

Clicks and mortar

Technology and the NHS estate

Overview

- Developments in technology are affecting the NHS estate in different ways. In future, these changes could lead to an estate that is better for patients and staff, smarter and more integrated.
- Technology is likely to result in a *different* NHS estate, rather than a *smaller* one, with space being used or configured in different ways.
- To maximise their impact, technology and the estate should be brought together as part of wider plans for change. This means developing an overarching vision for how health and care will be delivered in the future and being clear about the role of technology and the estate in delivering it.
- Our research identified a number of factors that can affect the ability of organisations and systems to get the most out of technology and the estate. These include availability of skills, engagement with staff and patients and access to investment.
- Local systems will play a key role in planning technology and the estate across organisations. This includes collaboration across organisations beyond the NHS, and taking advantage of the opportunities that come from working at scale.
- There is also a clear role for the national NHS bodies in supporting this work. They should support common data and technology standards (so that different systems can talk to each other) and facilitate the sharing of learning across the NHS.

Introduction

Financial pressures and growing demand mean that health and social care services will need to work differently. Technology and the estate are key enablers for delivering change, for example, by transforming patients' interactions with services. Despite this, technology and the estate have historically been low on NHS organisations' priority lists. They have also been managed separately from one another and from wider plans for clinical change.

Our project

The King's Fund, supported by NHS Property Services, carried out some research on the impact of technology on the NHS estate. The purpose of our work was to understand how technological developments in the NHS are affecting the estate currently, and to identify opportunities for planning technology and the estate together in future. Our research comprised a review of literature on technology and the estate (in the NHS and other sectors) and 13 interviews. Interviews were carried out with a range of people including those with technology or estates expertise and those with practical experience of having delivered technology and/or estates projects in the NHS.

The impact of technology on the NHS estate

Technology is already being used widely across the NHS. For example, online and video technology is changing the way patients access services, while sensors are enabling patients to be monitored remotely. Other changes include the sharing of patient information across sites, supporting more integrated care, and the generation of huge amounts of data which can support the running of the estate. These and other changes are affecting the NHS estate in different ways, changing the amount of space needed or the way that it's configured. Technology is also beginning to change the way that the estate is managed and planned.

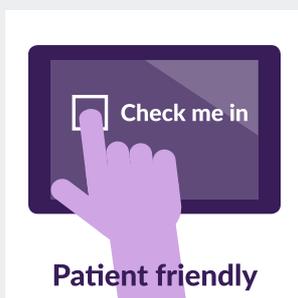
Although there are many examples of technology being used within the NHS today, innovation has been patchy. However, if scaled up, these technological changes have the potential to bring about a different kind of estate in future.

How to get there

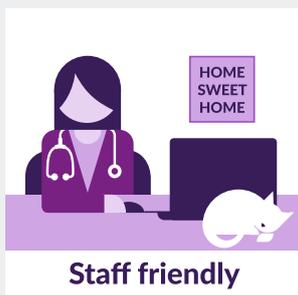
The NHS is already on the path to delivering this future estate. However, the ability of the estate to respond to technology, and to maximise the opportunities it may offer, depends on a number of factors.

- **A vision** – successful change depends on having a clear, long-term vision. Organisations and local systems should be clear about the changes they want to see in health and care, and the role that technology and the estate can play.
- **Integrated, flexible plans** – technology and the estate should be planned in an integrated way, recognising the influence these areas have on one another. The speed with which technology develops can make long-term planning difficult, so building flexibility into the estate is critical.

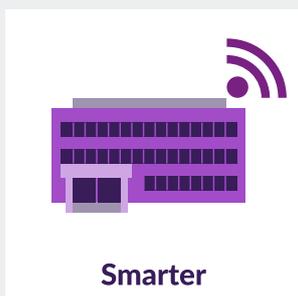
The NHS estate of the future



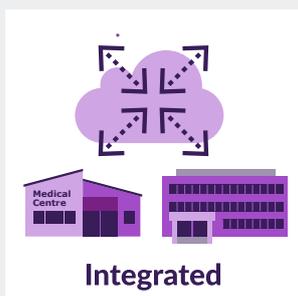
The estate of the future could be more **patient friendly**. Technology can support patients to access and navigate all parts of the system in different ways. It also has the potential to improve other aspects of the patient's experience. For example, using sensors to monitor inpatients' vital signs could provide them with more freedom to move around during a hospital stay. Patients should be engaged in design and planning processes as early as possible to ensure their needs are met.



Technology can also enable an estate that is **staff friendly**, including by supporting flexible working, as digital records will allow clinicians to access patient information from different locations. However, a redesigned estate needs to provide the right environment for staff, for example, ensuring that remote working does not lead to isolation. Again, the best way of achieving this is to involve staff in the design and planning processes.



The estate of the future can also be **smarter**, making use of a wide range of data and intelligence to improve the way that it's managed and planned. For example, technology could be used to track staff and patients across multiple sites, supporting better allocation of resources. Another example is using real-time data to understand, for example, energy consumption, and using this to inform plans.



Technology can support an estate which is **integrated**, enabling different services to work in a more integrated way, for example, through interoperable sharing of health records that makes patient information accessible across organisations. Technology can also support 'strategic integration', for example by enabling organisations to manage activity across a local system and support strategic planning.



Will technology lead to a **smaller NHS estate**? Some technological developments have the potential to reduce the NHS estate's footprint. For example, online consultations may reduce the need for space within healthcare buildings. In practice however, it's likely that any space 'freed up' by technology will be put to different uses. Changes in technology in the NHS are driven by improvements in care and patients' experience or more effective use of the estate, rather than a desire to reduce the size of the estate.

- **Planning as a system** – planning estates and technology across organisations, both within and beyond the NHS, is an opportunity to make the most of shared resources. Sustainability and transformation partnerships and integrated care systems can provide a mechanism for doing this, but it is important to recognise the challenges organisations face in balancing system and organisational interests.
- **Learning from others and engaging widely** – efforts to share learning across the NHS on technology and how it may affect the estate are valuable. However, national NHS bodies and, increasingly, local systems could do more to support this. There is also an opportunity to learn from other sectors. To get the most out of changes, NHS organisations must also engage with the staff and patients who will be affected.
- **Funding** – technology and estates projects both rely on capital funding, although increasingly technology also requires revenue investment. Pressure on capital budgets at a national level can be a barrier, while the financial pressures facing NHS organisations can make revenue investment difficult.
- **Skills** – getting the most from technology and the estate requires a mix of strategic and technical skills, however the availability of skills in both of these areas varies across the NHS.
- **Infrastructure** – use of technology in the NHS relies on having robust infrastructure in place. For example, video consultations require broadband. In practice, however, the availability of this type of infrastructure is still patchy.
- **National standards and regulation** – national regulations and standards are key enablers for delivering technology and estates projects.

This research was carried out independently, and the findings are The King's Fund's alone. We are grateful to NHS Property Services for their support for our work.

To read the full report, *Clicks and mortar: Technology and the NHS estate*, please visit www.kingsfund.org.uk/clicks-and-mortar

The King's Fund is an independent charity working to improve health and care in England. We help to shape policy and practice through research and analysis; develop individuals, teams and organisations; promote understanding of the health and social care system; and bring people together to learn, share knowledge and debate. Our vision is that the best possible health and care is available to all.