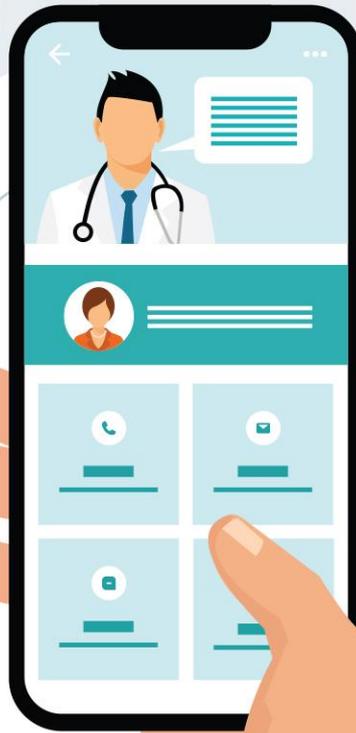


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Priority Investment

Part 2 – Remote access and communications
platforms (Telemedicine)

A Siemens Financial Services (SFS) Insight Series, November 2019

Part 2 – Remote access and communications platforms (Telemedicine)

Top investment areas for digital transformation in healthcare, the size of the investment challenge, and how to manage that challenge



Increasing Demand

As demand for healthcare increases, and financial pressure on healthcare systems mounts, new ways of working are required to provide people with access to their healthcare needs. As one key commentator notes, “Global health care spending is projected to increase at an annual rate of 4.1% [to] 2021, up from just 1.3% in [the period] 2012-2016.”¹

Digital Transformation is Key

Digital transformation is increasingly being seen as key to containing the escalating costs of healthcare,² whether provided by the state, covered by medical insurance, or paid for privately. Digitalization holds the potential to transform the delivery of healthcare by connecting clinicians, technicians, care professionals, equipment, systems and locations in order to achieve better patient outcomes/experiences, more quickly and at lower cost.

If healthcare organisations do not invest in digital transformation, they are effectively denying important benefits to taxpayers and patients, whether in terms of improved patient outcomes, operating efficiencies, or access to personalised precision medicine.

“We’ve developed a digital health strategy that is complementary to what already exists as far as our clinical care and our commitment to treating the whole child. What we want to do is take these digital tools that we believe the consumer is demanding and put them in their hands to meet them where they are.”

Gina Altieri, CEO of Nemours Children's Health System

Priority Investment – Remote Access and Communications Platforms (Telemedicine)

Respondents to our latest SFS Insight study – healthcare experts from around the world – pinpointed three key areas for investment in digital transformation, where they felt that return on that investment would be quickest and highest.

One of the top three areas for investment chosen by respondents, was “remote access and communications platforms”. These platforms not only allow patients to consult a doctor remotely; they also link up diagnostic equipment and centres, analytical staff, clinical specialists, diagnostic and therapy databases, surgical centres, etc, so as to deliver a transform healthcare delivery and ensure good patient experience while also containing costs.

For instance, a mobile scanning unit might capture patient medical imaging in multiple locations. These are then accessed digitally by interpretative specialists in a remote hub. The clinical results are then accessed by a doctor in yet another location, as well as the access to a database of clinical interpretation. So the key to value and return on investment from remote medicine is to link hardware with systems and (clinical) professionals, as much as digital linkage between doctor and patient.

Telemedicine in the UK

The UK has seen the number of patients admitted urgently to hospitals increasing by 42% over the past decade, with the number of patients admitted and then discharged on the same day increasing by 373% over the same period.³

The growing popularity of telemedicine has opened up the door for the UK to reduce the number of avoidable admissions to hospitals. Digitalized telemedicine is not simply linking doctor and patient over the internet, but involves linking diagnostic imaging units, pharmacy, therapeutic clinics, and indeed consultations between doctors, to provide improved access and efficiency through digital linkage.

Similarly, Airedale NHS Foundation Trust led the implementation of a telemedicine service within a care home, providing residents with 24/7 support, and linking them with a doctor through video consultations, if required. Between April and June 2017, 90% of patients using the service stayed in their place of residence, while only 10% (924) requested an ambulance. This represents a 30% decrease in demand for GP primary care services, and a 33% and 25% reduction in Emergency Department (ED) attendances and hospital admissions respectively.⁴

Considering that the NHS deals with 1 million patients every 36 hours,⁵ and given the shortage of NHS staff, it's no surprise that moving care out of hospitals and closer to people's homes through telemedicine, for example) has been identified as a continued priority in The NHS Long Term Plan.⁶

The Investment Challenge

Digital transformation, however, even simply for Remote Access and Communications Platforms (Telemedicine), requires considerable capital investment – typically beyond normal capital budgets available to healthcare providers. This research conservatively estimates the 'investment challenge' for Telemedicine in the UK is \$1.8 billion (£1.4 billion) over the next five years.⁷

This scale of investment is not typically within the capacity of normal capital spending allocations in healthcare (typically around 5% of total operating budgets).

Even if there were the social and political appetite to buy the technology required for digital transformation outright, this would lock up considerable funds which most institutions would normally prioritize for urgent operating expenditure. Such 'frozen capital' is an inefficient use of public funds where other financing options are available to today's pressurized healthcare environment.

As a result, many healthcare institutions are turning to specialist private sector financing tools to help manage the digital transformation in a financially sustainable manner. This is delivering rapid access to improved patient outcomes and increased efficiency. Deploying private sector capital to acquire the necessary technological and equipment base allows digital transformation to be achieved without 'freezing' unacceptable levels of funding.

Figure 1 – The investment challenge



The 'investment challenge' for Telemedicine in the UK is \$1.8 billion (£1.4 billion) over the next five years.

Sustainable Investment

Accordingly, a majority of respondents to this study remarked on the importance of being able to access ‘pay for usage’ technology arrangements from the private sector without the need to devote scarce capital.

Total cost of ownership is also a hallmark of these specialist financing schemes. Even a stand-alone equipment unit will require maintenance and service, possibly training. Enterprise-wide solutions may incorporate initial strategic consulting, buildings/facilities adaptation/build, equipment supply, maintenance/service, systems integration, physical installation, staff training, possibly even skilled personnel and management. At either end of the scale, the total cost of ownership (or rather, usage) is bundled into a single regular charge.

A detailed description of the key specialist financing techniques for digital transformation may be found at [SFS URL].

¹

² McKinsey, Four keys to successful digital transformations in healthcare, 1 Apr 2017; Ernst Young, 10 ways digital could transform healthcare, 25 Apr 2018;

³ The Health Foundation, Emergency hospital admissions in England, May 2018

⁴ NHS, Implementation of telemedicine at Airedale NHS Foundation Trust, 13 Feb 2019

⁵ Gov UK, Guidance: Digital health and care, 20 Nov 2018

⁶ The Health Foundation, NHS staff shortages put long-term vision for primary and community care at risk, Feb 2019

⁷ Methodology: Based on projected market value 2019-2023, minus current financing penetration, and just 50% market conversion to digital transformation. Sources: Reports Intellect, Netscribes, Market Research Futures, Markets & Markets, HIS Markit, Zion Research, Research & Markets, Morder, Technavio, GM Insights, Orbis, BCC, P&S Intelligence, Leaseurope, White & Clarke

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Published by

Siemens AG 2018

Siemens Financial Service
Sefton Park,
Bells Hill, Stoke Poges,
Slough SL2 4JS,
United Kingdom

For more information:

Phone: +44 (0)1753 434 409

E-mail: healthcarefinance.sfs@siemens.com

Updated (unless stated otherwise): November 2019

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