

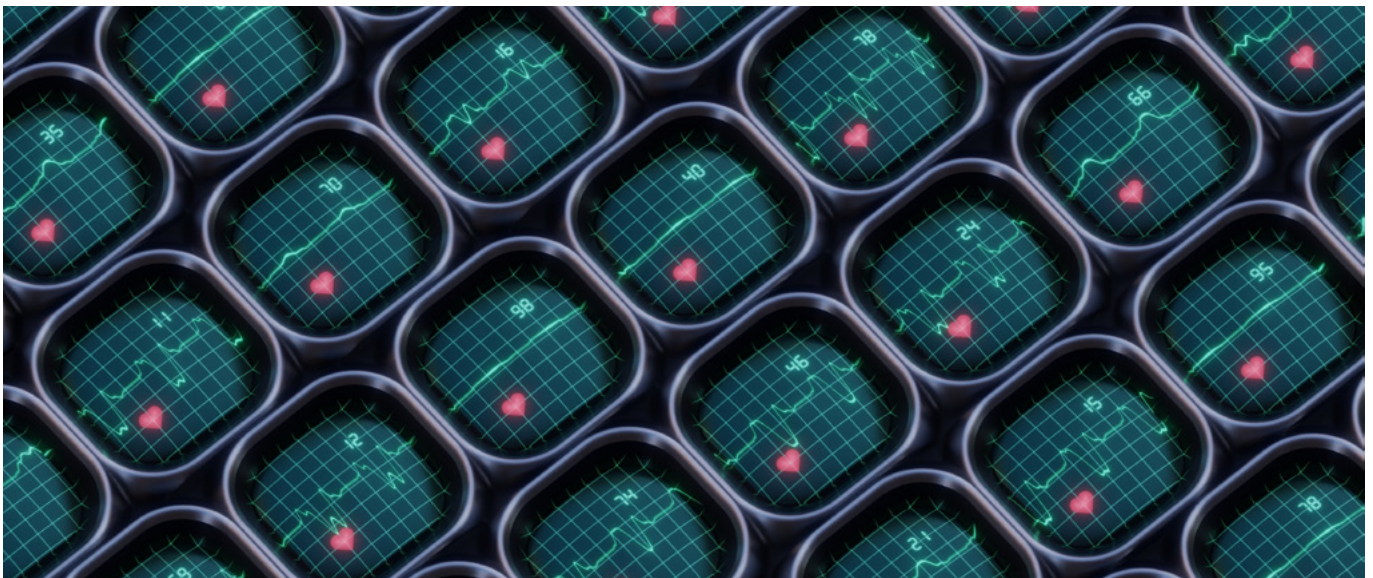


## OPPORTUNITY #4

What if the world's most disadvantaged had access to real-time diagnostics?

# NO MORE WAITING ROOM

The costs of cutting-edge HealthTech drop, making optimal prevention, diagnosis and treatment accessible to more people around the world.



### MEGATREND

Advanced Health and Nutrition

### TRENDS

Genomics  
HealthTech  
Mobilising Innovation  
Proteomics

### SECTORS AFFECTED

Materials & Biotechnology  
Consumer Goods, Services & Retail  
Data Science, AI & Machine Learning  
Financial Services & Investment  
Health & Healthcare  
Insurance & Reinsurance



## WHY IT MATTERS TODAY

Health is a critical part of the United Nations' Sustainable Development Goals (SDGs), with all 17 SDGs being directly or indirectly related to health or contributing to its development in some form.<sup>210</sup> Shifts resulting from the COVID-19 pandemic have reversed the progress made since the adoption of the SDGs in 2015 and the poorest countries have seen their progress reversed by almost 10 years.<sup>211</sup> In about 90% of countries, one-third of health services were disrupted.<sup>212</sup> As countries try to address backlogs,<sup>213</sup> there is already a need to accelerate innovation and progress to ensure better healthcare progress worldwide.

The number of MRI scans, globally, increased by 31% between 2007 and 2018,<sup>214</sup> and Artificial Intelligence (AI) continues to play a key role in reducing the cost of medical imaging. Artificial intelligence is able to process data and identify anomalies in medical images more quickly than healthcare professionals alone, with the potential to improve patient outcomes by 30–40% and reduce treatment costs by 50%.<sup>215</sup> Since the first telerobotic surgery in 2001, remote surgery has also gained prominence, aided by the integration of new technology such as 5G, AI, haptic feedback devices, 3D printing and nanotechnology. In 2019, the 5G network enabled telerobotic spinal surgeries to be performed on 12 patients in different hospitals in six cities simultaneously.<sup>216</sup>

As they enable remote treatment of disease, the number of antibody therapies approved since 2010 has exceeded 100 in the United States and a record number are undergoing regulatory review.<sup>217</sup> Nearly half (45%) are treatments for cancer, 27% for immune-mediated disorders, 8% for infectious diseases, 7% for cardiovascular or haemostasis disorders, 5% for neurological disorder and 8% for other disorders.<sup>218</sup>

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## THE OPPORTUNITY

Falling costs and high levels of automation, telehealth and telesurgery capacity will make cutting-edge care accessible and highly affordable around the world. AI, precision medicine and automation will revolutionise medical diagnosis, with possibilities ranging from more powerful and expensive medical imaging devices and diagnostic testing to rapid remote diagnostics, protein therapeutics and gene editing for personalised care.<sup>219</sup>

Diagnostics will be done through personal devices, removing the need for appointments and waiting times. Personalised treatment plans will be generated that draw on massive health databases, improving the efficacy of care and resulting in better outcomes. Fewer medical staff will be needed to treat more people, reducing the cost of health to public finances.

The global precision medicine market is anticipated to grow at a compound annual growth rate (CAGR) of 12% from \$66 billion in 2021 to \$147 billion by 2028.<sup>220</sup>

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## BENEFITS

Longer, healthier lifespans along with decreased pain and suffering and greater productivity and self-optimisation around the globe. Improved global growth, prosperity and well-being through support for the SDGs.

## RISKS

Over-reliance on technology, leaving health systems vulnerable to cyberattacks and intentional or unintentional harm. Deliberate or accidental misdiagnosis. Unintended long-term consequences in protein therapeutics and genetic therapy, including increasing pathogenicity of diseases and viruses.



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