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Contents volume 48 number 1

03 Editorial
Eric de Roodenbeke and Alexander S Preker

Policy
05 International patients in a Turkish hospital: A quantitative study on cross-border health care at the intersection of Eastern Europe, Asia and the Middle East
Jan-Walter De Neve, Rahool Dave, Mettem Gürel and S V Subramanian

08 World Trade Organization activity for health services
Clémence Gros

11 Integration of hospitals: Is it time for similar changes in Georgia?
Nata Shkvirtadze, Nato Pitskhelauri and Irakli Nikolashvili

14 Information technology orientation for young hospital administrators
Syed Murtuza Hussain Bakshi

Management
17 Using a contribution margin system to manage medical centers in Berlin
Helmar Wauer

Clinical care
21 Stress, health and satisfaction of Australian and German doctors - a comparative study
Stefanie Mache, Karin Vitzthum, Burghard F Klapp and David A Groneberg

28 Improved use of allied health professionals in the health care system: The case of the advanced practice physiotherapist in orthopedic care
Alice Aiken

31 A five-year prevalence study of burn injury in a Nigerian teaching hospital
Prisca Olabisi Adejumo and Moses Iorkyumbul Akese

Reference
35 Language abstracts
40 IHF corporate partners
43 IHF Events calendar
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The idea, if not the slogan “Think globally, act locally” originated in town planning in the early 20th century. It is very much alive today in the context of environmental challenges.

Used in health care, too, most often it is about both thinking and acting locally. Health care delivery, by its nature is local: people need the services close by when needed. But the situation is fast changing on different fronts, and hospital decision makers may find they have to think and act globally sooner than they think.

International travel by patients existed long before it became a media topic. What has changed is the scope of international travel by patients. Nowadays, many countries offer health care services to foreign patients. In some countries, it may be a limited activity and mostly for neighboring countries. The example of a Turkish hospital is a good example of this dimension. But this evolution means that, although hospitals may think locally, their activities are no longer purely local, but global.

Medical practice is shaped by national contexts but more and more practitioners consider how their practice compares to others. When such a comparison is done between Germany and Australia, it is obvious that, though well-rooted locally, the aspirations are global. The human resource market is becoming more and more global with individual mobility at world scale.

Regulating world trade is the task of the World Trade Organization. But in a globalized world how much attention is given to health care? Everybody knows about the TRIPS agreements for the drug industry (trade-related aspects of intellectual property rights and public health, the Doha declaration) but not many know how much WTO covers health care as a possible trade industry. In fact, from the article presenting the WTO health care role in this issue, it will be obvious that health care is not yet considered a major industry for international trade. On this matter, the atomization of the market explains why, from an international trade perspective, health care is still considered a mostly local market.

There is no country in which policy makers are not reflecting on possible evolutions to improve delivery and reduce costs of hospital services. There is no universal model that has proven to be the most effective. But restructuring the hospital sector is a national challenge that cannot be accomplished without looking at what has been done in the rest of the world. The situation in Georgia shows how any option discussed for a country, regardless of its level of advancement, is inspired by others and will in turn influence others. This is an example of think globally, act locally.

Many other different kinds of examples could follow this pattern. For instance, when a country like Canada undertakes a study of a profession like physiotherapy, results can be useful all around the world. Optimization of the care model is a universal challenge in a global context of scarcity of health professionals.

Likewise, the development of information technology (IT) is evolving all around the world. For any support system, best use relies on a good knowledge of its possibilities relative to the various stakeholders. This development needs to be supported by adequate education, which most hospital executives do not have. Proper training for this can be achieved locally but with IT itself it becomes available to anyone in the world. A local resource can have a global use for local benefits.

If not yet convinced, we hope that reading the articles in this issue with a bifocal lens will increase your awareness of the fact that day-to-day activities related to a local dimension cannot be divorced from the global dimension. What is happening in the rest of the world may influence what is decided locally, and what is happening locally may influence decisions in other parts of the world. The scale does not matter; what matters is the nature of the interaction. The global dimension is never far from the local concern.

World Hospitals and Health Services Vol. 48 No. 1
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If it’s really serious. We do it.
Medical travel or medical tourism is the process of traveling for the purpose of receiving medical care. Medical travel has grown significantly over the past 30 years and the term medical tourism has become common around the world. Despite its popularity, a review on global medical travel was unable to retrieve accurate data on the volume of health consumption abroad (Smith et al. 2011). While medical travel is therefore not quantified exactly, the number of Americans travelling abroad for health care is estimated at more than 500,000 (Herzlinger and Green 2009). Medical travel within the European Union Member States is known to be minor (Baeten and Glios 2006, De Neve 2010). Based on differing reports, Turkey would serve over 40,000 to 100,000 international patients annually, predominantly from Northwestern Europe and the United States due to lower medical costs and vacation opportunities following recovery (Aydin et al. 2011, DEIK/Health Tourism Business Council 2012a; 2012b). Furthermore, Turkey has been projected to serve 1 million international patients in 2015, to the tune of US$8 billion, and has the most Joint Commission International accreditations worldwide (Woodman 2009, pp 65-66). The current study provides original data on the volume and profile of international patients seen in a private hospital in Turkey.

Materials and methods
A single-center cross-sectional descriptive study was performed based on a retrospective review of consecutive patients seen at the International Services Department. The study was performed at a 209-bed private hospital in urban Turkey. All international patients were included. Those foreign nationals of Turkish descent and patients transferred from other institutions were included. Expatriates were excluded. Patient data were retrieved from two unrelated sources: the electronic medical record system of the study site (Soarian® MedSuite 4.0.300) and daily international patient lists from the International Services Department (Microsoft Excel). December 1, 2009 to May 31, 2010 was chosen because it was the most recent data available. Hospital data from the electronic medical record system was obtained for number of consultations and surgical procedures. Country of origin, date of visit, department and in- or outpatient status were identified from international patient lists. Patient lists were unavailable for weekends and Turkish national holidays. Outcome measures included consultations, surgical procedures, in- or outpatient status, dates of visit, departments visited, country of origin and gender of international patients.

Results
During the 6-month study period, international patients accounted for 2,666 of all 69,481 outpatient consultations (4%) and 162 of all 2,595 surgical procedures (6%). Six hundred and fifty unique international patients were encountered. Among these 650 unique encounters, patients from Bulgaria (37%), Romania (35%), Azerbaijan (6%), Iraq (3%) and Georgia (3%) were common. International patients commonly required oncological (54%), surgical (13%) and neurological (7%) services. Although quantitative data on medical travel to Turkey is limited, significant patient flows exist from neighboring countries to Turkey.
States accounted for 77 percent while those from North America for 1 percent. Patients from Australia, Canada, Israel, Japan, New Zealand, the United States and Western-Europe, combined, accounted for 5 percent. Most international patients required oncological (54%), surgical (13%) and neurological (7%) services (Figure 3).

Discussion
This study is the first attempt, to our knowledge, that aims to empirically quantify and characterize international patient flows to urban Turkey. Previous studies characterized non-Turkish citizens in an emergency department and tourists with traveler’s diarrhea in a Turkish coastal region (Ziegenhagen et al. 1992, Eray et al. 2008). In reverse, two studies investigated Turkish citizens travelling abroad for organ transplantsations and cross-border reproductive care (Gürtin 2011, Yakupoglu et al. 2010). Although the medical travel industry asserts that significant patient flows to Turkey arise from Northwestern Europe and the United States due to lower medical costs, a review of the medical literature revealed no documentation in support of this claim. The current study therefore stresses the significant number of international patients seen in Turkey. In particular, international patients from Eastern Europe.

This was a single-center study and results may not be generalizable to other Turkish institutions. However, the study site offers an extensive array of specialties and subspecialties and is known as a pioneer in international patients among other private health care facilities in Turkey (General Management, Bayındır Healthcare Group 2010). As the study period covers six months, there is the additional possibility of a seasonal bias if international patient flows differ depending on season. The authors have no reason to believe such bias exists as medical travel in this study tends to arise out of medical need. In addition, bias in the proportion of different nationalities could arise due to international marketing campaigns that are focused on patients from specific countries. The International Services Department, however, builds on campaigns that have proven successful in the past. Previous campaigns targeting Western European and North American markets, for example, were largely unsuccessful.

Further research should keep track of patient flows and consequences of cross-border health care for both international patients and Turkish health care system alike. While the proportion of private hospitals rises, Turkey will increasingly offer an alternative to international patients (Aksan et al. 2010, Republic of Turkey Prime Ministry, Investment Support and Promotion Agency of Turkey, 2010). Turkey, with a 9 percent GDP growth rate at times of global crisis, is geographically located at the cross-roads of three continents and encircled by low-performance health care systems (World Bank 2012, Mladovsky et al. 2009). Private health care providers in Turkey have created platforms to develop incoming patient flows, ranging from industry associations to international medical travel conferences (Turkish American Chamber of Commerce and Industry – Midwest 2010, Association of Health Tourism, Turkey 2011). The consequences of incoming international patients to Turkey have extended beyond its health care system already (Turkish Airlines, 2009).
Furthermore, the long-standing Turkey Health Transformation Program, created by the Ministry of Health to develop the Turkish health care system, addresses international patients in its recent evaluation report. Under the 2023 Vision of Health, it is claimed that, in regard to global medical travel, Turkey will be “at the center of Europe, Middle East, Africa, Central Asia and Russia” (Ministry of Health Turkey, 2011). The Turkish Ministry of Health expressed interest in international cooperation, development and quality improvement, to further boost international recognition and incoming patient flows. Despite these changes, how international patients in Turkey compare to international patients in other emerging countries, remains yet to be determined.

Lastly, based on the unexpected profile of international patients seen at the study site, several implications may arise that could be relevant to regional health care providers, regulators and policy makers dealing with cross-border health care. In particular, (1) the appropriateness of medical treatment within the Oncology Department. She works as a computer scientist focusing on computational analyses of microarray and high-throughput data, and developing software tools in assisting users with data exploration and analysis. Meltem obtained her Master’s Degree from Trinity College Dublin, Ireland where she conducted research in the fields of semantic attributes and reconciliation of large data sets and semantically-enhanced visualizations.

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References


Meltem Gürel currently holds the position of Senior Research Assistant in the Johns Hopkins University Medical Institutions, within the Oncology Department. She works as a computer scientist focusing on computational analyses of microarray and
World Trade Organization activity for health services

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ABSTRACT: Since the establishment of a multilateral trading system and the increasing mobility of professionals and consumers of health services, it seems strongly necessary that the World Trade Organization (WTO) undertakes negotiations within the General Agreement on Trade in Services (GATS), and that WTO’s members attempt to reach commitments for health-related trade in services. How important is the GATS for health policy and how does the GATS refer to health services? What are the current negotiations and member’s commitments?

In 1995, the World Trade Organization (WTO) was established, and the importance of international trade law to public health and health care has become very clear. At the beginning, the multilateral trading system regulated trade in goods between nations, but expanded it into new areas, such as intellectual property protection and trade in services. The provision and consumption of services have become an increasingly important part of modern economies. The incorporation of services into the multilateral trading system through the General Agreement on Trade in Services (GATS) represents one of the most important developments emerging from the creation of the WTO.

The objective of this article is to understand the way the WTO is approaching health services in general in its agreements and how the question is treated by the WTO’s members and in their discussions.

Main economic features

While health and social services have been considered as (a) non-tradeables to be provided by (b) public institutions, there has been a change in policy perception in a number of countries (WTO 1998, p.2). The mobility of professionals and consumers is enhanced by efficient transport and communication technologies, enabling the use of new modes of supply. “At the same time, new forms of private sector involvement have opened breaches for increased domestic and foreign participation” (WTO 1998, p.2).

There is an important degree of regulatory intervention for the provision of health services, even if we are in a very “liberal” system. Measures may be aimed at the individual health care providers (doctors, physiotherapists, nurses, etc), companies and organizations operating in the system (clinics, hospitals, nursing homes) as well as in commercially related sectors (suppliers of medical equipment and pharmaceutical, insurance funds, etc).

There is extremely diverse intervention concerning these measures and the policy intentions. These measures and the underlying policy intentions may be extremely diverse.

A number of countries are competing to become key exporters of health services. More particularly, there is the growing phenomenon of health tourism, which appears in many developing countries where clinics servicing foreign clientele are increasing.

The GATS and health policy

The General Agreement on Trade in Services (GATS) mandates WTO member governments to progressively liberalize trade in services through successive rounds of negotiations. The latest round of negotiations began in January 2000. In March 2001 the Guidelines and Procedures for the Negotiations on Trade in Services were adopted by the Council for Trade in Services. At the Doha Ministerial Conference in November 2001 the services negotiations became part of the “single undertaking” under the Doha Development Agenda, whereby all subjects under the negotiations are to be concluded at the same time.

The importance of GATS to health policy

The protection of public health and the delivery of health care to individuals is really important and that is the reason the creation of and the important role of different services. “GATS affects health-related services in many ways that are essential for health policy makers to comprehend.” In addition, GATS establishes a process designed to progressively liberalize trade in services. Health policy makers must be prepared to participate in this process to ensure that such liberalization unfolds in a way sensitive to the needs of national governments in ensuring the provision and regulation of health-related services” (Drager and Fidler 2004, p.1).
Table 1: What do we mean when we talk about trade in the health sector?

<table>
<thead>
<tr>
<th>Mode 1: Cross-border supply</th>
<th>Mode 2: Consumption abroad</th>
<th>Mode 3: Commercial presence</th>
<th>Mode 4: Presence of natural persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade in health services</td>
<td>Trade in ancillary services</td>
<td>Trade in goods associated with health services</td>
<td></td>
</tr>
<tr>
<td>- Telediagnosis, including diagnostics, radiology</td>
<td>- Distance medical education and training</td>
<td>- Health care equipment</td>
<td></td>
</tr>
<tr>
<td>- - Medical transcription, back office</td>
<td>- - Medical research tools and databases</td>
<td>- - Drugs</td>
<td></td>
</tr>
<tr>
<td>- Medical insurance</td>
<td>- - Medical insurance</td>
<td>- - Medical waste</td>
<td></td>
</tr>
<tr>
<td>Mode 2: Consumption abroad</td>
<td>- “Medical tourism”, i.e., voluntary trip to receive medical treatment abroad</td>
<td>- Foreign-sponsored education or training centers</td>
<td></td>
</tr>
<tr>
<td>- Mode 2: Consumption abroad</td>
<td>- - Expatriates seeking care in country of residence</td>
<td>- Foreign-sponsored medical research facilities</td>
<td></td>
</tr>
<tr>
<td>- Emergency cases (e.g., accident when abroad)</td>
<td>- - Local medical education and training of foreign nationals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode 3: Commercial presence</td>
<td>- Foreign participation or ownership of hospital/clinic or medical facilities (e.g., capital investments, technology tie-ups, collaborative ventures)</td>
<td>- Movement of doctors and health personnel for the purpose of commercial medical practice</td>
<td></td>
</tr>
<tr>
<td>Mode 4: Presence of natural persons</td>
<td>- - Foreign-sponsored medical research centers</td>
<td>- - Movement of doctors and health personnel for other purposes (e.g., education or training)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Cattaneo 2009, p.3.

Health opportunities and challenges are created by GATS, and it accords countries considerable choice, discretion, and flexibility. The process of liberalization of health-related services is then correctly protecting health. The GATS allows enough flexibility for countries to maintain regulations that are essential to the pursuit of important policy objectives, such as the protection of public health. The main advantage of GATS commitments is to anchor domestic reforms into the international system, and to preserve the government from later pressures of interests groups. Multilateral negotiations also adequately supplement regional ones: beside the economies of scale of negotiations, topics that are set aside in regional negotiations can be more easily addressed within the WTO.

The GATS objectives are also directly linked to the health-related Millennium Development Goals and could contribute to reaching it. Regulation is necessary to protect patients and to promote adoption of higher quality standards for hospitals and clinics. “Similarly trade promotion is not about challenging the public health sector, which often plays a crucial role in the supply of health services, but about designing efficient services in a more competitive environment” (Cattaneo 2009, p.4).

The main challenge of the GATS would be then to find adequate accompanying policies “that aim to maximize the positive domestic spillovers and minimize the negative domestic spillovers of trade in health services” (Cattaneo 2009, p.4).

Trade in health sector

The GATS distinguishes between four modes of supplying services: cross-border trade, consumption abroad, commercial presence, and presence of natural persons.

Medical tourism has received significant media coverage and attention. However, trade in health services is not limited to the cross-border movements of patients, which represents only one of the four possible modes of service delivery identified by the GATS – Mode 2. Other Key components include the temporary movement of health professionals to deliver services across borders (Mode 4), foreign establishment (Mode 3) and the cross-border provision of health services through technological means (Mode 1).

Trade in Health Services has an impact on “the availability of these services, the quality of the health system, and the population’s health at a large in both the exporting and the importing countries. Effects of trade in health services also considerably vary from one mode to another, and imports often appear more important than exports to improve one country’s domestic health system” (Cattaneo 2009, p.2).

Current commitments under the GATS

Agreements are harder to reach. The Doha round was initiated 10 years ago and little progress have been made on services. The level of commitments in the health sector remains particularly low between WTO’s members, and is the lowest of all sectors. “Less than 50 members out of 153 have undertaken commitments in one of the four health services sub-sectors; most of the commitments concern hospital services” (WTO 2011).

It seems that many developing countries, including least developed countries, have made wide-ranging commitments for various health and medical services. A large majority of the Members with full commitments across Modes 1 to 3 are developing countries. Mode 1: Cross-border supply of services is of growing importance with the development of telemedicine. Nevertheless, they are fewer commitments for Mode 1 than for any other mode. For example, of the 39 Members that have committed on hospital
services, 11 have undertaken full bindings for Mode 1, while 27 have not undertaken any commitments. Of these, 13 Members felt, according to their schedules, that cross-border supply was not technically feasible.

**Mode 2:** There are opportunities for economic development when a country treats a foreign patient in its territory. Mode 2 commitments tend to be rather liberal as most governments have limited ability to prevent consumers from seeking medical treatment abroad.

**Mode 3:** By contrast, limitations on market access and national treatment are far more frequent under commercial presence. Over 40 members have made commitments, often subject to restrictions and limitations on the share of foreign capital. The limitations are intended to provide cover for economic needs tests, intended to contain health costs, nationality requirements, equity ceilings, joint venture requirements and not further specified licensing and approval procedures.

**Mode 4:** As in other areas, the level of commitments, governing the presence of national persons, trails far behind the commitments undertaken for the three other modes.

Health services have attracted very limited attention in the services negotiations. It is the only major sector where no negotiating proposal and no collective request have been tabled. Most of the countries are completely defensive instead of offensive in this sector, because of the important economical stakes.

**Conclusion**

Even if Members are engaged in Trade in Health Services through the GATS, it seems that any of them is ready to really move on with commitments and negotiations. Some proposals have been made through the years by a few members, trying to reach possible areas for future discussion and work, such as China or the USA, but without any results. China was asking for its doctors to have access to the European market, implying the same doctors recognition within countries. And the USA only proposed subjects to be discussed in order to try to move forward.

“The Structure and substance of GATS create a challenge for ministries of health to develop capabilities to manage the GATS 2000 process effectively from a health policy perspective in two key areas: 1) Evaluating requests for, and offers of, specific commitments; and 2) Negotiations on GATS rules” (Drager and Fidler 2004, p.4).

Health policy analysis of GATS shows that requests for new market access commitments will pose the most difficulties for health policy-makers because measures that restrict market access may be used by health services objectives. 

Clémence Gros has a Bachelor Degree in International Relations at the University of Geneva, and did an internship at the World Trade Organization in the Institute for Training and Technical Cooperation. She worked then at the International Hospital Federation as a research assistant for a few months. She is currently studying International Cooperation for Development at the University of Brussels to specialize later in health promotion.

**References**

Integration of hospitals: Is it time for similar changes in Georgia?

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ABSTRACT: Health care is the most difficult and dynamic industry where the expenditure has grown almost four times during the past 20 years. Constantly, there are demands for expenditure cuts, for effectiveness, for quality improvement and evaluation of economic risks. All the precise and sophisticated strategic decisions taken by hospitals are to guarantee maximum profits from scarce resources and good service from an organization in unstable environmental conditions. From the different development alternatives, hospitals might prefer a horizontal and vertical integration. The integration of stationary hospitals into a network is convenient from a financial and economic point of view. Benefits are also expected in other areas, such as economies of scale, the improvement of human resources organization as well as the management and service offering. Consequently, expenses will be reduced and incomes will grow. However, there are some important questions about integration to be discussed in this research, including: Is Georgia’s health care sector ready for reform, are the qualitative and quantitative improvements achievable, and what is the main motivation?

Since the 1990s no industry in the world has undergone such fundamental growth and development as health care. The cost of health care has grown four times during the past 20 years and now reaches 14% of Gross Domestic Product (GDP). Health care is also one of the most complicated and dynamic industries, where the demands on expenditure cutting, the constant evaluation of quality and economic risks are growing (OECD 2008a).

In developed countries, the central part of the health care systems is the hospital and so the health of the population depends on its good organization (Rechel 2009, Rechel et al. 2009, Swayne et al. 2006). The constantly changing environment stimulates hospitals to respond to the challenges, to sustain the growing public pressure and expectation, and to stay competitive. To expand market share and sector, make economies of scale as well as increase revenue, hospitals must seek to unify into a network (one system) because integration is one of the effective ways of surviving as seen from recent alternatives (Sheldon and Windham-Bannister 2002). Integration is the continuation of the logical chain of process that incorporates the successful implementation of different functions in a team (such as mini-invasive surgery, laboratories, radiology departments, etc.) and furthermore, allows the introduction of technical innovations and the organization of specialist services (Rechel 2009, Rechel et al. 2009). If the organization has potential to grow, it can do so by horizontal or vertical integration. The types of vertical integration are acquisitions, formation of strategic alliances and consolidation, while horizontal integration consists of the creation of clusters and mergers of hospitals. Like horizontal integration, vertical integration will finally create a network of hospitals (Salteman 1997, Swayne et al. 2006).

Current reform in the Georgian health care system emphasizes the necessity to find alternative ways of making hospitals function better with their strategic management/administration, based on scientific approaches (Gocadze et al. 2007, Transparency International Georgia 2007, WHO 2009). One of the best alternatives, and most acceptable ways, for hospitals in the current health care system is the integration and formation of hospital networks, because these generally consists of the hospitals with same mission, vision, aims and goals. This integration can increase the quality of service and profits. Furthermore, since 2010, the Georgian government has considered the development of hospitals together with the health insurance state programs for vulnerable populations (Georgian Government resolution N 85, 2010). Providing the regions with high-standard local clinics is one of the conditions for insurance companies to get involved with the state program.

In order to evaluate the development of hospital networks in Georgia, we organized a research program. This investigation sought to define the utilization of hospital beds in store and reveal the indirect, even inadequate, expenditures. Additionally, the research asserted the necessity of hospitals integrating into a network, and simultaneously identified and evaluated the attitudes of experts, executives and senior managers from Georgian hospitals and insurance companies.

The focus/target group of the research was the leaders of hospitals and insurance companies, also experienced professionals previously or now occupying legislative or executive positions in the health care system such as those, who have specialist education in economy, finance, marketing and business
and insurance companies; 11 worked in the health care system, whilst the hospitals. The participants also included six insurance companies 82 percent were general hospitals and 18 percent are specialist hospitals. Fourteen hospitals agreed to participate in this research, of which the power to decisively influence the restructuring of hospitals. Consequently, the research sought to identify the group of people who have the appointed to positions in hospital management. Consequently, the six insurance companies are responsible for procurement and service quality. This research revealed that the expenses for staff reimbursement was 8 to 25 percent of whole salary fund (average 17%), while in developed countries generally, this index is between 9 and 11 percent of the total expenses for hospital staff salaries (Klein 2009, Transparency International Georgia 2007). Additionally, from 2 to 9 (average 4) persons are responsible for quality evaluation and the continual improvement of the service in the participating stationary hospitals, whilst in procurement there are 3 to 5 responsible persons (average 4) respectively.

<table>
<thead>
<tr>
<th>Form of integration</th>
<th>Hospital and insurance companies executives/managers</th>
<th>Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Hospitals</td>
</tr>
<tr>
<td>Acquisition</td>
<td>33%</td>
<td>29%</td>
</tr>
<tr>
<td>Consolidation</td>
<td>30%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Alliances</td>
<td>72%</td>
<td>87%</td>
</tr>
<tr>
<td>Clusters</td>
<td>50%</td>
<td>46%</td>
</tr>
<tr>
<td>Mergers</td>
<td>20%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

The remarkable fact is that 87 percent of hospital representatives considered the formation of alliances effective, whilst the insurance companies were more divided. Sixty-seven percent of hospital executives and insurance companies considered that the total income and purchase sizes will grow on the expenses of hospital network formation. Sixty percent think that administrative staff expenses will be reduced, while the competition will increase and specialists will be best used in the

<table>
<thead>
<tr>
<th>Possible improved factors</th>
<th>execut.</th>
<th>exper.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased total income</td>
<td>67%</td>
<td>42%</td>
</tr>
<tr>
<td>Decreased expenses via increased scale of purchase</td>
<td>67%</td>
<td>74%</td>
</tr>
<tr>
<td>Decreased expenses via administrative staff reduction</td>
<td>60%</td>
<td>68%</td>
</tr>
<tr>
<td>Improved quality of medical services</td>
<td>30%</td>
<td>51%</td>
</tr>
<tr>
<td>Increased market share</td>
<td>52%</td>
<td>31%</td>
</tr>
<tr>
<td>Increased competition</td>
<td>60%</td>
<td>52%</td>
</tr>
<tr>
<td>Optimal employ of specialists</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Improved reaction on the market demand</td>
<td>27%</td>
<td>47%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Source: Authors

<table>
<thead>
<tr>
<th>Year</th>
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administration, and who are working in or are supposed to be appointed to positions in hospital management. Consequently, the research sought to identify the group of people who have the power to decisively influence the restructuring of hospitals. Fourteen hospitals agreed to participate in this research, of which 82 percent were general hospitals and 18 percent are specialist hospitals. The participants also included six insurance companies and 19 experts; 11 worked in the health care system, whilst the rest were business managers, economists, finance and marketing specialists. Six hospitals, two insurance companies and 11 experts refused to participate in this research.

Generally, there were 12 to 220 beds in the 14 participating hospitals. Ten respondents did not answer the questions about turnover and occupancy rate of hospital beds. Presumably, it is possible to expect that these hospitals never calculate remarked index. The four participating stationary hospitals remarked that the bed turnover was from 15 to 58 percent (average 52%) in 2009 but a year later it became 16 to 63 percent (average 55%). The same stationary hospitals occupancy rate was 20 to 65 percent (average 37%) beds in 2009, while in 2010 the index changed from 25 to 70 percent (average 56%). Current accounts reveal the process of utilization is better in 2010 than in 2009, although the result is far from its desired index (Table 1).

Nine hospitals answered the questions about the share of salaries for administrative staff and number of persons who are responsible for procurement and service quality. This research revealed that the expenses for staff reimbursement was 8 to 25 percent of whole salary fund (average 17%), while in developed countries generally, this index is between 9 and 11 percent of the total expenses for hospital staff salaries (Klein 2009, Transparency International Georgia 2007). Additionally, from 2 to 9 (average 4) persons are responsible for quality evaluation and the continual improvement of the service in the participating stationary hospitals, whilst in procurement there are 3 to 5 responsible persons (average 4) respectively.

Fourteen hospitals and four insurance companies answered the question about their attitude and how they evaluate the integration of hospitals into networks, similar to the one, which exists in developed countries since the 1990s. Different forms of vertical or horizontal integration have to be taken into account. Most participants preferred alliances (72%) while the less popular answer was formation of merged company (20%). Fifty-three percent of respondents considered the formation of clusters effective, while 33 percent were for a process of purchase and consolidation. The experts answered the same question very differently. Seventy-eight percent of experts considered purchase effective, while 67 percent preferred the formation of clusters, 58 percent thought about consolidation, 56 percent voted for the formation of alliances and, finally, 50 percent decided on merging hospitals (Table 3).
Sixty-seven percent of hospital executives and insurance companies considered that the total income and purchase sizes will grow on the expenses of hospital network formation.

service. Fifty-three percent hoped that the market share will increase, 33 percent consider that the quality of services provided will improve, and 27 percent conclude that reaction to the changing demand of markets will ameliorate. Seventy-four percent of experts see purchases increasing as a result of hospital network formation, but the growth of market share is not expected. Some respondents consider several factors to be positive in the development of hospital networks. These factors are the formation of general and mutual standards, reduction of service variability, avoidance of duplication and the growth of information technologies (Table 4).

Taking into account the results of the research, two thirds of the executives in hospitals and insurance companies, and almost half the experts consider that integration does not precisely determine the quality of the service provided and it is not one of the best levers for it.

The aim of the research comprised identifying the positive sides in the formation of hospital networks in Georgia. According to the respondents, remarkable changes can improve collaboration between government and the medical service providers, which in its turn, can guarantee high quality of services and expand the number of contented and satisfied clients. Additionally, scientific research can frequently organize the service package in accordance with the demands of the market. Lastly, competition can enlarge the market. The weak parts of hospital network formation are the possible monopolization of separate services and also a growth in prices for services. Finally, as 50 percent of hospital executives consider it difficult to analyze thoroughly any type of hospital networks in Georgia because there are not enough arguments and evidence-based researches for a precise judgment. Nonetheless, 67 percent of the respondents said they would join the hospital network if it is formed.

Concluding the research, the exact usage of current resources cannot be ascertained in most hospitals in Tbilisi. Problems still exist in normalizing hospital services and they are nearer the middle acceptance index in accordance with the usage of shared beds, turnover and occupancy rate. The necessity for administrative reforms is obvious. Consequently, salaries and expenses are higher than is recommended. The research proves the necessity for change. The majority of the respondents support the idea of a hospital network. The formation of the network is considered to be the one of the effective ways. According to research participants, some factors can predict failure of attempts to integrate and form hospital networks. These are, first, weak antimonopoly laws in Georgia and, second, the lack of experience of the hospital networks management and administration.

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Nato Pitskhelauri has qualified from the Faculty of Medicine at Tbilisi State University. Currently he is working on her PhD thesis on health care quality in Georgia. She also works at the “Open Society Georgia Foundation” (OSGF) in the Public Health Unit, where she coordinates Salzburg Medical Seminars as well as assists the Public Health Unit. She also conducts lectures at Tbilisi State Medical University in the History of Medicine and Bioethics department.

Irakli Nikolashvili is a graduate Master in Health Administration (MHA) from the University of Georgia and General Practice Medical Doctor (Tbilisi State Medical University). His research thesis focused on “emergency departments and their organization in modern hospitals”. He is certified in medical practice administration and health care service marketing (Scran-ton-Tbilisi Health Management Education Partnership in cooperation with USAID and AIHA). Currently, he is executive Secretary of “Health Care Development Youth Organization” and Vice-President “Young Philanthrops”.

References


Information technology orientation for young hospital administrators

SYED MURTUZA HUSSAIN BAKSHI
VICE PRINCIPAL AND ASSOCIATE PROFESSOR, DEPARTMENT OF HOSPITAL MANAGEMENT,
OOWUS HOSPITAL AND RESEARCH CENTER, HYDERABAD, INDIA

ABSTRACT. Information technology has evolved over the years and taken its place in every sector, including health care. Every health care professional uses a computer almost every day. Information technology is expected to provide the staff with reliable information for decision making, reducing medical errors and processing time and improving communication. As the health care market grows increasingly competitive and complex, hospitals are relying more and more on information technology as a primary tool to help them compete. Every postgraduate should take a basic course on computers and IT applications. Many universities and colleges offer a masters program in health administration, and with enormous numbers of new post graduates, well grounded in IT, are offering their services to hospitals and allied health care divisions. Their experiences are reflected in the various job codes, which illustrate the need for planning, careful investment, and educational training to put information technology to work in today’s sophisticated advanced health care setting. Information technology cannot reach its full potential without a properly trained staff working together as a team.

Information and communication technology (ICT) tools are arguably the most rapidly growing segment of the world economy. The development in this sector permeates every human activity: social, economic, cultural, religious, political and health care (Idowu et al. 2008). Information technology has radically changed the way that many people work and think. Over the years, technology has touched a new high point and is no longer confined to developed countries. Developing countries such as India have kept pace with the world in modern technologies. Health care professionals can no longer ignore the application of IT to health care because they are key to the electronic delivery of health (e- Health) (Neeraj and Dhiraj 2010).

Information and communication technology has revolutionized the way medicine is practised and how health care information is documented, archived and retrieved at the point of care. Whilst IT is facing challenges in adoption, communication technology is striving to create health information exchanges for connecting providers within multi-organizational environments and across disparate geographical boundaries, using secure and fail-safe internet connectivity for high speed data, voice and video communication (Nagpal 2011). In many industrialized countries of the world, there is a huge investment of resources into IT in health care as a commitment to providing the most efficient and effective health care services to their populations (Griliches 1994).

In the past decade, the risk of harm caused by medical care has received increasing scrutiny. The growing sophistication of computers and software should allow IT to play a vital part in reducing that risk – by streamlining care, catching and correcting errors, assisting with decisions, and providing feedback on performance (Ganapati 2003). As India marches towards an exciting new future of growth and progress, higher education will play pivotal role in crafting a sustained development agenda. Efforts have to be undertaken to create an educational system that nourishes innovation, entrepreneurship and addresses the skill requirements of the growing economy. The last decade has witnessed a phenomenal growth in the number of medical colleges, nursing colleges and other similar allied training institutions. This unregulated and rapid growth in number of colleges has adversely impacted on the quality of training in India’s education system (Yathish and Manjula 2010).

The learning requirements of health care professionals should be coupled with software that focuses on computer literacy and software engineering methodology with a detailed discussion on planning, design, implementation and software piloting (Cole 2004). One of the common problems IT professionals are prone to is job stress; the stress is more on the workers who are working with IT enabled services. It also throws some light on why professionals are leaving their organizations, especially the professionals working full time, with varying demographic details. Information Technology professionals are facing a huge amount of work stress mainly caused by a heavy work load, inadequate staffing along with role ambiguity that affects their professional and family life (Rajib and Mahus 2010).

Over the past two decades, there has been a dramatic increase in the use of IT in service organizations. This phenomenon is often cited as a driver of both economy-wide productivity growth, and changes in wage and salary prospects (Athey and Stern 2002). The benefits of IT applications are firstly that IT often provides benefits through improvements in timeliness (for example, IT provides quick access to specific information as well as information about products offered by an organization) and precision (products or information provided by the organization may be customized to
individuals). While such quality improvements may be reflected indirectly in economic quantities such as increased willingness-to-pay for services (factors which may be conflated with price inflation in the context of productivity measurement), few studies provide direct evidence about the role of IT in increasing service sector productivity. Secondly, IT is a "general purpose" technology, and the productivity benefits from IT vary enormously, according to the specific application and characteristics of the adopting organization (David 1990).

Information technology has the potential to improve the quality, safety, and efficiency of health care. Diffusion of IT in health care is generally low (varying, however, with the application and setting) but surveys indicate that providers plan to increase their investments. Drivers of investment in IT include the promise of quality and efficiency gains. Barriers include the cost and complexity of IT implementation, which often necessitates significant work process and cultural changes. Certain characteristics of the health care market—including payment policies that reward volume rather than quality, and a fragmented delivery system—can also pose barriers to IT adoption. Given IT's potential, both the private and public sectors have engaged in numerous efforts to promote its use within and across health care settings. Additional steps could include financial incentives (e.g., payment policy or loans) and expanded efforts to standardize records formats, nomenclature and communication protocols to enhance interoperability. However, any policy to stimulate further investment must be carefully considered because of the possibility of unintended consequences.

Use of IT in health care, especially electronic health records can potentially improve health care. However, worldwide the usage of electronic health records (EHR) is limited and studies in developed countries like the USA have shown that electronic records systems have been slow to become part of the practices of physicians. To gain insights into the functioning of the health care centers in rural countries like the USA have shown that electronic records systems have been slow to become part of the practices of physicians. To gain insights into the functioning of the health care centers in rural India with respect to use of IT and their efficiency in healthcare delivery a survey was done (MedPAC 2004, Anant 2009).

The enormous investments in IT means the question of payoffs from IT has become increasingly important. Organizations continue to question the benefits from IT investments especially in conjunction with corporate initiatives such as business process reengineering (BPR). Furthermore, the impact of technology on nonfinancial outcomes such as customer satisfaction and quality is gaining interest (Saw and Rajv 2000).

It is important for university and college professionals to integrate research-based knowledge with teaching which has become an important area that needs prompt attention with the growing emphasis on student learning activities, quality assurance procedures, and research funding mechanisms within the higher education system. The link between research and teaching is not automatic, it needs to be formally created in higher education departments in order to achieve a productive relationship and manage research activities of the university and colleges with teaching duties. The basic aim is to impart research knowledge into teaching. (Chitrathi and Sapuri 2009).

Methods
The study is descriptive and qualitative in nature as it focuses on the way new health care administrators have experienced IT enabled services in their job. It is a fact finding study. A structured interview was conducted for a sample of 50 fresh postgraduate students with 1-2 years of experience. The participants were professionals who offer their services to outpatients and in-patients within the hospitals. They were Patient Care Executives, Floor in Charge, Assistant Administrators, Clinical Administrative Assistants, Assistant Directors, Consultant and Health Center Managers.

A prior appointment was made with the participants; they were briefed about the study and encouraged to describe their job codes and experiences in the health care setup. The data was collected by face to face interviews; the interviews were recorded manually. After recording all the 50 participants the data was analyzed through content analysis. The content analysis was defined as a multipurpose research method which allows the researcher to identify, as well as quantify, specific ideas, concepts, and their associated patterns, and the trends of ideas that occur within a specific group or over time (Cohen et al. 2007). The study was restricted to hospital of Hyderabad and Secunderabad Twin Cities.

Discussion
The postgraduates who were interviewed in the sample were from both medical and non-medical backgrounds who had completed a Masters in Hospital Management, a Masters in Business Administration with specialization in health care management or a Masters of Science with a specialization in hospital operations who have a high, modest or no knowledge of IT applications. However, worldwide the usage of electronic health records (EHR) is limited and studies in developed countries like the USA have shown that electronic records systems have been slow to become part of the practices of physicians. To gain insights into the functioning of the health care centers in rural India with respect to use of IT and their efficiency in healthcare delivery a survey was done (MedPAC 2004, Anant 2009).

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IT and computer science should be a core part of the postgraduate course curriculum.

**Job code 4** New postgraduates who joined an existing hospital which was on the verge of shifting to a new system. Their job code was the toughest of all the jobs codes. They worked with existing software and reported some modifications or replacements. The new postgraduates were assigned this duty to be a core member in the entire program. They have to take care of the entire planning in terms of acting as a bridge between hospital employees and software vendors. They agreed that IT applications should be a part in postgraduate course curriculum as a theory and practical subject and that they should be exposed to various applications.

**Job code 5** New postgraduates who mobilized enough funds to start their own hospital as owners or share holders. They were the ones who were involved in making tough decision regarding IT infrastructure. They were advised by IT consultants and experts.

**Conclusions**
The interviews of new postgraduates reveals that learning IT applications as a core subject in the Masters program is professionally important. As the market is becoming more complex and competent the health care professional believes that IT is going to play an important role in providing a competitive edge. IT applications have a positive impact on patient care, administration and decision support. The success of IT in a health care setup depends on the involvement of health care participants and management initiative. For new postgraduates, job complexity, higher expectations, pressure from patients and health care workers are causing job-related stress. Training and online support should help employees to learn more and become more confident and result in employee satisfaction. Overall health care IT support should help employees to learn more and become more confident and result in employee satisfaction. Overall health care IT applications as a core subject in the Masters program is professionally important.

**Acknowledgments**
I wish to acknowledge all the people who helped me in this study especially the ones, who have arranged the interviews, and wish to express my thanks to the individuals who gave their precious time to take part in the sample.

**Syed Murtaza Hussain Bakshi** is Vice Principal and Associate Professor of the Department of Hospital Management, Owaisi Hospital and Research Center, Hyderabad, India. He was previously Assistant Professor and Management Coordinator of the Institute of Clinical Research India (ICRI) in Begumpet, Hyderabad.

References


Using a contribution margin system to manage medical centers in Berlin

ABSTRACT: After German reunification, the Charité-Universitätsmedizin Berlin was restructured from three existing Berlin university hospitals. More than 100 departments were reorganized into 17 centers. Professional management was necessary to improve the overall balance. A contribution margin-orientated management system was introduced in 2008 by using German benchmarks. All sectors help to improve the results continuously. In 2011, and for the first time, the balance showed a profit of 8.2 million Euros.

The Charité Universitätsmedizin Berlin is a 302 year-old hospital and one of the largest in Europe, with more than 3,000 beds. German reunification brought a new momentum to the Charité. In 1993 the Rudolf-Virchow Hospital in Wedding and the Campus at Mitte were integrated as the Medical Faculty of the Humboldt University. In 2003, the medical faculties of the Humboldt University and the Free University, including medical centers in Mitte, Steglitz, Wedding and Berlin-Buch, combined to become today’s Charité Universitätsmedizin Berlin. Now there is only one combined university medical center in Berlin with three inpatient houses: the Charité Campus Mitte, the Charité Campus Virchow in Wedding and the Charité Campus Benjamin Franklin in Steglitz. (Berlin-Buch, is now a purely science and research location).

The enlargement brought big challenges to management accounting and control. More than 100 departments must be successfully led by the management board. Thus, new and efficient structures and management methods had to be implemented. For this, the basic health political conditions changed over the last 10 years. As well as a complete restart for the Charité, the Austrian DRG system model was implemented in 2004 across Germany. This article explains how the Charité University Hospital developed into an effective and successful organization.

Reorganization of center structures

Due to the unification of three university hospitals into one large high-tech clinic with more than 3,000 beds, new structures were necessary in order to run the Charité efficiently. Under the Berlin University Medicine Law of December 5, 2005 more than a 100 clinics and institutes were restructured into 17 centers. Each of these centers is led by a center management board with a medical, a business/sales and a nursing manager. This Center Board is responsible for planning, budgeting and managing the

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<td>8,718,365</td>
<td>28,733,009</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>02 - Intensiv care unit</td>
<td>2,907,435</td>
<td>6,489,850</td>
<td>96,055</td>
<td>208,676</td>
<td>1,698,337</td>
<td>1,504,594</td>
<td>51</td>
<td>654,353</td>
<td>3,830,525</td>
<td>17,389,876</td>
<td></td>
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<tr>
<td>03 - Dialysis</td>
<td>334,659</td>
<td>939,310</td>
<td>365,420</td>
<td>96,792</td>
<td>13,326</td>
<td>361,894</td>
<td>813,390</td>
<td>115,958</td>
<td>632,862</td>
<td>3,673,613</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>04 - Operating theater</td>
<td>377,609</td>
<td>419,289</td>
<td>17,889</td>
<td>5,344</td>
<td>111,152</td>
<td>227,661</td>
<td>112,187</td>
<td>141,446</td>
<td>380,679</td>
<td>1,793,255</td>
<td></td>
<td></td>
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<tr>
<td>05 - Anesthesia</td>
<td>346,669</td>
<td>239,433</td>
<td>44,133</td>
<td>12,970</td>
<td>73,352</td>
<td>37,514</td>
<td>209,672</td>
<td>963,742</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06 - Delivery room</td>
<td>113</td>
<td>288</td>
<td>16</td>
<td>52</td>
<td>37</td>
<td>61</td>
<td>250</td>
<td>817</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>07 - Cardiology</td>
<td>100,275</td>
<td>132,689</td>
<td>10,147</td>
<td>120</td>
<td>367,722</td>
<td>28,785</td>
<td>187,133</td>
<td>36,088</td>
<td>96,400</td>
<td>959,359</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>08 - Endoscopy</td>
<td>418,425</td>
<td>593,857</td>
<td>22,528</td>
<td>5,619</td>
<td>82,242</td>
<td>228,963</td>
<td>353,492</td>
<td>340,213</td>
<td>634,291</td>
<td>2,679,631</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 - Lab</td>
<td>587,325</td>
<td>2,007,014</td>
<td>19,506</td>
<td>1,669,233</td>
<td>78,585</td>
<td>1,602,948</td>
<td>32,727</td>
<td>285,518</td>
<td>1,525,847</td>
<td>7,808,704</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11 - Other diagnostics</td>
<td>766,076</td>
<td>14,008</td>
<td>1,168,025</td>
<td>21,546</td>
<td>29</td>
<td>302,603</td>
<td>446</td>
<td>81,850</td>
<td>630,866</td>
<td>2,985,450</td>
<td></td>
<td></td>
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<tr>
<td>99 - Other</td>
<td>2,051,707</td>
<td>2,051,707</td>
<td>56,727</td>
<td>129</td>
<td>337,437</td>
<td>113,087</td>
<td>157,406</td>
<td>66,657</td>
<td>84,462</td>
<td>3,552,262</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12,317,107</td>
<td>15,776,180</td>
<td>6,594,278</td>
<td>1,515,320</td>
<td>9,517,317</td>
<td>139,385</td>
<td>5,058,334</td>
<td>3,193,042</td>
<td>17,507,237</td>
<td>70,541,468</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Primary and secondary costs (49.8 Million Euros)

Contribution Margin II (20.7 Million Euros)

Table 1: INEK norm cost matrix

Source: Author.

Note: INEK norm cost matrix for a large department with a DRG revenue of 70.5 Million Euros. 49.8 Million Euros are the German norm costs for personal and material costs. The INEK based contribution margin is 20.7 Million Euros.
performance and costs of the centers over the course of the year. Goals are agreed with the Management Board. The business plan is divided in two parts, one for the faculty and one for health care. In an integrated model, both the budgets for research, education and health care are managed as one.

Management by contribution margins

With the implementation of the Austrian DRG system in Germany, an institute was founded to calculate annual remuneration: Institut für Entgeltwesen im Krankenhaus (InEK). On a voluntarily basis, hospitals can send their formatted business data to InEK. The annual catalogue with cost-weightings and prices is published by InEK and regulates payments for inpatient services from insurance companies across the whole country. Furthermore, a “calculating” hospital like the Charité is able to compare its costs with InEK norm costs. Individual cases, case groups from cost centers and departments can also evaluate their cost effectiveness (Table 1). Over- or undercoverage of cases can therefore be detected.

InEK data can be used for budgeting as well. Until 2007, the Management Board agreed performance indicators and cost budgets for personnel and material costs as well as budgets for internal services. In 2008 contribution margins were introduced as most important performing index. The contribution margins for each center have three parts. The largest amount with approximately 85 percent of the weighting must be generated from DRG revenues. It is directly calculated from the InEK norm cost matrix. The second portion comes from other revenues. For each kind of revenue, a special contribution is defined depending on the degree of use of the infrastructure (Table 2). While infrastructural costs in the out patient departments are approximately 15 percent, revenues from private services, such as the use of single rooms, are entered into the contribution margin. The third part is an additional contribution margin to cover higher infrastructural costs.

<table>
<thead>
<tr>
<th>Income</th>
<th>Contribution margin (benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1 - DRG revenue</td>
<td>InEK</td>
</tr>
<tr>
<td>E2 - Other inpatient revenues</td>
<td>20%</td>
</tr>
<tr>
<td>E3 - Private services</td>
<td>100%</td>
</tr>
<tr>
<td>E4 - Fees</td>
<td>5%</td>
</tr>
<tr>
<td>E5 - Public funds</td>
<td>0%</td>
</tr>
<tr>
<td>E6 - Other operating income</td>
<td>5%</td>
</tr>
</tbody>
</table>

Table 1: Composition of Charité contribution margins benchmark for different revenue streams

The contribution margins for each center have three parts. The largest amount with approximately 85 percent of the weighting must be generated from DRG revenues. It is directly calculated from the InEK norm cost matrix. The second portion comes from other revenues. For each kind of revenue, a special contribution is defined depending on the degree of use of the infrastructure (Table 2). While infrastructural costs in the out patient departments are approximately 15 percent, revenues from private services, such as the use of single rooms, are entered into the contribution margin. The third part is an additional contribution margin to cover higher infrastructural costs.
Board requires from all the centers (Figure 1). Charité Universitätsmedizin Berlin suffered from missing investment capital (Figure 2) which has led to increased infrastructural costs. Buildings could not be rebuilt to save energy, rooms could not adapted to changed treatment processes. Thus, the additional margin covers the increased maintenance and energy costs arising from this.

Not all of the Charité centers reached the ambitious targets every year. In the convergence phase, the range of the gap to the Charité benchmark slowly decreased. For the year 2012 with 6 +/- 2 percent above Charité benchmark the budgets are balanced for the first time (Figure 3).

On the Charité Intranet, a report on performing and cost data is available monthly in a business warehouse. Based on the monthly balance the report is accessible for all managers. Both, year on year comparisons, budgets, current actual level as well as a deviation analysis are reported (Table 3). From center overview one can go into every cost center and cost type down to single costs.

The Management Board discusses all the data, together with the Center Boards, and agrees measures to reach common, ambitious goals. Every year central and specific projects have to start. The Management Board agrees measures to reach common, ambitious goals.

<table>
<thead>
<tr>
<th>Table 3: Copy of monthly Charité business warehouse report of a single department</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>Proceeds EUR</td>
</tr>
<tr>
<td>Personnel costs EUR</td>
</tr>
<tr>
<td>Material costs EUR</td>
</tr>
<tr>
<td>Internal service EUR</td>
</tr>
<tr>
<td>Contribution margin</td>
</tr>
<tr>
<td>Contribution margin %</td>
</tr>
<tr>
<td>Other material costs EUR</td>
</tr>
<tr>
<td>EBIT EUR</td>
</tr>
<tr>
<td>Full-time staff</td>
</tr>
<tr>
<td>Case mix points</td>
</tr>
</tbody>
</table>

Note: Proceeds, costs and contribution margins are listed for actual and previous year, budget and deviation.

Economic development of the Charité from 2008 to 2011

By implementing contribution margin-oriented management, there has been a cumulative improvement of 82 Million Euros (Table 4). Despite decreasing state subsidies the Charité grew and could counteract increasing personnel and material costs by well-targeted savings. For the first time the Charité generated a profit of 8.2 Million Euros in 2011. The improvement is underpinned by different key performance indices. The case mix points increased from 2008 to 2011 by 9 percent, inpatient and day cases by 6.7 percent, which was due to an increased severity of cases. The length of stay for inpatient cases decreased by one day to 6.4 days. Unfortunately, over four years a staff cutback of 6 percent in the clinics had to be undertaken. In the faculty the staff cutback could partial be compensated by increasing third-party funds.

As shown in Figure 4, the annual improvement had to be between 60 and 70 Million Euros to compensate additional burdens due to inflation, increasing material costs and personnel costs pricing effects. The cumulative improvement is almost 200 Million Euros in three years. All these improvements were only possible, because Charité made efforts to organize all four sections of the hospital parallel (Figure 5). Simultaneously efficiency was increased in all fields to prepare Charité for the future. In the primary section, clinics have been merged, restructured or closed to ensure an optimal use of human resources. Increases in costs could be counteracted by sourcing projects or purchasing cooperatively.

In the service section, several projects were carried out to make work in operating theater and radiology department more efficient using the InEK benchmark data. As the Charité did not have enough money to reconstruct the whole infrastructure, exterior buildings were sold off and service providers, such as bed preparation, were reorganised. A general administration reform reduced the administrative staff by approximately 10 percent.

Conclusion

Using a contribution margin-oriented management system, Charité Universitätsmedizin was able to show a balance with a
Helmar Wauer started work as a hospital anesthetist. After 15 years of clinical experience, latterly as Consultant in Charge, he moved into hospital management. He worked as an OR-coordinator and assumed responsibility for business and sales in a large Charité Center. He completed his Master of Business Administration (MBA) in health care management in 2008. Dr. Wauer is currently the Hospital Business Director of the Charité-Universitätsmedizin Berlin.

References

Figure 4: Annual balance results, cost increases and improvements for Charité-Universitätsmedizin Berlin 2008–2011

<table>
<thead>
<tr>
<th>Sector</th>
<th>Measures (examples)</th>
<th>Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>• Fusion, reorganisation, closing</td>
<td>Delta to benchmark</td>
</tr>
<tr>
<td></td>
<td>• Reallocation of resources (staff, beds)</td>
<td>Contribution margin-oriented</td>
</tr>
<tr>
<td></td>
<td>• Cost reduction in medical products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Departments:</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>• Reorganisation of operating theatres</td>
<td>Benchmarks</td>
</tr>
<tr>
<td></td>
<td>• Reorganisation of Radiology</td>
<td>Best practice</td>
</tr>
<tr>
<td></td>
<td>• Laboratory Company Charité-Vivantes</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>• Selling of exterior locations</td>
<td>Master plan</td>
</tr>
<tr>
<td>Administration</td>
<td>• General administration reform</td>
<td>Benchmarks</td>
</tr>
<tr>
<td></td>
<td>• Insourcing IT</td>
<td>Benchmarks</td>
</tr>
</tbody>
</table>

Source: Author.
Stress, health and satisfaction of Australian and German doctors – a comparative study

ABSTRACT:
Background
Currently no study exists focusing on international differences in perception of stress, working conditions and satisfaction of hospital staff. Therefore the present study aimed to examine and compare the work and privacy situation of Australian and German physicians.

Methods
The present study was designed as a cross-sectional comparison using questionnaire data. The population consisted of representative samples of 310 German and 256 Australian hospital doctors who received mailed questionnaires. The questionnaires contained items on demography, perception of stress, working conditions, job satisfaction and life satisfaction.

Results
According to the comparison, German physicians perceived higher values of work stress. They work significantly longer hours than Australian doctors. In general, work intensity and demands are highly rated in both countries. In terms of job and life satisfaction, Australian doctors responded more positively than German doctors.

Conclusion
This is the first comparative study illustrating a subjective evaluation of physicians’ perception of stress, their work and privacy situation in two different countries. Based on these results health policy decisions can be developed.
The aim of this study is to examine and compare the association between actual working conditions, job and life satisfaction in national samples of German and Australian hospital doctors.

Working conditions

Working hours
The negative effect of long working hours on health in different occupational groups, including the medical profession, is well investigated (Murayama et al. 1995; Witz et al. 2011; Janssen and Nachreiner 2004; Tarumi et al. 2004). It is also well known that working long hours, as a result of extended days and on-call duties, is common among many hospital doctors worldwide. There are also large national differences in the actual working time load of hospital doctors (Gratton 2006). A study by Ferguson, investigating working time in Australian hospitals showed that the average working hours were 38–40 hours per week (Ferguson et al. 2010). In comparison, a work analysis performed in German hospitals illustrated that the average working time in Germany was on average 40–42 hours per week (Mache et al. 2009a, 2009b, 2010a; 2011; 2010b; 2010c). There is no comparative study evaluating significant differences in working hours between Australia and Germany. We expect to find that hospital doctors in Germany report significant longer working hours than their colleagues in Australia.

Hypothesis 1: Physicians’ working hours differ significantly between German and Australian doctors.

Job demands and resources

Previous studies performed at Australian hospitals have found low job demands (Stanley et al. 2002; Stafford and Judd 2010). In contrast, studies performed in German hospitals illustrated moderate to high ratings for job demands (Mache et al. 2009c).

Research data illustrated that high levels of job resources were being assessed in Australian hospitals (Hope et al. 2009; Wigney and Parker 2007). In comparison German physicians often complain about their resources at work, such as having too few training opportunities, no feedback culture, participation etc. (Janus et al. 2007). Previous studies have already shown that there is a significant difference in training opportunities for (junior) doctors in Australia compared to Europe (e.g., the UK) (Young et al. 2010).

At this time there are only studies investigating differences in job demands and resources between doctors in Europe (Drobnic et al. 2010) or from UK and Australia (Association 2008). In this paper we focus on differences in job demands and resources between Germany and Australia.

Hypothesis 2: Physicians’ job demands differ significantly between German and Australian doctors.

Hypothesis 3: Physicians’ job resources differ significantly between German and Australian doctors.

Job satisfaction

As to why so many doctors choose to work in Australia, studies found common reasons: e.g., fewer working hours, better working conditions, fair wages and increased opportunities for development. Summing up, research illustrated high ratings of job satisfaction in Australian hospitals (Joyce et al. 2011; Bartram and Joiner 2004; Joyce et al. 2010). A previous longitudinal survey demonstrated that more than 80 percent of Australian hospital physicians are moderately or very satisfied with their jobs (Sweet 2011).

In contrast, research studies in Germany have shown moderate or low self-rated job satisfaction rates (Mache et al. 2009c; Gotz et al. 2010, Reissmann et al. 2010; Rosta and Gerber 2008; Rosta et al. 2009). German physicians often complain about their working conditions, payment and working hours (Rosta and Gerber 2008, Rosta et al. 2009).

No investigation has ever been made evaluating the differences in job satisfaction between Australian and German doctors.

We assume:

Hypothesis 4: Physicians’ job satisfaction differs significantly between German and Australian doctors.

Life satisfaction

The construct “life satisfaction” is used to evaluate the general well-being of individuals. It represents how satisfied people feel with their life in general (Diener and Elsworth-Diener 2008). Besides factors such as a social supportive networks and healthy living (playing sports and well balanced nutrition) working conditions play also an important factor affecting life satisfaction (Headey 2008, Duffy 2004; Headey et al. 2011).

Research studies indicate that life satisfaction is directly related to job satisfaction (Rain et al. 1991; Tait et al. 1989).

So, in addition we assume a difference in subjective life satisfaction between German and Australian doctors. Statistical data showed that Australia is famous for an excellent quality of life standard. In 2009, Australia’s quality of life was ranked 6th in the world (Nelson 2008, O’Brian 2009). In contrast Germany ranked 17th in the world. In addition further studies have also shown significant differences in other factors which might have an influence on life satisfaction (e.g., job satisfaction, leisure time, social support).

With regard to these results we suppose:

Hypothesis 5: German doctors evaluated their life satisfaction significantly differently than Australian doctors.

To our knowledge, no comparative study like this has been done yet. Answering these hypotheses is of great importance in the present discussion on improving doctors working conditions in Germany. Results may explain why so many physicians decide to leave Germany to work in Australia or elsewhere.

Methods

Study design and participants

The study was conducted as a cross-sectional survey using a standardized questionnaire to assess physicians’ socio-demographic data, psychosocial working conditions, and job and life satisfaction in Germany and Australia.

Participating hospitals were chosen with regard to their specific size and medical fields. Only doctors working full time were included in the study. Hospitals were almost equal in size; no significant differences were found between the hospitals in terms of the number of physicians, nurses, patient beds or in-patient cases per year.

During the data collection process, which took place in 2009 (in Germany) and 2010/2011 (in Australia), the investigators held meetings informing the entire staff.

A total of 800 questionnaires were distributed (400 in Germany and 400 in Australia), of which 310 were returned in Germany and 2010/2011 (in Australia).
Gender distribution was similar in Germany and Australia. Participants had an average age of 34 years (SD=6.54 years). The Australian doctors were significantly younger, with a mean age of 32.7 years (95% CI 30.3 to 36.4) compared to German doctors with 34.6 years (95% CI 33.9 to 39.4). The average working experience was four years (SD=2.1 years), with no significant differences between German and Australian physicians.

**Weekly work hours**

German doctors rated their work at an average of 43 hours per week (SD=2.34 h) compared to 39 hours per week in Australia (SD=3.35 h). This difference reached significance (p<.05). In both countries, male doctors worked significantly longer than female doctors (p<.05).

**Working demands and resources**

**Job demands**

The analysis of job demands illustrated a significant difference for one of the four scales (quantitative demands) (p<.01). For emotional demands, cognitive demands and demands to hide

---

**Table 1: Job demands and resources of German and Australian doctors**

<table>
<thead>
<tr>
<th>Demands</th>
<th>German doctors</th>
<th>Australian doctors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Demands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative demands</td>
<td>68 (13)</td>
<td>61 (11)</td>
</tr>
<tr>
<td>Emotional demands</td>
<td>55 (15)</td>
<td>56 (17)</td>
</tr>
<tr>
<td>Demands for hiding emotions</td>
<td>39 (16)</td>
<td>42 (20)</td>
</tr>
<tr>
<td>Work-privacy conflict</td>
<td>41 (28)</td>
<td>38 (13)</td>
</tr>
<tr>
<td>Influence and development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence at work</td>
<td>40 (20)</td>
<td>54 (25)</td>
</tr>
<tr>
<td>Degree of freedom at work</td>
<td>52 (23)</td>
<td>56 (22)</td>
</tr>
<tr>
<td>Possibilities of development</td>
<td>65 (21)</td>
<td>77 (21)</td>
</tr>
<tr>
<td>Meaning of work</td>
<td>74 (25)</td>
<td>76 (25)</td>
</tr>
<tr>
<td>Workplace commitment</td>
<td>62 (21)</td>
<td>66 (22)</td>
</tr>
<tr>
<td>Interpersonal relations and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictability</td>
<td>59 (15)</td>
<td>62 (19)</td>
</tr>
<tr>
<td>Role clarity</td>
<td>74 (24)</td>
<td>81 (16)</td>
</tr>
<tr>
<td>Role conflicts</td>
<td>36 (20)</td>
<td>32 (17)</td>
</tr>
<tr>
<td>Quality of leadership</td>
<td>56 (19)</td>
<td>69 (12)</td>
</tr>
<tr>
<td>Social support</td>
<td>65 (21)</td>
<td>74 (16)</td>
</tr>
<tr>
<td>Feedback</td>
<td>36 (11)</td>
<td>48 (21)</td>
</tr>
</tbody>
</table>

Source: Authors calculations.
Forty-two percent of Australian doctors evaluated their quantitative job demands as high whereas 61 percent of German doctors reported high quantitative demands (Table 1). Perceived quantitative demands did not differ significantly between male and female doctors in both national samples (p>.05).

Emotional and cognitive demands were rated moderately in both samples (M=51%; SD=13%). No significant difference could be found between Australian and German doctors and the same with respect to gender (p>.05).

Job resources
Significant differences between the two national samples according to job resources were found for possibilities of development, quality of leadership, influence at work, feedback and social support (p<.05). Scores are illustrated in Table 1. All doctors, regardless of nationality, reported high scores for the meaning of work (M=75%; SD=10%) and the degree of freedom at work (M=65%; SD=11%). These results did not differ significantly between the two national samples (p>.05). No significant gender differences were found in either national sample (p>.05).

Job satisfaction
In comparison, estimation of job satisfaction showed that German doctors were significantly less satisfied with their job than Australian physicians (p<.01). Sixty-one percent of German physicians responded as being “satisfied” or “very satisfied” with their work compared to 78 percent of physicians working in Australia (Figure 1). There were no significant gender differences in job satisfaction in either country (p>.05).

Life satisfaction
In comparison, life satisfaction items have shown that physicians working in Germany were significantly less satisfied with their lives than the Australian average (p<.01). The survey found that 89 percent of all doctors were (moderately) satisfied or very satisfied with their lives. Less than 4 percent of doctors in each group were very dissatisfied. Seventy-one percent of the German doctors said that they are satisfied whereas in contrast 81 percent of Australian doctors rated they are satisfied (Figure 2). There were no significant gender differences in life satisfaction (p>.05). Moreover no significant difference was seen in the proportions of male and female doctors who reported being very satisfied with their life (p>.05).

In addition, the results illustrated a negative, but not significant correlation between number of working hours and ratings of physicians’ job satisfaction (p >.05).

Discussion
The present study, a comparative one, assessed the working conditions, job satisfaction and life satisfaction of two national samples: Australia and Germany.

Weekly working hours
Our results demonstrated: German doctors work considerably longer than their Australian colleagues. This result was not a surprise since in 2006 the working hours for German hospital doctors increased to 40-42 hours per week. To understand our study results regarding German physicians’ job satisfaction it is also important to know that salaries had not increased significantly since 2006.

In contrast Australian physicians’ working hours have remained stable for the last few years (38-40 hours per week). Previous research has shown similar results regarding working hours in Australian hospitals (Ferguson et al. 2010; Benson et al. 2009; Lewis 2002, Phillips et al. 2007).

One might argue that our results are subjective reports and are subject to methodical biases. These concerns can be invalidated: real-time analyses in Germany also illustrated working hours of 40-
This characterizes a better working atmosphere in Australian hospitals. Australian hospital doctors enjoy a higher level of job satisfaction. Hospital doctors in Germany report significantly lower job satisfaction, than their colleagues in Australia. Our results can be explained by focusing typical differences in medical health care structures in both countries for example, organizational structures: a hierarchical medical workforce structure does not exist in Australia as strongly as in German hospitals. Most junior doctors call consultants by their first name and there is greater autonomy and recognition of junior doctors' value. Improving working resources and better work time control could be the first step in improving doctors' job satisfaction. Improvements in working conditions are strongly recommended due to the fact that satisfied hospital doctors are one of the key components for excellent health care in hospitals.

Job demands
One of the main findings was that especially in Germany workloads and quantitative demands were significantly higher rated than in Australia. By contrast, the participating German physicians were affected by a number of job demands whereas the Australian physicians reported lower levels. Data from other single studies confirm these ratings (Boeck et al. 2006). The finding that more than 40 percent of German respondents identified quantitative demands as high was also found in a different work analysis (Mache et al. 2000c).

Considering national differences in job demands, one explanation may be that job demands differ depending on organizational factors in hospitals as well as differences in management structures (Brewer and Cox 1995). Previous studies support the position that organizational structure affects job-related work load, performance and employees' satisfaction (Rahman and Zanot 1995). Future studies should focus more on objective data on how different groups of physicians are affected by different ways of work organization. Unsurprisingly, no significant differences could be found in emotional and cognitive demands. Job demands concerning how to handle emotionally disturbing situations or to avoid being emotionally involved in a work task depend on the characteristics of the specific medical job/tasks.

Job resources
Job resources in general were better rated in Australia than in Germany. Various reasons can be discussed.

Our results show better training possibilities for Australian doctors (possibilities for development). To enter a specialty training programme, there is generally far less competition than in Europe. In addition, the quality of the training is generally of a good standard.

Influence at work differed significantly between German and Australian hospitals. The characteristics of working as a hospital doctor (work task and schedules etc.) do seem to vary between the two countries. The existence of strong hierarchical orders may explain our results. The higher a doctor's position is in the German clinical hierarchy, the more influence on organizational decisions. A lot of German physicians complain that there are too many steps to a successful career and a negative working atmosphere were responsible for their job dissatisfaction (Janus et al. 2007). Cultural differences may explain higher scores for quality of leadership, feedback and social support in Australia.

Comparative studies on leadership behavior have illustrated that Australian leaders get the job done more professionally, communicate more effectively, place greater value on team building skills and are more socially engaging than managers in different countries (Bambacas and Patinkin 2009).

Job satisfaction
Australian hospital doctors enjoy a higher level of job satisfaction. This characterizes a better working atmosphere in Australian hospitals, with lower physical burdens, better collegial support, and more professional autonomy, more control over clinical work and shorter working hours than in Germany. Hospital doctors in Germany report significantly lower job satisfaction, than their colleagues in Australia. Our results can be explained by focusing typical differences in medical health care structures in both countries for example, organizational structures: a hierarchical medical workforce structure does not exist in Australia as strongly as in German hospitals. Most junior doctors call consultants by their first name and there is greater autonomy and recognition of junior doctors' value. Improving working resources and better work time control could be the first step in improving doctors' job satisfaction. Improvements in working conditions are strongly recommended due to the fact that satisfied hospital doctors are one of the key components for excellent health care in hospitals.

Life satisfaction
Our study results illustrated that the majority of participants are satisfied with their lives. This result confirms previous statistics on life satisfaction around the world. Australia as well as Germany rank high on the list of life satisfaction (Leigh and Wollers 2007). In addition, our results illustrated differences in life satisfaction between the two national samples. Australian physicians were more satisfied than German doctors.

Cultural differences might have an effect on the perception of life satisfaction. Previous studies showed that career adds a relatively small contribution to life satisfaction compared with other factors such as marriage and social connections (Headey et al. 2011). Investigations have shown that Germans are highly career oriented (Gerber et al. 2009). It seems as if a good career is more important for Germans than for Australians. Other parts of life such as enjoying leisure time have a higher priority than being successful in clinical work in Australia. Since life satisfaction studies have shown that this relation is associated with higher ranks of life satisfaction, our results might be explained.

Previous studies showed that individuals who give high priority to socially and family oriented goals, and lower priority to career goals, are more satisfied with life (Diener and Biswas-Diener 2008; Headey 2008; Putnam 2000).

Limitations
A restriction on this study is its cross-sectional design. In addition we only used self-reported data. A combination of questionnaire data and other data sources (e.g., objective measures of time and motions analyses) would be desirable. One limitation is clearly a possible cultural difference in perception of job demands and job resources. In consequence this has an impact on job and life satisfaction. Additional objective work analyses should be made to verify our results. Furthermore, there is a slight possibility of a response bias. It is not possible to investigate differences between physicians who respond and physicians who did not respond.

Conclusion
The current study illustrated working conditions of hospital doctors working in different health care systems. Overall our study showed better perceived working conditions for Australian doctors and
higher perceived job and life satisfaction. Improved work organization, in the form of reduced work hours, as well as better job resources, preferably combined with lower job demands are recommended strategies to improve German doctors’ job and life satisfaction which might decrease the wish to work abroad. If the trend of migration to other countries continues, this situation will become disastrous for public health especially in more remote areas and a debacle for the German economy; Therefore general improvements in working conditions are required. Our findings set an important baseline for these plans.

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References


References (continued)

References (continued)


Improved use of allied health professionals in the health care system: The case of the advanced practice physiotherapist in orthopedic care

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ABSTRACT: This article provides an overview of work done in Canada involving the use of physiotherapists in models of collaborative care to enhance orthopedic care and practice. Valuable lessons learned and an important model of collaborative care are summarized. The research around these models of care has also contributed to important scope of practice changes for the profession of physiotherapy.

In order to address access to care issues, many countries, have begun to examine multidisciplinary, collaborative models of care. Improved use of non-physician healthcare providers can have a positive impact on the cost of health care (Cooper 2001), on efficiency of the health care system in terms of human resources (Ganapathy and Zwemer 2003, Timpka et al. 1996), on patient satisfaction with care (Derengowski et al. 2000), and on physician productivity and satisfaction with the work environment (Carr et al. 2002, Rodysill 2003).

One area of care where effective collaborative models of care have been implemented is in orthopedics. Care for persons with orthopedic problems can be complex. Usually the first healthcare contact for such a problem is the family physician. More than 60 percent of the people who suffer from orthopedic problems will seek attention from their family physician (Sundararajan 1998) who will typically treat the patient with anti-inflammatory medications and advice on rest (Cermence and Seamark 2003). Unfortunately, family physicians may lack the background knowledge and sufficient contact time to comprehensively manage orthopedic problems, and patients may not respond to typical medical management, leaving referral to an orthopedic specialist as the typical course of action (Freeman and Sweeney 2001). However, orthopedic wait times can be unusually long and many of the patients referred may not require surgical care (Mayman and Yen 1999). Therefore this may not be the most appropriate course of action.

In the Canadian health care system the most obvious choice for a model of collaborative care focusing on the management of orthopedic problems is the physiotherapist, because physiotherapists are experts in the conservative management of orthopedic problems (College of Physiotherapists of Ontario 2006). Using physiotherapists to manage non-surgical orthopedic patients in a front-line, clinic setting is not new. The model of care in which a physiotherapist assesses, triages, and manages orthopedic patients has been successfully implemented in other countries (Benson et al. 1995, Jibuike et al. 2003).

The model of care

However, in recent years in Ontario, Canada, a new model has emerged in orthopedic clinics, in which physiotherapists assess and triage patients for orthopedic surgical assessment, and manage those patients who require conservative care with appropriate advice, or by referring them for other conservative management. Our research has shown that diagnostic concordance between a physiotherapist and an orthopedic surgeon is excellent (Aiken and McColl 2008). The purpose of our study was to determine diagnostic concordance and accuracy, and treatment concordance between a physiotherapist and an orthopedic surgeon. Twenty-five subjects in an orthopedic clinic
were assessed by a physiotherapist and an orthopedic surgeon. Diagnosis and treatment recommendations were made by each separately. These were compared for concordance between the health care professionals as well as diagnostic accuracy. The physiotherapist and the orthopedic surgeon had 90 percent concordance in diagnoses of knee and shoulder impairments, and both had 75 percent accuracy when compared with definitive diagnostic methods such as MRI. They had 87 percent agreement in treatment recommendations; however, the physiotherapist gave three treatment recommendations per patient where the surgeon gave two. In a collaborative care context therefore, this study suggests that physiotherapists and orthopedic surgeons have similar diagnostic capabilities, and that physiotherapists will enhance the conservative treatment options offered to orthopedic patients (Aiken and McColl 2008).

The current model in use in the clinics is called the Advanced Practice Physiotherapist (APP) model and involves physiotherapists who work in hospitals and have delegated acts that allow them to order X-rays, blood work and other necessary tests in order to make appropriate care decisions about patients. The APP will typically work with the surgeons for a period of time before starting their own clinics in order to learn the criteria that each surgeon uses to judge the necessity for surgery and to learn additional radiographic diagnostic skills. This period of time also familiarizes the surgeon with the capabilities of the APP so the surgeon can be confident of collaborators’ abilities (Aiken et al. 2007).

The APP model has been particularly effective in hip and knee arthroplasty clinics (Aiken et al. 2007, Aiken and Harrison 2009). In these clinics, patients are triaged by a physiotherapist before seeing the orthopedic surgeon. Our research shows that 66 percent of these patients require a surgical consult, while 34 percent do not (Aiken et al. 2007). Patients who do require a consultation with the surgeon are prioritized for a visit within one, three, or six months, allowing the surgeon to deal with the more urgent cases first. Patients who do not require a surgical consultation are managed by the APP alone. It should be noted that the APP will give effective conservative management options to all patients, regardless of diagnosis, while the surgeon will focus only on the need for surgery (Aiken et al. 2008). Therefore there is a value added to having another professional to provide treatment options in these situations.

APPs do regular check-ups of patients referred for arthroplasty but deemed by the surgeon as inappropriate at the current time, thereby taking the patient off the surgeon’s wait list. In addition, APPs are able to manage post-operative arthroplasty patients, referring the patient to the surgeon only when necessary. This again serves to reduce the number of clinic patients that orthopedic surgeons are required to see (Aiken et al. 2007).

The overall effectiveness of using an APP to decrease wait times comes in the form of saving surgeons’ time so they are not required to assess patients who do not need surgery, those that do need surgery are prioritized for them, and ongoing post-operative and wait list management are conducted by another health care professional with the appropriate skill set (Aiken et al. 2007, Aiken and Harrison 2009). In order to realize the full potential of this program, additional resources in the form of operating room time for the surgeons must be provided so surgeons can utilize their time where they are most skilled to do so. The benefit to the patients is that they are seen in a more timely fashion initially by the APP, and also by the surgeon if required. Patients are also offered enhanced care in the form of conservative management strategies whether they need surgery or not, and those who have had surgery are managed by the APP who can offer them the appropriate management (Aiken and Harrison 2009).

This collaborative model of care between physicians and physiotherapists has been adopted throughout the country and has been shown to: a) increase the number of patients seen in the out-patient orthopedic clinics since only those who may require surgery see the surgeon; b) improve patient and physician satisfaction by easing the burden of excessive wait times on both; and c) improve publicly funded access to the appropriate care for orthopedic problems (Aiken et al. 2007).

The APP will typically work with the surgeons for a period of time before starting their own clinics in order to learn the criteria that each surgeon uses to judge the necessity for surgery, and to learn additional radiographic diagnostic skills.
It is through a comprehensive understanding of the literature surrounding models of collaborative care that appropriate health care changes can be facilitated (Aiken and McColl 2009). Lack of uniformity in structure in the design of models of collaborative care has been identified as a problem linked with the implementation of these programs (DeBourgh 2001). There are several models of care that can be of benefit to the health care system, and to choose the most appropriate model for a specific environment (Aiken and McColl 2009). It is essential to recognize that these models are researched effectively, that key stakeholders are informed, and that system-wide changes are facilitated so health care advances can be implemented easily and effectively.

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Dr Aiken is the Immediate Past President of the Board of Directors of the Canadian Physiotherapy Association. She is on the medical and scientific review committees for the Canadian Orthopaedic Foundation, and she is on the research advisory group for the Centre for Obesity Research and Education.

She received her PhD and Master’s from Queen’s University in Kingston, her Physical Therapy degree at Dalhousie University in Halifax, Nova Scotia and a BSc in Kinesiology at the University of Ottawa. She also served in the Canadian military for 14 years.

References


A five-year prevalence study of burn injury in a Nigerian teaching hospital

ABSTRACT: Burn injury has been observed as a worldwide problem. The knowledge of the epidemiology is important for planning of management and preventive programmes. This is a retrospective review of burn patients who presented with acute burn injuries between January 2006 and December 2010. Admission registers and patients’ folders were the sources of information. The information obtained includes: age, gender, number of patients who died, sources of burn injury and outcome of management.

A total of 407 patients with acute burn injuries were studied. Males numbered 274 (67.3%), females 133 (32.7%). A majority, 98 (24%) of burn injuries occurred in the year 2010 and mortality in the series increased progressively except for 2006 which is explainable by the strike due to industrial disputes between and among various health disciplines over the period. Mortality was highest in 2010 (30%). The prevalence was higher among males than females throughout the 5-year period. The incidence, prevalence and mortality of burn injury have remained high in this environment. We suggest a well-targeted prevention campaign program to reduce this high incidence and high mortality in burn injury in Nigeria.

A burn injury is a major source of morbidity and mortality from trauma in many parts of the world, particularly in the low- and middle-income countries. Nigeria, the largest country in Africa is no exception. Burns are an important cause of mortality in developing countries and also cause much morbidity and disability and lost of school days, work hours, days and months or years and even life. A burn injury is a worldwide problem (Sowemimo 1984). It ranks high among injuries suffered by men. Improvement in technology in the developed world has seen improvements in burn management with a remarkable reduction in morbidity and mortality. However in developing countries like Nigeria, these technological advances have not made the desired impact on burn-management patients (Fashika 1992, Datubo-Brown and Keph 1989, Markelow 1960, Haq 1989). This has been attributed to the persistence of ignorance and poverty in developing countries (Fashika 1992).

Oladele and Olabanji (2010) reported that 125 million burn injuries occur yearly in the United States of America. Burns are reported to be the sixth leading cause of accidental death in USA and the eighth most common cause of mortality in low- and middle-income countries. They further reported that in 1945, 50 percent of patients survived burns involving 40 percent Total Body Surface Area (TBSA) and in 1998, 50 percent of patients survived burns involving 80 percent TBSA. This sounds like an improvement but evidence in this study did not support this. Burn injuries constitute a devastating condition all over the world, accounting for a high percentage of injury deaths (Krug 1999). Though generally considered preventable, burn injuries appear to
be on the increase in Nigeria (Fashika 1992). While the hazards of motor vehicles, poisons, and small objects seem to be well understood (Victor et al. 1998, Macarthur 2003), a comparable understanding of kitchen burns and scalds is lacking and previous intervention strategies have had little effect on burn injury from these sources. The current pace of bomb explosions in the country has compounded the problem.

The burn unit selected for this study is a ward in the Department of Plastic Surgery, established in 2000, for the care of burn victims. The burn unit of the hospital has in the last one decade admitted 654 patients with burn injury out of which 60 percent were males and 40 percent females (Ademola 2011). The patients’ ages ranged between six months and 95 years with the median age put at 22 years. The burn unit is already coping with more than a unit can handle when compared with situations abroad. This was as a result of the incessant explosions arising from bombs, petrol, and adulterated kerosene as well as motorbike accidents in the country today (Ademola 2011). This may partly explain why the incidence of burn injury is on the increase.

The purpose of this study was to assess the prevalence of burn injury in the burn unit over a five-year period between January 2006 and December 2010. The specific objectives are to

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of admissions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>42</td>
<td>21.3</td>
</tr>
<tr>
<td>2007</td>
<td>29</td>
<td>14.7</td>
</tr>
<tr>
<td>2008</td>
<td>49</td>
<td>24.9</td>
</tr>
<tr>
<td>2009</td>
<td>41</td>
<td>20.8</td>
</tr>
<tr>
<td>2010</td>
<td>36</td>
<td>18.3</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Secondary data

### Table 3: Total Number of Patients Discharged

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of admissions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>33</td>
<td>17.6</td>
</tr>
<tr>
<td>2007</td>
<td>25</td>
<td>13.4</td>
</tr>
<tr>
<td>2008</td>
<td>35</td>
<td>18.7</td>
</tr>
<tr>
<td>2009</td>
<td>38</td>
<td>20.3</td>
</tr>
<tr>
<td>2010</td>
<td>56</td>
<td>30.0</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Secondary data

### Table 4: Number of Deaths Recorded

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of admissions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>33</td>
<td>17.6</td>
</tr>
<tr>
<td>2007</td>
<td>25</td>
<td>13.4</td>
</tr>
<tr>
<td>2008</td>
<td>35</td>
<td>18.7</td>
</tr>
<tr>
<td>2009</td>
<td>38</td>
<td>20.3</td>
</tr>
<tr>
<td>2010</td>
<td>56</td>
<td>30.0</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Secondary data

### Table 5: Age Distribution of Burn Injury Percentage within the Period of Study

<table>
<thead>
<tr>
<th>Age in years</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>15 (18.29%)</td>
<td>17 (20.3%)</td>
<td>12 (15%)</td>
<td>28 (33.3%)</td>
<td>18 (18.36%)</td>
</tr>
<tr>
<td>10-19</td>
<td>7 (8.53%)</td>
<td>3 (3.73%)</td>
<td>10 (12.5%)</td>
<td>6 (7.14%)</td>
<td>16 (16.32%)</td>
</tr>
<tr>
<td>20-29</td>
<td>17 (20.73%)</td>
<td>6 (7.14%)</td>
<td>13 (16.25%)</td>
<td>13 (15.47%)</td>
<td>19 (19.36%)</td>
</tr>
<tr>
<td>30-39</td>
<td>19 (23.17%)</td>
<td>6 (7.14%)</td>
<td>10 (12.5%)</td>
<td>9 (10.64%)</td>
<td>17 (17.34%)</td>
</tr>
<tr>
<td>40-49</td>
<td>10 (12.19%)</td>
<td>4 (4.87%)</td>
<td>8 (10%)</td>
<td>6 (7.14%)</td>
<td>5 (5.10%)</td>
</tr>
<tr>
<td>50-59</td>
<td>3 (3.65%)</td>
<td>4 (4.87%)</td>
<td>3 (3.75%)</td>
<td>5 (5.95%)</td>
<td>5 (5.10%)</td>
</tr>
<tr>
<td>60-69</td>
<td>2 (2.43%)</td>
<td>5 (5.95%)</td>
<td>3 (3.75%)</td>
<td>4 (4.87%)</td>
<td>3 (3.10%)</td>
</tr>
<tr>
<td>Total</td>
<td>82 (20.14%)</td>
<td>63 (15.47%)</td>
<td>80 (19.65%)</td>
<td>84 (20.63%)</td>
<td>98 (24.07%)</td>
</tr>
</tbody>
</table>

Source: Secondary data

### Table 6: Distribution of Burn Injuries among Patients by Percentage

<table>
<thead>
<tr>
<th>Percentage of Burns</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>15 (18.29%)</td>
<td>12 (15.7%)</td>
<td>6 (7.14%)</td>
<td>11 (13.2%)</td>
<td>16 (16.32%)</td>
</tr>
<tr>
<td>11-20</td>
<td>18 (21.95%)</td>
<td>7 (8.75%)</td>
<td>8 (10%)</td>
<td>7 (8.33%)</td>
<td>10 (10.20%)</td>
</tr>
<tr>
<td>21-30</td>
<td>7 (8.53%)</td>
<td>5 (7.93%)</td>
<td>5 (6.25%)</td>
<td>5 (5.95%)</td>
<td>7 (7.14%)</td>
</tr>
<tr>
<td>31-40</td>
<td>9 (10.97%)</td>
<td>5 (6.25%)</td>
<td>6 (7.5%)</td>
<td>5 (5.95%)</td>
<td>8 (8.16%)</td>
</tr>
<tr>
<td>41-50</td>
<td>9 (10.97%)</td>
<td>6 (7.93%)</td>
<td>4 (5%)</td>
<td>12 (14.28%)</td>
<td>10 (10.20%)</td>
</tr>
<tr>
<td>51-60</td>
<td>4 (4.87%)</td>
<td>5 (6.25%)</td>
<td>12 (15%)</td>
<td>8 (9.52%)</td>
<td>8 (8.16%)</td>
</tr>
<tr>
<td>61-70</td>
<td>4 (4.87%)</td>
<td>5 (6.25%)</td>
<td>13 (16.25%)</td>
<td>12 (14.28%)</td>
<td>15 (15.30%)</td>
</tr>
<tr>
<td>71-80</td>
<td>3 (3.65%)</td>
<td>10 (12.5%)</td>
<td>0 (0%)</td>
<td>10 (11.90%)</td>
<td>7 (7.14%)</td>
</tr>
<tr>
<td>81-90</td>
<td>9 (10.97%)</td>
<td>3 (3.65%)</td>
<td>11 (13.75%)</td>
<td>7 (8.33%)</td>
<td>7 (7.14%)</td>
</tr>
<tr>
<td>91-100</td>
<td>4 (4.87%)</td>
<td>4 (4.87%)</td>
<td>11 (13.75%)</td>
<td>5 (5.95%)</td>
<td>2 (2.04%)</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>63</td>
<td>80</td>
<td>84</td>
<td>98 = 407</td>
</tr>
</tbody>
</table>

Source: Secondary data

Burn injuries constitute a devastating condition all over the world, accounting for a high percentage of injury deaths. Though generally considered preventable, burn injuries appears to be on the increase in Nigeria.
determine demographic profile (age and gender) of the patients as well as determine the outcome of the treatment. The findings of the study will add to existing literature on burn injury, and also provide a basis for nurses to provide information to the public on the increase and preventive measures of burn injury in order to lower mortality.

Methods
A retrospective research design was used for data gathering to achieve the set objectives. Between January 2006 and December 2010, a total of 407 patients who fulfilled the ICD 10 Classification of Burn Injury were selected. A retrospective chart analysis was performed and the following data were recorded: demographic characteristics in terms of age and gender, and outcome of care.

Discussion
Burn injury constitutes a devastating condition which accounts for a high percentage of injury deaths and it is considered one of the major health problems all over the world (Sowemimo 1984). In the present study, out of the total 407 patients admitted, 67 percent were males and 33 percent were females, the result revealed that in 2006, more patients within the age of 40-49 years were admitted (20.2%) and in 2007, more patients within the age range of 20-29 years were admitted. During 2008, and 2010, patients’ age group 0-9 years (33%) and 30-39 years (19.4%) were admitted respectively. Results also revealed that, more people were affected in 2010 (24.1%). This shows that younger people are more affected than adults. A total of 407 (100%) patients were admitted during the period of study. One hundred and ninety-seven (48%) of them were discharged, while 34 (8%) were transferred out of the unit and 187 (46%) of them died. This agrees with an epidemiological study of burn injuries in Ille-Ife which revealed kerosene and petrol flame as the commonest causes of burn injury in young people below 20 years of age (Oginni and Olaitan 2005). Adequate knowledge is essential to good burn safety practices. This aids prevention and reduces the occurrence of burns. Prevention of burn injury in order to prevent severe burn injuries is obtainable. This study was done to determine the prevalence of burn injury among patients admitted into the burn unit of the University College Hospital, Ibadan, South western Nigeria. A retrospective research design was used for data gathering to achieve the set objectives. Four hundred and seven patients who sustained burn injuries over a 5-year period (January 2006 to December 2010) were the focus of the study. There was a progressive increase in the percentage of patients between 2007 and 2010 with majority, 98 (24%) of them suffered most burn injuries in 2010. The prevalence was higher among males than females throughout the 5-year period.

Summary
Burn injuries remain a global problem even though they are largely preventable (Liburum and Olaitan 2005). Adequate knowledge is essential to good burn safety practices. This aids prevention and minimizes severity when burn injuries occur. The purpose of this study was to determine the prevalence of burn injury among patients admitted into the burn unit of the University College Hospital, Ibadan, South western Nigeria. A retrospective research design was used for data gathering to achieve the set objectives. Four hundred and seven patients who sustained burn injuries over a 5-year period (January 2006 to December 2010) were the focus of the study. There was a progressive increase in the percentage of patients between 2007 and 2010 with majority, 98 (24%) of them suffered most burn injuries in 2010. The prevalence was higher among males than females throughout the 5-year period.

Conclusion
Nurses have a huge role to play in educating people about prevention of burn. Their work will go a long way toward lowering the morbidity.

Findings further revealed that in the year 2006 more patients suffered burn injuries between the 11-20 percentage 18 (22%) while in 2007, 19 percent of patients were diagnosed with burns between the 1-10 percentage. In 2008, 16.3 percent of patients were diagnosed of burns with 61-70 percentage while in 2009 and 2010, 15.1 percent and 16.3 percent of patients were diagnosed with 1-9 percent respectively. On further scrutiny of the data, flame burn was found to be responsible for all the injuries. This is in agreement with the findings of Pruitt et al. (1984) in which Road Traffic Accident with flame burns accounted for more than 50% of burn injuries seen during the study period. This was the period of a scarcity of petroleum products in Nigeria when people often travelled with petrol products in their vehicles and these ignited at the slightest opportunity.

Mortality in the series (Table 4) increased progressively except for the starting year, 2006 which is explainable by the strike due to industrial disputes between and among various health disciplines over the period. It was highest in 2010 (50%). This confirms the findings of Oladele and Olabanji (2010) in which burn injury was reported as the eighth most common cause of mortality in low- and middle-income countries. Similarly, according to Adeyinka (2011), in a Lecture on “The Need and Visions for an Ideal Burn Unit”, this figure suggests that more people of productive age are involved in burn injury in Nigeria, with mortality rate put at 49 percent, which he said was unacceptably high. The 2:1 male to female ratio in this study (Table 1) is contrary to Edwards et al. (2011) multi disciplinary study in Eastern Zambia which revealed a 1:2 male to female ratio. This is a reflection of predominance of males in adventure, driving and road traffic accidents, and other ventures such as oil bunkering rampant in the study environment.

Summary
Burn injuries constitute a devastating condition which accounts for a high percentage of injury deaths and it is considered one of the major health problems all over the world (Sowemimo 1984). In the present study, out of the total 407 patients admitted, 67 percent were males and 33 percent were females, the result revealed that in 2006, more patients within the age of 40-49 years were admitted (20.2%) and in 2007, more patients within the age range of 20-29 years were admitted. During 2008, and 2010, patients’ age group 0-9 years (33%) and 30-39 years (19.4%) were admitted respectively. Results also revealed that, more people were affected in 2010 (24.1%). This shows that younger people are more affected than adults. A total of 407 (100%) patients were admitted during the period of study. One hundred and ninety-seven (48%) of them were discharged, while 34 (8%) were transferred out of the unit and 187 (46%) of them died. This agrees with an epidemiological study of burn injuries in Ille-Ife which revealed kerosene and petrol flame as the commonest causes of burn injury in young people below 20 years of age (Oginni and Olaitan 2005). Adequate knowledge is essential to good burn safety practices. This aids prevention and reduces the occurrence of burns. Prevention of burn injury in order to prevent severe burn injuries is obtainable. This study was done to determine the prevalence of burn injury among patients admitted into the burn unit of the University College Hospital, Ibadan, South western Nigeria. A retrospective research design was used for data gathering to achieve the set objectives. Four hundred and seven patients who sustained burn injuries over a 5-year period (January 2006 to December 2010) were the focus of the study. There was a progressive increase in the percentage of patients between 2007 and 2010 with majority, 98 (24%) of them suffered most burn injuries in 2010. The prevalence was higher among males than females throughout the 5-year period.

Conclusion
Nurses have a huge role to play in educating people about prevention of burn. Their work will go a long way toward lowering the mortality.

Burn injuries remain a global problem even though they are largely preventable (Liburum and Olaitan 2005). Adequate knowledge is essential to good burn safety practices.
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Acknowledgement

We acknowledge the assistance of nurses in burn unit for their assistance during data collection.

References


résumés en français

1. La clientèle internationale d’un hôpital turc : touristes ou réfugiés de la santé ?
Résumé: À notre connaissance, c’est la première fois qu’on essaie de quantifier et d’analyser les flux de patients étrangers vers la Turquie. Une étude rétrospective croisée a été menée sur les patients consécutivement admis dans le département des services internationaux d’un hôpital privé de 209 lits en Turquie urbaine. Sur 6 mois, les patients étrangers représentaient respectivement 4% et 6% des consultations et des interventions chirurgicales. 660 patients étrangers uniques représentant 44 pays différents ont reçu des soins de santé. La plupart de ces 660 contacts uniques provenaient de Bulgarie (27%), Roumanie (25%), Azerbaïdjan (6%), Iraq (5%) et Géorgie (5%). Les patients étrangers nécessitaient le plus souvent des traitements anticancéreux (54%), chirurgicaux (13%) et neurologiques (7%). Bien qu’il y ait insuffisamment de données sur les voyages en Turquie pour raison médicale, on constate des flux importants de patients de pays voisins vers la Turquie.

2. Activités de l’OMT concernant les services de santé
Résumé: Avec la mise en place d’un système de commerce multilatéral et la mobilité croissante des professionnels et consommateurs de services de santé, il paraît éminemment souhaitable que l’Organisation mondiale du commerce (OMC) entreprenne des négociations au sein de l’accord commercial multilatéral. Il est nécessaire que l’intégration horizontale et verticale. L’intégration d’hôpitaux stationnaires dans un réseau conviendrait bien sur le plan économique et financier. Des avantages considérables sont également attendus dans d’autres secteurs tels que les économies d’échelle, l’amélioration de l’organisation des ressources humaines, ainsi que la gestion et les prestations proposées. En conséquence, les dépenses vont diminuer et les revenus augmenter. Toutefois, d’importantes questions sur l’intégration se discutent dans cette étude, telles que : Le secteur de la santé de Géorgie est-il prêt pour une réforme, les objectifs d’amélioration qualitative et quantitative sont-ils réalisables, et quelles en sont les principales motivations ?

3. L’intégration des hôpitaux : une réforme comparable en Géorgie ?
Résumé: Les soins de santé constituent l’industrie la plus dynamique, mais le plus problématique, où les dépenses ont presque quadruplé sur ces vingt dernières années. Des demandes de réduction des dépenses, d’amélioration de l’efficacité, de la qualité et de l’évaluation des risques économiques affluent constamment. Toutes les décisions stratégiques précises et complexes prises par les hôpitaux visent à garantir un profit maximum sur de maigres ressources et des services de qualité d’une organisation qui existe dans des conditions environnementales instables. Parmi les différentes perspectives de développement, les hôpitaux sont susceptibles de privilégier une intégration horizontale et verticale. L’intégration d’hôpitaux stationnaires dans un réseau conviendrait bien sur le plan économique et financier. Des avantages considérables sont également attendus dans d’autres secteurs tels que les économies d’échelle, l’amélioration de l’organisation des ressources humaines, ainsi que la gestion et les prestations proposées. En conséquence, les dépenses vont diminuer et les revenus augmenter. Toutefois, d’importantes questions sur l’intégration se discutent dans cette étude, telles que : Le secteur de la santé de Géorgie est-il prêt pour une réforme, les objectifs d’amélioration qualitative et quantitative sont-ils réalisables, et quelles en sont les principales motivations ?

4. Orientation de l’informatique pour les jeunes gestionnaires hospitaliers
Résumé: La technologie de l’information a évolué au fil des années et s’est imposée dans tous les secteurs, y compris celui de la santé. Tous les professionnels de santé utilisent presque quotidiennement un ordinateur. Nous comptons sur l’informatique pour fournir au personnel des informations fiables pour prendre des décisions, réduire les erreurs médicales et améliorer les communications. A mesure que le marché de la santé gagne en compétitivité et en complexité, les hôpitaux s’en remettent de plus en plus aux technologies de l’information comme outil essentiel pour être plus compétitifs. Chaque diplômé devrait suivre une formation de base sur l’ordinateur et les applications de l’informatique. De nombreuses universités et collèges offrent un programme de maîtrise en gestion de la santé, et vu le nombre considérable de nouveaux diplômés bien formés aux techniques informatiques, offrent leurs services aux hôpitaux et aux services de soins de santé annexes. L’expérience se traduit par les différents codes d’emploi qui témoignent de la nécessité de planifier, d’investir intelligemment et de prévoir des cours de formation pour que l’informatique soit utilisable dans le contexte actuel sophistiqué des soins de santé avancés. La technologie de l’information ne peut pas donner toute sa mesure sans personnel convenablement formé travaillant en équipe.

5. Un système de marge contributive pour gérer les centres médicaux de Berlin
Résumé: Après la réunification de l’Allemagne, le Charité-Universitätsmedizin Berlin a été restructuré à partir de trois CHU de Berlin préexistants. Plus de 100 départements ont été réorganisés en 17 centres. Une gestion professionnelle a été nécessaire pour...
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rééquilibrer l’ensemble. Un système de gestion axé sur les marges contributives a été introduit en 2008 par un système allemand de valeurs de référence. Tous les secteurs ont constamment contribué à l’amélioration des résultats. Pour la première fois, en 2011, le bilan présentait un profit de 8,2 millions d’euros.

6. Étude comparée sur le stress, la santé et la satisfaction des médecins australiens et allemands

Résumé: Contexte
Il n’existe actuellement aucune étude centrée sur les différences internationales dans la perception du stress, des conditions de travail et de la satisfaction du personnel hospitalier. La présente étude vise donc à examiner et à comparer le travail et la protection de la vie privée des médecins australiens et allemands.

Méthodes
La présente étude était conçue sous forme de comparaison croisée basée sur les réponses à un questionnaire. La population consistait en échantillons représentatifs de 310 médecins d’hôpitaux allemands et de 256 médecins d’hôpitaux australiens qui ont reçu les questionnaires par la poste. Les questionnaires portaient sur la démographie, la perception du stress, les conditions de travail, la satisfaction au travail et la satisfaction dans la vie.

Résultats
D’après cette étude comparée, les médecins allemands ressentaient un niveau de stress plus élevé. Leurs heures de travail étaient sensiblement plus longues que celles des médecins australiens. En général, l’intensité et les exigences du travail ont reçu un score élevé dans les deux pays. Du point de vue conditions de travail et satisfaction de la vie, les médecins australiens déclaraient de façon plus positive que les médecins allemands.

Conclusion
Il s’agit de la première étude comparée sur l’évaluation subjective, par des médecins, de la perception du stress, de leur travail et de leur vie privée dans deux pays différents. Des décisions de politique de santé peuvent être prises en fonction de ces résultats.

7. Les professionnels paramédicaux sont plus demandés au sein du système de soins de santé: Cas de la kinésithérapie*

Résumé: Cet article présente un aperçu du travail réalisé au Canada sur l’utilisation des kinésithérapeutes* dans les modèles de soins coopératifs pour améliorer les pratiques et les soins orthopédiques. Il résume les leçons importantes qui ont été apprises et décrit un important modèle de soins en équipe. Les travaux effectués autour de ces modèles de soins ont également contribué à d’importants changements de pratique pour la profession de kinésithérapeute.

*Note du traducteur : la France est presque le seul pays à utiliser le terme « kinésithérapie ». Les autres pays francophones utilisent généralement « physiothérapie ».

8. Étude quinquennale de prévalence des brûlures dans un CHU nigérien

Résumé: Les lésions par brûlure sont un problème à l’échelle mondiale. La connaissance de leur épidémiologie joue un rôle important dans la planification des programmes de prise en charge et de prévention. Cette étude rétrospective examine les patients présentant des lésions aiguës par brûlure entre janvier 2000 et décembre 2010. Les sources d’information étaient les registres d’admission et les dossiers des patients. Parmi les données figuraient l’âge, le sexe et la mortalité des patients, la cause des brûlures et l’issue des traitements.

Au total, 407 patients souffrant de brûlures aiguës ont été étudiés. Il y avait 274 (67,3%) patients du sexe masculin contre 133 (32,7%) du sexe féminin. En majorité, 98 (24%) des brûlures ont eu lieu en 2010 et la mortalité de cette série a augmenté progressivement, sauf en 2006, ce qui s’explique par la grève due à des conflits du travail parmi les diverses disciplines médicales sur cette période. Elle atteignait son apogée en 2010 (30%). La prévalence était plus élevée parmi les personnes du sexe masculin que celles du sexe féminin sur toute la période quinquennale. L’incidence et la prévalence des brûlures et leur mortalité sont restées élevées dans cet environnement. Nous suggérons de procéder à une campagne de prévention bien ciblée pour abaisser l’incidence élevée des brûlures et la forte mortalité par brûlure au Nigeria.
1. Pacientes internacionales en un hospital Turco. ¿Turistas sanitarios o refugiados sanitarios?

Resumen: A mi entender, esta es la primera vez que se intenta realizar una evaluación empírica del flujo de pacientes internacionales desde el punto de vista empírico y característico. En este contexto, se llevó a cabo un estudio retrospectivo de corte transversal de los pacientes que fueron atendidos de manera seguida en el departamento de servicios internacionales de un hospital privado con 209 camas de una zona rural de Turquía. En el plazo de seis meses, el número de pacientes internacionales representó el 4% y el 6% de todas las consultas y procedimientos quirúrgicos, respectivamente. En este periodo, 650 pacientes internacionales recibieron cuidados sanitarios en representación de 44 países distintos. Entre estos pacientes, la mayoría procedían de Bulgaria (37%), Rumania (35%), Azerbaijan (8%), Irak (6%) y Georgia (5%). Por regla general, estos pacientes extranjeros demandaron servicios oncológicos (54%), quirúrgicos (12%) o neurológicos (7%). Si bien las cifras cuantitativas sobre los viajes sanitarios a Turquía son limitadas, el flujo de pacientes procedentes de los países vecinos de Turquía es muy considerable.

2. Implicación de la OMC en los temas relacionados con los Servicios de Salud

Resumen: desde la creación de un sistema multilateral de comercio y dada la movilidad cada vez mayor de los profesionales y los usuarios de los servicios de salud, todo parece indicar que sería muy conveniente que la Organización Mundial del Comercio (OMC) emprenda negociaciones en el marco del Acuerdo General sobre Comercio en Servicios (en inglés GATS) de manera que los socios de la OMC traten de llegar a un compromiso con relación al comercio de los servicios relativos a la salud. ¿Qué importancia tiene la política sanitaria para el Acuerdo General sobre Comercio en Servicios y de qué manera se relaciona este organismo con los servicios de salud?. ¿En qué punto se encuentran las negociaciones en la actualidad y cuál es el compromiso de sus socios?.

3. Integración de los hospitales. ¿Ha llegado el momento de llevar a cabo una reforma similar en Georgia?

Resumen: la atención de la salud es uno de los sectores más complicados y dinámicos del país, en el que los gastos se han visto incrementados hasta casi cuadruplicarse. Hay una necesidad constante de revertir los gastos y mejorar la eficacia y calidad de los servicios, además de llevar a cabo una evaluación de los riesgos. Todas las decisiones estratégicas de carácter específico y complejo, adoptadas por los hospitales van encaminadas a garantizar la máxima rentabilidad de los escasos recursos y un servicio óptimo de una organización en unas condiciones ambientales inestables. De las distintas alternativas de crecimiento, los hospitales preferían una integración horizontal o vertical. Para los hospitales es sumamente importante integrarse dentro del sistema de salud, tanto desde el punto de vista financiero, como el económico. Además, se esperan cambios muy notables en otras esferas, tal como las economías de escala, la mejora de organización de los recursos humanos, la gestión y la prestación de servicios. Por consiguiente, se espera lograr una reducción de los costos y un aumento de los ingresos. No obstante, en lo que respecta a la integración, hay una serie de preguntas importantes que merecen incluirse en este estudio: ¿Está el sector sanitario de Georgia en situación de introducir una reforma? Desde el punto de vista cualitativo y cuantitativo ¿son las mejoras propuestas fáciles de alcanzar? Y finalmente, ¿Qué es la motivación principal?.

4. Adiestramiento de jóvenes directores administrativos hospitalarios en informática

Resumen: En los últimos años la informática ha evolucionado hasta introducirse en todos los sectores industriales y la atención de la salud no podía ser una excepción. El ordenador es una herramienta cada vez más necesaria para el personal sanitario en su trabajo de cada día. Cabe esperar que la informática siga siendo un importante factor que el personal sanitario se beneficie de una información fidedigna para la toma de decisiones, para reducir el nivel de errores médicos, el tiempo de los procedimientos y mejorar la comunicación. A medida que el sector de la salud se hace cada vez más competitivo y complejo, los hospitales dependen más y más de la informática como herramienta principal para competir. Todos los postgraduados deberían hacer un curso básico en el uso de ordenadores e informática. Numerosas universidades y escuelas superiores ofrecen un master en administración en salud y hay un número muy elevado de nuevos postgraduados con unos conocimientos muy superiores en informática que ofrecen sus servicios a los centros hospitalarios y otros establecimientos relacionados con la atención de la salud. La experiencia de estos profesionales se refleja en la variedad de cargos que desempeñan y que demuestran la necesidad de la planificación, la inversión prudente y la formación teórica y práctica para hacer uso de la informática en el entorno tan avanzado y ultramoderno de los hospitales.
cuidados de salud de hoy en día. No hay manera de obtener el máximo beneficio de la informática si no se cuenta con una plantilla bien capacitada trabajando en equipo.

5. Introducción de un sistema de colaboración marginal en los centros médicos de gestión de Berlín
Resumen: Tras la reunificación de Alemania, la institución benéfica Universitätsmedizin Berlin se reestructuró a partir de tres hospitales universitarios ya en uso en Berlín. Más de un centenar de departamentos se reorganizaron para formar 17 centros. A fin de mejorar los resultados globales fue necesario hacer uso de gestión profesional. En 2008 se puso en marcha un sistema gerencial de colaboración marginal utilizando cifras alemanas como punto de referencia. Todos los sectores han mostrado una mejora constante de los resultados. En 2011, por primera vez, el estado de cuentas registró unos beneficios de 8.2 millones de Euros.

6. Tensión nerviosa, estado de salud y satisfacción de los médicos australianos y alemanes – estudio comparativo
Resumen: En la actualidad no existe ningún estudio que se centre en las diferencias internacionales en lo que respecta a la percepción de la tensión nerviosa, las condiciones de trabajo y el nivel de satisfacción del personal hospitalario. De ahí que este estudio se proponga examinar y comparar las condiciones de trabajo y el nivel de satisfacción personal de los médicos australianos y alemanes.

Métodos
Este estudio se realizó a modo de comparación transversal, utilizando para ello la información procedente de un cuestionario. La población encuestada consistió en una muestra representativa de 310 médicos hospitalarios australianos y 256 alemanes, a los que se envió el cuestionario, que contenía preguntas relativas a la demografía, la percepción del nivel de tensión nerviosa, las condiciones de trabajo, la satisfacción laboral y la satisfacción personal con respecto a su vida laboral.

Resultados
Según los resultados, los médicos alemanes tienen un nivel más elevado de tensión nerviosa y tienen un horario laboral bastante más extenso que los médicos australianos. En general, los médicos de ambos países tienen un buen concepto sobre el volumen de trabajo y las exigencias laborales. En cuanto al grado de satisfacción laboral y satisfacción personal con el modo de vida, los médicos australianos se mostraron más satisfechos que sus colegas alemanes.

Conclusión
Este es el primer estudio comparativo que nos ofrece una ilustración de una evaluación subjetiva sobre la percepción de un número de médicos de dos países diferentes, con relación al nivel de tensión nerviosa, sus condiciones laborales y el grado de satisfacción personal con respecto a su vida laboral. En base a estos resultados, se podrán adoptar una serie de decisiones en materia de política sanitaria.

7. Mejor uso de los profesionales aliados de servicios sanitarios en el Sistema de prestación de servicios de salud
Resumen: Este artículo nos ofrece una exposición general de la labor realizada en el Canadá sobre el uso de los fisioterapeutas en un trabajo de atención colaborativa destinado a mejorar la práctica y cuidados ortopédicos. En él se presenta un resumen de una serie de lecciones muy útiles aprendidas gracias a la experiencia de un importante programa de atención colaborativa. La investigación realizada en torno a estos programas de colaboración ha contribuido además a toda una serie de reformas en el ejercicio de la fisioterapia.

8. Estudio de cinco años sobre la prevalencia de las quemaduras en un hospital docente de Nigeria
Resumen: Se ha observado que las quemaduras son un problema de alcance mundial. El estudio de esta epidemiología es de suma importancia para la programación de programas de tratamiento y prevención. Este estudio consiste en un análisis retrospectivo de los pacientes con quemaduras que visitaron un hospital con quemaduras de carácter agudo entre enero de 2006 y diciembre de 2010. Como fuente de información se utilizaron las fichas de ingreso y las historias clínicas de los pacientes. Entre la información obtenida cabe citar: edad, sexo, número de pacientes fallecidos, causa de las quemaduras y resultados del tratamiento. Para el estudio se analizaron 407 pacientes. De estos, 274 eran varones (67.3%) y 133 hembras (32.7%). La gran mayoría, es decir, 98 (24%) de las quemaduras tuvieron lugar en 2010 y el grado de mortalidad aumentó progresivamente, excepto en el año 2006, lo que se justifica por el conflicto laboral en el que se vieron implicados diversos sectores sanitarios durante ese periodo. El punto más álgido se alcanzó en 2010 (30%). En el curso de cinco años, la prevalencia fue mayor entre los varones que entre las hembras. Tanto la incidencia, como la prevalencia y la mortalidad por quemaduras siguen siendo muy elevadas en este sector. Se propone una campaña de prevención bien proyectada, con el fin de reducir el elevado nivel de incidencia y mortalidad por quemaduras en Nigeria.
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At MEDTRONIC, we're committed to Innovating for life by pushing the boundaries of medical technology and changing the way the world treats chronic disease. Our innovations help physicians diagnose diseases earlier, treat patients with the least amount of disruption possible, and help alleviate symptoms throughout the patient's life. Each year, we're improving the lives of millions of people worldwide across numerous conditions — heart disease, diabetes, neurological disorders, spinal conditions, vascular diseases. But it isn’t enough. So we're innovating beyond products. We’re breaking down barriers and challenging assumptions - to continually find more ways to help people live better, longer.

For further information please visit www.medtronic.com
2012 Corporate Partnership Programme

Supporting collaboration, ideas and innovation in global healthcare

Who We Are
Founded in 1947, the IHF is the premier worldwide body for hospitals and health care organizations. It represents national hospital associations from around the world and its members come from close to 100 countries. IHF develops and maintains a spirit of cooperation and communication among its members and other stakeholders with the primary goal of creating an environment that facilitates the exchange of information and ideas.

The IHF’s founding philosophy is that it is the right of every human being, regardless of geographic, economic, ethnic or social condition, to enjoy the best quality of health care, including access to hospital and health care services. By promoting this value, the IHF supports the improvement of the health of society.

The role of the IHF is to help international hospitals work towards improving the level of the services they deliver to the population regardless of that population’s ability to pay. The IHF recognizes the essential role of hospitals and health care organizations in providing health care, supporting health services and offering education. The IHF is a unique arena for all major hospital and health care associations to cooperate and to act upon their critical concerns.

What IHF Accomplishes
- The IHF engages in projects that support hospitals and improve health care.
- The IHF pursues all possible avenues of collaboration with governmental and non-governmental organizations for developing health systems. This has resulted in research projects aimed at improving the quality of hospital and health care services.
- The IHF is a “knowledge hub,” working through international conferences, management training courses, information services, publications and consultations.
- The IHF is an official partner of the World Health Organization (WHO) and is strategically positioned as a bridge between IHF members, the United Nations and other international organizations.
- The IHF serves as a global facilitator for health care delivery.

What Is the Corporate Partnership Programme?
The present participation opportunity is being offered to major corporations who seek to join with IHF members to work to improve hospital performance around the world.

The IHF partnership package provides year-long access to decision makers from around the world. The Corporate partnership will provide an exclusive opportunity for relationship building and sharing ideas and experiences between corporate leaders and executives in the hospital sector. These discussions will ultimately issue in new ideas and expand knowledge in emerging markets.

Affiliation with this partnership programme also gives a strong signal to the global community that the corporation is a major world player in the hospital sector.

The benefits of the programme allow maximizing possible interaction with actual and potential clients through a “one-stop shop” approach. Its package of benefits distills more value and achieves better targeting than ordinary marketing and advertising.

The programme is open to a limited number of corporations that are fully engaged in the global health sector and have a good reputation as providers.

Becoming a Corporate Partner: Application
For additional information, please contact the IHF in Switzerland to further discuss becoming a potential Corporate Partner.

Letter of Agreement
The International Hospital Federation (IHF) will enter into a partnership with organizations upon signature of a letter of agreement by representatives of both the International Hospital Federation and the partner.

Contact Details – Secretariat
c/o Hospital de Loëx, 151 Route de Loëx, 1233 Bernex, (Canton de Genève), Switzerland
Tel: +41 (0) 22 850 94 20; Fax: +41 (0) 22 757 10 16
E-mail: corporate@ihf-fih.org; Web site: www.ihf-fih.org
## IHF Events calendar

### 2012

<table>
<thead>
<tr>
<th>Country</th>
<th>Event Title</th>
<th>Dates</th>
<th>Location</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHF</td>
<td>IHF Hospital and Healthcare Association Leadership Summit</td>
<td>June 5-6, 2012</td>
<td>Sun City, South Africa</td>
<td>By invitation only. For more information, contact <a href="mailto:sheila.anazonwu@ihf-fih.org">sheila.anazonwu@ihf-fih.org</a>/ModisK@health.gov.za</td>
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<td></td>
<td>X Colombian Congress of Hospitals and Clinics Asociación Colombiana de Hospitales y Clínicas</td>
<td>May 9-10, 2012</td>
<td>Bogotá</td>
<td><a href="http://www.achc.org.co">www.achc.org.co</a></td>
</tr>
<tr>
<td>GERMANY</td>
<td>DKG – HOPE</td>
<td>June 11-13, 2012</td>
<td>Berlin, Germany</td>
<td><a href="http://www.hospage.eu">www.hospage.eu</a></td>
</tr>
<tr>
<td>HUNGARY</td>
<td>XXIV Hungarian Hospital Association Congress</td>
<td>April 25-27, 2012</td>
<td>Eger, Hungary</td>
<td><a href="http://www.nikozkongresszus.hu/altalanos">www.nikozkongresszus.hu/altalanos</a></td>
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<tr>
<td>TURKEY</td>
<td>ATOME Congress: The Access to Opioid Medication in Europe</td>
<td>May 2, 2012</td>
<td>Ankara, Turkey</td>
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<tr>
<td></td>
<td>10th International Symposium on Pharmaceutical Sciences</td>
<td>June 26-29, 2012</td>
<td>Ankara, Turkey</td>
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</table>
UNITED KINGDOM

NHS Confederation annual conference and exhibition
June 20-22, 2012, Manchester, United Kingdom
Website: www.nhsconfed.org/2012

USA

American Nurses Credentialing Center: ANCC Pathway to Excellence Conference
May 3-4, 2012, Washington, DC, USA
Website: http://www.event.com/events/ancc-pathway-to-excellence-conference-2012

American Hospital Association's Annual Meeting
May 6-9, 2012, Hilton, Washington, DC
Website: http://www.aha.org/advocacy-issues/annual-meeting/12-schedule.shtml

American Nurses Credentialing Center: ANCC National Magnet Conference
October 10-12, 2012, Los Angeles Convention Center, CA
Website: http://www.anccmagnetconference.org/

Healthcare Supply Chain Association: 2012 International Expo
October 22-24, 2012, JW Marriott Grande Lakes, FL
Website: www.supplychainassociation.org/?page=Events

COLLABORATIVE

Geneva Health Forum – 2012 Edition
18-20 April 2012 – Geneva, Switzerland
A critical shift to chronic conditions: Learning from the front liners

Hospital Management Asia 2012
September 13-14, 2012 – Hanoi, Vietnam (to be confirmed)
For more information: http://hospitalmanagementasia.com

2013

IFH

38th World Hospital Congress* 
June 18-20, 2013 – Oslo, Norway
Theme: Future health care: The Opportunities of new technology
Email: Sheila@ihf-fh.org / kine.martinez@nhs.no
Website: http://oslo2013.no
Dear Colleagues,

If you have not yet registered for this event, we encourage you to do so.

For more information, please contact +41 22 850 94 20, sara.perazzi@ihf-fih.org / Sheila.Aziz@ihf-fih.org

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**SCIENTIFIC PROGRAMME**

**MONDAY, 4 JUNE: PRE-SUMMIT FOCUS - AFRICAN**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chairpersons</th>
<th>Presenters</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:15</td>
<td>Registration</td>
<td>Dr. Geoff Nowak</td>
<td>Multi Retropne, International Relations, Indonesian Hospital Association</td>
<td>Join us!</td>
</tr>
<tr>
<td>09:15-10:00</td>
<td>Welcome and opening Remarks</td>
<td>Mr. Wanjau Mwakidwe, Chief Executive, Hospital Services, North West Province, Dept of Health (S. Africa)</td>
<td>Paul von Heidenegg, Vice President, International Accreditation, Standards and Measurement, Joint Commission International</td>
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<tr>
<td>10:00-10:30</td>
<td>Tea break</td>
<td>Dr. Simon Wetchley, Director &amp; Chief Executive Officer, The Council for Health Service Accreditation (COSCA)</td>
<td>Caren Civiello, Chief Executive Officer, Federation of Private Healthcare (FPH)</td>
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<tr>
<td>10:30-11:15</td>
<td>Section 1: Error reduction to enhance patient safety</td>
<td>Mr. Akio Nishiya, Chief Officer, Hospital Services, North West Province, Dept of Health (S. Africa)</td>
<td>Dr. Maria Elena, Chief Executive Officer, Hospital Services, North West Province, Dept of Health (S. Africa)</td>
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</tr>
<tr>
<td>11:15-11:30</td>
<td>Presentations: Section 1</td>
<td>Dr. Koji Fujimori, Senior Advisor, Hospital Services, North West Province, Dept of Health (S. Africa)</td>
<td>Dr. Fabiola, Chief Executive Officer, Hospital Services, North West Province, Dept of Health (S. Africa)</td>
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**TUESDAY, 5 JUNE: JOINT HOST COUNTRY FORUM**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:00</td>
<td>Welcome Remarks</td>
<td>Mayo Clinic, Representative, Department of Health, Colombia</td>
<td>Thomas C. Bolen, FACHE, President, International Hospital Federation</td>
<td>Myanmar’s Health System and the Role of the Hospital Development Fund (JHFDF)</td>
</tr>
<tr>
<td>09:00-11:00</td>
<td>Performance based financing of hospitals - International Perspective</td>
<td>Mark Peterson, Chairman, Hospital Association</td>
<td>Dr. Tomas Bolen, President, Aspinall United Hospital, Colombia</td>
<td>The Role of the Hospital Development Fund (JHFDF)</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>Tea break</td>
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<tr>
<td>12:00-14:00</td>
<td>Lunch</td>
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<tr>
<td>14:00-15:30</td>
<td>Presentations: Section 2</td>
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<tr>
<td>15:30-15:45</td>
<td>Roundtable Debate - Medical Tourism</td>
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**WEDNESDAY, 6 JUNE: MEMBERS ONLY FORUM**

<table>
<thead>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Welcome Remarks</td>
<td>University of Tokyo, Representative, Department of Health, Japan</td>
<td>Thomas C. Bolen, FACHE, President, International Hospital Federation</td>
<td>Myanmar’s Health System and the Role of the Hospital Development Fund (JHFDF)</td>
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<tr>
<td>12:00-13:00</td>
<td>Roundtable Debate - Leadership Competencies</td>
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**REGISTER NOW!**

Registration deadline: 30 April 2012

IHF Member - 350 Swiss Francs / Non-IHF Member - 900 Swiss Francs

For more information, please contact +41 22 850 94 20, sara.perazzi@ihf-fih.org / Sheila.Aziz@ihf-fih.org
FUTURE HEALTH CARE
The possibilities of new technology.
oslo2013.no