EuHPN European Health Property Network

European Health Property Network Newsletter

August 2015

In this edition of the EuHPN newsletter:

EuHPN Workshop 2015: 16 – 18 November, Brussels

Are We Getting Better?
Evaluating Changes to Europe's Health Care Facilities: Methods, Tools and Case Studies

Europe's healthcare buildings have to change and improve. The pressures of designing strategies to anticipate changing health needs and to make better use of scarce financial resources have driven technological innovation, new methodologies in planning, designing and restructuring hospitals facilities, and sophisticated tools to model the future of healthcare systems.

As these changes gather pace, the 2015 EuHPN workshop proposes a complementary and necessary exercise: **Evaluation.** Its aim is to tackle a simple but essential question: are we getting better at creating the right environments for patients? And further: which of our strategies, methodologies

and tools are really successful in linking health facility design with health and healthcare need? How should we judge the success – or otherwise – of the infrastructure of health?

To answer these and other questions, this year's EuHPN workshop will be structured around a number of topics linked to the overall Evaluation theme. We are inviting a mix of top quality speakers to engage with participants from a wide range of health care infrastructure backgrounds to explore this topic in depth. Through two days of plenary sessions and interactive debate we will be concentrating on finding practical value in evaluation: learning from the past, understanding how to assess and use evidence and scenario-building for the future, through a series of linked sessions on:

- Evaluation and the Patient Voice
- Strategic asset planning: barriers and enablers, and how to judge progress
- Evaluating design
- New technologies
- Healthcare infrastructure policy and sustainability
- Evaluation: the benefits and the limitations

In addition to the plenary sessions held on 16 and 17 November, EuHPN is planning a morning tour, on 18 November, of recently some notable Flemish hospitals.

Please read on for a brief description of each session, information about the venue and details of how to attend the 2015 workshop.

Evaluation and the Patient Voice

Studies and declarations by policy makers stress the importance of patient engagement and mobilisation as important contributions to the quality of the services delivered in healthcare environments. Many healthcare organisations make public the evaluations and feedback received from patients, and new ways of obtaining and analysing these data are continuously evolving. Given the importance of the patient voice, the workshop will start by asking questions about how patient representatives can be full partners in decisions about healthcare infrastructure, and how we can effectively measure and use patient satisfaction data.

Strategic asset planning: barriers and enablers, and how to judge progress

Strategic asset planning is one of the most important methodologies introduced in the healthcare management. Classic methods and specific interpretations have produced a large variety of possible case studies. In this session the validity of the approach will be examined especially through the difficulties, the barriers

that it has encountered. Some case study will be examined in order to highlight the key factors for a correct use of its principles.

Evaluating design

This session will focus on the practicalities, and the challenges, of evaluating healthcare architecture and design. Are we asking the right questions of the right people, at all stages of the design process? How good are we at interpreting, and learning from, the results of design evaluations? How should we choose among the many tools and methods available? What possibilities are there for bringing together design evaluation tools and methods so that they become more comprehensive? And how will design evaluation evolve in the future?

New technologies

We can already see the impact of emerging technologies on the fabric of healthcare, from the emergence of Building Information Modelling as the planning and design tool of choice for estates professionals, through to personal smartphone apps which make virtual medical consultations a reality. But this is just the start: many commentators predict a revolution in citizen access to healthcare interactions as new technologies mature, and as they become main stream and accessible to wider society.

This session will take a critical look at the successes and failures to date of the technologies which are predicted to change the face of healthcare, and will offer thoughts on which technologies may be the most influential in the future from the point of view of healthcare facility planning and design.

Healthcare infrastructure policy and sustainability

Healthcare is progressively seen an aspect of society that doesn't belong only to hospitals and healthcare organisations. The nature of community infrastructure is becoming a higher priority, particularly where this concerns the integration of social and health issues, continuity of care and prevention. Truly sustainable environments are now seen as necessary for human wellbeing, but do we have examples of policies, that have transferred those needs from declarations into actions? The healthcare sector has great potentialities to contribute in the domain of sustainability, but is this sufficiently understood and evaluated?

Evaluation: the benefits and the limitations

We invest a lot of resources in trying to know what works, and what doesn't work – but is this always worthwhile? How good is Evaluation Science at dealing with the highly complex and inter-related world of health and healthcare? Can we trust the results, and if so, to what extent are policy makers and society are ready to absorb the requests for changes and willing to devote resources to the

monitoring of the results? How can we spread the lessons from evaluations, so that learning extends beyond a small group of professionals to a wider audience that includes clinicians, managers, patients and the public?

This session will reflect on the case studies and projects discussed throughout the workshop and draw some conclusions about the future direction of evaluation.

Who should attend?

The strength of EuHPN as a network, and of the annual workshop as an event, lies in the mix of participants and speakers, who come from a wide variety of backgrounds in the built environment. The following list is an indication of the professional settings of participants at recent events:

- Patient representatives
- Health system planners
- Hospital Directors
- Health Facility Managers
- Clinicians with interests in the built environment
- Healthcare architects
- Policy makers
- Academics
- Urban planners
- Health geographers
- Healthcare capital investment experts

As this year's workshop takes place in Brussels, we will particularly welcome participants from EU agencies and representatives of European networks and national governments.

Sponsors

EuHPN has received generous sponsorship for previous annual workshops from a variety of commercial and public sector organisations. These have included government health estates departments, international and national construction, engineering and medical technology companies, consultancies and healthcare architecture practices.

We welcome interest from sponsors who can contribute to the workshop's finances, or who can offer in-kind services. Sponsors are fully acknowledged in the final workshop programme, on the EuHPN website, in advance publicity materials and in outputs from the event. EuHPN will provide space for sponsor stalls and publicity materials, and can offer packages that allow sponsors to support a particular part of the workshop, such as the official dinner, a drinks

reception or a study tour. In some cases sponsors may be able to take a speaker slot during the workshop.

The Venue

BIP – the house of the Brussels Capital Region, is situated on Place Royale in the historical centre of Brussels.

Just a few minutes walk from Brussels Central and Midi train stations, and surrounded by 3*, 4* and 5* hotels, the BIP building offers an architecturally unique conference environment, with space for plenary sessions, breakout rooms and receptions. The 2015 EuHPN workshop dinner will be held in a different location – to be announced closer to the event.

Workshop Fee

This year's workshop fee has been held at Euro 250.00 for the main sessions on the 16th and 17th November. This includes all refreshments and lunches, and workshop materials. There will be modest additional fees charged for those who wish to attend the workshop dinner on 16th November, and the hospital tour on the 18th November.

How to attend

To book at place at the 2015 workshop, please contact Jonathan Erskine at jonathan.erskine@durham.ac.uk. EuHPN member organisations may qualify for a number of free places.

Invitation for shared research

The Dutch Centre for Health Assets (TNO) has created an opportunity for EuHPN member organisations to take part in research activities in the second half of 2015.

Due to budget shifts two or three exploratory studies in the field of Evidence Based Healthcare Design are due to start soon. We invite EuHPN members to participate in these studies. Participation gives TNO the possibility to demonstrate a wider (European) need for research into these topics and to give opportunity to enlarge and or strengthen the research effort by allowing co-creation. We are open to suggestions on how the participation is organized and how results are shared, but expect that part of the research will be done by other partners. Currently three topics are foreseen:

- Hospital Noise. An extensive meta-analysis of hospital sound levels indicated that hospital noise has increased by about LAeq 10 dB since the 1960s (Busch-Vishniac et al., 2005). Noise levels in hospitals are now typically more than LAeq 15–20 dB higher than those recommended by WHO (Berglund, Lindvall & Schwela, 2013). Hospital noise could therefore be an increasing threat to patient rehabilitation and staff performance (Basner et al., 2014). TNO aims to reverse this trend by investigating (cost) effective design interventions for outpatient clinics, inpatient wards and operating departments and developing practical design guidelines to create noise friendly hospitals.

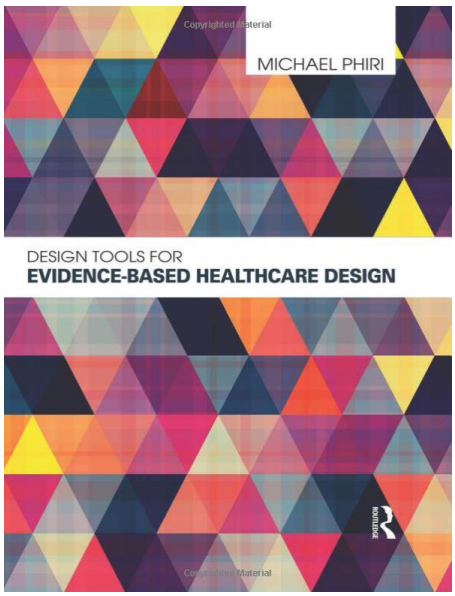
- Concepts for waiting rooms in outpatient clinics. Research on the effects of the built environment on the visitors in the outpatient clinic is limited, while the outpatient care process takes a prominent role in the hospital. During visits to the outpatient clinic the registration and waiting process occupies a large part of the time and the hospital environment is expected to have an impact on the visitors' satisfaction or perceived quality of care (Arneill & Devlin, 2002). This suggests that it is important to gather evidence about the effect of different concepts in the waiting room (such as, light, smell, acoustics, view, information facilities about waiting time, interior design, etc.) on the stress level and waiting time experience of the visitors, with the aim to positively influence the well-being and satisfaction of the visitors in the outpatient clinic. What concepts in the waiting room affect the stress levels and waiting time experiences of visitors in the outpatient clinic positively?

- Operating theatre concepts for patients with regional anesthesia. Traditionally, most operating theatres have been designed for patients undergoing surgery under full /general anaesthesia. In recent decades, studies have attempted to determine whether regional anaesthesia

offers convincing medical benefits over general anaesthesia. Recent developments in technical aspects of regional anaesthesia have the potential to provide significant advantages for many patients in all age groups. It remains unclear whether regional anaesthesia reduces mortality, but regional anaesthesia offers superior analgesia over opioid-based analgesia, and a significant reduction in postoperative pain (Kettner, Wilschke Marhöfer, 2011). There remain questions about the impact on the patient experiences with regional anesthesia and ways how the design of the operating theatre influences their perception of quality and care. Which sensory aspects should be taken into account (sound, smell, vision, haptic), and can we positively influence the patient journey with regional anaesthesia by design or behavioral elements in the OR?

If you are interested in these or have other topics in mind please contact Joram Nauta (joram.nauta@tno.nl; +31 88 866 2936) before the end of August. We aim to start the studies in September and conclude these before the end of 2015.

Design Tools For Evidence-Based Healthcare Design: an interview with the author, Dr. Michael Phiri



At the end of 2014 Routledge published 'Design Tools for Evidence-Based Healthcare Design', a book devoted to exploring the use and development of the tools, which allow those who create, operate and use healthcare facilities to assess the extent to which design influences outcomes for patients, staff and the public at large. Earlier this year EuHPN Executive Director Jonathan Erskine took the opportunity to put some questions to the author, Dr. Michael Phiri.

Dr. Phiri is based at The University of Sheffield, School of Architecture, where he leads and directs *The Healing Architecture Research Group* and teaches a broad curriculum at post-graduate level that includes supervision of a number of PhD students. He is a chartered architect with a lengthy and varied research portfolio in healthcare architecture and design. An advocate of Evidence-Based Design, Dr. Phiri is the author of '*BIM (Building Information Modelling) in Healthcare*' ICE Publishing, co-author of '*Sustainability and Evidence-based Design in the Healthcare Estate*' Springer and co-author of *Health Building Note 00-01: General Guidance for Healthcare Buildings* (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/316247/HBN_00-01-2.pdf).

He has been responsible for dozens of studies of hospitals, clinics and specialised healthcare environments and has spoken at a number of previous EuHPN workshops. His long association with the UK Department of Health and various NHS institutions – particularly the Estates and Facilities group – and his numerous collaborations with fellow academics and practitioners, give him an expert and highly knowledgeable perspective on all matters concerning design tools and methods.

The publishers state that the book:

- Discusses the tools that are being used to achieve, design quality and excellence within the context of NHS procurement systems such as PFI, Procure21 and others.
- Collates information that increases our understanding of these tools, in order to be able to make the best use of them.
- Clarifies where, during the various stages of a building's life (from inception, design, construction, occupation and re-use), these tools should be used in order to derive the benefits possible from evidence-based design
- Provides in one place an authoritative reference publication that will act as a memory, a user guide and manual for these design tools.

In the questions that follow we explored his motivation for writing the book, his views on the who in future should 'own' and use healthcare design tools, and their likely future development path. The book naturally focuses on the healthcare design and

architecture environment in the UK, but the overall lessons and the discussion of the merits of various design tools and methods are of universal interest. The book is widely available through bookshops and online retailers.

JE: What was your main motivation in writing the book?

MP: *Defining design quality, the innovative catalyst the designer brings to an architectural problem and offering a variety of mechanisms for its continuous improvement. I wanted to record efforts in the UK, and our part in this to define and measure design quality while providing a vehicle for its unrelenting or progressive development.*

JE: In the introduction to the book, you say that design tools have the potential to bring together the many and various actors in creating healthcare facilities. But use of many of these tools requires some expert knowledge. Who do you see as mediating the use of design tools, and leading the analysis and presentation of the results?

MP: *As in the past, Central Government needs to show leadership and to play a crucial strategic role in both the development and mediation of the use of design tools to aid its building investment programme that in turn, supports its healthcare policy. When delegated to private organisations or diminished for whatever reason, this leads to the development of expert-assessment as opposed to self-assessment design tools. These are not free to use and must be paid for to the financial benefit of private organisations. This role of Central Government to mediate the use of design tools is also an inevitable consequence of seeking compliance with healthcare guidance, such as Health Building Notes (HBNs) or Health Technical Memoranda (HTMs) that may underlie operation and registration of healthcare facilities. I must also emphasize the point that I am not advocating for big government here but for effective governance.*

JE: The foreword to your book rightly addresses the conundrum in finding tools to assess the 'fitness for purpose' of healthcare buildings; namely, that they must be assessed according to a mix of quantifiable and subjective measures. For obvious reasons, the tools you describe in the book mostly focus on objective metrics. Do you think the emerging evidence base will in future allow for greater confidence in evaluating the factors that are currently more difficult to assess? For example, will we become better at predicting the sustainability of health buildings, or their reception as aesthetic objects by local populations?

MP: *The focus on objective metrics was largely driven by an overriding aspiration to reach a consensus and therefore a shared vision and with this a shared responsibility of what constitutes both design quality and its improvement. Factors that are currently more difficult to assess are due to the problem of data collection over long-periods of time and due to the dynamic, complex and diverse nature of the human element. Developments in technology are producing sophisticated digital tools, which allow the provision of streamlined Virtual Building Models that can be used to simulate the 'real world', allowing a more detailed, dynamic analysis or optimisation of the inhabited built environment.*

JE: Building Information Modelling (BIM) is increasingly used to plan, design and maintain all kinds of buildings, including healthcare facilities. Do you see links developing with some of the existing design tools – or do you think they will continue to

be used independently?

MP: *The independent use of existing design tools is helpful and beneficial because they are measuring different things, all of which contribute individually and jointly to design quality measurement and improvement. In other words, to avoid duplication, the existing design tools are meant to be complementary. Of importance, BIM operates largely within a project framework i.e. when clients and their consultants have a building contract to deliver a building. We have seen time and time again that the problem is out with the building contract in the before, i.e. during briefing of a project and after, i.e. during handover, commissioning and occupation. Hence the reason why the UK Government is also implementing the Soft Landings Initiative, recognising that BIM implementation through collaboration alone does not necessarily address the endemic problem of why completed buildings do not perform as they are designed to do or play their rightful role in achieving better outcomes.*

JE: To what extent do you think that key players in the various health facility stakeholder groups appreciate the main arguments and conclusions in your book? Do you think they will act to reinstate the development of the evidence database, in some form?

MP: *The various healthcare facility stakeholder groups do not as yet appreciate the main arguments and conclusions reached in the book and as such will need to be incentivised to act to reinstate the development of the evidence database, a much more formal recognition of the acquisition of the new knowledge that is continuously being generated. The issue here is similar to that of written vs. unwritten law, where both exist or coexist and can be applied. In this case, we have argued for sometime now for a more transparent evidence database as a source of authority for those who may seek to find reasons why things have to be done in a particular way.*

JE: A big question: what's going to be the next big development in design tools for healthcare buildings!?

MP: *The next big development in design tools for healthcare buildings is acknowledging that BIM sits within the broader context of Healthcare Information Modelling (HIM) and associated healthcare planning in making a strategic contribution to staff and patient health and social care outcomes. An integrated HIM spans not only the Design-Build-Occupy cycle but crucially, the entire continuum of care facilitating joined-up thinking and an integrated streamlined approach to the effective and efficient delivery of care. This is also the key to sustainable healthcare infrastructure that aids sustainable delivery of healthcare.*

European Healthcare Design Congress & Exhibition, 2015

A number of EuHPN members were present at the 2015 European Healthcare Design Congress & Exhibition (London, 22-23 June), as speakers, poster exhibitors or participants, and some of our board members were also involved in the programme committee. For those members who were not able to attend, we thought it would be helpful to provide some impressions and feedback on the event.

According to Chris Shaw, Chair of Architects for Health (co-organisers of the event, along with Salus Global Knowledge Exchange), the aim of this congress was "*to take a whole-system approach to understanding how to redesign European health systems and services through the exchange of knowledge, research and international best practice*." As patient-centred care becomes an ever higher priority for health systems across Europe, so "*the environments, typologies and networks of buildings within which those services are delivered will also need to change.*"

The congress welcomed over 300 participants and speakers, an impressive field of poster presentations and a hugely varied group of sponsors and exhibitors. Sessions covered:

- UK health policy and practice
- International health system design and infrastructure planning
- Service transformation by design:
  - Integrated care
  - In-patient care
  - Emergency care
  - Cancer care
- Patient experience and the future hospital
- Design quality standards:
  - Building the research base
  - Evaluation tools and outcomes
- Architecture and health:
  - Humanising the environment
  - Applying lean design

With so many plenary and breakout sessions to attend, it was difficult to engage with all of the topics covered, and those organisations which sent two or more representatives will have benefited from being able to attend multiple sessions. From my perspective it was clear that speakers had prepared carefully and the quality of presentations was very high, particularly in the plenary sessions. There was excellent interaction with members of the audience, helped in large part by the high quality IT and communications facilities at the Royal College of Physicians venue.

It was encouraging to see some really in-depth debate taking place between professionals involved in the processes of health facility planning and design, interested clinicians, industry suppliers and policy makers. There were disagreements and occasionally some contentious moments, but the overall impression was one of serious attention to the challenges that face health system infrastructure across Europe. Many EuHPN members have commented in the past that it is not always easy to give the physical infrastructure of healthcare the high profile that it deserves, and that it remains important to encourage research in this area. This congress will have contributed very significantly to both of these aims, and also allowed space for participants to make new contacts and engage with new networks.

You can see many of the congress materials, including the final programme and abstracts, videos of keynote speakers and presentation slides by visiting the European Healthcare Design website, here. The congress organisers are already engaged on work towards next year's event, and we'll keep EuHPN members aware of developments as this planning progresses.

Flipped Care: Integrated Social and Health Care

Organised by Aalto University, the 'Flipped Care' conference which took place in Helsinki on 10th and 11th June was devoted to examining practical ways to implement the changes necessary to achieve radical reform of care models and the supporting healthcare estate. While the state of health systems still varies widely across Europe, with differing levels of resources available to fund healthcare, there is some general consensus that some form of integrated care represents the future. Finland's regions are somewhat ahead of the game, having started around five years ago on the process of bringing together budgets, staff, management, governance structures and IT resources so that health and social care can become part of the same system.

The conference examined the barriers and enabling factors that allow integrated care to become a reality, looked at some practical examples from a range of countries (including Italy, the UK, the Netherlands, Sweden, Denmark, the USA and Finland), and ended by engaging in some 'futurology' – a look ahead to the possible shape of health systems in 2030. The latter sessions raised some fascinating questions. For example, at a time when we see rapid and wide-ranging advances in communications technology, how will primary and community care adapt? If – as is claimed by some – 80% to 90% of primary care consultations don't need the physical presence of the patient to achieve a diagnosis or to offer guidance, will the rise of smartphone and tablet apps mean that primary care clinics become a rarity? To what extent will artificial intelligence and easy access to large health databases drive self-care and self-diagnosis? Will the major retail chains take over as the primary care provider of choice? And in these scenarios, who will manage the interface between social, primary and community care and the providers of specialist services?

One of the key messages to emerge from this conference is that, even where there is good will and consensus on the need to integrate health and social care services, the practical means to achieve this require a long term planning strategy, most likely stretching over a 10-20 year timeframe. The most important enablers of such a strategy include a commitment to investment in workforce training and ICT technologies, as well as strong participative engagement with citizens. Most of the speakers were also advocates of planning at regional level, at least, to allow for some rational distribution of resources and to ensure that access to services is equitable. Collaboration and cooperation, rather than competition, were generally seen as essential prerequisites to an integrated, whole system approach.

News in brief

- The Einstein Project, Warsaw 22 – 23 September

Netherland's TNO and Poland's representatives of the EcoQUIP project will both be presenting at a seminar to be held 22 – 23 September in Warsaw, as part of the EINSTEIN (Effective INtegration of Seasonal Thermal Energy storage systems IN existing buildings) project. TNO will present on the STREAMER Project (Smart Energy Management and Planning in Hospital Buildings) while the EcoQUIP representatives will be giving a talk on *improving energy efficiency of a hospital using innovative public procurement*.

- Nordic Center for Sustainable Healthcare: first member meeting on 3rd September, Stockholm

  The Nordic Center for Sustainable Healthcare (NCSH) was launched on May 28, 2015, at a kick-off meeting in Malmö. This was also was the final step in the work with the national innovation agenda for sustainable healthcare for Vinnova.

  The aim of the NCSH is to act as a Nordic platform for all stakeholders operating in the healthcare sector, such as public and private healthcare establishments, businesses working with sustainable solutions, stakeholder organizations and researchers of sustainable healthcare. The first member meeting of the Nordic Center for Sustainable Healthcare on will be held on September 3, 2015 at Swecare in Stockholm. The meeting will be held in English since several international participants have already signed up.

  You can sign up to become a member, and find more information here.

Get in touch

You can get in touch with EuHPN by emailing the Executive Director, Jonathan Erskine via jonathan.erskine@durham.ac.uk, or by calling +44 191 3340366. Visit our website at www.euhpn.eu.

If you would like to contribute to the EuHPN newsletter, please let us know. We welcome news of healthcare infrastructure projects and case studies, as well as any news from our member organisations and supporters.