



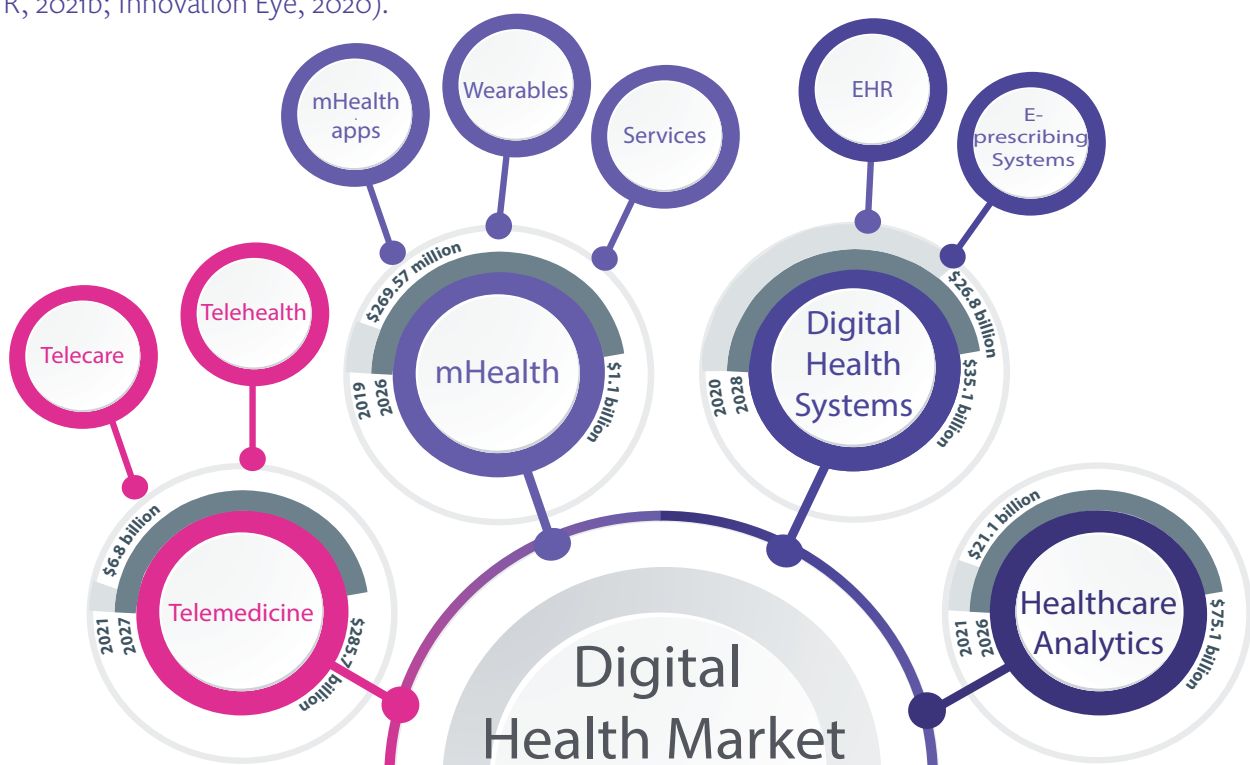
Emerging Trends in Digital Health and Care: A Refresh post-COVID

The DHI reviewed emerging trends in digital health and care in a report released in 2019. The global COVID-19 pandemic has radically transformed the way health and care are delivered. This report investigates how the pandemic has impacted digital transformation of health and care sectors, and how it may continue to shape this in the immediate future.

Digital Health and Care Market

Prior to the COVID-19 pandemic, the growth of the UK digital tech sector was estimated to be six times the rate of rest of the economy (TechNation, 2020a). Post-pandemic, the tech sector and health and care sectors are key drivers within the recovering global economy (Deutsch, 2021). In this report, the digital health market is divided into the following four sub-sectors:

- **Telemedicine:** uses telecommunication tech to deliver care-related services, information supporting patient care, administrative activities, and health education. The use and the market size of telehealth have increased strongly in response to the COVID-19 pandemic. The global telehealth markets are projected to grow from \$87.8bn in 2022 to £285.7bn by 2027, at a CAGR of 26.6% (Markets and Markets, 2022).
- **mHealth:** relies on mobile devices for the delivery of health and care services and information; often overlaps telehealth solutions. The global mHealth market has been projected to reach a global market size of \$57.57bn by 2026, growing at a CAGR of 29.1% (GVR, 2021b; Innovation Eye, 2020).
- **Healthcare Analytics:** tech that support the analysis of health and care data, including clinical, pharmaceutical, cost, and patient behavioural data. This market is projected to grow from \$21.1bn in 2021 to \$75.1bn by 2026, growing at a CAGR of 28.9% (Markets and Markets, 2021).
- **Digital Health Systems:** DHS are replacing paper-based systems globally and include electronic health records (EHRs) and ePrescription. Just the global EHR market (part of DHS) was valued at \$26.8bn in 2020 and was projected to grow \$35.1bn by 2028 at a CAGR of 3.7% (GVR, 2021c).



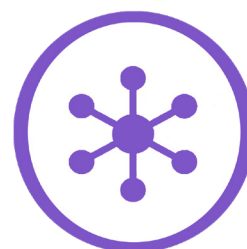
The report presents the technical and softer developments in digital health and care post-COVID under the following overarching themes:



Transformation of Health and Care Services

- Cloud Computing
- Big Data
- Artificial Intelligence
- Virtual and Augmented Reality
- Digital Pharmaceuticals
- Digital Pharmacy
- Digital Mental Health
- Genomics

Refers to subsectors of DH&C that will fundamentally change how H&C services are delivered both from the perspectives of the patient and the providers through introducing novel solutions that transform current practices into something new. The sections focusing on Cloud Computing, Big Data, and Artificial Intelligence are seen as enablers that lay down the foundations for the emerging innovative developments to take place.



Migration from Analogue and Legacy Systems to Modern Digital Approaches

- Telehealth and Telecare
- Electronic Health Records (EHR) and Electronic Medical Records (EMR)
- Personal Health Records (PHR)

Explores the shift taking place in the delivery of H&C from traditional, face-to-face models, and from tech that rely on physical telephone lines, to digitally supported methods; on care delivery moving away from hospitals into communities and homely settings; and the shift from health service-owned to person-owned health and care data.



The Acceleration of Digital Innovation in Health and Care

- mHealth
- Remote Patient Monitoring & Care
- Wearable Technology

Brings up subsectors of DH&C that are estimated to grow because of COVID at a faster rate than previously predicted in terms of availability, implementation, and uptake. These include greater use of patient data obtained through remote monitoring technologies and an increase in the use of patient generated data from third party wearable and mobile technologies.



Softer Developments (Acceptance)

- Building trust in digital health
- Acceptance of digital health
- Equity in digital health
- Impact workforce development

Discusses the softer developments in DH&C following COVID, many of which have arisen due to the rapid technical developments discussed in the other three sections. The theme of acceptance of DH&C does not simply refer to the increased acceptance of digital tech; it also refers to the greater sector-wide efforts by various stakeholders and leaders to establish a cultural shift that can advance the digital transformation of the sectors.

The following emerging trends were identified in digital health & care post-COVID:



Greater personalisation of health and care

Health and care become more personalised through the deployment of patient specific devices and person-generated data. These provide users with more precise, personalised approaches to health and care delivery.



More efficient, effective, and precise use of health care data

The combination of advances in AI, machine learning, predictive analytics, the improved interoperability and security of digital systems, with the availability of the ever-growing body of health data generated by citizens contribute to more effective, efficient and precise use of HC data.



Growing health data autonomy for citizens

Advancements in EHRs, EMRs and PHRs will allow citizens to have oversight and control over their health data. As the proliferation of digital solutions continues, citizens will be able to collect and monitor their own personal health data, with the potential for them to integrate these data into their EHRs, EMRs and PHRs.



Overall emphasis on wellbeing and prevention of ill health

Most subsectors in DH&C contribute to preventative health and care. For example, using AI and predictive analytics alongside data from remote monitoring enables identifying and addressing emerging health and care requirements on both individual and population levels before they escalate into poor health or health emergencies.



Care moving away from hospitals into community setting

It is increasingly common for care to be provided in a homely/community setting. For example, community pharmacies are being given more responsibilities in managing minor community health needs as well as in promoting wellbeing advice outside of primary or secondary care settings.



Transformation in skills needs and workforce requirements in health and care

Digital transformation of health and care services touches upon every aspect of associated workforce. To realise the true potential of digitally enabled health and social care services, it is imperative that a unified, concentrated effort is made to transform the education and skills provision for those working in delivering health and social care; in digital and data roles in health and care; as well as those employed by the digital health and care industry.

The most significant effect of the COVID-19 pandemic on digital health and care sector is the accelerated adoption of digital solutions to support health and care services at scale: digital solutions were the primary tool in providing alternative methods to face-to-face service delivery during national lockdowns. The increased demand of digital health and care solutions is in turn reflected in the market size and growth. While the demand for such services has stabilised, it remains at significantly higher levels than pre-pandemic, suggesting an unprecedented increase in public trust on digital technology. The legacy of COVID-19 pandemic may be the acceptance and, possibly, the expectation that digital solutions will be used alongside, and in support of, standard practices to deliver health and care services from now on (cf. McKinsey and Company, 2021).



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