
Digital Health: A Primer

- Digital health leverages digital and ICT solutions to help solve one or more of the triple aims of healthcare – improving the patient experience, improving the health of populations and reducing the per capita costs of healthcare.
- Covid-19 massively accelerated the adoption of digital tools across healthcare systems globally and continues to drive innovation in the digital arena. However, a key investor consideration should be on whether a newly developed tool can help to resolve long-term barriers, rather than solely addressing a short-term need.
- Investors should seek confidence in key questions around funding & reimbursement streams, interoperability with the wider health ecosystem, regulatory classification, USP and scalability options.
- Most digital health solutions won't 'tick' every diligence box, but the more information that can be gathered the better prepared investors will be able to weigh the risks and opportunities associated with any digital health investment.

Defining Digital Health

There is no universally agreed definition of digital health, but most stakeholders agree that it encompasses technology and data driven solutions that enhance the quality, access, and cost efficiency of healthcare delivery.

In essence, all digital health solutions are targeted at helping health systems and their users achieve one or more of the triple aims of healthcare, as identified by the Institute for Healthcare Improvement:

- Improving the patient experience of care (including quality and satisfaction)
- Improving the health of populations
- Reducing the per capita cost of health care

Whilst all three of the above are important to commissioners, cash strapped systems increasingly look to solutions that help deliver the third aim of reducing the per capita cost of healthcare. Solutions delivering the first two aims may struggle to receive funding if they cannot demonstrate cost effectiveness.

The lack of an agreed definition and the continuous expansion of healthcare applications has led to an increasingly widespread use of 'digital health' as a blanket term, which can cause confusion across payors and providers.

A quick scan of services labelled as digital health products demonstrates that the term can range from administrative applications and solutions that form the backbone of healthcare systems, efficiency enhancement tools, identity check and access solutions, health and wellness advisory apps, patient and health system data solutions, remote patient monitoring devices and emerging digital therapeutics.

It seems clear that digital health has crossed the Rubicon – no longer the reserve of IT departments and tech evangelists, it has become an integral consideration in business planning and service delivery across healthcare systems at both the local and national level.

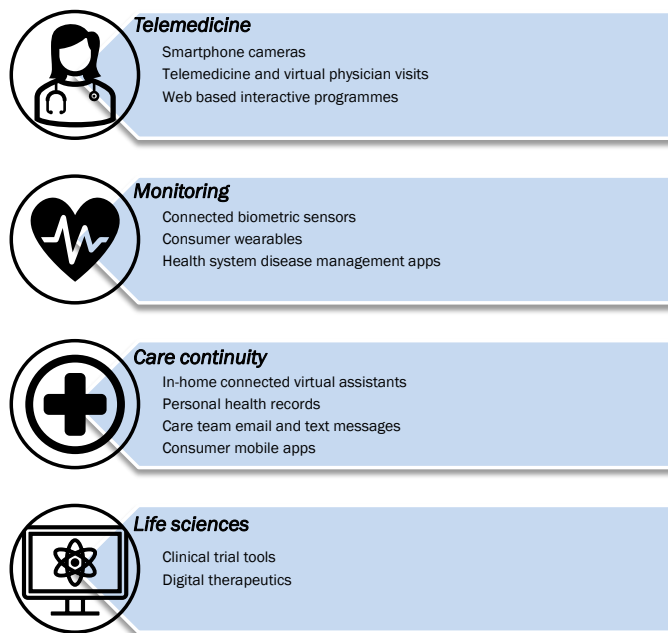
Digital Health in the Spotlight

While the application of digital health solutions is not new, its importance and the growing reliance on these tools as part of the bedrock of public healthcare delivery was demonstrated during the Covid-19 pandemic. As the need for rapid system transformation emerged, digital health conversations moved from providers' IT and medical device departments into clinicians, consumers and payers' everyday vocabulary.

Covid-19 created an environment where traditional face to face care delivery in hospitals and primary care premises became impossible. Healthcare systems had to quickly enlist the aid of technology companies with solutions that could ensure the continuation of care delivery while minimizing the need for direct patient contact. This had a threefold impact on the digital health sector:

- The number of companies active in telemedicine, remote patient monitoring and care management grew significantly
- The volume opportunity for these companies in health and social care expanded as a result of a digital first care approach adopted across care ecosystems wherever possible
- Digital care companies got firmly embedded in the care pathways across many health systems

Key digital health product categories enabling service delivery during the pandemic



With the uptick in utilisation and allocated funding from government health systems, there is marked operator and investor interest in solutions that can help support the delivery of care. Success of digital health solutions are driven by many factors, but what elements of a solution will contribute to a return on investment?

Considerations for Investing in Digital Health

The number of digital solutions targeted at healthcare is huge, with a reported 318,000 health apps available in app stores over the world. The number continues to grow rapidly, with over 200 apps being added each day across the globe. Understanding a product or solution's place in a crowded and inherently complex value chain can be challenging but there are several areas of consideration that can drive long-term success or failure of an asset. Using NHS Primary Care as an example we explore some of the key areas for diligence when investing in a digital health solution.

Funding

The availability of designated annual funding from governmental health systems, in addition to CCG funding of digital initiatives, can drive confidence in a renewable and stable revenue stream. It is something that makes social care and children services perennial favourites for investors. In positive news for digital health providers, systems like the NHS are now recognising the importance of digital health solutions to transforming the provision of care and have begun providing dedicated funding pots for innovative solutions. Investors should ensure they have comfort in the existing funding pots for digital health solutions and how the outlook may change in line with future healthcare priorities, as policies and mandates that drive funding levels are regularly reviewed at national and regional levels.

Interoperability

End users, and purchasers alike, have begun to insist on interoperability when it comes to introducing new digital health solutions into care provision. Ease of use and sharing of information are key elements of streamlined and quality care delivery, with regulators beginning to take notice. NHS Digital now requires primary care EMR system suppliers to share APIs with approved digital health solutions to ensure a secure and seamless sharing of patient data across solutions, whilst a CQC focus on how providers work together locally may well steer provider decision-making when purchasing solutions. Understanding regulatory requirements surrounding market access and the broader regulatory steers influencing decision-making is important additional visibility into the solution's current and future ability to securely connect into the larger eco system of digital health solutions and infrastructure.

Demonstrated Outcomes

While it may seem obvious, documented realised value of digital health solutions are often an afterthought. Whether it be cost savings, efficiency gains, quality improvement, or even adoption rates, driving growth of a digital health solution will be dependent on the value it delivers. During the Covid-19 pandemic, video consultation capabilities were mandated (and still are) for NHS primary care services – driving up demand and revenues for those suppliers. But more than two years in, very little evidence has been documented to demonstrate the value of video consultation services as a stand-alone digital health solution. This can make it very difficult for investors to separate fact from fiction when searching out the next tech unicorn. It is not enough to make a good product, it is also not necessarily enough to be demonstrably good - it needs to be demonstrably good in a language that resonates with local healthcare commissioners. Marwood's consultants come from these backgrounds and can help investors understand what a KPI really means, but also the likelihood of whether it is something meaningful to payors.

Unique Selling Proposition

The landscape of digital health solution suppliers is broad and deep, with some sub-sectors inundated with solutions, and differentiating between great, good and bad can be difficult. Apps for the management of chronic conditions like diabetes, symptom checkers, and mental health management are so numerous that the value the great solutions bring to the sector get lost in the sheer volume of options. Some organisations like NHS Digital are trying to help purchasers make good decisions by putting into place rigorous standards for inclusion on NHS frameworks, but even with that support the choice is still expansive. For instance, there are 41 different video consultation providers to choose from on the NHS Digital framework, which for under pressure commissioners means that a clearly defined USP is critical in helping them differentiate product offerings. Investors should be rigorous on understanding an asset's USP and how it is separate from existing competitors – as this will be critical in how it will stand out in a crowded marketplace.

Classification

As digital health solutions continue to innovate and contribute to the delivery of healthcare, the regulatory classification of solutions can become blurred – with the increasing leveraging of AI creating its own challenges. During Covid-19, NHS primary care practices have been mandated to utilise a “total-triage” approach for patient prioritisation and many practices have looked to technology to reduce the triage burden on clinicians. Traditionally, clinicians would make the final decision on when, how and where a patient should be seen but more and more digital health solutions are utilising AI to reduce that burden even further, by suggesting when, how and where a patient should be seen. Once a digital health solution begins influencing the outcome of a patient encounter it could be considered a medical device, which have different regulatory requirements for use and potentially different funding and reimbursement mechanisms. This classification could be positive or negative for investors but should be considered as part of diligence exercises as national regulatory bodies are actively reviewing and adapting their guidance for digital health solutions.

Scalability

A great digital health solution is often a platform for future innovation. Ensuring that a digital health solution has the potential and vision to vertically integrate or expand cross-borders is an important element for growth. For example, a primary care online consultation platform that can pivot and serve the acute sector or community and social care sector is likely to have a better growth trajectory than a solution that is highly tailored to service the needs of primary care but has failed to create a vision for how it drives value more widely. Unlocking the potential of creating a cross-market digital health solution takes value propositions to a new level. It is a complex challenge, and must take into consideration language, health system structure and funding, process variances and clinical practice standards. However, the rewards could be substantial. Investors should ensure they are looking past the market numbers and the growth proposals to really ensure they have clear visibility into the feasibility and ease of scaling the solution based on the solution's current infrastructure and product road map.

Most digital health solutions won't 'tick' every box within these criteria, but the more information that can be gathered the better prepared investors will be able to weigh the risks and opportunities associated with any digital health investment.

Key Takeaways For Investors

| Investment Factors | Key Criteria for Consideration |
|--------------------------------|---|
| Funding | Do government health systems or commercial insurers currently provide, or are anticipated to provide, reimbursement for usage of the digital health solution? |
| Interoperability & Integration | Can the digital health solution easily integrate with key existing electronic systems like EMRs or easily intake information from medical devices and digital platforms? |
| Demonstrated Outcomes | Has the digital health solution demonstrated real-world value for its users? |
| USP | Why does this digital health solution stand out from competitors? |
| Classification | How is this digital health solution classified by governmental regulatory bodies? |
| Scalability | Can the digital health solution be easily deployed horizontally across markets? Does the technology have current or future applications to expand vertically within a sector? |

The Challenge Ahead

Digital health tools provide varied utility to solve for different pain points for different stakeholder groups and deciding where to invest can be challenging. In our upcoming series on digital health, we'll explore the investment theme of 'closer to home' in digital health, look at how the regulatory landscape is developing in key markets, and explore innovation in chronic condition management. We're only scratching the surface of digital health, but our aim is to provide a base of knowledge and spur critical thinking as interest in digital health solutions continues to grow.

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