
Shaping the future of Scotland's NHS estate

Jim Hackett and Fiona McDade, directors in our Glasgow office, examine what was presented at the Scottish health and social care facilities conference 2019

The UK's National Health Service is a huge enterprise. With 1.5 million employees, it has a workforce bigger than the population of Latvia.

It treats one million patients every 36 hours* and, as a public service free at the point of use, costs the government more than £2,000 per person every year.

With its massive reach and vast estate of property, it needs to make use of contractors and consultants for construction, maintenance and management.

The four constituent parts of the United Kingdom each administer their own NHS. In Scotland, where the service is funded and provided by the devolved Scottish government, the public spend is some £14 billion annually.

The Scottish NHS has just held its high-level, two-day conference to discuss health and social care facilities. The event, which has been a fixture for the last 20 years, was aimed at estates and facilities professionals.

The conference brought together delegates, exhibitors and speakers from across the country to share their knowledge and experience in areas such as procurement. Importantly, it is attended by representatives from the NHS Scotland boards, special advisory boards and other NHS organisations, including health service colleagues from overseas.

Building for the future

One pioneering subject discussed was the use of off-site component manufacturing for the NHS Scotland estate, with finished items then being assembled at the final location.

It is a highly innovative concept and still in the early stages, but it could provide a workable and cost-effective solution for NHS facilities such as resource and health centres.

It is likely that construction methods will change dramatically over the next few years, bringing both advantages and disadvantages. These changes, including full modular construction, potentially reduce the need for the use of skilled trades, and that has employment implications, but they could improve cost efficiency, quality and consistency of build.

An example of this modular approach already taking place is the manufacturing of entire bedroom units for a 26-storey hotel in New York, United States. Modular mechanical, electrical and plumbing (MEP) installations are also being used in hospitals. We are likely to see much more of this kind of construction method in the future.

Sharing for success

Another issue discussed at the conference was collaboration and the sharing of knowledge and lessons learnt. From design of NHS buildings through to their completion, it is extremely important to get this right.

Collaboration is of particular significance in achieving soft landings — a smooth transition into a new facility by the client and the users. It means becoming embedded in processes as a project moves forward by getting around the table with others and planning to ensure that nothing comes as a surprise during the transition into the new facility. Templates for this have been developed by NHS Scotland, with Currie & Brown one of the first consultants to use them.

Getting the labour balance right

These new construction methods mean that demand for skilled tradesmen and women could fall, and that will be a worry for some. However, it also has its upside in terms of labour supply matching demand.

There is currently a shortage of labour, partly because the construction industry is by its very nature cyclical, and recent troughs in activity mean people have left the industry. Bricklaying, for instance, is one sector that has already been hit by the shift to off-site and modular construction.

Another issue in the provision of built infrastructure in healthcare is contractors' shrinking margins. In the heady days of private finance initiative (PFI), construction companies were willing to spend literally millions to bid on a major project, such as a hospital, as they would win perhaps one in three of the contracts, making the exercise financially worthwhile.

With PFI and its close associate the non-profit distributing (NPD) model no longer used in Scotland, funding in the NHS comes purely from the public sector. This means it has to make its case against other spending priorities and departments, adding to the pressure when it comes to commissioning infrastructure.

Technology and efficiency

However, those in the industry should not be pessimistic. The Scottish government has committed to providing quality public services, and the changes in building methods we are seeing will intensify in the future.

Increased efficiencies are being brought to healthcare projects. The integration of health and social care, currently more advanced in Scotland than in some other parts of the UK, is still underway and will mean further cost effectiveness in terms of economies of scale.

There are also healthcare challenges, and opportunities, in the march of technology within the NHS. This means different infrastructure requirements. The use of on-site robots is also likely to expand, for instance.

As another example, we can now use 3D modelling and augmented reality (AR) for the creation of specialist rooms. This allows the end users to get a much better feel for how the finished space will look and helps to inform the design process.

Project stakeholders without knowledge of the construction industry will be able to visualise the end result. They can become more involved in the design and build process. They will have a better understanding, for example, of exactly where specialised equipment should go.

As in the rest of the world, Scotland's healthcare sector is in a process of change, but it is clear that the future will be an exciting one. The construction sector will very much be part of that.

We have to make sure that we have the skills, resources and forward thinking to ensure we can give it our very best. The challenge is there. Let's make sure we meet it.

*Source: <https://www.clarityworkforcetech.com/blog/how-big-is-the-nhs/>