# Thinking Healthcare

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We are seeing a rise in public awareness and government policy to promote and support health and wellbeing. We are all now much more aware that staying healthy through self-care – both physically and mentally – improves our quality of life, and this reduces the overall burden and cost to the care system.

Government spending has recently been split into silos – with acute clinical care, primary care and social care being funded separately. The focus has often been on performance (such as waiting times), rather than the quality of care being provided. This has created an unsustainable system that may not suit an individual's needs, and where care is often delivered in inappropriate (and often unnecessarily expensive) settings.

Our system is currently based around a hospital-based model of care, supported by other commissioners and providers. Integrated care systems are being set up to break down these barriers, where general practices, community services, hospitals and local authorities work together to take more control over funding and performance, becoming more devolved from our national regulators.

The promise is to provide care that balances any perceived healthcare inequalities and is appropriate to a local area's social and population demographics. The hope is that care is tailored to an individual's needs, and this is provided more in the community and people's homes.

Let us hope that this radical shift in the way care is being delivered lives up to these promises.

#### **Dan Van Luttmer**

Divisional Director, Head of Healthcare

### **Christine Fatania, Senior Architect**

Christine works as part of the healthcare team, focussing on primary care, mental health and specialist facilities for disabled people.

She also has special expertise in stakeholder engagement.



# How healthy is your health centre?

As a patient, it's natural to ask yourself "Am I healthy?" But how many of us stop to think, within the confines of a healthcare building, is this building healthy?

It might seem superfluous, but as a designer of such spaces, I'm acutely aware of the many ways buildings and our environment can influence us. Form and function shape our experiences, our feelings, even our rates of recovery.

In primary care, wellbeing is now top of the agenda. The focus is on a more

sustainable and achievable model of care, with prevention and early intervention at the heart. Patients are encouraged to be active participants in their own wellbeing, alongside clinicians.

As detailed in the NHS Five Year Forward View, the Health & Wellbeing model aims to help patients achieve balance in four key areas of their lives, namely; mental wellbeing; healthy living; secure homes and finance; and work, learning and participation.



This paradigm shift necessitates new, transformational styles of working, and buildings to house them, bringing together healthcare, social services and third sector organisations under one roof.

In tandem, we are also seeing the colocation of primary care services with existing leisure or community facilities bringing health services to the people.

There is an understanding that we need to address overall wellbeing. With the aim of reducing the need for specialist intervention, early intervention is shaping the healthcare landscape, designing out dependency by designing in a wellbeing-led experience.

# We have exactly the same ethos in our design approach.

In terms of patient participation, we have long understood the need to engage the community, including staff and visitors early in the design process. We see stakeholders take ownership of a completed development and say that 'they've' built it – it means that we've truly listened, aligning the outcome with their needs and wants.

We design to be welcoming and non-institutional. Abundant natural daylight, fresh air and private views out to soft landscaping, not only complements the therapeutic qualities of the environment, but also ameliorates the 'fear factor' which puts many people off visiting the doctor.

Speaking of which, with low GP retention and workplace stress an increasing problem, there needs to be a similar investment in a good staff environment. These are specialised workplaces. We've carefully designed staff experiences to help them do their best work - that means considering their overall wellbeing.

The change in the primary care landscape is a welcome sight. What we hope is that it becomes a joined-up wellbeing service - an experience designed from the ground up. Carefully designed places and spaces should form a part of that service offer, ensuring that healthy buildings are at the heart of our communities.

### **Adam Parry, Divisional Director**

Adam splits his time between overseeing our healthcare projects in Wales and co-running our Cardiff office. He advocates a working environment that focuses on wellbeing and creativity.



# Keeping ahead of the tech curve

The NHS long term plan identifies technology as a key enabler to deliver transformative change. It also recognises that continuing with existing models of care is not sustainable. There is enormous potential to deliver significant efficiency benefits, but more importantly benefits to the patient experience and wellbeing.

Technology develops quickly. The iPhone has only been around for just over a decade. Healthcare buildings traditionally develop much more slowly. 43% of the existing NHS estate is over

30 years old, and many new buildings currently under construction were conceived before the first iPhone was released.

So, what is the impact of these fast moving developments on our NHS estate, both existing and new? The King's Fund has explored some of the implications in its recent study 'Clicks and Mortar' recognising that the impact of technology is likely to lead to a different estate rather than a smaller one Our recent work in the design of hightech healthcare buildings includes a national roll out of diagnostic facilities. This work has provided a breadth of insight into some of the challenges and solutions for both the retrofit of existing buildings and the creation of new buildings. There are clear implications for design.

### A typical MRI scanner is replaced every 11 years.

We need to consider the lifespan of technology in the design of our buildings. Layout, access and integration should enable simple replacement without significant additional costs.

The increasing availability of sophisticated technology is allowing changes in clinical practice.

CT scanners have virtually replaced traditional x-rays in resuscitation areas, enabling much higher quality of imaging and more accurate diagnosis. We can plan for this trend by integrating 'soft' spaces such as stores as part of the layout to enable further provision in the future.

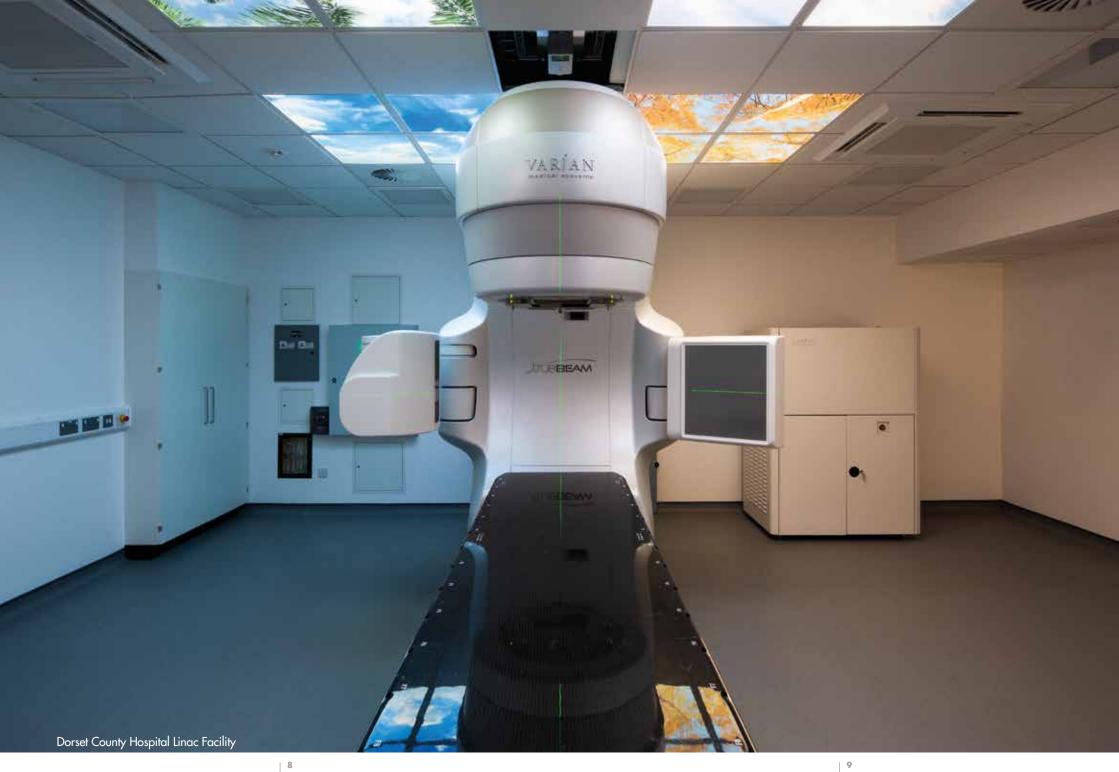
### Would you order a new laptop two years in advance?

The planning of spaces, such as hybrid theatres, to accommodate specialist equipment such as CT, PET or MRI scanners is highly technical. Rooms are expected to meet specific standards defined by the manufacturer. The speed of development for these technologies means that spaces should be planned to accommodate the widest range of options. We consider the technical requirements of all potential suppliers and generate a set of shared requirements. Nobody would order a new laptop two years before they wanted to use it and we shouldn't expect clinical teams to commit to new equipment any earlier than is necessary.

By building in these considerations, we're freeing up clinical teams to make better spending decisions.

### Technology is an enabler.

Technology will continue to change the way that we design our healthcare buildings. By working closely with clinical teams and specialist suppliers we can achieve successful integration to make our estate future ready. The successful adoption of these technologies is crucial if our health service is to be sustainable. More importantly, if we can successfully integrate technology and our estate, we can realise the benefits of improved diagnosis, shorter recovery periods from operations, reduced lengths of stay and greater patient control.



### Paul Seaver, Senior Associate Architect & Urban Designer

Paul enjoys stitching places together to provide spaces that best facilitate people's evolving needs. As a masterplanner, he can't predict the future, but he can design spaces that inspire people.



# The healthcare estate isn't a campus, it's a mini-city

I find development on campuses to be really interesting microcosms of the world around us, yet that's not how they are generally seen. Over the years, we have had wide range of commissions looking at creating visions, masterplans and estate strategies for institutional clients, such as for hospitals and universities.

As a practice, we are known for our sector expertise, especially in areas such as healthcare. But what really interests me, from an urban design perspective, is getting under the skin of how and why a campus actually works.

In order to do that, we have to stop seeing campuses as just healthcare or academic environments. Instead, the reality is that for the overwhelming majority of people who engage with these campuses, they are places for working in, residing in and for visiting.

### They are, in fact, mini town centres in their own right.

As an industry, why should we consider healthcare estates any differently from other major development sites that occupy similar land areas in our city and town centres? There will always be good reasons for retaining a tight control over certain aspects of estates, especially when it comes to operational efficiencies, but when we consider how people use these estates, it seems that we take certain things for granted without actually properly interrogating those assumptions.

To put that into context, a mediumsized hospital complex might have 8000 people working there, of which 5000 might be on site at any one time. Combine that with a daily visitor population of something in the region of 3000 people, of which 700 could reasonably be expected to stay overnight. That immediately highlights the need for such environments to provide a broad range of facilities and spaces to support the welfare of those workers, visitors and patients. This made all the more pressing in the healthcare sector where stress and emotional levels are often higher than in a typical community.

The wellbeing of a healthcare campus community can't just be served by respite spaces, coffee shops or water features. Instead they require a holistic approach to the overall layout and operation of the campus to ensure that the right mix of spaces and facilities and services are properly distributed around where they are needed for the people who use them.

We should be thinking of our healthcare environments as beacons of hope and life, not endless car parks and waiting rooms. George Cadbury once said while considering his plans for the Bournville estate, that 'no man ought to be condemned to live in a place where a rose cannot grow'. Surely that's just as applicable to our healthcare estates.

University of Wales Trinity Saint David SA1 Masterplan, Swansea



### Simon Boundy, Senior Associate

**Architect** Simon leads the briefing and concept design of projects. He has broad experience delivering major healthcare developments in the UK and overseas.





# Making emergency departments future ready

Emergency departments continue to struggle with increasing demand, admissions increased by 22% between 2008 and 2016 and continue to rise.

This increase is a symptom of wider challenges throughout the health and social care system and only major changes in our healthcare system can address this demand.

As part of a more integrated approach to healthcare delivery, alternatives to the emergency department such as Urgent Treatment Centres are being developed. Together with improvements in primary care access, emergency departments can focus on genuine emergencies.

### These changes, however, will take time.

Faced with these challenges, how does the design of a new emergency department respond to the current capacity demands, whilst providing an environment that is able to respond to future needs?

We view emergency departments (EDs) a bit like high performance engines. Multiple components working within an environment that runs efficiently whether cruising or maxed out.

### We don't just design the physical. Working with clinical teams, we shape the flow of movement.

Managing flow through the emergency department decreases congestion, providing a better experience for patients and staff. The layout should enable the efficient flow of patients to ensure that people are seen by the right clinician, in the right setting, at the right time.

The consideration of flow extends beyond the immediate emergency department. The Same Day Emergency Care (SDEC) initiative seeks to ensure that wherever possible patients can be assessed, treated and sent home in the same day avoiding unnecessary admissions. Just like an engine, flow out is just as important as flow in.

### The path to efficiency requires a hybrid methodology. Both in design and delivery.

The design of acuity adaptable treatment and assessment spaces provides flexibility in use, whilst minimising the risk of errors by using consistent configuration. These spaces can cater for a complete patient journey – from diagnosis to treatment and discharge. They also anticipate future scenarios with increasing numbers of patients with more serious conditions.

These are true hybrid spaces, and need to be designed as such.

### Highly responsive environments.

A good engine is often labelled highly responsive. The same is true for EDs. Layout, flow and environmental qualities should support staff in the delivery of care.

Listening to staff, we know that effective communication is a requirement in every scenario. In a frenetic environment visual connection is critical. Sightlines, day lighting and open space help facilitate. Equally, connected private spaces are necessary for confidential discussions.

Much like engines are changing beyond recognition, healthcare provision is shifting towards newer, more efficient, models of delivery with the ability to achieve more with less.

We are addressing these key issues on a daily basis – currently on the improvement of four EDs at Derriford Hospital, Plymouth. Together, we are shaping their emergency departments to be fit for the road ahead.



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Our experience includes strategic masterplanning, acute care, mental health, specialist healthcare, community and social care, and primary and private healthcare. We work within framework agreements with clients and contractors, offering architectural design with a complete package of complementary services.

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