# (non)Profitability in Healthcare

# Profitable Future Hospitals

Today's hospitals are challenged by increasing demands and needs for hospital treatment by an ageing population and a general increase in the number of chronic patients. New players in the healthcare arena who today offer digital health services (e.g. Amazon, Google and Apple) threaten to further disrupt the current hospital landscape with new organisations and services. Hospitals can react to these challenges by redefining their role as a physical hospital and by embracing opportunities to establish virtual hospital concepts.

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### key points

- With increasing demands for healthcare services and hospital treatment, it is not sustainable to just increase the number of hospitals and beds.
- Payers are facing the same challenges, and they react to rising costs by looking for alternatives to hospital treatment, focusing on prevention, outpatient treatment and Telehealth.
- Hospitals need to redefine their roles and services to become hospitals of the future and operate in a way where they can both respond to increasing demands and expectations while at the same time remaining profitable.

### Introduction

Hospitals are facing a daunting challenge with the increasing demand for in-hospital treatment, driven by demographic shifts, an ageing population, and the rising incidence of chronic diseases. As a result, hospitals are grappling with a range of issues, including overcrowding and long waiting times. Staff shortages and lack of GPs add to this challenge where hospitals need to serve more patients with less staff.

At the same time, hospital provider executives are concerned about potential disruptions that can threaten their hospitals' very existence because new players are using technology and innovative approaches to transform healthcare.

Tech companies like Amazon, Google and Apple have the potential to transform healthcare in a disruptive way. Even though they originally entered the healthcare space offering digital solutions, more and more we read about these big tech companies acquiring healthcare organisations to actually offer physical healthcare services. This may mean that tech companies sometime in the future might be able to offer a new generation of healthcare which is based on a combination of virtual services and clinic-based services.

Virtual hospitals represent a new model of healthcare delivery, one that leverages technology to provide patients with remote, telehealth-based access to medical care.

These are characterised by their ability to deliver medical care and support services to patients in their homes or in other non-traditional outpatient care settings. By harnessing the power of technology, virtually, they can provide high-quality care while reducing the burden on traditional hospitals.

Today's hospital has an opportunity to transform themselves into future hospitals, which are at the same time physical hospitals and virtual hospitals. Virtual Wards is such an approach that has actually been rolled out.

On Virtual Wards, patients are provided with a range of devices that can track their vital signs, such as blood pressure, heart rate, and oxygen saturation levels. Patients can also use these devices to report any symptoms or concerns they may have.

The data collected from these devices is sent to the Virtual Ward team, who can then monitor the patient's progress and intervene if necessary. For example, if a patient's vital signs start to deteriorate, the team can contact the patient and provide them with advice on how to manage their condition. Alternatively, if a patient reports a new symptom, the team can arrange for them to see a healthcare professional, either in person or virtually.

In the U.K., the NHS has launched an initiative to significantly increase the number of these Virtual Wards. The experience so far is that Virtual Wards offer several benefits for patients, healthcare providers, and the healthcare system.

Firstly, they can help to reduce hospital admissions, which can be particularly important for patients with chronic conditions who are at risk of frequent hospitalisations.

Secondly, by providing ongoing support in the community, Virtual Wards can help to prevent patients from becoming acutely unwell and needing to be admitted to a hospital.

Virtual Wards can, thirdly, help reduce waiting times and improve patient outcomes by providing more personalised care. By working closely with patients and their healthcare providers, Virtual Ward teams can develop care plans that are tailored to each patient's individual needs. This can lead to better health outcomes and a better quality of life for patients.

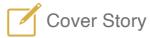> ## The hospital of the future is also a virtual hospital

As more Virtual Wards are established, they become an increasingly important part of the healthcare system in the UK. They are helping to address some of the challenges facing the NHS, such as rising demand for healthcare services, an ageing population, and a shortage of hospital beds.

The NHS Virtual Ward initiative is but one way to improve healthcare productivity and healthcare services. It is often pointed out that meeting the needs of the young "digital natives" generation, who expect advanced digital health, is an important factor for new and disruptive players in healthcare. For the NHS, Virtual Wards can both transform the healthcare system and, at the same time, help reduce the potentially disruptive effect of new players in healthcare.

What are the opportunities for hospitals in other countries to initiate a transformation to become Future Hospitals? And how can such a transformation improve their profitability?

The Epital Care Model is a research-based healthcare model designed to provide patient-centred care through a collaborative and multidisciplinary approach. It aims to optimise patient outcomes by considering the patient's medical history, lifestyle, and social factors. Thus, the Epital Care Model focuses on both home monitoring with the same initiatives and elements as in Virtual Wards and – like Virtual Wards – the Epital Care Model also includes clinic or hospital-based physical treatment.

A few Danish research projects have been conducted to document the efficiency and budget savings potential of the Epital Care Model associated with chronic patients.

Two of the studies, the TEMOKAP project at a private clinic and the PreCare project in Region Zeeland, ended up with very similar results, such as a more than 50% reduction of hospitalisation and further, in the TEMOKAP project, 57% outpatient visit reduction, 74% ER visit reduction and 81% GP visit reduction.

This means that hospitals, which choose to use the Epital Care Model to initiate their transformation journey to become a Future Hospital, have the potential to reduce their costs and use of HCPs associated with chronic patients by significant margins: more than 50%. The research projects did not assess early discharge to continue treatment in the patient's home, but it is likely that this holds a similar, very large potential for reducing bed days.

Chronic patients are typically elderly patients. Are they able to use advanced digital health solutions? How do we ensure that they are active and continue to use technology in their home? And how about those who are not able to use the technology – i.e. healthcare equality?

The Epital Care Model includes patient health literacy, IT literacy and patient engagement approaches which make home treatment a reality

for most elderly patients. Experience from these research projects indicates that less than 1% of relevant patients were excluded due to a lack of IT skills. These research projects also proved that it is possible to engage all the patients and keep them active in-home treatment for longer periods (>2 years and more). Some patients are, of course, excluded from home treatment, e.g. due to drug or alcohol

> Patient empowerment and outpatient treatment are key to future hospital profitability

abuse, other social problems or cognitive issues. To maintain and increase health equality, the strategy for implementation of home treatment should include a way to use some of the considerable savings to add

new and traditional services to target those patients who are excluded from home treatment.

In many countries, current payment models and incentives do not at all motivate hospitals to change because they are typically paid or reimbursed based on hospital bed days or in-hospital treatment procedures. With the approaches to home treatment, hospitals can achieve vast savings, both in terms of economy and staff and by taking the initiative to transform, they remain in control of their patients, even though much of the treatment will be delivered in the patient's home.

Provided that payment models and incentives can be changed to support future hospitals in an optimal way, there is a huge potential for hospitals to transform themselves and, at the same time, increase profitability and optimise their relevance as 'Virtual Hospitals' and hospitals of the future.

## Conflict of Interest

None. ■