

# Healthcare Delivery

How COVID, an aging population & technology combine helped transformation

## **In the coming decades, healthcare delivery is going to transform how patients receive treatment for their health needs.**

In fact, the home healthcare market around the world is expected to reach US\$545 billion by 2028.

The factors contributing to this rapid growth are cost-efficiency and improved patient outcomes experienced through this method of healthcare delivery. In addition, the aging population and the rise of chronic diseases, such as Alzheimer's, dementia, and other long-term conditions, are driving market growth<sup>1</sup>.

In Saudi Arabia, the Vision 2030 health sector transformation program aims to restructure the health sector to be a comprehensive, effective and integrated health system based on the health of the citizen, the resident, and the visitor.

This program will play a key role in addressing new trends in healthcare delivery, such as home healthcare<sup>2</sup>.

The Vision 2030 health sector transformation program relies on the principle of value-based care, which ensures transparency and financial sustainability by promoting public health and preventing diseases, in combination with applying the new model of care related to disease prevention and management<sup>3</sup>.

By the end of 2025, the Vision 2030 health sector transformation aims to have 88% of the population — including those in rural areas — covered by inclusive health services and 100% of the population covered by the unified digital medical records system.

These efforts will make delivering healthcare in non-hospital settings easier, more efficient, and cost-effective.

# Why is healthcare delivery shifting

The COVID-19 pandemic created a catalyst for reimagining healthcare delivery. The goal is to help improve the quality of care and patient experience while also creating potential value for payers, healthcare facilities and physician groups, providers, technology companies, and investors.<sup>4</sup>

**Unsurprisingly, studies have shown there was a sharp increase in home healthcare visits in the pandemic compared to previous years because individuals felt safer avoiding healthcare settings.<sup>5</sup>**

In fact, 72% of people would prefer to receive care at home after a major medical event and 69% preferred to receive regular check-ins at home.<sup>6</sup> Another significant influence on the shift to non-hospital care delivery locations is the aging population.

Due to increasing life expectancy and falling fertility levels, the UN found that for the first time in history, individuals aged 65 or above outnumbered children under five years of age globally. Moreover, by 2050, 16% of people in the world will be over the age of 65 — up from 9% in 2019.<sup>7</sup>

Saudi Arabia is moving through a demographic transition too. The number of persons aged 60+ is expected to increase five-fold between 2020 and 2050 from 2 million (5.9% of the total population) to 10.5 million (23.7%).

Over the same period, the number of persons aged between 15 and 24 is estimated to grow by only 500,000.<sup>8</sup> This demographic shift will lead to a greater demand on the healthcare system and a high number of per capita expenditures among the older age group.<sup>9</sup>

Moreover, the rising sedentary life, unhealthy diets, and high consumption of tobacco has led to many lifestyle-related diseases, which now represent a major challenge to overall health in the country. For example, diabetic disease-account stands for nearly one-fourth of the total healthcare expenditure in the Kingdom.<sup>10</sup>

Add to that, population growth, a rise in life expectancy, and greater urbanization are all driving an even greater demand for healthcare services in the Kingdom.<sup>11</sup>

The result of these compounding factors is a significant increase in healthcare spending in the Kingdom.

**Spending has grown at a compound annual growth rate of 12.1% over the last nine years and is expected to increase to US\$160 billion by 2030.<sup>12</sup>**

For Saudi Arabia, in the face of these trends, Out-of-hospital care is one way the healthcare system will deliver more cost-effective services in the years to come. The health system will benefit tremendously from better out-of-hospital and community-based services, as the Kingdom adopts Integrated Care Systems (ICS) to deliver great patient experience and outcomes at lower costs.<sup>13</sup>



# How technology has facilitated a shift in healthcare delivery

During COVID, telehealth and health apps saw a rise in popularity and effectiveness. This has opened the door for virtual care to play a larger role in triage, such as allowing patients to join a video call and answer very specific questions about their situations and needs. In turn, this streamlines the implementation of next steps.<sup>14</sup>

Advances in-home care device technology mean healthcare professionals can effectively perform a variety of healthcare services outside of hospital settings. These innovations include Electronic Visit Verification (EVV), remote patient monitoring tools, augmented and virtual reality, Internet

of Medical Things (IoMT),<sup>15</sup> apps like Sehhaty and Mawid,<sup>16</sup> electronic health records, and even high-powered microscopes that use smartphones to analyze swabs outside of lab settings.<sup>17</sup>

**This represents the early stages of the hospital-at-home infrastructure and a shift towards home as the preferred place of care.<sup>18</sup>**

As investment in the healthcare technology space increases,<sup>19</sup> more innovations are on the horizon and will continue to shape how healthcare is delivered in the Kingdom.

The aging population, the impact of COVID on healthcare delivery and the rise of transformative technology is creating new opportunities for healthcare delivery in homes and other non-acute locations.



# What care delivered out-of-hospital means

**With the support of technology, a wide variety of healthcare services can be delivered in care settings outside of hospitals.**

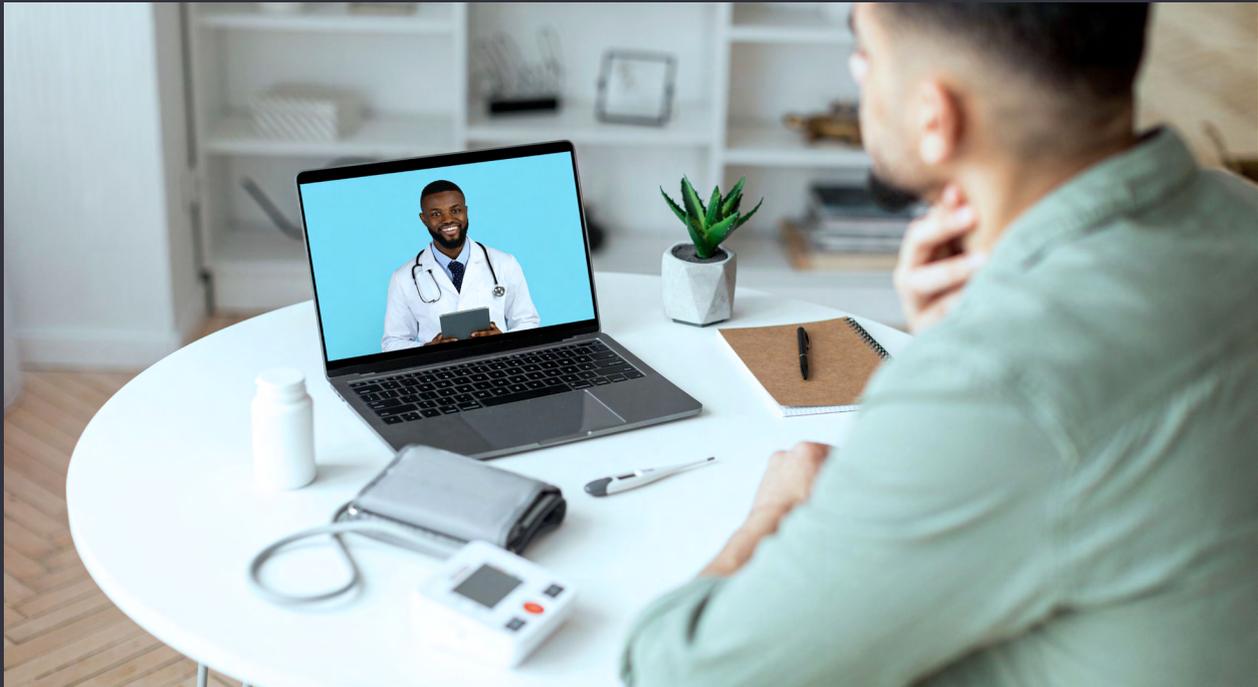
This can be primary-care visits via telehealth, self-administered dialysis at home, and skilled nursing-facility services at home with remote patient monitoring and support for activities of daily living.<sup>20,21</sup>

One paradigm used to organize out-of-hospital care delivery is to consider different types of patient archetypes.<sup>22</sup>

One archetype is the high-risk patient with a chronic condition who needs ongoing care and visits at regular intervals. A second archetype is a healthy and low-risk patient who may only require telehealth-style services.

At-home care can be delivered throughout the patient journey — such as diagnosis, treatment and discharge, or palliative care — as either point solutions or as a comprehensive offering.

Treatment for more than 60 different conditions, such as asthma, congestive heart failure, pneumonia, and chronic obstructive pulmonary disease (COPD) care, can be treated appropriately and safely in home settings with proper monitoring and treatment protocols. However, higher acuity and more complicated conditions cannot yet be treated at home in a high-quality and economical way.<sup>23</sup>



The aging population, the impact of COVID on healthcare delivery and the rise of transformative technology is creating new opportunities for healthcare delivery in homes and other non-acute locations. While this shift in the industry will benefit citizens, residents, and visitors, there are specific subpopulations that would see a greater benefit from home healthcare visits and other non-acute options.<sup>24</sup> These include those in rural locations, older individuals, and women.

**In addition, studies have shown a group of patients who were treated in a home-based setting were significantly less likely to be admitted or readmitted to the hospital.<sup>25</sup>**

The move to greater home healthcare delivery will support the Vision 2030 goals to provide a comprehensive, effective and integrated health system based on the principle of value-based care.

In earlier stages of Vision 2030, the healthcare sector has had many achievements, such as improving the quality and efficiency of services, launching a package of applications (Sehhaty and Mawid) to boost access to services, and increasing the service coverage in all the Kingdom's regions.<sup>26</sup> This new phase of Vision 2030 will improve access to health services through optimal coverage and equitable geographical distribution and improve health outcomes across the Kingdom.



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# Elevating Healthcare

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