What healthcare can we afford?

Better, quicker, lower cost health services

26-28 June 2013
Bocconi University
Milano, Italy
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Special Interest Group:
Best Practice in Management

Wednesday 26 June 2013
10.00-12.00
Hip prosthesis implant and revision processes: an assessment of cost and patients’ quality of life – an Italian benchmarking experience

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Content
Within the Italian Ministry of Health strategic programme “Hr&i Transfer – Tool and methods to govern technological, clinical and organisational innovation in health services. An integrated research system”, the acquisition and utilisation processes of implant devices used for hip prosthesis implant and revisions were assessed. The objectives of the analysis presented are the assessment of the costs of hip prosthesis implant and revision procedures and their clinical outcome within two Italian orthopaedic hospitals (Istituto Ortopedico Galeazzi Specialist Clinic - Milan and Hospital Authority CTO/M. Adelaide - Turin).

Methods
A top down methodological approach was used, collecting data from the balance sheets of the two hospitals, cost control services, Human Resources offices. Clinical data were collected from the databases of each hospital and from the Lombardia Region Orthopaedic Registry. All data referred to 2009. The assessment of the procedures considered all the activities performed from the clinical tests before the admission to the post intervention rehabilitation. Data referred to the Quality of Life (QoL) of patients were assessed using EuroQol-5D e Western Ontario and McMaster Universities osteoarthritis index (WOMAC) questionnaires (during the hospitalisation and after 12 months). Furthermore, through Activity Based Costing, defining each phase of the processes (eg. Miolo et al., 2004), elements to rationalize the resources employed were identified (Achard, 1999).

Results
The study sample consisted of 151 patients undergone hip prosthesis implant and 54 patients undergone hip prosthesis revision. The mean surgical intervention duration is 65,3 minutes in hospital A (std dev. 23,2) and 168,6 minutes in hospital B (std dev. 69,0) for implant and 103,9 minutes in hospital A (std dev. 46,7) and 231,7 minutes in hospital B (std dev. 70,0) for revision. The mean cost of the procedure is € 13.330 in hospital A and € 12.640 in hospital B for implant and € 15.491 in hospital A and € 14.913 in hospital B for revision. 299 questionnaires were collected to assess QoL.

Discussion
The analysis of the collected data led to the identification of managerial choices related to a lower surgical intervention time required (monospecialistic surgeons, personnel assigned to a single OT, non mixed OT schedules, radiological and haematic tests performed within the ward rather than in the OT area) and to a reduction of costs. Furthermore an increase in terms of Quality of Life was assessed after a 1 year follow up.
The Analytical Hierarchical Process helps decide the length of stay after specific surgical interventions in a tertiary care hospital in Malta

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Content
This paper portrays the use of the analytic hierarchy process (AHP) as a multiple attribute decision-making technique to determine the optimal length of stay after specific surgical interventions, namely total abdominal hysterectomies, laparoscopic cholecystectomies, and total knee replacements in a tertiary care hospital in Malta. This technique enables resource optimisation and improves patient care through a straightforward application of a management science technique.

Method
This study adopted a case study action research method. A focus group of nine involving doctors, nurses, and hospital management was formed. For each surgical intervention they identified three feasible lengths of stay (LOS). Subsequently, they identified both criteria and sub-criteria for their decision alternatives. The above information was then organised hierarchically using AHP to determine the most appropriate LOS. First, a pair wise comparison was undertaken at criteria and sub-criteria levels in order to determine their importance at each level. Second, each decision (LOS) alternative was pair wise compared with respect to each sub-criteria so as to establish their priority. Third, the above result was then synthesized across the hierarchy to derive the best decision on LOS. Fourth, the best option was then implemented and the outcome in terms of cost and patient satisfaction was observed. Fifth, the AHP method was then validated in a workshop involving healthcare professionals.

Results
The group identified four criteria – medical, financial, social and risk. They considered likely condition of patients (post operation), type of intervention/operation, likely outcome under medical criteria; capital cost, operating cost and return on investment under financial criteria; patient satisfaction, local care structure (e.g. visit by community nurses, GP, clinicians), and family support under social criteria; and re-admission, discomfort, and adverse patient occurrence under risk criteria. LOS decisions were successfully undertaken using AHP for the three types of interventions. The AHP method for LOS decision-making was validated among the practitioners and found to be an effective method for decision-making to decide LOS policies.

Discussion
The proposed method has been applied for three surgical interventions within a hospital, but needs to be tested for other interventions across various healthcare settings. Length of stay has been mentioned extensively in healthcare literature and the authors suggest and test various options. This research collates the findings of prior research in terms of criteria selection for decision-making on LOS with the involvement of the stakeholders. According to authors’ knowledge there is no prior application of AHP in deciding LOS in hospital setting. LOS is increasingly becoming a major challenge in view of rising healthcare costs, and increasing demands on hospital resources due to ageing population. The AHP enables top management to formulate policies for LOS with the involvement of stakeholders. This not only balances patient satisfaction and cost of healthcare but also helps improve hospital performance management.
Different practices for two major issues in the OR in Greek tertiary Hospitals: the time between operations and the consignment of expensive devices and medical products as cases of Lean Management

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4Sotiria Hospital, Greece, 5KAT Trauma Hospital, Greece

Content
The O.R. is a department that has a great influence on the final hospital medical quality and patient outcome as well as on the cost. Among several issues in the O.R. management, two became serious for the Greek tertiary hospitals: the time between two operations, as part of the operations schedule, and the consignment stock policy for some of the expensive medical products and devices, as part of the relevant supply chain. Different practices and regulations can be identified among hospitals. This work aims to illustrate and interpret these practices as a contribution to the discussion for efficient management solutions.

Method
This study focuses on the two selected issues separately, because they are profoundly different processes. Participating hospitals are four of the biggest Athenian hospitals. The intention of the working group is to study both processes in all hospitals, by using the principles and methods of Lean. First step is to illustrate the current state of the followed practice for each process in each hospital. The second is to measure this, in terms of time, cost and productivity. The third is to compare the results, propose a better flow for each process and identify the potential of adopting a better practice.

Results
The working group identified significant differences between the four hospitals management about the two processes. Regarding the first process, the time management between two operations, some of the hospitals seem to have no plan, programme and know-how to deal with it when others seem to control it effectively. Regarding the second process, the consignment of devices and medical products, all hospitals follow it, but in different extend and different patterns of the internal supply chain. The resulted time consuming, the loss of productivity and the economic impact are significantly high.

Discussion
The selected processes are considered as problematic areas, of course up to different degree, in the hospitals worldwide. In this study, the operational environment of the hospitals is dominated by the concentration on legal regulations, as main strategy to handle operational issues, which have been proved poor to solve the functional problems of the OR. The use of Lean was proved very useful to illustrate the selected processes, and measure their impact, in such a way that can support the improvement. Of course this approach can function within hospitals and must be supplemented by the view of other actors, like industry, in order to have the global picture and reach better decisions. The idea to analyse and judge practices, or even create better practices, by using this method could be an effective and interesting way to be followed.
Special Interest Group: Primary Care

Wednesday 26 June 2013
13.30-15.30
Analysis of programs of Pay for Performance (P4P) in progress in the Local Health Authority (LHA) in Pavia (Lombardy, Italy)

Guido Fontana, Simonetta Nieri, Romina Chessa, Maria Rosa Dellagiovanna, Enrico Frisone, Bruno Carugno
Local Health Authority of Pavia, Italy

Context
Since long different health systems have established models of remuneration linked to result ("pay-for-performance" -P4P), supplementary to traditional systems of remuneration. P4P is evaluated with enthusiasm by policy makers and health managers as a tool for improving the quality of care and reduce inappropriate costs of health. Recently, however, some qualified international journals published articles that reported conflicting data regarding the actual ability of monetary incentives to stimulate and motivate behavioural change by professionals. In light of the above, the Health Management of LHA of Pavia has decided to assess the company’s situation in relation to projects "P4P" in progress.

Methods
LHA of Pavia performs the prevention and control of risk factors for the population and the workers of the province, as well as health promotion, through the Department of Medical Prevention, Veterinary Prevention, Primary Care, Pharmaceutical, and Programming-Accreditation-Control (PAC). The total finance of health activities amounted to approximately € 780 million in 2011 and around € 760 million in 2012 (Table 1). A portion of this funding is used for P4P programs, activated by different departments. We proceeded to identify these programs, to value and classify them according to one of the following three categories: 1: quality projects; 2: projects to increase activity; 3: joint projects. We then proceeded to refer to each of the Directors of the Departments of LHA (group of experts) for each project on its own relevance, the questionnaire set out in Table 2.

Results
Table 3 shows the number of P4P projects underway in the LHA, broken down by department and valued in economic terms. It’s interesting to note that the total economic value is equal to about 1% of the total funding of the health activities of the LHA and represents resources that are recognized to the various categories of professionals as additional economic incentive to regular payment schemes. Reporting phase of the opinions of the group of experts, gathered by questionnaires in Tab. 2, provides for the representation of the percentage of agreement on individual items of the questionnaire referred to homogeneous groupings of projects for the following categories: 1: quality projects, 2: projects to enhance the activity, 3: joint projects.

Discussion
At the end of analysis, there is strong agreement around the following statements. All P4P projects currently underway in LHA are adequately justified, with a prevalence of motivation on the basis of scientific evidence - for qualitative projects - and in response to regulations or regulatory constraints, for those that are specifically designed to increase activity. For all projects, indicators have been developed. The three categories of projects seem to express reasonably good levels of effectiveness in the short term. There is strong agreement to consider that, in the absence of the economic incentive; the long-term effectiveness will lack (absolute concordance for quantitative or joint projects and partial concordance for qualitative projects). Finally, as regards to the efficiency, there is agreement to consider that, particularly for quantitative projects, is the presence of regulatory constraints (for example, the stop to recruitment) to make the projects the most efficient mode of delivery.
Tab. 2: Questionnaire for the evaluation of the project

(Department) ........................................................................................................................................................................

QUESTIONNAIRE FOR THE EVALUATION OF THE PROJECT

(Category of the project) 1: quality projects 2: projects to enhance the activity 3: joint projects.

- It is believed that the reasons in support of the project are:
  1. not adequate
  2. appropriate, as based on scientific evidence
  3. appropriate, as based on guidelines
  4. adequate, since they are founded on legal provisions or regulations

- Does the project involve the use of valid indicators of result?
  1. no
  2. yes
  3. partly

- Is it believed that the project will, in the short term, achieve the proposed objectives?
  1. no
  2. yes
  3. partly

- Is it believed that the project will, in the long term, ensure the maintenance of the objectives also in the absence of economic incentives?
  1. no
  2. yes
  3. partly

- Does the project ensure the most efficient way to reach result?
  1. no
  2. yes
  3. partly

- If you have answered: 1. no or 3. partly to the previous item, explain why
  
  ..................................................................................................................................................................................
What does a Manager do in primary healthcare units? An attempt to understand management challenges in the context of a health reform

Sílvia Machaqueiro, Luís Lapão
*World Health Organization Collaborating Centre on Health Workforce Policy and Planning. Instituto de Higiene e Medicina Tropical – Universidade Nova de Lisboa (IHMT/UNL), Portugal*

**Context**
The Portuguese primary healthcare (PHC) reform brought a new organization centred on PHC Centre Groups (ACES) with administrative and managerial autonomy. This new governance paradigm called for new management and leadership skills embodied by the Executive Director (ED) as catalyst for change. As a manager, the ED’s work is highly complex, reconciling strategic and administrative activities, operational and clinical goals. ACES’ management comprises several management levels, including clinical board president, management support unit coordinator and health unit coordinators. To study management models in PHC it’s essential to understand these managers’ daily activities, time-distribution, decision-making and use of management tools.

**Methods**
Firstly, a literature search and state of the art review were conducted. A shadowing method was then used for collecting empirical data on managers’ competences, activities and interactions, which were systematically registered through direct observation of three managers during one working day. This method will be further replicated with more managers. A specific survey was also developed for assessing managerial practices at different management levels/positions in ACES: strategic management (ED); tactical management (clinical board president); global operational management (management support unit coordinator); and local operational management (health unit coordinator). The survey focussed on assessing four general dimensions: planning, team coordination, performance management and dissemination of information. The survey was first validated in one ACES and then applied to six other ACES.

**Results**
The preliminary shadowing results demonstrate that the ED spends an average of 06:56 minutes per activity and less than 02:00 minutes in most activities (36% of total time). The most frequent and more time-consuming activities involve direct communication (1:03h), walking around the ACES (1:08h), and making (0:30h) and answering (0:20h) phone-calls, as well as unplanned meetings (0:14h) and sending emails (0:13h).

Concerning management competences, the ED spends more time overseeing tasks (0:36h), approving patient transport (0:31h), monitoring employees’ assiduity (0:17h), delegating tasks (0:16h) and solving patient-related issues (0:15h). The survey results show that managers in different positions within ACES spend more time exchanging emails (≈2:26h), coordinating teams (≈1:11h), writing/filling in documentation (≈1:03) and overseeing tasks (≈1:00h), thus confirming the first shadowing results. Overall daily time spent by managers is similar in both shadowing and survey results, with an average of 10:27h and 10:37h, correspondingly.

**Discussion**
Results show evidence of a complex and diverse management work at PHC level, with a significant bureaucratic and administrative burden. Activities like exchanging emails and making phone-calls are the most frequent. Overall time spent on all management activities varies according to each manager’s self-perception. The average daily working time amounts to approximately 10:37h. The health unit coordinator seems to spend the shortest time on managerial activities, which might be explained by the fact that he/she’s the only doctor and has to reconcile clinical and managerial practice. This issue will be further studied in the AVALACES project. Top managers in ACES seem to use the email more
than coordinators, who apparently prefer meetings. While this suggests a different managerial style between management levels, activities such as overseeing tasks/activities and team management/coordination appear as core management and governance competences across all management positions in ACES.
Case study on the learning from partnering with a private sector commissioning support organisation in the redesign of primary care

Naomi Chambers  
The University of Manchester, United Kingdom

Context
The direction of health service policy in England is for greater plurality of provision in health care services and for greater diversity in commissioning. This case study, which forms part of a larger Department of Health funded project on the practice of healthcare commissioning, was selected specifically because of the partnering with a private sector organisation. The aim of the initiative was to manage whole system redesign of primary care in a deprived inner city area neighbourhood. Our principal research question is which governance mechanisms are in use in this mode of commissioning (a public-private partnership) and to what effect.

Methods
Case study explores multiple perspectives of the complexity and uniqueness of a project or programme in a ‘real life’ context. 10 single depth interviews, audio recorded and transcribed, were carried out with key informants involved in the commissioning and management of the Livewell initiative. The interviewees were selected on the basis of the widest possible range of professional backgrounds and roles in the initiative. The interviews were analysed using a common analytic framework including fields reflecting the governance mechanisms and contextual variables. To check whether the framework omitted important data patterns, we also inductively coded the qualitative data to add new themes to the analytic framework. The findings were developed using a thematic analysis and a grounded theory approach, as well as a coding framework based on the six media of power, with some attention, in addition, to the principal corporate governance theories.

Results
In this mode of commissioning, the three dominant media of power were relational: first, the development of a negotiated order through information sharing, division of labour and close collaboration; second, managerial performance of the procurement process, with the service supplier being as proactive in this regard as the procurer (the practices) which we can also term ‘provider-led commissioning’; and, third, in order to secure funding, tenacity in an appeal to the scientific evidence underpinning the project. The findings identified a close high trust relationship between GPs (the commissioners) and the private sector firm. The antecedents to the contract being signed indicated the importance of leveraging external contacts and influence (resource dependency theory). The study has also surfaced issues around innovation adoption in the healthcare context. The case lends support for stewardship theory as an explanation for effective commissioning in certain circumstances within a marketised healthcare system.

Discussion
1. It has to be acknowledgement that the very term ‘commissioning’ is problematic.
2. The project has shown the benefits of closeness (‘deep commissioning’ or ‘micro commissioning’ as well as ‘provider led commissioning’) between commissioners and providers in service development.
3. The research study is predicated on the existence of a commissioning repertoire. Commissioners may wish to consider selecting more deliberately which mode suits particular circumstances.
4. We would suggest that the commissioning repertoire could be amplified to include agency, stewardship and resource dependency frames.
5. Identification, support and backing for the relatively rare radical thinkers and innovators in the NHS, particularly in primary care, would be helpful to speed up the pace of change.
6. The consequences of structural reform on the commissioning side of the NHS in England may be a temporary slowing down of innovation and implementation of service improvement due to ruptures in long term relationships.
Does quality of care for patients with chronic diseases improve when CCM work in the same building?

Anna Maria Murante, Sabina Nuti
Scuola Superiore Sant'Anna, Italy

Context
Multidisciplinary professionals are involved in the care of chronic patients. Their integration in a coordinated team influences the effectiveness of interventions and the outcomes (Wagner, 2000). Usually the use of Information Communication Technologies facilitates the communication and coordination of professionals also when they are physically distant, but this could not be enough for ensuring the continuity of care and better results. This work aims at investigating the extent to which the patient experience with chronic care is influenced by seeing all health professional around him or knowing that they are available in the near room within a stone’s throw.

Methods
In 2012 a cross sectional studies was conducted involving about 6600 chronic patients in order to measure their experience with Chronic Care Model (CCM). Patients were sampled among those enrolled by the 56 multidisciplinary teams that in 2010 voluntary joined the project of Tuscany Region (Italy) of introducing the CCM for better managing individuals with chronic health conditions. Patients answered to a structured questionnaire on patient experience with follow-up visits, patients' group meetings, facilities, specialist consultations, inter-professional coordination, overall evaluations and outcomes' perception. We conducted a descriptive analysis and investigated the relationship between (i) the patient experience with procedures, communication, professionals' team-working, trust and (ii) the presence of the CCM-professionals in the same building.

Results
Patient experience with follow up visits is significantly related to the presence of nursing room in the same building of the GP's ambulatory. This result was observed when both procedures and information were considered (p<=0.01). Moreover, patient more frequently comes to GP after a nursing consultation to obtain confirmation about what nurse said or did whether the nurse and GP stay in a different place (p<=0.01). Patients report an improvement in health benefits, self-management and in the overall care when also the specialist’s room is in the building where GP and nursing room are (p<=0.05).

Discussion
Results provide helpful information and suggest important directions for policymakers and health managers interested to or involved in the care of chronic patients. As stated in literature, the continuity of care and an efficacy coordination of multidisciplinary professionals influence the satisfaction and the compliance of patients. This work adds a further element according to which the experience with and the outcome of care improve when all professionals are physically around the patient. When GP, nurses and specialists are in the same building patient actually feels himself taken in charge and his health status and empowerment is positively affected. In 2012 a national law introduced in Italy a new organizational model for primary care according to which multi-professional units must be created by involving GPs, general paediatricians, specialists and continuity-of-care physicians. In this regard, our work can add evidence on the efficacy of multi-professional teams when they physically work together.
Working towards a sustainable health care system: a Dutch pilot study on Primary Care Plus

Marieke Spreeuwenberg, Arianne Elissen, Dirk Ruwaard
Maastricht University, Maastricht, the Netherlands

Context
The region of South Limburg in the Netherlands is aging relatively fast compared to other Dutch regions, which has spurred the search for sustainable care solutions. In October 2012, the GP organization ZIO (Zorg in Ontwikkeling) of Maastricht and surroundings launched ‘Blue Care’® (as an analogy to 'green power'). ‘Blue care’ is based on changes in the organization of care and in the mindset of health care providers and patients, incorporating interventions in the fields of diagnosis, pharmacy, and behavioural change strategies. In an intense collaboration with the MUMC+ hospital, ZIO starts a shared care arrangement called 'primary care plus'.

Methods
Five specialist groups (cardiology, dermatology, internal medicine, neurology, and orthopaedics) are embedded in four GP practices on a weekly basis from January - June 2013. Target group are non-acute patients who are normally referred to secondary care. Specialists work within a GP practice at least ones a week, independently examine patients, and provide advice for further treatment by their own GP or referral to secondary care. A six months pilot study is conducted to get insight in logistical preconditions, experiences of both patients and professionals and consequences in referral rates. Eligible to participate are all adult patients who - instead of being referred to secondary care - receive primary care plus in their GP practice. Qualitative experiences will be collected by : (1) a series of interviews with participating care professionals; and (2) a patient survey, for which patients are invited by letter after having received primary care plus.

Results
The results of the pilot study will be available in June 2013. The project is embedded in the ‘Sustainable Health Care’ research program of Maastricht UMC+ and Maastricht University (UM). Within this program, a regional care agenda is formulated where GPs, hospitals, home care organizations, welfare organizations, and communities take their societal responsibility seriously and collaborate more intensively to obtain a sustainable health care system. Primary care plus is part of the basic insurer package. A declaration fee will be investigated this year by the Dutch Health Care Authority (NZa).

Discussion
Primary care plus is innovative because:

1. It reflects an intensive collaboration between primary and secondary care that is not seen or investigated in this form elsewhere in the Netherlands;
2. The medical specialist works in the ambulatory GP setting to prevent referral to secondary care;
3. Due to lower infrastructural costs, specialist care is provided at a lower cost rate;
4. Care is provided at the right place with substitution of non-complex tasks;
5. Care proceeds more efficiently and profits can be reinvested in prevention, creating a flywheel effect. Future growth of the patient population may also be better absorbed.
Special Interest Group: Workforce

Wednesday 26 June 2013
13.30-15.30
Work practices and the provision of mental health care on the verge of reform: survey of mental health professionals

Hadar Samuel, Nurit Nirel
Myers-JDC-Brookdale Institute, Israel

Context
The State of Israel is preparing to transfer legal responsibility for mental health care from the government to the country's four competing, non-profit health-plans in 2015. Two prominent features of this reform are the introduction of elements of managed care into the mental-health system and the integration of mental and physical health. These changes will likely affect the service delivery patterns and practices of professional caregivers in mental health services. Therefore, the objectives of this study were to examine professionals' patterns of service delivery and practice as well as their views and perceptions concerning the reform's effects, before its implementation.

Methods
The first phase of the study consisted of 43 preliminary open, face-to-face interviews with mental health professionals involved in service delivery as well as policymaking in the mental health system. These interviews focused on each profession's place within the mental health system and the issues currently on the profession's agenda. Results from these interviews were used to construct a survey questionnaire for the second phase of the study, which was distributed, via mail, to a random sample of psychiatrists and certified psychologists in Israel.

Results
Although the two groups of professionals treat similar populations, substantial differences were found in their personal and professional background characteristics, in their work characteristics, and treatment provision. For example, on average the psychologists are younger than the psychiatrists, a higher percentage of them are women and most of them received their education in Israel. Over half of the psychologists work mainly in the private sector, while most of the psychiatrists work mainly in the public sector. In addition, more psychologists provide long-term therapy than psychiatrists. More psychiatrists than psychologists reported practices associated with managed care, such as compliance with monitoring and controlling procedures, contacts with primary care physicians and an emphasis on evidence-based treatment. In contrast, a high percentage of the psychologists have no knowledge of evidence-based care, and it is not a consideration for them when devising the care plan; they have no contact with their clients' primary physicians.

Discussion
Our study identified a gap between some of the professionals' (namely veteran psychologists) attitudes and perceptions and the demands of a managed care environment. Furthermore, these professionals do not expect an improvement in the quality of care or in its accessibility and availability following the reform. In order to recruit these experienced, skilled professionals to provide treatment through health plans, it is recommended to create recruitment pathways leading into the public system and contributing to socialization for work with the health-plans. These pathways should include training to meet the demands of different models of work with the health-plans, e.g., the required monitoring and control mechanisms and the methods of treatment preferred by the plans. It is advisable to implement this process during training and specialization and for it to include issues linked to clinic management, methods of measuring effectiveness of treatment and means of interdisciplinary cooperation.
European variation in health workforce planning: do we need best practices or situational solutions?

Ronald Batenburg
NIVEL, Utrecht, the Netherlands

Context
The feasibility study report published by Matrix Insight in 2012, is probably the first empirical and systematic comparison of health workforce planning systems in all European countries. As such, the report provides important data and information to explore what differences and similarities between health workforce planning systems can be discovered among countries. This exploration is important to shed light on one of the most critical questions currently at stake: does health workforce planning actually work, and what type of planning fits what type of health care system best?

Methods
The main method applied in this paper is a cross-national analysis based on country information published in the Matrix report, complemented with other relevant country characteristics. Two sets of country metrics are developed in order to measure (1) a set of indicators for a countries' success in health workforce optimization, and (2) a set of indicators that are expected to be determinants for this success. Propositions and hypotheses are deduced from macro sociological, economic and cultural perspectives. In particular, the highly cited view of Frenk et al. (2010) is elaborated for this purpose. Expected country differences and interrelations on the national level are explored using the country data sets constructed. Basically, it is investigated if variation in health workforce planning among countries can be ranked according to success and determinants; or if this variation has a value by itself - and hence health workforce planning is fundamentally situational and multi-dimensional.

Results
Country variation in the success and determinants of health workforce planning systems appears hard to measure in a reliable and valid manner. Given these limitations, country characteristics as central training control and health market regulation, become clear as determinants for health workforce planning. But at the same time these characteristics can be understood as situational factors that cannot be generalized among all European countries. Clustering countries along several dimensions seems the best way to foster the search for solutions that fit countries' health workforce system, tradition and circumstances. By all means, best practices in health workforce currently remain at a distance, as 'evidence' is too limited and case-based.

Discussion
Many lessons can be learned from the stream of data and information that is currently becoming available at the national and regional level within Europe with regard to health workforce planning. The quest for the best practice and success factors endangers the utilization of country-specific initiatives and the deductive power of country-specific experiences. Still, this study also demonstrates that analysing relationships and clusters at the country level feed new perspectives as well. This implies that a European approach to the 'looming crises' in health workforce capacity can be achieved by a mutual understanding of patterns and diversity within and between health care systems.
Health System Responsiveness in Hospitals; approach on building the will in Albania

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Context
As proclaimed, health systems are meant to address the medical needs, as well as patient’s psychological needs, patient's rights. WHO's approach to responsiveness was built properly on the idea of capturing people's actual experiences with the health system. The use of the instrument is little; much work has been done on the patient satisfaction and quality of care. Surveys have taken place in the high-income countries, growing interest in evaluating the population's experience in LMIC. Albanian health system is in process of key reforms, navigating from Primary Care consolidation to Hospital Costing; from fighting the Corruption to EU adherence.

Methods
Given to poor data available related to non therapeutic aspects in hospitals, a survey was conducted. The Questionnaire consists of 27 items providing also demographics information (tab1). Responsiveness module contained questions on all 8 domains: autonomy, choice of health care provider, clear communication, confidentiality, dignity, prompt attention, quality basic amenities and access to social support. All domains included a summary "rating" question scaled 1 (very good) to 5 (very bad). Every domain included "report" questions on particular experiences with the health system scaled 1 (never) to 4 (always). A single variable for each domain was created in which the survey responses are summarized using the following coding: 1= least important 2 = most important. Percent Missing Data; Overall Mean (Standard Deviation); Overall Percent Agree; Special interest to the perceptions of vulnerable groups. Cronbach’s alpha for 8 domains scale was 0.89, Data analysis was conducted by SPSS version 15.0, Ch

Results
Best and worst performing domains: Dignity and Prompt attention ranked as the best performing domains. The worst were quality of basic amenities. (Fig 1 in %), followed by Autonomy. Importance of responsiveness: The majority of the respondents rated all aspects of responsiveness as very important or important, anyway when ranking the domains prompt attention was the most important followed by the quality of basic amenities, communication, meanwhile freedom of choice, autonomy and social support received lower importance compared to the previous ones. (Fig 2) Responsiveness perceptions of vulnerable groups: Males were more likely to report lack of confidentiality than females. Elder people were less likely to report poor responsiveness than younger people. In our study this demograph feature appeared more frequent. Less educated people were less likely to perceive poor responsiveness. Self-employed people tented to report poor performance compare to other subgroups in employment status. Tab 3

Discussion
Our respondents gave quite satisfactory level of health system responsiveness, but were not agreed with the way the system is run. No clear perception on "decision making process involvement"; signs of apathy among patients Availability of prescribed medicine was another concern which would rate the "unmet needs" from the health system in 12%. 11% of the respondents perceived discrimination, quite concerning the fact that discrimination was related to informal payment issue. Almost 70% of the respondents claimed they have made informal payments to doctors and nurses, perceiving this act contradictory as voluntary and discriminatory. Health care access, quality of basic amenities, autonomy, and informal payment were identified as priority areas for actions to improve responsiveness. Our results may contribute to reducing inequalities, adjusting health system
responsiveness in local context, providing so bases for pro-equity health system development. Policymakers and stakeholders should foster "patient centeredness" concepts among our health service users.
Promoting individual and organisational resilience in a context of complexity and turbulence: An action learning approach

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Context
Today’s NHS in London is confronted with challenges which are shared with health systems across Europe. These include the search for effective ways to deliver quality care; the need to encourage cooperation between stakeholders; to enhance accountability and pressure to produce cost improvements. In addition, NHS London organisations battle with intense competitive and operational disruption, pressure which comes from being close to the political centre and mounting organisational/National targets. To support their senior leaders within this context of challenge, NHS London commissioned a programme of Action Learning ‘to provide rapid and responsive leadership development’, designed to enhance resilience.

Methods
This study was conducted in partnership between Manchester Business School, the Kings Fund and Ashridge Consulting. It draws on a multi-methodology, utilising a mixture of quantitative and qualitative methods as a means of conducting a realistic evaluation, one which seeks to identify the contribution of this programme of action learning for senior leaders to individual and organisational resilience. These methods include the use of questionnaires, focus groups, in depth interviews with participants and faculty and participant observation.

Results
Through the provision of social support, space for reflection, constructive challenge and enhanced awareness of own, and others, role this programme enhanced resilience of senior leaders in a time of turmoil and complexity. In doing so, it restored the space for learning and reflection and thereby enhanced the ability of senior leaders to commit to and take action.

Discussion
Drawing on Vince and Saleem’s work of 2004, this presentation will discuss how complexity, turbulence and anxiety can distort the learning cycle through the reduction of space for reflection and the reduction of confidence in action. It goes on to explore how action learning can act to rebalance the learning cycle, through the enhancement of resilience and re-energising of the capacity for reflection and action.
Are informal payments perceived differently by health professionals and patients? Results of a qualitative study in Romania

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Context
Informal payments existing in the Romanian healthcare system are highly disapproved both by patients and health professionals. However, research shows that this disagreement is in contrast with the high prevalence of patients offering them, as well as healthcare professionals receiving or requesting them. The aim of this study was to assess comparatively patients’ and health professionals' attitudes towards informal payments.

Methods
Six focus groups were organized with physicians, nurses, management personnel (physicians and nurses) and patients. In total, 36 participants have taken part in the focus groups. An interview guide was developed by the research team to facilitate the data collection process. The discussion was led by a focus group leader, assisted by a junior researcher, who recorded the discussion. Prior to recording the discussion, participants’ approval was obtained. After all the focus groups have been conducted, records were transcript and thematic analysis was performed.

Results
Following thematic analysis, five major themes have been identified: methods of offering and receiving informal payments; reasons for which patients offer informal payments; impact of informal payments at the patient level; benefits for the system due to informal payments; health professionals' attitudes toward informal payments. Each of these themes had several sub-themes. The participating health professionals expressed their disapproval towards requesting informal payments, which they considered to be harmful to patients. On the other hand, they manifested familiarity with informal payments and regarded them as a strong incentive for health professionals' retention in the system.

Discussion
The results we obtained confirm to a certain degree the information we collected through quantitative means in a previous stage of our research. This is mainly related to the perceived harmful effects of informal payments, which exceeded their possible benefits. However, several differences deserve in depth attention. First, health professionals tend to regard informal payments as a compensatory factor for the low wages they receive officially and, thus, a motivating factor not to leave abroad. However, the effects seemed to be more visible for the more senior health professionals. Second, there were strong similarities between patients’ and health professionals' attitudes towards informal payments. This result should be interpreted cautiously, since a selection bias among the health professionals could not be excluded. Specifically, given the sensitive nature of the topic, it is possible that health professionals who were in favour of informal payments refused to take part in the focus groups.

Acknowledgement
This work was supported by CNCSIS-UEFISCUS, project number PN II-RU 319/2010, contract no. 47/29.07.2010.
Parallel Session:
Decision making in healthcare

Thursday 27 June 2013,
10.40-12.30
All you need to know about innovation in healthcare: Findings of a multidisciplinary Delphi study to support healthcare managers in decision making

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Context
Current healthcare services require all healthcare managers to develop different and novel responses. There is an expectation of increased efficiency, effectiveness and managers and clinicians who look for solutions outside of their normal arenas. The need to innovate is now an objective of service organisations. Successful innovation is clearly a goal but also a challenge. As the interest in innovation has grown so has the literature, for busy managers and clinicians it is difficult to access as it ranges over many disciplinary areas. Improving access to the literature is an important step to its use in decision making.

Methods
This study used a Delphi approach. Members of the research group were selected on the basis of their participation in a European network on medicine and management. They were from six countries with a wide range of disciplinary backgrounds. All members were asked to identify 10 scientific writings on innovation which they considered most useful. From this list 40 titles emerged, these were then reviewed in detail by the panel using a likert scale to assess the degree of informativeness, importance/relevance and comprehensibility for healthcare managers. The final rounds aimed at building consensus and developing an approach to presenting the findings which was easy to understand and did not focus on any one dimension of innovation at the expense of others. The final classification was based on the most important question in innovation: who wants to innovate, what, how and why?

Results
The researchers set out in this analysis to survey an extensive literature on innovation in healthcare and provide a concise, multidisciplinary overview which would be accessible to healthcare managers; we produced our ten best reads. The ten papers set out to address:

Why? The purpose of innovation:
What? The innovation process:
How? The diffusion of innovation:
Who? The actors:

It proved to be a more difficult task than we anticipated due to the complexity of the field and the diversity of the theoretical approaches. Throughout our analysis whether we were looking at the reasons, processes or spread of innovation one area emerged repeatedly as critical was that innovation is fundamentally shaped by the participating actors. An understanding of the actors, their characteristics and interactions should be a principal concern to those wishing to develop innovation capacity and capability. The relationship between clinicians and managers is a key consideration.

Discussion
The need for all actors in the system to support innovation is well made. What is less easy to understand is practically how to do this. In a complex field of enquiry knowing which strategy to adopt and why is difficult and how to evidence this even more so. Researchers themselves know that unless they enable their literatures to be accessible that it will remain unused and not adopted. The challenge is to span the boundaries between academia and practice and that requires putting research into the
current context of real organisational challenges and proposing solutions. This is not without its risk, the final choices made are subjective and open for debate but it shines a light on areas requiring more research and those areas where we can more confidently move forward. Above all it affords the opportunity for busy practitioners to feel more confident about their decision making.
Making the right decision for new technologies - A perspective on criteria and preferences in hospitals

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University of Technology Dresden, Germany

Context
This abstract describes one of three empirical studies of a PhD thesis on the management of technology and innovation in health care. Decision makers in hospitals are dealing with decisions about the adoption of new technologies regularly. Poor decisions can lead to a waste of resources and may have a serious effect on the patients and hospitals well being. The goal of this research is to contribute to the understanding of decision making in hospitals. It provides insights on relevant decision criteria and explores their specific relevance in general and for different stakeholder groups.

Methods
An initial empirical survey gathered relevant criteria for technological decision making in hospitals. Overall 220 experts in the field of health technology assessment, covering 34 countries, participated in the survey. The data was analysed using primarily descriptive statistics. As a second step these criteria were used as a basis for an Analytic Hierarchy Process (AHP) model. A group of 115 physicians, medical technical assistants and other staff, all working in the field of radio oncology, prioritized the criteria found in the first part of the study. An analysis of variances (ANOVA) was conducted to explore differences among groups, using institutional and personal categorization variables.

Results
The first part of the research revealed the following seven criteria to be the most considerable for technological decision making in hospitals: demand for treatment, budget impact, effectiveness, cost-effectiveness, usability, organizational impact and patient satisfaction. The AHP model in the second part of the study shows that organizational impact is the most important criterion, followed by budget impact. Patient satisfaction is considered the least important factor. The ANOVA showed that there are differences in the perception of importance regarding the criteria identified. For example, within the groups of hospitals, private for-profit hospitals assign a greater importance to budget impact, while patient satisfaction is significantly more important to public owned hospitals. The study also found differences in the perception of the criteria between professions, leadership positions and genders within the same institution.

Discussion
The results of the AHP model show that decision making in hospitals is based on very pragmatic thoughts. The dominance of the criterion organizational impact points to the inflexibility of the organizational structure of both hospitals and private practices. The different perception of the importance of criteria among different groups leads to the suggestion that each institution should use the methodology of the AHP to create an individual decision making framework and include all internal and potentially external stakeholders. This study revealed a wide gap between the self-reported importance of patient satisfaction by health experts and the actual influence of the criterion 'patient satisfaction' for technology decision making. Further research could foster the understanding of this phenomenon.
From thought to action: how decision making takes place in public health care organizations

Andrea Rotolo, Clara Carbone, Federico Lega, Anna Prenestini, Rosanna Tarricone, Giovanni Valotti
Bocconi University, Italy

Context
Strategic management in public healthcare sector suffers from the effects of the public nature of the organizations and the peculiarities of the healthcare context. Moreover, the healthcare sector is a complex environment where strategy and decision-making are defined at the intersection among different cultures, values and interests. The purpose of the study is to explore how strategic choices are taken in public healthcare organizations, mapping the key players involved and the main methods and tools, in order to understand the practices that sustain a successful strategic management in such environments.

Methods
Firstly, we conducted a review analysis of the stream of studies on strategic management in professional and public organizations. Having clarified what is a strategic choice and the sense and the meaning of strategy formulation/formation in public healthcare organizations, we then highlighted the issues that influence this process. Secondly, we studied the formulation/formation process of 16 strategic choices in 15 Italian public healthcare organizations, with the aim of understanding the key factors that influenced the strategic management process and the implementation of strategies. We asked the CEO of each organization involved to provide a description of three strategic choices already implemented or in advanced stage of implementation. Then we selected one of the strategic choices on the basis of criteria that addressed the relevance for our study scope. Finally, we interviewed 30 key players from the 15 organizations with a semi-structured interview and we built 16 case studies.

Results
On the basis of the results of semi-structured interviews, two types of strategic choices came to light in Italian public healthcare organizations: a) pushed strategies, i.e. strategic choices that are leaded by top managers of the healthcare organizations; b) pulled strategies, i.e. strategic choices that are induced either by professionals or by significant modifications from external environment. Pushed strategies are intentional and generally formulated and implemented using formal methods and managerial tools. Pulled strategies are more emergent and can change the intentional strategies of the organizations. Moreover, we identified the good practices to manage and connect pulled and pushed strategies in healthcare organizations.

Discussion
Our analysis shows that pushed and pulled strategies coexist in public healthcare organizations. As a consequence, a successful strategic management should consider the existence of both ways of strategy making, where different types of influences interact with the process. On one hand, in order to manage strategy formulation and implementation in their organizations, public healthcare managers should define intentional strategies, controlling their implementation with an effective strategic control system. On the other hand, this system should be designed in order to evaluate and control also pulled strategies, which are the natural result of the higher degree of complexity (given the great variety of stakeholders and constraints) and the higher degree of instability (depending on short time political horizons). Multidimensional strategic control systems can guarantee that external factors influencing the strategy of the organizations can be managed and turned into a positive opportunity. Implications for managerial roles are further discussed.
**Solving the Exploration-Exploitation Paradox in Healthcare: The Role of ICT**

Luca Gastaldi, Emanuele Lettieri, Mariano Corso, Cristina Masella  
*Polytechnic University of Milan, Milan, Italy*

**Context**
When healthcare organizations face exploratory and exploitative activities simultaneously pushing in opposing directions, more or less intentionally they try to reconcile the related tensions. Regarding this point, researchers are increasingly focusing on adopting a paradoxical approach—trying to deal with opposite tensions simultaneously. If, on the one hand, there is currently somewhat a consensus about the merits of this balancing process, on the other hand, there is little agreement on how organizations can accomplish it. This paper aims to start answering these gaps by focusing on a specific lever highly important in the healthcare domain: the Information and Communication Technology.

**Methods**
This paper is based on an interpretative, inductive analysis of 14 longitudinal, embedded case studies conducted on a set of Italian hospitals. The hospitals have been theoretically sampled on the basis of their ICT-based strategies for improving healthcare performance by leveraging on their exploration and exploitation capabilities. The research relied on several data sources: face-to-face interviews, phone conversations, follow-up emails, and archival data such as internal documents, press releases, websites, and news articles. The primary data source is composed of 107 semi-structured interviews conducted over three years with the Chief Information Officers (CIOs), at least one of the other C-levels, and other knowledgeable informants of the healthcare organisations. The interviews have been designed on a common protocol that evolved systematically during the research. A cross-case analysis has been done to probe for alternative theoretical relationships and constructs that might fit the data better than the initial emergent theory.

**Results**
The cross-analysis of the cases shows the presence of three ICT-driven paths that foster and maintain a paradoxical correlation between exploration and exploitation: (1) the digitalization of the data utilized within the health care processes; (2) the progressive integration among health care stakeholders; (3) the disruption of clinical/administrative processes through the use of analytics, and the relative decision-making support. The progressive process integration among health care units—both internal as well external to a health care organisation—configures an increasing number of functional niches in which it is possible to effectively follow the “disruption” path. These niches produce not only disrupted health care services and an ambidextrous balance of exploratory and exploitative activities, but also a greater amount of data to be integrated with the “integration” path. Thus, the two paths tend to feed each other. According to the informants, this complementarity brings dynamic capabilities to manage the exploration-exploitation paradox.

**Discussion**
Each one of three aforementioned paths contributes in successfully managing the exploration-exploitation paradox. However, their complementarity is the main reason through which is possible to explain how ICT can both create and maintain the focus on both current (exploitation) as well as future (exploration) processes of value generation. This paradoxical focus allows going through positive reinforcing cycles, which progressively solve the multiple and interrelated tensions underlying the natural divergence present not only between exploratory and exploitative efforts, but also between the related outcomes of quality improvement and cost reduction. The paper discusses that the solution of the exploration-exploitation paradox is key to balance quality improvement and cost rationalisation. Thus, the three ICT-driven paths emerged from the cases can be used to reduce the cost of healthcare processes while, at the same time, improving their quality.
Parallel Session:
What health professionals will we need in the future?

*Thursday 27 June 2013,*

*10.40-12.30*
Sharing and discussing sources of dissatisfaction among physicians - the Israeli experience

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Context
Health fund managers today must meet the challenges created by pressures from demographic changes: Differences between physicians from the Y generation versus those from the X generation, more women comprising the medical work force, rapidly changing markets, global economic slowdown and more. For four months physicians in all hospitals in Israel were on a strike. Physicians of the health fund were also unhappy claiming that they are not realizing the values that brought them to choose the field of medicine as a career.

Methods
Health fund managers, as navigators of changes in the healthcare environment, must ensure the efficiency and sustainability of the human capital and other core competencies of the health fund. With much courage, the top management of Meuhedet health fund allowed physicians to shape their work environment and influence work methods. In a down-top change, fifteen percent of physicians' workforce were involved in the creation of a new concept entailing work methods that express their professional values. The concept crosses boundaries, innovates, provides the best care possible for patients, ensures an adequate control for fund's costs and instils a more inspiring career for physicians.

Results
Does the concept realize physicians' professional values? Does it create higher satisfaction? Time will tell...

Discussion
Meanwhile, we would love to share, compare and discuss sources of dissatisfaction among physicians and examine ways to minimize them.
Towards integrated care for multi chronic patients: are GPs ready?

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Context
Chronic diseases incidence is irremediably growing. Since these illnesses develop gradually and require multiple complex treatments, chronic patients' needs cannot be appropriately met through episodic and reactive acute care measures. Consequently, examples within the literature demonstrate that long-term programs to manage them through integrated networks of professionals enhance control on the patients' health status and decrease treatment costs. Nevertheless, knowledge about how to motivate the professionals towards integration is still unclear. Some attempts to integrate chronic care have been lately run in the Lombardy Region; our study aims at investigating the issue of professionals' motivation about integration within this context.

Methods
We conducted an in-depth empirical study within an innovative experimentation currently run in the Lombardy Region, that foresees the creation of five networks, constituted by different professionals (e.g. primary care providers, specialists, nurses, IT Service Companies, etc), that should take care of a defined multi-chronic population. General Practitioners (GPs) represent a key element in these integrated networks, being responsible for the patients' enrolment and management. Nevertheless, their participation is on a voluntary basis and the drivers that motivate them to take part to the networks are not clear. To clarify this issue, we first performed a literature analysis in the areas of inter-organizational networks and collaboration in public sector, to retrieve some seminal studies that might uncover the drivers emerging from the theory. We subsequently tested the consistency of the drivers through both a qualitative analysis (in-depth semi-structured interviews) and a survey.

Results
The literature analysis leaded us to isolate four main elements that affect the likelihood of GPs' participation: interest (i.e. the perception of efficiency and/or legitimacy gains associated with the joining); constituents (i.e. the presence of external constituents and the degree of dependence that other actors taking part in the network have on the individual); contents (i.e. the differences with respect to the original individual's practices and goals); and effort (conceptual, tangible and in terms of will). Consequently, we defined an interview baseline fitted for investigating these drivers implicitly and we performed 16 structured in-depth interviews, with as much GPs involved in the experimentation. The interviews suggested us to confirm two drivers (interest and contents), while they seem to contradict one of them (constituents). We could not draw any robust conclusion about the consistency of the fourth driver (effort).

Discussion
The perception of gains associated with the joining (i.e. interest) and the coherence of the goals of the single GP with respect to those of the network (i.e. contents) turn out to affect the participation positively, as it had been anticipated by the literature. On the other hand, our results suggest that the participation of the GPs is not explicitly affected by the presence or absence of other constituents, since some GPs joined the network despite acute political or professional disappoint toward other members. Concerning the effort, our preliminary evidence suggests a preponderance of the personal will over the conceptual and tangible aspects, though further research is needed to assess these preliminary findings. To this end, we are involving GPs that decided not to take part in the experimentation and we are leading a survey to increase the population of respondents.
Beyond integrated care - Why integral doctors are the future

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Context
We focus on the promises and pitfalls of integrated care. The basic imperative behind integrated care is the changing burden of disease as reflected in the aging of populations and the transition from acute single diseases towards multiple (chronic) ones (multimorbidity). However, it can be questioned whether integrated care will be the panacea. There is a lack of evidence on the effectiveness and implementation of integrated care systems. This lack of evidence is understandable; the central role of the medical expert model should be questioned.

Methods
The aim of this abstract is to theoretically explore the pitfalls or weaknesses of integrated care, and then suggest an alternative for meeting the challenges healthcare systems face. We do so by questioning the medical expert model. We draw on a multidisciplinary literature review that includes (theoretical and empirical) evidence from public health, medicine, sociology, the administrative sciences and economics, all stressing the ways in which (medical) professionalism could and should be linked to context, all questioning the specialized and segmented nature of the medical expert model in complex and dynamic circumstances.

Results
Integrated care refers to the bringing together of inputs, delivery, management and organisation of services as a means of improving access, quality, user satisfaction and efficiency. There is a lack of evidence due to the variety in theories and conceptualisations used, and its contextual imperative. This lack of evidence has a deeper origin: the exploitation of a medical specialist expert model that is increasingly outdated. This model is designed for responding to single acute diseases, instead of multiple chronic ones. Therefore, health policy could better explore how to design out health waste due to changing burdens of disease, and innovate the medical specialist expert model accordingly, building upon newly emerging, more sustainable human resource management and drawing upon the new ‘circular’ organization principles as applied and experimented within industry. This would call for the incorporation of three generic capacities in medical professions: a consistent health focus, systems thinking and open connectivity.

Discussion
Our analysis suggests that health systems must move beyond integrated care, and innovate the traditional medical specialist expert model instead. This does not mean the radical rejection of medical specialist acts; the successful sewage systems were not abolished when burdens of disease shifted from declining infectious diseases towards manmade diseases in the time period 1875-1920. Nor does it mean the simply championing of general practitioners and primary care physicians. What we stress are the changing mixes of diseases, clients, technologies and resources that do no longer tolerate specialized care, and although they support calls for integrated care, they also make integrated care ineffective as we cannot staff and pay those systems on the long run. Instead, we propose an alternative expert model, one that is less interventionist, more preventive, more socially and economically embedded and more connected. It would allow doctors to work in more integral and ‘circular’ ways.
When austerity strikes- using skill-mix to make resources last

Sandra Stenroth
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Context
We have struggled with the problem of delays and waiting times at the Clinic of surgery and urology at Mälarsjukhuset Eskilstuna, Sörmland County Council. We have identified several problems:

- New patients were not received in a timely manner.
- Follow-up appointments were considerably delayed.
- Follow-up for cancer patients were unsatisfactory.
- An unmanageable waiting list for patient visits proved to be highly stressful for all healthcare professionals involved.

We found that we had to question whether competent manpower was being adequately distributed and duties properly allocated. We identified some areas in which we could modify our work procedures.

Method
We implemented "one stop clinic" at our breast clinic. A nurse examines the patient with breast cancer symptoms, issues a referral for a mammography, ultrasound and needle puncture. The patient is notified on the same day if everything is normal. In case of breast cancer the patient is referred to a physician the next week. In our endoscopy unit a nurse has taken over the follow-up for a selected group of colitis patients. Almost all screening for vascular surgery is performed by nurses. Nurses are in charge of malignant melanoma, colorectal cancer and prostate cancer follow-ups. They issue a referral for a CT-scan, blood test and follow up the results with clinic examination or a telephone call. If there are any deviations from previous results, a meeting with a physician is immediately arranged. These are the procedures that we have improved by skill-mix.

Results
The result of our restructuring initiative is shorter waiting time for the above mentioned examinations and follow-ups. Before the skill-mix 57% of our patients did not make their appointments in due time. Now 100% of our patients do. Better accountability to patients and a higher standard of quality, as nurses are always at their respective posts and always accessible. It is imperative that patients get their designated appointments in due time and are able to access nurses between visits. These patients have the opportunity to see the same nurse upon subsequent appointments, which provides them with a sense of continuity. We have followed up on our patients through over-the-phone interviews and they have expressed their satisfaction. The nurses now have a more stimulating and improved work atmosphere as their knowledge being used more properly. All of the above changes are made within existing budget.

Discussion
It has been a challenge to improve the status of our nurses. In many ways the traditional nurse assisted the physician, supporting and caring for the patient. Now the patient has become the challenge for both nurses and physicians and there is more teamwork in between professions. Patients want easier and flexible access and most patients are willing to be seen and treated by nurses to improve access.

The skill-mix improved the nurse profession and their work became more interesting and challenging. So far the nurses have been trained by our own physicians. The next step is to formalize this training, and for this purpose we have engaged in collaboration with local nursing school at Mälardalen
We also have two nurses who are training to be endoscopic nurses who can do gastroscopy and colonoscopy examinations. The right care to the right patient leads to improved efficiency.
Parallel Session:
Drugs, Devices and HTA

Thursday 27 June 2013,
10.40-12.30
Do HTA practices and procurement policies impact expenditures for medical devices?

Patrizio Armeni¹, Paola Boscolo¹, Giuditta Callea¹, Marianna Cavazza¹, Oriana Ciani², Claudio Jommi³, Marta Marsilio¹, Rosanna Tarricone¹, Aleksandra Torbica¹, ²
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Context
Decentralised health care system are characterised by regional autonomy in organising and funding the regional health systems. Differences in regional health expenditures for medical devices (MDs) are influenced by several epidemiologic, demographic and socio-economic factors, but health policies implemented at the regional level might also play a significant role. Furthermore, managerial practices at hospital level could influence MDs expenditure. The aim of this paper is to investigate the impact of Health Technology Assessment and procurement policies and managerial practices on expenditures for MDs firstly across Italian regions and, secondly, among Italian hospitals.

Methods
We run a national survey on a sample of Italian Healthcare trusts. We collected data related to year 2008 and 2009 from 47 hospitals located in 15 Italian regions. In particular, for each hospital we recorded detailed information on purchased volumes and unit costs of MDs, current HTA practices, procurement policies. We supplemented the database with additional information about hospitals' characteristics (e.g. number of beds, hospitalisations rate); regional epidemiologic and socio-economic characteristics; and categorical variables descriptive of policies in place both at regional and at hospital level with regard to HTA and public procurement. We plan to estimate the impact of regional and hospital policies and practices on: i) number of MDs yearly purchased by each hospital and ii) average MD-specific unitary price paid by each hospital.

Results
The preliminary analyses show a huge variability in MDs average purchasing price. The volume of devices purchased seems not to be correlated with the price paid by the hospitals. Centralized purchasing systems did not always lead to significant savings. On the contrary, the competitiveness of regional market and managerial practices like the frequency of public auctions seem to play a fundamental role in explaining differences in average price. Furthermore, the exploratory analyses show that HTA practices significantly influence both the number of MDs purchased and the MDs expenditures.

Discussion
This work contributes to the recent debate on the spending review in the Italian health care sector. The results show the importance of procurement policies and HTA practices on the achievement of savings. In particular, centralized purchasing seems not to have always generated the desired savings. This result seems to question the recent trend toward centralization. Evaluating procurement and HTA policies' impact on MDs' consumptions and expenditures at the hospital level is not common in the literature. Future research would investigate whether or not the mix of medical devices has changed after the implementation of HTA at the hospital level and how it influences health outcomes in the referenced population.
Legitimizing a new regional program to a network of professionals and stakeholders: the experience of the HTA program in Lombardy

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Context
We report the experience of the new HTA program implemented by Regione Lombardia to rationalize investments in new technologies. The program provides a unique application of the Multi-Criteria Decision Analysis, which informs decision-making through evidence-based and multidisciplinary information about technologies' impacts. This experience represented a significant theoretical and practical opportunity to improve our understanding on how to (1) involve many professionals that are dispersed in the territory and unaccustomed to collaborate; might not consider the program their priority; cannot be mandated/incentivized; and (2) gain the acceptance from stakeholders which might constantly oppose its outcomes and disrupt its foundations.

Methods
We implemented a holistic embedded case study to investigate the factors and dynamics affecting the institutionalization of the HTA program. Our units of analyses related to the design and to the functioning of the HTA program. We triangulated primary and secondary data sources: (i) 1-year participant observations as the research team was involved in process auditing for Regione Lombardia and in the assessment of two technologies, i.e. Transcatherer Aortic Valve Implantation (TAVI) and Patent Foramen Ovale (PFO); (ii) documentations of the HTA process developed by the Region; (ii) quantitative analyses measuring the amount of experts' participation in planned meetings on a monthly base; (iii) interviews with key informants (i.e. regional staff responsible of the HTA project and 28 experts involved in the scoping, assessment and appraisal of technologies).

Results
The design of HTA process involved a composite set of interventions meant to implement a procedure, able to manage requests, overcome organizational constraints and properly use resources; but also institutionalize a practice among stakeholders and professionals. The most effective interventions proved to be:

(a) Process engineering - establishing a multi-stage stage that addresses operational (e.g. a formal prioritization of a plenty of requests) and legitimacy issues (e.g. a quantitative appraisal of assessments to make information for decision-makers much clearer);

(b) Task-network fit - professionals' involvement is limited to small portions of the process to minimize workload. Boundary spanners tools (e.g. web-portal, forum) gather professionals in virtual teams;

(c) Standard application - data collection and assessments are associated to international standards (EUnetHTA and EVIDEM) to legitimize decisions

(d) Learning Mechanisms - cognitive, structural and procedural mechanisms (meetings, tool-kit for education, manual etc.) to provide know-how and know-why.

Discussion
Legitimacy represents the fundamental keyword to explain how regional/national policies/processes should be designed. Several regional/national policies have failed despite their technical validity because they failed to engage workers in the process and stakeholders about the outcomes. The reported interventions can be understood as a composite strategy to seize legitimacy from professionals and stakeholders by exposing three properties of the new program:

1) Rationality - outcomes must be perceived as consistent with the "reality", e.g. the multidisciplinary approach seized the multiple impacts of new technologies;

2) Impartiality - outcomes must not be accused to privilege certain stakeholders, e.g. the HTA program made preventively explicit the how and why of the assessments;

3) Efficiency - professionals and stakeholders must consider the program to make the best use of resources, e.g. experts' involvement was meant to seize the best competencies in the territory, while the prioritization to save everybody's time from irrelevant requests.
Business and government relations in healthcare sector: the case of medical devices companies collaboration with health care organizations to appropriately manage medical technologies

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Context
Differences in regional health expenditures for medical devices (MDs) are often indicated as the result of inappropriate negotiation processes, informative asymmetry between health care suppliers and health care organizations (HOs). Many variables can influence the level and mix of MDs consumption, such as epidemiologic, demographic and socio-economic factors; hospital distinctive peculiarities; physicians’ preferences and health policies, both at the regional and national level. Beyond these elements, the present paper aims at investigating negotiation process’ details that may result in different pricing criteria and contracts’ specificities that can ultimately contribute to strong differences in the final cost of supplies.

Methods
Through a national survey on a sample of Italian HOs, we collected data from 47 HOs located in 15 regions related to years 2008 and 2009. We recorded detailed information on purchased volumes and unit costs of MDs, current HTA practices, procurement processes and policies. We supplemented the database with additional information about HOs’ characteristics (e.g. dimension, urban location, teaching status, ownership), regional epidemiologic and socio-economic characteristics. We analysed volumes and unitary costs paid by different HOs in different Italian regions, checking with suppliers the exactness of data provided and going thoroughly into the possible explanations for apparently unjustifiable cost differences. The latter step has been conducted with different manufacturers, once per time making competitors’ products anonymous. After a pilot experience, with a brainstorming session on survey’s methods and collected data and then with sectorial in depth analyses, we replicated these activities with other two manufacturers.

Results
In most of the cases, unitary costs provided by HOs have been proved to be correct and mirroring prices effectively practiced within the industry. Still, manufacturers provided precious information to point out certain miscoding errors and to explain certain outlier costs, result of different features, such as: specific discounting practices; technological cycles that vary from region to region, since technological uptake is not homogenous and simultaneous in the whole country; new or renewed tenders, etc. Furthermore the study has engaged the industry in studies surely relevant for health care providers, that are called to make the most rational use of scarce resources, but also directly significant for its strategic and operational activities, given the main purposes that historically have characterized these studies: getting a better understanding of a new highly dynamic market to develop a more detailed set of regulations.

Discussion
Some information do not emerge from simple data collection, and especially when contractual patterns and single negotiations’ characteristics play a determinant role in determining actual health care spending on MDs, investigating the sole HOs’ perspective can be reductive. HOs have to balance economic and financial objectives with clinical innovation and appropriateness of care; at the same time, manufacturers have to develop profitable solutions. Transparent collaboration, data disclosure and interpretation could make the market more homogeneous and shift industry’s efforts to develop win - win solutions, instead of differentiating sale strategies.
across the country and even within the same region. Thus, integrated industrial and political perspectives, could contribute to better align industrial strategies to public needs and affordable decision making processes.
Impact of regional drugs policies on private and public expenditure: the Italian case-study

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Context
Cost-containment has been the most important driver of pharmaceutical policy in Italy in the last 20 years. Central policies, based on price-cut and discounts on list price, and drugs delisting, prevailed in the first 10 years. Reference pricing was introduced nation-wide in 2001. Since 2002, regions are accountable for their health care spending deficit. As a consequence, regions strengthened cost-containment actions, including cost-sharing, therapeutic reference pricing, prescribing quotas for general practitioners. This research aims at evaluating the impact of these policies on drugs public and private expenditure, aspect that has never been investigated so far.

Methods
A regression model on panel data, with a difference-in-difference approach, has been used. The model incorporates the expected delayed policy impact. The model is represented by this equation:

\[ y_{jt} = \beta_0 + R_j \beta_1 + T_t \beta_2 + \beta_3 D_{jt} + D_{semjt} \beta_4 + X_{jt} \beta_5 + u_i \]

\( y_{jt} \) is the public and private drugs expenditure, \( R_j = 1 \) in regions in treatment group, \( T_t = 1 \) is a time control variable, \( D_{jt} \) is a variable for region \( j \) in the treatment group in time \( t \), shows the impact of each policy on the dependent variable, \( D_{semjt} \) includes policies duration, \( X_{jt} \) includes all control variables (e.g. disposable income, age-structure and other socio-demographic indicators of the population, political environment and whether the region is close to an election day, policies spill over effects or emulating process). Endogeneity has been controlled considering the probability of adopting a policy due to past expenditure. Available data are monthly ten years panel data

Results
Cost-sharing produces a decrease in public expenditure (-6%) in the short run, and a lower impact in the long-run (-2.7%), whereas the impact on private expenditure is larger (-6.9%) and steady in time with no important differences in the short-run and long-run. The absolute net effect is a decrease in total drugs expenditure. Hence, cost-sharing did not produce just a shift from public to private coverage, but also a reduction in total volumes as it was expected. Prescribing quotas for physicians are effective in terms of lowering public expenditure both in the short and long run (-4.5%), but increasing private expenditure by 3.3%, because drugs subject to generic reference pricing are more prescribed. The impact of therapeutic reference pricing on public expenditure is not permanent, with a -2.2% in the short run and an increase by 2.2% in the long-run, with no important impact on private expenditure.

Discussion
Italy represents an ideal case-study for evaluating the impact of policies on allocative efficiency. The wide range of pharmaceutical policies applied by regions autonomously allows for the possibility of having being available data on treated and untreated regions, over different periods and with different combinations. Cost-sharing and actions on prescribing behaviour were effective in curbing public expenditure, with an important increase in private coverage. Therapeutic reference pricing has had no important impact, because of its limited application (it was applied only to proton pump inhibitor) and the circumstance that drugs have not been possibly perceived inter-changeable. Among control variables, proximity to regional election was an important explicative indicator of public and private expenditure. Future research should investigate the impact on equity in access to pharmaceutical care,
but this would require the availability of micro data. In addition disaggregated evidence on therapeutic classes would be interesting.
Parallel Session: Financing healthcare

Thursday 27 June 2013, 10.40-12.30
Building age and sex related sub-groups among high-cost patients using claims data: Where to draw the line?

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Context
In most industrialized countries a small group of patients accounts for a high amount of health care expenditures. Although these high-cost patients are of interest for healthcare payers and providers little is known about them except that they are heterogeneous in characteristics like age, sex and type and number of diseases. One possibility to split this group of high-cost patients into more homogeneous sub-groups is to stratify them by age and sex. Therefore, the aim of this study is to figure out where to draw the lines between age-groups by considering the main appearing diagnoses.

Methods
The analysis is based on claims data of one German statutory health insurance with 2,45 million insured. High-cost patients were defined as the top 10 % most expensive assured in 2011. The analysis was performed in three steps. First it was carved out for each sex and age which health service sectors are relevant and in which sector the highest expenditures incurred. In a second step, the distribution of diagnostic classes for men and women in each age was calculated. In order to reduce complexity this was done only for the sector with the highest expenditures. Considering the distribution of service sector usage and diagnostic classes age-groups were constituted. These should be small enough to receive as homogeneous groups as possible but also big enough to be still workable.

Results
Relevant service sectors differed according to age and sex. Nevertheless, highest expenses for each age and sex incurred in the inpatient sector though the distribution of diagnostic classes was performed for hospital admissions. Analyses of this distribution showed differences in the occurrence of diagnoses between men and women and over time. For example, among female high-cost patients aged 18 to 34 most common reasons for hospitalization were related to pregnancy and childbirth. Men with the same age, by contrast, were often in hospital because of mental and behavioural disorders or injuries and poisoning. With increasing age the main cause of hospitalization among men turned from mental disorders to the circulatory system. Based on these distributions of services sectors and diagnoses seven age-groups were conclusively defined whereby the intervals for man and women were the same.

Discussion
The results showed that it is possible to build more homogeneous sub-groups. Moreover, most sub-groups for adults have equal intervals of 15 years which, in addition, is still a workable size. This knowledge can be used to implement more specific interventions for high-cost patients that focus only on selected sub-groups. Thereby it would be possible to address the particular needs of these groups more adequate.
Associations between the trends of primary care manpower and avoidable hospitalization rates in a universal health insurance system: a 15-year population-based trend analysis

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Context
The research objective of the paper was to assess whether there was a correlation between the trends of primary care manpower and avoidable hospitalization rates during a 15-year period (1996-2010) in a universal health insurance system in Taiwan.

Methods
This was a 15-year population-based trend study in Taiwan. Three databases were utilized: "Longitudinal Health Insurance Database 2005 (LHID 2005)", "Current Situation of Medical Facilities, Medical Personnel, and Medical Services", and "Statistics Yearbook of Practicing Physicians and Health Care Organizations in Taiwan". Statistical analyses conducted included a random intercept logistic regression model, joinpoint regression analysis, and the Box-Jenkins approach.

Results
We firstly undertook an examination of national trends in avoidable hospitalization rates among patients of all ages over the 15-year period. Age-standardized rates were utilized in order to remove the effects of a non-homogeneous age structure. The avoidable hospitalization rate was calculated for each year from 1996 through 2010 by sex and region. Secondly, we calculated the trend of primary care manpower between 1996 and 2010 in Taiwan. Finally, the cross-correlation function (CCF) between the pair of time series data was estimated by carrying out the Box-Jenkins approach which fitted the time series to an autoregressive integrated moving average (ARIMA) model. Simply put, analytical results revealed that the implementation of Taiwan's National Health Insurance programme had helped increase primary care manpower and reduce avoidable hospitalization rates, longitudinally speaking. Furthermore, the trends of primary care manpower and avoidable hospitalization rates were significantly associated.

Discussion
Given the elevated risk of adverse health events and higher costs associated with hospitalization, increased attentions and efforts from policymakers, clinical practitioners, and hospital administrators to reducing preventable hospitalizations and providing more humane care are clearly warranted. Avoidable hospitalization has been used extensively as an indicator of the accessibility and overall effectiveness of the primary care system. Our study indicated that the implementation a universal health insurance system was associated with increased primary care manpower and reduced avoidable hospitalization rates. In conclusion, a universal health insurance system has demonstrated its merits in those regards.
Commissioning, cost control and productivity: comparison of three health systems

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Context
Policy-makers in many countries have introduced DRG-like payment systems in order to raise healthcare providers’ productivity in terms of responsiveness to patients'/gatekeepers' choice of provider, service quality and substituting lower-cost models of care. However, interactions with other means of governance over providers (e.g. regulation, provider competition, referral rules) can moderate DRG-based payments' productivity effects. This paper compares some productivity effects of these interactions in a social health insurance based system (Germany), a Beveridge system (England) and an intermediate example (Italy - Lombardy).

Methods
Systematic comparison of three national case studies of current modes of commissioning in England, Germany and Italy using data collected at national, payer and provider levels in both countries in 2011-12 from key informant interviews, grey documents, published research and ad-hoc enquiries from individual experts. Data for each country were collated into an analytic framework structured to reflect the main means of governance over providers. By comparing the per-country frameworks we systematically compared the interactions between DRG-like payments and the other means by which payers exercise governance over providers, or fail to. The study has UK ethical approval.

Results
In Germany a case-mix based mode of commissioning predominates. English and Lombard commissioning is a surrogate form of service planning (principal-agent relationship). All three systems supplement DRG-like payments with other productivity incentives. DRG-based systems leave provider productivity less open to payer influence than do the supplementary micro-commissioning techniques used in all three systems (payers and providers jointly plan care pathways). English and Lombard commissioners have cash-limited budgets and plan health services for their locality. German SHIs do not but can recruit additional subscribers (from other SHIs). Because of 'patient choice' policies, German payers cannot select providers on productivity grounds, only reimburse providers that patients choose. In Lombardy and England, the commissioners can more freely select providers. Political cultures have inhibited provider diversification in Germany and Lombardy, promoted it in England.

Discussion
A DRG-based, case-mix oriented mode of commissioning gives payers fine control of case-mix within hospitals but makes it difficult to contain overall costs. The opposite applies to a 'surrogate-planning' mode of commissioning. An unintended consequence, even contradiction, of attempts to use DRG reimbursement to promote productivity is that strong 'patient choice' policies prevent payers harnessing competition between providers as a means of raising productivity. So do policies which guarantee reimbursement for any registered provider which treats publicly- or SHI-funded patients. Then the other two intended productivity effects of DRG-based payment systems appear to be weakened. An implied policy recommendation would appear to be to decouple DRG-based payments from guarantees of payments to providers without a prior agreement or contract with the commissioner(s).
The financial challenge facing the NHS in England to 2021-22

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Context
Spending on the UK National Health Service (NHS) has more than doubled since its introduction in 1948, during which time it has risen by an average of 4% a year in real terms. This growth has now halted due to reductions in public spending. The NHS in England is therefore targeting efficiency savings of £15-20 billion (€18-24 billion) by 2014-15 to meet rising demographic pressure combined with increasing prevalence of chronic conditions. This research looks beyond 2014-15 to estimate the financial challenge facing the NHS in England in 2021-22, examining the potential impact of various policies in managing these pressures.

Methods
To estimate funding pressures facing the NHS, healthcare activity was broken down by type: acute (hospital), maternity, mental illness, general practice, and prescribing. A least-squares approach was used to model determinants of use and spend for each type of activity in the base year. Results of these models were applied to population projections for England, with forward projections based on observed activity patterns continuing, and the estimated activity costed. The effect of chronic conditions on hospital use was modelled to explore how continuation of trends might increase pressure on hospitals above the effect of population change alone. The cost of projected healthcare activity was compared to potential scenarios for government funding of the English NHS, with the gap representing the required efficiency gain by 2021-22. The effect of three key factors on closing this gap was examined: pay restraint, management of chronic conditions demand, and increased acute sector productivity.

Results
Funding pressures on acute NHS services in England are estimated to rise by 3% a year due to combined effects of population change and rising hospital admissions for chronic conditions (population change alone accounts for just over 1% a year). If pay rises with recent trend, total acute sector pressure will rise by 4% a year. If spending remains flat in real terms, the funding gap will reach £44-54 (€52-64) billion in 2021-22. If the current efficiency challenge is met in 2014-15, this reduces to £28-34 (€33-41) billion. Closing this gap will require a combination of measures: releasing all savings related to productivity gains made prior to 2015-16 (£6bn), preventing increases in the probability of being admitted to hospital with a chronic condition (£6bn), and restricting pay growth to rising with inflation (£8bn). The remaining £8bn gap will require further productivity gains of 1% a year between 2015-16 and 2021-22.

Discussion
The current austerity experienced by the English NHS is likely to extend beyond the 4-year period to 2014-15 that is currently the focus of planned efficiency savings. If funding pressures increase with recent trends, further savings of 4% a year will be needed between 2015-16 and 2021-22 to meet rising demands on healthcare. This will require unprecedented sustained increases in health service productivity to avoid cuts to services or falls in quality. A combination of measures will be needed, including avoidance of catch-up pay growth to compensate for the current pay freeze, effective management of rising demand for hospital care for chronic conditions, and translation of productivity gains into ongoing cash savings for reinvestment in services. Further productivity gains of 1% a year will be required on top of these measures without a real-terms increase in funding. NHS organisations must therefore plan beyond 2014-15 to consider the longer-term funding challenge.
Increasing efficiency of an otorhinolaryngology outpatient clinic

Janneke van Leijen-Zeelenberg1, Arno van Raak1, Bernd Kremer2, Bert Vrijhoeof3, Dirk Ruwaard1

1Maastricht University, The Netherlands, 2Maastricht University Medical Centre, The Netherlands, 3Tilburg University, The Netherlands

Context

Current developments like cost savings and market competition in healthcare stimulate healthcare managers to organise their processes more effective and efficient. Lean Six sigma is a technique which is frequently used to improve processes in organizations with promising results. Parts of the lean six sigma methodology are used at an otorhinolaryngology outpatient clinic aiming to increase patient satisfaction, employee satisfaction and to improve process efficiency.

Methods

Parts of the Lean Six Sigma method were introduced at an otorhinolaryngology outpatient clinic in the Netherlands in January 2012. As an implementation kick-off, two strategies meeting with a cross selection of the employees of the otorhinolaryngology department were held. Common goals were set and a value stream map of the primary care process was made. Possible sources of waste were determined and placed on a so called lean-board. This board is placed in the canteen on the outpatient clinic and employees have the possibility of writing down other possible sources of waste which they are confronted with during their daily routines. During monthly sessions, all issues written down on the board are discussed and action plans for improvement are formulated or checked. Semi structured interviews were held prior and post implementation with a cross selection of the employees of the outpatient clinic.

Results

Between January 2012 and December 2012, 72 issues were written down on the board. At the end of 2012, 39 (54%) of the issues were solved, 17 (24%) were in progress, 6 (8%) were on hold and 10 (14%) still needed to be discussed. In interviews post implementation, respondents mentioned considerable improvements of the care process at the outpatient clinic, not only including efficiency gains, but also improvements in the culture of the outpatient clinic. Most respondents appreciated the use of the lean-board.

Discussion

Implementation of parts of the lean six sigma methodology at an otorhinolaryngology outpatient clinic shows considerable improvements in the process. The effect of the implementation not only comprises efficiency gains however, it also shows positive outcomes on organizational culture, increasing willingness to change amongst employees.
PhD Students’ Session

Thursday 27 June 2013,
10.40-12.30
Hospital-Physician relationships: a mixed-method study of hospital-physician exchanges in Belgian hospitals

Jeroen Trybou¹, Paul Gemmel¹, Lieven Annemans ¹,²
¹Ghent University, Belgium, ²Vrije Universiteit Brussel, Belgium

Context
Worldwide, hospital administrators face challenging times and are consistently under pressure to control cost and simultaneously improve quality of the delivered care. In this challenging environment hospital executives have been struggling to build effective hospital-physician relationships (HPRs) which are considered a critical determinant of organizational success. The process of building effective relationships with the medical staff has been described as physician-hospital integration. Three types of integration have been distinguished: economic integration in which alignment is realized by financial means, non-economic integration which emphasizes the cooperative nature of the relationship and clinical integration which focuses on the coordination of patient care.

Methods
In a first part a theoretical study of the HPR was performed. Building on agency -, transaction cost economics and social-exchange theory an in-depth, holistic understanding of hospital-physician exchanges was developed[1] and a conceptual model was conceived[2]. In a second part an empirical study of the HPR using a mixed method methodology was undertaken. Firstly, a qualitative inquiry of executives and physicians of three Belgian hospitals was performed to develop rich understanding of how they interpret and experience mutual obligations and areas of ambiguity in their working relationship[3] and issues of importance in physician-hospital contracting[4]. Secondly, a quantitative study was conducted in which we linked hospital characteristics to organizational attractiveness to physicians[5]. Thirdly, in the first half of 2013 a quantitative study is conducted in which the importance of social-exchange and social identification in physician-hospital exchange is studied.

Results
While previous research has focused almost exclusively on the contractual arrangements between both hospital and physician, our study shows that physician-hospital integration encompasses more than just strengthening the economic ties between both. Optimizing the underlying working relationship between hospitals and their medical staff members (noneconomic integration) lies at the very basis of effective HPRs. It aims at making the hospital more attractive for physicians by improving the hospital's working environment and addressing physicians' related concerns. Moreover, these efforts emphasize the needed cooperative behaviour in the symbiotic relationship. It contributes directly to alignment through the norm of reciprocity and indirectly by building trust with the medical staff, laying the foundation for alignment of financial incentives. A distinction can be drawn between administrative obligations (the physician as co-worker; referring to the way the hospital is organized) and professional obligations (the physician as autonomous medical expert; referring to medical care delivery).

Discussion
It is clear that the policy-framework has a great influence on the HPR. More specifically, the dual split in payment and alignment of incentives poses serious challenges. This conflict of interest challenges physician autonomy and tends to fuel conflicts. Therefore, it is perceived as an obstacle to effective collaboration and a more integrated model of hospital financing is highly needed. Secondly, hospital executives should recognize the critical need to develop and maintain effective HPRs. Research rooted in social exchange shows that individuals seek to maintain a balanced exchange relationship with their organization. This principle is based on the belief that physicians tend to reciprocate beneficial (or detrimental) treatment they receive with positive (or negative) work-related attitudes and behavior. In
In this respect, the management of HPRs can be considered as highly important. However, taking into consideration and weighting the interests of both hospital and self-employed physicians remains a difficult balancing act.


Complexity complicates lean: lessons from seven parallel emergency care services in the same hospital-wide lean programme

Pamela Mazzocato¹, Carl Savage¹, Ulrika Bäckman¹,², Mats Brommels¹, Janne Carlsson¹, Magnus Hagmar², Fredrik Jonsson², Johan Thor¹,³
¹Kaolinska Institutet, Sweden, ²Karolinska University Hospital, Sweden, ³Jönköping University, Sweden

Context
The Karolinska University Hospital is a publicly owned and funded tertiary academic medical center. The hospital serves a population of 2 million inhabitants within the Stockholm County, Sweden. In 2012, it has 15,500 employees (including salaried doctors), 1,736 beds, and 200,000 patient visits/year in the EDs. In 2007, hospital management initiated a strategic long-term lean-inspired programme to improve care processes, particularly the timeliness of care and the working environment. The implementation process was designed and facilitated by the hospital’s strategic services development unit. The effort began with the 16 emergency services which together generated over 60% of all hospital admissions.

Methods
This study seeks to explain how and why the same hospital-wide lean-inspired programme impacted access to care in seven of the 16 emergency services: Ear, Nose and Throat (ENT) (2 sites), Pediatrics (2 sites), Gynecology, Internal Medicine, and Surgery. A multiple case study based on a realistic evaluation approach was chosen to identify mechanisms for how lean impacts process performance and the services’ capability to learn and continually improve. Four years of process performance data (i.e. waiting time and percentage of patients discharged from the ED within four hours) was collected. Statistical process control charts (SPC) were used to identify statistically significant changes in performance. Qualitative data was collected through realist group interviews. The interviews aimed to confirm, falsify, and refine the researcher’s candidate mechanisms for how the lean programme was expected to improve process performance and learning against the stakeholders’ experience and understanding.

Results
Different performance patterns were observed in the seven ED services regarding the degree of improvement, performance levels, and sustainability of results. The sources of these differences can be related to how the services adapted the lean intervention to their specific context, particularly considering the degree of complexity of the care process and their educational commitments. For less complex care processes (ENT and Gynecology), large and sustained improvement was mainly the result of a better match between capacity and demand. For Medicine, Surgery, and Pediatrics, which exhibit greater care process complexity, improvement were constrained because the changes implemented were insufficient in addressing the degree of complexity. While all services initially improved performance, the ability to learn and continually improve was restricted by negative feelings related to the design and usage of visual management tools, inefficient feedback systems, and poor alignment between problems identified and solutions developed.

Discussion
The variation in process performance and sustainability of results observed indicate that process improvement efforts such as lean should be carefully adapted to the complexity of the care process and to the educational commitment of health care organizations. This suggests that practitioners, managers, and researchers should carefully consider the specific characteristics of their health care delivery systems when they design, implement, and evaluate process improvements. Ultimately, the
ability to adapt lean to the particular context of application depends on the development of practices that effectively support learning from daily processes.
Systems of accountability for patient safety: the case of the English National Health Service

Carin Magnusson
University of Surrey, United Kingdom

Context
Healthcare associated infections (HCAIs) are a key issue for patient safety, and governance and accountability arrangements have been highlighted as needing further research. Accountability has been a driving force for NHS modernisation and in exploring more efficient ways to deliver high quality cost effective care. Recent healthcare scandals (Sorell, 2007), have driven these developments for greater transparency and accountability. It has been argued that accountability in healthcare needs re-defining (Harber and Ball, 2003). However, there has been little research concerning understandings or implications of accountability, or about accountability in healthcare practice at a systems level.

Methods
The aim of this study was to investigate accountability for patient safety in NHS acute care. It aimed to analyse systems of accountability at an organisational level. Three systems of accountability were analysed which were found to operate alongside each other within the organisation: external, managerial and professional. This research was concerned with how these different systems manifested themselves within an organisation. It analysed the logics and foci of each system, as well as the mechanisms of giving performance accounts, the monitoring and evaluating of infection control performance and the application of sanctions. It considered the dynamics between the systems. The study used an in-depth case study of systems of accountability for the control of HCAIs within one NHS Acute Hospital Trust in England. The methods used were ethnographic in nature: observations of infection control meetings (N=14), documentary analysis (range of meeting minutes, guidelines and policies), and semi-structured interviews (N=37).

Results
The findings demonstrated that each accountability system had both functions and dysfunctions, which had implications for infection control performance. The institutional practices of account-giving were found to take high priority and their production required considerable resources. The intention at management level was to create a no blame culture and achieve organisational learning through reviewing performance. However, depending on the context, constant pressures to produce performance accounts had the potential to drive blame. The core of accountability has been considered to concern how to create shared discourses about how to judge performance. The lack of shared criteria for how to evaluate infection control performance created tensions between the managerial and the professional accountability system.

Discussion
This PhD study contributes to the conceptual understanding of the role of accountability arrangements in supporting patient safety within healthcare organisations. It presents accountability as a multi-level complex concept which in practice manifested itself in behaviours, processes, cultures and at different levels of the organisation. Taking this into account, makes it difficult to discuss accountability as a quantifiable phenomenon of which there can be more or less. This research questioned if this is a helpful approach and agrees with Romzek (2000:39) who has argued that instead of calling for more or new accountability, we should focus lines of inquiry on: “the kind of accountability that is appropriate, given the ... tasks at hand”.

EHMA Annual Conference 2013 – Abstract Book 59
**Going beyond the ‘grand mean’: advancing disease management science and practice**

Arianne Elissen  
*Maastricht University, Maastricht, The Netherlands*

**Context**  
There is little doubt that chronic conditions will form the top priority of 21st century health systems. While healthcare expenditures are escalating, the effectiveness of current service delivery is far from optimal, improvements in population health are not accomplished, and patients are dissatisfied. In recent decades, various innovative care models have been developed to improve quality and outcomes for chronically ill patients, yet their evidence-base generally remains uncertain. This research aims to advance the science underlying realistic disease management evaluation and, in so doing, strengthen existing evidence on the ‘real-world’ impact of strategies implemented in actual healthcare settings.

**Methods**  
To ensure adequate knowledge of disease management, the first part of the research explored the concept and reviewed existing evidence of its effectiveness. For this purpose, a systematic review was conducted of international literature published between 1995 and 2011, focusing on type 2 diabetes. Exploration of the study theme further included qualitative analyses of large-scale approaches implemented in Austria, Germany, and the Netherlands. The second part of the research used mixed methods to realistically evaluate the level of implementation and effects of (components of) European disease management approaches. Applied methods included, amongst others, a qualitative review of self-management support strategies in 13 countries and a quantitative analysis of the effects of the nationwide Dutch disease management approach for type 2 diabetes patients (N=105,056). The latter evaluation used multilevel regression methods to identify trends in health outcomes as a function of intervention and/or patient features.

**Results**  
Disease management constitutes an important, widespread innovation in chronic care, the conceptualization of which has broadened over time and increasingly resembles the Chronic Care Model (CCM). Heterogeneity prevails in the content and scope of international strategies, although comprehensive approaches targeting all CCM components are least common. Given that comprehensive interventions were found to achieve the strongest positive effects, their relative underrepresentation likely limits the potential for improving quality and outcomes of care. Self-management support, arguably the central component of high-quality chronic care, appears to remain relatively underdeveloped in Europe. Regarding its effectiveness, findings suggest that while the overall impact on patients' health outcomes is modest, (intensive) disease management is associated with clinically relevant improvements in patients with poor diabetes control. Furthermore, positive disease management results tend to diminish over time, emphasizing the need to measure outcomes across sufficiently long observation periods in order to distinguish sustained effects from temporal influences.

**Discussion**  
Gaining insight into the effects of complex, multi-component disease management strategies in their natural environment requires moving beyond the existing undue reliance on randomization. While experimental trials are indeed important to demonstrate efficacy, they fail to show what works best for whom and under which circumstances. Using a mixed approach, this research illustrated how sophisticated observational methods can be applied to conduct rigorous and meaningful studies of disease management impact in actual healthcare settings. The findings plead for a move from disease-oriented, standardized service delivery toward person-centered care provision tailored to health needs, including self-management support. Although it requires changes in payment systems, data...
registration, and performance measurement, to name but a few, tailoring chronic care has great potential to improve cost-effectiveness, by ensuring that patients who benefit from provider-driven disease management are monitored programmatically, while those able to self-manage are supported in so doing.
The pursuit of ‘quality' in chronic disease management: the paradox of computer templates. An ethnographic case study in UK general practice

Deborah Swinglehurst
University of London, United Kingdom

Context
Challenging population dynamics have brought chronic disease management into the UK policy spotlight, the NHS struggling with increasing prevalence and costs associated with caring for patients with chronic diseases. Developing systematic approaches for managing this disease burden is a priority. The electronic patient record (EPR) is often identified as key to a high performing chronic care system - and computer templates are one way of streamlining consultations, whilst promoting an evidence-based approach. Focussing on the use of templates, I investigated how chronic disease management is accomplished in practice. In particular, I explored tensions between personalising care and meeting institutional requirements.

Methods
I conducted an ethnographic case study over 8 months in 2 UK general practices (187 hours in total). I combined observational field notes, video-recording and screen capture with micro-analysis of talk, body language and data entry. This 'linguistic ethnographic' approach combines a focus on language with ethnographic work exploring institutional context. 12 chronic disease management consultations were video-recorded, with parallel screen capture of the EPR. This dataset was supplemented with detailed observation of a further 26 chronic disease consultations and organisation-wide administrative practices. Consultations were transcribed using conversation analysis conventions, with notes on gaze, bodily conduct and the EPR screen. My analytic framework evolved through repeated rounds of viewing video, annotating ethnographic notes, multimodal transcription, and fine-grained micro-analysis, to identify themes. Data were interpreted using discourse analysis approaches.

Results
Consultations centred explicitly or implicitly on evidence-based protocols inscribed in templates and linked to the surveillance and reward systems of the UK Quality and Outcomes Framework (QOF). This systematic incentivised approach sharpened the tension between different ways of framing the patient - the patient as 'individual' and the patient as 'one of a population'. Templates did not simply identify tasks for completion but contributed to shaping four inter-related phenomena: the definition of chronic disease; how care was delivered; what it meant to be a patient; professional habitus. Consultations often resembled bureaucratic encounters, with clinicians asking a series of computer-prompted questions and conducting pre-defined tasks, which sometimes lacked coherence for the patient. Some clinicians were successful in minimising the tension between 'individual' and 'institutional' framings of the patient, by responding creatively to prompts within a dialogue constructed around the patient's narrative.

Discussion
Computer templates are widely implemented to assure standards of 'quality care' for patients with chronic diseases, but little previous research has examined how templates are actually used in practice. My research highlights a paradox; templates may contribute to the bureaucratisation of care, serving to marginalise those aspects of quality care which lie beyond their focus. These include the patient's opportunity to construct their narrative and the clinician's interactional 'involvement' with the patient. Although requirements for data risk privileging 'institution-centred' care over patient-centred care, some clinicians do overcome this, through flexible and creative use of templates, but this incurs additional interactional work, since the rational institutional logic inherent in the template does not...
align easily with the complexity of emergent dialogue between clinician and patient. Templates do not simply document chronic disease management, but fundamentally change the nature of this work.
The Multi-Level Perspective on Sustainability Transitions in Healthcare - How policymakers, healthcare managers, professionals and researchers influence the transition of the socioeconomic healthcare regime

Hendrik Cramer, Geert Dewulf, Hans Voordijk
*University of Twente, Enschede, The Netherlands*

**Context**
Today, developed countries healthcare systems’ are pressured by an aging population, increasing healthcare costs and the scarcity of professionals. Hence, policymakers, healthcare managers and researchers are looking for innovations to deal with these pressures in order to change the healthcare system. However, there are no insights into how a transition from the pressured healthcare system to a new healthcare system - which can deal with the aforementioned pressures - could take place. More generally, we do not know why many transitions fail. Therefore, this PhD research departed from the following problem statement: What are the barriers to sustainability transitions in healthcare?

**Methods**
The multi-level perspective (MLP) on transitions has been used to study a transition program (2007-2011) which was initiated by the Dutch Healthcare Ministry and governed 26 niche-innovation projects throughout the Netherlands. Niches are protected spaces that allow networks to experiment with radical innovations which eventually can be empowered, meaning they can change or replace the regime. At first, three longitudinal, ethnographic studies were conducted to identify: (1) the barriers to experimentation in one of the niche-innovation projects, (2) the barriers to empowering these niche-innovations, and (3) the barriers to governing the niche-innovation projects. To generate more generalizable results, a (4) cross-case analysis of three other projects was conducted. Additionally, a fifth study examined how action researchers can foster interaction between niche and regime actors by using (5) strategy workshops. The first author collected data through participation, conducting interviews, workshops, focus groups and collecting documents to answer the problem statement.

**Results**
The (1) barriers to experimentation started with the lack of engaging professionals into the planning of the experiments. Later, this resulted in their lack of motivation to experiment. The (2) barriers to empowerment started with the isolation of the project from the healthcare organizations. When the niche actors tried to empower the niche-innovations, the healthcare organizations did not understand them. Accordingly, they were not committed and the niche-innovations were not empowered. The (3) barriers to governing the niche-innovations were the disinterest of policy actors, the power structures in the ministry and the subsidy addiction of projects. The (4) cross-case analysis supported this outcome, highlighting a too strong focus on the protection of the niche-innovations. Finally, the (5) strategy workshop demonstrated that action researchers, legitimized through project managers, can help to overcome the lack of mutual understanding between niche and regime actors.

**Discussion**
Foremost, this PhD research demonstrates that the barriers to sustainability transitions in healthcare rest in the (4) protection of the niche-innovations and the various actors concerned. The transition program too easily subsidized the projects without demanding commitment from the healthcare organizations (2). Simultaneously, the transition program was lacking ministerial commitment (3). Besides, no niche-innovation will take place without engaging the professionals (1). Thus, professionals, healthcare managers and policymakers collectively have to be engaged and committed to pursue and learn from niche-innovations so they can be empowered and change the healthcare system. Otherwise, any future efforts to change it will dissolve as the protection is lifted away. The
confrontation of the niche level and the regime level need to be further scrutinized to understand how niche-innovations can actually be empowered. Here, the (5) strategy workshop has shown a first step to better align niche and regime actors by overcoming mutual misunderstandings.
Lunch time Session:
Natural death - a dying art?

*Thursday 27 June 2013,*
*12.30-14.00*
Allowing for Death as a Treatment Option

Jillian McCarthy  
University of Manchester, United Kingdom

Context
As life expectancy increases likewise healthcare costs escalate due, in part, to meeting the needs of ageing populations. Healthcare with its emphasis on cure or control gives little attention to the life/death cycle. Death has become a taboo subject and, alongside an increase in litigation, has led to healthcare professionals practicing defensively; there is less fear of reprisal in treatment, no matter the circumstances, than in the withdrawal of unnecessary treatments and consequent death. Little thought appears to be given to the quality of a person's life, their age, chronic conditions and disabilities nor to the natural course of life.

Methods
Cases of fearful people having 'Do Not Resuscitate' tattooed onto their chests are not uncommon (BBC 2011). This paper proposes a humanistic change in conventional practice that will enable health professionals to allow for the biological life cycle to take place so that a natural death may occur uninterrupted and without fear of reprisal in cases where the quality of a person's life is severely compromised due to age or underlying conditions. This will require a societal change in attitude and awareness that can only be achieved through extended debate and legislation. This is long overdue, no doubt because of the sensitive and delicate nature of such discourses and the subsequent emotional furore. This paper examines the rationale for supporting natural death in certain circumstances and puts forward suggestions for how this emotive topic may be addressed by society and implemented by health care professionals.

Results
The consequences of initiating such proposals are many; however, the most important considerations must be mindful, caring and humanistic. This is a different debate from that of the 'right to die' where differences of opinion rage around the morality of euthanasia. This paper is considering the right to allow people to die naturally under certain circumstances without the intervention of treatments to extend their lives short term. Obviously this requires sensitive discussions with the person concerned if possible, patient choice must be supported. Palliative treatment for such ailments as pain, discomfort and nausea would be ongoing, but active treatments to prolong life would not. The criteria for considering what constitutes a poor quality of life must be given due consideration forming guidelines and protocols to guide healthcare professionals. An anticipated by-product of the implementation of this proposal is considerable savings for health services in terms of treatments and care.

Discussion
Concerns over the medicalisation of death have been ongoing since the 1970's, yet, if anything, the situation has proliferated with fears that it is even encroaching into the once-escaped arena of palliative care. An erosion of personal and family care and the traditional practices that surrounded death and dying have forced society into a rejection of allowing death as an acceptable means of caring. An acceptance that death is the natural conclusion of life is required, thus leading to an increase in health professionals throughout the services who will specialise in advising on the difficult balance between treatment or allowing for a natural death to occur in certain circumstances. Ironically, it is the fast approaching worsening of the financial crisis in the health services due to dramatic changes in demography that may prove to be the pragmatic catalyst needed to propel this humanistic debate into the public arena.
Parallel Session:
Demand management and access 1

Thursday 27 June 2013,
15.50-17.30
A novel solution for managing the growing demand for ambulance services by low-acuity patients

Kathryn Eastwood\textsuperscript{1,2}, Karen Smith\textsuperscript{1}, Amee Morgans\textsuperscript{2,1}, Mark Rogers\textsuperscript{2}, Angela Hodgkinson\textsuperscript{2}, Gareth Becker\textsuperscript{2}, Johannes Stoelwinder\textsuperscript{1,2}

\textsuperscript{1}Monash University, Australia, \textsuperscript{2}Ambulance Victoria, Australia

\textbf{Context}

Demand for ambulance services grows at near 5% per annum and is expected to increase with an ageing population.\textsuperscript{(1, 2)} Prehospital interventions are becoming more sophisticated and hence costly. This trend is financially unsustainable and for the many low-acuity patients (up to 38% of the caseload), ambulance transport to hospital is not necessarily the most appropriate care.\textsuperscript{(3)} As an alternative, Ambulance Victoria (AV) (servicing 5.6 million people in Victoria, Australia) implemented a secondary telephone triage service for selected low-acuity patients, supported by a range of contracted community based service providers. This presentation reports on the 9-year experience of this service.

\textbf{Methods}

This secondary telephone triage service, Referral Service (RS), differs from others reported in the UK and USA in providing alternate medical care from healthcare professionals including doctors, nurses and hospital-based community care teams, rather than solely advising a patient to self-access care. The RS receives low-acuity calls after being prioritized through both an internationally used prioritizing system and an AV formulated grid, when patients contact the primary emergency telephone number (000). Nurses or paramedics further assess these patients using Care Enhanced Call Centre (CECC) software.\textsuperscript{(5)} A range of care pathways result in self-care advice, arranging medical assessment and treatment, non-emergency ambulance transport, or returning the patient back to the emergency ambulance system. This service has occasionally been enhanced to manage moderate-acuity patients in times of increased demand, such as epidemics and natural disasters. The RS was reviewed to determine its impact on low-acuity demand on the emergency ambulance system.

\textbf{Results}

In its first year RS handled 5669 cases, or 2\% of the total emergency dispatch workload. This has increased to 14\% by 2011-2012. Since 2009-2010 15\% of patients were directed to non-emergency ambulances, 19\% were advised to self-present at an emergency department, 16\% were referred to their GP, 9\% had locum doctors arranged, 1\% received mobile nursing services, 2\% were sent other healthcare services, 2\% were frequent callers managed according to their established care plans and 5\% were given self-care advice. Twenty-five percent of calls were returned to emergency ambulance dispatch with 1\% of these being identified by RS as high-acuity. A 2006 patient satisfaction survey found 88\% of patients were very satisfied or satisfied and only 5\% were dissatisfied or very dissatisfied. The cost saving to AV, based on a single paramedic-crewed ambulance response as the alternative standard response, increased from $0.8 million in 2003-2004 to $42.7 million 2011-2012.

\textbf{Discussion}

The RS has proven to be a significant cost saving to AV of over $A160m since inception, compared to the traditional ambulance transport model. The RS has provided a demand management solution via a range of alternative patient care pathways that provide direct access to healthcare, bypassing the expensive and time consuming intermediate step of hospital emergency department assessment. Other benefits include increased emergency ambulance availability to respond to urgent calls and decreasing low-acuity cases entering the emergency department. It has potentially resulted in an improved level of patient care through the process of matching the right level of care and resources, to the right patient. Which was found to be acceptable to patients seeking assistance. In the future the service has
identified the potential to increase the proportion of patient referred to RS to up to 30% of the total ambulance demand.
Telephone-based case management can significantly reduce costs while increasing quality of life for frequent emergency department visitors

Peter Reinius\textsuperscript{1}, Magnus Johansson\textsuperscript{1}, Gunnar Öhlén\textsuperscript{1}, Michael Högberg\textsuperscript{2}
\textsuperscript{1}Karolinska University Hospital Huddinge, Sweden, \textsuperscript{2}Stockholm County Council, Sweden

Context
While healthcare demand increases budgets are tightened, resulting in new challenges facing the healthcare sector worldwide. Consequently, new means of managing illnesses and controlling costs are needed to increase productivity. However, focus on preventive care is also a key issue. 1\% of the population in Stockholm County accounts for 30\% of total healthcare spending. As an example a small group of frequent emergency department visitors account for a disproportional large number of total emergency department visits. Besides generating high per capita healthcare costs and contributing to overcrowding, it is likely that these individuals are not receiving optimal care.

Methods
A Zelen designed randomised controlled trial was performed to study the effects of a nurse managed telephone based case-management intervention on health care utilisation and self-assessed health status for patients that were identified as frequent emergency department users (≥3 visits during the six months prior to start of the study) at the Karolinska University Hospital in Stockholm, Sweden. Patients included in the study (n=268) were randomised to either the intervention group (211) or control group (57) and followed for one year. Patients that declined to participate or could not be reached were also followed for the study outcome. Statistical analyses of healthcare utilization were assessed using unadjusted Poisson regression analyses resulting in incidence rate ratios. Negative binominal regression analysis was used to evaluate differences in total costs and days of hospital admission. An assessment of the participating patients’ quality of life was performed with SF-36 6-8 weeks after study inclusion.

Results
The telephone-based case management intervention, which consisted of motivational conversations, self-care support, patient education and coordination of social and medical services, reduced the total number of outpatients visits (relative risk [RR] 0.80; 95\% confidence interval [CI] 0.75-0.84), the number of emergency department visits (RR 0.77; 95 \% CI 0.69-0.86) and the number of days patients were admitted to hospitals as well as a 45\% reduction in total healthcare costs for hospital admissions. There was no difference in mortality or other identified adverse outcomes between the intervention and control groups. Patient self-assessed health status increased significantly (P<0.05) in six (general health, emotional role functioning, physical role functioning, pain, social role functioning and vitality) out of eight studied parameters for patients that received the intervention. Furthermore, 87\% of participants reported that the intervention had helped them receive better healthcare and 82\% of participants reported improved quality of life because of the intervention.

Discussion
The results, which were recently published in the European Journal of Emergency Medicine, suggest that a nurse managed telephone-based case management intervention is an efficient strategy to improve care and quality of life for frequent emergency department users as well as decrease outpatient visits, admission days and healthcare costs without compromising patient safety. Although results vary, other studies (also including patients with COPD and CHF) have shown similar outcomes. In Sweden, four county councils have chosen to implement case and disease management to reduce health care costs and utilization as well as improve health and quality of life for patients. While achieving results, lessons are learned on system failures such as weak communication between
providers, inequalities of care and disrupted care chains and a comprehension of reasons and characteristics of patients at risk of unplanned hospitalizations is evolving. Insights affect ways of system-level governing, such as implementing payment system reforms.
Elders refrain from seeking of care and services in seven European countries: prevalence and reasons

Mindaugas Stankunas1,2, Mark Avery2, Skirmante Sauliune1, Joaquim Soares3, Marko Di Rosa1, Francisco Torres-Gonzalez5, Elisabeth Ioannidi-Kapolou6, Henrique Barros1, Jutta Lindert8
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Context
Europe is facing intensive demographic aging. It is known that older persons experience a greater prevalence of chronic diseases than younger people and they are the main users of health care services. However, increasing prices and proportion of out-of-pocket cost leads to the situation that some elders refrain from seeking needed medical services. Such behaviour by elderly people is a growing concern in public health and it is crucial to understand the prevalence and reasons of this situation. The aim our study was to evaluate the prevalence and reasons for refrain from seeking of care and services amongst older people.

Methods
Data for this study was collected in January-July 2009. The target population were people aged 60–84 years living in communities in Stuttgart (Germany), Athens (Greece), Ancona (Italy), Kaunas (Lithuania), Porto (Portugal), Granada (Spain) and Stockholm (Sweden). The total sample comprised 4,467 respondents, with a mean response rate across countries of 45.2%. Self-reported refrain from seeking of care services was measured with question: “Have you been in need of a certain care service in the past year, but did not seek help?” (yes/no choice). And reasons, for refrain were measured with question: “What were the reasons for not using care services?” (Ten possible alternatives have been provided). The term „care services“included a range of different health related services, i.e. general practitioner, hospital, nurse, dentist etc. For evaluation of the association between refrain from seeking care services and selected socio-demographic factors, a enter model of logistic regression was used.

Results
Of the 4467 respondents, 1908 (42.5%) were males and 2559 (57.5%) females. The results showed that 13.0% (n=579) of respondents had refrained from seeking care services. A significant variations (p<0.001) have been identified between different countries. The highest rates were among elders from Lithuania (24.0%), Germany (16.2%) and Portugal (15.4%). Italy, Spain, Sweden and Greece had much lower levels of refrain (10.4%, 9.4%, 8.5% and 7.2%). Logistic regression revealed, that refrain was statistically significant associated with higher level of education (OR=1.21; 95%CI=1.01-1.25) and financial strain (OR=1.26; 95%CI=1.16-1.37). The main reasons for not seeking needed care services were: problem disappeared (35.1%); too long waiting list (21.0%); did not get an appointment fast enough (16.2%); financial problems (16.0%); negative previous experience (14.2%); did not have the time (11.7%); difficult contact with care services (11.5%); care services not available (8.3%); did not know who to contact (7.9%).

Discussion
Our study revealed that elderly people refrain from seeking care services differently in across countries. The organization and financing of health care systems could be one of reasons in explaining this variation. However, we need to consider other factors such patient behaviour, expectations, general economic situation, and cultural norms. In this paper we will discuss key issues concerning access and equity of health care services for elderly people across Europe. The paper examines
consumer satisfaction, systemic differences and health system funding approaches as they relate to use and quality of care for elderly populations.
Convenient - but at what cost? Walk-in clinics and easing access to primary care in Finland

Anna-Aurora Kork, Jarmo Vakkuri
University of Tampere, Finland

Context
Management of public services is about balancing between cost efficiency and client responsiveness. Problems in accessibility and increasing demand for healthcare services have led many countries to restructure their health systems. One solution, adopted in Finland, is walk-in clinics (also retail clinic, convenient care clinic, walk-in centre, "WIC") which provide treatments for minor illnesses. There is a longer tradition of WICs especially in the USA and UK. In Finland, WICs are part of the public health care system. Clinics, mostly staffed by nurse practitioners, are typically located in shopping centers. They offer extended opening hours and easy walk-in access.

Methods
This paper seeks to understand complexities in the Finnish healthcare decision-making by using the example of WICs. While WICs are assumed to improve access to primary care and improve customer satisfaction, we examine to what extent this may be done at the expense of cost efficiency. The research question is: What types of contradictions are related to the implementation of Finnish WICs, and how do healthcare administrators in two case municipalities aim to deal with these problems? Two types of data sets are utilized. Basic data is collected from earlier evaluation projects concerning WICs in Finland. This includes statistical data, patient surveys, cost reports and interviews. Furthermore, we will collect information regarding frequent consulters in WIC to explore patterns of health service usage. The case analysis is used to create a reflective synthesis of theoretical argumentations regarding contradictions between easing the access and improving the productivity of public services.

Results
Experiences of Finnish WICs are relatively positive. The number of visits was high and patients were systematically satisfied with the services provided. Some of the demand in general practices has been redirected into WICs. About 15 percent of patients would have visited the physician if the WIC had not existed. However, the supply of WIC may have increased the service demand by creating new groups of high users. These were usually elderly people and frequent attenders of healthcare services. The general objectives of WICs were to promote health, reduce the service demand and increase the customer satisfaction of primary care. However, the implementation varied significantly among WICs due to different socio-economic characteristics and the needs of population as well as due to distinct strategies of the case municipalities. Nevertheless, based on the number of users there was apparently demand for this type of service.

Discussion
The easy access and convenience explained the popularity of WICs making it attractive for healthcare administrators. However, there are issues to be further considered. First, the easy access may increase health service demand by offering an additional service. It is important to understand the structure of demand more precisely: was the demand previously non-existent or was it neglected only due to problems of access? Another important issue concerns how WICs can be integrated into the primary care system. The risk is that they become functionally obsolete thus reducing the efficiency of the system. Furthermore, the use of performance indicators has a significant role in decision-making. For instance, the focus on customer satisfaction indices would favour easy accessibility whereas the productivity measurements could question this. The pressure for cost efficiency might encourage decision makers to hinder the access again: this is paradoxical for clients.
Patient mobility and the role of private and public healthcare providers in Tuscany and Liguria

Thomas Schael  
Fondazione Opera San Camillo, Italy,

Context
The paper aims to identify the set of actors, forces and factors that determine the flow of patients in public and private health focusing on outpatients and diagnostics. In the last years, the Italian Health System has increased the percentage of "out of pocket" spending. The paper studies these phenomena in the regional health system of Liguria and Tuscany after the introduction of the so-called "SuperTicket" (Law 111 - July 2011) and the "Spending Review" of the Government Monti in 2012. The results are a more massive citizen participation in health in addition to longer waiting times for access.

Methods
Through an empirical study, the paper compares the criteria by which to choose the place of care by patients and general practitioners in their role of referring physicians, identifying the main dynamics. With regard to the referring physicians, the survey was conducted on GPs contracted by five Local Health Authorities of Northwest Tuscany and South Liguria (ASL Massa-Carrara, Lucca, Pisa, Viareggio and La Spezia), with a total population of 1,127,089 residents. The research involved 116 general practitioners (65 in 2011 and 51 in 2012) and 619 patients (450 in 2011 and 169 in 2012). The economic results are based on real data belonging to the largest private health care giver in the Region Tuscany, the Camillian Hospital in Forte dei Marmi (LU).

Results
The work shows that despite the growing emphasis on the autonomy of the patient, the choice of the hospital or other provider reveals to be complex and articulated where GPs play a key role. The criteria for selection of patients vary depending on the type of service: in the case of standardized high-tech diagnostics considerations prevail convenience and speed of access to the service. Where the contents are more human and professional, the main factor of choice is the confidence in the expertise of the physician, even in the presence of increased distance and waiting times. Only a quarter of patients surveyed increased their propulsion to pay privately after the introduction of the Super-Ticket, considering reduced waiting times as the main driver. The GPs instead advise out-of-pocket services more frequently, not for the speed of service, but rather for the possibility to choose the facility or health care professional.

Discussion
The patients turned out not to be an independent decision maker, since one-fifth of the respondents stated that they had received advice or external influences on the choice of the care-giver. The GP is proved to be the key player in the choice of place of care. A great emphasis is given by patients also to the advice of friends, relatives or acquaintances as they have had limited opportunities to directly experience in the past. A critical issue emerged analyzing the interviews with doctors, concerning the lack of information suffered by the GPs on the care-givers. The quality of medical care is therefore negatively affected by inadequate linking of the hospital or outpatient service providers and the primary care GPs in the territory. The research opens an interesting scenario for social tariffs slightly above the ticket to meet a good chunk of patients, especially on a level of income of non-exempt for public tickets.
Parallel Session:
Leadership

Thursday 27 June 2013,
15.50-17.30
Tailor-made management development programme for junior doctors at Helsinki University

Minna Kaila¹, Taina Mäntyranta¹, Santeri Huvinen², Marjo Parkkila-Harju³, John Øvretveit¹, Mats Brommels¹
¹University of Helsinki, Finland, ²Karolinska Institute, Sweden, ³City of Helsinki, Finland

Context
Clinical leadership in medicine refers to ability to serve as both a clinician and a manager. This dual role is not self-evident to young doctors and is not directly addressed during their training. Most medical schools provide little or no structured leadership or management training. Our literature review showed that of over 40 programmes identified, most were from the US and offered within one medical speciality. Learning goals and methods vary substantially. We describe and analyse the management development programme for physicians and dentists in specialty training at Helsinki University, Finland.

Methods
Since 2010 a management development programme of 30 ECTS is mandatory for all physicians and dentists in specialty training at University of Helsinki, with over 250 starting annually. A framework for competencies was developed together with other Finnish universities. On completion, participants should have obtained knowledge, skills and attitudes qualifying them for frontline clinical manager duties. The programme is designed individually and can be completed in 3-5 years. An e-learning platform is used for documentation and communication. We used two frameworks in analysing the programme: the Medical Leadership Competency Framework from UK for analysing the competencies aimed at and the content of the programme; and the Framework for Effective Leadership Development Programmes for identifying those elements in the Helsinki programme. Learning methods used are compared with those of other programmes.

Results
Competences aimed at are: Basic knowledge of organisations, management and leadership; Social and health care system; Management of human resources and competence; Communication and leadership; Service management and evaluation. These fit with the Medical Leadership Competency Framework. Learning methods used enhance learning of own experience (own cases and improvement projects at work), reflection (portfolio and exchange of experience in groups) and social learning (mentoring, group assignments). These are supported with interactive lectures and relevant literature. In comparable programmes didactic methods are most commonly used. Elements of an Effective Leadership Development Programme can be identified. High-level commitment is ensured. Participants have senior-level mentors. Common learning objectives guide learning, but details are tailored according to individual needs. All parts of the programme are integrated. The learning period is individual and the portfolio supports self-development. Interprofessional learning is lacking. Participant feedback is used for improvement. No pre-post evaluation is available yet.

Discussion
Tailored management development programmes are needed in a working environment with constant changes and cost pressures. Most existing programmes for physicians are limited to one specialty and use often didactic learning methods. An ageing population and multi-morbidity challenge traditional borders of medical specialties. The University of Helsinki programme for physicians and dentists in specialty training offers a model of a competence-based, mixed-method programme, covering all specialties with individual flexibility. An impact evaluation of the programme is needed. The frameworks used were helpful in the analysis of the programme. A common European framework for
competences and management development programmes would support comparative analyses and improvement of current and future programmes.
Does a partnership between healthcare and Social care improve care for those living with dementia?

Wendy Knibb¹, Dilys Robinson², Karen Bryan¹, Valerie Garrow¹
¹University of Surrey, United Kingdom, ²Institute for Employment Studies, United Kingdom

Context
In the UK, as in other European countries, those living with dementia (PWDs) are set to rise exponentially. Additional health costs are predicted and the impact on carers becomes increasingly significant as the capability of independent living for PWDs reduces. The UK National Dementia Strategy was launched in 2009. To assist roll-out, effective local leadership and performance information is suggested as helpful. A Partnership between health and social care that encompassed three areas in South England was initiated with the aim of universal access and quality service for all PWDs in the area. This was a unique collaboration.

Methods
Using a Realistic evaluation framework, the Partnership itself was evaluated against its own remit together with its impact on PWDs/carers. This two-year project (UK Department of Health funded) undertook four literature reviews (partnership working; models of access to services; dementia care provision; carer support and carer skills advice) and observations and analyses of three Partnership board meetings. As well, interviews were conducted with all Board members on two separate occasions and 40 interviews and five focus groups with carers, importantly PWDs themselves, care providers and regulators again on two distinct data collection timelines (month 2 and month 16). In addition, a survey was conducted with 600+ health and social care professionals on their dementia training requirements.

Results
Partnership working between health and social care is fraught with challenges and complexity particularly across differing areas and hence the term ‘partnership working’ requires redefining. Nevertheless, the Partnership bought together stakeholders with commitment to ensure PWDs were at the top of the health and social care agenda. Many successful joint projects were performed and valuable relationships were brokered which enabled faster progress. Carers/PWDs observed greater awareness of dementia and pockets of improvements although these were not universal. Issues for carers/PWDs remain as future planning; navigating a complex and changing environment and a ‘random care pathway’. PWDs themselves asked for social inclusion and appreciated greatly dementia clubs that promoted outings and activities. The survey revealed that the majority of staff requested further training in dementia with care assistants asking for more information on the diagnosis and recognition of dementia whilst medical professionals would like training in communicating with PWDs/carers.

Discussion
Comprehensive advice for aspiring partnerships highlighted the need for clarity of purpose; the crucial role of a funded programme manager; respect for differences; honesty and commitment to a consensual vision. Overall frontline discussions revolved around the system where integrated care is seen as positive; variability and patchy provision is experienced and which is challenging to overcome and lack of service capacity in that greater specialist dementia care is required. In addition, the lack of assistance and guidance for carers was a major cause of distress. Equally, PWDs are universal in their appreciation of dementia clubs however these are not available to all due to cost and lack of transport. Discussion in the oral session would focus on the extent which these challenges are recognised across Europe as a whole with a view to compiling a European comparative paper.
Leading and managing health organisations - harnessing drivers for outstanding achievement

Mark Avery¹, Steven Campbell², Ron Fisher¹, Fitzgerald Anneke¹, Fulop Liz¹, Gapp Rod¹, Guzman Gustavo¹, Hayes Kathryn¹, Herrington Carmel², McPhail Ruth¹, Poropat Arthur¹, Vecchio Nerina¹

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Context
Healthcare organisations differ in terms of role delineation, ownership, culture, connection to users and consumers as well as the way they are managed. The priorities of identifying and facilitating different and optimal ways to deliver care, role and functional changes to workforces, stakeholder engagement and cost effectiveness and efficiency affect all health organisations. The aim of this research was to examine the critical elements and performance factors in health organisations that drive outstanding achievement and consequently contribute to healthcare outcomes. Continuous improvement is key to quality of services and care as well as health service effectiveness, efficiency and equity.

Methods
Qualitative content analysis of health service organisations accreditation outcome reports has been conducted for the period 2003 to 2008. Reports from Australia's largest healthcare facilities accreditation organisation (Australian Council on Healthcare Standards (ACHS)) for acute hospitals, mental healthcare facilities, day procedure centres, community based organisations, as well as other specialist services in both the public and private sectors. This research takes an inductive approach by examining outcome reports following accreditation of health facilities to agreed standards and associated criteria. A structured process was used to assess the summaries and draw themes from them, using an approach to thematic content analysis that had previously been recommended for use in healthcare research (Graneheim and Lundman, 2004). The aim of this analysis was to identify the common factors reported by ACHS in reports as being the highest achievement to standards. Such factors act as management and organisational drivers of high standards of performance.

Results
Four major relevant and overarching themes were indentified in this process: leadership, communication and culture; management, organisation and human resources; information and knowledge management; and outcomes. In addition several sub themes were documented. Key leadership responsibilities and actions for effectiveness highlight the need for health managers to be visionary in their approach; establish strategic partnership with governing bodies, the organisation's management and staff; enable collaborative responsibility; as well as effective delegate strategies. These key drivers demonstrated high achievement across patient/client care, corporate and operational aspects of organisations surveyed.

Discussion
In this presentation we develop the findings from this research and examine important leadership and managerial strategies and actions that can bring about high performing, innovative and effective organisations. This ongoing development and facilitation is in the context of changing organisations in complex environments, under reform and within limited and constrained resourcing. Leadership and change traits and drivers are examined in the context of organisational learning and sustained improvement.
Are we there yet? Models of medical leadership and their effectiveness: an exploratory study

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Context
Medical leadership has attracted increasing attention the world over. Previous studies have analysed the evolution of medical leadership, but there is no comprehensive and up to date picture of how doctors are currently involved in leadership roles. This paper reports on a study that sought to provide an up to date picture of the nature and range of medical leadership structures in NHS trusts in England; to analyse how different structures operate in practice and the processes at work within these structures; and to relate evidence on structures and processes to organisational performance.

Methods
The study used a mixed method approach involving a questionnaire survey of NHS trusts in England to map existing structures. Case studies of nine NHS trusts that responded to the survey were then conducted using quantitative and qualitative approaches. In-depth interviews were conducted with a range a staff and the Medical Engagement scale was used to establish the extent to which doctors feel engaged in the work of their organisations. The results of the Medical Engagement Scale were also related to available data on organisational performance.

Results
A wide variety of structures were identified including divisions, directorates and service line approaches, sometimes in combination. Most of the case study sites report themselves to be medically or clinically led with doctors holding leadership roles at three or four levels. Triumvirates exist on paper in most sites but in reality the duality of medical leader and general manager is perceived to be more important. An engagement gap between medical leaders and their colleagues is commonly reported, though this is seen to be part of the journey trusts are on. There are variations both between and within trusts in the extent to which doctors feel engaged in the work of their organisations. Trusts with high level of engagement perform better on available measures of organisational performance than trusts with low levels of engagement.

Discussion
Progress has been made in involving doctors in leadership roles but the journey that started with the Griffiths report of 1983 is by no means complete. Recognising the existence of variations between trusts, it is clear that medical leaders face many challenges and occupy a relatively precarious middle ground between senior managers and their medical colleagues. There are many barriers to involving doctors effectively in leadership roles, and in most organisations a step change is needed to overcome these barriers. This includes increasing the time commitment of medical leaders and the proportion of doctors in formal leadership roles and developing the culture of engagement we found in those trusts that had progresses furthest on this journey. Further research is needed in trusts that are recognised to be at the leading edge of performance, as well as to understand the perspective of doctors who are not in leadership roles.
Parallel Session:
Quality and patient safety

*Thursday 27 June 2013,*
*15.50-17.30*
Is it possible to improve hospital performance through a quality assessment programme? Findings from Lombardy Region Hospitals Evaluation Programme

Michele Castelli¹, Paolo Berta²
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Context
Lombardy Region developed a health system model based on subsidiarity principle and the coexistence of public and private providers. In this model, evaluation is a key aspect to regulate and improve health care services. A Multidimensional Evaluation Programme of Hospital Performance was developed two years ago to improve hospital performance and, consequently, the overall regional health system performance. The aim of this analysis is to present this programme and to discuss results from the first two year implementation, with particular focus on hospital performance improvement. With more than 1.200.000 discharges analysed this is an important case study at international level.

Methods
This analysis was developed by CRISP (Interuniversity Research Centre on Public Services, University of Milan Bicocca) in collaboration with Lombardy Region General Health Directorate. According to the five different performance dimensions of the Evaluation Programme, different methods were used to collect and analyse data: for example for the effectiveness dimension a statistical multilevel model has been used and the data source was the hospital discharge cards (administrative data source), whereas for the access dimension data from the regional customer satisfaction survey and data from the regional waiting list information system has been used and analysed. Indicators for each dimension has been developed and for some of the dimensions the analysis was made at department level (for other dimensions at hospital level). With this analysis it is possible to capture differences and improvement in hospital performance from the first to the second year of the Programme implementation.

Results
The Evaluation Programme consists of five dimension: effectiveness, standard evaluation, access, appropriateness and efficiency. It is possible to analyse the performance of each hospital in every one of those five dimensions or to compare different hospital performance for every single dimension. In addition it is possible to measure, for some indicators, results at department level within or between hospitals. The analysis is made on the last two years and so it's possible to compare results from different years. Results are very interesting because show differences and similarities among similar hospitals or describe strengths and weaknesses within each hospital. In general results show an overall improvement of the whole system during the years. Because of the five dimensions of the Programme, the number of indicators, the amount of data analysed, the number of regional hospitals and the analysis at department level results are particularly significant.

Discussion
This Evaluation Programme was implemented after detailed review of scientific literature in this field, discussions with national and international health policy experts and analysis of similar empirical experiences at international level, in order to build it on robust basis. Because this Programme is part of the regional health policy and planning legislation, hospitals results have an impact on their activity and have also a link to a percentage of their annual financial budget. Two most important lessons learned from this analysis are on the one hand that through a performance evaluation system is possible concretely to improve hospital performance (as data shows), on the other hand that a
multidimensional evaluation is necessary to get an overall performance evaluation on hospital activity. Results demonstrate that this kind of performance assessment is an effective health policy tool and can improve health service delivery.
The application of proactive risk assessment in hospitals for patient safety

Stephen Leyshon, Eva Turk, Inger-Marie Blix, Tita Listyowardojo, Morten Pytte, Anna Hayman Robertson
DNV Research & Innovation, Høvik, Norway

Context
Many safety-critical industries have reduced harm through implementing systematic approaches to managing risk, whereby structures, procedures and controls are established that reduce the likelihood of harm before it happens and limit the damage when an incident does occur. In healthcare, greater emphasis has been placed on using retrospective approaches to understanding why people are harmed, such as learning from reported incident data. The objective of this study was therefore to explore how proactive risk assessment (PRA) methods are used in healthcare.

Methods
A two phased study was conducted:

Phase I: A systematic literature review was carried out (which has been presented elsewhere).

Phase II: Empirical data was collected using a multiple case study approach (Yin 2003). Semi-structured interviews were conducted with hospital staff in one hospital in Norway (case 1) and two hospitals in the UK (cases 2 and 3). Interviews were carried out with approximately 25 staff in each hospital until data saturation point was reached. In case 1, staff were selected from a patient pathway (staff with clinical contact, managers and administration staff), whereas for cases 2 and 3, staff were selected from two specific clinical units. In all three cases, staff selected represented different levels of experience, roles and responsibilities.

Results
The literature review found that although the number and rate of publications on PRA in healthcare has increased in recent years, the literature remains at a descriptive level (with few notable exceptions - e.g. Shebl et al 2010). Combining the findings from both phases of the research, a number of barriers to the adoption of PRA techniques could be identified. The barriers included limited capabilities and competence of healthcare practitioners in PRA methods and the awareness of such methods. The methods applied in the case studies hospitals were typically structured, but not specifically recognizable as defined techniques (e.g. FMEA) described in the literature. In terms of organizational structures for the application of PRA techniques, two of the cases studies had policies and tools.

Discussion
A systematic literature review and three case studies demonstrated that the degree of maturity and engagement in the use of systematic PRA for understanding and preventing patient safety risks on a system level (e.g. upon the introduction of new equipment, work processes, new medications) varied. There was evidence of structured techniques, but not their systematic use and a disconnect between senior management and front-line staff was found. The awareness of PRA amongst front-line staff was low and implied that their engagement in such processes and understanding of their role and potential impact on patient safety in a broader system was limited. The focus of front-line staff was rather on patient specific risk assessments required by hospital policies and procedures (e.g. pressure ulcer risk, ASA scores), as opposed to a system level.
Quality & Safety in European hospitals (QUASER): A guide for senior leadership teams to help improve and sustain hospital quality

Naomi Fulop, Janet Anderson, Glenn Robert, Susan Burnett, Roland Bal, Karina Aase, Boel Andersson-Gare, Francisco Nunes

1 King’s College London, United Kingdom, 2 University College London, United Kingdom, 3 Imperial College London, United Kingdom, 4 Erasmus University, The Netherlands, 5 University of Stavanger, Norway, 6 Jonkoeping Academy for Improvement of Health and Welfare, Sweden, 7 ISCTE, Portugal

Context
Organisational and cultural factors are important in understanding how to implement and sustain quality improvement initiatives in hospitals, but to date have not received as much attention as they deserve. In this presentation we will present the main output from the three-year QUASER project: a guide for senior leadership teams to help improve hospital quality, addressing both the organisational and cultural influences on hospital quality. The guide has been developed from a multilevel translational study in ten hospitals in five European countries - Netherlands, Sweden, Portugal, England and Norway.

Methods
The national policy and social context of healthcare (macro level), the dynamics and processes in hospitals (meso level), the frontline clinical work in specific units (micro) and the interactions between these levels were studied. The aim was to understand these multiple influences on hospital quality improvement. A systematic analytical process was then used to translate this knowledge into a practical Guide for hospital managers. Stakeholder feedback was incorporated into this design process on an ongoing basis to ensure that the resulting guide would be usable and relevant to the needs of hospital managers.

Results
The QUASER guide takes the form of an evidence-based tool that senior leadership teams in hospitals can use to identify where the strengths and possible weaknesses in their organization’s quality and safety improvement efforts may lie, and what they may need to do to address the latter. The guide is intended as a reflective tool which prompts senior leadership teams to collectively think about their quality improvement challenges and to plan actions. Having helped leadership teams to answer these questions the guide provides some suggested strategies for how a hospital could be better organised in order to deliver high quality and safe services. It then provides examples from hospitals that have already implemented these strategies elsewhere in Europe. The guide is structured around 8 common challenges that hospital managers face when improving quality: emotional, cultural, political, structural, leadership, external context, physical and technological, and educational.

Discussion
Translation of quality improvement knowledge into practice has generally not addressed organisational and cultural factors. This multi-level (macro, meso-and micro system) analysis of healthcare quality policies and practices in 5 European countries can provide strategic and practical guidance for both health care policy makers and hospital practitioners in Europe. The Guide assists managers to create organisational structures and cultures that support quality improvement efforts. Tensions, organisational pressures and competing demands all constrain quality improvement and the Guide helps managers to reflect on and discuss these issues.
Hospital-acquired infections in Belgian acute-care hospitals: burden of disease and potential cost savings

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1Ghent University, Belgium, 2SBD Analytics, Belgium, 3Pharma.be, Belgium, 4IMS Health, Belgium, 5Vrije Universiteit Brussel, Belgium

Context
Hospital Acquired Infections (HAIs) are considered to be one of the most serious patient safety issues in healthcare today. It has been shown that HAIs contribute significantly not only to morbidity and mortality, but also to excessive costs for the health care system and for hospitalized patients. Since possibilities of prevention and control exist, hospital quality can be improved while simultaneously the cost of care is reduced. The objectives of this study were to examine the prevalence and the excess costs associated with HAIs.

Methods
A retrospective observational study was performed to estimate costs associated with hospital-acquired infections in Belgian hospitals, both in procedural admissions and in medical admissions. Hospital, diagnosis-related group, age and gender were used as matching factors to compare stays associated with HAIs and without HAIs. Data were obtained from the Minimum Basic Data Set 2008 used by Belgian hospitals to register case-mix data for each admission to obtain reimbursement from the authorities. Data included information from 45 hospitals representing 16,141 beds and 2,467,698 patient stays. Using the 2008 national feedback programme of the Belgian government, cost data were collected (prolonged length of stay, additional pharmaceuticals and procedures) and subsequently linked to the data set. By means of a sensitivity analysis we estimated potential monetary savings when a reduction in the incidence of HAIs in hospitals having a higher rate of hospital-acquired infections in comparison to other hospitals would be realized.

Results
In our sample 5.9% of the hospital stays were associated with a hospital-acquired infection. The additional mean cost of the hospital-acquired infection was € 2,576 for all stays and € 3,776 for procedural stays (P<0.001). The burden of disease in Belgium is estimated at € 533,076,110 (all admissions) and € 235,667,880 (procedural admissions). The excess length of stay varied between hospitals from 2.52 up to 8.06 days (Md= 4.58, SD= 1.01), representing an associated cost of € 355,060,174. The cost of additional medical procedures and additional pharmaceutical products was estimated at € 62,864,544 and € 115,151,939. We provide a full overview of the potential monetary savings when reductions in HAIs are realized by applying different thresholds. For instance, if all Belgian hospitals having a higher rate of hospital-acquired infections improve their rate to the level of the hospital corresponding to percentile 75 (= 7.5% HAI) savings would be € 17,799,326.

Discussion
Since opportunities in prevention and control exist, HAIs are an important possibility to improve hospital quality while simultaneously the cost of care delivery is reduced. In this report, we estimated the burden of hospital-acquired infections from a public healthcare provider's perspective. Many western countries are seeking ways to improve cost-effectiveness of hospital care delivery by increasing provider accountability. While this is a valuable avenue for policy improvement, not all HAIs are preventable and therefore shifting all risk to providers seems not desirable. Furthermore, excess costs estimated for HAIs should definitely not be interpreted as financial resources which would become available in the short term. Cost savings realised could be used to install supportive policy measures to increase the knowledge and practice of HAI prevention, thereby improving quality and safety of hospital care delivery.
Table 1: Descriptive of the additional costs associated with HAI of all admissions

<table>
<thead>
<tr>
<th></th>
<th>Length of Stay (EUR)</th>
<th>Pharmaceuticals (EUR)</th>
<th>Procedures (EUR)</th>
<th>Total Cost (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average cost HAI</td>
<td>1,574.46</td>
<td>271.07</td>
<td>499.60</td>
<td>2,345.11</td>
</tr>
<tr>
<td>Average weighted cost HAI</td>
<td>1,616.95</td>
<td>286.65</td>
<td>524.26</td>
<td>2,427.86</td>
</tr>
<tr>
<td>Minimum cost HAI</td>
<td>936.95</td>
<td>133.41</td>
<td>268.59</td>
<td>1,380.50</td>
</tr>
<tr>
<td>Median cost of HAI</td>
<td>1,571.86</td>
<td>264.58</td>
<td>491.78</td>
<td>2,358.86</td>
</tr>
<tr>
<td>Maximum cost HAI</td>
<td>2,424.56</td>
<td>454.23</td>
<td>795.01</td>
<td>3,638.69</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>323.78</td>
<td>77.08</td>
<td>123.14</td>
<td>516.71</td>
</tr>
<tr>
<td>Total calculated cost Belgium</td>
<td>355,060,174</td>
<td>62,864,544</td>
<td>115,151,393</td>
<td>533,076,110</td>
</tr>
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</table>

Table 2: Descriptive of the additional costs associated with HAI of procedural admissions

<table>
<thead>
<tr>
<th></th>
<th>Length of Stay (EUR)</th>
<th>Pharmaceuticals (EUR)</th>
<th>Procedures (EUR)</th>
<th>Total Cost (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average cost HAI</td>
<td>2,309.85</td>
<td>501.30</td>
<td>926.93</td>
<td>3,738.07</td>
</tr>
<tr>
<td>Average weighted cost HAI</td>
<td>2,311.37</td>
<td>508.45</td>
<td>946.20</td>
<td>3,766.02</td>
</tr>
<tr>
<td>Minimum cost HAI</td>
<td>598.99</td>
<td>122.54</td>
<td>247.03</td>
<td>968.56</td>
</tr>
<tr>
<td>Median cost of HAI</td>
<td>2,271.71</td>
<td>517.85</td>
<td>911.98</td>
<td>3,666.00</td>
</tr>
<tr>
<td>Maximum cost HAI</td>
<td>3,842.43</td>
<td>868.44</td>
<td>1,640.41</td>
<td>6,351.28</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>595.95</td>
<td>154.15</td>
<td>271.92</td>
<td>1,008.45</td>
</tr>
<tr>
<td>Total calculated cost Belgium</td>
<td>144,648,511</td>
<td>10,961,928</td>
<td>59,245,665</td>
<td>235,667,880</td>
</tr>
</tbody>
</table>
Emergency flow as the driver for enhanced patient safety and hospital process quality

Patrick Betz  
University of St. Gallen, Switzerland

Context
Emergency departments are the calling card of a hospital. They contribute significantly to the formation of a hospital’s reputation. Hotels know how much first impressions count. They care for their „reception desks“. As a footprint of the entire hospital, weaknesses in hospital organisation and management can be made visible in the Emergency Department. Emergency Departments need a professionalization. The emergency flow concept shows how the ED can be developed into a competence centre that meets today’s requirements far better than previous models.

Methods
The Emergency Flow Concept is based on the successful application of Lean Management principles to the emergency department. These principles are not new to health care and emergency management. Though, the principles applied in the concept do fit hospital singularities in a brilliant way as results show at the emergency departments in Biel and the University Hospital of Basle (Switzerland). Methods used for today’s ED analysis are: Gemba, Accompanying Observation, Waste Indication, Value Stream Analysis. Methods applied for the reengineering of the ED are: Patient First Approach, Value Stream mapping, Medical Team Evaluation and Fast Track. Methods applied for continuous improvement are: Rapid Process Improvement Workshops (RPIW), Emergency Improvement Process (NOVEP) and Andon.

Results
The concept is proven in Swiss and German University Hospitals leading to significant increase in patient safety due to reduced door-to-door time. This is often accompanied by the increase of patient (and family members) satisfaction. In addition, Time-To-Provider (TTP) is reduced to a large extent and the Left-Without-Being-Seen-Rate (LWBS) sees a decline towards 1%. As a result, complaints do no longer have to be top points on physicians’ and managers’ agenda.

Discussion
Competence to the front end: As Europe is not familiar with the nurse practitioner being the link between nurses and physicians; the implementation of the concept requires both well-trained and educated nurses and open-minded physicians willing to evaluate patients in a team that deserves its name. In addition, European Emergency Departments are widely seen as a place of education of younger physicians. It is too often that patients tell their stories to a number of physicians of all hierarchical levels. This is due to the fact that emergency departments as interdisciplinary and interprofessional melting pots often remain unmanaged.
Quality and safety in healthcare services: the case study of EOPYY-the biggest Greek healthcare purchaser

Aikaterini Fameli
Eopyy, Greece

Context
In February 2011, a unified primary health care system named "Hellenic National Organisation for the provision of healthcare services" -EOPYY was created by the merging of the four biggest health insurance funds - IKA, OAEE, OPAD & OGA. One of the central roles of EOPYY is that of health care services purchaser. EOPYY is contracted with healthcare providers (clinical doctors, laboratory doctors, diagnostic centres, rehabilitation centres and private clinics) and pays for their services to its insured people. For that reason a quality and safety programme that would cover the providing healthcare services seemed to be mandatory.

Methods
EOPYY in order to ensure that the care provided by healthcare providers is safe, effective, well-coordinated across different providers and settings, transparent and reliable regardless of geography, race, income, language, or diagnosis introduces a new quality programme. At the first stage, all the contracted laboratory doctors and diagnostic centres should be evaluated according certain quality parameters. Quality of results and diagnosis, laboratory accreditation, level of technology, external quality evaluation are some key indicators that are used for this quality categorization. Future quality revision will be implemented by EOPYY to compare the different providers and payment for performance might follow.

Results
A necessary quality and safety framework that would promote equity, affordability, sustainability and efficiency was launched by EOPYY, creating the base so that all its contracted healthcare providers follow a Quality system. EOPYY's vision is to focus on the insured citizen deliver health care services that would be adherent to an evidence base and results in improved health outcomes with an effective and efficient manner, by avoiding waste and minimizing malpractice, risks and harm to service users. Even if the quality programme has just started, it has already gained many allies.

Discussion
Eopyy's quality assurance programme uses quality measurement as a tool to support quality improvement programs, improve transparency, and enhance value, ultimately resulting in better care. In the future, with an emphasis on viewing quality of care across all the healthcare providers - primary or secondary -public or private will embody the healthcare quality and safety programme to all its entities.
Parallel Session: Operation Management

Thursday 27 June 2013, 15.50-17.30
Improving efficiency and client-orientation in intramural mental health care: how modularity can help

Bert Meijboom1, Rutger Soffers1, Jos van Zaanen2, Christina vd Feltzt1,2
1Tilburg University, The Netherlands, 2CGZ Breburg, The Netherlands

Context
In the Dutch mental healthcare sector clients need to become self-supporting to the maximum extent possible. This necessitates making the care they receive intramurally more customized and less patronizing, which in turn should realize cost savings. This paper focuses on ALFs (Assisted Living Facilities; mostly group accommodations with a shared living room and sanitary facilities; represent 40% of the Dutch mental healthcare intramural capacity). In ALFs residential care is provided: help with activities of daily living and coping with mental ailments. The challenge of providing (even more) tailored care while achieving cost savings can in theory be addressed by modularity.

Methods
First, a literature study was conducted to construct a conceptual framework on healthcare modularity comprising modular service architecture, service customization process and several types of interfaces, among components and people. For empirical research, we selected a centre for psychosis in the south of the Netherlands that was populated by clients with chronic psychosis, and had a long-standing tradition of residential care that could serve as a basis for an in-depth case study. We operationalised the constructs from our conceptual framework in a topic list, according to which semi-structured interviews were conducted. Besides, documents were analysed and field trips were organized to observe and experience working processes to facilitate a process of triangulation. Interviewees were selected using purposive, heterogeneous sampling, to make sure that persons from various functions within the selected ALF were selected that could provide the desired information and to touch upon all particularities of the case.

Results
The residential care delivered by the ALF has been analyzed in terms of our conceptual framework. Concerning modular service architecture, we found that the majority of the residential care can be decomposed in service modules that in turn can be grouped in service bundles and sub-bundles based on their function. The care offerings were not yet clearly organised, however, it has become clear that they can be organized in a modular way. The service customization process is sufficiently fit to apply modular thinking and several types of interfaces are abundantly present, even though there is room for improvement with respect to both things. Also, the service customization processes of various ALFs can differ on details but will probably be similar on the big picture. The same goes for interfaces: some of the identified mechanisms will be different for different ALFs; others (for example, the legally prescribed care plan) will not.

Discussion
Research on modularity in mental healthcare is very rare; in particular the applicability to residential care provided is yet to be researched. The modular healthcare prerequisites distinguished in our framework are mostly satisfied in our typical case. Hence, modularity can (conceptually) help this ALF to tailor their care in line with the contemporary societal requirements. However, one should keep in mind the specific characteristics of the investigated case when applying these results to another case. As an experiment, modularity could actually be implemented in a certain ALF, to test whether the concept actually is effective in tailoring mental healthcare while achieving cost savings. This study also provides some leads for theory building. First, it provides a first corroboration of the scarce theory on
healthcare modularity in mental healthcare. Second, our research gives more insight in the manifestations of different interface types and in circumstances influencing the relevance of each type.
Organizational impact of technological innovation in healthcare: the case of Transcatheter Aortic Valve Implantation (TAVI)

Marta Marsilio1, 2, 3, Aleksandra Torbica1, Stefano Villa1
1Bocconi University, Italy, 2University of Milan, Italy, 3Catholic University, Italy

Context
The increasing pace of innovation in the medical device (MDs) sector puts increasing pressure on the hospitals to enhance the rationality for adoption of technologies. Moreover, introducing innovative MDs into clinical practice has wide-ranging implications for the organization of production processes. The organizational impact of MDs is frequently overlooked by the current evaluation frameworks, mainly due to the lack of appropriate methodologies capable of taking account contextual organizational considerations. The study aims to: 1) develop a theoretical framework to assess the organizational impact of technological innovation in hospitals; 2) understand the most relevant organizational consequences of technological innovation in hospitals.

Methods
The theoretical framework has been developed following an iterative process where the results of literature review and interviews to key industry and hospital players helped the researchers to refine the theoretical categories. An innovative, arguably the fastest-growing technology in cardiology, has been selected as case-study: the introduction and implementation of Transcatheter Aortic Valve Implantation (TAVI), a new non invasive method for the treatment of Aortic Stenosis. Data collection was performed through an embedded multiple case design, including process mapping and semi-structured interviews in four cases (hospitals), selected on the basis of volumes of TAVI procedures, ownership (private and public), level of specialty (general hospitals vs. greater specialization in cardiology) operating in Italian NHS. The interviews were conducted with target specialist group: cardiac surgeons, cardiologists, technicians and nurses. The interviews and additional material was analysed with NVivo software (approximately 400 pages of interview material).

Results
The theoretical framework has been developed across four main dimensions:

- Human resources (culture, training, team work, relationships between different professionals, competencies and roles)
- Production process (patient pathway, flow and activities)
- Logistics and production platform (facilities, lay-out and location, technology, capacity planning)
- Organizational context (organizational structure, information systems, planning and control systems, career paths and remuneration)

This is the first empirical analysis aimed to estimate organizational impact of TAVI in hospitals adopting the innovation. The identified theoretical framework appears valid and appropriate to estimate the organizational impact of TAVI. The content analysis performed on almost 30 interviews to targeted professionals outlined that the main organizational consequences of technological innovation are

- Creation of multi-disciplinary teams (e.g. hard team);
- Change in the planning and organization of production platforms (e.g. operating rooms);
- Organization of training sessions.

Main results are summarized in Table 1.

Discussion
Organizational impact of TAVI mainly depends on the equilibrium (or lack of) between two specialties involved—Cardiology and Cardiac Surgery: collaboration of the Heads is of pivotal importance for successful implementation of different organizational arrangements and training of professionals involved. Although hospitals adopted different organizational arrangements, there is no clear pattern between these decisions and different ownership structures. TAVI as an example of technology that provides incentives for Departmental structure (Cardiology Department that includes Cardiology and Cardiac Surgery). The analysis outlined two critical open issues:

The TAVI procedure calls for the development of new competencies crossing the two specialties (e.g. hybrid doctor) that need to be taken into account in the definition of medical curricula;

The TAVI implementation has been possible thanks to clinical collaboration. It is then important to support this collaboration also through formalized organizational mechanisms in order to prevent conflicts that need to be anticipated and managed.

### Table 1

<table>
<thead>
<tr>
<th>Case 1</th>
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<th>Case 3</th>
<th>Case 4</th>
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<tbody>
<tr>
<td><strong>Key actor in TAVI adoption</strong></td>
<td>Heads of Cardiac Surgery and Cardiology Unit</td>
<td>Head of Cardiology-Hemodynamics</td>
<td>Head of Cardiology Unit</td>
</tr>
<tr>
<td><strong>Responsibility in TAVI patients management</strong></td>
<td>Co-shared between Cardiology and Cardiac Surgery</td>
<td>Hemodynamic’s clinicians + nurses</td>
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</tr>
<tr>
<td><strong>Multidisciplinary team components and activity</strong></td>
<td>TAVI implementation: Cardiac surgeon Cardiologist Anesthesiologists OR nurse Technician Echographist Perfusionist (OR procedures)</td>
<td>Hard Team (patient assessment) Cardiac surgeons, Hybrid doctor, Cardiologists, Echo cardiographist Multidisciplinary team (TAVI implantation) 1 cardiologist (+ 2 other training), 1 cardiac surgeon, 1 hybrid doctor (cardio surgeon specialized in TAVI – 80% of 1 his FTE), 8 Nurses hemodynamic dept 3 Radiologists member of cardio-vascular dept</td>
<td>Hard Team (patient assessment) Cardiologists (head of unit + 2 assistant) - Cardiac surgeon (head of unit) -Anaesthetist (head of unit) Multidisciplinary team (TAVI implantation) 3 cardiologists - 1 cardiac surgeon 2 nurses</td>
</tr>
<tr>
<td><strong>TAVI clinical pathway</strong></td>
<td>Formalised</td>
<td>No formalization</td>
<td>No formalization</td>
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<td><strong>Production platform</strong></td>
<td>1. TAVI ambulatory for screening and diagnostics</td>
<td>1. Aortic stenosis ambulatory for screening and diagnostics 2. Echo – managed by cardiologists + TAC from Diagnostic dept</td>
<td>1. No TAVI ambulatory 2. Echo – managed by cardiologists + TAC from Diagnostic dept</td>
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<tr>
<td>1. <strong>Screening</strong></td>
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Process analysis of a multimodality treatment of cervical cancer: variations on a common theme

Melissa De Regge\textsuperscript{1,2}, Paul Gemmel\textsuperscript{1}, Louke Delrue\textsuperscript{2}, Gert De Meerleer\textsuperscript{2}, Philippe Duyck\textsuperscript{3}
\textsuperscript{1}Ghent University, Belgium, \textsuperscript{2}Ghent University Hospital, Belgium, \textsuperscript{3}General Hospital AZ Nikolaas, Belgium

Context
Hospitals aim towards more process-oriented service-line organizations\textsuperscript{1}. This requires rethinking of today’s hospital business model. ‘Focused’ delivery systems have been proposed concentrating on patients with high degree of uncertainty in care delivery (‘solution shops’), focusing on patient paths with limited amount of uncertainty (‘value adding process business (VAP)’), and focusing on integrated care for chronically ill patients (‘facilitated networks’)\textsuperscript{2}. Uncertainty, reflected in the amount of variability, seems to be an important variable\textsuperscript{3}. However the question remains how these business models must be organized and how the best fitting business model is determined.

Methods
We investigated how the nature of illness influences the care process and the related procedures, resulting in more variability in the patient delivery path. For this pilot study a severe illness with a standardized procedure (protocol) was chosen to clearly understand how the nature of the illness can lead to variation in the procedure used. Data were collected in a Belgian University hospital between January 2007 and January 2010. Forty-one patients with primary irresectable locally advanced cervical cancer were treated with multimodality, multidisciplinary treatment (chemo-radiotherapy-hysterectomy). Only those patients with similar outcomes, i.e. disappearance of the tumour and total restoration of the normal cervix anatomy, were finally included in the study. Six Sigma methodology was used to define, measure and analyse the process. The process flow (till one year after diagnosis) was complemented with an in-depth analysis.

Results
Thirteen of the 41 patients were included. A standardized process flow could be mapped (figure). All patients needed follow up for urology, due to the nature of the illness, but this was done on different points in the process and therefore was not mapped in the standardized process flow. In-depth analysis showed that additional investigations (eg radiology, blood test), interventions (eg. catheterization, dialysis) and consultations (eg. gastro-enterology, infectiology) due to complications of the procedure and severity of illness were necessary in 9 of the 11 cases. Large fluctuations of interventions, consultations and investigations were measured. All these fluctuations could be attributed to clinical causes. More consultations and investigations were correlated with higher number of admissions(r=0.782, P= 0.003) and longer length of stay (LOS)(r= 0.660, P=0.019). Secondary analysis showed no relationship between internal diagnosis or diagnosis out of hospital and time between diagnosis and starting therapy (days) (P=0.621) or diagnosis and operation(weeks) (P=0.287).

Discussion
Due to the severity of illness, the variation in the care process was substantial, although a standardized process could be mapped. The process of each individual patient can be considered as a ‘variation on a common theme’ which should lead to a more efficient way of working. This variation should guarantee customization to the situation of the patient. Which is clearly determined by the nature and the complexity of the individual patient, involving additional resources and services which are not necessarily part of the standard procedure. But what is the added value of recognizing a common theme in processes? It should lead to a more efficient way of working without losing the ability to generate a customized outcome. The study also learns that it is not straightforward to divide hospital patients into standard processes (VAP) and more complex processes(Solution Shops). There is a quest
for customized VAP or more standardized Solution Shops. Modularizations seems to satisfy these requirements.4

Figure: Mapped process flow

References


Parallel Session:
What cost are we really measuring?

Friday 28 June 2013,
14.00-15.50
Patient level costing and information systems (PLICS): Does PLICS enable cost savings, service integration and better understanding of cost drivers in healthcare systems?

Sue Llewellyn¹, Naomi Chambers¹, Sheila Ellwood¹, Tony Whitfield³, Claire Yarwood⁴, Mahmood Adil¹,³, Chris Begkos¹, Chris Wood¹
¹Manchester Business School, United Kingdom, ²University of Bristol, Bristol, United Kingdom, ³Salford Royal NHS Foundation Trust, United Kingdom, ⁴NHS Commissioning Board, United Kingdom, ⁵Department of Health, United Kingdom

Context
The prime objective in implementing patient level costing and information systems (PLICS) is to better understand cost drivers. Such understanding is fundamental to day-to-day management and enhancing the quality and cost-effectiveness of hospital services. PLICS also illuminates the patient pathway and offers the ability to undertake a sophisticated analysis of individual pathways both within hospitals (from referral to discharge) and across a ‘year of care’ (for chronic conditions which cross organizational boundaries). Under UK Payment by Results (PbR) PLICS would enable payments to be made for care pathways and year of care, thus promoting integration of care across services and settings.

Methods
We surveyed Finance Directors at the entire population of UK secondary care hospitals (218 organizations) including acute, mental health, community and ambulance providers. We asked about the use of PLICS within hospitals including: whether it was used to work out whether cost was more or less than income received under the UK Payment by Results tariff; whether it was used to identify resource variation and, hence, cost between consultants and specialisms; and whether it was used to understand the relationship between cost and quality. We asked about the use of PLICS to understand possible costs savings from service redesign and integration including: moving services to primary care; and sharing services between hospitals to create centres of excellence. We also asked about whether hospitals shared their PLICS data. For those that did, we asked with whom they shared.

Results
Internal hospital use of PLICS:
- 88% use to work out whether cost was more or less than income.
- 68% use to identify resource variation and cost between consultants
- 85% do not use to understand the relationship between cost and quality, although some comment that they are ‘moving towards this’

Using PLICS for integration:
- Only 27% of hospitals use PLICS for any form of service integration e.g. to provide services across more than one hospital, to create centres of excellence, to form a network of providers, or a joint venture or similar. 29% are considering such use within the next 12 months.
- 85% of hospitals consider PLICS data commercially sensitive. Hospitals share PLICS data as follows:
  - 0% with patient groups
  - 82% with clinicians
  - 3% with commissioners
  - 90% with senior management / directors
  - 8% with governors
  - 13% with the Department of Health

Discussion
Our results indicate that PLICS data is mostly being used to serve the interests of individual hospitals through promoting cost efficiency within them to increase their income, rather than enabling service integration to increase productivity and enable cost savings for UK healthcare as a whole. This is disappointing in the sense that research shows that the possibilities for further cost efficiencies within UK hospitals are much reduced. Our results are, however, probably unsurprising in the context of UK government initiatives to promote competition through introducing more private sector providers into the publicly funded UK National Health Service. This market orientation is evident in our finding that overwhelmingly UK hospitals regard their PLICS data as commercially sensitive. The use of PLICS for service integration offers the best opportunities to improve the patient experience and enable increased healthcare productivity. Currently, in the UK, PLICS data is not being used to full advantage.
Culture and healthcare accounting: what reality are we measuring?

Iris Bosa¹, Ruth Ann Althaus²
¹University of Edinburgh, United Kingdom, ²Ohio University, USA

Context
This year’s EHMA Conference theme highlights the near-universal effort to manage healthcare costs. We have discovered, particularly in cross-national business dealings, that accounting is not a pure and objective science agreed upon by everyone. Furthermore, numbers are not neutral elements. They have a lot of ‘history’ influencing them and affecting the meaning people derive from them. If accounting arises from often-unexamined cultural, sociological and political roots, what reality does it reflect? How sure are politicians and healthcare managers that data used in cost decisions actually suggests the true cost of inputs and the financial and social value of outputs?

Methods
This study examined the research question, ‘How confident should economists, politicians, and healthcare administrators be that the reality reflected by accounting methods is correct?’ The study explored literature from the social sciences, accounting, and healthcare to determine the extent to which the cultural basis of healthcare accounting has been considered. This comprehensive review of literature examined 1) numerous studies addressing the cultural and political bases of accounting theory in general; and, 2) a smaller number of studies that looked at how the cultural underpinnings of accounting theory, practice, and regulation affect healthcare policy and healthcare organizations. Case studies of healthcare organizations and of individual and comparative national healthcare policy were examined, as well. Answering the primary research question also involved an examination of basic cultural beliefs about health and healthcare. Combined, the insights gained constitute a critical view of the interaction of culture and healthcare accounting.

Results
The literature clearly shows that accounting principles, regulation, and practice are firmly rooted in cultural and political foundations unique to each country. Research has drawn attention to the distinctiveness of healthcare accounting over the past decade, as well. Just emerging from these separate streams of research is consideration of how the cultural roots of accounting affect national policy and organizational decisions about delivery of healthcare. A few studies acknowledge national cultural individuality in the production and interpretation of accounting data, in general and in regard to healthcare. Some researchers have looked specifically at the development of healthcare accounting methods, particularly comparing development in capitalist schemes like the US with that in countries having national health schemes. A few studies have considered the need to reexamine the cultural roots of healthcare accounting to assure data supplied to decision-makers measures what it purports to measure.

Discussion
The recognized cultural bases of health and healthcare along with recent acknowledgment of the cultural roots of accounting theory, process, and regulation should force a reconsideration of what healthcare accounting actually measures and what it means. Previously unexamined questions become salient. Why were certain measures chosen for tracking? How and why they are manipulated and reported? How are reports interpreted? How do users apply what they think they see? Culture clearly pervades each of these answers. Research is just beginning to suggest new ways to add ‘cultural eyes’ in ‘accounting’ for costs, expense mapping, and interpretation of results. This study illustrates that economists, politicians, and healthcare administrators need to examine carefully whether the accounting methods in use reveal reality. Are the underlying cultural assumptions of accounting
correct and will they allow for innovation to reduce costs, improve quality, and assure ‘lean’ operation of both national schemes and healthcare organizations?
Appraising and generating social value in health programmes

Rebecca Malby, Duncan Ross
University of Leeds, United Kingdom

Context
Health systems face a variety of challenges in continuing to deliver high quality programmes and services in an era of austerity. Dominant conventional models focus on cost minimisation and efficiency, and economic tools such as return on investment. In our view, such approaches do not sufficiently reflect non-empirical considerations, for example how health organisations really improve people's lives. Nor do they capture the importance of process - the way work is done - to deliver outcomes. Relatively little focus has been paid to the assessment of value (as distinct from cost).

Methods
Our Fair Chance model is made up of four interdependent steps:

1) Determining Social Value: working with stakeholders to determine what it is intended that this programme or service does - what is the social value you are trying to create? Stakeholders are those providing, using, or influencing and shaping services. They are funders, commissioners and anyone else who can say 'yes' or 'no' to plans.
2) Measuring Impact Value: designing a process for determining what impact metrics are going to be gathered, and ways of capturing any unintended consequences of the programme.
3) Measuring Adaptability: measure how well you are working within the project in order to get the best possible outcomes.
4) Making Sense: interpreting the data to make sense of whether you achieved your intended outcomes, what unintended outcomes emerged, and how well you worked together. This generates a report on impact and creates options for the future.

Results
The approach has now been implemented in two organisations in the UK: Care for All (a Social Enterprise providing community services to vulnerable groups) and Leeds Partnerships NHS Foundation Trust (a large provider of specialist mental health and disability services), as well as members of our international network in China, India and South Africa. The practical experiences of implementing the method, learning, and application into improved service value will be shared.

Discussion
The approach that we have developed and applied in a range of settings allows the appraisal of social value across programmes and services. Using co-production methods that directly engage users, carers and staff in the process, a range of impact metrics are developed that genuinely reflects the breadth and complexity of the 'way of doing' that an organisation uses. Such a process itself amplifies outcomes and creates social value as it goes along. The method also enhances ways that organisations can generate more value through better organisational dynamics. This allows future initiatives to learn what really happen - how to create the conditions for better outcomes, and make adjustments to process and design in an ongoing process of knowing.
Parallel Session: Managing Demand Managing Access 2

Friday 28 June 2013, 14.00-15.50
Competition-exposed integration – an impossible composition?

Bengt Ahgren  
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Context  
Swedish health care, like many other health care systems, is in a constant development mode to meet never-ending demands for improved efficiency and quality. Competitive and integrative policies are for example concurrently introduced in Swedish primary care; citizens’ choice of primary care is launched while primary care is expected to integrate its activities with other providers for the creation of ‘local health care’. Competition has though a tendency fragment the provision of services. The aim of this study is therefore to explore whether or not these two strategies are compatible in practice.

Methods  
Group interviews were conducted at four locations in Sweden. The groups included persons aged between 20 and 45 years, 46 and 64 years and 65 years or over. The interviewees were living either in a big town or in a small community. Altogether, 21 randomly selected individuals participated in the group interviews. A deductive approach was chosen: six question topics were formulated with guidance from a theoretical framework about choice of care. The group interviews were thus semi-structured without any predetermined codes. Each group interview took between 1 and 1.5 h to complete. Moreover, the conversations were recorded and transcribed as verbatim reports. As a consequence of the deductive approach, directed content analysis was chosen for the analysis of the group conversations.

Results  
Choice of care is executed from the perspectives of being a prospective or current patient, which, in practice, imply choices are performed passive and active respectively. If the later group perceive interpersonal continuity, accessibility and demeanour of health professionals as favourable, they remain faithful to their actively chosen provider. The only condition that seems to trigger this group of patients to reconsider their choices is if they been the subject of bad manners. Those executing passive choices are less faithful to their original choice. When these former prospective patients, often younger persons, are in need of primary care they often disregard their choice if waiting times are shorter at other providers. This group generally prefer accessible service and seldom consider where it is provided. The group of passive choices also include citizens accepting suggestions presented by the authorities, founded on the conviction that “they know what is best for me”.

Discussion  
Many patients that have made active choices are thus faithful to their choices. This is rare in a consumer-market, which is characterized by high degree of exchangeability of providers; a condition which by and large corresponds with the attitude of those making passive choices. Nevertheless, a majority of patients stay with their choice of provider, often selected among a limited number of options. Moreover, health care providers and patients have long-term relationships, which is typical of a producer-market. In other words, if politicians strive for a competition-exposed primary care, the competition concept ought not to be founded on the theories of a consumer-market. The principles of a producer-market seem instead to be more applicable, which imply that providers will be competitive if they are able to build stable relations with their patients, which, in turn, facilitate for integrative arrangements among health care providers.
Doing evidence-based health service planning: how can we ensure access to the right care for the right patients? The case of glue ear

Laura Schang, Chiara De Poli
London School of Economics, United Kingdom

Context
Confronted with increasing financial constraints, health systems need to tackle unwarranted variation in medical practice to ensure better care at lower cost. However, evidence of variations is difficult to act upon for healthcare managers, due to the lack of an objective reference point against which to evaluate the appropriateness of relative rates of service utilisation. We use the case of glue ear to suggest a framework that enables planners to link information on the burden of disease and cost-effectiveness guidance to estimate an expected service volume to be offered in a local population and guide improvements in quality and access.

Methods
We explored the implications and feasibility of the framework through a case study on the insertion of grommets for glue ear in children in England. Although a common condition of early childhood, glue ear may, if left untreated, result in delayed development caused by conductive hearing loss. In England, guidelines by the National Institute for Health and Clinical Excellence (NICE) define clear criteria for offering grommets for glue ear as a cost-effective intervention. Nevertheless, this operation is characterised by substantial practice variation across the country. Based on epidemiological and clinical information on incidence and the natural history of glue ear, we modelled patient flow through the care system as a Markov chain. Our model replicates a process of diagnosis, watchful waiting, referrals and surgical treatment as recommended by clinical guidance and illustrates the number of children with capacity to benefit from grommets for glue ear in a given local population.

Results
We applied the model to North Central London and found that the observed number of grommets inserted in children was almost fivefold lower than the expected number of children with a capacity to benefit from grommets. If NICE cost-effectiveness guidance is accepted as a valid basis for defining who could benefit from grommets for glue ear and should hence be offered the intervention, this implies that health service managers need to consider whether all children with a capacity to benefit have access to the intervention. To explore potential deficits in quality and access, we modelled the expected service volume along the entire pathway. This structured the identification of possible sources of variations, in the sense of behaviour different from what can be expected based on clinical guidance, and provides a basis for managing variations along the care process.

Discussion
Improving access and quality to ensure better, quicker and lower cost healthcare requires a sound evidence base. An "evidence-based" framework for health service planning can address quality and access deficits by making explicit what level of service a health system would be expected to offer to patients if clinical guidelines were being followed. Such a framework does not provide the 'right' treatment rate, which will also depend on informed patient choice. However, it can provide a reference point to inform local planning and monitoring, and facilitate stakeholder dialogue about remedial actions to ensure appropriate care is offered to the right patients. Comparing observed and expected patient volume along the entire pathway will also help managers to open the "black box" of service delivery and understand at which stage of the care process variations occur in practice. This can inform targeted efforts to improve quality and access at system level.
Access to secondary healthcare in hospital district of Helsinki and Uusimaa

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Hospital District of Helsinki and Uusimaa, Finland

Context
Time limits for access to secondary health care are regulated by law in Finland (Health Care Act 1326/2010). Assessment of the need of care must begin within three weeks after the referral is received, required imaging and laboratory scrutiny must be carried out within three months after receiving the referral and care must start no later than within six months after the need of care has been noted. Time limits are shorter in psychiatric care of children and the young. Implementation of the law is supervised by National Supervisory Authority for Welfare and Health (Valvira) and Regional State Administrative Agencies.

Methods
The aim was to evaluate how the statutory time limits and regional equality in access to secondary health care has been realized and to sort out the services which have been acquired by the Hospital District of Helsinki and Uusimaa (HUS) to fulfil the statutory care guarantee in 2011-2012. Furthermore, the aim was to evaluate how HUS informs the public about the waiting times and the length of queues in its units and to evaluate how the information system meets requirements of the law. Data consists of follow-up data recorded in hospitals official management databases (HUS-ToTal and Ecomed) and the annual reports of HUS. National follow-up and comparison data of the care guarantee gathered by National Institute for Health and Welfare (THL) and the monitoring reports and judgments of Valvira were also utilized. Information was completed by consulting the management of the units.

Results
Processing time of referrals and waiting time of care varied considerably between specialities, hospital areas and hospital districts. Share of referrals processed too late was higher in HUS than in other university hospital districts. In HUS there were most difficulties in processing referrals in medical genetics, pain management, surgery, oncology and ophthalmology. As a whole, admission to the first appointment in outpatient clinic actualized better in HUS than in the other hospital districts but there were problems in many specialities. Few patients had to wait inpatient care over six months. The longest queues to inpatient care were in surgery, ophthalmology, ear-, nose- and throat diseases and neurosurgery. An average waiting time to the inpatient care varied considerably between different hospital areas and member municipalities of HUS. Information production and recording practices were inadequate and informing the public about realization of the care guarantee didn't meet the requirements of the law.

Discussion
More emphasis is given to realization of care guarantee but there are considerable differences in processing the referrals and in access to care both between hospital districts and between specialities and hospital areas within HUS. In HUS access to care has been promoted by doing extra work, utilizing service vouchers, outsourcing services and by developing performance procedures. Permanent improvement has not been achieved by these measures and the length of queues has remained at the same level during 2011-2012. Information production enables to monitor the actualization of care guarantee quite well. Shortcomings in the information system are related to realization of the psychiatric care of children and the young and to access to specific imaging and laboratory examinations and psychotherapy. Information production and informing of the realization of care guarantee don't give enough information to the public about the access to care and about the different alternatives to seek care.
Improving access and increasing quality through the creation of an Electronic Patient Record: evidences from two Italian Regions

Maria Cucciniello, Claudia Guerrazzi, Greta Nasi
Bocconi University, Italy

Context
The adoption of a shared information system that links multiple providers involved in the care processes of a patient during his/her life is considered fundamental to ensure continuity of care and enhance health systems effectiveness, through more integrated processes. At the basis of such a system there is the creation of a life-long Electronic Patient Record (EPR) that embeds all relevant episodes and information about a patient’s health history, which allows all the different healthcare providers to access information anytime. The paper will discuss the enabling conditions of the EPR emerged from the empirical analysis in two Italian Regions.

Methods
First of all the paper examines the relevant literature in order to define a theoretical framework for the analysis. Subsequently, the methodology used is the explanatory case study, which focuses on qualitative concerns. Two Regions were chosen: Lombardy Region and Veneto Region. They have been chosen because both of them are quite developed in ICT in healthcare, but they have reached their condition following different introduction processes. After choosing the Regions, we proceeded our research, based mainly on interviews and documentation analysis. Finally, in order to have a multiple sources of evidences, we proceeded to double-check the information obtained from several interviews we carried out and from the various documents analyzed.

Results
The two regions analyzed have similar goals in the adoption of electronic patient records, but undertake different processes for the implementation of the EPR system. The implementation processes adopted strongly differ in the enabling conditions. Summarizing, Lombardy Region considers the implementation of the EPR a core project of its activities to pursue health-related strategic objectives. The main findings show how a centralized planning activity at regional level, supported by an innovative project finance practice, based on pay-per-project outputs, and the operative contribution in project management of the regional in-house information technology company have been key to the deployment of the EPR. On the other hand, in Veneto Region the EPR is the final result of converging interests of the Healthcare providers, which needed to share data among them, realized thanks to their eHealth Consortium and its consolidated fund-raising system.

Discussion
In times of reducing public spending on health costs, an EPR which allows integration and data sharing across different health care providers, can be a successful way to preserve or even improve standards of quality and accessibility at healthcare system level. It is relevant to report that, in Italy, each region is characterized by a specific institutional and environmental context that gives rise to different enabling conditions in introducing an EPR. In this regard, this analysis provides some important indications on the possible enabling conditions mainly in terms of governance, financing system, capillarity, coordination mechanisms and architecture’s logic. This may be helpful to define a correct strategy in the EPR adoption, taking into account the specific context that characterizes each region.
Parallel Session:
Culture, Governance and Performance

*Friday 28 June 2013,*
*14.00-15.50*
How does the ownership style affect public hospitals on their operational efficiency?

Hiroshi Otake¹, Yoshinori Nakata², Eiji Kajii¹
¹Jichi Medical University, Japan, ²Teikyo University, Japan

Context
Healthcare expenditure grows continuously in developed countries. The budget to run public hospitals is the large burden for local governments. Most countries have tried to reduce this burden by improving efficiency. In 2003, Japan introduced the new ownership style, incorporated administrative agencies (IAA), to improve the hospital efficiency. This policy intended that the independency of hospital management would make public hospitals efficient like private hospitals. However, there is no evidence showing that IAA makes public hospitals more efficient. In this study, we investigated how the ownership style affects public hospitals on their efficiency

Methods
Using the input-oriented Charnes, Cooper, Rhodes model of data envelopment analysis (DEA), we studied the efficiency of public hospitals in Japan, which are divided into two groups; hospitals directly-managed by local government (DM hospitals) and hospitals run as incorporated administrative agencies (IAA hospitals). For DEA, we used four data sets as inputs of hospital operations; number of beds, number of clinical departments, full-time equivalents labour and operational expenses of each hospital, and used two data sets as outputs; number of patients discharged in a year and the average number of outpatients a day. Data were selected from the 2012 public enterprise yearbook published by Japanese Government and hospitals’ website. We compared DEA scores between the DM hospitals and the IAA hospitals using Wilcoxon rank-sum tests. A P-value less than 0.05 was considered statistically significant.

Results
We investigated all 237 public hospitals in Japan. Of those, 196 are directly-managed by local governments and 41 hospitals are run as IAA. To focus on general hospitals, we excluded the hospitals which disclose insufficient accounting data, have more than 20% of beds as non-acute beds, or have the number of labor more than twice as the number of beds. Finally, 143 DG hospitals and 30 IAA hospitals were included in the study. The median DEA score of DG hospitals was 0.828 (range: 0.172 - 1) and the median DEA score of IAA was 0.789 (range: 0.453 - 1). A P-value of Wilcoxon rank-sum test between those two groups was 0.227.

Discussion
IAA was introduced to make public hospitals efficient and to reduce the financial burden of local governments. The independency of IAA is considered to give its management the incentives to run public hospitals as efficiently as private hospitals. However, our investigation showed that there was no significant difference in technical efficiency between DG and IAA hospitals. We speculate that the introduction of IAA into public hospitals did not work as it had been designed. The limitation of this study is that there would have been a selection bias that less efficient hospitals chose to turn into IAA. We need further investigation to what kind of ownership style makes public hospitals efficient.
Possibilities for using group-analytic method and knowledge for the organizational consulting of health institutions

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¹University of Novi Sad, Serbia, ²Group Analytic Society Belgrad, Serbia, ³University of Novi Sad, Serbia

Context
Organization’s vision and mission are exposed to the influence of various external factors. The relations within the health organizations are a consequence of both the external factors and the internal norms. Human resources, equipment and facilities are basic elements of an organization. Further structuring depends upon the vision, mission aims, type, purpose, possibility, legal frame but there are some organizational segments that are not easy to formulate or analyse, and this part makes a matrix. It significantly influences the feelings of an individual within the organization as well as the image that the organization sends to the outer world.

Methods
The attempt is made to improve the health system using the method of the psychoanalytical and group-analytical approach to understanding the psychodynamics within the work process of institutions, organizations and society. The education is organized by the Section for psychoanalytic and group-analytic approach to understanding the psychodynamics of institutions, organizations and society, which is a part of the Group Analytic Society Belgrade. The entrance interview is obligatory and the education consists of: theory, supervision, experience in working in a small group-analytic semi-open group, social dreaming experience, experience in working in medium group-analytic group and two international educative workshops, as a facultative activity. Reporting on an organizational situation from the point of view of a leader, manager or HR representative or any other view or reporting on some other social group situation in which a trainee has participated in is discussed and linked to the theory and practice of this field.

Results
The complex relations within organizations and influence of external factors are important for efficiency and quality of health institutions, and for mental health of both health professionals and patients. The organization’s matrix is of great importance for its efficiency. Over 30 experts from the health system are being additionally educated in the field of organizational consulting organized by the Section for psychoanalytic and group-analytic approach to understanding the psychodynamics of institutions, organizations and society. The significant capacity for “healing” of health institutions is gained in such a way. Today the network of public health institutions in Serbia consists of over 150 primary health care institutions, over 40 hospitals, 30 specialized hospitals, 16 institutes and 4 clinical centres. Clinical centres as the most complex organizations with several thousand employees are undergoing organizational transition, which economically represents a difficult situation, and have extremely complex system of relations among individuals and groups.

Discussion
Due to the significance that health organizations represent to individuals, for its size, capacity and aim, it can be said that:

- Today, more than ever before, organizations represent a challenge when studying processes and dynamics within them is concerned

- Group analytic therapy can be further developed to research the psychodynamics of institutions, organizations and societies.
There is a significant interest among group analysts and other professionals as well for education in this segment in order to improve the relations in the organizations, groups and society in general.

Groups within health organizations have different levels of cohesiveness which mainly depends on the common aim and a motive deriving from it. Therefore, the research of group and subgroup characteristics within organizations is an important topic whose aim is to improve the management of health institutions which today can be candidates for the work improvement through the group-analytic organizational consulting.
National health reforms Australia - burden of disease; quality; and cost management

Mark Avery, Mindaugas Stankunas

1Griffith University, Australia, 2Lithuanian University of Health Sciences, Lithuania

Context
Australia is in the middle of a national reform programme for its health and aged care services sector. While new key national organisations and structures for workforce, quality and financing of systems go into operation in 2012/13 an important systemic reform is health system subsidiarity - giving planning, control and accountability to the local health professionals, community and consumer. The Australian reform agenda seeks to change the system to deliver better health and better hospital care. Hospitals, primary health care, aged care, mental health, national standards and system performance, health workforce, prevention health and eHealth are changing.

Methods
The aim of this presentation is to review the Australian reform agenda - an ambitious programme aimed at addressing major health system changes for an ageing population (22 million) and to address the burden of chronic disease. To this end the main policy and strategy actions, policy documents/decisions will be presented. Supportive statistical information will be obtained from Australian Institute of Health and Welfare and other research data. The reform agenda has developed from a number of foci including national longer term planning and federal and state political agendas: a national conference (Australia 2020 Summit, 2008), national planning (National Health and Hospitals Reform Commission, 2009) and inter-government agreement (Council of Australian Governments). Reform outcome success will be about linkage of health prevention and limitation of chronic disease; new networked structures; improved productivity and quality; and effective system leadership focused on local needs in national context.

Results
Implementation strategy has delivered new structural approaches to the Australian health system - national registration of health professionals; national standards and regulation; decentralised local hospital and health service organisations across the country; national activity based funding for public hospitals. Impact and effectiveness of the reform agenda will depend on distributed leadership and engagement; informing government, leaders and consumers; engaging clinicians; involvement of the whole systems - public, private and third sector; as well as including consumers and their families. Changes in health economies and local markets become key constraints while reform emerges. To achieve deep large system transformation effective management and realisation of these elements becomes key to the effectiveness of the national reforms.

Discussion
In this paper we present the background and development of the 2010-2014 Australian national health reform agenda and report on the effectiveness and acceptance of implementation activities. The traction, depth and effective outcome of reforms in the context of large system transformation is explored with the view of presenting strengths and action areas for the Australian reforms and there translation to other major health system reforms. A key aspect of the sustainability of the reform agenda and the resultant health system is the ability to change models of care, delivery approaches and funding requirements for primary health status and chronic disease so as to make inroads into the alleviation on the dependency on secondary and tertiary health service delivery.
**Strengthening health systems governance in Europe**

**Scott Greer**  
*University of Michigan, USA*

**Methods**  
A systematic review of literature on health system governance coupled with case studies of specific policy sectors in order to develop a diagnostic tool for when specific elements of health system governance could benefit from strengthening, and what that would mean. This paper reviews a large number of definitions of governance and good governance from international organizations (e.g. the European Commission, WHO, and UNDP) and academic literature (mostly public administration) to formulate the shortest list of mutually exclusive attributes of strong governance. It is then tested against difficult policy sectors, e.g. where governance, rather than finance, political will, or leadership are at the root of recurrent problems.

**Results**  
The paper concludes that transparency, accountability, participation, policy capacity and integrity, properly defined, are attributes of strong governance, and that there are clear policy instruments that can contribute to their strengthening in the context of European health systems.

**Discussion**  
Conceptualising governance not as a normative objective but rather as a set of organizational and policy attributes that ensure the effective development and implementation of policy- the organizational counterpart to democracy- clears away much of the arbitrariness and utopianism of governance discussions while incorporating the policy and contextual factors often missing in managerial discussions of good governance. It also makes it possible to develop a more finely grained diagnostic approach to governance problems, e.g. identifying what it takes to get “good enough governance” in a given country or problem policy sector, and the concrete policies that will produce more transparency, participation, accountability, capacity or integrity.
The influence of culture on performances: Evidence from a sample of Italian public health organizations

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Context
A general definition of organizational culture is "the way things are done around here". This concept is frequently used in the recent literature since it is increasingly recognized that structural change alone will not secure adequate and efficient responses in order to improve health care performance. Over the last thirty years important academic and managerial investigations have shown evidence that organizational culture is related to performance. The purpose of the study was to explore the relationship between senior management team culture and performance in Italian public healthcare organizations.

Methods
The assessment of senior management culture was accomplished through the use of an established framework: the Competing Values Framework. The study was conducted in five regions of Italy: Tuscany, Emilia-Romagna, Lombardy, Piedmont and Veneto. A questionnaire was sent to the Council of directors of Italian public healthcare organizations: this board is generally composed by Chief Executive Officer, Medical Director, Administrative director, Social Care Coordinator, Nursing Manager, Clinical Directors and Health District Directors. We considered different performance dimensions that we expected associated with specific dominant organizational cultures according to the evidence available in the literature. More specifically, we collected data on two organizational performance indicators that rank high in the priorities of both general managers and regions: a) net income without sterilization of depreciation; b) attractiveness in terms of proportion of patients hospitalized in an organization settled in a region different from the one in which they live.

Results
Valid responses were received from over 500 senior managers of 59 different healthcare organizations (about 53% response rate). Six organizations were identified as dominant clan cultures, four were dominant developmental cultures, twenty-one were rational cultures, and twenty-eight were hierarchical cultures. Such prevalence of hierarchical dominant culture belong to the prevalence of both internal orientation and organization of work based on mechanistic-type processes, strongly diffused in the Italian public sector and NHS. Results show that dominant rational and hierarchical culture types influence the two performance dimensions: attractiveness and financial results. The dominant Hierarchical and Clan cultures are associated with better financial performances (at the 90% and 95% confidence level, respectively) compared with the dominant Rational culture. The dominant Rational culture is consistently associated with better results on attractiveness when compared with the other organizational culture types.

Discussion
The fact that rational cultures are associated with lower financial results can belong to the general orientation of the senior management team towards achieving a full range of different targets (clinical, quality, satisfaction, etc.). On the contrary, hierarchical cultures are primarily concerned with the financial soundness and senior management team is willing to cope fully with formal regulations of austerity. The superiority of Clan-based health organizations can be explained with the fact that any symptom of financial crisis can put in danger their autonomy and such organizations generally try to avoid external control by complying with financial targets. The results confirm the idea that good competitive performances (attractiveness can be considered a proxy of it) are better supported by a
rational culture open to meet external demand and to face external competition, and keen to use strategic decision-making methods and tools.
Parallel Session:
Patient empowerment

Friday 28 June 2013,
14.00-15.50
Integration through collaboration: (Re)designing preventive healthcare services with community representatives to increase foreign-born women's participation in a cervical cancer screening-programme in Sweden

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Context
In the northeast part of Gothenburg almost 50 percent of the 100 000 residents are foreign-born. Poverty index is higher in this part of the city than in the rest of the country and the health status among the citizens is lower. In Sweden, organized cervical cancer screening was implemented in the mid-1960s and since then the screening-programs have proved to reduce the incidence of cervical cancer. However, in the northeast part of Gothenburg the participation rate in the screening-programme was significantly lower than in the rest of the city.

Methods
Two focus groups were held with the community representatives, speaking around ten languages between them. The first interview was conducted prior to the interventions and focused mainly on barriers for participation as well as potentially successful interventions to increase participation. The second focus group discussion was conducted in a more evaluative manner, focusing on the representatives' experiences in meeting the women in squares and public places as well as their collaboration with healthcare personnel, mainly midwives. This second focus group discussion also dealt with what the representatives had learned during the interventions. Data was also collected through field notes, diaries and statistics to evaluate the interventions.

Results
During the intervention year participation in the area increased by 42 percent. Many of the identified barriers in the first focus group discussion were confirmed by the representatives in the second focus group that took place after the interventions. The focus on orally spread information and information given by key actors sharing cultural background seemed to have been important interventions in this project. A positive effect of the representatives' participation in the programme was that the community got involved. They also included their existing network, e.g. by making shop-owners and associations “partners”. The representatives were positively embraced by the community members and took a lot of pride in the positive results. They reported that the experience had made them more confident and that they had learned a lot themselves. Their sense of contribution and feeling of playing an important role in the healthcare system was evident.

Discussion
Collaborating with community representatives when identifying barriers of healthcare services is a necessity in order to (re)designing culture specific interventions likely to meet the different needs of the local population. Collaboration should not stop there, participation when executing the interventions should also involve the representatives. Doing so, information may better be suited to meet their cultural expectations. The information flow is also at the input of the healthcare providers', providing them with knowledge about topics where knowledge is lacking. The community members involved may benefit from such participation themselves, e.g. increased confidence, a sense of playing an important role, as well as acting as a bridge between healthcare providers and receivers. Focusing on word-of-mouth communication has proved to be successful - the participation rate in the screening-programme continued to increase even after the year of the interventions.
Integrating the patient perspective into product and service development

Elaine McNichol
University of Leeds, United Kingdom

Context
Securing the patient perspective in healthcare is a central theme of health policy in many countries (Coulter 2011). The patient perspective offers a valuable untapped resource for helping to address the challenges of better, quicker, lower cost health services.

Two collaborative projects between higher education, industry and health service providers have been undertaken to develop appropriate methodologies for integrating the patient perspective into service and product innovation so that it becomes as integral to practice as financial costings and a marketing strategy. This paper will present an overview of the projects, the methodologies used and the emerging framework.

Methods
The two collaborative projects developed complimentary but different approaches to integrating the patient perspective. They began from a common value that they lived expertise of patients provides a different but equally valid expertise to that of the professionals (Elberse et al 2012). Project one established a Patient Reference Group. This group received some training and development and has since met on six occasions with an international wound care company. They have reviewed products that are in the development process providing feedback on issues such as the design and usability of the product. Project two involved accessing a patient community with the shared experience of Reflux and interviewing them when they attended for clinic appointments. The aim was to understand their journey from initial symptoms through diagnostic interventions and treatment to understand the broad impact of that experience on their life. Digital stories of the patient experience were then produced.

Results
All partners reported benefits from the project. The healthcare industry and providers both reported the value of patient feedback with the added context that came from face: face discussions. Issues they were aware of but not prioritised became more apparent when described by a patient. Having looked at the themes arising from the interviews, one hospital site has established a Patient Support Group. Those patients whose involvement was for more than one session, all reported feeling listened to and through the feedback they received could see that their opinion had resulted in changes. The process of involvement had for some, left them feeling empowered and motivated to become more involved. They gained from being in a group of people with a similar condition and hearing how they lived with the challenges that arose. The digital stories are available via the internet and are available for use in teaching healthcare professionals.

Discussion
The changes and initiatives that have resulted from these projects demonstrate the value of having the patient perspective as an integral part of product and service development. It is an extension of the principle of multi-disciplinary and cross sector working - that patient care (whether through direct or in-direct initiatives) is improved if all relevant parties are involved. Professional experts can provide the facts and figures, but the added value that brings an issue to life is the credibility that comes from a patient story, told by the patient themselves - it motivates people to be creative and find solutions. The challenge is how to engage with the organisations to integrate the patient perspective into the infrastructure and culture of working so that it is a meaningful and positive experience for everyone.
Patient Involvement: Marketing factor and motor for quality and process-efficiency

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¹CKM - Center for Hospital Management, Germany, ²St. Antonius-Hospital, Germany

Context
The use of innovative surgical techniques like intuitive surgery robot devices (daVinci) used for performing radical prostatectomies offers a qualified medical treatment but implies also broad reorganisational initiatives concerning working processes and training programs. Aim of these activities is to recognise and to eliminate possible patient and cost risks in pre- and perioperative treatment processes at an early stage. This is eminently important for cross-border treatment of patients (in this case the Euregional area).

Methods
On the basis of a generic process analysis in connection with an FMEA (Failure Mode and Effect Analysis) risks in the clinical treatment process were determined and evaluated according the patient’s state of health and the costs. Not or too late recognised cardiac problems of patients are identified to be the number 1-driver for causing process inefficiencies. To increase the patients' compliance and to simultaneously decrease the costs of error prevention, a questionnaire for patients was developed to determine the patients' knowledge about cardiac problems in three areas: own perception, medical history (diseases, performed diagnostics and therapies), lifestyle (risk behaviour, motion).

Results
Based on a sample of 620 patients, there was evidence that the systematic involvement of patients in the preoperative diagnostic process reduced the number of shifts and break-off situations of operations significantly.

Discussion
Gaps in preoperative diagnostic data of prostatectomy patients cause postponements of elective interventions; in some cases a break-off situation in the OR is necessary. As a consequ-ence avoidable costs increase (by inefficient utilisation of the operation theatre), risks for patients come up (especially when there are evident cardiac insufficiencies) and negative communication of annoyed patients (waiting times, psychological strain) contribute to worsen the hospital image. Using a questionnaire which is understandable for non-health professionals as a "guided laymen self-diagnostics" is an element of a holistic OR management and contributes to an increase in patient compliance, patient satisfaction and also to the willingness to recommend the all-over performance of this hospital to other people in the community (= marketing effect).
Empowering the Patient: antecedents and consequences from a systematic literature review

Lia Paola Fumagalli, Giovanni Radaelli, Paolo Bertelè, Emanuele Lettieri, Cristina Masella
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Context
Patients are increasingly encouraged to be more active in and informed about clinical decision-making. Such attention has led to an explosion of definitions and interpretations that generate a fuzzy conceptualization of what "patient empowerment" means and how it can be fostered. Practitioners are, in fact, confronted by conflicting information on the factors and interventions that are best suited to empower patients. This work addresses this gap by mapping the field on "patient empowerment" and proposing (1) a shared definition that can solve the existing tensions in the literature; (2) a comprehensive framework of the antecedents and consequences of "patient empowerment".

Methods
We implemented a systematic review of contributions associated to "patient empowerment", and neighboring concepts (i.e. patient activation, engagement, enablement, involvement). We implemented a keyword-based strategy that collected contributions published in PubMed database in the 1990-2012 timespan. We selected both conceptual and empirical contributions. The inclusion criteria required an attention to at least one of the following aspects: definitions, scales, antecedents and consequences of empowerment-related concepts. The search strategy allowed the identification of 231 articles which were classified and analyzed according to their definitions, fields of application and evidence on health outcomes. In particular, 85 out of 231 scientific studies reported measurement methods and it was possible to identify 7 main scales whose items were analyzed and compared to possibly identify a measurement scale that could fit the emerging conceptualization of "patient empowerment".

Results
The literature offers no dominating interpretation of "patient empowerment", but different definitions and conceptualizations that focus on a subset of aspects. In order to reconcile these fragments, we propose an inclusive definition of "patient empowerment" (included in the full paper). Based on this definition, we could recognize a comprehensive set of antecedents that refer to: (1) the knowledge, skills and individual capabilities that are relevant for self-management and (2) the emergent states, processes and behaviours that lead patients in empowering and empowered conditions. The review allowed disentangling patient enablement and engagement as two primary inputs for patient empowerment, and identifying the relevant interventions that belong to each category (included in the full paper). Likewise, it was possible to disentangle a number of outcomes that should be expected from patient empowerment - patient involvement being the most relevant one. Finally, activation quite similar to empowerment, but less generic, was considered as its subset.

Discussion
The aim to achieve "better, quicker and lower" services depends on a stronger evolution for patients - from passive recipients of treatments to active players in prevention and follow-up. Clarifying the notion of "empowerment" is thud a necessary first step for a proper identification and design of interventions that could attract patients' attention and involvement. Our contribution adds to our understanding of the topic in two ways. First, it disentangles concepts (engagement, enablement etc.) which have been typically treated as synonyms, causing multiple ambiguities to policy-makers and providers. Our review allowed instead recognizing the boundaries between these concepts and how they related to each other (cf. Figure 1). This conceptual framework guided a comprehensive identification of the interventions/conditions that can help achieving the expected results. Such
knowledge is currently implemented in the EU project "PALANTE" to assess the role of e-Health platforms on patient empowerment and outline possible corrective interventions.
Poster Sessions:

Thursday 27 June 2013, 15.20-15.50
&
Friday 28 June 2013, 10.30-11.00
An extra organizational mentorship pilot for Canadian Health Leaders

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Context
A mentoring pilot is aimed at providing solutions for both sectors by strengthening leadership development and accelerating relationships between organizations from the other sector. The extra organizational mentoring programme represented participants from Roche Canada, private sector, and hospitals, public sector, whose participants¹ are members of the Canadian College of Health Leaders. The pragmatic process and demonstrable success of the program has influenced the development of other mentorship initiatives. Extra ororganizational mentoring should be encouraged and actively developed with other health organizations.

Methods
Subjects were emerging and existing health leaders in the Canadian healthcare system. Half the population was from the public sector in hospitals across Canada. The other half was from the private sector all represented by Roche. Most senior hospital leaders and Roche are members of the Canadian College for Health Leaders (CCHL), an association established to provide leadership development for Canadian health leaders. Roche initiated matching schema with identified hospitals for the formal, voluntary mentoring programme endorsed by CCHL. The programme being measured covers seven sessions: orientation, five leadership domains, and a capstone session. The questionnaire comprises three sections: experience enjoyment, leadership growth, and the mentoring process. The latter has four sub-sections: matching schema, mentorship handbook, public and private dynamics, and process effectiveness - totalling 39 quantitative questions. Each section has qualitative questions. The evaluation will use the Likert five-point rating scale ranging from: 1-strongly disagree to 5-strongly agree.

Results
After one year of starting the mentoring programme the online survey was sent out to 21 participants during August 2011 with an expected response rate of 50 percent or higher. Fourteen participants or 67 percent completed the survey. There were seven mentors and seven mentees - eight were from the public (hospital) sector and six from the private (Roche) sector. Figure 1 are results of all participants showing an overwhelming support of a positive mentoring experience with close to 80 percent of all questions scoring “agree” or higher. Figure 2 are sub-analysis of mentees’ results only. Their scores were more impressive with greater than 90 percent of all questions scoring “agree” or higher. Finally, figure 3 are sub-analysis of the mentors’ scores. Roughly 75 percent of mentors’ responses were rated "agree" or higher.

Discussion
This study was a successful pilot for launching extra organizational mentorship in the Canadian health system. An organization needs to grasp the reins of responsibility to operationalize these recommendations. Trained professionals evolving these types of formal programs and continuing the momentum is required. The ethos of mentoring is transferring tacit and acquired knowledge from one generation to the next. This study
supports knowledge exchange with dyads but also between organizations. The crises in healthcare are international in scope. Extra organizational mentorship in healthcare should stretch and aspire with other countries as well to gain a higher level of understanding on the common issues - for example, Commonwealth countries. People need to nurture these programs for mentoring to advance. Commitment is the dictum for mentoring success. For extra organizational mentorship this is twofold: commitment from the mentoring dyad and commitment from the involved organizations.
Cost of diabetes in Croatia - where are we today and can we prevent health economic impact of its complications?

Ranko Stevanovic1,2, Vanesa Benkovic1, Lovorka Bilajac1,1, Ivan Pristas1, Tamara Poljicanin1
1Croatian Society for Faramcoeconomisc and Heath Economics, Croatia, 2Croatian National Institute of Public Health, Croatia, 3School of Medicine, Croatia

Context
The purpose of the study is to evaluate cost of T2DM in Croatia by assessing costs related to drug consumption, costs of diabetes complications and other indirect costs. The aim is to demonstrate that optimization of diabetes treatment holds a great potential to save lives, reduce years lived with lowered quality of life, and reduce total costs.

Methods
A prevalence based design was used with optimizing national data, while maintaining maximum comparability with European countries. Effort was made to ensure consistency in terms of cost specification, data collection tools and methods, sampling design and the analysis. Assumptions and variables relate to present epidemiology data, current prices defined by authorities, and were checked through probabilistic modelling.

Results
Over the last 30 years, medical expenditure has increased at a considerably faster rate than other sectors of the economy. The world prevalence of diabetes mellitus is growing and the 90% of patients are those with type 2 (T2DM). Average time for establishing diagnose of T2DM is 8 years and almost a half of the subjects with T2DM in Croatia are still not diagnosed. The results of the UKPDS have demonstrated that yearly costs of T2DM increase by more than 50% when cardiovascular complications occur, and by 360% with a major cardiovascular event. Abnormal renal function increased treatment costs by 65%, and end-stage renal disease by 771%. Total costs of T2DM treatment depends great deal upon the choice of drugs as well as upon complications development.

Discussion
The most expensive item in diabetes care is the emergence of complications. The results demonstrate that choosing an optimal therapy (not only decreasing effectively HbA1c values, but being able to simultaneously influence several risk factors and achieving favourable composite endpoint) significantly impacts total costs in a shorter time and particularly in a long term run Economic data on the costs of diabetes are essential to optimise resource allocation.
Challenges and opportunities for integrating patients in decision making processes

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University of Technology Dresden, Germany

Context
Patient integration in clinical decision making processes is considered one of the key concepts in achieving better care. However, the concept of patient integration is controversial. On the one side it is obvious, that the consideration of patient needs is essential for achieving patient satisfaction. On the other side, the important question to be asked is: Is the patient really able to know and articulate what is best for him or her? In order to answer this question, barriers for patient integration both on a local and national level have to be evaluated and discussed.

Methods
This study applies a two-step qualitative research design. First, we conducted a structured literature review to analyse current research. The databases PubMed and Web of Knowledge were used to search terms like 'patient involvement' and 'integration of patient needs'. The relevance of the articles was reviewed by title, abstract and full text, leaving 36 articles for the analysis. Secondly, we conducted a qualitative study based on 12 semi-structured interviews to validate and supplement the research perspective. Interviewees were patients, medical staff, representatives of the German approval authority, health insurance agencies, patient agencies and experts in the field of patient education and patient consultation.

Results
The literature review revealed that barriers to patient integration can be found on the side of patients, doctors and the individual setting. If patients want to be integrated, their ability is related to their cognitive absorptive capacity, which is influenced by the disease itself, the diagnosis, or their communication skills. In addition, self confidence, fear, uncertainty and mistrust in medical staff can influence the success of patient integration. On the other hand, the medical staff needs to be willing to provide the opportunity for patient integration. Gradually changing roles by integrating the patients in decision making processes are often feared to be related to a loss of control and eventually image. The medical staff's lack of knowledge about methods as well as insufficient resources, were further barriers identified in the literature. The interview data confirmed most of the barriers from the literature but provided more detailed insights on several aspects.

Discussion
Additional challenges regarding the patient include the appropriate provision of information, the emotional distress and the lack of knowledge prior to the occurrence of the disease. The interviews showed that the will of medical staff to integrate the patient is dependent on the hierarchical structure of the health institution and the position of the patient's counterpart. Further supplementary barriers are: lack of knowledge about patient rights and the legal framework. This research shows that patient integration is hampered by specific barriers. Some barriers can be overcome while others cannot. Not every patient has the ability or wants to be integrated in clinical decision making. Those who do want to be integrated have to be provided with information that they are able to understand. Just as important are the communicative skills of both patients and doctors. Specific training can lead to a better patient-doctor communication that focuses on patient integration.
Financing Social Inclusion of Hearing Impaired

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Context
In addition to difficulties deaf and hard of hearing suffer in their private life; they are also deprived of many employment and entrepreneurship opportunities. My thesis examines the hypothesis that deaf and hard of hearing, excluded from the rest of the society due to their disability, can be brought back into the normal-hearing society with the help of externally or from own savings financed hearing instruments or cochlear implants. As a result of such inclusion, hearing impaired will be able to work, study, lead social life and travel at the same degree as people with normal hearing do.

Methods
The research method used in the study is the grounded theory approach on the basis of empirical research with the quantitative verification of the newly formed theory via Confirmatory Factor Analysis. To conceptualize the theory, I conducted a series of interviews with hearing impaired, consumer finance experts, hearing aid dispensers, hearing instrument and implants manufacturers, non-government organizations and other experts. This allowed me to formulate the hypothesis on financing social inclusion of hearing impaired. As a next step a formal survey of hearing impaired, which measures their hearing loss, daily activities, occupation, quality of life, access to reimbursement and other indicators, was developed. The survey was conducted in countries where the majority of hearing impaired don't have access to hearing aid reimbursements - Ukraine, Russia, and the USA. Subsequently, the survey results were analysed with Confirmatory Factor Analysis to refine and confirm the findings of the qualitative research.

Results
The first finding of the study is the not all hearing impaired will equally benefit from aided hearing. Hearing impaired who often need to use their hearing ability while speaking over the phone, holding a conversation in areas with a lot of background noise, participating in group discussions or talking with strangers will gain the most. Least of all will benefit hearing impaired who are fully integrated in deaf society, and those who communicate with normal-hearing people only occasionally in one-on-one conversations. Hearing impaired with high income, who have high subjective time-value-of-money discount rate, and access to at least partial reimbursement, are in better position to afford aided hearing through savings. On the other hand, hearing impaired who are satisfied with their prior aided hearing experience, are willing to borrow money and put up some of their assets as collateral, are best positioned to afford aided hearing through borrowing.

Discussion
Policymakers, governments and insurance companies are facing increasing healthcare costs and decreasing budgets simultaneously. In some cases the reaction on such situation is reimbursement cut and increase in out-of-pocket deductibles across the board. My research shows that there is an alternative. If policymakers are able to profile hearing impaired, applying for reimbursement, and identify those, who will benefit from aided hearing more than others, then the limited funds can be allocated accordingly to ensure the highest efficacy. Besides, it's always good when policymakers think beyond standard reimbursement. My research shows that helping hearing impaired to save or borrow for their hearing instrument or implant purchase is a viable alternative to traditional reimbursement. Different options such as medical saving account dedicated towards the purchase of hearing instruments, or subsidized loans for purchase of hearing implants need to be seriously considered as potentially more cost-effective alternatives to traditional reimbursement.
Primary health care centre and its cultural meanings from customers' point of view

Hanna Tiirinki
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Context
The Finnish primary health care system is unique. According to the Health Care Act (66/1972), it comprises health promotion addressing individuals, the population and their living environment, including illness and injury prevention, and medical care for individuals. Primary health care covers primary medical care and public health. Owned by a single municipality or federation of municipalities, health care centres (194 in 2009) provide primary care. Public health care is provided by health care centres, with patients as customers. There are myths, beliefs and expectations related to primary health care centres among customers. It is important to understand their viewpoint.

Methods
The research task was to investigate the cultural meanings associated with primary health centres from customers' point of view. In the theoretical frame of the study new public service theory and a cultural model to conceptualise cultural meanings related to health care centres was utilised in order to understand the interface between the health care centre and the customer. A mixed approach was used in this study. The study consists of two parts: qualitative literature review and empirical study with three different phases: 1) Investigating cultural meanings from the customer's viewpoint with the aid of documents (N=621) comprising material published in newspapers in 1972-1982. 2) virtual anthropological material (N=250), i.e., texts that appeared on Internet chat forums around the turn of the decade (2010). 3) A survey (Northern Finland birth cohort 1966) (N=12,331). Qualitative material were analysed using inductive and deductive content and text analysis. Quantitative material were analysed statistically.

Results
Five models were formed of the cultural meanings of health care centres from customers' point of view: In the frame formation model, the emphasis was on the formation of the meaning and significance of the health care centre from customers' point of view and the kind of health services available to customers. In the collaboration formation model, the key elements were the collaboration challenges faced by municipal officials, manifested as unclear availability of services to customers. In the health service expectations model, the emphasis was on expectations of a better, increasingly improved provision of public health care services. The guess centre model highlighted the schemes and metaphors formed by users concerning the interface between the operational culture of the health care centre and clients. The reform model focused on the conceptions, arising from the operational history of health care centres, concerning current development and reform needs aimed at improved customership.

Discussion
The study generated new knowledge that can be utilised in improving public health care, particularly the complex operational culture at health care centres which is prone to different interpretations, from the viewpoint of health service customership. Customer orientation is in the focus of the National Development Programme for Social Welfare and Health Care, which is why the operational culture of health care centres should be reformed in an increasingly comprehensive manner to make them more accessible. Reforming the public health care sector takes time, which is why analysis and development of new operational models from the customer's viewpoint calls for long-term commitment. As the aim is to improve the customer orientation of health care centres, cultural meanings should be taken into account. New ways of interaction between different functions may have a positive impact, contributing towards a more customer-focused operational culture.
Trends of Cross-border mobility of physicians and nurses between Portugal and Spain

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**Context**
Health workforce cross-border mobility has an impact not only on individual health workers, but also on how health services are organized, planned and delivered in the regions along the frontiers between two countries. This abstract presents the results of a study of mobility trends of health professionals along the borders between Portugal and Spain. The objectives were to describe the profile of mobile physicians and nurses; to elicit the opinions of employers on mobility factors; to describe incentive policies to retain or attract health professionals; and to analyse employers’ opinions on the impact of this mobility on their health services.

**Methods**
Phone interviews of key-informants conducted during December 2010 and January 2011 in Health Units along the border of the 2 countries. In Portugal, 4 hospital complexes composed of two or more organizations each were included. In Spain, 13 units corresponding to inclusion criteria (more than 20 beds and having recruited professionals from the neighbouring country) were initially selected, and 4 responded.

**Results**
Cross border mobility between the two countries has decreased after 2008; previously it was an important source of medical workforce in Portugal, and less of nursing. From Spain to Portugal, mobility trends have mainly been of physicians seeking professional development in the form of specialization, the availability of positions, better salaries and perceived good living conditions. The mobility of nurses lasted until 2008, when reforms improved working conditions in Spain and contributed to reversing the flow. Since 2008, there has been an increase of Portuguese nurses going to Spain seeking better working conditions or simply a job for periods of one or two years. Portuguese nurses as well as Spanish physicians are well considered in terms of professionalism and qualifications by their Spanish and Portuguese hosts respectively.

**Discussion**
There is a deficit of valid data on the health workforce in general. The present study allowed to explore further mobility trends between Portugal and Spain and to understand better the motives to decide to work in the other side of the frontier. At present, the mobility trends are mainly of Spanish physicians to Portugal and Portuguese nurses to Spain. The number of professionals involved is small, but the impact on health organizations along the borders is important. In the European Union, Member States that are geographically contiguous, as they plan their workforce, need to consider the possibility that health professionals may decide to cross their borders for work. The question of the need or opportunity for governments to intervene is raised and harmonization of policies between neighbouring countries is opportune.
How to attract patients more effectively? - A state-of-the-art review on hospital marketing communications and branding

Sophia Fischer, Sebastian Gurtner
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Context
Increasing competition, growing public health consciousness, rising educational needs of patients and independent provider choices shape today's health care market. Delivering the right amount and content of information has become a significant determinant of hospital's success in selling health services. This study examines the state-of-the-art in hospital marketing communications (HMC) and branding efforts. Considering the heterogeneity of markets and regulatory environments, an integrative framework of communication content and suitable communication vehicles is developed. Summarizing findings from peer-reviewed journals, this paper derives recommendations on how marketing budgets can be most effectively spent - valuable advice regarding the current adverse environment.

Methods
In order to gain a comprehensive overview of existing knowledge the authors conduct a systematic literature review of seven databases in the fields of business and medical sciences. Preliminary determined search terms, exclusion/inclusion criteria and staggered analytics involving title, abstract and full text assessment revealed 37 relevant articles. A supplementary forwards/backwards search provided additional 13 matches. All 50 identified studies deal with the hospital's relationship towards patients as consumers of health care services, and the respective influence of marketing communication tools, e.g. online media. On the theoretical basis of the integrated marketing communication approach and Berlo's communication process model, the identified articles were analysed regarding five main criteria: stakeholder targeted (e.g. consumer or public), message discussed in the medium (e.g. hospital quality information), communication channel (e.g. mailing), overall impact on hospital's image (e.g. corporate reputation enhancement) and effectiveness evaluation of the activity.

Results
Overall, the current insights on effective HMC are scattered. While the majority of examined tools address the public, only a small percentage discusses how messages can target a specific consumer segment (e.g. women). In contrast, the content analysed largely varies. Some exemplary topics are clinical information, nursing, mortality data or hospital service quality. The same holds true for the examined channels ranging from direct mailing, to public relation activities and social media. Generally, every fourth study deals with advertising or some related promotional vehicle. Not surprisingly, the recent literature mainly evaluates aspects of hospital websites. Often the integration of specific content, user's orientation or general usability of hospital's online presence is assessed. Every third study explicitly explores some facet of brand management, e.g. equity or image constructs. Interestingly, 64% of all papers examine the US market. Only recently scholars start to analyse emerging markets such as Turkey, Indonesia or China.

Discussion
Broadly observed, HMC literature experiences three successive stages. Starting in the late 1970s, US-driven research mostly covers attitudes and perception of hospital advertising. This first wave of scholarly interest lasted until the end of the 1990s. Afterwards only little attention was paid to HMC until scientists discovered online marketing and related discussions on branding in the mid of the 2010s. Thus, HMC seems to lag behind general marketing trends. Numerous pathways for future
investigations unveil, for example research on more versatile promotion tools such as health education services is required. Since the effectiveness of HMC is studied scarcely, more efforts to evaluate its measurable impact are needed. Additionally, the scope should be broadened cross-culturally to cope with international phenomena (e.g. medical tourism). This study explicitly contributes by identifying white spots on the HMC landscape and deriving recommendation for health care managers and researchers in the field.
Evaluation of the attitudes of the executives of Lithuanian public health institutions towards teamwork

Skirmante Sauliune, Mindaugas Stankunas, Jurgita Bukauskiene
Lithuanian University of Health Sciences, Kaunas, Lithuania

Context
Public health experts emphasize the importance of teamwork in public health. Although intensive debates on need for development of teamwork competencies for public health specialists, Lithuanian researchers have not been very active in this field. To the best of our knowledge, only a few works have been published in this area to date. Still there is a lack of information regarding attitudes, skills and leadership of teamwork among executives of Lithuanian public health institutions. The aim of this study was to evaluate the attitudes of executives of Lithuanian public health institutions towards teamwork.

Methods
The data was collected in a cross-sectional survey of executives (directors, vice-directors and heads of regional offices) of Lithuanian public health institutions (public health centres and public health bureaus), in 2010. The total number of distributed questionnaires was 94, the total number of returned questionnaires was 55 (response rate - 58.5%). The Belbin Team-role Self-perception Inventory and other special questions were used for evaluation of the attitudes of the executives of public health institutions regarding teamwork.

Results
The results revealed that majority of the executives of Lithuanian public health institutions were familiar with the basics of teamwork (96.4%), used principles of the teamwork in their everyday work (89.0%), and worked in the team (96.4%). The lack of necessary information was emphasized by majority of the executives (70.9 %) as the main problem for effective teamwork. Executives who had a degree in management were more familiar with teamwork, than their counterparts did. Our findings suggest that executives preferred to choose Belbin’s action orientated roles (76.2%). The most common role was “implementer” (69.1%). Results showed that more than the half of the executives of public health institutions (63.3%) considered that they have enough skills for teamwork. Nevertheless, 89.1% of executives expressed interest to improvement of these skills.

Discussion
Lithuanian public health executives are familiar with the principles of teamwork and use them in their work. Executives most commonly have chosen the role of “implementer” in working teams. According to Belbin, the “implementer” is: open to suggestions of other team-members; is efficient and self-disciplined; and is ready to take on jobs which everyone else avoids and dislikes. However, this role in team is inflexible and slow to respond to new possibilities. The study suggested that there is an imbalance in team roles preferences among respondents. It can be that teams that have an imbalance of team roles may not function as well as teams that contain a broader balance of team roles amongst members. Although majority of the respondents stated that they have enough skills about teamwork, they would like to develop these skills in the future. This argues teamwork training need for public health executives in Lithuania.
Why rural areas are lagging behind - A systematic review of causes for shortages of healthcare services

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Context
Industrial nations face serious challenges in achieving comprehensive healthcare delivery due to an extensive increase of costs and demographic changes. Half of the world's population has difficulties accessing sufficient healthcare. This problem is especially evident in rural regions, where people are often economically and socially disadvantaged and the average age of the population is inclining rapidly. There is a growing body of research considering regional, contextual or professional issues of health service shortages in rural areas. The purpose of this paper is to provide a comprehensive review of aspects and underlying reasons of inadequate provision of healthcare in rural areas.

Methods
To provide a coherent and reliable summary of current research on the topic and to derive specific recommendations for practice, a systematic review of the literature was conducted by the authors. The search for relevant studies included the use of six databases (PubMed, Medline, ScienceDirect, Academic Search Complete, Business Source Complete and CINAHL) covering research in business and economics, social science and medical disciplines. To account for the growing relevance of the topic for the German speaking part of Europe and a potentially related language bias, the search was supplemented by German search terms using the sources Thieme E-Journals and Springer Link. A total of 4758 non-dublicated articles remained and were assessed by title, abstract and full text, using appropriate inclusion and exclusion criteria. Finally 266 articles were selected for a structured content analysis.

Results
Systematic research is contributed mainly by large countries who have been struggling with shortage problems for decades, such as the USA, Australia and Canada. European countries progressively consider the problem but there is still far less comprehensive analysis. The main focus of the literature is on the lack of professionals or their mal distribution. Studies also consider access limitations or problems with the quality and consistency of healthcare in rural areas. These aspects cannot be regarded separately as they are often of mutual influence. Nevertheless, only very few studies provide a broader approach to the complex interrelationships. Numerous partially overlapping access- or provider-related reasons for the emergence of shortage are identified in the review, including physical, socioeconomic, cultural and professional barriers. In almost every country, recruitment of qualified staff and the retention of professionals are crucial challenges. Working conditions and the work-life-balance become increasingly important in this context.

Discussion
Whereas in some countries shortages of healthcare services in rural areas have been a problem dealt with for decades, it is not possible to adopt "best-practice" solutions without paying attention to local characteristics and discussing individual framework conditions. Overall there is a lack of consistent definitions of what is considered "rural", which complicates international comparison. To overcome the challenges of underserved rural areas collaborative efforts are necessary, considering the complexity of the social, cultural, economical and physical aspects of rural living and rural healthcare. Policy makers have to set up an appropriate framework and medical education facilities need to foster rural curricular experiences. Rural communities can finally contribute by providing a supportive and appreciating
atmosphere. The contribution of this research is to summarize international experiences and to give indications which options may be suitable on distinct national and regional levels.
The invention of anaesthetic gas return connector for using with anaesthetic machine

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Mahidol University, Thailand

Context
The careful monitor of anesthetized patients has become important. To assist the patients to pass the crisis of operation, the anaesthesia personnel require the appropriate medical equipments to continuously monitor the patients. One of monitoring standards is the respiratory system and the gas exchange by capnography. Side stream capnography is one of the capnographies, used for analysing the gas continuously aspirated from the breathing circuit within sample flow rate 200 ml/min. The sample gas that withdrawn from the patient may contain anesthetized gases, after analysis may stay diffused in operating rooms. Without proper control, these gases can affect anaesthetic team's health condition.

Methods
To create a connector for delivering gases and volatile agents after being analysed from the side stream capnography back into the breathing circuit system of the anaesthetic machine that does not have a sample gas return port or for ventilating them for reuse.

Results
The anaesthetic gas return connector is an invention used with anaesthetic machine that does not have a sample gas return port for the improvement of anaesthetic service quality. This invention leads to the significant decrease in the budget of operation. The anaesthesiologist could safely use the side stream capnography to monitor the patient in the operating room.

Discussion
The anaesthetic gas return connector is an inexpensive, practical and highly efficient invention that could be sterilized and could be reused. This invention is the pride of the anaesthesiology department that really saves the expenses, so it had received "Dean's innovation award" from 19th Quality Conference (20-21 September 2012).
Cardio-cerebrovascular events and risk assessment in Pavia (Lombardy Italy), through Patient Data-Base of Local Health Authority and data collecting by General Practitioners

Guido Fontana, Simonetta Nieri, Carlo Cerra, Carla Martinotti
Local Health Authority of Pavia, Italy

Context
Cardiovascular disease is the most important cause of mortality, morbidity and disability in Italian population. In 1998 the Italian National Institute of Health (ISS) launched the longitudinal study "Progetto Cuore", whose first significant result was the assessment of myocardial infarction in Italy, followed by the development of "risk chart tables" and "individual risk score", two useful tools to assess cardiovascular risk. Based on this activity, the Local Health Authority (LHA) of Pavia asked the 400 general practitioners (GPs) of its province, to enroll nearly 6,000 patients to submit them to the calculation of cardio-cerebrovascular risk based on risk chart tables.

Methods
Enrolment occurred in a time period between 1 January 2007 and 31 December 2008. To be consistent with criteria of the "progetto cuore", patients aged among 35 and 79 years were chosen for not having had previously acute episodes of cardio-cerebrovascular disease. They were invited by their GPs to undergo medical history, examination and perform some tests. The following parameters were investigated: gender, age, smoking habit, total serum cholesterol, serum HDL and LDL cholesterol, triglycerides, fasting glucose, systolic and diastolic blood pressure, anthropometric measurements. The prescription of antihypertensive drugs was also investigated although not mandatory required. Cardiovascular risk based on risk chart tables was calculated. Based on an agreement with the LHA, personal requirements and outcomes of the investigation were compiled into a special software provided by LHA. Monitoring of fatal and non-fatal of cardio-cerebrovascular events is based upon data from the Patient Data-Base (PDB) managed by the LHA.

Results
Tab. 1 reports general characteristics and parameters investigated in the population in study, compared with data (Lombardy population) of the second survey (2008) of the "progetto cuore". It has been assessed the health status of 5,359 patients who had always been in charge for a GP, for the next four years from enrollment. The 5359 subjects were stratified into 4 classes on the basis of the "cardio-cerebrovascular risk" reported (risk <5%; between 5% and 19%; between 20% and 29%; equal to or greater than 30%) (Tab.2). Some major events (Tab.3) are currently being studied in order to determine whether there were statistically significant differences between clinical outcomes expected / observed in respect to "cardio-cerebrovascular risk" recorded by physicians in patients at enrolment. Is also being detected the consumption of drugs with specific action on the cardiovascular system, such as statins (ATC C10AA) and antihypertensive drugs (ATC C09).

Discussion
Italian law gives LHA tasks of health promotion and prevention of chronic diseases. This activity, to be carried out at its best, cannot do without adequate knowledge on determinants, predictors and outcomes of diseases. For this purpose PDA of the LHA ensures availability of information of paramount importance, joining administrative data of utilization of health services (hospital discharges, etc.) for every single patient. With regard to the drug prescriptions, provides information on the type and amount of drugs administered allowing inferences about the therapeutic adherence and persistence. However some considerable useful data for epidemiologic assessment of chronic diseases such as laboratory tests values, anthropometric measures, smoking habits, or prescription of
healthy lifestyles can be recorded only from GPs. This activity, in the absence of Electronic health records still requires ad hoc activities that can be carried out only under "pay for performance" projects designed to stop when funding lacks.

**Tab. 1: General characteristics and mean values of parameters recorded in the population in study**

<table>
<thead>
<tr>
<th>General Characteristic of population in study</th>
<th>LHA Pavia values</th>
<th>&quot;Progetto Cuore&quot; Lombardy Region values</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. patients</td>
<td>5.359</td>
<td>858 population aged 35-79</td>
</tr>
<tr>
<td>male</td>
<td>2.520</td>
<td>430</td>
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<tr>
<td>female</td>
<td>2.839</td>
<td>428</td>
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</table>

<table>
<thead>
<tr>
<th>Parameters</th>
<th>LHA Pavia values</th>
<th>&quot;Progetto Cuore&quot; Lombardy Region values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAS (mmHg)</td>
<td>132 ± 12</td>
<td>130 ± 13</td>
</tr>
<tr>
<td>PAD (mmHg)</td>
<td>81 ± 7</td>
<td>79 ± 8</td>
</tr>
<tr>
<td>Lipidic Asset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Serum Cholesterol (mg/dl)</td>
<td>218 ± 40</td>
<td>225 ± 41</td>
</tr>
<tr>
<td>HDL Serum Cholesterol (mg/dl)</td>
<td>50 ± 13</td>
<td>61 ± 15</td>
</tr>
<tr>
<td>LDL Serum Cholesterol (mg/dl)</td>
<td>138 ± 38</td>
<td>139 ± 37</td>
</tr>
<tr>
<td>Triglycerds (*) (mg/dl)</td>
<td>152 ± 93</td>
<td>122 ± 65</td>
</tr>
<tr>
<td>Glycemia</td>
<td>103 ± 25</td>
<td>97 ± 22</td>
</tr>
<tr>
<td>Smoke Habit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% smokers</td>
<td>26%</td>
<td>16%</td>
</tr>
<tr>
<td>% ex smokers</td>
<td>25%</td>
<td>11%</td>
</tr>
<tr>
<td>Anthropometric measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMC (Kg/m)</td>
<td>27 ± 4</td>
<td>25 ± 5</td>
</tr>
<tr>
<td>% overweight (IMC ≥ 30 Kg/m)</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>Cardio-Cerebrovascular risk *</td>
<td>10 ± 8</td>
<td>3 ± 4</td>
</tr>
</tbody>
</table>

* calculated on population aged 40-69

**Tab. 2: Distribution of population in study (aged 40 - 69) in categories of risk on the basis of "cerebro-cardiovascular risk" reported. Rough Rates.**

<table>
<thead>
<tr>
<th>Cardiovascular Risk Categories *</th>
<th>male</th>
<th>%</th>
<th>female</th>
<th>%</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCV I Below 5%</td>
<td>895</td>
<td>37,6</td>
<td>2.148</td>
<td>79,8</td>
<td>3.043</td>
<td>60,0</td>
<td></td>
</tr>
<tr>
<td>MCV II - MCV IV 5% - 19%</td>
<td>1.247</td>
<td>52,4</td>
<td>531</td>
<td>19,7</td>
<td>1.778</td>
<td>35,0</td>
<td></td>
</tr>
<tr>
<td>MCV V 20% - 29%</td>
<td>173</td>
<td>7,3</td>
<td>11</td>
<td>0,4</td>
<td>184</td>
<td>3,6</td>
<td></td>
</tr>
<tr>
<td>MCV VI equal to or over 30%</td>
<td>67</td>
<td>2,8</td>
<td>1</td>
<td>0,0</td>
<td>68</td>
<td>1,3</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>2.382</td>
<td>100,0</td>
<td>2.691</td>
<td>100,0</td>
<td>5.073</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

* Risk category indicates how many persons out of 100 with the same characteristics will fall ill over next 10 years.
<table>
<thead>
<tr>
<th>Major events taken into account</th>
<th>ICD-9 CM codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>death from all causes</td>
<td></td>
</tr>
<tr>
<td>acute cardiovascular event (myocardial infarction)</td>
<td>410</td>
</tr>
<tr>
<td>acute cerebrovascular event (stroke, cerebral hemorrhage)</td>
<td>from 430 to 436</td>
</tr>
</tbody>
</table>
Improving productivity in health services in Portugal: legal obstacles/facilitators to changing the distribution of tasks between nurses and doctors skill?

Temido Marta, Dussault Gilles
Instituto de Higiene e Medicina Tropical, Lisboa, Portugal

Context
In Portugal, various analysis of the performance of the health care system linked efficiency problems to a health workforce that relies heavily on medical practitioners. Even if evidence from international experiences suggests that broadening nurses' scope of practice can improve health systems performance, thus far the issue received little attention. The current Economic Adjustment Programme compels health authorities to address the challenge of changing the workforce mix and the distribution of tasks among the various occupational groups. We present an analysis of the legal framework which governs the definition of the scope of practice of physicians and of nurses.

Methods
All legal documents regulating the practice of nursing and of medicine in Portugal have been analysed with a view to assess the extent to which the legal framework is an obstacle or facilitates a more efficient distribution of tasks between nurses and physicians.

Results
There is no formal definition of what the scope of practice of medicine in Portuguese law, though various regulations reserve some acts, such as diagnosis, prescription of most drugs, and "management of patients". However, the Medical Council has the authority to delegate some tasks which can be executed only by their members.
Nursing interventions are categorized as autonomous and then engage the nurse's responsibility or as dependent on the prescription of another healthcare professional, in most cases of a physician. Some interventions are specifically prohibited.
In Portugal, referring patients for investigation, interpreting tests and exams results or discharging patients are interventions exclusively performed by physicians, even if this is not legally prescribed but based on tradition and on socially accepted norms, which are now increasingly questionned.

Discussion
Changing the division of labour between nurses and physicians is now on the policy agenda, though no action has taken place yet. It will not be enough to propose "intrinsically good" policies. Legal feasibility needs to be assessed in terms of the importance of changes to the regulatory framework that may be required. Amending the Medical Act is a challenging task in any context; policy-makers who want to advance in that direction need to know well which legal obstacles they will need to overcome and which existing legal facilitators they can take advantage of.
Characteristics of and need for a marketing approach in the period of healthcare reform in Bulgaria

Tzekomir Vodenicharov, Alexsandina Vodenicharova, Zaharina Savova
Faculty of Public Health, Medical University, Sofia, Bulgaria

Context
The healthcare reform in Bulgaria has also to do with introducing new management approaches throughout the healthcare system. This requires managerial competencies and professionalism to be developed to meet the need for effective measures to increase the quality of healthcare services. This also requires command and application of marketing approaches and methods in the complex management process. The relation between healthcare providers and consumers is highlighted in order to understand and meet consumers’ actual needs.

Methods
Analysis of factors, guidelines and priorities of the healthcare reform in Bulgaria; analysis of the need for and specifics of healthcare marketing in Bulgaria, anonymous sociological survey to study healthcare consumers' needs and requirements; mathematical and statistical methods to process and analysis primary data. The survey results provide objective guidelines for development of the services aiming to increase the quality of the healthcare assistance provided to make the use of healthcare system resources more targeted and efficient.

Results
The consumers' attitude and level of awareness of the introduction of the market mechanism into healthcare system to increase quality has been defined a small portion of the surveyed population demonstrated adequate and good awareness of the reason to implement the market mechanism. This alone in an adverse circumstance which affects public attitude and behaviour during the healthcare reformation process. The hinderances in the search of healthcare assistance has been defined; lack of easy access; lack of adequate awareness of new offers, options and products; poor health culture and education; confidence crisis toward the innovations, proposed and service quality; economic reasons - low purchasing power.

Discussion
The role of targeted marketing activities in the process of healthcare reform in indisputable. A good management of a healthcare institution cannot go without a marketing reaction helping to solve actual issues related to the management of healthcare institutions. Translated into our reality, good marketing means providing orientation as to the dimension of market demand and needs, the classes of consumers, the need for new offers in supply. This requires periodic collection of information/monitoring of the level of satisfaction with the quality of healthcare services provided, of patients’ actual need, expectations and interest regarding the development of new healthcare services. Dynamic marketing will allow for a more efficient use of the relatively limited healthcare resources for innovations and changes.
Making the Healthcare System More Efficient – Empirical Findings from Israel

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¹College of Management Academic Studies, Israel, ²Meuhedet National Health Fund, Israel

Context
Organizational trust is critical in maintaining organizational core competencies. Organizational trust results in positive attitudes, higher cooperation, information sharing, better communication and higher performance, leading to higher efficiency.

Organizational trust in health systems is challenged. Austerity and price competitiveness reduce the autonomy of physicians, some methods undermine fiduciary ethics, healthcare arrangements introduce conflicts of interests dividing physicians' loyalty and high rates of turnover among physicians bring costs and disruptions decreasing efficiency.

Although organizational trust of physicians may be pivotal to efficiency, to date it was not yet studied. This study investigated antecedents of organizational trust.

Methods
Sample - The sample comprises 282 senior physicians from four general Israeli hospitals. Anonymous questionnaires were distributed and collected during staff meetings.

Variables and Measures - Organizational trust was measured using Schoorman and Ballinger’s measure (2006) consisting of 10 items rated on a 5 point scale. Consequent to translation from English to Hebrew, redundant items were deleted resulting in a seven items scale with an Alpha of .84. All other measures of the study (organizational commitment, job satisfaction, general life satisfaction, ideal job priorities, actual job priorities, perceived affect on medical decision making, work environment characteristics), were used in previous studies and hold good psychometric attributes. All scales use a six anchor Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Some items were reversed on each scale to fit the scale.

Results
A regression analysis was performed to test the affect of organizational trust on loyalty to the organization. Organizational trust explained 23% of the variance in loyalty (F=78.7 beta=.48, sig=000.). Next, a regression analysis was performed to examine antecedents of organizational trust. The model explained 37% of the variance in organizational trust (R²=.363, F=11, Fsig=.000). Four antecedents were significant. Hospital emphases (t=4.7, beta=.28, sig=.000) i.e., treatment coordination, increasing number of patients in hospital, growth opportunities, enforcing quality measures and control, resources management, providing quality care despite economic constraints and treating disadvantaged populations), general satisfaction (beta=.31, T=4.5, tsig=.000) i.e., supportive staff, autonomy in treating patients, etc..), perceived affect on clinical decision making (beta=.18, T=-2.9, tsig=.004) i.e., choice of physicians, choice of medications, decisions regarding timelines, decisions regarding checkups, etc..) and satisfaction with profession (beta=.18, T=2.6, tsig=.010), i.e. general satisfaction with career, recommending the specialty, re-choosing the specialty, meeting job expectations etc..)

Discussion
Results show that in order to be more efficient through trust, healthcare providers need to warrant a better fit between the organization’s success and medical professionalism. A critical link in warranting this fit is organizational trust. Fulfillment of the ideal job expectations, perceived affect of clinical decisions, communicating and reaching an agreement on the emphases of the healthcare organization at this time of austerity, are all critical key success factors in the process of creating organizational trust. Professional satisfaction, another predictor of organizational trust, may be related to fulfilled
ideal job priorities of physicians such as flexibility, helping others, creativity, security, wages, power and authority, dynamic challenges, status and development which provides additional meaning to physicians and enables them to contribute to yet a greater efficiency of the healthcare organization.
Readmissions in Belgian acute-care hospitals: burden of disease and potential cost savings

Jeroen Trybou1, Erik Spaepen2, Bart Vermeulen2, Lieve Porrez2, Lieven Annemans1,5
1Ghent University, Belgium, 2SBD Analytics, Belgium, 3Pharma.be, Belgium, 4IMS Health, Belgium, 5Vrije Universiteit Brussel, Belgium

Context
Internationally, hospital readmissions have a great appeal as an indicator of hospital quality. Since possibilities in prevention and control exist, reducing rates of hospital readmission has attracted attention of policymakers as a way to improve quality of care while simultaneously reducing costs. Therefore reducing the number of readmissions is considered to be a pillar of more cost-effective hospital care. The goal of this study was to estimate the cost of hospital readmissions at a national level, describe differences in readmission rates between hospitals and to calculate the potential monetary savings of reducing excess readmissions.

Methods
Stays data were obtained from the Minimum Basic Data Set 2008 in a sample of 45 Belgian hospitals representing 16,141 beds. Readmissions were identified as a second admission for the same patient with the same APR-DRG code within respectively 1 month or 3 months after discharge. Hospital type, diagnosis-related group, age and gender were used as matching factors in comparing readmission rates. Readmissions that occur naturally in each other’s proximity due to the repeating nature of therapy were excluded. The costs per readmission were then calculated by linking the stays data with the cost data per APR-DRG and per severity index using the 2008 national feedback. The results of our sample were then extrapolated to all Belgian hospitals. We performed a sensitivity analysis to estimated potential monetary savings when a reduction in the incidence of readmissions in hospitals having a higher readmission rate in comparison to other hospitals is realized.

Results
In our sample 1.5% readmissions (N= 19,454) within 1 month after discharge and 2.1% (N=27,051) within 3 months after discharge were identified. The Readmission rate within one month varied between 0.82% and 5.55% (Md= 1.38%, SD= 0.74%), after three months the readmission rate varied from 1.17% up to 6.40% (Md= 1.97%, SD= 0.80%). The additional weighted mean cost of these readmissions was € 3,495.58 within 1 month and € 3,572.20 within 3 months. The total financial burden, as extrapolated to the Belgian setting, is estimated at € 280,091,471 (3 months). We provide a full overview of the potential monetary savings when reductions in readmission rates are realized by applying different thresholds. For instance, if all Belgian hospitals having a higher readmission rate improve their rate to the level of the hospital corresponding to percentile 75 (or 65) savings would amount to € 14,118,509 (or € 18,752,623).

Discussion
By reducing readmission rates, quality of care can be increased while at the same time lowering delivery costs. This theme is an international leading topic of practice and policy reform. Unplanned, early or preventable readmissions can be seen as a system failure. There is a growing body of evidence that targeted interventions initiated before and shortly after discharge can decrease the likelihood of readmissions. As such, these interventions are an opportunity to improve quality of hospital care while simultaneously reducing the cost of care delivery. The shortening of Length of Stay has been frequently regarded as discharging patients ‘quicker but sicker’, stressing the importance of follow-up after discharge. The current fragmentary financing system divides the trajectory of patients in different
virtual stages and throughout a single course of treatment separate payments are made to providers. This contrasts the idea of ‘care programs’ and the expected integrated care delivery by patients.

Table 1: descriptive statistics of the additional costs associated with hospital readmissions

<table>
<thead>
<tr>
<th></th>
<th>1 month (€)</th>
<th>3 months (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average cost</td>
<td>3,585.67</td>
<td>3,655.96</td>
</tr>
<tr>
<td>Average weighted cost*</td>
<td>3,495.58</td>
<td>3,572.20</td>
</tr>
<tr>
<td>Minimum cost</td>
<td>2,144.66</td>
<td>2,247.20</td>
</tr>
<tr>
<td>Median cost</td>
<td>3,548.76</td>
<td>3,581.76</td>
</tr>
<tr>
<td>Maximum cost</td>
<td>5,552.17</td>
<td>5,408.87</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>588.19</td>
<td>583.72</td>
</tr>
<tr>
<td>Total calculated cost Belgium</td>
<td>197,110,217</td>
<td>280,091,471</td>
</tr>
</tbody>
</table>

* weighted on number of readmitted patients per hospital

Figure 1: Estimated savings by preventing 1-month readmissions for Belgian hospitals by targeted percentile
The operational performance of using mobile-based 12-lead ECG system on emergency telemedicine: a real case study in Taiwan

Jen-Jer Hong, Chin-Tzong Pang, Hsieh JC Ray
Yuan Ze University, Chung-Li, Taiwan

Context
Purposes: Based on an actual case, this study considers the changes in activities related to pre-diagnosis of cardio-physician outside the emergency room of a hospital; the changes in service workflow related to supporting actions of physicians and nurses in Emergency Room, and the overall advantages of data exchange and evidence-based practice in terms of task management.

Methods
Methodology/Approach: A case study involving the application of mobile technology and the original open of M-ECG within a hospital was performed to examine the use contexts in depth. Target groups were interviewed for their experiences to provide qualitative data to ensure effectiveness and efficiency, and quantitative data were then accumulated from questionnaires to support the interview results.

Results
Findings: Mobile computing technology does improve and strengthen internal and external performances on the operational process of cardio-EMS. Some additional interesting issues beyond the study subjects were discovered. M-ECG was found to increase physicians’ return rate from hospital outside for cardio-EMS.

Discussion
Practice Implications: First, the mobile information systems can support EMS by improving access to patient information, thus enhancing emergency care quality. Second, a mobile system introduces useful viewpoints and practicality into medical practice. Third, some challenges for the implementation of mobilized medical information system, namely how to receive patients, the cooperation of hospital policies, integration of information about patients, information security, the educational training and cost-benefit analysis. Finally, M-ECG is useful for strengthening physicians’ consciousness of professional ethics and responsibility.
Psychodynamic aspects in the development of eating disorders

Zaharina Savova, Magdalena Alexandrova, Alexandrina Vodenicharova
Faculty of Public Health, Medical University, Sofia, Bulgaria

Context
The Bulgarian National Mental Health programme focuses on the need to develop new approaches and mechanisms to achieve a sustainable and continuous reduction of morbidity of mental illnesses, to improve the quality of life for all people with mental disorders and social dysfunctions. In this context, increase morbidity rates have been observed for anorexia and bulimia mainly among young people. Even with the extremely severe somatic consequences and mental problems, which accompany these disorders, in addition to the hard and time-consuming treatment, the hazard and risks of psychogenic eating disorders are still not regarded seriously enough by the community.

Methods
This paper deals with the psychological factors involved in the genesis and development of psychogenic eating disorders; in analyses behavioural and mental disorders observed in individuals diagnosed with anorexia and/or bulimia. Methods: Clinical monitoring and psychotherapy of 76 subjects/cases/ with eating disorders/anorexia and/or bulimia/. Collection of history data of subjects using an ad-hos history questionnaire. A documentary method exploring medical records containing subjects' health status data /including mandatory clinical tests and examinations/. Psychological personality assessments and psycho diagnostics of subjects. Psychological tests were used to assess the level of depression, anxiety, aggressiveness, association test, projective tests. Mathematical and statistical methods were used to process and analyse primary data.

Results
A psychogenic eating disorder will appear as a response to various stimuli and events which occur in the life of the affected individual. Psychological testing in patients with anorexia and bulimia demonstrated emotional instability, various behavioural and mental disorders. Almost all affected individuals presented with a background anxiety, manifestations of fear and panic. Anxiety mostly manifested in the context of social interaction, and also in relation to food and eating behaviours. 14 subjects was diagnosed with criteria for a compulsive disorder; characteristic low tolerance of frustration, and high impulsiveness. Over a half of the subjects were found to have depressive symptoms. The depressive tone subsided as eating habits were becoming more stable. Twenty of the subjects shared about alcohol abuse; 34 about concomitant use of drugs / psycho pharmaceuticals/ and alcohol. In 11 of the subjects use and abuse of prohibited psychoactive substances were found.

Discussion
Various risk factors have been found to manifest and develop this disorder. A psychogenic eating disorder represents a somatic response to complex mental crises and personal characteristics of the affected. Personality profiles of the affected individuals have been created, the idea of a personal predisposition to eating disorders was proved. The course of this disorder is accompanied by a characteristic emotional instability, easy irritability, increased emotional response, depressive mood, avoidance of social contacts, withdrawal and isolation, poor control of impulse, self-harming tendencies, unstable model of interpersonal relations. We suggest that the higher need for psychoactive drugs results from the reduced food intake which goes with the depressive symptoms and high anxiety levels. The risk of development of alcohol dependence and abuse of psycho pharmaceuticals is increased in individuals with bulimia. Stages of the psychotherapeutic process have been defined and criteria for an efficient therapy have been developed. These criteria were met in 63% of the subjects.
Stepping on people’s toes: barriers, enablers and opportunities for different ways of working in dysphagia care

Caroline Ellis-Hill, Jane Murphy, Elizabeth Roberts

School of Health and Social Care, Bournemouth University, UK, Somerset Partnership NHS Foundation Trust, United Kingdom

Context

In an effort to curb increasing demands on health care resources, both health policy think tanks (King’s Fund, 2010) and government departments (Department Health 2004, 2008) in the UK have highlighted the virtues of various forms of role revision. Despite this, both the benefits, the opportunities and the attitudes of staff towards such developments remain poorly evaluated and researched (Health Foundation, 2010), and uptake remains relatively low across professional groups. This is particularly evident in the area of dysphagia care in stroke, where both dietitians and speech and language therapists (SLTs) roles remain distinct, despite overlapping and closely linked work.

Methods

The study explored, using grounded theory methods, the barriers, enablers and opportunities for new and different ways of working in dysphagia care in stroke, with an emphasis on organisational and health policy factors. Data collection involved a series of 28 semi-structured interviews across three research sites (an acute and a community care site with limited role expansion in dysphagia, and a combined community and acute Trust with a nationally celebrated programme of role expansion for nurses). Interviewees included dietitians (n = 5), SLTs (n = 7), other health care professionals (n = 4), service managers (n = 4) and commissioners (n = 2), as well as service users and their carers (6 interviews, n = 11). Interviews were carried out by the PhD researcher and initially used a topic guide. Developing themes were then explored in more depth in subsequent interviews. Data were coded using NVivo and conceptual models.

Results

The main findings to emerge include maintaining or creating explicit knowledge as tacit knowledge, and the indirect effect of health policy (and specifically that which change incentives, such as out-of-hours cover). By mystifying explicit knowledge, a professional group maintained control over a given clinical area. Control was sought for a number of reasons, and influenced by length of service, including the satisfaction derived from being “an expert”, personal issues (i.e. feelings of personal worth and being needed) and the maintenance of professional boundaries. The overstepping of boundaries is described as both an overstepping of one’s competence and skill set, but also as an impoliteness, as in “stepping on people’s toes”, particularly for those working as part of a multidisciplinary team. Whereas government policy directing role flexibility has had limited effect in the dysphagia arena, other policy changes have inadvertently influenced behaviour and led to greater role expansion, by changing incentives.

Discussion

Explicit skills and knowledge is that which can be codified and taught to others. Tacit knowledge is not so easily codified and taught to others. Participants describe in detail the various elements of their clinical assessments and patient management in the dysphagia arena, indicating that much of this skill and knowledge is explicit and could therefore be codified. However, in the absence of any incentives to do otherwise, this knowledge is maintained as tacit skill, in order to maintain control over the clinical area. This is a barrier that health policy makers alone will not be able to influence directly in the face of professional power. Nevertheless, policy can indirectly influence behaviour, as can healthcare organisations, by using professional expertise and personal value to encourage greater role expansion.
The professions have role to play too, in defining where the lines of complexity lie, to enable the codification of care.
Assessment of health care reform by Bulgarian physicians (comparative study for 2007-2011)

Tony Vekov, Silviya Aleksandrova-Yankulovska, Gena Grancharova, Nadia Veleva, Makreta Draganova
Medical University, Bulgaria

Context
Health reform in Bulgaria is fundamental and concerns the whole structure, parameters and principles of health care. Its effective realization requires strong managerial competency in conformity with contemporary managerial principles and technologies. Physicians' attitude towards health reform as well as their satisfaction of the changes is of utmost importance. It is crucial to collect and analyse specific sociological data about the evolution of medical professionals' assessment of health reform as direct participants and medical care providers. The aim of our research was to investigate the dynamics of physicians' opinions and expectations of health reform over the period 2007-2011.

Methods
The study was conducted in two stages (2007 and 2011) and focused on comparative analysis of physicians' views concerning their awareness about the reform, the attained positive expectations, quality and access to medical care as well as the realized unfavourable effects of the changes in health care system. Data was collected using the same standardized self-administered questionnaire consisting of close-ended questions. The study groups involved 1733 medical professionals randomly selected in eight regional areas - 1015 in 2007 and 718 in 2011. The distributions of participants in both parts of the study by sex, age and medical specialties were very similar: the percentages of women were predominant (56.9% in 2007 and 58.1% in 2011); more than 60% of respondents were 41-60 years old and over 50% were general practitioners. Data processing was performed by SPSS v.13.

Results
The data underlined an improvement of out-patient care by 13.3%, while hospital care changed for the worse by 17.6%. The same was the opinion about the medical care at home - it has worsened by 8.3%. The number of physicians dissatisfied with their salaries has increased - the percentage of respondents expecting some improvement and more fairness in their monthly payment has decreased by 11.2%. There were no significant changes in physician-patient communication - 64.3% in 2007 pointed out the improvement of physician's responsiveness as a positive result of reform as compared to 60.2% in 2011. An increase in bureaucracy and in health care expenses for the patients were also alarming signals for ineffectiveness of health reform. The respondents pointed out some positive changes in the accessibility of medical care (from 57.1% in 2007 to 71.7% in 2011) and in decreasing of informal payments by 9.8%.

Discussion
The evolution of professional opinion about health care reform in Bulgaria and the comparative analysis based on the data collected over the period 2007-2011 undoubtedly demonstrated significant increase in physicians' negative assessment of health care reform as a whole and particularly in relation to its objectives, terms, priorities, realized positive expectations. Our conclusions confirmed the results of some other studies in the country. The determining groups of factors for the ineffectiveness of health reform and the physicians' dissatisfaction relate mainly to the numerous and complicated administrative problems, the low payment of medical professionals, the way of financing and functioning of the national health insurance fund, the unclear and partially performed reforms, the lack of total vision about the development of health system, the attitude of the public and the media to the medical professionals, and the corruption in the health system.
Patient Satisfaction from the medical services provided by general practitioners in Bulgaria

Tihomira Zlatanova, Ralitsa Zlatanova-Velikova, Magdalena Alexandrova, Dobrina Laleva
Faculty of Public Health, Bulgaria

Context
One of the main criteria for quality in medical practice is patient satisfaction from the medical care. Ensuring the affordable and quality health care is one of the basic principles and priorities of the National Health Strategy of Bulgaria. Patient satisfaction reflects the achievement of the expected results of patient treatment by performing medical activities or providing health care. Therefore, the examination of the opinion of patients regarding the clinical activity is essential for assessing the quality of medical care provided by general practitioners.

Methods
The purpose of this paper is to investigate and analyse patient satisfaction on the results of clinical activities in the practice of their general practitioner.

For this purpose, we set the following objectives:

1. Survey of patients on time for diagnosis from their personal physician.
2. The assessment of patients the results of the treatment of GP;
3. The presence or absence of complications specific medical problem after treatment from your GP.
4. Presentation of key findings and recommendations for solving the problems related to improving the clinical activity of GP.

Results
To achieve the goal inquiry method was used. The anonymous survey over 671 patients was conducted across the country in February and March 2012. Of those surveyed patients 68.7% were women and 31.3% men. With regard to residence they were divided into three groups - 42.5% from the capital, 50.3% from urban and 7.2% from the villages. The results showed that as for 35.9% of the patients their GP diagnosed immediately after the physical examination, and according to the majority of the patients /43.7%/ GPs specify their diagnosis after conducting the necessary research - medical labs, X-ray etc. There are the patients /18.8%/, who believe that their GP diagnosed after consultation with a specialist.

Discussion
The largest part of respondents /69.9%/ believe that they was influenced quickly from appointed GP's treat, and 21.9% are of the opposite opinion - have responded slower from the designated treatment. Without result of the treatment are 8.5% of patients. Most of the interviewed patients /87.5%/ are of the opinion that there were no complication on the medical problem after treatment, and 12.5% had complications after treatment.
Accidents at work in a high risk

Nevena Tzacheva, Karolina Lyubomirova, Milena Stoycheva, Milena Tabanska
Medical University, Faculty of Public Health, Bulgaria

Context
In the official Journal of the European Community, the European Commission on accidents and work-related health problems in the Statute of the Council of 24.02.2006 № 341, which is obligatory for all member states to set up a programme with specific modules covering the period from 2007 in 2009 the Labour Force Survey. It provides a module for accidents at work AW and occupational diseases OD. Necessary condition is the harmonization of data for AW and OD the Member States, which is the basis of objective assessment the impact and effectiveness of measures taken under the new strategy.

Methods
- Sociological - A direct survey of 3,139 workers with personal questionnaire. From them 2149 or 70.8% are males and 886 or 29.2% are females. Age distribution is as follows - up to 25 years are interviewed 4.1% from 25 to 35 years - 14.5% from 35 to 45 - 34.6% from 45 to 55 - 30% over 55 years - 16.9%. Total work experience distribution is as follows - up to 5 years is 8.7%, from 5 to 15 years were 24.1% and over 15 years - 67.2%. Study covers three main economic activities in Bulgaria: Power generation - power engineers and operators in Nuclear power plant Kozloduy, Coal miners from Maritsa Iztok Mines and Sea freight transportation - dockers and crane operators from the Port Varna.

- Documentary - Official documents and medical records data

Results
For registered accidents at work reported 161 workers or 5.1% of all respondents. No accidents at work have been registered 89.7% of respondents. In 20.1% of workers accidents have led to injuries, 46.4% answered that they had no health problems from the accident. Accident suffered by 49.0% indicating only one injuries, 2 or more injuries indicated 7.2%. The main work is the cause of an accident in 91, or 60.3%, second job indicated 3.3% and the last employment - 7.3%. Only 43 workers and 29.1% believe that accident at work is reason not to work. Regarding the possibility of re-employment, 107 workers, or 72.8%, said yes, and only 9, or 6.1%, feel that they couldn't start working again. Absence from work during the last 12 months: up to 27 days absent - 18.4% from had an accident, six months absent - 27.9% and over this period - 46.9%.

Discussion
Working at high occupational risk in three important sectors of the economy in Bulgaria during the last 12 months have registered lower proportion of injuries. Furthermore almost half of them indicated that they had no health problems after an accident. At the same time absent for too long than usual. It is necessary in this contradictory result against the high risk, typical for working conditions of workers from Power generation and Coal mining, and Sea freight transportation to be paid much attention in reporting, recording and investigation of accidents at work. At the same time from employers through pressure from trade unions and supervisory bodies of labor inspectors to look for all the reasons about small number of recorded accidents at work. In Committees on working conditions for workers to be trained in the need to declare any work injury and hazards and circumstances leading to the impairment of health.
Study about health status in workers from the structure-determining sectors of the economy in Bulgaria

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Context
In the last years, Bulgaria is increasingly established problems in the organization and management of occupational health services responsible for occupational health and workforce. One of them is the study of health problems in the structure-determining sectors of the economy, characterized by their high-risk jobs. Official statistics advocates less or almost no published data on the health problems related to work, both for occupational diseases and the assessments of workers under specific working conditions. Definitely this is a gap in workforce management at national and branch level.

Methods
- Sociological - A direct survey of 3,139 workers with personal questionnaire. From them 2149 or 70.8% are males and 886 or 29.2% are females. Age distribution is as follows - up to 25 years are interviewed 4.1% from 25 to 35 years - 14.5% from 35 to 45 - 34.6% from 45 to 55 - 30% over 55 years - 16.9%. Total work experience distribution is as follows - up to 5 years is 8.7%, from 5 to 15 years were 24.1% and over 15 years - 67.2%. Study covers three main economic activities in Bulgaria: Power generation - power engineers and operators in Nuclear power plant Kozloduy, Coal miners from Maritsa Iztok Mines and Sea freight transportation - dockers and crane operators from the Port Varna.

- Documentary - Official documents and medical records data

Results
From working power engineers, miners, dockers, crane operators and drivers in a high-risk occupational structure-determining industries 813 or 26.6% indicated that last year suffered from any physical or mental health problem. These problems in 438 workers or 41.9% are determined by carrying on an occupation, 27.5% didn't associate their health impaired by the work and a little more -30.6% could not identify such a relationship. In the last 12 months 251 workers or 34.3%, indicating only one health problem, 30.5% indicated two or more, and 35.2% could not identify their number. The distribution of these health risks first place take those related to bones, joints and muscles - with 512 workers or 69.7, 144 workers or 19.6% indicated respiratory or lung problems, 76 or 10.3%, indicated hearing problems, 59 or 8% of the workforce - skin disorders

Discussion
The most common complaints of workers - injuries of the musculoskeletal system are an expression of the most common occupational hazards for workers from those industries - heavy physical work, forced posture systematic physical overexertion, and other complaints from the effects of excessive noise and vibration, the presence of specific and general dust and high responsibility and differentiation of work operations. Comprehensive risk assessment of occupational health services in the objects sought is established link between complaints of workers and their official documents the medicine - hospital sheets, expert decisions Commissions performance that is necessary for best practice management of workforce. In this regard, the application of the general methodology of EUROSTAT, the study of accidents at work, occupational diseases and other health problems related to work is very useful and should be applied at the company level.
Improving Hospital Board Governance of patient safety: a question of trust and assurance?

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**Context**  
High-profile instances of organisational failures mean hospital governing boards are under scrutiny to make sure their oversight of patient safety is effective as it can be. The evidence suggests that effective board governance is built on activities and approaches that combine high trust with high challenge. Nevertheless, government policy has tended to build on approaches that govern patient safety built on mistrust through external regulation and performance management. The purpose of the paper is to critically assess current approaches to board governance of patient safety by providing new perspectives about how effective governance can be achieved.

**Methods**  
The paper draws on 11 interviews with commentators and policy makers involved in the promotion of patient safety issues within the English NHS. This sample of actors reflected part of an ‘issue network’: a broad collection of individuals possessing knowledge about board governance of patient safety with some influence on policy outcomes. The interviews explored different dimensions of board governance identified in the literature that related to leadership, measurement, internal governance and external governance. Data analysis focused on the problems and solutions related to board governance arrangements within the English NHS and how the assumptions underpinning these promoted the organising concepts of trust and assurance.

**Results**  
The results suggest that current approaches to board governance of safe care have built on an approach to assuring quality that may well erode the social norms and trusting behaviour of those working within these frameworks. The results call for a new approach that promotes a model of governance that reinforces trust relationships built on emotional or physical well-being and self-respect. Effective board behaviours reflect an awareness of moral and ethical thinking along with continuing professional support. They also encompass an articulation of the organisation's mission, values and goals, the provision of leadership, and the development of organisational culture. This emphasis on trust should be 'conditional' based on a series of assurances achieved through harnessing available data about organisational performance. Assurance is built on 'intelligent' information that is co-produced by staff and allows boards to oversee and coordinate monitoring systems which are transparent, visible and accessible to all members.

**Discussion**  
A conditional form of trust can provide the means to motivate hospital boards and organisations in the effective governance of patient safety. It is not the abandonment of controls but instead re-emphasises the importance of intrinsic motivations that are combined with incentives and fault finding. Our paper hopes to make an important contribution to conference themes by drawing attention to the skills, qualities, and models leaders can use to make efficient and effective service improvements, particularly in relation to the quality and safety of care.
How effective are Hospital managers in an evolving autonomous environment in Health system of Kazakhstan

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Context
After Kazakhstan became an independent at the beginning of the nineties; the economic, social, and political systems of country fell into decay, including the health system. Therefore, to solve existing difficulties, Kazakhstan has undertaken several significant efforts to reform the system including two comprehensive reform programs that were developed in the 2000s. Within the framework of these reforms, major changes to health financing, health care provision and governance were introduced. However, the lack of properly trained health policy makers and hospital managers translates into poor management and inefficient use of resources.

Methods
Objective for the research was to study current managerial practices of Hospital managers and organizational performance of hospitals in Kazakhstan. There was developed a structured questionnaire covering several managerial domains like Strategic management, Quality management, Human resources management, Financial management and Adoption of medical innovations. Structured questionnaire was sent out by email. Study included directors of 407 hospitals of different levels where 264 were state-owned autonomous entities and 143 were planning to acquire an autonomous status.

Results
80.6% of hospitals had approved strategic plan, however 48.4% of them didn’t studied external market environment. 63.9% adopted quality management programs (ISO) and 88.7% had national accreditation. 97.8% pay for CME programs of employees where only 40.3% of organizations pay for more than 21% of staff (should be 100% in KZ). 53.3% have programs for adoption of new medical technologies. 68.1% implemented resource-saving programs (energy and heat saving, etc). 80.1% met their forecasts for profit income in 2011. Only 22.4% have pay-for-performance programs for medical staff. 100% of directors are medical doctors where 57.2% of them had experience at managerial position more than 5 years and retraining on either "Public health" or "Health management" post graduate programme.

Discussion
Human resource management (HRM) is important factor in provision of health care directly influencing performance of health care systems. Nevertheless in many transition countries importance of HRM was underestimated and undergone reforms were emphasizing more on structural change, cost containments, implementation of market mechanisms and consumer choice. There are a few studies addressing HRM aspects in its relation to medical organization performance which show the direct positive relationship. An ongoing reform in Kazakhstan has created conditions for greater competition and management autonomy. Nevertheless only a few of Hospital directors show good performance in new autonomous environment, but majority of them show weak and ambiguous performance. Hospital directors have been appointed from medical doctors and their managerial knowledge and skills are fragmented and mostly based on personal experience. This shows that Hospital managers require further professional training to improve their competencies and there is a need for appropriate training programs in Kazakhstan.
Assessing the perceived effectiveness of clinical directorates

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Context
Clinical directorates (CDs) are intermediate organizational layers led by doctors acting as medical-manager hybrids. They have been implemented in acute settings of most western countries, with the aim of finding the balance between quality of care, professional values and managerial practices. CDs were introduced in the Italian NHS in the ‘90s, yet critics argue that their performances have not met expectations. As social-behavioural factors influence the ways in which formalized organizational structural changes are enacted by people "on the ground" (Braithwaite et al. 2005), we aim to deepen existing knowledge on the shared beliefs, attitudes and values of CDs staff.

Methods
The research setting was the Local Health Authority of Bologna, Emilia Romagna. The LHA has four hospitals and eight cross-hospitals CDs that were introduced in 2005. We translated and adapted to the Italian context a validated questionnaire developed by Braithwaite and Westbrook (2004). The sample was composed by the doctors, chief nurses and administrators that worked within each of the eight CDs for a total of 350 staff members. Questionnaires were completed anonymously by 158 staff members, with a return rate of 45.14%. Attitudes were assessed in terms of their uncertainty, intensity and polarity.

Results
Our findings show that over a quarter of the respondents were uncertain about a range of issues regarding CDs. Uncertainty was highest about decentralizations and CDs director's characteristic. The lowest uncertainty was expressed in relation to clinician issues. Intensity indices are highest for clinician issues and coordination and management items, and lowest for working relationships and decentralization. The staff appeared more polarized for the latter two sections and least polarized about CD organizational performance and CD Director's characteristic.

Discussion
This study has offered a contribution to the understanding of CDs through an analysis of staff perceptions toward them in an Italian LHA. Clarification of staff attitudes acquires importance due to the levels of investments in the development of CDs over the time (organizational efforts, clinical time, energy, etc.). The assessment of professionals' perceptions is the first step to highlight issues, problems and opportunities on which the healthcare executives can act to improve the organizational development and change of their organizations.
Evaluation of an integrated care programme for children using claims data - A methodological view on restrictions and challenges

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Context
In Germany merely 27 per cent of the more than 6,000 integrated care (IC) programs conducted by statutory health insurances (SHI) are evaluated. The lack of evaluations is often reasoned by their high costs, the large time investment and the absence of experienced personnel. To counteract these barriers, it is important to reduce the complexity of evaluations, for example by using the pre-existing claims data of the SHI. Aim of this study is to point out methodological challenges of IC programme evaluations when using this source.

Methods
Methodological challenges were carved out on the example of a general practitioner programme for children and young adults. This programme is performed by a SHI that provided all relevant claims data for the analysis. Pertained to an evaluation period from 2009 to 2011 information of 376,286 children was analysed. First, of all study endpoints those were identified that can be evaluated when using SHI data. Then, all further relevant evaluation steps were performed. Different methods that can be used in the single evaluation steps were applied and it was examined whether they are suitable when using SHI data. For each step, potentials and restrictions in the use of SHI data were identified and described. Causes for restrictions were carved out based on a comprehensive literature search in the database SciVerse Scopus and Google Scholar and four additional expert interviews.

Results
Following endpoints could be evaluated: reduction of overall and remedy costs, complete and expeditious performing of the specific check-ups U1 to U9, improvement of coordination of care by paediatricians and observance of pharmaceutical discount agreements. The latter is restricted by the need of additional pre-existing information. Other endpoints could not be evaluated at all caused by unavailable information, like about knowledge changes or services not charged by SHI. Principally, all further evaluation steps were possible to conduct in every case, although not always simple. Especially data preparation inclusive verification, cleaning and linking was very time-consuming. Further restrictions were caused by the nature of the project. For example the evaluation period started later than the project itself. This led to different ways to conduct matching. The selection of different periods and included insured has advantages and disadvantages so that in each case it has to be deliberated which one to choose.

Discussion
Based on this example it can be assumed that it is possible to evaluate IC programs using SHI data. However, this has not to be necessarily simple. Especially the preparation of data is time-consuming. This problem could be solved by creating a comprehensive data warehouse where all data of the SHI is available in an appropriate form. Further, the preparation of evaluation should start as early as possible when designing a new IC programme. Then, the single evaluation could be simpler conducted which as consequence could lead to more evaluations.
Application of the simplified Activity-Based Costing method in the otolaryngology department

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Context
In the last decade many healthcare organizations started to face problems related with the ability to keep on providing the good quality services with limited resources. According to the medical research and introduction of new medical technologies and procedures and consequent increase of consumed costs, many hospitals are under pressure to adopt more advanced cost management techniques usually utilized only in profit organization sector. Key target of the hospitals is to effectively utilize assigned sources. For this purpose, the knowledge about the true cost of individual services, activities and tasks, provided by costing system is very important.

Methods
Objective of the study was to test the applicability of the advanced Activity Based Costing system in hospital management. ABC systems are very often criticised for high complexity and high demand on the volume and quality of non-financial input data. Objective of the application was to apply the simplified ABC model with limited number of activities and cost drivers, which will be more suitable for practical use. According to high number of departments in Czech regional hospital, we have chosen the otolaryngology department as the appropriate representative. During the costing system application we have analysed all important features of the system in order to define the functional costing system. Important specifics of the costing system application have been defined and properly discussed.

Results
The main objective of the study was to develop the Activity-Based Costing model with more simplified structure than in traditional ABC model. Developed model includes limited number of 11 primary activities, which are used for allocation of overhead cost to individual patients of hospitalization cases. Model includes the allocation of all cost to activities with use of resource cost drivers. Some of the costs are allocated using index method. After the calculation of total activity costs, the activity, cost drivers, output measures and activity rates are calculated. This allows the analysis of the unit cost of individual tasks and actions performed within the otolaryngology department. Very important part of the model is mutual consumption of the activity costs among the individual departments of the hospital, which had to be carefully considered in order to calculation of the true cost.

Discussion
Application of the costing system based on the Activity-Based approach brings the completely new view on the service cost than traditional costing schemes used in hospitals. Key output of the ABC system is the information about true cost of hospitalization cases and individual patients. Hospital managers could analyse the cost, and performed activities and seek the procedures to its optimization. Traditional costing and allocation schemes also provides the information about the average cost of individual provided activities, but are unable to calculate the cost of individual patients. Study showed the way how the simple ABC costing method could by applied in selected hospital department and outlined the way to hospital-wide application, which could bring important benefits to hospital management.
The relation between guideline adherence and intermediate health outcomes in diabetes patients

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Context
The complex disease of diabetes mellitus requires a high standard of quality of care. Deregulated diabetes can lead to several kidney- and vascular problems. In the Netherlands diabetes care is organised mainly in the primary care setting. A guideline defines norms for diabetes care in primary care, to assure regular follow-up and monitoring of diabetes patients. The guideline includes yearly check-ups including several diagnostic tests and self-management activities. The objective of the study is to assess the relationship between guideline adherence and intermediate health outcomes in primary care for diabetes type II patients.

Methods
Data were collected in general practices throughout The Netherlands, between June 2011 and July 2012. Patient files were searched to obtain information on guideline adherence, patient characteristics and intermediate health outcomes. Guideline adherence included structures and processes of care. Structure indicators included education, multidisciplinary meetings, use of patient experience questionnaires, regulation of access to patient files, and policy for no show patients. Process indicators included yearly measurement of intermediate health outcomes (systolic blood pressure, BMI, HbA1c, LDL cholesterol, albumin portion, creatinine clearance, smoking behaviour). Guideline adherence was expressed as a score for structure indicators, ranging from 0 for no guideline adherence to 6 for perfect guideline adherence and a score for process of care (range 0-9). We assessed the relationship between guideline adherence and intermediate health outcomes with multilevel models, adjusted for patient characteristics in which guideline adherence was entered as practice level covariate, to account for confounding by indication.

Results
In total 363 patients from 32 practices were included, with a mean age of 66 years. Mean BMI was 30kg/m2, mean systolic blood pressure was 135mmHg, mean HbA1c was 52mmol/mol, and mean LDL was 2.4mmol/L. We found substantial variation between practices in patient characteristics (e.g. interquartile range (IQR) of mean age per practice=63-70) and outcomes (e.g. IQR of mean HbA1c per practice=48-55mmol/mol). Guideline adherences varied also largely between practices (mean structure score=4.7, min=3 ,max=6; mean process score=5.8, min=4.1, max=7.8) Our preliminary results show no correlation between guideline adherence and patient characteristics indicating that adherence was not better or worse in specific patient groups. However, we found significant correlations between patient characteristics and intermediate health outcomes. Preliminary multilevel analyses suggest that, after adjustment for patient characteristics, better guideline adherence was not associated with improved intermediate health outcomes.

Discussion
We found that there is substantial variation in quality of care for diabetes patients between general practices in the Netherlands. Our preliminary analyses suggest however that there is no clear relationship between guideline adherence and intermediate health outcomes. The intermediate health outcomes are mostly determined by patient characteristics, which cannot be influenced by the care providers. This study provides no evidence that better guideline adherence is associated with better health of diabetes patients. Which is in line with previous research also showing no relation between
improved quality of care, measured with structure and process indicators and improved health or less complications for diabetes patients. Our findings highlight the need for cautious interpretation of structure, process and outcome parameters as indicators for quality of care.
The accuracy of General Practitioner workforce projections

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Context
Health workforce projections are important to prevent imbalances in the health workforce. Matrix Insight provided an overview of health workforce planning in the EU, which shows that 13 countries are engaged in model-based workforce planning using workforce projections. However, in most cases, workforce projections are not evaluated. Consequently, it is difficult to assess whether workforce planning has been successful and projections were accurate. As in the Netherlands health workforce projections have been executed since 2000 to support health workforce planning, the following key question can be addressed: what has been the accuracy of these projections, so far.

Methods
We back tested the Dutch workforce projection model by comparing (ex-post) the projected number of GPs with the actual number of GPs between 1998 and 2011. All data and assumptions used in the projections are based on historical data, but the current model and the actual inflow in training were used. As the required training inflow is the key result of the workforce planning model, that has actually determined past adjustments of training inflow, the accuracy of the model is back tested using the actual training inflow. The accuracy of projections was analysed by different lengths of projection horizon and base period, i.e. 5, 10 and 15 years. By comparing the results of the projections with the actual number of GPs, the mean absolute percentage errors (MAPE) were calculated. The MAPE is a summarizing measure to express the projection error during a certain period of time regardless the direction of error.

Results
The back test results show that the errors of the projection model were relatively small. The mean absolute percentage errors range from 1.9\% to 14.9\%, with the projections being more accurate in more recent years. As can be expected, projections with a shorter projection horizon have a higher accuracy than projections with a longer horizon. Unexpectedly however, projections with a shorter base period have a higher accuracy than those with a longer base period. In conjunction it appeared that, the accuracy is highest for projections with both the shortest projection horizon and the shortest base period.

Discussion
The results imply that it is recommendable to execute health workforce projections frequently, to minimize errors in projections with a longer horizon. This should be considered against the feasibility to execute projections with a shorter horizon and the unintended outcome that dramatic fluctuations in yearly training inflow are needed to match supply and demand. The results also show that projections are done best with data based on relatively short periods. From a data availability perspective this implies that there is significant scope for more countries to engage in model-based health workforce planning. However, the successful application of any workforce projection model is dependent on the type of health care system of a country. Hence, future research is needed to investigate which type of health workforce planning fits with which type of health care system and to evaluate the accuracy of projection models in other countries and for other medical occupations.
Reforming long-term care in Japan: innovation during an economic downturn

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Context
Across Europe, commissioners and providers of health and social care are facing increasing demand for services alongside resource pressures. In England, finding a sustainable and fair model of funding for caring for the older population is once again on the agenda for 2013. As such, we explore how Japan – despite having the oldest population in the world and a persistent economic downturn – established an entirely new approach to long-term care. The innovation significantly improved access to care and we can learn from both the policy design and the successes and challenges in how the reform was implemented.

Methods
This research is based on a study visit to Japan, during which a variety of organisations, policy-makers, clinicians and academics were visited and supplemented by relevant literature and discussions with Japanese academics based in the UK. The research presents a combination of statistical evidence based on administrative data, research from journal articles and observations from discussions with those spoken to during the study visit. We also have comparative figures on public expenditure between Japan and a range of European countries.

Results
In 2000, Japan introduced Long Term Care Insurance (LTCI): a compulsory scheme for those over 40 years old that offers care and support to all those aged 65 years old, on the basis of needs alone. The government wanted to address the shortage of social care, free up informal carers to allow them to join the workforce and to relieve the pressure on health services. Since 2000, the number of people using long-term care services has tripled, with a much greater focus on community-based care. It has also created a diverse provider market and permissive policies have facilitated integration. In order to introduce the new system, the government overcame public opposition and successfully brought about widespread change in attitudes towards state-provided care. This was achieved at a time of economic instability. Interestingly, the government is now struggling to control demand and costs, and adapt the original policy design.

Discussion
Our findings are relevant to current debate about how to improve access to services through change driven at the national level. As well as innovative and carefully crafted policy design, Japan is an illustration of how reform is possible without initially having public support and despite economic uncertainty. Japan also taps into other debates European countries are having related to integrated care, diversity of providers, workforce issues and defining the eligibility criteria for access to services. And whilst the Japanese government has made some significant improvements to the care of older people, we can also learn from the pitfalls of under-management of expectations as it now tries to adjust the initial, very generous offer made to the public and other issues related to the demand, cost and quality of services.
National Health Insurance in Taiwan - the Great Reform in 2013

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Context
The National Health Insurance (NHI) in Taiwan has already reached the goals of universal coverage and equal access to health services. The public satisfaction rate of NHI is nearly 80%. However, this system is facing some problems, including financial crisis, insufficient civil participation and deficient mechanisms to enhance the quality of health care.

The government proposed the reform plan in response to the above-mentioned dilemma and global reform trend. ‘The Second-Generation NHI planning Taskforce of the Executive Yuan’ was formed in 2001. Over a hundred scholars across different domains participated in the plan to propose suggestions to impel the reform.

Methods
The Taskforce was established to focus on organizational systems, equity in fundraising, medical care quality assurance, public participation and information accessibility. After the discussion of the first phase, the Taskforce proposed the plan of Second-Generation NHI, and concluded that accountability is the ultimate goal of the NHI reform and the three major goals: ‘enhancing quality’, ‘balancing finance’ and ‘expanding participation’. According the policy recommendations, the Department of Health (DOH) undertook the Second-Generation NHI reform, and proposed the bill of NHI Act. The key points are as follows:

Quality: information on quality of health care is transparent for the public's demand. Reform the payment system with an aim of improving health quality.

Equity: the premium is calculated on the basis of the gross household income in order to achieve a better fairness in financial contribution.

Efficiency: more efficiency in operations and constructing an organizational system with accountability.

Results
The bill was first sent to the legislature on May 3, 2006. After the complicated legislative procedure, it was passed and promulgated by the president on January 26, 2011. To give people a better understanding of this reform, the Executive Yuan announced the date for formal implementation of the Second-Generation NHI was January 1, 2013. The reforms of NHI included all of the following:

- Controlling the use of resources and reducing inadequate medical treatment.
- Expanding the basis for NHI premium calculation and reinforcing the spirit of ability to pay.
- Establishing a linking mechanism between the revenues and expenditures
- Adopting diversified payment methods to invest in population health.
- Ensuring the transparency of information and encouraging public participation.
- Reducing the copayments of the disadvantaged and covering convicts.
- Enforcing stricter restrictions on access to NHI benefits by individuals who have stayed overseas for a long time.
Discussion
The reform took 12 years of planning and legislation, starting in 2001, to get the amendment passed. The major difference between the original plan and the amendment is the premium. The reform maintains the calculated basis of the first-generation NHI and collects the supplementary premium based on six kinds of income, not to adopt the gross household income. The supplementary premium having a great effect upon the public is an emerging issue. A fierce debate is going on. It is the biggest reform in the NHI system’s history in Taiwan. There are now high hopes that the launch of the reform means a new era for the NHI system. To improve the system even further, future challenges include finding better ways to support disadvantaged groups, provide high quality care and distribute resources fairly. These changes will lead to a new stage in health care reform.
Catching the right CEO: an explorative study of the best performing CEOs in the Italian healthcare sector

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Context
Italian healthcare organizations are facing considerable institutional and social pressures in reference to the quality and appropriateness of their services. This, however, is accompanied by a clear reduction of available resources, making it challenging to increase performance. With the Italian law 502/92, healthcare organizations are directly responsible for the achievement of economic balance. With great expectations on a high degree of technical managerial management, as opposed to the mainly political-driven management of the 90s, it becomes crucial to select "the right people" to drive such complex organizations. This study defines the typical profile of performing CEOs in the healthcare sector.

Methods
The work arises from a previous study conducted by AGENAS (Italian National Agency for Regional Healthcare Services) that identified the 19 Italian most performing healthcare organizations, in reference to the degree of implementation of management by objectives and of individual performance evaluation processes. The first phase of the present study consisted in an in-depth analysis of the CVs of both present and past CEOs belonging to the 19 organizations. In particular, common traits in their characteristics, education and previous professional experiences were identified. At a later stage, a semi-structured interview has been administered to the CEOs, in order to capture additional information not present in the CVs, including a number of personality traits such as, for example, their optimism and their willingness to risk.

Results
A number of common traits among the most performing CEOs in the Italian healthcare sector have been identified. In particular, the typical high performing CEO has a degree in medicine and has a specialization in Public Health. Interestingly, specific universities have played a crucial role in his formation. Moreover, he has a predominantly managerial professional past experience in the public sector. Finally, he has been a CEO for 1 to 3 years and has been present in the current organization from 3 to 5 years.

Discussion
The study has important implications in reference to Regions' responsibility of selecting CEOs in the healthcare sector. Indeed, it seems possible to draw the typical profile of performing CEOs, suggesting which distinctive educational, professional and personal characteristics to seek for in order to select the best possible CEOs. Moreover, the study offers evidence about the existence of specific universities and schools through which performing CEOs seem to have passed. Finally, evidence of the opportunity to separate post degree clinical and managerial itineraries is provided.
Whining patients or conscious healthcare customers? An analysis of patient complaints and gender disparities from a service quality perspective

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Context
In Sweden, there is a trend towards more patient oriented healthcare services, e.g. patient’s freedom of choice and patient-centred care as a quality indicator. This implies a greater emphasis on what patients are satisfied or dissatisfied with. According to Swedish law every county council and municipality must provide Patients’ Advisory Committees for its citizens. The committees’ task is to receive complaints, support and help the complaining patient and contribute to quality improvement and patient safety in the healthcare system. In the setting of this study, the committees in the Western Region of Sweden, almost 4 500 complaints are failed annually.

Methods
Patients’ complaints have not been studied extensively using a service quality-perspective. In this study we consider healthcare a service and the complaints a quality indicator from the perspective of the customer. The main objective of this study is therefore to analyse patients’ complaints in accordance to established service quality models. Furthermore, we test hypotheses based on previous research, for example that a predominant part of the complaints concerns interpersonal issues, since outcome aspects of care are thought to be too hard for patients to evaluate. Another hypothesis is that complaints differ between men and women, presumably that women, to a larger extent than men, fail complaints dealing with issues such as encounter and communication. Approximately 13 000 complaints from three years were collected. Men and women’s complaints were categorized using service quality-categorizations and an additional gender-perspective was applied to the model.

Results
The service quality approach proved appropriate for analysing the data. Only a small amount of the complaints failed to be categorized within the service quality-based categorizations. In contrast to what presumed, the dominant part of the analysed complaints dealt with the outcome of healthcare services, e.g. incorrect treatment. However, a significant amount of the complaints did concern interpersonal issues, particularly dissatisfaction regarding encounter. Using a gender-lens an additional pattern emerged: men tended to lodge complaints when outcome was not satisfactory and women when interpersonal quality expectations were not met. The latter research finding was in accordance to previous research. Also similar to previous research, the majority of the complaints were lodged by women during the period of study. However, when men and women’s total consumption of healthcare was taken into consideration, the disparity disappeared.

Discussion
Through theories from service quality a better understanding of patients’ complaints may be found. This study is relevant because it illuminates mismatches between expected and experienced healthcare services. Most often, research on service quality does not separate men and women, assuming that all patients’ experiences, expectations and needs are alike. By adding a gender perspective to a service quality model, this study helps to shed light on differences, as well as similarities, between female and male patients. To consider healthcare to be a service also indicates a need to redesign healthcare services based on feedback from its customers, the patients. New knowledge about the complaints should be more prominent when including the patient’s perspective in quality improvement of healthcare services.
Access to quality dental care in Romania: Can patients afford it?

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Context
Affordability and quality of dental care services are two essential attributes which influence patients' access to dental care. The Romanian dental care system is almost entirely private, with most of the dentists providing services in their individual offices. Previous research revealed that Romanian patients have a high satisfaction towards dental care services; although the most frequently reported reason to visit a dentist was the presence of pain. This study aimed at assessing how affordable dental care is for Romanian patients, as well as the reasons for which they renounce to seek dental care at a certain point in time.

Methods
The data was collected by means of Computer Assisted Telephone Interviews, during the months of October and November 2012. A nationally representative sample of 1,650 individuals successfully completed the interviews. Out of all respondents, 56.12% (N=926) stated not having seen a dentist in the past 12 months and are the subject of our analysis. Statistical methods included descriptive and correlation analyses of the subsample in order to provide a comprehensive view of the study population. Two major subsamples were analysed separately for a better characterization: those who stated lack of money as a primary reason for not seeing a dentist (Subsample 1; N=385) and those who didn’t deem it necessary (Subsample 2; N=353).

Results
Participants ranked lack of money as being the most important reason for not going to the dentist (41.8%), whereas the second one was because they did not consider the visit necessary (38.3%). The third reason was the absence of a dental office within a convenient distance (15.5%). Considering their monthly income, 69.1% of the sample participants believe the dentistry prices are “inaccessible”, “very high”, or “high”. More accessible prices would act as an incentive to see a dentist for 44.6% of the studied population. Out of the studied population, 23.43% (N=217) renounced to see a dentist at least once. Out of these, 37.7% reported inadequate quality of care, whereas 31.6% reported lack of professionalism as the main reason. When considering the subsamples, these percentages do not differ from a statistically significant perspective: 41% and 31% (N=83) respectively in Subsample 1 and 38.4% and 35.6% (N=75) respectively in Subsample 2.

Discussion
Our results demonstrate that the costs of dental care in Romania are perceived as being high by the majority of the patients, as compared to their monthly income. However, it is noteworthy that the most frequent reasons based on which patients renounce to see a dentist are not the costs, but the quality of care and the dentists’ professionalism. These results prove that Romanian patients seeking dental care are quality-sensitive. Thus, this should be an incentive for Romanian dentists to strive to offer quality care to their patients, who have historically been regarded as being more sensitive to costs than to quality. Moreover, from a policymaking perspective, policy initiatives aiming at regulating quality in dental care should be designed and implemented. Based on the results of our study, they could lead to increased rates of dental visits, as well as increased levels of patient compliance and satisfaction.
Fig 1. Subjects reporting good or very good performance for responsiveness domains
Research on the needs of the medical specialists from the Medical Home Care Services in Bulgaria

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Context
The deteriorated national economic environment calls forth the present Bulgarian healthcare system to face the need of new strategies for bridging the gap between the resources used and the results achieved. The health and demographic state of the population has changed in the last few years. The characteristics observed are the ageing of the population, the rate of morbidity and disability representing premises for the accelerated increase of treatment and maintaining of people’s health status expenses. Both lack of and shortage of suitable healthcare institutions for post treatment care and permanent care challenge the Bulgarian healthcare system.

Methods
The method chosen for the research and most widely used in marketing studies is a written survey with a limited number of both open-ended and closed-ended questions. The empirical sociological research information has been gathered by questionnaires, prepared specifically for the purposes of the present scientific study. The inquiry data has been organized in a special table and the information has been processed by the statistical and analytical programme Statistical Package for Social Science. A number of analyses have been prepared of one-dimensional distributions of all questions, of two dimensional distributions, of connections between quality factor and result, between quality factor and quantity result, between quantity factor and quality result, as well as an interpretation of the numerical characteristics and a graphical illustration of the data.

Results
Basically, “Medical Home Care” is related to: home visit and observation by a medical nurse (74,7%), visit by a social worker (60,9 %), observation by a physician (52,9%), bandage change, administering of injections etc. (49,1%), visit by a sick-nurse (44,9%), visit by a rehabilitation worker (42,4%), providing of sanitary services (33,6%), visit by a psychologist (32,6%), carrying out of rehabilitation and remedial gymnastics (30,6%), observation by a midwife (27,3%), accomplishing of activities for social adaptation and re-integration (23,8%), providing of a medical nurse post (20,3%), realizing of an examination by a consulting specialist (19,8%), performing of lavements (19%), accomplishing activities for psychological adaptation of patients (17,8%) and others: all the activities enumerated, delivery of food (2 %).

Discussion
Based on the conclusions, the following recommendations can be made:

1. To the Ministry of Health-care:

1. The implementation and co-financing of the service “Medical Home Care” will provide better medical service to bedridden patients, to gravely ill and elderly persons in a homely environment.

2. The implementation and co-financing of the service “Medical Home Care” will decrease expenses for hospital treatment of persons who could be cared for at their own home.

3. The implementation and co-financing of the service “Medical Home Care” in collaboration with non-governmental organizations will bring the Bulgarian health-care system closer to the health-care systems of the developed countries, which have proved the effectiveness of this kind of service.
4. An implementation of a clinical pathway “MHC”.

5. A preparation of a standardized index for the categorization of the patients in need of home care depending on the quality and quantity of the patient’s needs.
Who cannot afford dental care in Romania? Results from a national survey

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Context
Oral health is essential to the quality of life. However, the cost of a dental visit increases with the treatment complexity. As an upper middle income country, Romania has one of the lowest levels of dental care costs per patient. The objective of the present study is to build the profile of those individuals who do not seek dental care on a regular basis due to the perceived high costs of a dental visit. Moreover, it aims to identify their general attitudes towards dental services.

Methods
Data collection was performed through Computer Assisted Telephone Interviews (CATI) and resulted in 1,650 valid questionnaires. The subsample considered for analysis consisted of 607 respondents who have not visited a dentist in the past year and who consider the prices of dental visits as being “inaccessible”, “very high” and “high”. Descriptive statistics were performed in order to properly present the sample of interest according to socio-demographic characteristics, as well as general attitudes towards dentistry and motivating factors to see a dentist.

Results
Statistical analysis revealed that 59.1% of the sample lives in urban areas, 46.3% are males, 70.4% are over 45 years old and 71.2% are married. As for income distribution, 10.9% are below 109.7 Euros, 71.1% between 109.8-548.62 Euros and 8.8% over 548.62 Euros; 9.4% refused to answer this question. The number of family members varies from 2 to 4 for 75.2% of the sample. Regarding the occupational status, 27.5% are employed, and 47.8% are retired. A fair proportion of the sample - 24.7% - stated they have renounced to see a dentist. Out of these, 10% said that prices were an important factor while 38.7% invoked inadequate quality and 34% reported lack of professionalism. However, 95.9% of the respondents believe dental visits are of great importance. Accessible prices (53%) and the desire to keep a good oral health (37.1%) were rated the highest reasons to see a dentist.

Discussion
Most oral disorders need professional dental care regardless the complexity of the oral health problems. Despite this, taking into account inaccessibility due to the high costs of treatment, the use of dental services is remarkably low in Romania. Our study reveals that this usually happens among older people, with low income and education level. Lack of dental check-ups and, subsequently, untreated dental problems may result in various oral health disorders. However, the majority of them are potentially preventable through customized interventions leading to an incidence reduction and increase of quality of life. One of the leading intervention methods in this case is motivational interviewing, which is based on persuasion and advice-giving. Thus, our results call for more efforts to raise awareness on risk factors for oral diseases. As suggested by practice, motivational interviewing could be one of the methods to achieve this.

Acknowledgement:
This work was supported by Romanian National Authority for Scientific Research, CNDI – UEFISCDI, project number PN-III-PT-PCCA-2011-3.1-1208.
Hospital CEOs and Clinicians: does overlapping of roles affect Performance? An empirical investigation of the Italian SSN

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Context
A recent stream of literature asserts that having doctors in hospital governance positions is essential for the performance as they provide relevant knowledge and obtain legitimacy. Empirical studies on hospital CEO and Board report supportive findings in this sense. Despite these evidences, some questions remain. First, hospitals are experiencing challenges like financial constraint and competition. Managing them could require more business expertise in leadership positions. Moreover, some sociological problems exist for the doctor/manager hybrid role. This research aims to solve conflicting views investigating in the Italian public hospitals the level of clinicians’ involvement in governance and its effect on performance.

Methods
The research employs quantitative methods. Sample is composed by the total population of the Italian AOs, AOUs and public IRCSSs. Hospital performance is the dependent variable, governance peculiarities are the independent ones. The former is measured through efficiency, surgical/medical appropriateness and clinical quality indicators. Instead, to measure clinicians’ involvement in hospital governance, research uses a dummy variable catching the background of the CEO, i.e. the monocratic body that Italian public hospitals present. Another dummy variable concerning the Managerial Board (Collegio di Direzione), mainly composed by clinicians, measures the strengthening of its role (corporate/advisory-body). Other control variables about governance, organization and context are included. Research employs a panel data (2008-2011). Information on explanatory variables is manually collected working through Regional Councils and SSN Institutes websites. Hospital Discharge Cards are instead employed for the dependent variable. An OLS model is used for data analysis and robustness tests for checking findings consistency.

Results
Despite data analysis is still in progress, first evidences and some insights about expected findings are provided. Differently from what happens at hospital top management level, where the doctors involvement is complete, this research reports a variance in the CEOs’ background. Anyway, CEOs with clinical background are the majority and, on the opposite of non-clinical ones, their number increases in the course of time. Concerning the relationship between governance and performance, the expected sign is positive for two reasons. First, doctors’ clinical expertise would improve the governance decision making. Additionally as Regional Councils usually require business/management training, as well as previous managerial experiences in the SSN for people to be appointed as CEO, they would have same time the right expertise to manage the current hospital challenges. Anyway, a findings variation is expected depending on the institutional setting peculiarities (i.e. political/competition dimensions) as antecedents of clinicians involvement in governance.

Discussion
This research aims to contribute to literature on Board Capital and on Doctors in management/governance. Despite previous empirical evidences report positive relationship between CEO/Board clinical background and hospital performance, any of them clearly inspired to the Human/Social capital theories, to understand why it happens. In this sense, research aims to highlight how specific human capital, i.e. clinical expertise, permit to successfully execute governance provision of resources function roles, improving the organizational performance. First, research contributes to
the argumentation that an effective fulfilment of strategic advice and counsel tasks, like making complex strategic decisions, requires an in-depth understanding of the organization’ industry, that clinical expertise provides. Second, sector expertise, originating from both education and past experiences, could produce same time social capital, like external or internal connections, with professionals for example. In this sense clinical expertise would permit to provide preferential accesses to resources as well as legitimacy and reputation.
Research of the health workers satisfaction and motivation in primary health care organizations

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Context
Health workers are the most essential resource of health organizations that provides their activity effectiveness. Preserving and providing level of human resources of primary health care (PHC) organizations is possible only at creation of an effective system of personnel motivation. National Programme of Health System Development of the Republic of Kazakhstan has provided foreground measures for PHC development – an improvement of the health worker motivation. Develop concrete steps in the field of PHC at the organizational level requires a full-scale research to identify the level of PHC specialist motivation and evaluate the factors affecting its formation.

Methods
Research of the health workers satisfaction and motivation was conducted by the survey of staff (general practitioners, internists, paediatricians, psychologists, social workers) in polyclinic of the largest metropolis (Almaty (57 people)) and industrial centres (Karaganda (45 people) and Atyrau (98 people)). Questionnaire for health workers included questions devoted to the study of motivation and satisfaction (proportion of the main motivations in the work, satisfaction by the level of education, assessment of the impact of personal experience to practice medicine), including satisfaction by the primary health care services (assessment of staffing PHC organizations by qualified doctors and nurses, preventative character of the health system, implementation of the social workers and psychologists service). Analysis of the results included calculation of the proportion of the answered respondents to total number of respondents.

Results
Results of our research suggest that PHC specialists indicate the satisfaction by the work (78,4%, p≤0,01) and the opportunity for professional growth (54,3%, p≤0,05) as the main motivation in their work. Smaller proportion of workers in PHC organizations are motivated in their work by a recognition of their merit and achievement and material rewards (47,9%, p≤0,05). Majority of PHC specialists are satisfied by the level of received education, and believe that their personal experience has an impact on medical practice. A considerable amount of respondents (40 to 50%) indicate insufficient staffing of PHC organizations by doctors and nurses. At a relatively high estimation of preventative primary health care in recent years, PHC specialists are often uninformed about the changes in the regulatory and legal framework for the activities of PHC organizations.

Discussion
Summing up the results of our research, we think it necessary to note the adoption of measures in the area of recruitment and retention of young professionals in PHC organizations, to create conditions for their professional development and training in PHC organizations of industrial centres, located at a distance from the political and economic centre of the state and do not have their own base for training. In all PHC organizations, regardless of their location, it is necessary to ensure improvement of the health workers qualification, their level of awareness about the legal acts adopted on the activities of PHC services, as well as to create conditions for the further growth of motivation and satisfaction of PHC specialists.
Management of innovations in health system: status and prospects

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Context
Globalization and desire of each state to achieve competitiveness in the global level requires implementation of innovations in all areas of the national economy, including health care. High-quality research and innovations should be the basis of improving the health of the population at the national global level. Development of science and innovation embodied in new scientific knowledge, products, technologies, services, skills and management practices becomes a major part of the strategy for development of national health systems. The level of innovation activity of the health system is in close connection with the general level of innovation activity of the state.

Methods
The results of studying the most prevalent level in the international practice of scientific efficiency indicators (publications in peer-reviewed journals, patent activity, and international patents) and science relevance (citing of publications, knowledge and technologies transfer level) are mentioned in this research. The study of the domestic science place including healthcare sphere, in relation to ten leader countries in a global rating, as well as in comparison with the former Soviet Union countries are underlay at the basis of this comparative analysis. The data source is the researches results of the number of the authoritative organizations implementing regular scientific and innovative development monitoring in the world - the World intellectual property organization, the SCImago Lab research center, the INSEAD business school.

Results
Results of our research indicate insufficient competitiveness of the Kazakhstan's National science and innovation system in general, including researches and innovations in the field of healthcare. The main reason for low indicators of the scientific researches and innovations efficiency and relevance is the scientific products quality discrepancy to the international standards requirements. The international standards of the appropriate (scientific, laboratory, clinical) practice are poorly applied in methodology of the domestic scientific researches, is mentioned the insufficient capacity of medical scientists in the field of researches planning, their design development, biostatistics tools application and evaluation of the used statistical methods, knowledge of the epidemiological analysis principles and the basics of evidence-based medicine, etc.

Discussion
Thus, in the remaining low-quality conditions of scientific and medical researches and non-competitiveness of the domestic scientists development are needed the State real steps to further medical science reform in the Republic of Kazakhstan, including the modern management and international standards implementation, the scientific and medical infrastructure development and the medical science human resources improvement, the medical education and science integration ensuring and the effective system creation of the research developments transfer into practical healthcare. Along with measures of state support, the development of an effective infrastructure to support research and innovation process in health care and the introduction of effective management of innovation will ensure the development of science and innovation in local health care organizations, to create conditions for improving the competitiveness of Kazakhstan's health and, thus, will contribute further increase the recognition of Kazakhstan on an international level.
Differences in consumer satisfaction in central and peripheral ambulants in primary health care in Belgrade

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Context
Primary health care customer satisfaction is an important parameter for monitoring and analysing the health care quality. Better understanding of factors that influence customer satisfaction will enable easier selection of measures for increasing quality of provided services, and therefore customer satisfaction. The aim of this study was to determine which elements of health care have the greater influence on the average rate of user satisfaction of services.

Methods
Analysing this factors, we used results from The National Customer Satisfaction Survey, undertaken on 3th December 2012. We wanted to search if there is any difference in customer satisfaction due to territorial position of ambulants. That why we conducted additional survey in peripheral ambulants at the same time and under the same conditions (The National Customer Satisfaction Survey is always conducted in central ambulants). Every customer that visit ambulants on that day during the working hours, had opportunity to answer the question and the response rate was 85.7%. Questionnaire has 19 questions, 16 closed, about demographic characteristics of population, patients rights, availability of health service, frequencies of using the health care, preventive cancelling, customer satisfaction with doctors, nurses and health services. Users had opportunity to express their satisfaction with health care service on a Likert scale. In the statistical processing we used the descriptive method, Chi-square test, T-test and ANOVA.

Results
We have analysed 2569 questionnaires (1052, 41% from central and 1516, 59% from peripheral ambulants). The customers was 45.9±16.60 years old, younger in central ambulant (43.5±15.97, p=0.000). Statistically significant customers in peripheral ambulants are with “bad” or “very bad” material conditions and more often avoided medical care because they were not able to pay (p=0.000). Customers in central medical ambulant think the ambulant has good medical equipment but can not reach medical care at the same day they need it (p=0.000). The average customer satisfaction rate was 3.83±0.95, higher in peripheral ambulants 3.93±0.93 than in central 3.68±0.95 (p=0.000). Within last 12 months customers from peripheral ambulants statistically significant have more visits to their doctor (7.3, p=0.000), less visits to another doctor (1.99, p=0.000) or private medical services (0.77, p=0.000).

Discussion
This analysis found that most influence on the average score of customers’ satisfaction had the communication between health care providers and patients, commitment and interest in patient’s problems and the general conditions of medical centres. Customers in peripheral ambulants are more satisfied and do not want to change their doctor or to go to private services. Opposite to our expectations, customers in central ambulant are less satisfied, think that medical equipment is not good enough and often go to private doctor. Even the survey was taken in the same town; differences between two populations are obvious. Management can use these results to find the way to increase the satisfaction rate changing the organisation of health service (introducing customers to their rights, changing the equipment, improving availability of health services).
Is it time to embrace nursing in primary care in Albania? A study research of external and internal (attitude) factors which support or obstacle the expansion of nursing practice in primary care in Albania

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Context
Nurses’ role in primary care has received substantial scrutiny, as demand for primary care has increased. Evidence indicates that primary care services, such as wellness and prevention services, diagnosis and management of common uncomplicated acute illnesses, can be provided by nurse practitioners at least as safely and effectively as by physicians. An expanded scope of nurse practice and team-based approach has been shown to improve quality, patient satisfaction and be cost effective; where does Albania stand to Nursing Role on Primary Care in such situation? Is the Albanian healthcare environment encouraging broadening role of nursing or are there barriers?

Methods
This is a transversal, qualitative and quantitative study, which focuses on evaluating nursing actual practices for broadening its role in Primary care in Albania. In order to evaluate the Albanian context on nursing issue, we first gave a descriptive view of how the outer environment (in terms of political and society will, projects, legislation and reforms) supports the expansion of nursing practice in Primary care in Albania. Secondly, our study profound on inner environment attitudes on Primary care in order to find out if the workforce attitude serves as a driver of the idea of broadening the role of nursing or a barrier, based on a survey of primary healthcare staff attitude; Special attention on Teamwork, Safety Climate, Stress recognition, and Job satisfaction both for nurses and doctors. Response was voluntary, and administration techniques included face-to-face interviews, meeting administrations. Data analysis conducted by SPSS version 15.0, Ch. IL

Results
Continuous Education; MOH has made efforts for the nursing staff embrace growth.

Preparation of Protocols; contemporary concepts of nursing resources management

Creating "Order of Nursing"; indicates the policies nurses role

Management Information System is in its latent process,

The overall political will political cast has been shown little interest, growing attention

Cost effectiveness issues/Patient satisfaction / Quality of Care No available data to give clear evidence comparing Nurse-Physician service in Albania.

Nurse-physician

Over 80% of doctors and nurses have claimed that they have the teamwork spirit, no statistically significant difference (p = 0.303); 36% of the respondents also agreed to the sentence "In this ambulance, it is difficult to speak up if I perceive a problem with patient care". The items about management were perceived positively. "All the necessary information is routinely available to me.", 86% of doctors and 78% of nurses agree, with a statistically significant difference (p=0.009).
Discussion
The nursing population is the largest portion of the Albanian Healthcare workforce. Yet, it faces many challenges to being integrated as fully as it could be in the provision of care. As barriers are insufficient education/preparation to adopt new roles (drivers are in their latent process); restrictions on scope of practice, and in some cases “professional tensions and no open communication” make it difficult to practice to their full potential. There is room for further research and further attention from stakeholder regarding nurse role in Primary care in Albania, but what we can recommend due to research evidence and literature review is (1) nurses can practice to the full extent of their education and training, (2) improve nursing education, (3) provide opportunities for nurse to assume leadership role and to serve as full partner in health care improvement efforts, (4) improve national data collection for workforce planning.

Table 1: Team work domain

Table 2: Stress and fatigue recognition among Nurses and Doctors

Table 3: Nurses versus Doctors safety climate domain
SMS-based time use research among Dutch GPs: an experiment

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Context
It has become a critical challenge in many countries to ensure sufficient capacity of primary care providers, specifically the capacity of General Practitioners (GPs). In a number of countries, health workforce planning is specifically developed for GPs, increasing the need for reliable and detailed statistics on GP capacity and the net time GPs spend on patient care. The measurement of GPs time use appears to be quite difficult in practice however. There is a need for a new reliable, valid and yet non-demanding method to measure a GPs time use in practice.

Methods
We performed a scoping literature review on the type of time-use survey among GPs that has been applied and described in scientific literature over the last 15 year. Our review shows that in most studies self-reporting time use surveys are conducted, using the ex-post ‘diary method’. The main disadvantages of this method are that GPs overestimate their total working time, and underestimate their net time spend on patient care. As an alternative, we developed a real-time and work sampling method to measure time-use among GPs, using Short Message Sending (SMS, or: texting). A total of 14 GPs participated in an experiment during two complete working weeks, receiving a number of (randomly send) time use questions through SMS on their mobile phones.

Results
The main goal of the experiments was to explore the actual feasibility of a time-use research among 14 GPs during a working week using a SMS tool on their personal mobile or smart phone. The experiments during both weeks went successfully. The SMS system allowed GPs to text that no messages should be send during certain time slots, as they were certain that no GP-related work was performed. During all other time slots, SMS texts were sent randomly and answered within 30 minutes. One single question was posed: what do you at this moment? Only 4 answers could be replied: (1) not at work, (2) doing direct, (3) indirect or (4) non-patient related work. The main result was that GPs experienced their participation in the SMS-based time use research as pleasurable and non-demanding, as most SMS interactions went quick and easy.

Discussion
Measuring time use of GPs through SMS, programmed according to real time and work sampling principles, appears to be feasible. Evaluation interviews after the experiments support that GPs handled the SMS-send questions in an easily and reliable manner. Receiving and answering 5 to 7 messages each day of the week was manageable for all participants. Providing clear instructions and extensive pretesting of the SMS system also contributed to the experiments’ success. Still, it should be recognized that GPs were recruited through personal networks, and were somewhat biased in their willingness and curiosity towards the SMS experiment. At the individual level, time use measurements based on the SMS data collected remain inaccurate. Summing these time use data over individuals however, exponentially increases the reliability of the time use estimations. Hence, this appears to be a promising method to roll out on a larger scale, and support national health workforce capacity measurement.
Effect of global safety alerts in drug use trend: rosiglitazone and pioglitazone

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Context
Thiazolidinedione drugs are used to improve glucose homeostasis in patients with type-2 diabetes mellitus. This group includes rosiglitazone and pioglitazone that, when first marketed, had proven the ability of the drugs to reduce blood glucose and glycosylated hemoglobin levels. However, pre-market studies not determined the effect of the rosiglitazone in cardiovascular events, for which several global safety alerts are done. It is our purpose to study the effects of the global alerts on rosiglitazone and pioglitazone in Portugal, for 10 years-period.

Methods
Monthly data in Portugal, was obtained from IMS Health Portugal for rosiglitazone and pioglitazone for the period since January 2002 to November 2012. Analysis was made with data presented by Defined Daily Dose (DDD). It was studied the effect of rosiglitazone safety alerts about cardiovascular events on the drug use trends. Analysis was made accordingly to the following observations: the 5-months period before and after the first alerts (May 2007), before and after the second alert (January 2008) and before and after the third alert (September 2010). It was also studied the global variation of the two active substances, during the study period, not included pioglitazone combinated or generic drugs.

Results
Alerts for rosiglitazone were reported in May 2007, January 2008 and the drug was withdrawn from the market in September 2010. It was observed that pioglitazone increased after the three safety alerts for all presentations, with exception of a decrease for the 45mg dosage, after the third alert. Rosiglitazone sales increased about 16,0% (4mg) and 0,7% (8mg), after the first alert. For packages of 4mg, sales had decreased 12,0% after first alert. For all the presentations on market by the time of second alert use decreased up to 58,0%. After the third alert that determined market withdrawal, there were returns of the product from pharmacies. At a global level, there is a peak on sales for pioglitazone after the third alert for rosiglitazone.

Discussion
After a global safety alert was expected that rosiglitazone sales decreased. However, after the first alert, the number tablets of rosiglitazone sold remained almost the same. Sales of pioglitazone increased after first alert, because the fact that they belong to the same pharmacotherapeutical group might have influenced the prescription, and sales remained almost unaltered after the market withdrawn of rosiglitazone. This could be explained by the fact that prescribers maintained the prescription for patients that already were using pioglitazone and started prescribing other oral anti-diabetic drugs.

It is important to analyse carefully the trends on drug sales after alerts, because there are several variables that could influence drug prescription as divulgence and information content in alert, availability of similar drugs, between others.
Minimizing antibiotic use: impact of a national campaign in the antibiotic consumption trends

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Context
Antimicrobial resistance is one of the major public health problems worldwide, demanding countermeasures to avoid morbidity, mortality and health care costs associated with this global concern. Several interventions have been developed to improve antibiotic prescribing, dispense and use, but not always was assessed their impact in clinical practice and in antibiotic use. Accordingly, our aim was to assess the effect of a national campaign to improve antibiotic use on the global antibiotics consumption.

Methods
Using published consumption data from 2000 to 2009, was performed an analysis in order to assess the differences in antibiotic consumption after the implementation of a national campaign to improve antibiotic use, promoted by public and private Portuguese entities. This campaign targeted health professionals (physicians and pharmacists) and general public, during the winter months (December to March) of 2004/2005, 2005/2006 and 2006/2007. It included, for health professionals, the assessment and elucidation about appropriate antibiotic prescribing and/or dispense. In the case of general public, the intervention included the distribution of educative material, educative advertisements on social media and also was created a web-site. To evaluate the impact of the intervention on antibiotic consumption, the variation of the total consumption of antibiotics (J01) was assessed. It was also calculated the consumption variation of each pharmacotherapeutic group (J01A-tetracyclines; J01B-Amphenicols; J01C-penicillins; J01D-cephalosporins; J01E-sulfonamides; J01F-macrolides, lincosamides and streptogramins; J01G-Aminoglycosides; J01M-quinolones).

Results
Evaluating antibiotic consumption before (2003) and after (2008) the intervention period, the decreasing of total antibiotics (J01) was near to 10%. The major decreasing was observed for J01E-sulfonamides and J01D-cefalosporinines. However, in some pharmacotherapeutic classes, the antibiotic consumption has increased during the intervention period (J01B-Amphenicols or J01G-Aminoglycosides) When evaluating the overall consumption of antibiotics and relating it with the educational campaigns, it was observed a considerably decreasing of total consumption after the first action (2004) and a gradually diminishing to values lower than those before the intervention.

Discussion
Assessing the effectiveness of interventions aimed to improve antibiotic use is essential to help decision makers and health authorities to diminish the growing of resistances. The effectiveness presented can be due to: (i) the long time period of the intervention (three years); (ii) the inclusion of health professionals, health authorities and private entities working together to tackle this global concern. However, this intervention doesn’t include any control group to compare the results, which is a limitation to analyse its specific results. It is also important to state that during the follow-up period (November 2004 to March 2007), different interventions were made at a local or regional level that probably also contributed to the global decreasing of the antibiotic consumption. However, considering that Portugal still is one of the European countries with higher values of antibiotic consumption, it is fundamental to develop more interventions to improve antibiotic prescribing and dispense.
Role expansion and boundary work of GPs in the quest for demand-driven, efficient elderly care

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Context
This study focuses on Dutch general practitioners, more specifically on their being requested, e.g. by their professional associations, to expand their role in elderly care. The demand for more complex elderly care increases, which has a potentially large impact on GP practices as a growing part of the elderly prefers to live independently. Moreover, external stakeholders ask for a stop to increasing costs, while maintaining or improving quality of care. In this context, the GP may perceive the need to change their role identity in elderly care, to engage in boundary work, and to settle new ways of cooperation.

Methods
A sample of 29 GPs from 8 different provinces in The Netherlands were interviewed. We engaged in theoretical sampling to gain a comprehensive understanding of the range of GPs' perceptions related to their role identity modification as a result of external challenges. GPs were selected based on obtaining variation in the following characteristics: GP gender, age, city vs. rural area, practice size. Based on the literature and a focus group discussion with 6 GPs, an interview guide was developed. Interviews were transcribed verbatim. The interviewer's notes were used for structuring the collected information according to broad themes of interest, and developing preliminary insights regarding emerging differences among the interviewed GPs. This structured thematic overview was used to develop a coding book. In addition, to the coding and analyses in Atlas.ti, selected more closed parts of interview data, as well as the participants' background characteristics were analysed in SPSS.

Results
While GPs experienced obstacles, they all expanded their role. The extent to which they did differs. The role expansion seemed to be inevitably related to increased task delegation both within and outside GP practices. The variation lies in how these GPs cope with the recent health care challenges, i.e., re-organization towards a 'business-like approach'; the push to take a much more proactive, preventive, somewhat less personal and more coordinating and supervising roles, and the attendant changes to their role identity that these developments are likely to bring. Different GP types seem to be crafting different role identities. This led to the development of a typology of four different types of GP role identity change.

Discussion
We discuss the practices and steps taken by the GPs in each of these four role identity change types, especially how GPs effectuate changing roles by boundary work, and what kind of coordination practices are applied. The results suggest that the demands put forward by the stakeholders in the field, especially their professional associations, for many GPs have led to some role expansion. However, only few GPs have engaged in major professional role redefinition that answers these demands.
Happy Feed: Group-counseling for pregnant women

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Context
Rising levels of overweight and obesity among European citizens present major challenges for European health and policy. Based on the consideration that pregnancy presents a critical life-course event which might trigger women to become more nutritionally conscious and willing to adapt a healthier lifestyle Master students of the study program International Health & Social Management at Management Center Innsbruck (MCI) drafted a proposal on a fictitious European project called Happy Feed which was awarded the first prize by external experts in the field of public health within the MCI case study competition.

Methods
Embedded into healthregio, Happy Feed is a pilot-project aiming to upgrade existing prenatal service providers in the cross-border region of Burgenland (Austria) and Vas (Hungary) by providing them with a fully-conceptualized and evidence-based tool-kit comprising of booklets, support and training manuals on how to perform group-counseling sessions (theoretical & interactive workshops) for all pregnant women regardless of their socio-economic status and pre-pregnancy BMI. Under the supervision of nutritionists, fitness trainers and diet cooks, pregnant women receive profound information and practical guidance on the following topics:

- Gestational weight gain during pregnancy
- Nutritional education & meal planning
- Snacking & stimuli control
- Dispelling common misperceptions about nutrition, physical activities & breastfeeding
- Safe, enjoyable & feasible moderate physical activities
- Breastfeeding
- Self-monitoring
- Affordability & access to healthy food
- Opportunities for physical activities
- Avoidance of harmful substances, tobacco & alcohol abuse
- Mineral & vitamin supplementation
- Cooking sessions (hosted by star cooks)

Results
A randomized controlled trial (RCT) will be conducted from the 16th week of gestation till one year after pregnancy in order to evaluate the effectiveness of the Happy Feed program compared to existing prenatal services in regards to gestational weight gain (GWG) based on the revised guidelines from the Institute of Medicine (IOM) for single pregnancies, dietary habits and nutritional intake measured by the Harvard Food Frequency Questionnaire, levels of physical activities based on PA-scores and inactivity measures, post-pregnancy BMI (weight gain and loss), breastfeeding duration after gestation and medical indicators on the infant’s development. A subgroup analysis will be made according to self-reported BMI before pregnancy, socioeconomic and marital status, encounters with additional information sources and support services for pregnant women, access, affordability and availability of healthy food and opportunities for physical activities as well as based on the ability to initiate and sustain breastfeeding.

Discussion
Providing lifestyle intervention programs in the form of group-counseling sessions by stressing the importance of adequate weight management for all pregnant women might be an effective strategy for reducing the negative outcomes of weight-related maternal risk factors including their negative impact on Europe’s future generations as a further consequence. Group-counseling enables to target numerous pregnant women and provides a possible venue for them to discuss experiences, issues and practices with others. Based on the assessment of health professionals high risk-groups which demand more intensive support can be identified and transferred to individual counseling sessions. Aiming to
expand the continuum of care Happy Feed can be linked to other projects (e.g.: workshops for women who want to become pregnant, nutrition for infants, weight loss after pregnancy). Effectively dealing with psychological aspects such as attitudes of pregnant women towards GWG, physical activities and healthy nutrition are considered as critical success factors.
Strengthening Community Health: The Role of Medical Education

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Context
Community-health is one of the crucial pillars for affordable and equitable health-care. Israel, as other countries, is struggling to strengthen its community health-care and to reduce health inequalities. In recent years, several unique programs have been developed in medical schools. Those programs managed to make impressive achievements in promoting affordable and equitable care for rural and peripheral populations.

The Objectives of this study are: 1. To compare the community orientation as reflected in the various medical schools' curricula and the rates of graduates working in the periphery. 2. To compare the social and community orientation of graduates from the various medical schools.

Methods
Online cross-sectional survey among 9,000 physicians who graduated from all medical schools in Israel. The survey was conducted during May-June 2011.

The survey included questions dealing with community orientation, social involvement, place of work (center vs. periphery; community vs. hospital), specialty, dominant approach in medical curriculum as perceived by graduates, graduates' perception of the impact of medical education on their social involvement. Data was analyzed using uni-variate and multi-variate analysis with SPSS V19 software.

Results
1,491 physicians answered the survey. There were no demographic differences (age, gender, religion and country of birth) among graduates from the various medical schools. Higher rates of physicians who studied in Ben-Gurion University (BGU) are working or have worked in the periphery (55% vs. 30% Average of other schools, p<0.001) and active in community programs (50% vs. 37%, p<0.001). Among the physicians active in community programs, 37% of BGU graduates estimated that their medical education greatly influenced their community involvement (37% vs. 11-15% in other schools, p<0.001). Among BGU graduates, 61% noted that their studies had social orientation, compared to 2-4% in other schools (p<0.001).

Discussion
There are currently five medical schools in Israel, each school has a different emphasis on integrating community medicine and the subject of health disparities in its curriculum. We found that BGU medical school graduates are more involved in social and community medicine. They also had the higher perception of the impact of medical education on their community and social involvement. As BGU medical school, located in the southern periphery of Israel, was established with an emphasis on community and social medicine in its curriculum, these findings shows the potential role of medical education in reducing health disparities by influencing graduates to work in the periphery and to be more involved in community programs. These insights are crucial when considering changes in medical schools curriculum and implementing a long-term national plan for affordable and equitable health care system.
Improving Patient Safety: The East Jerusalem Hospital Network Experience

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Context
The East Jerusalem Hospital Network (EJHN) was established in 1993 by the late Faisal Husseini and is made up of six facilities. The East Jerusalem Hospitals (EJH) serve as the main referral centers for the Palestinian Ministry of Health (PMOH). Over fifty percent of their workload includes PMOH referrals from the West Bank and Gaza. Patients from the West Bank and Gaza must obtain a permit from the Israeli authorities in order to be able to enter Jerusalem and access their care.

Methods
The World Health Organization (WHO), through its Jerusalem office, has supported the EJHN to improve their quality of services. During the first phase of WHO's support, the EJH developed their institutional capacity to achieve International Standards Organization (ISO) certification. In the current phase, the EJH have continued to develop organizational capacity to meet the Joint Commission International (JCI) standards. Several of the facilities are scheduled for the JCI accreditation survey in May 2013. The remaining facilities are expected to go through the accreditation survey before December 2013.

Results
This presentation aim to illustrate the EJHN experience in improving patient safety and quality of services. In such a volatile environment, it has been critical for the EJH to lead in quality improvement interventions within the country.

Discussion
Improving patient safety and quality of services has been critical for the EJHN given the highly volatile environment; economically, socially, and politically. With the improvement of quality of services, governance and management oversight has also improved. As such, this project’s interventions have lead to strengthening the organizational capacity as a whole.
Sustainability in hospitals: engaging professionals in pro-environmental behaviours

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Context
Despite the increasing attention paid by stakeholders and more than half of NHS leaders who says sustainability is important in running their organizations, the 2011 Sustainability & Innovation Global Executive Study demonstrated that healthcare managers are experiencing major challenges in the introduction of pro-environmental practices in their organizations. Moreover, according to The Business of Sustainability Survey (2009), “ outdated mental models” remain the main roadblock to addressing environmental issues within hospitals. In this respect past research didn’t pay attention to behaviors at the workplace that contribute to make an organization more sustainable. This study aims at narrowing this limitation and offering new insights to the ongoing debate about how to promote employees’ pro-environmental behaviors.

Methods
In order to the above mentioned gaps, I combined the Ability-Motivation-Opportunity theory (Appelbaum et al. 2000), the theory of Transformational Leadership (Avolio & Bass, 1995) and the Organizational Citizenship Behavior toward the Environment (OCBE) proposed by Daily et al. (2008) and Boiral (2009), developing a multi-level theoretical framework (Figure 1) to be empirically tested in two steps. First, a case studies research methodology will be applied. I want to compare at least three healthcare organizations that have a high environmental performance with at least other three healthcare organizations that are poor performers in environmental KPIs. The gathering of data will be developed both analyzing documents and archival data and interviewing key informants, e.g., the medical director, the chief nurse, the human resources director, the sustainability manager, a sample of doctors and a sample of nurses. Finally, a quantitative survey will be designed and submitted to to the entire population of NHS hospitals.

Results
I expect that there will be a positive relationship between the use of a transformational leadership style in environmental issues and the adoption of OCBE by healthcare employees. Moreover, there will be a positive relationship between the use of an environmental-oriented human resource management system and OCBE. However, these relationships will be mediated by individual level ability, motivation and opportunity to engage in OCBE. In fact, OCBE is a voluntary behaviour so that employees need to to be motivate in doing so. Moreover, it can engender certain costs due to the time and effort involved (Boiral, 2009), therefore individuals have to think they have the opportunity to engage in this type of behaviour. Finally, OCBE can also require high level of knowledge and skills (Graves & Sarkis, 2011), so that employees have to feel able to perform the behaviour.

Discussion
By taking an organizational level perspective, previous research failed to clarify the interplay between organizational leverages and determinants of individual behaviors. The result is that hospital managers lack clear indications on how to promote and facilitate the engagement of pro-environmental behaviours by employees. In fact, “although there is body of research that focuses on organizationally relevant environmental issues, such research takes place primarily at the macro level, where the organization is the unit of analysis (Robertson & Barling, 2012). Accordingly, “Although employees’ pro-environmental behaviours are critical to the success of organizational environmental initiatives, there is little understanding of the mechanisms that foster these behaviours” (Graves & Sarkis, 2012).

Therefore, my research aims at filling this gaps contributing both to theory and practice.
Readmissions in Belgian acute-care hospitals: burden of disease and potential cost savings.

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Context
Internationally, hospital readmissions have a great appeal as an indicator of hospital quality. Since possibilities in prevention and control exist, reducing rates of hospital readmission has attracted attention of policymakers as a way to improve quality of care while simultaneously reducing costs. Therefore reducing the number of readmissions is considered to be a pillar of more cost-effective hospital care. The goal of this study was to estimate the cost of hospital readmissions at a national level, describe differences in readmission rates between hospitals and to calculate the potential monetary savings of reducing excess readmissions.

Methods
Stays data were obtained from the Minimum Basic Data Set 2008 in a sample of 45 Belgian hospitals representing 16,141 beds. Readmissions were identified as a second admission for the same patient with the same APR-DRG code within respectively 1 month or 3 months after discharge. Hospital type, diagnosis-related group, age and gender were used as matching factors in comparing readmission rates. Readmissions that occur naturally in each other’s proximity due to the repeating nature of therapy were excluded. The costs per readmission were then calculated by linking the stays data with the cost data per APR-DRG and per severity index using the 2008 national feedback. The results of our sample were then extrapolated to all Belgian hospitals. We performed a sensitivity analysis to estimated potential monetary savings when a reduction in the incidence of readmissions in hospitals having a higher readmission rate in comparison to other hospitals is realized.

Results
In our sample 1.5% readmissions (N= 19,454) within 1 month after discharge and 2.1% (N=27,051) within 3 months after discharge were identified. The Readmission rate within one month varied between 0.82% and 5.55% (Md= 1.38%, SD= 0.74%), after three months the readmission rate varied from 1.17% up to 6.40% (Md= 1.97%, SD= 0.80%).

The additional weighted mean cost of these readmissions was € 3,495.58 within 1 month and € 3,572.20 within 3 months. The total financial burden, as extrapolated to the Belgian setting, is estimated at € 280,091,471 (3 months).

We provide a full overview of the potential monetary savings when reductions in readmission rates are realized by applying different thresholds. For instance, if all Belgian hospitals having a higher readmission rate improve their rate to the level of the hospital corresponding to percentile 75 (or 65) savings would amount to € 14,118,509 (or € 18,752,623).

Discussion
By reducing readmission rates, quality of care can be increased while at the same time lowering delivery costs. This theme is an international leading topic of practice and policy reform. Unplanned, early or preventable readmissions can be seen as a system failure. There is a growing body of evidence that targeted interventions initiated before and shortly after discharge can decrease the likelihood of readmissions. As such, these interventions are an opportunity to improve quality of hospital care while simultaneously reducing the cost of care delivery. The shortening of Length of Stay has been frequently regarded as discharging patients ‘quicker but sicker’, stressing the importance of follow-up after
discharge. The current fragmentary financing system divides the trajectory of patients in different virtual stages and throughout a single course of treatment separate payments are made to providers. This contrasts the idea of ‘care programs’ and the expected integrated care delivery by patients.
Using system dynamics and cognitive mapping to support decision making in intellectual disability care

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Abstract
Systems thinking approach to problem solving takes into account dynamic complexity of the organization which is governed by history and feedback processes. The authors contend that understanding the characteristics of complex adaptive systems and learning to appreciate the views and interests of the most important actors of the system can support decision making in health care providers. The majority of research examining decision making in intellectual disability (ID) care has commonly studied the issue from the perspective of health care providers. The authors suggest that the degree of success of ID care providers as any other health care organizations depends on their ability to facilitate collaborative representation of the key stakeholders in decision making process. This article examines the views and perspectives of the key stakeholders of one of the ID providers, families of patients and group leaders/personal coaches, regarding flex pool schedule shifts, one of resource allocation dilemmas in the organization. The authors suggest that combination of system dynamics modelling and cognitive mapping techniques can help to structure key stakeholders’ views in a way that can support decision making in complex systems like ID care providers.

Key words: decision making improvement, stakeholder involvement, system dynamics, cognitive mapping
Performance Evaluation and Management Contracts in Primary HealthCare in Portugal: What Lessons have been learned?

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Context
The reforms on Primary healthcare enabled the emergence of new organizational arrangements and structural with innovations in management process and practices in health services to achieve the principles of universality and ensuing access, effectiveness, sustainability, governance and higher quality of services. The Primary HealthCare Reform started in 2005 in Portugal. The reform held a strong strategic perspective, at a time of political and institutional environment, with an extensive restructuring of the health centers, the creation of Family Health Units, and groups of health centers, enabling the introduction of a new management, based on performance evaluation on negotiated contracts.

Methods
Object: Analyze management processes implemented in the Primary Health Care (PHC) in Portugal, regarding the Performance Evaluation methodology and Contracting in Primary-care focusing on.

Methods: An exploratory study, descriptive, using a qualitative approach. The data collection consisted of a literature review and interviews with managers leading of Health Centers in Lisbon Region.

Results
The implementation of a new structure for the coordination of family health units in Health Centers allied to strengthening the management capacity of leaders and the regulation of a system performance evaluation for professionals in public administration has contributed to strengthen the Primary Healthcare management in Portugal, by allowing a managers close to the professionals.

It can be seen as a contribution of a positive impact on the contracting process: a significant reduction in public spending, the adoption of management by objectives, the implementation of clinical governance, team work, greater accountability to the people, larger autonomy of the services and appreciation of professional merit. Regarding the processes involving the technical performance evaluation of professionals, related to the skills and abilities, even with institutionalized rules, there is still resistance from professional groups such as doctors and nurses to adhesion, and would system are not providing enough support.

Discussion
The integration of evaluation processes, for both professional performance and the obtained results by the contracting, allowed a systematic and integral evaluation towards a new culture of apprenticeship, innovation, and continuous quality improvement of services. This experience raises discussions on policies that have been implemented under the Primary Healthcare in several countries, enabling discussions for future research. This study had a scholarship for doctoral internship abroad funded by the Coordination of Improvement of Higher Education Personnel (CAPES) / Brazil.
The impact of Professional Evaluation System in Primary Healthcare

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Context
The Primary care reforms introduced a performance based managers system in Portugal. This study airs at analyzing the Integrated Management System and Evaluation of Public Administration Services (SIADAP) implemented for this purpose. The objectives were to analyze the general context and the implementation of the Professional Evaluation System, identify the facilitating and limiting factors of management process, recognizing the tools used for monitoring and assessing the managers perception on the framework usability.

Methods
It is an exploratory, descriptive, narrative research using a qualitative approach. It was performed a review of documentary and scientific literature. Data collection was conducted through questionnaire applied to the managers of Groups of Health Centers (ACES) in Lisbon. Respondents were divided into the following categories: Coordinator of the Family Health Units (FHU), members of Clinical Councils and responsible for the Management Support Units (UAG). The questionnaire addressed the process of implementation of SIADAP for professionals, monitoring and evaluation of professional practices and their relationship with the contracting process targets in FHU.

Results
The SIADAP was institutionalized by the government in 2007 for all Public Administration in Portugal, however, it still not include all health professional categories, such as doctors and nurses. The process of performance evaluation is applied only occasionally for technical and administrative service earlier in the year. The indicators and assessment objectives are defined beforehand with superiors by a resource process. As limiting factors to the process have been described the extensive workload of professionals, excessive workload to perform the monitoring, lack of protocols for assessment of technical skills by categories. The absence of an integrated information system is also a barrier not allowing the crossing the achieved goals by professionals with the established by the department.

As positive points it was emphasized a greater involvement of professionals to the organization's goals definitive, greater accountability of staff activities, an opportunity for career advancement and encouraging learning for improvement of professional activities.

Discussion
In the ACES organization the management processes directed to the professional performance is show very positive evolution, however is still fragile, by the fact that it does not include all team members and still not inserted into the organizational culture. The activities of the healthcare teams are planned for meeting agreed targets for the indicators, and the absence of a performance evaluation for all professionals, makes it impossible for a systematization in order to improvement management processes and get a better services quality.

The study had a scholarship abroad funded Coordination of Improvement of Higher Education Personnel (CAPES) -Brazil