation found. This goal will be addressed through an international comparative analysis. This study design will also contribute to identifying the best practices of health manpower planning and exploring how the most effective tools can be applied within different contexts. By this project, we aim to elaborate a chart of health manpower planning

models in the EU, to identify factors that explain the cross-national variation found, and to relate health manpower planning to health labour market situation. Our study will provide a knowledge base that can be used by each country to improve its own planning strategies by learning from international beneficial experience.

## 166. The burden of disease attributable to smoking in Portugal

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Additional authors: Borges M, Gouveia M, Costa J, Pinheiro LS, Paulo S

Keywords: **smoking, burden of disease, DALY**

Type of abstract: 4

### Introduction:

The World Health Organization's 2002 Annual Report estimated that about 14% of the burden of disease in wealthier countries is attributable to smoking. Smoking related diseases include cardiovascular diseases, cancer and respiratory diseases.

### Aims:

This work presents an estimate of the burden of disease attributable to smoking in Portugal.

### Materials and methods:

To calculate current and past prevalence of smoking we used National Health Enquires (1998 and 2005) and to assess the burden of disease we used Disability Adjusted Life Years (DALYs). To evaluate smoking risk we looked at lung cancer, cardiovascular diseases and COPD.

### Results:

The estimates are based on the Portuguese demographic and health statistics available for 2005. The most important conclusion of the analysis is that 11.7% of deaths in Portugal are attributable to smoking. If we use disability adjusted life years (DALYs) to measure the burden of disease, we find that 11.2% of death DALYs in Portugal is attributable to smoking. The gender distribution of this amount is very unequal: 15.4% of the male burden of disease and 17.7% of all male deaths can be attributed to smoking, but only 4.9% of the female burden of disease and 5.2% of all female deaths. We present estimates of the burden of reducible disease, that is, the reduction in mortality and DALYs that would occur if all current smokers quit and thus experienced the mean risk of ex-smokers, which is lower than for current smokers but typically not as low as for never-smokers. Our estimates are that the burden of disease would decrease by 5.8% (7.8% in men and 2.8% in women), and that deaths would decrease by 5.8% as well (with an 8.5% and 2.9% decrease in men and women, respectively). This work also includes estimates of the burden of disease generated by smoking related disability. Smoking related illnesses generated 121,643 DALYs, 72,126 (59%) of which are attributable to smoking and 12,417 would be reducible if all smokers were to quit.

### Discussion:

The burden of disease is measured through the amount of years lost to premature death or those spent living with disability, plus the degree of severity of the disability. Applying the concept of DALYs used by the World Health Organization and the World Bank, we have shown the estimated burden of disease in Portugal, globally for mortality and for the main smoking related disease in terms of the burden of disease for disability using data based on population, mortality and prevalence for 2005. These estimates do not include deaths in fires caused by smoking, deaths of non-smokers caused by passive smoking and the impact of smoking on mother and child health.

### Conclusions:

These results show the importance and the priority to be accorded to measures to reduce the rate of smoking in the Portuguese population. Firstly, the habit of smoking should not be formed, but in addition current smokers should be motivated and helped to stop smoking.

## 167. The need for primary palliative care: the example of Germany

Dr. Nils Schneider

Institute of Epidemiology, Public Health and Health System Research, Germany

Keywords: **palliative care, primary care, demographic changes, needs assessment**

Type of abstract: 4

Delivering appropriate care for people with incurable progressive diseases in the last phase of life is an important, but largely neglected role of the health system in many countries. In recent years deficits in this field have increasingly come to the attention of the public, politicians and professionals, as have insistent demands for the development of palliative care.

In Germany, legislators established specialist outpatient palliative care as part of the 2007 health care reforms in order to enable more people to spend the last phase of their lives at home, avoid unnecessary hospital admissions and improve patients' quality of life. This political measure is in line with the international trend towards the further establishment of specialist palliative care services. However, the implementation in practice is complicated by unanswered questions regarding requirements, content and structural design, and by problems in quality assurance and resource distribution.

Furthermore, the fact should not be overlooked that even if specialist palliative care teams become fully available in the future, only a relatively small proportion of the total number of patients with incurable, progressive diseases will benefit from this care. It is assumed that only an estimated 10% of those affected need some form of specialized palliative care. For the vast majority, good primary care delivered by GPs and community nurses is the optimal response (primary palliative care).

In politics, public and professional circles, however, this aspect has been sorely neglected. The time-consuming care of palliative patients and their families is currently far from accurately reflected in the German primary care compensation system. The same holds for the numerous home visits that are often required. This is not just a question of adequate financial compensation, but also of the recognition of requirements in health care delivery, and patients' needs, and of the fundamental value of this intense form of holistic family medicine.

It is therefore imperative that primary palliative care is better recognised by health professionals, health insurances, government and the scientific community as a central part of the delivery of health care for people in the last phase of life. This needs to include academic and conceptual development of the field with appropriate health services research activities, in order to better determine requirements of education of professionals, services and processes of care.

## 168. Knowledge Brokers: on Health Communication Research

Prof J. Paulo Moreira

ECDC, Sweden

Keywords: **health communication knowledge; public health; communicable diseases; public health policy development**

Type of abstract: 4

Communication evidence and related scientific research applied to Public Health need to be further at the forefront of health policy decision making. Being the case that communication has been given attention and taken as a fundamental dimension of health policy and management the knowledge accumulated by communication science has not yet been fully included in the knowledge base for policy making on developing cooperation between health services and public health.

Structures and partnerships to disseminate knowledge for evidence based health communication need to be supported. The project developed at ECDC clarifies the challenges as well as lessons learnt.

## 169. Pay per performance, the way forward or NOT?

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Keywords: **DRG, Capitation, Performance, Providers, Care**

Type of abstract: 4

Pay per performance

They get the bucks - but do they perform?

As the most advanced and most widely used mechanism for paying health care providers, D.R.G. and Capitation - have reached its maturity.

Capitation has proved to be very efficient in cost containment in Primary Health Care, but do they treat the patients? transfer away or just send back home without appropriate care?

DRG'S TOO, are very technical efficient, and profitable for Health Care Providers, but what is their real impact on NON-DRG services, post acute care centers, hospices, household budgets and long term quality of health.

Thanks to the Patient Information Assymetry - doctors can talk patients away from the health care they need.

And we like it, at least for now (they save "our" money), but should we?

The Question is, have we created a HEAVEN for a perfect CREAM SKIMMING?

And WHO will bear the long term effects or consequences?

THANKS

## 170. Guardianship in the Czech Republic (New challenges for health-social policy – priorities for further research)

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Keywords: **Incompetency, guardianship, sociodemographic data, research, identification of new research areas**

Type of abstract: 4

The age structure of the population of the Czech Republic can be characterized as an aging population. With the increase of age the prevalence of illnesses increases as well, including mental illnesses and disorders. People suffering with mental disorders tend to have their rights to legal actions removed or restricted. The number of people with removed rights to legal actions increased in 2008 by 1577 people compared to the year 2000. The average yearly increase during the years 2000 to 2008 was 175 people. The statistics of guardianship in the CR contains only numeric data about wards. The interviews with experts suggest that the problem has only been solved in a few diverse areas, therefore non systematically. The research team from Palacky University aims for a complex view on the guardianship in the CR within the pilot research. Two types of pilot research has been carried out – quantitative research with the aim to find out socio-demographic and epidemiological data about wards and their guardians and qualitative research in which the political and public representatives, experts on care for the elderly.

Based on our findings there were identified problems that occur in the guardianship system in the CR and that have an impact on the health and social area. Among the main problems it is necessary to include the following:

- 1) increase of the incompetent people in the relationship to age and in the relationship to the increase of the lifespan in the CR;
- 2) generated problems connected with care for incompetent family members;
- 3) relation of diagnoses of incompetent people and public guardianship;
- 4) real life situations that are not adequately legally solved. Based on this identification of problems and bearing in mind the continuous increase of incompetent people, it is possible to suggest further (following or new) research areas:
  - a) research aimed at the incompetent people that are over 65 years old living both at home as well as in the institutionalized care places, and that both the formal side of the issue, that is read up and analyze their documents concerning removing rights to legal actions in the whole of the CR, as well as the informal side of the issues, that is their quality of life;
  - b) research aimed at the family guardians, mainly at middle aged women and the possibilities of their social support;
  - c) research aimed at the procedures and actions of the public guardians with incompetent people according to the type of diagnoses;
  - d) research pointed at the procedures in practical activities with incompetent people, for example moving in to an institution, the decision making process concerning a health care procedure and so on. An additional research aimed at the staff of the health care providing institution dealing with the incompetent people and staff who act as a guardian would also be advisable.

## 171. RICHE Research into Child Health in Europe

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Keywords: **Child health; Health policy research; Europe; Inventory Gaps Roadmaps**

Type of abstract: 4

The European commission and other funding agencies make a large investment in child health research. The health of our children is satisfactory. But there are serious concerns, for example, obesity, mental health, alcohol abuse and difficulties with sexuality. We know that there are strong links between the health of young people, and their social inclusion and level of education. Our objective is to establish a sustainable network for researches, funders, a policy maker, advocates and young people in Europe, to support collaboration in developing the future of child health research.

We will produce an inventory of research, and reports, on gaps in research, and on roadmaps for the future of research. Our co-ordination will establish a unique, open, multi-lingual platform for child health research. This will embrace the full multi-disciplinary diversity of European research, while addressing fragmentation by making the parts visible, and supporting multi-lingual input and searching. We will develop formal processes for finding gaps in research, and for making roadmaps. We will use these to find current gaps, and make roadmaps for the future, including for the necessary research capacity. We will promote our work and our results in a series of meeting open to researchers and other stakeholders.

Our consortium is a multi-disciplinary team with great experience in doing innovative child health research in Europe, in developing and in delivering, child health strategies at national and European level. We have an Expert Group, including young people, advocates and researchers, who will support us. RICHE will support the development and implementation of child health research findings and the use of evidence for child health action. These in turn will support innovative research, improve social policy for children, and so improve the quality of life of European children. Come and join us at <http://www.childhealthresearch.eu/>.

## 172. Regulating pharmaceutical prices in the Republic of Macedonia

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Keywords: **price control, reference pricing**

Type of abstract: 4

Pharmaceutical sector in Macedonia:

The Ministry of Health revised the Law on Medicaments in 2007 in order to harmonize the sector's regulations with the EU legislation, including the pricing policies.

The benefit package for medicines is based on a positive list of medicines (PLM) that defines which medicines are eligible for reimbursement by the compulsory health insurance. The new PLM contains 1200 products with 470 INNs. There are 650 pharmacies in the country that have a contract with the Health Insurance Fund (HIF) to supply and dispense medicines from the PLM to the insurees.

Recent pricing policy developments:

The HIF has established a new reference price system for the medicines covered by the insurance system. The national pricing model is based on external referencing using four comparative countries: Bulgaria, Croatia, Serbia and Slovenia. The reference price is the lowest price of medicines with similar pharmacotherapeutic effects. Medicines co-payments are charged as a proportion of the cost of the prescription.

The challenges ahead:

First of all, international comparison should be done to learn about comparative definitions and experiences of reference prices in the EU.

Important concern of using the cluster of therapeutically equivalent products is that a large number of patients might opt for a less suitable medicine. The reason behind is to simply avoid the out-of-pocket expenditure to cover the price difference with the reference medicine. The selection of a cheaper medicine may result in a lower level of effectiveness and potentially harmful side effects. The broader the therapeutic cluster, the more severe is the trade-off between surcharges and increased health risks to patients. This in turn may involve increased expenditure on other complementary health care services or even additional medicines. Therefore, the proposed research areas would be to measure the policy impact on clinical outcomes/health status of patients and on additional spending made by the health system. Also, calculation shall be done on out-of-pocket expenditures made by patients for the surcharges when the reference medicine is not chosen against the money saved by HIF.

Consequently, we might see the tendency of doctors prescribing cheaper medicines (usually older generations) for particular group of patients only because they cannot afford out-of-pocket expenditures. Therefore, the equity issue of the access to appropriate and/or justified innovative treatment in the society would be another research priority.

Complementary, as the national pricing policies should always refer to both, supply side practices (the price levels and the reimbursement level) and demand side practices (restrictions on doctors, pharmacists and patients), the importance of the rational use of medicines shall be underlined. So, it is crucial to see whether the data related to prescribing practices is monitored and analyzed in a systematic manner by the HIF and whether feedback is ever sent to the doctors.

### 173. How can we prevent overdoses and what works? Undertaking a systematic review to inform substance misuse policy

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Keywords: **overdose, non-fatal poisoning, systematic review, substance misuse**

Type of abstract: 4

#### Policy problem:

Deaths from opiate overdose in the UK are among the highest in Europe. Drug related deaths in the UK are not reducing. Naloxone is administered to reverse overdose by paramedics and in emergency departments. People who suffer a non-fatal poisoning are at high risk of death within the following year. For every death there are approximately 7 'near misses'.

#### Policy solutions:

The Welsh Assembly Government commissioned research to inform development of initiatives to minimise avoidable deaths. This policy area has dedicated resources with almost £11m a year ring-fenced within local health service commissioners' budgets, on top of a £25m national budget.

#### Research necessary:

To inform policy development, a systematic review of interventions to prevent and treat overdoses in the pre-hospital setting was undertaken to identify and evaluate treatment and prevention approaches. The review was carried out in three parts: 1 - systematic literature search; 2 – selection of comparative studies for qualitative synthesis; 3 – meta-analysis of suitable studies

39 references described interventions in six categories:

- 1) take-home naloxone administered by peers to an overdose patient, following training;
  - 2) CPR (cardiopulmonary resuscitation) training for bystanders witnessing an overdose;
  - 3) routes of naloxone administration by health professionals;
  - 4) police attendance protocols to encourage 999 calls by peers witnessing an overdose;
  - 5) supervised injection facilities;
  - 6) psychosocial/educational interventions. 15 studies were included in the systematic review.
- Populations, interventions, methods and outcome were heterogeneous. Evidence of effectiveness was weak but suggested death rates may be reduced by: take-home naloxone; bystander CPR; treatment for addiction; naloxone implants. Many studies were of poor quality. Inter-study results were not comparable. Meta-analysis of effectiveness was not possible.

Naloxone is an effective treatment for the reversal of opiate overdose. Yet there is little evidence of effectiveness for interventions which deliver naloxone in prehospital settings, alternative naloxone-administration routes or use other treatment/prevention approaches. Implementation of any intervention needs rigorous evaluation.

#### Evaluation of success and failure factors:

Issuing trained drug users with naloxone to treat peers is underway in Wales. But there remains a need to assess clinical and cost effectiveness, adverse event rates and effects on drug-taking behaviour. The political imperative to tackle urgent issues is in tension with academic caution about weak evidence and need for rigorous evaluation of pilot programmes. Therefore, evaluation should be planned alongside implementation if further initiatives are put in place, so that relevant and rigorous data are gathered in real-life settings.

## 174. Policy problems and related priorities for research in the Slovak Republic

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Type of abstract: 4

Today's reality: Slovakia allocates 0,5% of GDP on research (as a whole, not only on health services research !). The state is the main financial contributor. Basic research is separated from application research (joining of practice and research is rare). Last two years there was no call-appeal for research in health sector. The outputs from research projects are not measured (excepting publications outputs).

Consensus on strategies in health care – Slovakia 2007: In May 2007, 24 stakeholders (universities, chambers, professional associations...) reached a consensus on basic strategies in health care system: 1. Increasing quality and safety in health care, 2. Orientation on prevention and timely diagnostics, 3. To follow long term staked all-society health care programs, 4. To allocate the financial resources so that providing of health care will be efficient, costs effective and accessible, 5. To secure the financial sustainability while respecting solidarity principles

Stakeholder consensus in field science and research (May 2007):

- to create long term science and research strategy in health sector for at least 10 years with coordination by Ministry of Education, Ministry of Health, Slovak Academy of Sciences, Slovak Health University and Medical Faculties
- to concentrate the educational and research capacities of Slovak Academy of Sciences, Slovak Health University, Medical Faculties and other scientific non- health research institutions to common research teams in order to avoid research duplications and partial solutions in scattered workplaces

We suggest to discuss the following topics:

- research centralisation in defined fields (on national and European level)
- combining the themes on basic and application research
- central evidence of research project outputs
- criteria of effectiveness of research outputs
- financial resource sufficiency on research

We need researchers and policy makers to reach a consensus on the following health service research priorities. (Dr. E. Kovac's proposal)

Research should be (on European and national level) client oriented and focused on transparent competition, financial sustainability, motivation, accountability. These priorities can improve potential of health care system for more effective exploitation of resources. In my opinion, this can be one of the crucial and consensual research priorities.

Discussion: Why should be research client oriented? Clients (patients, tax and premium payers, citizens) are consumers of health services and payers for these services. That's just it the clients satisfaction is the final goal. The research outputs should also contribute to basic satisfaction of client needs:

- to get relevant information about services they need
- to have right for free choice (of providers, insurance companies, etc.)
- not to wait long for services
- to get quality and safety from health care
- not to pay a big sum of money for services

Research must support an acceptable balance between accessibility - quality – price of health services.

Transparent competition: Transparent competition is the best instrument for selective contracting of providers, which supports better quality, efficiency, and cost effectiveness in health care. Transparent competition puts insurance companies under pressure for searching better services for their clients. But transparent competition inevitably needs consistent benchmarking and extensive information of clients about transparent competition outputs (for better using of free choice).

Financial sustainability: The gap between revenues and expenditures is growing. The number of economic active citizens is decreasing and economic non-active is increasing. There is also growing pressure to reduce taxes and premiums. On the other side demands of citizens are rising and the

dynamic innovation of medical technologies exists. The EU requires to guarantee financial sustainability without destroying universal coverage, solidarity in financing, equality in access and securing quality of health care (easy to say, difficult to be done...). There are three crucial strategies for securing financial sustainability:

- Increase of % of GDP allocated on health can't be higher than overall increase of GDP
- All-society expenses on health does not exceed the value for these expenses
- Improving potential of health care system for more effective exploitation of resources

Motivation and accountability: The responsibility for motivation and accountability lies on all health-care system stakeholders, but mainly on its clients (citizens, patients, tax and premiums payers). There are a number of strategies to put the clients under "accountability pressure" and how to make them "more motivated". Experiences shows that leaving free choice to clients (in this spheres) is not the best solution.

## 175. Management Science and Public Health Research: A missing link?

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Keywords: **Management science; Public Health**

Type of abstract: 4

Should management science and public health research be condemned to hold opposing positions: productivity, competition, individual performance against social inequalities reduction, work wellbeing, and cooperation? To go beyond those ideas a health related management knowledge inventory is needed to study its link with public health.

Although management words, i.e. "performance" or "rationalization", appear in the health sector, research's amount on the topic remains relatively low, thus management rules theoretical basis are difficult to identify. Management has in common with economy the study of resource-constrained choices but explores it with more detailed and with a different approach. Management in public health has only recently enriched the epidemiology-based traditional approach of public health research. Health crisis in the 80s has led to the need of better coordinated care and the need for better efficiency thus making process of care management or health system organization emerge has key topics. Safety issues in hospitals have initiated discussion on quality and safety management. Finally, in companies, managerial topics have started to focus on work-related health. Four types of relationship between knowledge in management and public health can be described: (i) management as a source of questioning in public health or (ii) has a source of answers to public health issues; (iii) public health issues lead to gather management knowledge or (iv) lead to new interrogation in management.

Looking how, from a management perspective, organizational environment forms within each team can help prevent psychological burnout and extreme behavior and may increase productivity and quality. In hospitals, absenteeism, turnover, and the workload on staff ratio can reveal the ambiance within work teams. The role of changes in those teams' composition should be explored. The increase of temporary employment as a response to economic pressures can be harmful because in activities such as care, flexibility is not obtained through people replacement, but by insuring team stability. Management can also contribute to the formalization of patient care trajectory by considering the coordination between each care location. Primary care reform in France has advocated for increase collaboration between GPs and paramedical professions in a single location labeled "medical home". This reorganization should contribute to a better coordination but raises question around the distribution of tasks between professionals.

Many other public health issues, including: governance of the health care system inspired by new public management, care quality management, customized care, DRG payment impact could be cited and testify to the vitality of this domain. The works done on «Health Services Management Research» seem to be promising for the construction of a corpus on health management knowledge.

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