



**Emerging smarter: Re-imagining
health industries in real time
March 2021**

Event Summary Report

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Executive Summary

Since December 2020 The Economist Events and IBM have held a series of discussions with government agencies, health-care institutions and life-sciences companies, including the most recent: “Emerging smarter: Re-imagining health industries in real time”. The discussion was moderated by David Humphreys, head of health policy, The Economist Intelligence Unit, and featured Aviva deBeer, global life sciences segment leader, IBM Global Markets.

The global response to the covid-19 pandemic holds important lessons about the intersection of data, science and technology. These lessons will be key to defeating the disease today—and to strengthening tomorrow’s response to future threats. It was against this backdrop that the discussion explored collaboration across ecosystems, high-performance computing and AI, capturing and using data, and vaccine management and distribution.

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Science in the lab:

The science behind vaccine development has captured the public's imagination. However, mRNA has been out of discovery for decades. It was in fact the unsuccessful efforts to find an HIV vaccine that opened up a whole new world of vaccinology 20 years ago. The insights we've since gleaned have enhanced our capability to prepare systematically for accelerated threats. There is now an even greater push for a prototype-pathogen approach to pandemic preparedness. This looks at all virus families that can affect humans and applies new technologies ahead of time in an attempt to future-proof.

Re-thinking business models:

Covid-19 has turned the traditional business model of life sciences and biotech industries on its head. It has demonstrated that volume-based medicine is a means to an end. It can drive innovation and generate shareholder value without needing to be wrapped up in high-margin blockbusters. This has potentially exciting implications for creating a commercial model that applies technological advances for rare diseases with small populations. The overarching goal will remain finding economical ways—in both time and cost—to get therapies to patients. This demands a re-assessment of regulatory approval processes and clinical trials and will be fuelled by traditional competitors and friends rallying behind a common goal.

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The evolving concept of trust:

The existence of belief systems that undermine science is especially dangerous during a global pandemic. There is a pressing need to debunk myths and cut through misinformation to regain the layperson's trust. Enhanced transparency also democratises knowledge and will go a long way to improving citizen engagement. The general public struggles with the idea of something that is lifesaving simultaneously providing commercial gain. The need for trust also extends to service providers and users as the new digital paradigm demands changes in behaviour amid increasing interactions with machines. It is crucial that the entire stakeholder spectrum embraces the value-add of digital technologies.

The equity imperative:

Covid-19 is increasingly regarded as a great leveller and an unequivocal reminder that we are only as strong as our weakest link, and that this is a global fight that remains to be won. The pandemic has held up a mirror to reveal huge blind spots—even just in terms of data collected—about marginalised communities. It is imperative that we seize this inflection point to “build back better”, reducing inequalities in health-care systems and curing societal shortcomings.

Keeping up the investment:

We'll need to make unprecedented investments in innovation if we are really to emerge smarter and consolidate the mass (digital) experimentation that characterised 2020. This extends far beyond technology to include regulatory frameworks, reimbursement models and so on. Full-scale digital transformation will require replacing legacy systems and embracing capabilities like AI, IoT and the cloud to better serve communities. We have to be ahead of the curve and build resilience into operating models to ensure we're better prepared for the next crisis. Just as financial institutions underwent stress testing in the aftermath of the 2008 crash, health ecosystems could in theory be subjected to similar scrutiny.

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The data imperative:

Data have proved integral throughout the pandemic to inform resource allocation and shed light on inefficient use of scarce resources. This is invariably heightened when commercial and public health networks diverge. In a post-pandemic paradigm, data will continue to enable better decision-making. To maximise their potential, however, we'll need to spearhead open standards that prioritise interoperability and scalability for maximum collaboration. In this world of big data, explainable AI is a must in order to ensure that data bias does not permeate policymaking. In the not-too-distant future we may even be able to fit enough real-world evidence into AI models to entirely remove the need for a control group in clinical studies. This real-time use of real-world data could accelerate innovation, reduce costs and get the product to the market faster. Multimodal datasets will also be key in measuring digital outcomes in a more evidence-based manner.

Emerging smarter: Re-imagining health industries in real time

No industry before has ever had to catch up with the digital age overnight with lives and livelihoods on the line. Today, ubiquitous user expectations are pushing the boundaries of what we've traditionally thought of as possible when it comes to government, health-care and life-sciences service provision. Covid-19 has been a wake-up call to continuously future-proof the mandate to serve the general public. As we enter the second year of the pandemic, the mindset of those leading the way is shifting from reactive to proactive. Digital improvisation is being enshrined in updated systems and processes to ensure it will outlive the pandemic. We can't afford to lose this momentum as we shift from fire-fighting to addressing more fundamental systemic change. We must be increasingly innovative in our approaches as we reimagine a better tomorrow.

Additional resources from our sponsor:

[Emerging smarter: Digital transformation for healthy and resilient societies](#)
[Life sciences industry solutions to advance next generation discovery](#)

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