Catalysts **for change**

With major healthcare reform underway in all corners of the globe, what role should designers and architects play in rising to its challenges? Three experts take a personal view from their own territory – North America, Australia and the UK

Healthcare reform in the US is still in transition, with the end-goal being to provide the highest quality care at the lowest possible cost. Experts anticipate that increased access to care will inevitably lead to more demand being placed on facilities and the existing building infrastructure. Changing the way that care is delivered will no doubt have an impact on space needs, prompting the design of environments that are cost-effective, functional and flexible.

In North America, Canada's single-payer healthcare system has informed the US healthcare debate, while Canada's design of hospital facilities has maintained many US standards and guidelines, such as private rooms. The patient experience will likely continue to be the driver for new healthcare design concepts and evidence-based research.

In *The Checklist Manifesto*, Atul Gawande writes about the demise of the historic Master Builder, recognising that the variety and sophistication of advancements in the construction process have overwhelmed the abilities of any individual to master them. Dr Gawande likens this to his field of surgery, and to medicine overall, which has become the art of managing extreme complexity. The ultra-specialisation of medicine has led to the need for a collaborative environment. From a staffing perspective, we will likely see more of what has already begun – a shift towards multidisciplinary team care and the need for our space designs to accommodate this collaboration (such as conference areas integrated within patient care units, space for larger rounding and surgical teams, etc).

Medicine has become the art of managing extreme complexity

As ageing populations and the number of insured individuals rise, these demographic changes have the potential to place a greater demand on medical services, particularly in speciality areas such as intensive care. Will healthcare reform generate a need for bigger, better and more state-of-the-art centres, or will we see healthcare disperse to satellite facilities, freestanding clinics, and home care providing more preventive and accessible medicine, leaving hospitals as mainly critical care centres?

Emerging trends and challenges lie ahead. In the future, it is likely that both the US and Canada will have a mix of public and private healthcare delivery. The policymakers' goal is to find the right balance. The designer's goal is to be a leader in this change, advocating for ways to transform their clients' practices through innovative research and design solutions.

Diana Anderson is a medical planner and 2008-9 Tradewell Fellow at WHR Architects, Houston, Texas

In the world of economics, reform could quite legitimately be associated with the economic problem of scarcity – the seemingly unlimited human needs and wants in a world of limited resources. The economist would suggest that not all of society's goals can be pursued at the same time, and that tradeoffs must be made of one good against others.

Within the health setting we are confronted with a number of changes to the 'want vs need' equation, including increasing demand for health services, an increasing range of healthcare products and services (not just those associated with western medicine and/or the major teaching hospitals) and improved access to health services (in part associated with the decentralisation of technology that is now accessible beyond the metropolitan fringes). Treatment regimes and models of service continue to evolve and are being fast tracked to application.

So, how can design assist the reform challenge? Here are a few thoughts:

- The delivery of more basic healthcare (including routine assessment and treatment delivery) should be closer to where people live, work and learn. Services might be delivered from a 'shopping centre' mixed-use development or as part of an expanded civic amenity. Either or both could be operated by the public or private sector!
- There needs to be a general rethink around the design of residential accommodation for the aged and/or the chronically ill. The embedding of now-routine technology in the home has emerged over the last decade and should be further advanced to assist against accidental injury and advanced diagnosis of variations in health status.
- Facilities should promote the normalisation of health treatment and encourage the participation of those who need it: less institutional, more 'natural' and inspiring.
- An increase in the application of generic or modular design principles that enable greater flexibility and the adaption and reconfiguration of spaces for a range of clinical and support functions.

None of the above is controversial: it's common sense, it's available today, and it only awaits its opportunity to compete for the scarcity of the health dollar.

John Breguet is director of health consulting at Woods Bagot, Melbourne

Treatment regimes and models of service continue to evolve

There has been much focus recently on how we reform health services – but we need to radically reform the way we design buildings to avoid obsolescence at completion.

There is an over-emphasis on centralisation, procurement and risk avoidance, and no trust placed in the art of architecture or the tools of the designer. Fear of failure overwhelms innovation: time spent in user consultation is inversely proportionate to culpability, and client briefing is another form of mediation and conflict resolution.

Evidence-based design cannot guarantee buildings that we want to inhabit, but it may deliver functionality perfectly. It has become a bargaining chip, not a decision-making tool. Sustainability challenges the preoccupations of the clinical community, whose aspirations rarely include small, local, dis-aggregated, adaptable, energy-sufficient and manageable facilities. But when big is best, we only want to pay for its visible manifestations. Likewise, we cannot cope with the impact of the car: it is initially given priority over virtually everything else, but in the end, parking is often not properly integrated, making access inconvenient for patients and visitors alike.

Fear of failure overwhelms innovation

Flexibility is presented as important, but it is not properly defined and eventually forgotten when affordability becomes the issue. We are told to keep FM separate in clinical areas, but will not invest adequately in the technology or allow for future-proofing.

So if we want to move on from the 1950s, we will need to ditch our emotional attachment to territory and professional silos, embrace the fantastic clinical research and technological innovations of the past decades, understand the dynamic changes in our workforce and negotiate the expectations of our users more intelligently.

Forget about making the ideal, functionally efficient hospital. Instead, make classically beautiful buildings in beautiful places: the future will take care of itself.

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