

# Living proof

The term ‘future-proof’ may be bandied about in health and care, but what do facilities designed to stand the test of time really look like?

**Sarah Williams** takes a look across the sector

“One of the important factors I have always considered is how the hospital sits within its context of care, particularly because it should offer a smooth transition from home to a care environment – but often that transition is not an easy one to go through,” says Alessandro Caruso.

The architect and co-founder at ACA is well-versed in the significance of this transition – and not only because his architectural practice specialises in healthcare design. An early experience recovering from a near-fatal motorbike crash in his native Sicily back in 1994 inspired Caruso to steer his work towards health and care upon qualifying as an architect. After spending six months in a hospital environment he found ill-suited to supporting the healing process, he was determined to do things differently.

Getting this “smooth transition” right will be particularly important in the coming years, Caruso believes, especially “if the healthcare facilities of the future are to become more settled in the community”. As UK health and care – led in part by government policy, in part by lifestyle trends – moves towards community-centred provision, supporting patients to step up and down between different kinds and acuities of care will be vital.

Location is therefore more critical than ever. But tomorrow’s healthcare facilities must also be able to meet an increasingly varied set of needs, Caruso points out, including patients with co-morbidities.

## Independent hospitals

In private hospitals, this means using space dynamically and flexibly, so that hospitals maximise treatment capacity.

It’s something One Healthcare founder and chief executive Adrian Stevensen knows well. The group’s two hospitals offer significantly more capacity in terms of a higher ratio of operating theatres to beds compared with traditional models. One Ashford, the group’s first hospital, has three main theatres and two day-care theatres, to 20 overnight beds and 10 day-care beds, while One Hatfield has three main and three day-care theatres, to 13 day-care beds and 21 overnight beds. Compare that with Bupa Cromwell, for example which has four operating theatres to 128 beds, or BMI Hendon with its two operating theatres and 30 beds.

“The design is built upon international standards of elective MSK surgery,” Stevensen says. Prior to launch, One researched global healthcare models, looking closely at how Australasian, US and Indian healthcare models make “the patient pathway through the hospital as efficient as possible”. The mission is to create “a physical environment which is well-equipped, modern, contemporary, therapeutic and holistic, so the buildings don’t feel like institutions – they feel like a boutique hotel with excellent clinical facilities.”

This translates to a careful consideration of the way light is used in the building – applying intense electronic

One Ashford Hospital, Kent





lighting only where medical professionals require it, maximising natural light for patients in recovery, and placing corridor lights off centre to avoid glare for those on trolleys. But as comfortable as Stevensen wants patients to be, his hospitals are designed in this way to also enable rapid recovery. For hip and knee patients that normally means going home within 36 hours of surgery, albeit with scheduled post-surgery follow-ups.

But it's not just patients who can be turned around quickly – a key part of future-proofing the design is building in flexibility for changing requirements. At One Ashford, for example, there is space within the existing building to add two more full operating theatres, avoiding the need for pricey and time-consuming extensions later down the line. What's more, One secured planning consent at the time of opening for an additional 50% capacity, a process which could otherwise take a year to achieve.

Caruso, too, recognises the importance of adaptable spaces in hospitals, perhaps even on a daily basis in future, where “we may need to take the approach of a ‘bookable room’ that is available to a number of different surgeons; rooms that are flexible in so far as the ergonomics of the space”.

At One Healthcare, built functionality goes beyond the medical. Solar panels generate a net surplus of electricity, while rainwater collection for non-clinical use of water, energy-efficient design of windows and doors to obviate heat escaping from the hospital, heat recycling pumps, and even bore holes to source hot water, all play their part in creating an energy-efficient, environmentally sustainable buildings.

This approach has seen One win ‘BREEAM Excellent’ awards for both of its hospitals, but Stevensen sees this sustainability accolade as far more than a reputational boon (although it can't hurt). Rather, given unpredictable pressure on resources, a level of self-sufficiency could be potentially mission-critical. “We are obsessed with doing everything possible to contribute to a sustainable economy, particularly in terms of energy, and water which is becoming more and more precious as a resource,” he says.

### Extra care

Where extra care housing is concerned, Caruso's point of creating healthcare environments able to meet a varied set of needs arguably speaks above all to the need to support those living with dementia. This is particularly important in recognition of the fact that many older people moving into specialist accommodation will arrive as a couple with very different and evolving individual needs.

It's a challenge recognised by Tracy Paine, deputy chief executive at Belong, who emphasises that “if we get it right for the person with dementia then we get it right for everyone”. For Paine, the designed environment – supported by staff with a “heart for the job” – is key to achieving this. While Belong villages offer apartments to anyone over the age of 55, with or without dementia, the not-for-profit provider also offers specialist dementia accommodation on site, based on an open-plan ▶



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Abbeyfield's extra care development in West Yorkshire, designed by ACA

► household model where a small community of 11-12 residents live together. By centring it around a kitchen, where staff encourage residents to get involved in daily tasks, it “gives visibility and reassurance that there’s someone always there for them”. Belong settled upon that scale of 11-12 residents, because it allows the economic viability of having around three staff on site throughout the day to support residents with meals, activities and exploring the rest of the Belong village, without exceeding the reasonable bounds of “a family unit”.

But basic, well-recognised design features to support dementia – such as layout, colour contrasts, and grab rails – should also be incorporated throughout extra care facilities, not just where dementia residents are housed, Paine says. “They really don’t cost any more money, so if you incorporate that into all new-builds you’re supporting people to be as independent as possible for as long as possible.”

Within dementia care units themselves, supporting residents’ independence rests upon careful use of signage and simple technology like light sensors that help people navigate to their bathrooms, while backing it up with emergency call systems.

### Care homes

Dr Sanjeev Kanoria, chairman of Advinia Health Care, also underlines the importance of assistive technology in this context. Installing en-suite bathrooms is one thing, but these will only truly benefit residents if properly monitored to detect and prevent flooding and falls, should residents forget to turn off taps, he says.

But using technology needn’t mean redesigning care homes Kanoria says, “so long as you have a good high-speed internet access and Wi-Fi points” – a task Advinia is currently undertaking in the cluster of 22 Bupa care homes it acquired earlier this year. “It is more an issue of configuring your software and training your staff”, he adds,

and “the more we are able to collect good quality data from a resident, the better service we are able to provide.”

This includes the potential use of robots – technology that Kanoria is currently in the process of piloting in collaboration with the University of Bedfordshire. Advinia will be testing the robots’ ability to learn the behavioural preferences of residents, and applying this, for example, to ensure a smooth handover between care workers. But he emphasises that humanoid robots wandering around care homes is not the future – not least because limbs are extremely expensive to create, as well as unable to truly replace humans. However, we could see isolated parts, such as robot arms fixed to the ceiling and controlled by a care worker to support lifting and mobility where required. “Brand new care homes will probably have some areas which have been designed for that functionality, but you can’t have all the areas designed for [it] because it will just increase the cost.”

But how can you build in capacity to support as-yet emerging solutions? There is no answer to that yet. Back at Belong, Paine acknowledges that the care sector is currently “behind the times”, particularly in being able to manage multiple monitoring and communication services on one platform.



Belong dementia-households centre around a kitchen



## Supported living

That's something that new entrant to the care sector Grant Livingston and his company Specialised Supported Housing (SSH) are determined to tackle, however. Alongside forming SSH to create supported living properties better suited to providing a home for service users with learning and physical disabilities, compared with older 'institutional' residential settings, Livingston is also involved in another project with tech engineers to hardwire into each apartment a microprocessor that will act as a technology hub for the different assistive technologies used within it. This will eventually be launched by a separate company, and is being designed so that it can "interact with any device that anybody makes", because Livingston believes that too many providers are reliant on existing hardware made by industry incumbents. Once installed, it could lead to more effective application of tech, and more efficient activity monitoring by support staff.

It's an expense, like many others, that SSH is happy to carry as a property developer determined to provide a different kind of accommodation, fit for today's need and ready to adapt in future. Livingston's mission at SSH is guided by personal experience over many years witnessing his family struggle as his brother, who had learning disabilities, passed between different institutional mental health care settings. In contrast, at SSH "the model from the outset was to try and purchase property that any young individual would want to live in irrespective of disability," Livingston says, happily acknowledging that "the price for that is a much lower profit margin". This means properties located in the heart of communities, which bring service users "back into society", far from the institutional environments of the past.

SSH's developments, (currently five under construction and one complete across sites in Worcestershire, Chesterfield and Dorset), offer between 12 and 18 one-bedroom supported living apartments, and have all resulted from close relationships with local authority commissioners prior to, and during, development. SSH has partnered with care and registered providers such as Lifeways and Inclusion Housing on these, however Livingston advocates a division between property development and the provision of care, and to this extent tries to "be agnostic to the care provider", leaving the choice to commissioners.

In general, new-build provides the best opportunity for delivering this "person-centred care", but where the location is right, existing buildings can be adapted. "Baskerville Hall for instance, is Victorian housing stock on one of the most desirable streets in Worcester town, and we felt that by putting people in that situation where any young couple would aspire to have a flat, there's a huge psychological benefit to the service user."

## Proof positive

Supporting independence, whether young adults with learning disabilities or elderly residents living with dementia, will be key to the modern facilities at the heart of community care. But as Caruso maintains, diverse needs must be supported not only within the healthcare estate – from GP surgeries and hospitals to housing – but across society more widely.

"We should be looking at how our cities work at large and really make sure that every environment is as inclusive as it can be," he says. Perhaps this, above all, is what 'future-proof' design really means. ■



Specialised Supported Housing,  
Baskerville Hall, Worcestershire