

Digital innovation looks set to dominate the 2021 healthcare agenda

Two Novartis leaders share their perspectives on digital health in 2020 – and the key trends to watch out for over the next 12 months.

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COVID-19 was a catalyst for change in healthcare during 2020 – an accelerator for digital health.

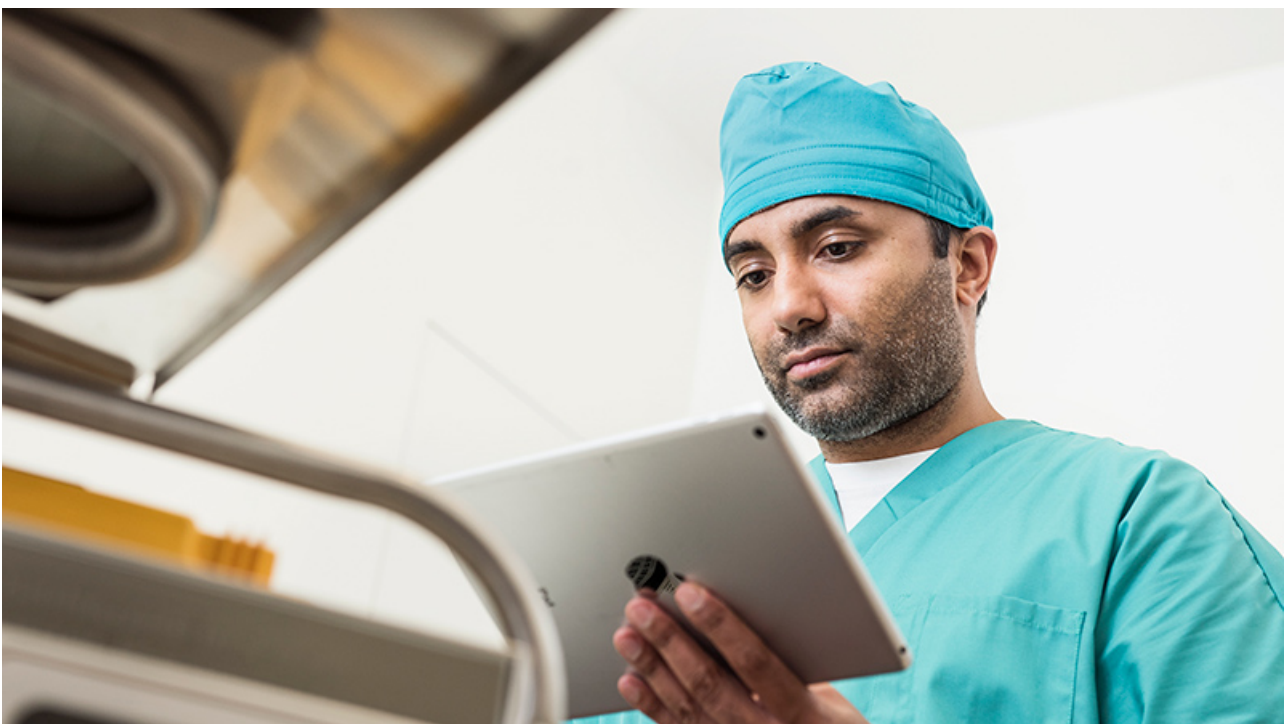
2021 looks set to continue the revolution – exploiting ‘an explosion of interest, traction and scale’ in the potential for digital innovation to meet global healthcare needs.

In early 2020, as the virus spread exponentially, the world was forced to work virtually, where possible. Digital solutions were needed fast – not just to support remote-working, but to keep the very fabric of business, healthcare, education, and essential services in operation.

For Novartis and many other pharmaceutical companies, the challenge was not just to enable employees to continue working, but to ensure that medicines reached patients as needed, and that healthcare professionals (HCPs) had the information they required to support their patients’ questions and needs. It was also essential to make sure that clinical trials remained on schedule and the development pipeline continued.

Coping with the multi-faceted challenges of the pandemic triggered an enormous change in pace for the rise of digital health, and set some emerging trends that will continue through 2021.

Here, we asked two leaders in Novartis digital health for their perspectives on 2020 – and the key trends to watch out for over the next 12 months.



Doctor looking at digital device

Acceleration

“COVID-19 was an accelerator for digital health,” said Neil Tiwari, Managing Director of Novartis’ digital venture capital fund, [dRx Capital](#). “There had been a growing trend, but suddenly, we were seeing an explosion of interest, traction and scale – and an increasing desire by pharma to partner with health-tech companies to drive innovation.”

Venture capital funding deals for digital health start-ups rose dramatically as 2020 progressed.

“We were seeing a couple deals per quarter that were highly strategic to our digital strategy by the end of 2019. By Q3, 2020, we were seeing 12+ per quarter that fit the same criteria,” said Neil.

Jeremy Sohn, Global Head Digital Development and BD&L, said: “COVID shone the light on what was possible in digital health. It was a true inflection point – a tipping point – which unlocked the reality of digital health and its potential to transform not just healthcare, but also how pharmaceutical companies operate their day to day business.”

2020 trends

Of the key trends to emerge during 2020, Covid-19 accelerated the adoption and reimbursement of telehealth and remote patient monitoring platforms in both the delivery of healthcare and clinical research of new medicines.

2020 Digital Trends

- COVID-19 accelerator for digital health
- Venture capital funding deals for health innovation start-ups rose by 55 % compared to 2019 (ref Health Transformer)
- Accelerated reimbursement of telehealth and remote patient monitoring platforms
- Virtual clinical trials & hybrid models increasingly important
- Regulatory agencies, governments and payers fast tracked approvals
- Growing emphasis on digital applications for women’s health
- Increasing numbers of women in hedge funding leadership
- Increased investment in specialized digital health solutions for women
- AI in Drug Discovery

Virtual clinical trials and hybrid trial models are becoming increasingly important. “In COVID, there was an immediate need to use virtual technologies to run our clinical trials,” said Jeremy. “Because we had the internal expertise, the SoPs, and the contractual relationships in place, we were able to immediately leverage technology solutions, to modify and virtualize multiple aspects of our clinical development programs. Our early stage work with companies like Science 37 were beginning to pay off as they grew out of this necessity. As a result, our development programs have not been meaningfully impacted.”

The step change is here to stay. “We’re seeing impact not only because there was a need during COVID, but also because it made it faster to enroll patients, and we believe that patients were staying on trials longer because doing so in the comfort of their own home was easier. Virtualizing, or bringing the trial to a patient’s home or local community is undeniably more patient-friendly,” said Jeremy.

During the pandemic, the regulatory environment has also warmed to digital therapeutics as approved treatments. Pre-COVID, there was a slow-growing acknowledgment of the role of digital therapeutics but the

pandemic galvanized regulatory agencies, governments and payers to fast-track emergency use authorization and reimbursement of a growing wealth of digital therapies.

Behavioral health interventions have, likewise, gained traction with employers hoping to keep their workforces healthy and engaged. The importance of mental health and wellbeing came to the fore. COVID-19 caused a wide range of mental health and emotional issues, from isolation and loneliness to financial difficulties, healthcare barriers, and stress for employees and frontline staff.

“This triggered a rise in digital solutions for mental health,” said Neil. “There was a record number of deals in mental health solutions during Q3, 2020, for example Lyra and Ginger1, and a significant increase in traction and utilization.”

New interests were digital solutions offering virtual mental health coaching and therapy, such as Mindstrong, AbleTo, and Happify2, plus digital health support for remote specialty and chronic care, including illness management and behavioral changes. The merger of Teladoc Health and Livongo3 created a market leadership combination in integrated, virtual care and applied health signals.

2020 also saw a growing emphasis on digital applications for women’s health, such as health management for fertility and pregnancy. Companies like Novartis are including solutions such as Ovia4 Health’s parenthood platform and Progyny’s5 fertility benefits management in their employee benefits offerings.

Throughout 2020, Artificial Intelligence in drug discovery continued to be a powerful theme – and this goes on into 2021. ([What Novartis is doing in the AI space?](#)) Healthcare AI startups raised over USD 2 billion in Q3, 2020, alone. Within Novartis, there were more targeted digital solutions, and within pharma, there was a flurry of partnerships – such as Novartis with Microsoft.

2021 and beyond

Many 2020 trends will continue to be important during 2021. However, looking ahead, four key trends are set to take center stage.

Firstly, hyper-personalized, next-generation engagement.

“There are many things that COVID brought to the fore, but virtual engagement was a big essential,” said Neil. “Now, it’s not just about continuing to offer virtual engagement to busy HCPs, but it’s about making it more meaningful, really engaging with the physician and developing personalized content and support. We’ve got huge emphasis on this within Novartis and we’re quite happy to break new ground and set benchmarks.”

Secondly, changes in reimbursement models for digital health and prescription digital therapeutics.

Pivoting to deal with the pandemic opened up a number of regulatory changes, from granting breakthrough status to reimbursement, emergency use authorization, and telemedicine.

“These changes are here to stay,” said Jeremy. “Regulatory agencies and the healthcare industry as a whole rose to the occasion, demonstrating that change can happen quickly, dramatically, and safely. If we can develop, test, and approve multiple vaccines in less than one year, we can bend the curve on the average 12-15 years it currently takes to commercialize new drugs. And the same applies for evolving regulatory guidelines to meet modern technologies and practices.”

Thirdly, cross-border collaboration to innovate.

Neil said: “COVID proved that if there is a will to embrace digital technologies, they can scale quickly. The

entire healthcare ecosystem system has learned the importance of collaboration in a pandemic, and the resilience and agility of the entire world has delivered solutions and responses at unprecedented speed.

“The industry had been moving cautiously, but once it was forced to embrace the full potential of digital, it acted with speed. It’s been awesome to see. Many countries in Europe and elsewhere have created areas and hubs specifically for digital innovation, and innovation in digital healthcare is now all-pervasive.” [Read more about the Novartis Biome](#) – catalyst for digital innovation

A fourth key trend highlighted for 2021 is the scale and growth of direct-to-consumer (D2C) solutions – at scale for the first time in healthcare.

Recent examples include Amazon Pharmacy⁶, an online pharmacy and prescription delivery service, and HIMS⁷, a telemedicine company operating Hims and Hers, selling men's and women's personal care products.

Neil said: “DTC has been talked about for a very long time, but we believe it’s finally here, building on patients’ familiarity with online shopping and their desire for easy-access to healthcare.”

Jeremy added: “What so many of these trends boil down to is people and culture, especially when you’re building solutions that need to scale. This is one important reason why we like partnering with leading technology companies, both large and small. They inspire us and challenge us to be just a little bit more agile, a bit more creative, a bit more risk taking. At a time when the world is under immense pressure, we come together as a community of innovators and change agents to ‘be the change we want to see’.

Additional Resources

- [Novartis Data and Digital Strategy](#)
- [Why healthcare’s digital moment is now](#)

Check out the latest on digital health trends for 2021 – perspectives from Jeremy Sohn and Neil Tiwari

Key data stats

In Q3 2020, there was a new record for global digital health investment, which grew by 73% to reach USD 8.4 billion that quarter. This was boosted by a record number (502) of deals, an 8% increase on the previous quarter.

Funding to drug R&D technology soared during COVID-19. Q3 2020 saw 38 deals and nearly USD 1.5 billion in funding.

Source: CB Insights Healthcare Report Q3 2020

By Q3 2020, prescription tech was expanding the quickest of the enterprise health and wellness segments, growing at 16% Compounded Annual Growth Rate (CAGR)

Source: PitchBookQ32020 – Emerging Technology Research

In Q4 2020, global Venture Capital funding for digital health came to USD 4.5 billion in 139 deals, up 13% quarter over year compared to USD 4 billion raised in 195 deals in the third quarter of 2020.

Year-over-year funding increased by 165% in the fourth quarter of 2020 compared to USD 1.7 billion during the same time a year ago.

Source: *Mercom Capital Group Year-End Report*

The clinical trial tech market is expected to grow at a 13% Compound Annual Growth Rate (CAGR) from USD 5.5 billion in 2019 to USD 11.3 billion in 2025.

The operations and care management tech market is forecast to grow by 15% CAGR to USD 589.5 billion by 2025.

Source: *PitchBookQ32020 – Emerging Technology Research*

Sources & References:

- [Lyra and Ginger](#)
- [Mindstrong, Able To and Talkspace](#)
- [Teladoc Health and Livongo Merger announcement](#)
- [Ovia Health](#) parenthood platform
- [Progyny](#)
- [Amazon Pharmacy](#)
- [HIMS](#)
- [HERS](#)

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