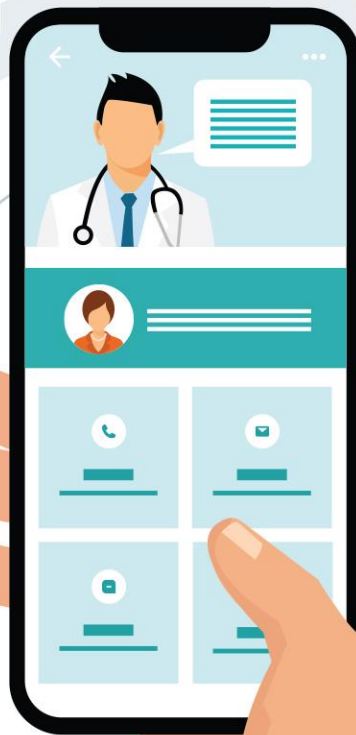


The background of the entire page is a light gray with a network of white lines and squares, resembling a circuit board or a data network. In the top left, there is a white rectangular box containing the Siemens logo. In the center, a hand holds a smartphone displaying a telemedicine interface. To the left of the hand, there is a small illustration of an ambulance with a red cross and two people inside. To the right, there is a small illustration of a hospital bed with a patient lying in it. The overall theme is healthcare technology and remote access.

SIEMENS

Ingenuity for life



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 citizens 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 controlling the escalating costs of healthcare,² whether provided by the government, covered by medical insurance, or paid for privately. Digitalization holds the potential to transform the delivery of healthcare. It can connect clinicians, technicians, care professionals, equipment, systems and locations in order to achieve better patient outcomes/experiences, more quickly and at lower cost.

If healthcare organizations do not invest in digital transformation, they will encounter higher costs of providing diagnosis and treatment. They are also effectively denying important benefits to taxpayers and patients, whether in terms of improved patient outcomes, operating efficiencies, or access to personalised precision medicine, and will therefore lose patients to other healthcare providers which can provide a higher standard of care.

“Digital has been identified clearly as one of our levers for growth going ahead in our strategic plan including embracing data and using digital as a medium and channel for fueling growth and reach. We have started using digital mediums to educate the masses on various diseases, prevention and early detection of diseases, through various digital mediums like YouTube videos, live Facebook chats with our doctors etc.”

Sameer Agarwal, CFO, Manipal Hospitals.

Priority Investment – Remote Access and Communications Platforms (Telemedicine)

Respondents to our latest SFS Insight study – healthcare experts from around the world³ – pinpointed three key areas for investment in digital transformation, where they felt that return on that investment would be quickest and highest. These are *Remote access and communications platforms (Telemedicine)*, *New generation (digitalized and/or mobile) diagnostics*, and *Smart, digitalized hospitals*.

“Remote access and communications platforms” 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.

Telemedicine in India

In India the shortage of trained clinicians and care staff means that the doctor to patient ratio is extremely low – 0.8 for every 1,000 persons. This does not meet the World Health Organization’s recommendation of 1.0 per 1,000. Conditions are more acute when focusing solely on rural areas; while cities account for 32% of the population, they house 60% of the nation’s hospitals.⁴

Telemedicine has the potential to bridge the urban/rural divide by enabling rural citizens and their healthcare practitioners to remotely access equipment and expertise which are often concentrated in urban areas. This can be in the form of remote digital diagnostics facilities or access to specialist expertise, for example.

This has the potential to create a significant impact in India. Especially considering the poorest 20% of the population only receives a 10% of the country’s public health subsidy. An increasing number of diseases that affect remote areas in particular highlight the need to move beyond traditional healthcare consultation and illness management systems. Currently, around 70% of outpatient department cases in India do not require face-to-face visits. Better still, research indicates that only around 15-16% of patients that were treated via telemedical consultation eventually needed to visit a hospital for further treatment.⁵

In this context, access to medical treatment that takes advantage of digital communication channels is crucial. Recent research suggests that India could economize as much as \$10 billion if telemedicine were to replace around 30-40% of in-person outpatient consultations. Furthermore, the report estimates that an accelerated execution strategy could enable the country to access around 60 to 80% of this potential by 2025.⁶ Such savings and technologies would have a profound impact on the access to and quality of healthcare for citizens across the country.

The Investment Challenge

Digital transformation, however, even simply for Remote Access and Communications Platforms (Telemedicine), requires considerable capital investment. This is typically beyond normal capital budgets available to healthcare providers. This research conservatively estimates the ‘investment challenge’ for Telemedicine in India is \$2.2 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. These funds are normally prioritized for urgent operating expenditure. Such ‘frozen capital’ is an inefficient use of public funds where other financing options are available to reduce the pressure on today’s 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 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 \$2.2 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 [here](#).

¹ Deloitte, *Global Healthcare Outlook, 2018, 2017*

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 *Research Methodology:- 53 specialist management consultants, academic commentators, national health departments, medical associations and acute care organizations/groups were interviewed in thirteen countries around the globe, accessing intelligence indirectly from hundreds of healthcare institutions. The research period was May-July 2019. The qualitative interviews explored where respondents saw the greatest and quickest value would come from digitalization in healthcare.*

⁴ McKinsey, *Digital India: Technology to transform a connected nation*, Mar 2019, p. 63

⁵ *The Hindu Business Line, A booster shot for rural healthcare*, 9 Jul 2018

⁶ McKinsey, *Digital India: Technology to transform a connected nation*, Mar 2019, p. 16

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*

All rights reserved. All trademarks used are owned by Siemens or their respective owners.

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

[siemens.co.uk/finance](https://www.siemens.co.uk/finance)

Follow us:



[Linkedin.com/company/siemens-financial-services](https://www.linkedin.com/company/siemens-financial-services)



twitter.com/siemens_sfs



fb.com/siemensfinancialservices