



2021 global life science outlook

Possibility is now reality, sustaining forward momentum

Top issues

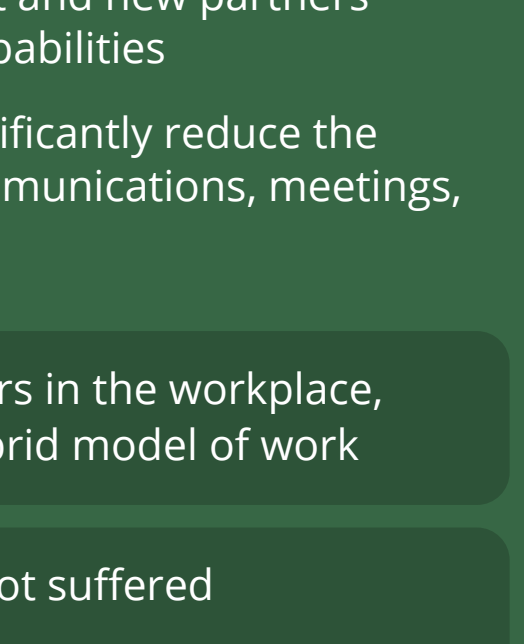
Redesigning work, workplace, and workforce, while meeting individual needs



The pandemic fundamentally changed the way we work



Work is in a continuous state of reimagination, and flexibility and technology are more important than ever



Employers are allowing employees to choose to work **how**, **when**, and **where** they want

The ability to connect and work from anywhere will continue to create network effects:

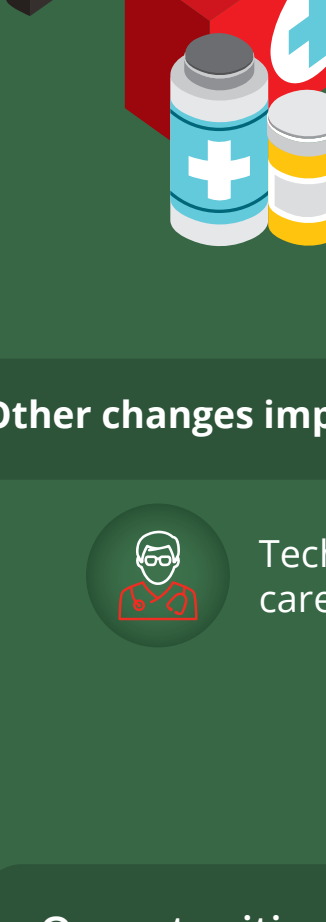
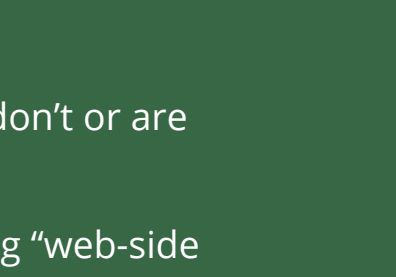
- Expanding access to new talent and new partners extending an organization's capabilities
- New ways of collaborating significantly reduce the time, distance, and cost of communications, meetings, and deal-making

64% of workers want to spend at least some hours in the workplace, as opposed to working remotely full-time—a hybrid model of work

90% of employers say productivity has not suffered with flexible schedules

Redesigning work for **well-being** – offering more mental health services, promoting well-being initiatives, and flexible work arrangements

Accelerated digitization: New points of care, new roles for pharma and medtech



Virtual video visits to doctors are expected to rise to **5%** globally in 2021, up from an estimated **1%** in 2019

Virtual health's acceleration during COVID-19 broadens pharma's role in the continuity of care

Areas for improvement in virtual health:

- Almost 75% of health care leaders say they don't or are only partially tracking quality measures
- Only 36% of leaders say they have providing "web-side manner" training
- Reimbursement and regulatory policies post-pandemic will be key to permanent uptake and growth
- Internet access and technology availability in vulnerable parts of the world

Other changes impacting virtual care:



Tech giants are bringing clinical care to the home



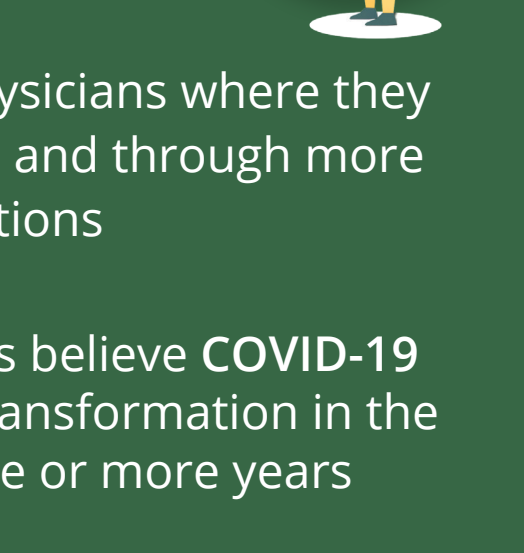
The virtual care cloud



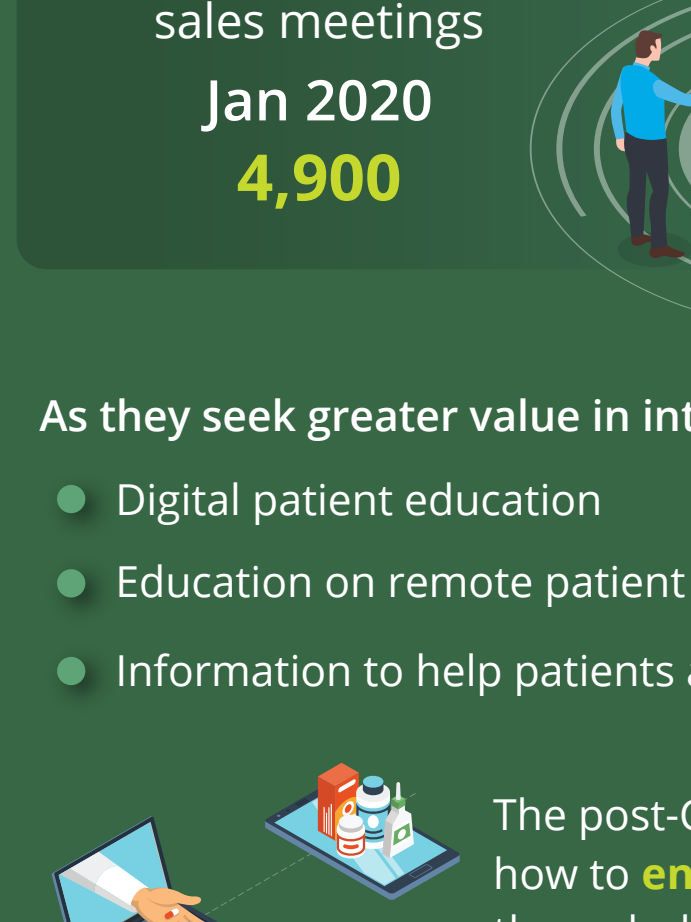
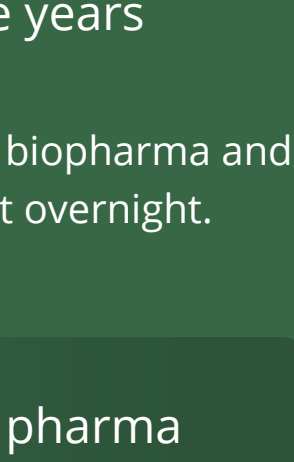
Digital pharmacies/home & drone delivery

Opportunities for Medtech:

- Improve remote access to patients
- Enable the transition to more care outside of the hospital
- Shift the emphasis toward prevention and well-being



New customer-centric commercial model



Moving to meet physicians where they are, on their terms, and through more meaningful interactions

1/3 pharma execs believe COVID-19 accelerated digital transformation in the pharma sector by five or more years

At the start of the pandemic, digital enablement became a necessity for biopharma and medtech companies, with shifts to completely virtual models almost overnight.

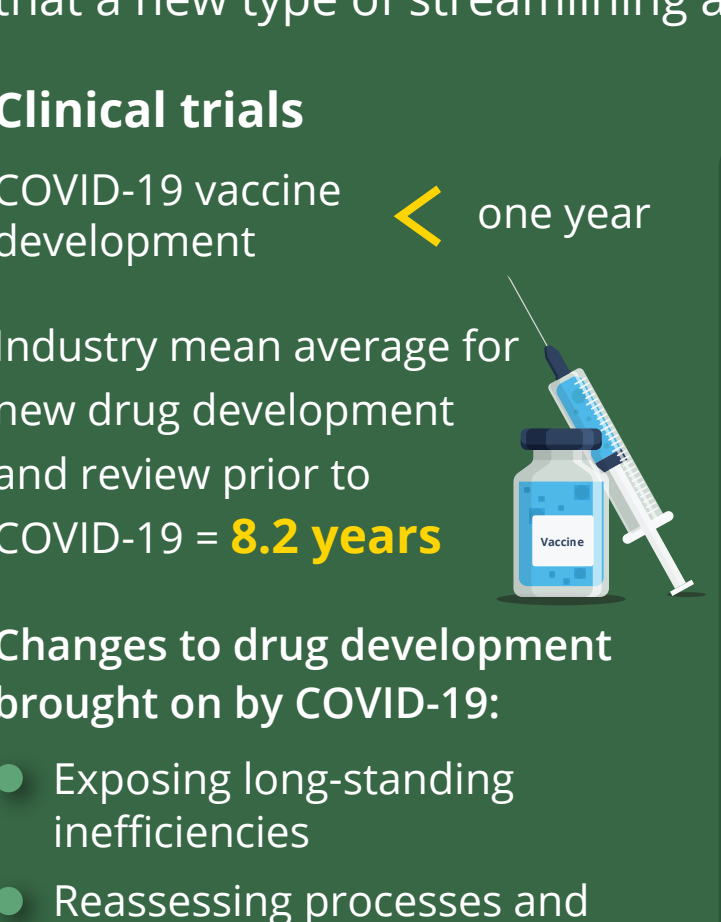
Remote pharma sales meetings
Jan 2020
4,900



Remote pharma sales meetings
April 2020
316,900

As they seek greater value in interactions, physicians are requesting:

- Digital patient education
- Education on remote patient care
- Information to help patients access labs, tests, and imaging



The post-COVID opportunity is for the industry to rethink how to **engage** with physicians and how to drive **value** through digital channels and products on-demand, while also being more **compassionate** and **empathetic** to HCP needs

In the next year, **medical affairs** will likely see more investment and more comprehensive, strategic partners to complement its expanding roles and responsibilities

Social media is seen in augmenting congresses/conferences and enhancing networking

New types of collaborations and clinical trials reshaping research & development



The rapid development of novel vaccines for COVID-19 demonstrates that a new type of streamlining and efficiency is indeed possible

Clinical trials

COVID-19 vaccine development < one year

Industry mean average for new drug development and review prior to COVID-19 = **8.2 years**

Changes to drug development brought on by COVID-19:

- Exposing long-standing inefficiencies
- Reassessing processes and challenging steps previously thought to be necessary and fundamental
- Fostering new collaborations within and beyond the health care ecosystem

Regulators are becoming more flexible about clinical trial design and the speed at which trials are conducted

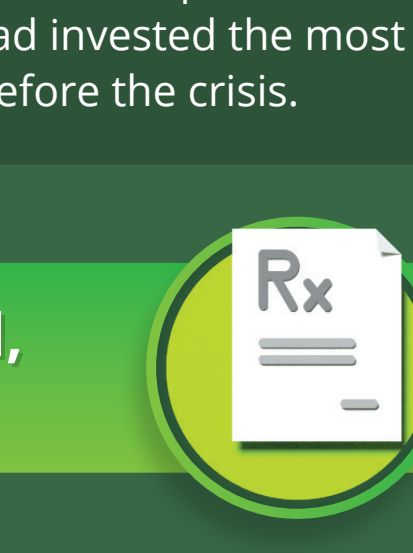
Virtual trials and remote monitoring enable greater patient involvement and give patients an active voice in research

Need to address diversity and inclusion in clinical trials

Decentralized clinical trials are executed at the point of care through telemedicine and mobile and local health care providers

More trials will be hybrid trials going forward, a combination of in-person and virtual visits

Beyond vaccines, oncology is expected to continue to be a major driver of the sector's topline growth. It accounts for 6 out of the 10 biggest new sales generators and 4 of the top ten best-selling products.



Collaborations across the whole ecosystem will continue to be key:



Medtech



Biopharma



Tech



Consumer



Academia



Government



CROs



Disease foundations



Patient advocacy groups

Data will be key in the shift to transformative drug development approaches:

- Real World Data
- AI
- Real World Evidence
- Cloud

Shortening development and review timelines, thinking more like a regulator



EUAs during COVID – **600**

EUAs amidst other public health emergencies – **65**

Increased collaboration between regulatory agencies and industry enabled shorter review timelines for COVID-19 drugs and treatments

Regulators around the world worked hand-in-hand with industry rather than just having an endpoint type of review, and it is anticipated that these run-on trials will be the case post-COVID

"Think like a regulator"

Patient safety first

Risk based approach

Objective evidence

A controlled process

The future of regulatory is **digital** and **collaborative**

Cross-border reliance intensifies the need for supply chain visibility and reshoring options

COVID-19 had shown that life sciences companies need to re-evaluate the resiliency of their supply chains

Developments in supply chain during COVID-19:

- Manufacturing vaccines at-risk
- Competitors partner to expedite production and distribution of vaccines
- Non-traditional players (auto, consumer) stepped up to manufacture health care products

Innovative science driving the need for new manufacturing capabilities

Who responded the best during the first wave of the pandemic? The answer is simple: the companies that had invested the most in supply chain processes and capabilities before the crisis.

Advancing humanity: Environment, Social, and Governance (ESG) imperatives

Pharma is experiencing rapid changes in its reputation during the COVID-19 pandemic – some life sciences companies are now among the **top 20** fastest growing brands

Trust is seen as critically important for life sciences companies going forward

ESG factors are becoming a key determinant of a company's financial strength

Diversity in clinical trials - it is important that a study population is representative of the population that may ultimately use a drug or therapeutic

Environment:

- Major companies continue to make pledges to reduce or eliminate their carbon footprints to become 'net zero', with some already hitting these targets
- 1/3 of the 280 companies supporting a global climate initiative, come from the biotech, pharma, and health care
- Many pharmas are shifting their fleets to electric vehicles

Social:

- Health equity** – Requires meeting people where they are with the necessary resources to maintain or improve health outcomes
- Racial equity** – Addressing historical and systemic barriers for minorities and communities of color
- Gender equity** - ensures opportunities are not limited on the basis of gender and corrects for gender biases

Governance:

- Measuring ESG progress makes organizations accountable and shows areas for improvement
- Socially responsible companies are creating new Key Performance Indicators (KPIs)
- Increases transparency