Telehealth drives a revolution in healthcare

"In tough times, telehealth is just what the doctor ordered". Thus read a headline The Times ran with in 2012, in reference to growing waiting times in the NHS, and the demand for digitalisation to alleviate some of the strain.

Temps de lecture : minute

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Fast-forward to 2020. Hospitals are attempting to pull off a balancing act of looking after patients while keeping contact to a minimum; governments, meanwhile, are trying their best to restart an economy while containing COVID-19 to stamp out the likelihood of a second wave.

The pandemic has exposed some of the biggest shortcomings of our healthcare system, including access to <u>health insurance</u>, dysfunctional supply chains, and health disparities depending on class and race.

Telehealth, like other transformative technologies, promises to bridge gaps in society, here with regards to the healthcare system. Technology is presenting new worlds of opportunity for innovation and change, and an exciting platform for startups and entrepreneurs to drive change to take the healthcare industry forward.

Origins and emerging demand for telehealth

Telehealth's origins are far simpler than data and artificial intelligence. An article in US medical journal *The Lancet* first made the suggestion of telehealth in 1879, encouraging the use of telephone appointments to reduce unnecessary surgery visits that were contributing to waiting

times.

In its fledgeling days, telehealth was just as much about reducing the physical burden on doctors as it was about delivering healthcare to remote locations. Tele-cardiograms were rolled out for those in remote villages in Alaska, or even on long ship voyages; NASA developed telehealth capabilities for their first space flights.

But despite its emerging popularity, it never really caught on. Before the pandemic, 82% of the US population didn't make use of telehealth.

In large part, this was down to a lack of trust. In a 2015 report in *Technology Advice*, 56% of respondents would be somewhat or very uncomfortable with conducting an appointment remotely. Only 35% of respondents said they would opt for a virtual appointment over a face-to-face one, and more than half of the respondents over 65 said they wouldn't trust a virtual diagnosis.

It was this general distrust which kept telehealth in the peripheries. Insurers and providers remained reluctant to adopt a technology that fundamentally wasn't trusted.

Yet telehealth answers many of the challenges that people have with healthcare. The same 2015 report found what consumers desired from telehealth—lower cost, more flexible scheduling, lower waiting times, and most importantly, the ability to conduct appointments from home.

COVID-19 has accelerated the demand for telehealth. A disease which spreads through contact, which creates fluctuations of high demand, and is as much a socio-economic issue as it is a healthcare one.

Success stories like Germany have been praised for their surge capacity when it comes to hospital beds and intensive care units; but they also became one of the first countries, last November, to pass a law allowing

doctors to prescribe health apps, with costs to be covered by insurers.

Enhancing healthcare data

Just as data has become an efficient mechanism for understanding consumer behaviour, it could provide highly beneficial insights into public health. Telemedicine is a prime opportunity for capturing this.

Track-and-trace during COVID represents a good example of how important consumer data and behaviour is when it comes to healthcare. Governments have expressed the importance of developing and rolling out an app that can record symptoms and determine who you might have been in contact with. This, we've been told, is crucial to containing and controlling the spread of the disease.

Yet solutions appear to be clunky, no more evident than in the failure of the UK's own track-and-trace app, ditched in favour of the app developed by Apple and Google.

So how can we collect healthcare data more efficiently?

Wearable technology offers one such solution. Devices, anything from smartwatches to biosensors attached to clothing, can collect vast amounts of consumer data to provide unique insights into health.

Big tech companies like Apple and Google have been keen for years to foray into healthcare, and wearable technology might just be their opening.

The Apple Watch remains the best selling wearable device. Google demonstrated its own interest in wearable technology, with a failed $2.1B bid in late 2019 for Fitbit, the popular athletic smartwatches.

The NHS last month announced a partnership with Huma, a wearable technology startup, in order to observe and study over 160 patients at home recovering from COVID-19.

Startups are already innovating within the wearable space. Blocks, a London-based startup, allows you to add on attachments to your smartwatch, from a heart rate monitor to stress level sensors.

Or there's 8sense, a small device attached to the wearer's collar which monitors back and body movements, and gives recommendations on how to improve posture and activity.

Swiss startup Ava offers help on the challenge of trying for pregnancy: a bracelet and app which tracks ovulation and fertility cycles to give women

an idea of the best time to try and conceive.

Increasing the consumer health data set could have invaluable knock-on effects. Drug development and clinical trials, having proved one of the slower areas of the pandemic response, could stand to benefit greatly from more accurate consumer health data.

Widening access to healthcare

Healthcare disparity has always been a global issue, only made more apparent by the COVID pandemic. Technology and telehealth, however, could be a major step in closing the gap when it comes to access to healthcare.

In high income countries, telehealth is fast becoming part of the campaign to widen healthcare access to neglected populations. A 2019 white paper estimated that telehealth could save the NHS £7.5B, shortening waiting times and reducing the burden on understaffed and underfunded clinics.

As telehealth services are increasingly embraced by providers and insurers alike, there's no doubt that the technology will play a big part in extending cover to those who need it most. The case where this is strongest is in developing countries.

Take Sub-Saharan Africa. The region has 11% of the world's population, but carries a quarter of the global health burden; and yet, it receives less than 1% of global health expenditure, and houses just 3% of the world's medical professionals.

Even at a rudimentary level, SMS telehealth has been an important tool in transmitting healthcare warnings and advice in countries in Africa. While many may not have internet access, or smart phone technology, the

majority have access to some sort of phone.

This also opens up the possibility for remote diagnosis, which could in theory bring high quality medical care to areas without access to doctors or hospitals. Given the scale of the problem, more affordable and more accessible telehealth could be key.

Opportunity and scope for startups

Healthcare's lack of operational innovation is largely on account of the highly regulated nature of the industry. You can't fake it til you make it in healthcare, unlike many other industries which have seen startup growth.

But now, healthcare companies are becoming increasingly open to sharing healthcare data, keen to trigger entrepreneurship and innovation to drive forward necessary developments in telehealth to meet demand.

Venture capitalists and investors—take note. Healthcare professionals have attempted to predict the next big healthcare transformation for years. Providers and insurers are now opening their minds to the possibilities of remote care, and even before the pandemic, the telehealth sector was predicted to grow five-fold by 2026. For healthcare startups, the revolution may just be telehealth.

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