

# PERSONNEL MANAGEMENT



- Healthy Hospitals
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Nikolaus Koller

# BETTER PEOPLE, BETTER HOSPITALS

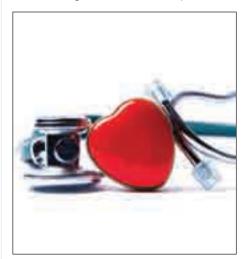
Companies are beginning to realise that employees are more than just a cost factor but also an important resource with sustainable competitive advantages. So it is particularly worrying to discover that the topic of personnel management is often underestimated. Carsten Steinert, Professor of personnel management at the University of Osnabrück in Germany believes that poor people management is often tolerated as long as the company is still making a profit.

The temporal perspective shows a strong trend of the transfer of personnel functions observed directly by the management or of outsourcing work to external companies. The requirements for human resource management have changed a lot over time. In the past the focus was placed on knowledge of occupational, social and collective regulations but today a great deal of attention focuses on organisational sociology and psychology and on business management skills. Conflict management and communication skills are another important feature too.

This change of focus and knowledge required shows us that human resource management is turning from an administrative to an organisational task and is increasingly affecting the management. For personnel management and in particular for staff development it is much more important that the managers and employees are trained adequately through seminars and development programmes. If companies are willing to train and educate their staff they will have a competitive advantage over other organisations. This issue of (E)Hospital deals with the topic of staff development and provides information on the possibilities and effects of increased training for hospital employees.

Healthy Hospitals is the second theme of this issue. HPH stands for Health Promoting Hospital and is an association involved in the improve-

ment of hospital structures. Knowledge and skills for health and equal opportunities are being developed, evaluated and discussed by members of the HPH. In this article, the visions and activities of hospital managers and their targets in the field of health promotion in hospitals is discussed. Healthy hospitals are also green hospitals. They are not just newly-designed hospitals but also improve renewable energies, employee productivity, waste reduction, pollution and issues of resource management in the health system.



Our country focus this issue is on France. The French Healthcare System was classified by the WHO as one of the world's best systems in 2000. Health policy in France, which is operated under the supervision of the state, receives and improves the health of citizens with their offer of medical care and prevention programmes. In the meantime, major changes in healthcare organisation have been launched.

#### Nikolaus Koller

President Editorial Board



The editorials in (E)Hospital are written by leading members of the EAHM. However, the contributions published here only reflect the opinion of the author and do not, in any way, represent the official position of the European Association of Hospital Managers.



#### Personnel Management

This issue's cover story focuses on personnel management. Personnel are key to the smooth running of a hospital, whether they are in direct contact with the patients or behind the scenes. With budget cuts and an aging healthcare workforce, hospital staffs are under increased pressure to perform. Josef Hradsky believes personnel management is a key aspect of hospital management and emphasises the need for adequate staff training. Pauline King discusses staff counseling services and Paul Dhillon examines the cost of using locum doctors.

#### **Healthy Hospitals**

Healthy hospitals are both health promoting hospitals and also sustainable/environmentally friendly hospitals. Prof. Pelikan from HPH, the International Network of Health Promoting Hospital and Health Services explains how we can promote health in our hospitals reaping benefits for patients, staff and communities. A healthy hospital is also a green hospital, Jurgen Zimmerman illustrates the advantages of creating sustainable hospitals with a particular emphasis on green building certification.

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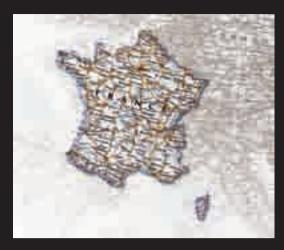
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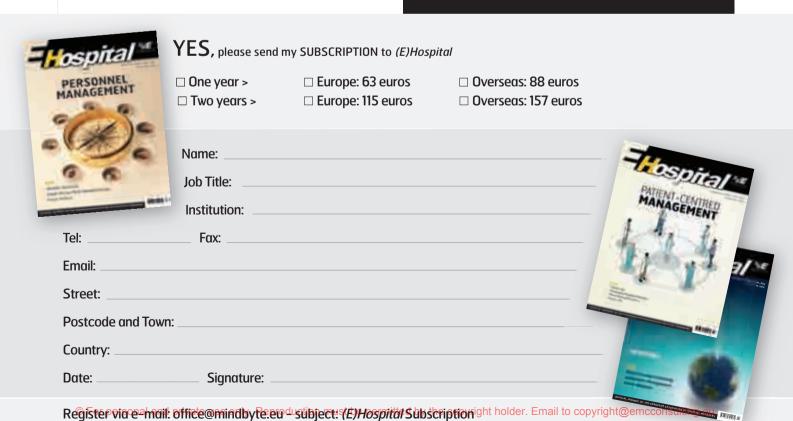


#### **Focus: FRANCE**



In France the responsibility to define health policy and to regulate the healthcare system is divided between the state, the statutory health insurance funds and the subregional and local authorities. Hospitals in France can be public, private non-profit or for-profit. But in any case patients are free to choose their hospital. They would then get more or less the same social insurance coverage.

Hospitals, public and private, employ more than one million people: 80 percent of them in public hospitals. 14 percent of these employees are medical staff. Part-time work is increasing and concerns for example 20 percent of non-medical staff in public hospitals.





# REGIONAL CEO-CONFERENCE ON STRATEGIC MANAGEMENT AND ICT

Information and communication technology has entered many domains of our society. It has a huge potential to the benefit of citizens and companies, patients and healthcare institutions. Examples of benefits are increased networking, empowerment and participation of individuals and stakeholders and increased use of information.

But the challenges in healthcare are huge. Values such as universality, access to quality care, equity and solidarity have been identified as crucial for health services in the European Union and many hospitals spend a lot of effort translating these challenges into a strategy.

A crucial step for the successful deployment of IT solutions in a hospital is the translation of the hospital strategy into an IT master plan. The hospital director cannot remain passive but has a crucial role to play in this matter.

In the meantime, the IT industry has developed multiple solutions for the many challenges hospitals are facing. Hospitals have introduced them in different ways, sometimes in an integrated way. There is a growing demand to align the IT landscape within the hospital to the general goals and strategy of the hospital.

EAHM and its member organisations are bringing hospital CEOs together around this topic in a two-day event. Special attention is given to the role of the CEO in deriving an IT strategy from the hospital

strategy and the implementation of an IT-master plan.

After the seminar for our German speaking colleagues in Vienna (September 15–16), our Eastern European colleagues are next as they are welcomed for the Conference "Achievements of Healthcare Institutions in Optimising Management of Information Technologies" organised by The Lithuanian Union of Healthcare Managers and EAHM on October 12–13 in Vilnius (Lithuania).

For more information: www.medliet.eu/en

#### FIRST JOINT EUROPEAN HOSPITAL CONFERENCE

On 18 November 2011 the European Hospital and Healthcare Federation (HOPE), the European Association of Hospital Managers (EAHM) and the Association of European Hospital Physicians (AEMH) are holding the first joint European Hospital Conference (EHC).

In the morning, Mr. Mars Di Bartolomeo, Minister of Health and Social Affairs, Luxembourg will speak about the current European health policies followed by comments from the perspective of HOPE, EAHM and AEMH.

Given the importance of this new legislation for the future of healthcare in Europe, the afternoon is devoted to the EU Directive on Patients' Rights and its impact on hospitals. Comments will be made

by speakers all around Europe from different perspectives.

For more information:

www.medica.de/EHC2



#### SAVE THE DATE

#### October 12-13, 2011:

"Achievements of Healthcare Institutions in Optimizing Management of Information Technologies" *Vilnius (Lithuania)* 

#### November 18, 2011:

Joint European Hospital Conference (EHC)

Dusseldorf (Germany)





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- Les Progrès Accomplis dans les Systèmes de Gestion des Soins de Santé
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#### **HOSPITAL 2.0:** THE PERPETUAL BETA VERSION

During the annual congress of the Austrian Association of Hospital Directors in Graz in May 2011, roughly 300 participants and healthcare decision makers gathered to focus on the changing times and important consequences for the hospital industry. Expert speakers highlighted innovative and pragmatic approaches. The main conclusion was to learn from one another and develop solutions with dedicated initiative.

#### Hospital 2.0: The Perpetual Beta Version. What Does This Mean?

Nowadays almost nothing is permanent. Constant changes and new organisational structures in hospitals are commonplace. "These often short-lived

changes must however be observed critically. Not every new method is suitable, often the previous one hasn't even been properly implemented yet," said Dir. Nikolaus Koller, MBA — President of the Austrian Association of Hospital Directors, Styria.

Dr. Andrea Kdolsky, retired Federal Minister, provided insights into health reform with the lecture "Political Restraints of Reforms", the speakers Mag. Dr. Jörg Schelling from the Main Association of Social Insurance Institutions and Dr. Michael Heinisch ventured another glimpse into the future with the lectures "The Future of Healthcare – Structures, Reforms and Opportunities 2020" and "Organisational Optimisation by Consolidation". Ernst Fartek, Financial Director of Stmk. Kranke-

nanstaltenges.m.b.H., spoke on the topic of "Management in the Hospital Association, integrated alongside each other and with each other."

#### **Beta Version**

Our system never fully develops. Before one organisational change can be established or a management structure can prove itself, it is restructured again in the middle of the test phase. It is irrelevant whether they are consolidations, consortia, merged departments, regional management etc, there are very few things that achieve stability and can be developed into a perfected "marketable late Alpha version".

#### Hospital 2.0: A Deliberate Association with IT

Development is constantly taking place in IT and it is often so rapid that the next version is already on the market before the previous or original version could be perfected. We as hospitals are also subject to the pressure to change from both system theorists and economic forces. Slowly but surely we are treading the same path as IT, quick and dirty or better still trial and error.

#### "Who is who" Among Local Austrian Hospital Logistics Providers

Over 40 exhibitors from Austria and Germany displayed their products and services in the accompanying business trade fair. Market leading companies were represented.

All presentations and documents can also be read online at:

www.khd-kongress2011.at









# Healthcare's Moment of Truth.

In healthcare today, change is everywhere.

An aging population, an increasingly knowledgeable consumer, a growing sophistication in technology, not to mention a wave of legislation and fiscal restraint that is redefining how facilities are delivered, operated and maintained. Every point of the cycle domands singular expertise, and every point is a moment of truth—for operators, investors, clinicians, consumers.

At ARCADIS, we know the only constant is change, especially when it comes to an imfustry as complex and as challenging as healthcare and healthcare technologies. That's why our mission is to direct a new trajectory for today's healthcare model, from the earliest stages of strategy through design; construction and operations.

Along with our architecture subsidiary RTKL, we are a truly global partnership committed to enriching lives and designing sustainable solutions to the complex issues of our time. With our combined strengths, ARCADIS and RTKL provide an integrated range of services across the full building cycle—from strategic facilities planning, project management and cost consultancy, design, engineering and medical equipment planning to ongoing facilities management.

Throughout Europe, the U.K. and the Middle East we offer proven local professionals who understand what works where and why. It's a global perspective tempered with cultural sensitivity and economic pragmatism, because our strength lies in listening to our client's vision and translating that vision into a reality.

We think it's an approach that adds value as much as it enriches lives.

#### RIGHTS AND NEEDS OF OLDER PATIENTS

A real partnership, with older patients in a central role, is the way forward

Older patients and citizens should play a central role in the design and implementation of solutions for active and healthy ageing, in order to respect their rights and meet their needs. This was the strong message of the participants at the Conference "The Rights and Needs of Older Patients" organised by the European Patients' Forum (EPF) and the Federation of Polish Patients (FPP).

Over 100 participants, including high-level policy makers, representatives of health professionals, patients' organisations, and older patients themselves, gathered at the conference in Warsaw on 12–13 July to explore key challenges and opportunities around ageing and older patients.

At the opening plenary, Andrzej Witold Włodarczyk, the Undersecretary of state for health, Poland, noted that "the topic of the conference fits within the Polish Presidency of the EU, as the ministry of health suggested older age problems as one of the leading subjects". He presented actions to meet the challenge of ageing population in Poland, including the creation of an Institute of Geriatrics to train specialists, promote a holistic approach and develop solutions for older patients to be implemented in the Polish health system.

Other speakers included Martin Seychell, the Deputy Director–General of DG SAN– CO, presented the aims and milestones of the European Innovation Partnership for Active and Healthy Ageing, a "vital element to our response to the demographic change" as people in Europe tend to live longer, but with their last years in ill health. Pointing out the need for all actors to work in partnership, he stressed that "patients and older people need to play a very important and central role, and be involved from the onset". Representing the European Parliament, Antonyia Parvanova, MEP asked whether adding two years of "life without disability" is enough; adding that indicators should be developed to measure not only physical but also mental health, well-being and social inclusion. This echoed a key recommendation from the conference participants: Health needs to be addressed in a holistic way.

On the second day, participants had an opportunity to explore in depth specific issues of crucial importance for older patients, in five parallel workshops. Some of the main conclusions brought forward during the lively discussions were:

- ▶ Shared decision-making as a key solution to improve the quality and sustainability of healthcare. All patients, including older patients, should be enabled and empowered to become equal partners in their care. Shared decision-making is seen to improve adherence to therapies, selfmanagement, and therefore health outcomes and quality of life. To achieve this, meaningful patient involvement on individual and collective levels is fundamental: Many speakers highlighted that existing good practices and guidelines such as the Value+ resources, need to be better applied.
- Patient empowerment through health literacy and quality information. Another message that was echoed throughout the conference was the need for a strategy to improve patient information and e-health literacy. More than ever, an ageing Europe will need patients who are aware and informed to be able to self-manage and participate in health-related decision-makina.
- Innovative solutions centred on users' needs. Innovative solutions are an essential component in the future vision of healthcare, but participants felt that it is currently not centred enough on the people who use it. To meet older patients' needs, they have to be involved in the design, development and implementation. Innovation should be understood as including "low-tech" (e.g. changes in healthcare delivery, structures or systems). In pharmaceutical innovation, a key challenge is to improve the evidence-base for older people's treatment.



- Integrated care solutions were highlighted as a key wish of patients. Fragmented organisation and delivery of care forms a major barrier to good quality care. "Silos" between medical and social care and between different medical specialties have to be broken. An important parameter to improve the organisation of care for older patients is the adequate training and support to healthcare professionals and carers.
- ▶ Health inequalities need to be effectively tackled. Many participants raised concerns about the wide health inequalities in Europe, and called for strong responses at national and EU level. In his speech, Philip Chircop, EPF Board member, said: "We cannot stress enough that for patients with chronic diseases, 'active and healthy ageing' rests on the cornerstone of equitable access to good quality, patient-centred healthcare."



In his concluding remarks on the second day, Anders Olauson, EPF President, who chaired the conference said: "EPF has been involved at all level of the [Innovation] Partnership; and we are keen to ensure that the outcome of this conference will contribute meaningfully to the Strategic Implementation Plan". EPF will also use the outcomes of the conference to prepare a position paper that will feed into the current debates around healthy ageing and older patients, the sustainability of health systems and chronic disease management.

# NEW EUROPEAN TASK FORCE ON PATIENT SAFETY

Health First Europe together with Task Force Patron MEP Christofer Fjellner (EPP, Sweden), launched the Task Force on Patient Safety to demand more stringent recommendations for Member States with regards to the safety of patients. As part of the review of the Council Recommendations on patient safety, including the prevention and control of healthcare associated infections, the Task Force will utilise its broad participation of members — in particular patients, healthcare professionals, hospitals and industry - to formulate further recommendations for Member States following on the European Commission's review.

As the Chair of the *Task Force*, Health First Europe (HFE) Honorary President John Bowis stated the aim of the *Task Force* is to "enshrine patient safety throughout the Member States and set specific, quantitative targets for the reduction of Healthcare Associated Infections (HAIs)." He ex-

pressed that "Specific targets must be set for the reduction of HAIs to encourage Member States to take every precaution to protect the safety of citizens when they enter a healthcare setting – whether that be in hospital or home care."

The European Centre for Disease and Prevention Control (ECDC) estimates that HAIs occur in one hospitalised patient in 20, which equates to almost 4.1 million patients per year who acquire an infection while in hospital. HAIs also account for approximately 37,000 deaths per year in the European Union.

Patron of the HFE *Task Force*, and HFE MEP Supporter, MEP Christofer Fjellner discussed the need for further action in this realm particularly as the Member States reply to the European Commission questionnaire on the implementation of the recommendations since 2009. He declared, "There are many aspects to patient safety. Patients must be protected

from adverse events while receiving care. Equally important, continued innovation in medicines and healthcare practices must be ensured. Also, to feel safe, patients must be given good and reliable information to be able to determine risks and make informed choices about their own health." The Health First Europe Task Force will publish its demands during an event in the European Parliament alongside the ongoing review of the implementation of the 2009 Council Recommendations in winter 2011/2012.

Participants in the HFE *Task Force* on patient safety include: International Association of Patients Organisations (IAPO); European Health Telematics Association (EHTEL); European Medical Association (EMA); European Union of Private Hospitals (UEHP); International Diabetes Federation (IDF); European Federation of Public Service Employees Union (Eurofedop); Medical Technology Group and Eucomed.



# **PRIORITIES**

By Rory Watson

Hungary and Poland wasted no time in using their stint at the helm of the EU this year to stamp their mark on Europe's public health agenda. Both have used the six-month rotating EU presidency to raise issues of concern to their own health services. The former drew attention to the consequences of the exodus of health professionals from eastern to western Europe as doctors and nurses move to earn salaries that are up to six times higher than they receive at home. Poland has selected a similarly broad-ranging theme and is mobilising efforts to close the health gap between different European countries.

While healthcare remains a responsibility for national authorities, the Hungarian government believes that the scale of the problem is so great that some form of coordinated action by EU member states is necessary. It has suggested that initiatives be taken to help countries retain their medical staff and proposed a European agreement on ethical exchange programmes.

It also emphasised that the health sector can make an important contribution towards Europe's wider economic goals. At an informal health ministers meeting in April, Miklós Réthelyi, the Minister for National Resources, told his colleagues: "Europe cannot be strong and competitive without healthy people and labour force."

Hungary's decision to give a higher political profile to the phenomenon coincided with publication of a study — Health Professional Mobility and Health Systems Evidence from 17 European countries — funded by the European Union's PROMeTHEUS research project. Compiled by the European Observatory on Health Systems and Policies and the WHO Regional Office for Europe, it examines 17 country case studies.

It pointed out that the scale of mobility is significant for a number of European countries in terms of their reliance on foreign health professionals and in proportion to new entrants to the health workforce. Figures from 2008 show that foreign health professionals make up over 10% of doctors in Belgium, Portugal, Spain, Austria, Norway, Sweden, Switzerland, Slovenia, Ireland and the United Kingdom. Reliance on foreign nurses is over 10% in Italy, the UK, Austria and Ireland.

The study also identified the proportion of foreigners within all new health workforce en-

trants in 2008. This was particularly high for doctors in the UK (42.6%), Belgium (25.3%) and Austria (13.5%) and for nurses in Italy (28%), the UK (14.7%) and Belgium (13.5%). In contrast, reliance on foreign doctors is at zero in Turkey, Lithuania, Serbia and Romania and around 5% or less in Germany, France, Italy, Hungary, Poland and Slovakia.

Money emerges as the main driver for the westward migration. An Estonian doctor can earn six times more in Finland and a Romanian general practitioner ten times more in France. However, the authors note that recent salary increases in countries such as Lithuania, Poland and Slovenia have tended to reduce the outflow and even encouraged some health professionals to return home. Other factors, notably working conditions, career prospects, training opportunities and social recognition can also be decisive.

The authors conclude that health professional mobility should be tackled in the first place within individual countries. They recommend improvements in data; focus on general workforce strategies including good quality education and retention measures; further development of workforce forecasting and planning; and international frameworks to manage the mobility that takes place.

Poland, like Hungary, is drawing attention to the economic consequences of its particular priority of reducing health inequalities between EU countries. It considers this to be a strong feature of the Union's overall economic, environmental and social 2020 Strategy. The Health Minister Ewa Kopacz has also emphasised the importance of early action and health promotion in today's world. "From an economic point of view, it has been conclusively proven that any expenditure allo-



cated for programmes of early medical intervention for hearing, sight and speech, is much lower than the outlay on special care in pre-school and school period or on the provision of special jobs for these children when they reach adulthood," she said recently.

Poland's determination to tackle health inequalities is taking three forms: Action on health determinants; prevention and control of respiratory diseases in children; and treatment of communication disorders among children. It will investigate the contributions e-health, which will be the theme of an expert meeting in Warsaw in early October, can make, while a two-day conference in Poznan on 7-8 November will be devoted to closing the health gap. Warsaw is also giving priority to prevention of brain and neurodegenerative diseases, including Alzheimer's.

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# **HUMAN RESOURCES DEVELOPMENT**

#### **An Important Aspect of Hospital Management**

By Josef Hradsky

"It is becoming more and more difficult to find sufficiently qualified young employees for the health professions. The training and qualification of employees and also executives in the hospital sector is of special importance in this context. The course is set for success here. Executives and employees trained well create the prerequisites for positive motivation and successful qualitative processes and excellent results (efficiency and effectiveness)." Heinz Kölking, (E)Hospital Editorial Issue 2/2010

As early as 2008 the Global Health Workforce Alliance (GHWA) released a statement noting that more than four million workers worldwide are missing in the health professions; a problem that according to the statement affected many states in Africa and Asia in particular. Now, the lack of staff observed in health professions has also hit many European countries, as Heinz Kölking, President of the EAHM, already noted in his editorial in (E)Hospital 2010, excerpts of which are quoted above. Various measures are required to counteract this shortage, e.g. an increased appeal of health professions for young people, improved working conditions, implementation of conditions for longer turnaround-times, and many more.

Every insider within the business is aware of the importance of human resources in the hospital. The members of staff are the most important resource in operational processes, but also constitute a significant cost factor (a fact that unfortunately gets most of the attention in public discussion). A characteristic feature of hospital life is the imperative obligation for all staff members to work together. Ultimately, it is the immediate and direct work of physicians, nurses and other health professionals with the patient that has the most influence on a hospital's image, be it positive or negative. Human resources should therefore receive a high standing; the hospital management should view their staff as one of their major responsibilities.

#### **Human Resources Planning**

Human resources development is a key feature of staff management. It ensures the training of qualified personnel, the motivation of staff and their employment according to their individual skills and capabilities. The goal is to

enable people, teams and the organisation to manage their tasks successfully and efficiently and to face new challenges confidently prising twelve hospitals, eleven geriatric centres and two care homes. The KAV employs more than 30.000 people.

# The members of staff are the most important resource in operational processes, but also constitute a significant cost factor

and in a motivated manner. The basis for this development is human resources planning, which from a strategic and an operative point of view should be given highest priority.

Human resources planning should ensure that staff members are available in the necessary number and quality to accomplish tasks in accordance with the hospital's goals. Basically, the functions of human resources planning can be summarised as follows:

- Identify the need;
- Recruit;
- Staffing;
- Deployment of staff;
- And if necessary, redundancy.

## Example: The Viennese Hospital Association (KAV)

The general principles of human resource management are often contained within the visions and/or mission statements of hospitals and hospital federations. The Viennese Hospital Association (KAV), an enterprise of the City of Vienna, is one of the largest health institutions in Europe, com-

In its mission statement, the KAV has set its basic principles:

- "We are all responsible for the success of the KAV."
- "Human resources development is a core duty of every executive. Encouraging young staff members has a high priority."
- "We offer training and further education to our staff, as well as the security and career opportunities of a large enterprise."

The principles of human resources development, as determined by the KAV head office, are directly derived from these orientations. The individual hospitals plan and implement their measures according to these principles. For example, basic nursing training courses are held in the KAV's own schools, in accordance with federal legislation. Training and further education are provided according to demand, both in an intra-corporate setting — the KAV's own Training Academy — or in an external setting. Executive training courses are held by the KAV in cooperation with universities such as the Vienna University of Economics and

Business Administration and the Medical University of Vienna.

These courses have long been carried out in a multi-professional setting – something that was not a matter of course until recently. All co-workers are offered a broad spectrum of both work-specific and personalityorientated courses. According to the topics, some technical programmes might be carried out in a mono-disciplinary setting, while courses and seminars on personality-orientated topics are usually, for logical reasons, organised by several disciplines. Logical because these courses touch on matters of social competence, which in light of the absolutely necessary teamwork is a matter of singular importance in hospitals. Employees of KAV hospitals also regularly attend congresses, study trips and exchange programmes, such

Even so, hospital managers and their professional associations should also view the question of further training and development of junior staff as a key task — and they do! While examples from Austria are presented in this article, other countries surely offer the same.

The Working Group of Hospital and Welfare Institution Administrators in Vienna constitutes the union of managers responsible for economic management. For many years now this association has organised the "Viennese Training Days for Hospital Management". Its goal is to discuss questions of interest for members, nursing and medical managers, with another focus on training of young employees. Seminars on personality development, an employee's own motivation and the motivation of other employees have already met

hospital administration and the title of "Academic Health Care Manager", thereby lending an essential contribution to the fact that Austria can rely on highly qualified staff for its hospital management.

The European Association of Hospital Managers (EAHM) has set amongst its goals: "... to support the professional competence and assumption of responsibility of directors and executive staff of hospital management and in the hospital sector in European countries." This goal is met by organising congresses every two years, by publishing (E)Hospital as the official journal of the EAHM, by organising seminars (open according to topic either to hospital managers or to employees), and by commissioning interviews and their scientific analysis and publication, etc. All these activities should be viewed as supporting human resources development.

# The goal is to enable people, teams and the organisation to manage their tasks successfully and efficiently and to face new challenges confidently and in a motivated manner

as the European HOPE-exchange programme, in order to develop their personality.

Target agreements with the individual employee form the basis for the structured application of the individual units of human resources development. Based on future need, the employee and his or her superior officer will meet for an employee orientation appraisal and determine together which measures make sense in order to best prepare the employee for future tasks. It is of the utmost importance — and compulsory in KAV guidelines — that these programmes and developmental steps agreed upon in that first discussion are appraised in a second meeting to make sure that the goals set are actually met.

## Responsibility of Hospital Managers and Professional Associations

It is a matter of course that the main responsibility regarding human resources development lies with the individual hospital, the hospital associations and operators.

with great success. Study trips to many European countries, but also to the US, Canada or Japan should also be seen as promoting human resources development.

The National Association of Austrian Hospital Managers (BUKO) constitutes the head committee of the working groups set up in the nine Austrian Bundesländer (provinces): this association has been a member of the European Association of Hospital Managers EAHM since its foundation. For many years, no formal training existed in Austria for hospital mangers, whoever wished to gain a higher level of training had to for example attend the (former) German Hospital Institute (DKI) in Düsseldorf. In order to change this, more than three decades ago BUKO founded its own training centre for hospital managers, the Austrian Institute for Hospital Management (ÖIK). This institute, still sustained by BUKO, is currently organising, in cooperation with the Vienna University of Economics and Business Administration, its 18th training course leading to a degree of

#### Conclusion

Human resources development represents a major function of hospital management. Especially in light of the tendencies described at the beginning of this article concerning the personnel sector of the healthcare business: this task will be even more important in the future than it is now. It is therefore vital that hospital managers identify with this task and recognise it as their own responsibility and do not retract to the viewpoint of "Oh well, human resources will take care of it". Possibilities opening up in the healthcare sector for further training of employees by means of national and European associations should be increasingly made use of in a targeted manner.

Human resources development, constructed carefully, conducted purposefully – will reap dividends, both for the hospital and for its employees, but most of all for the patients.

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# RECESSION AND REGULATION BRING NEW CHALLENGES TO ACUTE HOSPITAL STAFF COUNSELLING SERVICES

By Pauline King

The value to the individual of the psychological insights and psychotherapeutic inputs of workplace counselling has long been anecdotally recognised by acute hospital managers. New research, however, suggests that the adoption of a broader organisation-wide approach by counsellors may yield additional benefits in difficult times

Research for this qualitative study was undertaken last year in Beaumont Hospital in Dublin, Ireland. This busy 750 bed hospital provides a comprehensive range of adult acute services to a local community of 250,000 people and specialist tertiary services at regional and national levels. Beaumont has the usual internal dynamics found in any large hospital, including intense competition for resources between different disciplines and departments, each keen to optimise their provision of services to patients. However, the qualitative study found that the unique combination of new budgetary challenges arising from economic recession and the demands of ever increasing regulation has significantly added to these normal pressures.

#### **Internal Dynamics**

Internal dynamics, involving segregation between different groups of workers with differing backgrounds, views, values and beliefs, often leads to a breakdown of shared meaning and understanding. These processes have been much studied and are well understood.

The Irish healthcare system is increasingly adopting an multidisciplinary team approach which, in addition to the direct patient benefits it affords, may well help to break down this sense of disconnection and segregation between different groups of staff.

But cultural change of this kind can be slow, especially where the existing culture is strongly embedded. Various studies in this area have demonstrated that multidisciplinary teams can have difficulty creating a common sense of purpose because the ap-

proach challenges professional groups to set aside their historical roles and identities in favour of previously unknown and untested values and beliefs.

#### **External Stress Factors**

In Ireland, the normal internal dynamics have been exacerbated, however, by new external stress factors — recession and regulation. Hospitals are trying to meet their primary responsibilities, the care of patients, with ever decreasing budgets. Recruitment embargoes, non-replacement of departing staff and budget cuts in every area inevitably create an underlying sense of unease and insecurity throughout the organisation.

hospital staff may well be sympathetic to the patient welfare objectives underlying them, there is an understandable level of concern about their implications. Increasing standards may involve not just extra work but significant additional accountability, at a time when staff already feel under additional pressure due to cutbacks and are insecure about the future.

#### **An Emotional Workplace**

Back in 1994, Psychiatrist and Psychoanalyst Dr. Anton Oberholzer noted that, at an unconscious level, hospitals can act as "emotional containers" for society's projected fear of illness and death. Seen from this perspective, checks and

Recruitment embargoes, non-replacement of departing staff and budget cuts in every area inevitably create an underlying sense of unease and insecurity throughout the organisation

At the same, time, the Irish healthcare system is undergoing a period of radical change in terms of regulatory standards. Many of these directly relate to the work done by hospital staff but are largely set without direct input from the staff affected. Also, while

counter checks may be viewed as an attempt by society to manage anxiety and achieve surety. Dr. Oberholzer suggested that it was almost as if, with multiple checks and balances in place, mistakes could be avoided and death in some way

eluded. In light of this, it is not surprising that the study at Beaumont confirmed Sigmund Freud's earlier observation that people working in anticipation of making a mistake may well experience the same anxiety as if they had actually made one, so that anxiety felt within the system is passed on to the individual.

#### **Staff Counselling Service**

A main focus of the study was to identify ways in which the Staff Counselling Service (SCS) at Beaumont Hospital could evolve to meet these new challenges. Participants believed that SCS could play a greater role in supporting change management and in providing a reflective space for management support. They also saw value in its reporting directly to senior management.

SCS may have early knowledge of broader organisational issues through its individual counselling work. Thus it has the potential to provide feedback on "hotspots" in the organisation and also to provide a reflective space for managers, giving them a chance to understand emerging concerns and devise ways of responding to them before they reach crisis proportions.

The potential for SCS to support change initiatives, working with systemic issues and directly linking in with senior management, was also identified. There is a view that SCS could afford management a better feel of the "human pulse" of the organisation. Opportunities were also identified for staff counsellors to assist in training in the area of emotional intelligence, in teambuilding activities and in managing difficult work situations.

One interesting and perhaps unexpected possible role for SCS was suggested. A number of participants spoke of the need for SCS staff to be seen "walking the wards", providing support to the clinical directorates and integrating more with other disciplines within the hospital. The authors of the study believe this may indicate that SCS staff are being called to witness the difficulties at the "frontline", perhaps even to act as an "emotional container" for the anxieties being experienced by staff. This would certainly tie in with the well understood psychotherapeutic value to an individual of knowing that someone else understands the difficulties he or she is experiencing, even if the person with whom that knowledge is shared is not in a position to change the situation in any way.

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# THE FINANCIAL COST

# **OF LOCUM DOCTORS**

#### A Regional Hospital Perspective

By Paul Dhillon, Andrew W. Murphy, Fergal Cummins

#### Definition:

Locum: A person who stands in temporarily for someone else of the same profession, especially a cleric or doctor (OED).

#### Introduction

The Mid-Western Regional Hospital (MWRH) in Dooradoyle, Limerick, Ireland has an Emergency Department (ED) staff complement of nine Senior House Officers (SHO) and six Registrars required for 24-hour emergency medicine cover for each sixmonth interval; in addition five consultants are attached to the department in clinical and administrative roles. In 2010, there were a total of 60,001 presentations to the ED with 16,325 admissions. Gaps in the normal duty roster have been increasing and locum cover has been used in order to provide adequate service to the community.

The cost to hospitals for employment of locum doctors has increased two-fold in the last decade in Ireland with locums providing five percent of the total staffing. Accurate statistics nationally are difficult to obtain but concerns about lack of physicians, up to 400 Non-Consultant Hospital Doctors (NCHD) short of required numbers were expected in July 2011, are worrisome. A multiplicity of issues have ended in congruence; lack of junior physicians to staff the nation's hospitals, in particular Emergency Departments.

The issues are multiple; attempts at European Working Time Act (EWTA) compliance without an increase in staff coupled with migration of qualified doctors to foreign shores are two of the major causes. Additionally, with growing numbers of women entering the workforce, maternity leave is an increasingly important aspect that is often not considered in workforce planning. The cost to hospitals for locums is known as a line item in hospital budgets, but most investigations of this cost do not take into account the actions of the current hiring freeze on NCHDs and changes

in work and payment practices. The fiscal benefit to locums has not been previously elucidated in the literature as a causative factor in the decision to work as a locum.

#### Methods

A retrospective audit was completed on four SHOs working in the Emergency Department, MWRH. Three were full-time NCHDs and one was a full time locum. Each worked eight hour shifts for three weeks, Monday to Friday. One weekend was worked by each physician in the study period however this was excluded as shift timings and staff complement changes on the week-

average, per hour. The cost per hour to the hospital was obtained from the Human Resources department for both locum and staff SHOs.

#### Results

#### Averages

During the 15 day study period the NCHDs saw a minimum of 117 patients to a maximum 178 patients. The MWRH uses the Manchester Triage scoring system for patients.

The average patients seen per hour for staff SHO's was 1.08 and for the locum SHO it was 1.48. The average across the four SHOs in terms of patients seen per hour was 1.18

The cost to hospitals for employment of locum doctors has increased two-fold in the last decade in Ireland with locums providing five percent of the total staffing

end. All other SHOs were excluded as they did not work a complete three week period during the month of November. An electronic log of all patients seen including the variables of sex, age, and triage category was generated from the Information Technology Department, MWRH. The resultant Excel spreadsheet was used to analyse the data and generate the average triage category seen by both the locum and staff SHOs and the number of patients seen, on

#### **Monetary Calculations**

The cost for a staff SHO to the hospital is 42.75 Euro/hour. This rate is based on the maximum point of the pay scale as of 1/1/2010 and includes all extras including overtime, weekend pay, and employers PRSI of 10.75%. Locum rates currently for the MWRH are 44 Euro/hour from 9am-5pm, 5pm-9am 52.8 Euro/hour, and a flat Sunday rate of 57.2Euro/hour. With the average of 1.18 patients/hour the cost to the

	Average Patients/Hour	Total Patients	Average Age	Average Triage Category
LOCUM	1.48	178	36	3.25
SH01	0.96	117	41	2.87
SH02	1.17	140	47	2.98
SHO3	1.1	132	56	2.9

Figure 1. Patient data for the 15 day study period



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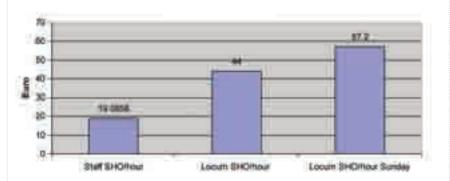


Figure 2. SHO remuneration

hospital for a staff SHO was 36.23 Euro/patient and for the Locum SHO it is 37.28 - 48.47 Euro/patient.

#### **Locum Remuneration**

A staff SHO at the base hourly rate receives 19.0858 Euro/hour, from which Levy, PRD, income tax, PRSI contribution, Pension 165, and Pension 325 are deducted.

#### Discussion

The NCHDs treated from 117 to 178 patients during the study period. This difference can be partially accounted for by the different average of triage category seen; a higher triage number indicates less acute patients and a likely faster time from presentation to discharge or admission. The data supports this in that the highest number of patients seen, 178, resulted in an average triage score of 3.25 versus a score of 2.87 and 117 patients seen.

The average number of patients seen ranged from 1.08 per hour for the staff SHOs and for the locum SHO it was 1.48. This discrepancy is quite large and could potentially not be indicative of actual averages. More

locum statistics would be necessary to add strength to the study in addition to more statistics from throughout the year and more staff SHOs. With locum doctors working in likely unfamiliar environments and with new coding systems it could be suspected that they would actually see fewer patients/hour than staff SHOs; more research is needed into this area of providing healthcare.

A major difference arises when calculating the monetary amount that reaches the physicians' bank account. With tax incentives and incorporation a locum doctor can receive the full amount of the hospital payout and write a large portion of it off pre-taxation. Expenses relating to educational, travel, and living costs, which can be substantial, can be written off before declaring the remainder as income. The locum SHO has the potential to earn 57.2 Euro/hr compared to less than 19 Euro/hr for a staff SHO depending on the day, time, and tax deductions.

The cost to hospitals for locum SHO cover, in budget calculations is worrisome. However, the relationship between cost of locum cover and the decrease in the amount that

is being paid to staff SHOs needs to be taken into account when discussing the cost of locum physicians. The question needs to be asked: If there was no hiring freeze and EWTA implementation how many more doctors would have been hired, and would this eliminate the need for locum cover to the extent that it now exists? As this study shows, the bottom line to hospital accounts should be relatively neutral as the cost/patient seen by a locum SHOs and staff SHOs is roughly equivalent.

Other aspects of arranging locum cover include the increased administrative work for organising locums and this cost has not been previously calculated as have any payment relations between hospitals, the HSE, and the locum agencies for their work. There is also an assumption that full time NCHDs are more likely to undergo full vetting and English language competency assessment in comparison to locum SHOs which is an important prospect in terms of quality assurance. Whether shortcuts have occurred because of the crisis has not been examined.

What is clear is that the potential earnings that NCHDs can make is substantially increased by working as a locum. With the current economic doldrums and lack of training opportunities in the system coupled with increasing levels of graduating medical student debt, locuming could continue to attract more doctors looking for short-term exits from the current system of training and remuneration before re-entering the training system here or abroad.

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#### Conflicts

Paul Dhillon was a locum doctor during the audit period. The concept of the audit and study was conceived after the month of November. Data from Andrew Murphy was used in the audit however he was blinded to it.

#### Acknowledgement

Thank you to Jacki Tobin, IT Department, MWRH for data generation and technical support.

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#### The Cost for Arranging Locum Cover in Ireland

The cost to hospitals for arranging locum cover has been on the increase in Ireland. The situation is unlikely to change in the immediate future and this study examines the basic financial cost to hospitals for arranging locum cover at the Senior House Officer (SHO) level and the remuneration possibilities for the SHO. The average number of patients seen per hour for staff SHOs was 1.08 and for a locum SHO it was 1.48. The average across the four SHOs

in terms of patients seen per hour was 1.18 and this was used to calculate cost to the hospital per patient seen. With this average the cost to the hospital for a staff SHO was 36.23 Euro/patient and for the locum SHO it was calculated to be 37.28 - 48.47Euro/patient. The locum SHO has the potential to earn 57.2 Euro/hr compared to less than 19 Euro an hour for a staff SHO depending on the day, time, and tax deductions.

# **HEALTH PROMOTING HOSPITALS**

By Jürgen M. Pelikan, Hermann Schmied

"A health promoting hospital does not only provide high quality comprehensive medical and nursing services, but also develops a corporate identity that embraces the aims of health promotion, develops a health promoting organisational structure and culture, including active, participatory roles for patients and all members of staff, develops itself into a health promoting physical environment and actively cooperates with its community." This definition can be found in WHO's Health Promotion Glossary, which is based on WHO's Budapest Declaration on Health Promoting Hospitals. Thus, health promoting hospitals are actively attempting to become healthy organisations.

## Background and Development of the International HPH Network

Health promoting Hospitals (HPH) is a child of WHO's Ottawa Charter for Health Promotion (OC). One of the OC's principles is to reorient health services, a principle which is also followed by the HPH network. To implement health promotion in hospitals the comprehensive settings approach is applied, which also was introduced by the OC. For instance hospitals are a setting and are defined as "place or social context in which people engage in daily activities in which environmental, organisational and personal factors interact to affect health and wellbeing." (WHO, 1998). Therefore settings offer convenient opportunities to implement comprehensive health promotion strategies by reducing risk factors as well as by promoting resources and capacities for health.

The OC's principle of reorienting health services postulates that "the role of the health sector, must move increasingly in a health promoting direction, beyond its responsibility for providing clinical and curative services". Furthermore, health services "should support the needs of individuals and communities for a healthier life", which must then "[...] lead to a change of attitude and organisation of health services, which refocuses on total needs of the individual as a whole person." (WHO, 1986). These principles have been reinforced by subsequent WHO conferences and declarations, especially by The Ljubljana Charter on Reforming Health Care, the conference in Mexico City and the Nairobi Call for action, which has a specific chapter on "Strengthening Health Systems".

Based on the OC, a first concept for HPH was developed by a WHO consultation, which then was tested in a feasibility study and a model project at the Rudolfstiftung hospital in Vienna. In the context of this project the WHO-Euro initiated in 1990 the international HPH network that endorsed the Budapest Declaration on Health Promoting Hospitals as the foundation for a European-wide Pilot Hospital Project (1993-1997) consisting of 20 hospitals in 11 countries. Based on the experiences gained from this project, the Vienna Recommendations on Health Promoting Hospitals were formulated defining concrete action areas and implementation strategies for HPH.

Parallel to the European pilot hospital project, international network structures and media have been established: Annual conferences (19 to date), a newsletter and regular business meetings, summer schools and workshops. Since 1995 national or regional networks have been founded, offering similar structures and media on national or regional basis. From then on the international HPH network has been continuously expanding, especially since 2005 when HPH opened for non-European networks. Moreover, task forces for specific vulnerable groups – migrants, arising from an EU project "Migrant friendly Hospitals" (www.mfh-eu.net), children and adolescents and psychiatric patients - or specific issues of Health Promotion (HP) - tobacco, alcohol, nutrition and environment - have been initiated and offer quality criteria, instruments and model of good practice. An overview and further information of all task forces and also working groups of the HPH are available online (www.hphnet.org).

In 2008, the international network became an international association under Swiss law, opened up to other health services than hospitals and broadened its name to "International Network of Health Promoting Hospital and Health Services" (HPH). The HPH constitution defines national/regional networks as core members of the international network, which recruit healthcare organisations as members. (For countries without a network yet, also single healthcare organisations can become individual members in the international network.) HPH has a governance board elected by the general assembly, an international secretariat at the WHO-CC for Evidence-Based Health Promotion in Copenhagen (www.hphnet.org) and a secretariat for international conferences at the WHO-CC for Health Promotion in Hospitals and Health Care in Vienna (www.hphhc.cc). Since 2010 the network is related to the WHO-Euro by a Memorandum of Understanding comprising annual action plans (WHO-Euro, 2009). Currently, HPH consists of 39 networks in 26 countries in five continents plus 93 individual members. In total, HPH has 841 members, mainly hospitals, worldwide (see Box 1, page 20).

#### Mission, Vision, Concepts, Tools and Measures of HPH

According to the constitution, HPH's mission is to "work towards incorporating the concepts, values, strategies and standards or indicators of health promotion into the organisational structure and culture of the hospital or health service. The overall goal is better health gain by improving the quality of healthcare, the relationship between

hospitals/health services, the community and the environment, and the conditions for and satisfaction of patients, relatives and staff." (WHO, 2009)

Two sets of general tools link HPH to quality philosophy and management:

- 18 HPH core strategies a strategic and quality framework for health promoting interventions;
- Five standards on health promotion a self-assessment tool with measurable elements for health promotion in hospitals (see Box 2).

There also are more specific tools, e.g. for workplace HP (Guide to Promoting Healthy

Networks	Members
Australia, Victoria	14
Austria	22
Belgium – French Part	7
Bulgaria	7
Canada - Montreal	20
Canada - Ontario	3
Czech Republic	4
Estonia	20
Finland	21
France	15
Germany	56
Greece	30
Ireland	64
Italy - Campania	3
Italy - Emilia Romagna	17
Italy - Friuli Venezia Giulia	8
ltaly – Liguria	8
Italy - Lombardy	69
Italy - Piedmont	26
Italy - Toscana	16
Italy – Valle d'Aosta	1
Italy - Veneto	3
Italy -Trentino	7
Lithuania	14
Norway	14
Poland	6
Republic of Korea	28
Russian Federation	3
Singapore	1
Slovakia	3
Spain - Catalonia	17
Sweden	73
Switzerland	33
Taiwan	67
Thailand	12
UK - Northern Ireland	15
UK - Scotland	1
USA - Connecticut	13
USA - Pennsylvania	7
No network	93
Total	841
D 1 N 2 17 1 1 1	I (LIDI)

**Box 1.** National / regional networks of HPH (May 2011)

Workplaces in Healthcare Institutions), migrants (Standards for Equity in Health Care for Migrants and other Vulnerable Groups) or children (self-evaluation model and tool on the respect of children's rights in hospital).

#### **Patient Involvement**

There is also a wide range of measures to successfully promote the health of different hospital stakeholders. Patient-orientated measures focus on empowering people throughout the treatment process in order to gain better health literacy, for adherence with therapy and for self-management of diseases and health. Therefore, health professionals need specific knowledge and communication skills. Also, systematic patient involvement, health education or lifestyle development must be part of treatment routines (e.a. in form of guidelines, programmes, trainings, documentation). Specific examples for evidencebased health promotion in clinical practice are patient education for patients suffering from chronic diseases such as COPD, early rehabilitation after stroke, preoperative smoking cessation and alcohol intervention for patients undergoing elective surgery and integrated rehabilitation program for diabetic patients.

#### Healthy Staff

Many jobs in hospitals are characterised by high physical and mental strain; therefore worksite health promotion is an important field of action for HPH. Proven measures for a healthy staff go beyond basic occupational health and safety programmes and combine structural prevention (e.g. working conditions, environment and culture) with behaviour oriented prevention. As knowledge centres for health, hospitals can also have an impact on their communities by public campaigns on risk factors and lifestyles and by providing health education services to specific vulnerable groups in the population, e.g. ethnic minorities and migrants. In an era of climate change, the hospital sector has an important role to play by setting norms and standards for environmentally friendly hospitals and applying evidence-based sustainable healthcare intervention programmes.

#### The Benefits of Investing in HPH Development

Different stakeholders of a hospital; patients, staff, community, management, own-

#### Standard 1: Management Policy

The organisation has a written policy for health promotion. The policy is implemented as part of the overall organisation quality improvement system, aiming at improving health outcomes. This policy is aimed at patients, relatives and staff.

#### Standard 2: Patient Assessment

The organisation ensures that health professionals, in partnership with patients, systematically assess needs for health promotion activities.

#### Standard 3: Patient Information and Intervention

The organisation provides patients with information on significant factors concerning their disease or health condition and health promotion interventions are established in all patient pathways.

#### Standard 4: Promoting a Healthy Workplace

The management establishes conditions for the development of the hospital as a healthy workplace.

#### Standard 5: Continuity and Cooperation

The organisation has a planned approach to collaboration with other health service levels and other institutions and sectors on an ongoing basis.

**Box 2.** Standards for Health Promotion in Hospitals (WHO 2006)

ers, financing agencies and society as a whole - can expect somewhat different benefits through integrating health promotion into the daily routines of a hospital.

The benefits for patients resulting from health promotion programmes and strategies are improving health gains, higher quality of life and more satisfaction with the treatment and care. Subsequently this will enhance the effectiveness, efficiency and reputation of hospital services as well.

The staff benefit from workplaces with reduced stresses and strains and an increased effort-reward balance is created. This is all the more important, since the major challenge of an ageing hospital workforce requires timely measures to maintain the work ability of employees. Studies report that the return of investment for work health promotion ranges between 1:2.5 and 1:10.1 simply for absenteeism.

For communities, population health needs will be better fulfilled by an HPH that sees this as part of its mandate and invests in community action as well. For hospital management, therefore, HPH is a possible answer to the rising and changing expectations of patients and their relatives, of employees, of communities, of health policy or administration and the public in healthcare market that is becoming a more and more competitive.

But before benefits can be expected from HPH, all these stakeholders will first have to make some specific investments in order to get their particular ROI. All stakeholders will have to take on greater responsibility and a more complex perspective, but in the end this will be worthwhile as relevant outcomes improve. But to invest in HP, hospitals need adequate regulations and financing schemes given by health policy as a precondition and an incentive to make their specific contributions.

#### Role of Hospital Managers

Deciding to become a HPH is a strategic decision comprising reform or reorientation, a step owners and top management of a hospital have to take together. This should be based on a health promotion strategic pol-

icy document, specifying aims, goals and targets as well as structures and processes for HP. To implement such a decision sustainably, nearly all staff members have to comply and therefore have to be motivated for this task. To support staffs' everyday experience of health promotion orientation and principles, a hospital has to build specific capacities for health promotion, as part of its quality management or as an own HP support system. Data from our current evaluation study of the HPH networks show that already 29 percent of the member hospitals choose the strategy of integrating health promotion into quality management. In order to influence everyday clinical practice, health promotion must be included into clinical guidelines and pathways.

All of these actions are definitely the task of hospital management and need leadership and continuous support by hospital managers. Research shows that one of the main barriers of successful implementation of HPH is a deficit of engaged leadership by top management and a lack of infrastructures and resources.

A literature review found that for good functioning of hospital health promotion services in their communities in the USA: "Managers used leadership and strategic planning to create mission, vision, goals and

culture for HP. They allocated resources, delegated authority, assigned responsibility, motivated staff, measured results, made decisions, coordinated within the hospital, and collaborated outside the hospital. Skills and methods for marketing, finance, organisation design, human resources, operations management, performance evaluation, and inter-organisational relationships are needed to manage HP services." (Olden and Hoffman, 2011) Thus, hospital managers have quite a demanding, but also rewarding role to play supporting their hospitals on the way towards a HPH and a more healthy organisation.

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#### References

Catford,J. (2000): Mexico Ministerial Statement for the Promotion of Health: from ideas to action. In: Health Promotion International, 15. 4. S. 275-276.

Groene,O., Garcia-Barbero,M. (2005): Health promotion in hospitals: Evidence and quality management. Kopenhagen: World Health Organization Regional Office for Europe

Groene,O. (2006): Implementing health promotion in hospitals: Manual and self-assessment forms. Copenhagen: WHO Regional Office for Europe.

Milz,H., Vang,J. (1989): Consultation on the Role of Health Promoting Hospitals. In: Health Promotion International, 3,4, S. 425-427.

Moller A.M., Villebro N., Pedersen T., Tonnesen H. (2002): Effect of preoperative smoking intervention on postoperative complications: a radomised clinical trail. In: The Lancet, 359, S. 114-117. Montreal Health and Social Services Agency (2011): Guide to Promoting Healthy Workplace in Healthcare Institutions. Online available: http://hps.santemontreal.qc.ca/fileadmin/hps/boite\_ outil/Guide\_international 2011 01.pd

Nielsen PR, Jørgensen LD, Dahl B, Pedersen T, Tønnesen H. Prehabilitation and early rehabilitation after spinal surgery: randomized clinical trial. Clin Rehabil. 2010 Feb;24(2):137-48.

Olden,P.C., Hoffman,K.E. (2011): Hospitals' health promotion services in their communities: Findings from a literature review. In:
Health Care Management Review, 36, 2, S. 104-112.

Pelikan,J.M., Garcia–Barbero,M., Lobnig,H., Krajic,K. (Hg.)(1998): Pathways to a health promoting hospital. Experiences from the European Pilot Hospital Project 1993–1997. Werbach–Gamburg: G. Conrad Health Promotion Publications.

Pelikan,J.M., Krajic,K., Dietscher,C. (2001): The health promoting hospital (HPH): concept and development. In: Patient Education and Counseling, 45, 4, S. 239– 243

Pelikan, J.M., Dietscher, C., Krajic, K., Nowak, P. (2005): 18 Core Strategies for Health Promoting Hospitals (HPH). In: Groene, O., Garcia-Barbero, M. (Hg.): Health Promotion in Hospitals: Evidence and Quality Management. World Health Organization. S. 46-63.

Pelikan, J.M., Dietscher, C., Schmied, H., Röthlin, F. (2011): A model and selected results from an evaluation study on the International HPH Network (PRICES-HPH). In: Clinical Health Promotion, 1, 1, S. 9-15

Task Force on Migrant-Friendly and Culturally Competent Health Care (2010): Project to Develop Standards for Equity in Health Care for Migrants and other Vulnerable. Online available: http://www.ausl.re.it/HPH/FRON TEND/Home/DocumentViewer.a spx?document\_id=1138

Task Force on Health Promotion for Children and Adolescents in and by Hospitals and Health Services (2010): The Final Report on the implementation process of the Self-evaluation Model and Tool on the Respect of Children's Rights in Hospital. Online available: http://www.who.int/pmnch/top-

nttp://www.wno.int/pmnch/topics/child/201001\_tool\_childrenrights/en/index.html

Tønnesen H, Rosenberg J, Nielsen HJ, Rasmussen V, Hauge C, Pedersen IK, Kehlet H. Effect of preoperative abstinence on poor postoperative outcome in alcohol misusers: randomised controlled trial. BMJ 1999; 318:1311-1316

# **GREEN HOSPITALS**

#### An Ecological Trend or a Sustainable Concept for the Future?

By Jürgen Zimmermann

Green hospitals are to be energy saving, resource conserving, environmentally friendly, health supporting, efficient, and strategically managed. However, does sustainable building turn healthcare buildings into efficient, future-proof structures of lasting value?

It is now possible to design economic and at the same time sustainable healthcare buildings at reasonable cost. The term sustainability does not only stand for environmental friendliness but also for structural quality and energy efficiency. When talking about sustainability, many people think mainly about renewable energy sources and good thermal insulation. However, the efficient use of energy, water, and other resources is only one aspect of a comprehensive, integrated concept. When assessing the sustainability of buildings, it is also important to consider the factors of protecting the health of the building users, improving the productivity of the employees, and reducing waste, environmental pollution, and the use of resources.

Sustainable healthcare buildings are characterised by their future-oriented planning tailored to suit specific needs and considering the requirements of several generations. Flexible structures enable an

Key Building performance Features:

Description of the particle of the pilot project green hospitals in Germany (see page 24)

efficient, demand-driven area management optimising work and process flows. Staff members enjoy a better work environment and patients a more comfortable environment for recovery and convalescence. Intelligent lighting and ventilation concepts, the reduction of environmental stress factors, barrier-free movement, and

a connection with nature are only some contributing factors.

## Green Building Certifications

"Green Building" certifications in accordance with international standards assess buildings based on different factors. As a result, a building's sustainability is shown as a whole and evaluated on an internationally acknowledged scale. A Green Building certification for a healthcare building is far more than a mere image booster. It offers effec-



Figure 2. Comparison of assessment criteria green building certification







PHPICs, the Automated Drug Management System

Francison of the Presentity Tube System delivers therapy rings Automatically to the wards

# ST. OLAVS UNIVERSITY HOSPITAL The realization of a premium case of integrated logistics solutions

St. Qiavs. Hospital is a health enterprise and university hospital in the Mid-Norway region with a total of 630 000 inhabitants. The hospital covers nearly 200 000 m², built on a central structure with nine different units connected together with supply tunnels.

The University Hospital in Trondheim is the first university in Norway which completely integrates patient treatment, research and teaching, with the objective to set new standards in the Nordic healthcare sector.

During the planning phase, the hospital with 1000 beds recognized the importance of efficient logistics systems and understood them as preconditions to meet the future demands and challenges of the healthcare sector.

#### The integrated solution for hospitals: TranspoNet, TransCar and PillPick

Since 2001, Swisslog has been equipping St. Olavs with in-house logistics systems. The implementation of the Pneumatic Tube System was followed by the installation of the Automated Guided Vehicle System and the Automated Drug Management System.

The TranspoNet Pneumatic Tube System comprises 170 stations and over 10 000 m of tube. Every transport between care units, wards, laboratory, pharmacy and operation theatres is now possible by using carriers. With a payload up to 3 kg, carriers transport.

blood products, cytostatic drugs, instantaneous sections, samples and medications, relieving staff from time communing postering activities and freeing up valuable time for patient care. The TransCar Automated Guided Vehicle System implemented for the containerized transport of food and consumer goods takes also a significant role in the logistics of a running hospital. TransCar transports containers up to 500 kg completely automatically along preprogrammed routes and to a predetermined schedule.

The vehicles summon elevators and open doors by communicating over the wireless IP network. Lights turn off when no motion is detected and a unique laser navigation system enables the vehicles to identify obstacles. Storing products only at the point-of-uni improves control and lower stock livers.

The PillPick Automated Drug Management System is the Swisslog pharmacy robot that automates the packaging, storage and dispensing of tablets, capsules, ampoules, vials, cups and syringes in unit doses. The system supplies more than 13 000 unit doses on daily basis. Over 10 000 of these unit doses will be tablets.

PillPick is equipped with the world unique PTP, the transfer unit that allows the automated loading of rings that carry the patient-specific, 24-hour medication orders into pneumatic tube carriers for delivery to wards. The barcoded therapy rings are transported by the Pneumatic Tube System directly to the ward, ensuring a fast and safe delivery of the medicine to the patient. In case of emergency the delivery is planned within 15 minutes from the arder entry.

The possible barcode verification during administration of therapy is another step to improve patient safety and reduce medication errors. The cross-check of data (barcode on patient's armband and on the unit dose bag) allows to eliminate the possibility of error in the therapy administration.

PiliPick reduces potential medication errors and cuts down on waste caused by out-ofdate medicines. Moreover, it will reduce the work needed for handling medicines on the wards, thus allowing more time to concentrate on patient care.

With logistic automation, St. Dlavs benefits not only in terms of quality, but also economically. Benefits can be summarized as follows:

- > Optimization of logistics processes
- More employee and patient satisfaction due to reliable service and fast product handling
- > Cost and time savings and to automation
- Staff relieved from portering activities have more time for patient care.
- Reduction of potential medication errors, and waste caused by out-of-date medicions

From a logistics perspective, the innovations at St. Olavs Hospital represent a state-of-the-art technology. Every logistics process has been optimized for quality and efficiency on behalf of the patient.





tive and efficient tools for a consistent and elaborate structuring of planning and realisation processes as basis for an economic and sustainable operation.

Green building certifications encompass the following areas:

#### Life cycle:

- Improved creation of value during construction/operation/use
- ▶ Easy to clean and maintain
- Optimised service levels
- Adapted operational cycles

#### Ecology and energy:

- Energy efficiency
- Area usage
- Low primary energy consumption
- Use of renewable energies

#### Indoor environmental quality:

- Use of low-emission materials
- Less radiation
- Daylight in rooms
- ▶ Environmental management
- Thermal comfort

#### Materials and resources:

- Use of renewable resources
- Reuse of recoverable materials/ resources
- Waste avoidance

- Use of process water and rain water
- Avoidance of hazardous materials

#### User comfort:

- Acoustical and visual comfort
- Indoor hygiene
- Barrier-free
- ► Thermal comfort both in summer and winter
- ▶ Possibility for a change of use
- Safety
- Influence of the user

#### Sustainable location:

- ▶ Traffic connections- public transport
- Orientation of the building
- Energy supply, utilities and infrastructure
- Situation/image of the surrounding area
- Location with regard to other facilities/local amenities

#### Pilot Project of Green Hospital in Germany

ARCADIS Deutschland is responsible for the entire Project management and Green Hospital Certification of two new Green Hospitals in Germany. The New Hospital of Schaumnburger Land, a 437 bed Hospital, invest 130 million euro is a complete new hospital on a green field site. The con-

struction will start in May 2012 and the Hospital will go into operation at the end of 2014.

The extension of the Diakonissen Hospital in Speyer is an example of a green hospital with a new construction on a existing building. The construction starts in 2011 and will be finished in 2014. Both hospitals will be certified to DGNB (German society of sustainable buildings) certification. The goal of both projects is to reach silver with no additional costs. Both hospitals will be built with subsidies from the local government.

## Good and well founded arguments for Green Hospitals:

- Higher quality of buildings;
- Greater marketing potential;
- Consideration of the life cycle;
- Instrument of company communication;
- Documented commitment to sustainability;
- Protection of the health of both users and patients;
- Protection of the environment and the community; and
- Prevention of illnesses caused by environmental pollution.

#### Author:

Jürgen Zimmermann ARCADIS Deutschland GmbH

# THE PATIENT ROOM

#### Room for Improvement

By Pernille Weiss Terkildsen and Jeanet Lemche

A growing number of hospitals are being built with mostly single-bedded rooms instead of multi-bedded. But it is unclear to what extent decisions are based on scientific, evidence-based knowledge or political, economic, organisational or cultural requirements. The purpose of this article is to present an overview of the latest scientific knowledge about the pros and cons of single-bedded and multi-bedded wards in hospitals. The article will also focus on key areas where knowledge is lacking and where further research might be relevant.

The discussion about the pros and cons of single- or multi-bedded rooms is as old as the experience of building modern hospitals itself (Goldin and Thompson 1975). As early as 1788 the subject was discussed in Austria regarding two hospital buildings and the same reasoning was argued as that which may be construed from the latest research today. It can therefore be considered as a fundamental challenge in the design of hospital wards.

#### Research

Based on available findings of evidencebased knowledge we find that topics like privacy and patient dignity, patient satisfaction, communication, noise and sleep quality, light and air, treatment and care, hospital-acquired infections, patient safety, patient recovery rate and hospitalisation are most present in the ongoing discussion. On the other hand, compliance, rehabilitation and economic related topics appear to be less prevalent.

Focus on patient safety is an especially significant concern in US research but also something we in Scandinavia have directed our attention to. The article "Enestuer" from Journal of The Danish Medical Association identifies both the advantages and disadvantages or limitations in relation to patient safety and single-bedded rooms and also pointed out the general need for a broader perspective on research and more evidence-based knowledge in the field (Jensen 2009).

# Single-Bedded Rooms: What do we Know?

The 2008 report "Future Patient Room" recommends single-bed rooms in all hospital wards because it ensures patient privacy, fresh air, rest and sleep. The architectural design of single-bedded rooms can better ensure the attenuation of noise from both technology and personnel. Thus, the quality of patients' sleep improves significantly, which is an extremely important but overlooked factor for recovery and length of stay (Andersen et al. 2008).

Single-bedded rooms seem to have a moderate effect on patient satisfaction with care as communication between patient and health professional is thought to be more comfortable and undisturbed. In addition, the single-bedded room allows the patient to maintain his or her dignity with personal care taking place without the other patients in the vicinity (van de Glinde et al. 2008).

Conflicting results were found in relation to risk of infection transmission. Some studies show that single-bedded rooms reduce the risk of hospital-acquired infections (HAI), while others conclude no significant differences between single- or multi-bedded rooms. For example, a study regarding the control of methicillin-resistant Staphylococcus aureus (MRSA) cannot conclude whether single-rooms or hand hygiene is the most important factor in the control of MRSA. Not surprisingly, other studies show that the use of detergents and alcohol dispensers reduce the risk of HAI. However, this depends on how they are placed - in and outside the patient room (Ulrich et al. 2004; 2008). There is still a lack of knowledge on the subject of how to reduce the



Figure 1. A multi-bedded room

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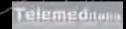
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The European Association of Hospital Managers (EAHM) is proud to invite you to the *IT @ Networking Awards 2012*, a global healthcare IT and medical technology competition.

IT @ 2012 will recognise and promote outstanding healthcare IT and medical technology projects. 25 nominees from across Europe and beyond will compete in the IT @ Networking Awards 2012 on January 18 – 19 2012. This high-level competition will see candidates go through two rounds of presentations in an effort to convince the expert audience and panel of judges why their solution deserves to win. If last year is anything to go by, attendees will not hold back in cross-examination of each presenter during the Q&A sessions before placing their vote for their favourite solutions.

# WHY ATTEND THE IT @ NETWORKING AWARDS 2012?

This event will give you the possibility to expand your general and in-depth knowledge on IT solutions. Every presentation is strictly structured according to our presentation cri-





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teria. Such criteria allows for a cross-departmental understanding of each solution.

Uniquely, *IT @ 2012* requires all presenters to talk about the key problems they have encountered in creation or implementation. By highlighting honestly the problems and obstacles encountered, they provide the audience with an excellent tool for advancing similar issues in their own institutions.

IT and medical technology is of key importance to hospital management, especially considering the current financial constraints and increasing pressure our healthcare systems are faced with. Intelligent IT solutions increase cost-effectiveness, productivity and safety.

#### **HOW IT WORKS**

IT @ 2012 is a two-day event comprising two rounds of presentations. During the first day, 25 projects will be showcased in a Mindbyte presentation. Mindbytes are short and straight to the point. In just five minutes, each presenter will highlight the main advantages of their project and convince the audience they want to know more. After each presentation you, the expert

audience, and our panel of judges will place their votes. The top nine presentations make it through to the second day of competition where they are given the opportunity to present their projects in detail. This Workbench presentation has an allocated time of 30 minutes followed by 15 minutes of cross-examination.

#### WHAT SETS US APART

What differentiates *IT @ 2012* from other congresses? The main difference lies in the element of competition. Yes, *IT @2012* features presentations from across the world. But these are presentations with a difference, competitors are presenting to win; they have a completely different mindset. Each presenter will do the best to secure the top prize, to persuade the audience and judges that their solution deserves to win. The Q&A sessions also take on a new dimension with presenters having the opportunity to cross-examine their competitors.

#### **HOW TO REGISTER**

HITM members are eligible for a reduced rate. For this special fee you can enjoy two days of informative presentations of fully implemented and running IT and medical technology projects. Moreover, you will have a say in who will win the trophy. Refreshments, lunch and evening entertainment are also included, giving ample opportunity for networking.

To register, please visit: https://www.conftool.net/itawards2012/

#### LOCATION

IT @ 2012 will take place in the famous Theatre de Vaudeville, a most stimulating environment in the Gallerie de la Reine, the centre of Brussels.

Hotel reservations can be obtained through www.booking.com.

For more information please visit our website www.itandnetworking.org or contact us on +32/2/2868501 or send an email to office@ hitm.eu

We look forward to seeing you in Brussels in January!

risk of infection significantly. Researchers therefore call for further studies in this area (Cheng et al. 2010).

There is some evidence regarding the positive effect of daylight on the patients' healing process, depression risk, patient routine and the work environment. The same applies to the prospect of nature. Through its design the single-bedded room can offer daylight and views to nature as a real partner in treatment (Ulrich et al. 2004; 2008). But capital expenditure is higher and the occupancy rate could be increased. On the plus side, the single-bedded room can quickly be turned into an intensive care or isolation room. However, this requires flexible and well-trained health professionals, which has shown to be problematic in several studies (Ulrich et al. 2004).

The single-bedded room also provides space for patients' relatives, which to a certain degree allows their inclusion in the care or rehabilitation if appropriate and possible (Domanico et al. 2011). It is often concluded that overall there are many benefits to

single-bedded rooms, but they are not without their disadvantages such as the patients' feelings of isolation and need for greater social contact, which may have a negative influence on the quality of care (Chaudhury et al. 2005).

#### Multi-Bedded Rooms:

#### What do we Know?

The multi-bedded room may counter the risk of patients experiencing loneliness, isolation and fear of being overlooked. Furthermore, patients with the same types of illnesses and symptoms may benefit from each other. By using each other as benchmarks patients have the opportunity to assess their own disease situation and learn from others' illness experiences (Gubrium et al. 2003). This is a significant requirement in the treatment and rehabilitation phase that can be extremely difficult to meet for caregivers.

The primary function of multi-bedded rooms is to give staff the possibility of a quick

overview of a group of patients. In addition, multi-bedded wards shorten distances within the department and thus increase efficiency of staff. Problems with lack of space and thereby storage opportunities in multi-bedded room are, however, a challenge, which may reduce the benefits from the shorter distances. Capital expenditure is lower for multi-bedded rooms because there are fewer engineering heavy walls, which in turn can increase flexibility in construction (Phiri 2003).

Multi-bedded rooms reduce patients' access to privacy, fresh air and quietness significantly and the availability of daylight and views of nature from the bed is only reserved for patients at the window. These factors are said to have an impact on patient length of stay (Ulrich, 2004; 2008; Frandsen 2009).

#### **Economics**

The relationship between capital expenditure on the one hand and effective utilisation of human resources in operations on the other hand should in itself be an argument for more research. In the shadow of the current trend of predominantly private rooms we could be building hospitals that we cannot afford to operate. The implications here are both associated with the social and health economy because money spent on health and hospitals may prove to be used less efficiently - both for the individual patient and also society. A future scenario could be that patients in single-bedded rooms will be exposed to video and telemedical monitoring and experience many fast visits by staff and indoor walls designed with windows. This may lead to an evil boomerang of good intentions to return with bad consequences. The initial single-bedded room argument about privacy, time and undisturbed dialogue with healthcare professionals seems contradicted by the constraints of reality.

#### Recommendations

The pros and cons of single and multi-bedded rooms are inconclusive but more in favour of the single-bedded room. Our recommendation is that patient wards should be primarily set up with single-bedded rooms but also provide patient rooms with several beds so that the ward can meet the desire or need of patients who ask for or need

#### The Patient Room Layout - what do we know?

Layout Types	Single-bedded Rooms	Multi-bedded Rooms	
+	Patient privacy Patient dignity Reduced noice Fresh air Daylight Prospect of nature Increased occupancy rate Space for patients relatives	Benchmarks Social interaction Knowledge sharing Overview for the staff Staff productivity Shorter distances Lower capital expenditures Construction flexibility	
÷	Higher capital expenditures Feeling of isolation Lack of social contact Fear of being overlooked Loneliness	Lack of individual space Lack of storage opportunities Reduced privacy Reduce in fresh air Increased noise level Less daylight exposure Risk of no view to nature	
+/÷	Patient satisfaction Reduced infection rate Improved sleep Rehabilitation Length of stay Compliance Use of drugs		



**Figure 2.** The single-bedded room with space for relatives

more social contact and knowledge sharing with fellow patients. Regarding multi-bedded rooms, the recommendation is of patient rooms with three beds (Andersen et al. 2008). It is also recommended that efforts are made to design flexible multibed rooms, where privacy and tranquility can actually be offered while social interaction among patients is also supported.

## Need for Further Research

The data included in this review article indicates that there seems to be a clear link between single-bedded wards and medical outcomes but the actual relationships between variables are not yet clear enough. It is not clear whether sin-

gle-bedded wards and this "one-size-fitsall" approach to hospital design is suitable for all patient groups. The overall generalisations about types of patient rooms and outcomes are problematic because there are multifactorial conditions. There is therefore a need for a much larger number of research projects and testing of different concepts which includes the significance of the individual patient and diagnostic groups' needs and preferences for the design of wards in relation to safety, recovery and rehabilitation. This research must also be designed to place the patient room in a broader, multidiciplinary context regarding capital expenditure and occupancy, staff-turnover and other relevant measures.

Research is also lacking on the complex subject of the effect on recovery rate and patient safety in the use of single-bedded rooms. In addition, the research designs of the few studies carried through are considered poor (van de Glinde et al. 2007). This is also pointed out in the two reviews (Ulrich et al. 2004; Ulrich et al. 2008), which highlight the need for more studies of patient safety and HAIs associated with private rooms and recovery rates.

There is a lack of research on patient room layout in relation to the rehabilitation of individual patient groups, but this is becoming more and more sought after as we start to design the hospital around the needs of the patient. It leads us to leave the overall architectural layout until fundamental and significant concerns of patients and economic factors are profoundly explored and crucial decisions are made.

Future research should build on existing knowledge of patient rooms and develop a common conceptual framework that ensures the best possible evidence. This will serve as a basis for evidence-based decision making in designing the hospital business model and building.

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Figure 3. A multi-bedded room. Only one bed benefits from the natural light

# AN INNOVATIVE

# **TECHNOLOGICAL BUILDING**

# New Surgery and Emergency Centre of University Hospital Authority S. Orsola-Malpighi Polyclinic

By G. Finzi et al.

The new Surgery and Emergency Centre of the University Hospital Authority S. Orsola-Malpighi Polyclinic of Bologna was inaugurated in September 2010. This is a technological building of about 25,000 m², which includes the following functions: Emergency Department, Diagnostic Imaging, Operating Blocks and Intensive Care Unit, as well as a new Central Sterile Supply Department for surgical instruments intended to serve the entire polyclinic.

The new building is directly connected to the existing pavilions "Nuove Patologie" and "Nuova Ala", which include wards for a total of 400 beds, allowing an integrated approach with the emergency department and the operating blocks. The construction of the new surgery centre, which began in July 2007 and ended in September 2010, also included the renovation of the emergency medicine department for about 1,000 m² and of the facilities in the A and B wings of the "Nuove Patologie" pavilion. The new development had a total expenditure of approximately 40,900,000 euro, which corresponds to about 1,550 euro per m².

The University Hospital Authority S. Orsola-Malpighi Polyclinic, located in the heart of the city where it extends over one kilometre, houses the Faculty of Medicine of Bologna University and represents a national and international reference centre for different diseases.

The S. Orsola–Malpighi Polyclinic is a hospital complex organised in pavilions (a total of 31 halls) for a total area of about 305,000 m², plus about 25,000 m² for the new Surgery and Emergency Centre and about 41,000 m² for the new Cardiology Centre, currently under construction.

#### The Rationale

The construction of the new surgery centre is part of a development plan for the building, technological and urban arrangement of the polyclinic, which started in 1999 and was subsequently confirmed and updated by the new "Master Plan to 2015", presented and approved in 2007.

The "Master Plan to 2015" aims at offering an integrated spatial configuration organised in building units in order to promote integration of the inter-disciplinary care pathway and even greater management efficiency. The plan provides the merging of healthcare and research/education activities in seven buildings, keeping consistent with the departmental structure of the hospital:

- Surgery and Emergency Centre (new construction);
- Cardiology Centre (new construction);
- Medical, Geriatric, Rehabilitation Centre;
- Mother-Child Centre;
- Oncology and Hematology Centre;
- Day care activities and host functions centre; and
- ▶ Education and Research Centre.

In the two newly-built centres (surgical and cardiology) diagnostic and therapeutic functions of high technological impact are gathered together ensuring hospital functions could be adequately accommodated in the existing buildings renovated for such activities.

The expected benefits for patients are numerous and the gathered functions will avoid long journeys inside the hospital. For the first time, an important area devoted primarily to research and teaching (Education and Research Centre) has been identified with positive effects for students and interns.

The main actions are in progress, and their completion is expected during 2013:

The cardiology centre, currently under construction, will have an area of approximately 41,000 m². The structure

- was designed to ensure a high level of comfort and functionality of interventional cardiology and cardiovascular surgery areas, together with a large area for other highly specialised activities and intensive care. The functional layout of the spaces will adopt a care model based on the intensity of the treatment;
- The extension of the paediatric pavilion by the incorporation of the ex- emergency room for adults. The acquisition of approximately 5,000 m² will allow a more rational organisation and functionality of paediatric activities;
- ▶ The oncology centre project will include the renovation of the medical clinic and hematology pavilions, allowing the gathering of all medical and haematological oncology activities in an area of 17,000 m², with appropriate diagnostic imaging systems;
- The new central heating and co-generation system, for which the competitive tender for construction and management (project financing) has been launched, will guarantee energy supplies to the polyclinic for the next 30 years with significant energy savings and lower operating costs if compared to current systems dated back 40 years ago; and
- The renovation of the infectious diseases pavilion.

Upon completion of this plan of new buildings and renovations, the percentage of areas with medical functions meeting the requirements for accreditation will rise to 80 percent.



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# Synergy in Operation



THE DIAMOND STANDARD

#### The Surgery and Emergency Centre

The surgery and emergency centre building, which is spread over five floors above ground and one basement, has a rectangular plan with a length of 110 m and a width of about 30 m and it has the following intended uses for each floor:

#### Ground floor:

- General and Orthopaedic Emergency Room
- Emergency Radiology

#### First floor:

- Diagnostic Imaging
- Central Sterile Supply Department (CSSD)

#### Second floor:

- Operating Block (six operating rooms)
- ▶ Management area medical offices

#### Third floor:

- Operating Bock (six operating rooms)
- ▶ ICU (22 beds)

#### Fourth floor:

▶ Technological facilities

#### Basement:

- Changing rooms
- Deposits
- ▶ Technological facilities

On the Ground floor there are the Emergency Rooms (ER), divided into general and orthopaedic, and emergency radiology. Getting to the ER (Fig. 1, page 34) is through a large entry vestibule located on the east side of the building in which three different entrances are provided: One dedicated to patients who go to the ER on their own, which allows them to immediately join triage for the assignment of a priority code, another one dedicated to emergencies arriving at the ER by ambulance, which allows to easily reach the red and yellow code treatment area, and finally one provided with a clean-up room.

On the south side of the building the pedestrian entrance to the ER is located, controlled by a reception area/office adjacent to the large waiting area for patients with white and green codes and their companions. The triage is performed in a room of more than 38 m², located between the waiting area and the waiting area for stretchers, where a preliminary patient inspection can be done in order to define the priority code.

The operational area of the ER is divided by intensity of treatment: The unit with greatest intensity (red and yellow codes), which is accessed by a direct connection from the entry vestibule, consists of eight boxes of about 14 m² each for yellow codes, while the red codes have an operating room of 30 m². There is also an interventional/intensive room with three stations.

The area for the green and white codes, which is completely separated from the red and yellow codes, has 11 multi-specialised clinics and two orthopedic clinics, as well as a plaster room.

Both operational areas, at higher and lower intensity of treatment, are equipped with control zones and independent support rooms and are connected with the short-stay observation area, which is structured as an open space with nine boxes of 9 m² each separated by sliding curtains and with a central zone for personnel control/work. On the west side of the building, coplanar and contiguous with the ER, the emergency radiology is situated. It includes three x-ray rooms, a CT scan and an ultrasound outpatient area. There are also waiting areas for stretchers and support operational rooms.

A strategic choice implemented in the new surgery centre was to build a second entry vestibule opposite the ER dedicated to move the inpatients. In fact, in a pavilion-structured hospital, the transfer of patients from one building to another is via ambulances, thus requiring an entry area dedicated to this type of transfer. The entry vestibule for the inpatient, through a dedicated corridor, is put in direct communication with the vertical connections inside the centre and with the one in the "Nuove Patologie" pavilion. The ER is connected to the upper floors of the building by four stretcher carriers allowing rapid transfer of patients to the operating blocks and ICU. The emergency medicine area, functionally connected to the ER. is located on the first floor of the pavilion "NuovePatologie". This area, managed by the emergency physicians, can accommodate patients who, at different levels of complexity, require a further period of observation and investigation after the preliminary ER treatments, prior to being discharged or transferred to wards.

The first floor of the surgery centre houses the diagnostic imaging area for external users and inpatients and the new central sterile supply department (CSSD) of the hospital. The diagnostic imaging area includes five x-ray rooms, a CT scan and two ultrasound outpatient areas. This new location will enable a significant improvement of the serv-

ice, with for logistic advantages. Five new high-tech equipments, which will enable a significant improvement in diagnostic quality, were installed. In particular one 64-slice multi-detector CT equipped with the most advanced diagnostic software including those for studying the heart and coronary arteries, two direct digital RX-systems, one direct digital remote-controlled RXsystem and one high-level ultrasound scanner.

In the west half-plane the new CSSD is located of about 1,100 m², which will serve the new operating theatres of the centre and all operating rooms and wards of the hospital. The new CSSD, unique for the whole hospital, conforms, certifies and tracks the processing and handling of surgical instruments and medical devices.

The CSSD was designed to optimise both material and operator flows. In fact, two distinct blocks of changing rooms are planned, one for employees working in the unclean area which is in direct communication with the washing area, another for employees operating in the packaging and sterile areas, which will have an additional filter before entering the two operating areas. The CSSD will be discussed in greater detail in the next issue of (E)Hospital.

#### **Operating Theatres**

The operating theatres are located on the second and third floor consisting of a total of 12 rooms, spread over two operating blocks of six rooms each. The block on the second floor is devoted to specialist surgery (ENT, maxillofacial, plastic surgery and orthopedics), while the one on the third floor is dedicated to general surgery activities, including emergency.

The operating theatres are located on the eastern half planes of the building. The entry to each of the two operating blocks is characterised by a 45m² wide entrance/waiting room for patients. Operators enter the theatres through the north corridor where surgical activity support rooms overlook. Each operating room has a dedicated area for patient preparation and a scrub area for the surgeons.

Operating theatres are square-shaped, have an area of about  $48m^2$  and have been built using prefabricated modular walls that provide flexibility and easy maintenance of technology and facilities. The doors of the room, provided with large windows, have an opening of 160 cm in order to allow easy

Cadolto presents the operating room of the futureas a cost-effective, rational prefabricated solution

### Complete Hybrid Operating Room Module



Hybrid operating sport with Siemeris Artis zeego anglography system Healthcare

The hybrid operating room is the standard of the future, on that medical opinion is largely unanimous. While the combination of conventional operating equipment and angiography has long posed enormous challenges for hospitals in terms of design and construction, only now is prefabrication being viewed as a solution: the prefabrication specialist Cadotto, based in Cadolzburg near Nuremberg, showcases a complete hybrid operating room module.

#### Room design challenge

The hybrid operating room is gaining ground everywhere. It is now no longer only cardiologists and heart surgeons who are enthusiastic at the prospect of performing minimally invasive, catheter-based and conventional operating procedures in one and the same operating room; this will sooner or later become the norm in the majority of surgical disciplines.

When image-quided diagnostics make their way into the traditional operating theatre environment, it is not simply a case of installing new equipment. Rather, the hybrid operating room revolutionises the whole layout and equipment of the room.

For example, the angiography units require a different arrangement of the operating room staff around the patient. This means that the paths taken by staff, for example in the event of complications, must be carefully thought through. The ceiling mounted screens affect the air flows in the room and also hyginne management. More space is required for ancillary rooms and storerooms, and much more besides.

#### The first prefabricated solution

In other words: hybrid technology is completely redesigning the operating room. The complex issues which arise have hitherto always been deelt with on a case by case basis by inter-disciplinary teams in lengthy, complicated processes, in future, hospitals will no longer necessarily have to shoulder this extremely costly burden for each project.



Flexible connection to existing building possible

A new room module developed by Cadolto for the first time translates the knowledge of hybrid operating room experts into a rational prefabricated concept. In close collaboration with Siemens Healthcare and the componies Maquet and Trumpt, the global market leader in high-tech modular buildings has developed a room unit, unique in terms of complexity and design features.

Conventional operating room technology, highend imaging and workflow-priented room and space management are combined in a hybrid solution that meets the highest current standards in cardiology, heart and vascular surgery, neuroradiology and neurosurgery.

#### Specialist in prefabrication in the factory

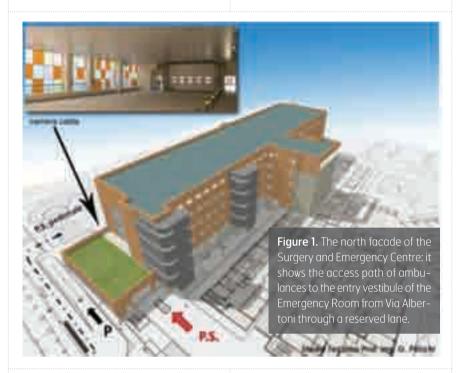
Cadolto has for many decades been operating on global scale as a leading specialist in the construction of complex. Sechnically sophisticated inodular buildings. The company's key expertise lies in the highproportion of the building prefabricated in the factory. This enables the rapid completion of a furnikey construction projection. The company's comprehensive design and consultancy service, factory prefabrication and rapid, cost-effective and high quality completion of construction projects gives Cadollo customers the security of a professional partnership.

# cadolto

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passage of patient bed. The walls adjacent to the doors were supplied with additional windows, allowing easy control of the inside of the room without interfering with ongoing surgical activities.

The rooms are equipped with fixtures such as surgical ceiling mounted pendant, anesthetic ceiling mounted pendant, operating light and a system for routing of surgical images to monitors on the surgical field and for video streaming over LAN or IP network for consulting or educational activities. Large closets for storage of clean material to be used during surgery are integrated into the walls of the rooms.

With the construction of the operating room great care has been taken over standards of hygiene by providing flushwith- wall installation of electrical outlets, medical gas and control panels, that allow easy and effective cleaning of surfaces.

Regarding ventilation in the operating rooms, the use of laminar airflow implants was considered with the aim of both performing a critical analysis of the development and management costs of such systems over traditional ones and of evaluating the actual role played by laminar airflow systems in the prevention of surgical site infections. Given the results of the recent literature, the choice of using laminar airflow implants has been completely revised due to the lack of scientific evidence on the usefulness of such systems for the pre-

vention of infections, in addition to high costs and discomfort for the operators. It was therefore decided to use conventional ventilation systems with 15-20 air exchanges/hour.

The patient exits the operating room on the opposite side of the entrance to the operating theatre and the 12 hour recovery room area, where the patient will be monitored by staff in the hours after the intervention, can be reached through the south corridor. This environment, facing south, has natural light thus ensuring a high level of patient comfort after surgery.

The staff of the surgical block can enter the operating area by pass–through dressing-rooms that communicate with the south corridor of the operating rooms. The western half–plane of the second floor is designed as a management area where offices of professionals working in the surgery centre and in the "Nuove Patologie" pavilion are located. In addition to secretariats and a large meeting room, there is a classroom of about 75 m² for the educational and training activities. On the third floor there is an additional operating theatre, with six operating rooms spread over an identical layout to the one on the second floor.

In the western half-plane houses an important area for ICU with 22 beds, which is optimally connected with both the ER and the surgical areas. A waiting zone adjacent to the reception, a doctor-relative conver-

sation area and a dedicated environment for visitors to leave their personal belongings are located at the entrance to this area. The beds are distributed in two large stay areas with natural lighting, one of 175m² with eight beds and another of 260m² with 13 beds. There is also a room for isolated patients equipped with an anteroom and a sink. In the area with 13 beds, four beds are dedicated to chronic patients.

All beds are equipped with wall-mounted bed head units with sliding carts for the monitoring equipment and infusion therapy, which allow easy patient care. The operational rooms serving ICU are located all over the floor and both stay areas are close to all deposits, as required by accreditation.

The fourth floor is entirely occupied by the technological facilities, in particular airhandling unit and extractors serving the below levels, which are necessary for the functioning of the centre. The facility design has enhanced the energy saving, by introducing ventilated walls and innovative systems for recovering heat loss during the air refreshing.

#### Conclusion

The development of this new surgery centre has merged relief and research/education activities in seven buildings, while keeping consistent with the departmental structure of the hospital. The new design successfully promotes inter-disciplinary integration of the care pathway and even greater management efficiency.

#### Authors:

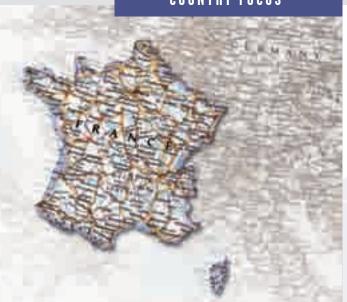
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# OVERVIEW OF THE FRENCH HEALTHCARE SYSTEM



# Social Protection System

The social protection system created in 1945 was aimed primarily at workers and their families. The expansion of health insurance coverage was implemented in stages during the 1960s. The Universal Health Coverage Act (CMU) concluded this process in 1999 by establishing universal health coverage. Although run by employers and employees, the social protection system is increasingly under the control of the state in the financial and operational management of health insurance. This was reinforced by several reforms and in particular a new income tax to fund the system instead of full financing by wage contributions and a more active role given to the parliament in determining policy directions and expenditure targets.

# **Governance of Health Policy**

The responsibility to define health policy and to regulate the healthcare system is divided between the state, the statutory health insurance funds and the sub-regional and local authorities.

Since 1996, the parliament adopts every year an act that defines a projected ceiling for health insurance spending for the following year, known as the ONDAM. The Ministry of Health then controls a large part of the regulation of healthcare expenditure. It divides the budgeted expenditure between the different sectors and for hospital care between the different regions. It approves the agreements signed between the health insurance funds and the unions representing self-employed healthcare professionals and sets the prices of specific medical

procedures and drugs. The state also defines the number of medical students to be admitted to medical school each year, the planning of equipment and priority areas for national health programmes.

The Ministry of Health has services at regional, sub-regional and local levels. A process of deconcentration of the organisation and management of the French healthcare system began in the early 1990s. Regional hospital agencies were responsible from 1996 until 2010 for hospital planning (for both public and private hospitals), financial allocation to public hospitals and adjustment of tariffs for private for-profit hospitals (within the framework of national agreements).

A new process of reform started following the publication of several reports on various aspects of the healthcare system during first semester of 2008. With the aim of achieving better governance of the system at the regional level and better response to needs and higher efficiency, the Regional Health Agency was formed to merge seven regional institutions from 1 April 2010. Each Regional Health Agency has the responsibility of ensuring that healthcare provision meets the needs of the population; in improving articulation between ambulatory and hospital sectors and health and social care sector services, while respecting national health expenditure objectives. In particular it gives authorisations for the creation of new health services and social and health services for the elderly and disabled. The Regional Health Agencies are subsidiaries of the state under the supervision of the ministers in charge of health, social security, the elderly and disabled. Its director, appointed by the Ministry of Health, has extended autonomy.

# French Hospital System

# Public/Private mix

Hospitals in France can be public, private non-profit or for-profit. But in any case patients are free to choose their hospital. They then get more or less the same social insurance coverage.

Public hospitals account for three quarters of hospital care capacity. They are legally autonomous and manage their own budget. There are 32 regional hospitals, which are in charge of more complex cases as they have a higher level of specialisation and the technical capacity. 29 of them are linked to a university and operate as teaching and research hospitals.

Non-profit hospitals are owned by religious organisations, foundations or mutual insurance associations. They represent one third of hospitals and 15 percent of inpatient beds. Most non-profit hospitals are collaborating with public service, since they carry out public. In total, they account for one third of rehabilitation capacity, but less than 10 percent of acute care beds. 20 specific non-profit private hospitals are specialised in cancer treatment.

Private for-profit hospitals account for 10 percent of full-time beds, but 20 percent of day-care beds. They tend to specialise in certain areas such as elective surgery, where they cover half of the activity. This sector invests in relatively minor surgical procedures.

# Resources and Activities

Hospitals, public and private, employ more than one million people: 80 percent of them in public hospitals. 14 percent of these employees are medical staff. Parttime work is increasing and concerns for example 20 percent of non-medical staff in public hospitals.

With an average of over eight hospital beds per 1000 inhabitants, less than half of which are acute beds, France faced a rapid downward trend in the number of hospital beds between 1980 and 2000, linked to a reduction in the average length of stay. However, there are important inequalities in bed numbers between areas.

During the same period, the number of people admitted to hospitals continued to increase. A number of policies have been implemented to encourage methods of providing care that are alternatives to in-patient care, such as day care surgery or home care. The private for-profit sector is particularly active in this field.

Since the 1960s, mental health policy in France has been based on a continuous movement towards de-institutionalisation. A key process in this movement has been to divide the country into geographical zones or areas serving a particular population and to establish a multi-disciplinary team in each zone to provide preventive care, treatment, follow-up care and rehabilitation for people living in that area and suffering from psychiatric disorders. Each psychiatric zone is linked to a hospital (either a public hospital or a private hospital participating in the public hospital service).

Quality of care has become a significant concern since the 1990s. Since 1996, all hospitals have been following a certification process, originally called accreditation. This procedure, carried out by a specific agency, the Haute Autorité de Santé, is an external evaluation of procedures. The hospital is evaluated on several dimensions: Quality of care, information given to the patient, medical records, general management (human resources, information systems, and logistics), risk prevention strategies, etc.

# Reforms

A reform plan, known as 'Hôpital 2007', had set major changes in the late 1990s with the objective of improving overall efficiency and management within the hospital sector. The first element was the modernisation of healthcare facilities by boosting investment in buildings and equipment. Total investment in hospitals doubled between 2003



and 2006. It was followed by a similar programme called 'Hôpital 2012' with targets on security, working conditions, information system and mergers.

The second measure was the introduction of an activity-based payment system both for public and private hospitals. Previously, resources were allocated to public and private hospitals by two different methods. The public and most private non-profit hospitals had budgets allocated by the regional hospital agencies based on historical costs. Private for-profit hospitals had a billing system with different components: Daily tariffs and a separate payment based on diagnostic and treatment procedures. In addition, doctors working in for-profit private hospitals were (and still are) paid on a feefor service basis unlike those working in public and non-profit hospitals, who are salaried.

Now, with the exception of long-term care and psychiatry, all hospitals are funded on the basis of "rates per activity", or homogeneous hospital stay groups. The Programme of Medicalisation of Information Systems is used as a basis to calculate hospital reimbursement. Every patient stay is classified in one of the 2,200 homogeneous patient groups and an associated homogeneous hospital stay groups. Currently, the funding models for public and private hos-

pitals remain different and the tariffs are calculated differently. However, from 2018, the objective is to harmonise the payment method and tariffs of both sectors.

The third element has been to give public hospitals flexibility to deal with this new financial environment. The goal was to simplify the management of public hospitals and to integrate medical staff in managerial decisions. Hospitals now have the opportunity to create large clinical departments in order to organise their medical activities in a more efficient way. Resource allocation and most of the management rules concerning recruitment, investment strategy and the use of new interventions are still constrained.

In 2009, a new law 'Hôpital, Patient, Santé et Territoire' was adopted. Its aim was to reorganise the healthcare supply with the creation of the already mentioned Regional Health Agency but also with new mechanisms of cooperation between providers. It also changed the internal governance of public hospitals giving more power to the Chief Executive. At the same time it enlarged the capacity of the private for profit sector to deliver public service missions.

#### Author:

ADH (Association des Directeurs d'Hôpital)



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# **ADH:** A THINK TANK

The French Association of Hospital Directors

Questioning the various ways of governing, sketching out healthcare "leadership skills", developing hospital executives' proficiency, supporting adjustment to ongoing reforms. Through training programmes, collective thinking, professional and institutional partnership ADH is committed to guiding hospital directors through challenging situations and providing answers to the question of how to manage our hospitals for today and tomorrow.

ADH joined EAHM in January 2006. The association was introduced to the board at Dublin Congress in 2006. By getting involved in the European community of hospital executives, ADH seeks to improve its own members' practice by referencing a variety of health management cultures, sparking off partnerships and joint experiences, and sharing views on public health issues. Accordingly it wishes for French hospital CEOs' peculiarities and values to be acknowledged on a European level.

ADH is a professional society, founded in 1961, gathering close to half of all hospital executives in France (1,200 subscribers out of 2,900 executives). Its composition is fully representative of the general body of hospital executives according to geographical, generational, and statutory criteria.

#### **ADH Members**

- 34 percent run institutions (Chief Executives, Hospital Directors of Public, General or University Hospitals

   a margin of about 3 percent run private, non- profit health institutions)
- ▶ 60 percent are adjunct directors (or Deputy Chiefs, specialised in a determined field: Budget, human resources, etc.)
- ▶ 6 percent study at EHESP, the National School of Public Health

# Missions : Advancement, Protection and Guidance

ADH is dedicated to promoting the hospital management profession, defending its rights and specificities, and devising proposals concerning healthcare policy and management.

These fundamental goals are fulfilled through various activities:

- Education or training programmes and seminars;
- Institutional and professional partnership (national and international, including bilateral foreign partnership); and
- Supporting and monitoring health policy and reforms.

The Association is ruled by a board of 40 elected Hospital CEOs, with national head-quarters based in Paris and two employees. It is led by President Fréderic BOIRON, St. Etienne University Hospital CEO.

# Network

ADH ensures respect of its members' religious, philosophical, political, and unionist beliefs. It provides many resources to the whole community of hospital directors:

- ► A national structure and district sections in each region of France;
- ▶ A proactive international programme;
- A communication system (DH database, yearly directory, Website, bimonthly review – 5000 prints); and
- Attendance at major events (national meetings - Hopital Expo, international congresses - FIH).

# **Education/Ongoing Training**

- National events: "New governance" (2004), "Change management" (2005), "Sustainable Management" (2007), "Hospital CEO in the Future" (2011);
- Regional seminars: Crisis communications, sanitary risks, strategy, work sociology; and
- Peer-coaching.

# **Collective Thinking**

Working groups, research, surveys: ADH produces useful references that help shape hospital directors' identity and role.

Job Guidelines: Professional guidelines outlining the function of hospital director, based on surveys.

National surveys: Investigation about Hospital Directors' national assessment conducted in 2006, about Hospital CEOs' appraisal of coaching in 2007, about management skills and prospective profiles in 2011.

# Partner of Public Authorities

- Helped creating a Management Institute for Hospital Directors in the National School of Public Health High Studies and is involved in a newly created Health Management Research Chair.
- ADH is involved and consults in the major public health issues e.g Avian flu State committee, National Health organisation Plan 2007-2012, Hospital Patient Health Territory 2009 Law.
- Contributes to building links with other high civil servants bodies (State, Law, Research, etc.)

More info on:

www.adh-asso.org

Contact:

permanence-adh@ch-sainte-anne.fr

# **SMPS:** THE UNION FOR PUBLIC HEALTH MANAGERS

Created in 1947 by hospital directors in charge of economic and financial management, le Syndicat National des Cadres Hospitaliers (SNCH) has progressively opened up to all hospital executives: Administrative, medical and technical.

Aware of the evolution of the healthcare sector and in particular the integration of hospitals into a global healthcare system including the social and medico-social sector, the SNCH also opened up to professions other than hospital executives. This transformation resulted in a change of name for the union: In 2010 the SNCH became SMPS, the syndicat des manageurs publics de santé (Union for Public Health Managers).

# Independent

SMPS offers the opportunity to become a member or to campaign within an independent organisation structured upon the protection of executives and managers and listening to its members.

SMPS is the only union in the healthcare sector devoted exclusively to executives and healthcare managers, the only union that is

totally independent without links to a confederation and without political affinity. It is financed exclusively by its members and its national officers are elected by members. Its values and its efficiency strengthen its representation. SMPS is the majority union for hospital directors. It gathers 50 percent of votes at professional elections, holds seats in national commissions and is consulted by the Health Minister on the texts and reforms that affect public health establishments and their personnel.

# **Values**

The values advocated by SMPS rest upon:

- 1. Its political independence, which allows it to act in freedom;
- **2.** The protection of its members in respect to ethics and statutory rights;
- **3.** The will to promote and gain recognition for the functions of managers in public health establishments;
- **4.** The association and the participation of executives and managers in decisions concerning the functioning of their establishments;
- **5.** The efficiency of the public health service: and
- **6.** The advancement of public health institutions within the health and social system adapted to the needs of the user.

# **Activities**

SMPS distinguishes itself by its sense of progress and by the link it establishes between the modernisation of the hospital and the statutory improvement of executives and managers. The recent reform of governance of healthcare establishments and the new pricing system were the occasion for SMPS to take a modern and innovative approach to administration and management. SMPS lead negotiations on the statutes of hospital directors, which led to a very important development in 2005, placing the profession in high public service.

SMPS advocates a public service that generates access to care, equal treatment for all, and adapts its methods. For SMPS, managers must continue their education throughout their entire career.

The quality of management, both individual and collective, directly determines the quality of service to patients. At the present moment SMPS is reflecting on public service management techniques and the healthcare

system. It is fighting for the reform of management and administrative tools.

The reflections encompass all domains: The status and conditions of staff duties, health-care facilities, the place and role of financiers and those elected, regulations, fields of activity, status of the establishments, etc.

SMPS is a permanent laboratory of ideas to improve public hospitals and healthcare establishments. Its members are aware that from now public services are subject to performance requirements and international comparison.

Through its actions, SMPS shows its sense of the responsibilities of health managers and their concern to defend a humanist and efficient conception of national solidarity and public health service.

More info on:

www.smpsante.fr

Contact:

contact@smpsante.fr

# **AFRADESS**

The French Association of Directors and Executives of Health, Social and Medico-Social Establishments (AFRADESS) has been bringing together executives in this sector for 25 years.

The goals of the association are:

- ▶ To meet the needs of these executives:
- To develop solidarity, belonging, professionalism and job security for its members;
- To be active in all domains affecting the management of health establishments;
- ▶ To influence associated policy;
- ► To defend the specific non-profit structures of these establishments:
- ► To establish networks in France and in Europe;
- ► To exchange methods and experiences of managing non-profit structures; and
- ▶ To organise an SOS directors plan

The specificity of AFRADESS is to maintain and active partnership with:

- SMPS, the Syndicat des Manageurs Publics de santé (previously le Syndicat National des Cadres Hospitaliers, SNCH); and
- ► ADH, the French Association of Hospital Directors.

This partnership allows for representation on a European level within the European Association of Hospital Managers (EAHM) with seats on the:

- European Affairs Subcommittee;
- Scientific Subcommittee: and
- ▶ Editorial board of the official journal of EAHM, (E)Hospital.

This active role in the European association allows AFRADESS to go beyond national boundaries in its the representation of private sector non-profit healthcare managers.

The social context of health and medical office in France is evolving with some major changes taking place including the tarification act (T2A) in health facilities and two pieces of legislation modifying the medico-social landscape:

- ► The law of 02.1.2002 reform social and medico-social action; and
- ► The law of 11.2.2005 for equal rights and opportunities, the participation and citizenship of the disabled.

These laws outlined the new management of disabled and dependents (the elderly). Another important reform was the establishment of the ARS (Regional Health Agency) responsible for establishing the Regional Health Programme (PRS) and the Regional Plan of Medical and Social Organisation (SROSMS).

This agency assures the successful management of the entire health network (ambulatory care/ hospital/disability/advanced age/prevention, etc.) in which the patient journey can go through, improving the flow of patients and optimising resources. Another important development is the call for projects to create new establishments and services for the disabled and the elderly in health and social sector.

The existence of an association such as AFRADESS, which brings together executives with knowledge and expertise in the three sectors in the domain of private non-profit organisations, is vital. The European link, through EAHM, allows the association to open up to the practices of other countries within European Union policies and the transcription of common texts in French law.

AFRADESS must therefore unite the key players in private non-profit organisations, working in partnership with the public sector on one side and commercial on the other in the interest of the people involved and the professionals in charge.

More info on: www.afradess.fr Contact: info@afradess.fr





Nikolaus Koller

# « BETTER PEOPLE, BETTER HOSPITALS »

Les entreprises commencent à réaliser que leurs salariés représentent plus qu'un simple facteur de coût. Ils sont surtout une importante ressource pourvoyeuse d'avantages concurrentiels durables. Il est donc particulièrement inquiétant de découvrir que la question de la gestion du personnel est souvent sous-estimée. Carsten Steinert, professeur de gestion du personnel à l'Université d'Osnabrück en Allemagne, estime qu'une mauvaise gestion du personnel n'est bien sou-

vent tolérée qu'aussi longtemps que la société réalise encore des bénéfices.

La perspective actuelle montre une forte tendance au transfert des fonctions du personnel ou à la sous-traitance à des sociétés extérieures. Les exigences qui pesaient sur la gestion des ressources humaines se sont considérablement modifiées dans les dernières an-

nées. Auparavant, l'accent était mis sur la connaissance de la réglementation professionnelle, sociale et collective, tandis que de nos jours une grande attention est portée à la sociologie et à la psychologie organisationnelles et aux compétences en gestion d'entreprise. Des compétences dans la gestion des conflits et la communication sont aussi des caractéristiques éminemment importantes.

Ce changement d'orientation et de connaissances requises nous montre que la gestion des ressources humaines est en train de changer d'une pratique administrative à une fonction organisationnelle, acquérant ainsi de plus en plus d'influence sur le management. Pour la gestion du personnel et, en particulier pour la formation du personnel, il est beaucoup plus important que les gestionnaires et les employés soient formés de manière adéquate par le biais de séminaires et de programmes de formation. Si une entreprise est disposée à former son personnel, elle aura un avantage concurrentiel sur les autres. Ce nu-

méro de *(E)Hospital s'*intéresse au thème de la formation du personnel : il fournit des informations sur les différentes possibilités de formation et les conséquences qui en découlent pour l'hôpital.

« Healthy Hospitals », des hôpitaux en bonne santé, est le second thème de ce numéro. « HPH » est synonyme de « Health Promoting Hospital » (que l'on pourrait traduire par « Les hôpitaux promoteurs de la

> santé »), une association impliquée dans l'amélioration structures hospitalières. Les connaissances et les compétences requises pour la santé et l'égalité des chances sont développées, évaluées et discutées par les membres de l'HPH. Dans cet article, il est question des projets et des activités des directeurs d'hôpitaux, ainsi que de leurs objectifs

dans le domaine de la promotion de la santé dans leurs structures hospitalières. Ces hôpitaux sont aussi des hôpitaux verts. Ils sont certes nouvellement conçus, mais de plus ils ont été conçus pour utiliser les énergies renouvelables, améliorer la productivité des employés et la réduction des déchets, occasionnant ainsi moins de pollution et de problèmes de gestion des ressources dans le système de santé.

Notre « country focus » ce mois-ci s'intéresse à la France. Le système de santé français a été classifié par l'OMS en l'an 2000 comme l'un des meilleurs systèmes de santé dans le monde. La politique de santé est en France sous la supervision de l'État. Grâce à son offre de soins médicaux et à ses programmes de prévention, elle participe à l'amélioration de la santé de ses citoyens. Des changements majeurs dans l'organisation des soins de santé viennent d'être engagés.

#### Nikolaus Koller

Président du comité de rédaction



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# UNE CONFÉRENCE RÉGIONALE DE DIRECTEURS D'HÔPITAUX SUR LA GESTION STRATÉGIQUE ET LES TECHNOLOGIES DE L'INFORMATION ET DE LA COMMUNICATION

Les technologies de l'information et de la communication (TIC) sont entrées dans de nombreux domaines de notre société et représentent un formidable potentiel au service des citoyens et des entreprises, des patients et des établissements de santé. Les avantages sont, par exemple, une augmentation du travail en réseau, l'autonomisation et la participation des individus et des entreprises, et une utilisation plus importante des informations.

Mais les défis, en ce qui concerne les soins de santé, sont colossaux. Des valeurs telles que l'universalité, un accès à des soins de qualité, l'équité et la solidarité ont été identifiées comme les valeurs les plus déterminantes pour les services de santé dans l'Union européenne et de nombreux hôpitaux ont fait beaucoup

d'efforts pour intégrer ces nouveaux défis dans une stratégie. La traduction de la stratégie de l'hôpital dans un « master plan IT » est une étape décisive pour la réussite du déploiement de solutions informatiques dans un hôpital. Un directeur d'hôpital ne peut pas rester passif : il a, à ce niveau-là, un rôle crucial à jouer.

En attendant, l'industrie informatique a développé de nombreuses solutions afin de prêter main forte aux hôpitaux. Les hôpitaux les ont adaptées de multiples façons, ils ont même parfois réussi à les intégrer. On assiste à une demande croissante d'aménagement du paysage informatique au sein de l'hôpital, que ce soit pour des objectifs généraux ou ceux plus stratégiques d'un hôpital.

L'AEDH a organisé une rencontre de directeurs d'hôpitaux autour de ce

thème. La conférence régionale des directeurs d'hôpitaux dure deux jours. Une attention particulière y sera donnée au rôle du directeur dans le développement d'une stratégie informatique qui découle à la fois de la stratégie de l'hôpital et de la mise en œuvre d'un « master plan IT ».

Après le séminaire pour nos collègues de langue allemande à Vienne les 15 et 16 septembre, nos collègues d'Europe de l'Est seront accueillis à la conférence « Achievements of Healthcare Institutions in Optimizing Management of Information Technologies » organisée par le « Lithuanian Union of Healthcare Managers » et l'AEDH les 12 et 13 octobre prochains à Vilnius, en Lituanie.

Pour plus d'informations :

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# PREMIÈRE « JOINT EUROPEAN HOSPITAL CONFERENCE »

Le 18 Novembre 2011, la « European Hospital and Healthcare Federation » (HOPE), l'Association Européenne des Directeurs d'Hôpitaux (AEDH) et l'Association européenne des praticiens hospitaliers (Association of European Hospital Physicians, AEMH) organisent la première « Joint European Hospital Conference » (EHC).

Dans la matinée, M. Mars Di Bartolomeo, ministre de la Santé et des Affaires sociales du Luxembourg nous parlera des politiques de santé européennes actuelles. Cette présentation sera suivie par l'échange des points de vue des différentes associations que sont HOPE, l'AEDH, et l'AEMH.

Étant donné l'importance de cette nouvelle législation pour l'avenir des

soins de santé en Europe, l'après-midi est consacrée à la directive européenne sur les droits des patients et son impact sur les hôpitaux. Des intervenants venant de l'Europe entière sont attendus pour partager leurs différents points de vue et perspectives.

Pour plus d'informations :

www.medica.de/EHC2



# **SAVE THE DATE**

### 12-13 October 2011:

« Achievements of Healthcare Institutions in Optimising Management of Information Technologies » / Vilnius (Lithuanie)

# 18 November 2011:

Joint European Hospital Conference / Dusseldorf (Allemagne)



# La formation du personnel, une activité importante pour les gestionnaires hospitaliers Par Josef Hradsky

On ne peut que déplorer le manque de personnel qualifié au sein des professionnels de la santé dans de nombreux pays européens. Parmi les nombreuses activités que peut assurer la gestion des ressources humaines, celle très particulière qui concerne le perfectionnement du personnel s'attache à former du personnel qualifié et, sur un plus long terme, à le motiver, tout en tenant compte des capacités de chacun.

L'exemple du « Wiener Krankenanstaltenverbundes », à Vienne, est significatif : cet hôpital prend et applique des mesures pour la formation du personnel. En se référant à des spécifications de base, ils ont élaboré un concept à partir duquel des formations initiales, des cours pour les gestionnaires et des programmes qui concernent tous les catégories de personnel peuvent être proposés. Il est particulièrement important ici que les objectifs recherchés et les buts à atteindre soient précisés au cours des séances d'orientation avec l'employé, qu'ils soient déterminés avant et vérifiés en fin de formation.

La formation du personnel — décidée de façon structurée et mené avec détermination — est aussi intéressante pour l'hôpital que pour les employés, mais c'est surtout au bien-être des patients qu'elle profite. Elle est donc une des fonctions les plus importantes qui soit attribuée à la gestion des ressources humaines d'un hôpital.



# « Acute Hospital Staff Counselling Services » : La récession et la réglementation apportent de nouveaux défis aux services d'assistance au personnel des services d'urgence Par Pauline King

L'importance d'une consultation individuelle en milieu de travail est reconnue depuis longtemps par les gestionnaires hospitaliers. Une nouvelle recherche suggère toutefois que l'adoption par les conseillers d'une approche plus large, à l'échelle organisationnelle, pourrait procurer des avantages supplémentaires dans les moments difficiles. Le « Beaumont Hospital », à Dublin, présente la dynamique interne habituelle que l'on peut retrouver dans chaque grand hôpital, c'est à dire une extrême concurrence entre les différentes disciplines et les divers départements pour l'attribution des ressources. Une étude a montré que la combinaison actuelle de nouvelles difficultés budgétaires qui découlent de la récession économique et des exigences d'une réglementation toujours plus exigeante a considérablement élevé les pressions habituelles.

Un des objectifs principaux de l'étude était d'identifier les moyens qu'avait le Service d'assistance au personnel de l'Hôpital Beau-

mont (« Staff Counselling Service », SCS) afin de concourir à l'innovation et de répondre à ces nouveaux défis.

Les participants supposaient que le Service d'assistance au personnel devrait pouvoir jouer un rôle plus important de soutien à la gestion des changements et fournir un espace de réflexion qui permettrait d'épauler le travail de la direction. Ils ont également estimé bénéfique que ses expertises soient directement données à la direction générale et relevé son aptitude à soutenir les initiatives de changement grâce à, d'une part, son travail sur les problèmes systémiques, et d'autre part son lien direct avec la direction de l'hôpital.



# Le coût financier des remplacements : la perspective d'un hôpital régional

Par Paul Dhillon, Andrew W Murphy, Fergal Cummins

L'Irlande assiste actuellement à une augmentation des coûts relatifs à l'organisation de la couverture des remplacements du personnel hospitalier. La situation est peu susceptible de changer dans le futur immédiat et cette étude examine les coûts financiers de base pour les hôpitaux. Les coûts qui incombent aux hôpitaux pour l'emploi de médecins remplaçants ont doublé dans la dernière décennie alors que l'on considère que les remplaçants fournissent 5 % des effectifs totaux.

Les résultats de l'étude montrent donc une augmentation des coûts pour l'emploi de médecins suppléants mais ils indiquent également que la rémunération nette de ces médecins est plus importante, en raison de certaines primes, que celle des médecins en poste, ce qui en fait une option attractive pour les médecins. D'autres aspects de l'organisation des remplacements sont envisagés, dont notamment le travail administratif supplémentaire engendré par l'organisation et qui n'avait pas été pris en considération précédemment.

S'il est clair que les salaires des médecins remplaçants sont sensiblement plus importants que ceux de leurs confrères non remplaçants, cette alternative pourrait, dans la situation économique actuelle, continuer à attirer davantage de médecins à la recherche, à court terme, d'un échappatoire au système de formation et de rémunération qui leur permettrait de réintégrer plus tard le système de formation, en Irlande ou ailleurs.



# Des hôpitaux promoteurs de la santé

Jürgen M. Pelikan, Hermann Schmied

Il y a de nombreux et très divers avantages à l'intégration de la prévention en matière de santé dans la routine quotidienne d'un hôpital. Les avantages des programmes et des stratégies de prévention de la santé sont pour les patients l'amélioration de la santé, une meilleure qualité de vie et plus de satisfaction en ce qui concerne le traitement et les soins. Par la suite, cela permettra d'améliorer l'efficacité, l'efficience et ainsi la réputation des services hospitaliers.

Le personnel quant à lui bénéficie de lieux de travail où les tensions et les contraintes sont réduites et l'équilibre effort contre récompense s'en trouve ainsi largement amélioré. Ceci est d'autant plus important que le défi majeur que pose une main-d'œuvre hospitalière vieillissante est de trouver les mesures les plus favorables au maintien de la capacité de travail des employés.

Pour les collectivités, les besoins de santé de la population seront mieux satisfaits par un hôpital promoteurs de la santé (« Health Promoting Hospitals », HPH) car il considère que cela fait partie de sa mission et il a la possibilité de s'investir aussi dans des actions communautaires. Par conséquent, pour la direction d'un hôpital, l'HPH est une réponse possible aux attentes changeantes et croissantes des patients et de leurs proches, des employés, des populations, des politiques de santé ou de l'administration et pour le public du marché de la santé en général, celui-ci devenant un plus en plus concurrentiel.



# Les hôpitaux verts : une libéralité à la mode écologique ou un concept durable pour l'avenir ? Par Jürgen Zimmermann

Il est maintenant possible de concevoir des bâtiments de santé à la fois durables et économiquement intéressants, ceci à un coût raisonnable. Lors de l'évaluation de la durabilité des bâtiments, il est également important de considérer les facteurs de protection de la santé des utilisateurs du futur bâtiment, l'amélioration de la productivité des employés, la réduction des déchets, de la pollution environnementale, ainsi que l'utilisation des ressources.

Les bâtiments de santé durables sont caractérisés par une planification orientée vers l'avenir et adaptée aux besoins spécifiques afin de tenir compte des exigences de plusieurs générations. La flexibilité des structures du pôle de gestion lui permet d'être efficace, agencé selon les besoins, ce qui assure une optimisation du travail et des flux de travail. Les membres du personnel jouissent d'un meilleur environnement de travail et les patients d'un environnement plus confortable pour leur bien-être et leur convalescence de concepts d'éclairage et de ventilation intelligents, d'une réduction des facteurs de stress environnementaux, de déplacements sans contrainte, et d'un contact avec la nature qui ne sont que certains des facteurs qui y contribuent.



# Améliorer la chambre du patient

Par Pernille Weiss Terkildsen, Jeanet Lemche

Un grand nombre d'hôpitaux se sont organisés en construisant une majeure partie de chambres individuelles plutôt qu'à plusieurs lits. Mais quelles sont les motivations qui sont à la base de cette décision ? S'agit-il de connaissances scienti-

fiques et factuelles, d'exigences politiques, économiques, organisationnelles ou bien culturelles ? À partir des résultats disponibles de la connaissance factuelle, nous constatons que des sujets comme la vie privée et la dignité des patients, la satisfaction du patient, la communication, le bruit et la qualité du sommeil, la lumière et l'air, le traitement et les soins, les infections nosocomiales, la sécurité des patients, le « taux de récupération » des patients et la longueur d'hospitalisation sont plus présents dans la discussion actuelle.

Bien qu'il existe des avantages et des inconvénients aux deux types de chambre, l'étude recommande que les services prévoient essentiellement des chambres individuelles mais qu'ils envisagent aussi des chambres à plusieurs lits afin de répondre au désir des patients qui ont besoin de plus de contact. On constate un manque de recherche sur l'aménagement de la chambre du patient concernant plus particulièrement la récupération de groupes de patients déterminés, mais la demande est devenue de plus en plus fréquente depuis que l'on a entrepris de concevoir l'hôpital autour des besoins du patient.



# La santé en France



En France, il est de la responsabilité de l'État, des caisses d'assurance maladie et des autorités régionales et locales de définir la politique de santé et de réglementer le système de santé. Les hôpitaux sont publics, privés à but non lucratif, ou privés à but lucratif. Les patients sont toujours libres de choisir leur hôpital et ils bénéficient approximativement de la même couverture par l'assurance maladie.

Les hôpitaux publics et privés réunis emploient plus d'un million de personnes, 80 % d'entre eux dans les hôpitaux publics. Près de 14 % de ces employés sont membres du personnel médical. Le travail à temps partiel est en augmentation et concerne, par exemple, 20 % du personnel non médical dans ces mêmes hôpitaux publics.





Nikolaus Koller

# "BETTER PEOPLE, BETTER HOSPITALS"

In Unternehmungen setzt sich zunehmend die Auffassung durch, dass die Mitarbeiter nicht nur einen Kostenfaktor, sondern eine wichtige Ressource und Quelle nachhaltiger Wettbewerbsvorteile darstellen. Umso beunruhigender ist es zu wissen, dass in der heutigen Zeit das Thema Personalführung klar unterschätzt wird. So wird schlechte Personalführung toleriert, sofern das operative Ergebnis des Unternehmens stimme, sagte Carsten Steinert, Professor für Personalmanagement an der Hochschule Osnabrück, der Deutschen Presse-Agentur.

Ein Blick auf die zeitlichen Perspektiven lässt erkennen, dass ein stärkerer Trend zur Übertragung von Personalaufgaben an die direkten Führungskräfte sowie zur Auslagerung an externe Unternehmungen (outsourcing) zu beobachten ist. Auch die Anforderungen an das Personalmanagement haben sich im Laufe der Zeit stark verändert. Während früher vor

allem Kenntnisse des Arbeits-, Sozial- und Tarifrechts im Vordergrund standen, gewinnen Kenntnisse der Organisationssoziologie und —psychologie sowie betriebswirtschaftliche Kenntnisse an Bedeutung. Konflikt- und Kommunikationsfähigkeiten stellen ein weiteres wichtiges Anforderungsmerkmal dar.

Das Personalmanagement wird dementsprechend von einer Verwaltungs- zu einer Gestaltungsaufgabe, die immer mehr auch die Unternehmensleitung betrifft. Umso wichtiger ist es für das Personalmanagement und im Besonderen für die Personalentwicklung, dass Führungskräfte und Mitarbeiter ausreichend über Seminare und Entwicklungsprogramme fortgebildet werden. Unternehmen erhalten einen kompetitiven Vorteil gegenüber andere Organisationen, wenn sie gewillt

sind Mitarbeitern für Aus- und Weiterbildungen zu gewinnen. Diese Ausgabe von (E)Hospital beschäftigt sich mit dem Thema der Personalentwicklung und gibt Aufschlüsse über Möglichkeiten und Auswirkungen verstärkter Weiterbildungsmaßnahmen.

# **Healthy Hospitals**

HPH steht für Health Promoting Hospital und ist maßgeblich an der Verbesserung der Krankenhausstruktur beteiligt. Kenntnisse und Kompetenzen für die Ge-

> sundheit und Chancengleichheit werden von den Mitgliedern der HPH entwickelt, evaluiert und diskutiert. In dieser Ausgabe wird über Visionen und Aktivitäten von Krankenhausmanagern und deren Ziele im Bereich der Gesundheitsförderung in Krankenhäusern diskutiert.

Des Weiteren wird im Abschnitt "Green Hospital" nicht nur über neu designte

Krankenhäuser sondern auch über erneuerbare Energien, Mitarbeiterproduktivität, Abfallvermeidung, Verunreinigung sowie Themen des Ressourcenmanagements im Gesundheitssystem berichtet.

"The country focus" dieser Ausgabe (E)Hospital liegt bei Frankreich. Das französische Gesundheitssystem wurde 2000 von der WHO als eines der weltweit besten Systeme eingestuft. Die Gesundheitspolitik in Frankreich, die unter Aufsicht des Staates betrieben wird, soll mit ihrem Angebot an medizinischer Versorgung und ihren Präventionsprogrammen die Gesundheit der Bürger erhalten und verbessern.

#### Nikolaus Koller

Präsident des Redaktionsbeirat



Leitartikel in *(E)Hospital* werden von Führungspersönlichkeiten der EVKD verfasst. Die hier veröffentlichten Beiträge geben dennoch ausschließlich die Meinung der Autoren wieder und sind nicht als offizielle Stellungnahme der EVKD zu werten.



# REGIONALE CEO-KONFERENZ ÜBER STRATEGISCHES MANAGEMENT UND ICT

Die Informations- und Kommunikationstechnologie hat in viele Bereiche unserer Gesellschaft Einzug gehalten. Damit verbunden ist ein enormes Potential zum Vorteil von Bürgern und Unternehmen, Patienten und Gesundheitseinrichtungen. Beispiele dieser Vorteile sind etwa das verbesserte Netzwerken, Ermächtigung und Teilnahme von Bürgern und Interessensvertretern, verbesserter Informationseinsatz...

Doch die Herausforderungen im Gesundheitsbereich sind ebenfalls enorm. Werte wie Universalität, Zugang zu qualitativ hochwertiger Betreuung, Fairness und Solidarität gelten als entscheidend für die Gesundheitsdienste in der Europäischen Union, und viele Krankenhäuser sind bestrebt, diese Herausforderungen in eine Strategie umzusetzen. Ein ausschlaggebender Schritt für den erfolgreichen Einsatz von IT-Lösungen

in einem Krankenhaus ist die Übersetzung der Krankenhausstrategie in einen IT-Masterplan. Der Krankenhausdirektor darf hier nicht passiv bleiben, sondern muss die entscheidende Rolle in dieser Angelegenheit übernehmen.

In der Zwischenzeit hat die IT-Industrie vielfältige Lösungen für die unterschiedlichsten Herausforderungen entwickelt, denen Krankenhäuser heute gegenüberstehen. Krankenhäuser haben diese Lösungen in unterschiedlicher Weise eingeführt oder integriert. Es gibt eine steigende Nachfrage dafür, die IT-Landschaft innerhalb des Krankenhauses an den allgemeinen Zielen und der Strategie des Hauses auszurichten.

Die EVKD und ihre Mitgliedsverbände führen Krankenhausmanager für einen zweitägigen Event zusammen, um dieses Thema zu diskutieren. Im Fokus stehen dabei die Rolle des Krankenhausvorstands bei der Erstellung einer IT-Strategie innerhalb der Krankenhausstrategie und die Implementierung eines IT-Masterplans.

Nach dem Seminar für unsere deutschsprachigen Kollegen in Wien (15.–16. September) sind unsere osteuropäischen Kollegen an der Reihe: Sie sind herzlich willkommen auf der Konferenz "Achievements of Healthcare Institutions in Optimizing Management of Information Technologies", welche vom Lithauischen Verband der Gesundheitsmanager (Lithuanian Union of Healthcare Managers) und der EVKD vom 12.–13. Oktober in Vilnius (Litauen) organisiert wird.

Mehr Information unter:

www.medliet.eu/en

# ERSTE GEMEINSAME EUROPEAN HOSPITAL CONFERENCE

Am 18. November 2011 wird die erste gemeinsame European Hospital Conference (EHC) stattfinden, organisiert von der "European Hospital and Healthcare Federation" (HOPE), der "European Association of Hospital Managers" (EAHM) und der "Association of European Hospital Physicians" (AEMH). Am Vormittag wird Hr. Mars Di Bartolo-

meo, Minister für Gesundheit und Soziale Angelegenheiten, Luxemburg, einen Vortrag über die aktuelle Europäische Gesundheitspolitik halten, gefolgt von Kommentaren aus der Sicht von HOPE, EVKD und AEMH.

Angesichts der Bedeutung dieser neuen Gesetzgebung für die Zukunft der Gesundheitsversorgung in Europa ist der Nachmittag der EU-Direktive über Patientenrechte und deren Auswirkung auf Krankenhäuser gewidmet. Sprecher aus ganz Europa werden die Angelegenheit aus ihrer Sicht beleuchten.

Mehr Information unter:

www.medica.de/EHC2



# SAVE THE DATE

# October 12-13, 2011:

"Achievements of Healthcare Institutions in Optimising Management of Information Technologies" Vilnius (Lithuania)

# November 18, 2011:

Joint European Hospital Conference / Dusseldorf (Germany)





# Personalentwicklung- Eine Wichtige Aufgabe Des Krankenhausmangements

Von Josef Hradsky

Der Mangel an qualifizierten Mitarbeitern in den Gesundheitsberufen wird auch in vielen Ländern Europas immer spürbarer. Neben vielen anderen Maßnahmen kann das Personalmanagement, und hier vor allem eine zielgerichtete Personalentwicklung, einen wesentlichen Beitrag leisten, um qualifizierte Mitarbeiter heranzubilden, dauerhaft zu motivieren und ihren Fähigkeiten entsprechend einzusetzen.

Am Beispiel des Wiener Krankenanstaltenverbundes werden der Aufbau und die Durchführung von Maßnahmen der Personalentwicklung dargestellt. Von grundsätzlichen Festlegungen im Leitbild ausgehend werden Grundausbildungen, Ausbildungen von Führungskräften, sowie Programme für alle Mitarbeitergruppen angeboten. Besonders wichtig hierbei ist, dass die zu erreichende Ziele und deren tatsächliche Erreichung durch vor- und nachher geführte Mitarbeiterorientierungsgespräche festgelegt bzw. überprüft werden.

Personalentwicklung – strukturiert aufgebaut und zielstrebig durchgeführt – rechnet sich sowohl für das Krankenhaus und für die Mitarbeiter, vor allem aber auch für die Patienten. Sie ist daher eine ganz wesentliche Aufgabe des Krankenhausmanagements!



# Neue Herausforderungen für Beratungsdienste im Akut-Krankenhausbereich aufgrund von Rezession und Regulierungen

Von Pauline King

Beratungen am Arbeitsplatz wirken sich positiv auf Arbeitnehmer aus. Diese Tatsache wird schon seit langem von Managern im Akut-Krankenhausbereich anerkannt. Neue Forschungsergebnisse weisen jedoch darauf hin, dass die Implementierung eines weiter gefassten Ansatzes durch Berater in schwierigen Zeiten einen zusätzlichen Vorteil erbringen kann. Das Beaumont Hospital in Dublin, Irland, weist die für ein größeres Krankenhaus typischen internen Dynamiken auf, einschließlich des harten Kampfes um Ressourcen zwischen den verschiedenen Fachrichtungen und Abteilungen. Eine Studie hat gezeigt, dass die einzigartige Kombination aus neuen budgetären Herausforderungen aufgrund der wirtschaftlichen Rezession einerseits und Forderungen einer immer stärkeren Regulierung andrerseits die normalen Belastungen zusätzlich verschärft. Ein Hauptziel der Studie war die Identifizierung von Möglichkeiten, wie sich die Beratungsstelle für Mitarbeiter (Staff Counselling Service, SCS) am Beaumont Hospital weiterentwickeln könnte, um diesen neuen Herausforderungen zu entsprechen. Die Teilnehmer gaben an, dass das SCS bei der Unterstützung von Änderungsbestrebungen des Managements eine größere Rolle spielen könnte. Auch sollte das SCS dem Management mehr Raum für zur Selbstanalyse bieten. Als weiterer positiver Wert des SCS wurde die direkte Berichterstattung an die Krankenhausleitung angegeben, ebenso wie das Potential des SCS, Initiativen zur Veränderungen zu unterstützen, systemische Probleme anzusprechen und eine direkte Verbindung zur Krankenhausleitung aufzuweisen.



# Die finanziellen Belastungen aufgrund von Stellvertretern: Eine regionale Krankenhaus-Perspektive

Von Paul Dhillon, Andrew W Murphy, Fergal Cummins

Krankenhäuser in Irland sind zunehmend gezwungen, Stellvertreter-Ärzte (Locum-Ärzte) zu organisieren, höhere Kosten sind die Folge. Die Situation wird sich in der unmittelbaren Zukunft eher nicht ändern. Die vorliegende Studie untersucht die grundlegenden finanziellen Belastungen für Krankenhäuser. Die Kosten für Krankenhäuser für die Anstellung von Locum-Ärzten hat sich in Irland im letzten Jahrzehnt verdoppelt, wobei Locum-Ärzte mittlerweile fünf Prozent der Gesamtzahl der Belegschaft darstellen.

Ergebnisse der Studie zeigen die höheren Kosten für die Anstellung von Locum-Ärzten auf und weisen zudem darauf hin, dass diese Locum-Ärzte nach Steuerabzügen mehr Geld erhalten, aufgrund bestimmter Anreize, die geschaffen wurden, um diese Option attraktiver zu gestalten. Andere Kostenaspekte sind etwa der erhöhte administrative Aufwand aufgrund der Organisation – diese Kosten sind bislang nicht kalkuliert worden.

Es ist klar, dass Krankenhausärzte in Ausbildung ihre potentiellen Einkünfte durch Arbeiten als Locum-Arzt stark verbessern können. In der derzeitigen wirtschaftlichen Lage wird das Arbeiten als Locum-Arzt wahrscheinlich noch mehr Ärzte anziehen, die kurzfristig aus dem derzeitigen System der Ausbildung und Entlohnung aussteigen möchten, bevor sie in Irland oder im Ausland wieder ihre Ausbildung aufnehmen.



# Gesundheitsfördernde Krankenhäuser - Health Promoting Hospitals (HPH)

Von Jürgen M. Pelikan, Hermann Schmied

Innerhalb eines Krankenhauses erwarten sich die verschiedenen Interessensgruppen unterschiedliche Vorteile von der Integrierung der Gesundheitsförderung in die tägliche Routine des Betriebes.

Patienten profitieren von Programmen zur Gesundheitsförderung: Der Allgemeinzustand verbessert sich, ebenso die Lebensqualität und die Zufriedenheit mit Behandlung und Betreuung. Dies führt in weiterer Folge zu verbesserter Effektivität, Wirksamkeit und Ansehen der Krankenhausdienste.

Das Personal profitiert von Arbeitsplätzen mit weniger Stress und Belastungen und einem verbesserten Ausgleich zwischen Aufwand und Belohnung. Dies ist umso wichtiger, als ein alterndes Krankenhauspersonal zeitnahe Maßnahmen erfordert, um die Arbeitsfähigkeit der Angestellten zu erhalten.

Für die Allgemeinheit können Erfordernisse der Bevölkerung im Gesundheitsbereich besser durch HPH erfüllt werden, die dies als Teil ihres Auftrags sehen und sich auch bei Aktivitäten in der jeweiligen Gemeinde aktiv beteiligen. Für das Krankenhausmanagement stellen HPH daher eine mögliche Antwort dar auf die steigenden und sich konstant verändernden Erwartungen von Patienten und Angehörigen, Angestellten, Gemeinden, der Gesundheitspolitik, des Gesundheitswesens und der Öffentlichkeit in einem Gesundheitsmarkt, der zunehmend von Wettbewerb geprägt ist.



# "Grüne" Krankenhäuser: ökologischer Trend oder nachhaltiges Konzept für die Zukunft?

Von Jürgen Zimmermann

Es ist heutzutage möglich, Gebäude des Gesundheitsbereichs gleichzeitig ökonomisch und nachhaltig zu bauen. Bei Einstufung der Nachhaltigkeit eines Gebäudes müssen folgende Faktoren berücksichtigt werden: Gesundheitsschutz der Endverbraucher des Gebäudes, Verbesserung der Produktivität der Angestellten, Abfallverminderung, Umweltverschmutzung und Gebrauch von Ressourcen.

Nachhaltige Gesundheits-Gebäude zeichnen sich durch ihre zukunftsorientierte Planung aus, sie sind für bestimmte Anforderungen maßgeschneidert und ziehen auch die Bedürfnisse nachfolgender Generationen in Betracht. Flexible Strukturen ermöglichen ein effizientes, nachfrageorientiertes Management, womit die Arbeitsprozesse flüssiger ablaufen können. Mitarbeiter genießen ein besseres Arbeitsumfeld und die Patienten ein komfortableres Umfeld für ihre Erholung und Rekonvaleszenz. Intelligente Licht- und Ventilierungsabläufe, die Verminderungen umweltbedingter Belastungen, eine barrierefreie Mobilität und die Verbindung zur Natur sind nur einige der dazu beitragenden Faktoren.



# **Das Patientenzimmer: Raum für Verbesserung** Von Pernille Weiss Terkildsen, Jeanet Lemche

Eine steigende Anzahl von Krankenhäusern wird überwiegend mit Einzelzimmern anstelle von Mehrpatienten-Zimmern ausgestattet. Es ist jedoch unklar, in welchem Ausmaß diese Entscheidungen auf wissenschaftlichen, Evidenz-basierten Ergebnissen beruhen, oder ob sie eher auf politischen, wirtschaftlichen, organisatorischen oder kulturellen Bedürfnissen aufbauen. Aufgrund der verfügbaren Evidenz-basierten Daten sind die am stärksten in die derzeitige Diskussion eingebauten Themen die folgenden: Privatsphäre, Würde des Patienten, Patientenzufriedenheit, Kommunikation, Geräuschbelastung, Schlafqualität, Licht und Luft, Behandlung und Betreuung, nosokomiale In-

fektionen, Patientensicherheit, "Gesundungsrate" der Patienten und stationäre Aufnahme.

Während es für beide Zimmertypen Vor- und Nachteile gibt, empfiehlt die Studie, Patientenabteilungen großteils mit Einzelzimmern auszustatten, jedoch auch einige Mehrbettzimmer zur Verfügung zu stellen, so dass die Abteilung auf die Wünsche oder Bedürfnisse von Patienten eingehen kann, die mehr sozialen Kontakt brauchen oder dies wünschen. Es liegen derzeit nur wenig Forschungsdaten vor bezüglich der Beziehung zwischen Zimmertyp und Rehabilitierungsrate individueller Patientengruppen, doch wird auf diesem Bereich mehr und mehr geforscht, in dem Maße, in dem sich Krankenhäuser vermehrt den Bedürfnissen der Patienten anpassen.



# Frankreich



In Frankreich teilen sich der Staat, die gesetzliche Krankenversicherung und die subregionalen und örtlichen Behörden die Verantwortung für die Definierung der Gesundheitspolitik und die Regulierung des Gesundheitssystems. Krankenhäuser in Frankreich sind entweder öffentlich oder privat, wobei die privaten Häuser entweder gewinnorientiert oder nicht-gewinnorientiert sein können. In jedem Fall steht es den Patienten frei, sich für ein bestimmtes Krankenhaus zu entscheiden. Sie erhalten – mehr oder weniger – dieselbe Abdeckung durch die Sozialversicherung.

Die Krankenhäuser – sowohl öffentlich als auch privat – beschäftigen mehr als eine Million Menschen, davon 80 Prozent in öffentlichen Krankenhäusern. 14 Prozent dieser Angestellten gehören dem medizinischen Personal an. Die Teilzeitarbeit ist im Ansteigen begriffen und betrifft etwa 20 Prozent des nicht-medizinischen Personals in öffentlichen Krankenhäusern.

# AGENDA 2011

October
ESICM
Global E-Health Forum – Designing Personalized Healthcare
Achievements of Healthcare Institutions in Optimising Management of Information Technologies
10th European Healthcare Congress
The Lancet / ESCMID Conference on Healthcare- Associated Infections and Antimicrobial Resistance
JFR
Health 2.0 Europe 2011

# EAHM EVENTS COMING SOON



October 12–13, 2011 / Vilnius (Lithuania)

"Achievements of Healthcare Institutions in Optimising Management of Information Technologies"

November 18, 2011 / Düsseldorf, Germany

First Joint European Hospital Conference

September 27-28, 2012 / Athens, Greece

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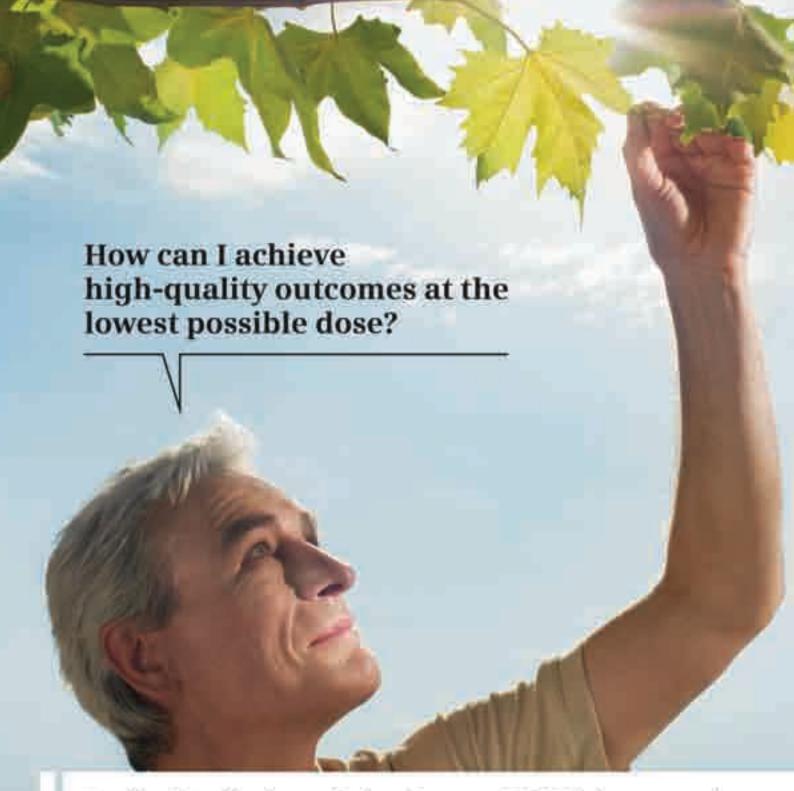
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