

2021 LIFE SCIENCES TRENDS

The term unprecedented disruption could hardly cover the far-reaching impacts of the events of 2020. The 2021 life sciences trends reflect an industry still moving at lightning speed to adapt to the new strategic, operational, and technological modalities rolling across the business landscape.

Clarkston's 2021 Life Sciences Trends Report brings to focus six trends that will continue to drive the industry this year. From navigating the trust imperative to realizing true digitalization, the trends in this year's report will have implications across every aspect of a life sciences business.

TREND #1:

Creating trust will be a key strategic priority for the industry

Trust has been an issue in the life sciences industry from the beginning. Part of the trust challenge is innate to the nature of the industry – businesses are simultaneously tasked with creating life-saving treatments for every patient while successfully turning a profit and recouping billions and billions in R&D expenditures. Furthermore, the industry as a whole is largely judged as a single entity in that the bad actions of one company are often attributed to the entire industry. Coupled with a history of angry accusations over drug pricing, aggressive marketing tactics, addictive products, and more, and it's easy to see how the industry landed in a trust quandary.

A 2019 Gallup Poll found that the pharmaceutical industry was the most poorly viewed industry by the American public. In fact, the industry was not only ranked most negatively – it scored an [all-time low](#) in the survey's nearly 20-year history.

Then, in the early months of the novel coronavirus outbreak, a separate survey - the annual [Edelman Trust Barometer](#) - was updated and showed a record-breaking 26-point gain from an earlier iteration of the survey just a few months prior. While this increase certainly isn't permanent (with [some surveys](#) already showing a net decrease in public trust of the industry over 2020), it does clearly demonstrate that there's hope in successfully overcoming the industry's long-term reputation challenge.

It's becoming increasingly evident that gaining trust isn't just a PR move for better headlines – there are profound benefits and significant risks posed by a lack of trust. As the industry has rapidly digitalized over the past few years (and more specifically throughout 2020), trust will become even more critical. Reaping the benefits of a truly digital ecosystem requires massive amounts of data – data that patients, providers, and care

constituents must be willing to provide. For many life sciences businesses, their ability to earn returns on digital investments will be dictated by the level of trust patients, providers, and more have in their business as a whole.

Distrust won't only diminish a business' ability to leverage digital capabilities, it can also erode actual outcomes. Low levels of trust for a business are also associated with skepticism about their products, information, and motives. That is to say, patients that distrust a life sciences company are less likely to adhere to a treatment protocol that the same company helped create. [Studies have also demonstrated](#) a correlation between a lack of trust and under-representation in clinical trial recruitment.

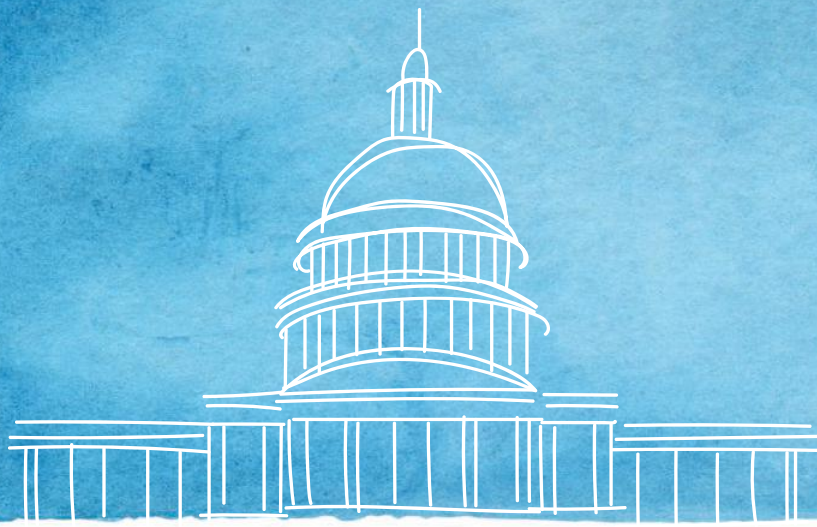
Meeting the trust imperative starts with a simple concept – transparency. The more patients know and understand about how a business operates and how decisions are made, the greater trust they have in the business. The concept, while simple, requires broad strategic, operational, technological, and cultural shifts across the business entirely.

Now, more than anytime in modern history, the average citizen has a much greater and more nuanced understanding of drug research, development, clinical trials, and distribution. Major publications, news channels, and more are providing daily coverage on the status of COVID treatments and vaccines from conception to distribution and administration. This creates an optimal opportunity for the life sciences industry to use this point in time as an inflection point towards a trust-based relationship with the public.

Similarly, collaboration between drug companies large and small, academic institutions, regulatory bodies, and more in development of the COVID vaccine have also contributed to increased levels of trust in the industry. By demonstrating open, collaborative relationships with companies typically considered competitors, life sciences businesses eschew the no-holds-barred, profit-over-everything mentality that many associate with the industry. In joining together, these collaborative ventures further build towards a relationship of trust with the public by demonstrating that saving lives is their purpose.

As shared by the team behind the Edelman Trust Barometer, sharp increases in trust are rarely sustained and in fact, without long-term action, most commonly result in sharp decreases shortly after. Now is the time for a true shift in public perception of the life sciences industry

Transparency and Openness



TREND #2:

Drug pricing reform efforts swirl under a new administration

The pricing debate in the life sciences industry has raged for decades with patients, policymakers, insurers, and more only increasing their fervor each year. As reported by the [Kaiser Family Foundation](#), 79% of American citizens say that the cost of prescription drugs is unreasonable. Additionally, 63% believe that there are not as many regulations as there should be to limit the price of prescription medications. But, seemingly in contradiction, 74% of Americans currently taking prescription drugs believe that affording them is easy. Clearly, like so many issues in the life sciences industry, the close connection to individuals' health and well-being makes the pricing debate all the more complicated.

Over time, businesses in the life sciences industry have explored creative approaches to pricing. Value-based pricing, updated reimbursement models, pledges to limit annual price increases, tying price increases to inflation, installment and subscription plans, and countless more tactics have been offered as a means of addressing the stigma of drug pricing but few have netted the industry a comprehensive, sustainable approach.

Consistently growing public pressure and media attention has forced politicians, regulators, and policymakers from both parties to make strong statements when it comes to drug pricing. When he took office, President Trump vowed to once and for all address drug pricing in the industry. The administration's efforts to address drug pricing, however, have largely fizzled. Among the administration's [more publicized proposals](#), the Trump White House attempted to tie Medicare pricing for certain drugs in the United States to prices paid in other developing countries. While that rule remains caught in the court system, it represents one of the few initiatives with bipartisan support as President-elect Biden has also voiced support for a similar approach.

Looking towards the coming Biden administration, a Democratic majority in Congress opens the doors for President-elect Biden to pursue broad measures for addressing drug costs. While the initial focus will of course be addressing the continued fight against COVID-19, the Biden team has made their other priorities public.



In the healthcare manifesto released on the Biden team's website, the President-elect highlights his core areas of initial focus. Among the broad areas, the manifesto includes proposals to protect and strengthen the Affordable Care Act, reduce complexity in healthcare, eliminate disparity, and of course, address drug pricing. Specific to drug pricing, the Biden administration specifically mentions:



Allowing Medicare to negotiate pricing directly with drugmakers



Limiting launch prices for drugs with no competition



Limited price increases for all "brand, biotech, and abusively priced generic drugs" to inflation



Allowing patients to purchase prescription drugs from other countries



Improving the supply of quality generics



Eliminating tax breaks for advertising spend

While industry analysts have posited that a Democratic-controlled Congress would create a high-likelihood of significant drug pricing reform being passed, it remains to be seen how transformative that reform will be. President-elect Biden has a long history working with the life sciences industry, having played a significant role in the Obama Administration's [Cancer Moonshot](#) initiative and served on various relevant committees in his time as a U.S. Senator. His nuanced understanding of the industry affords a greater opportunity for collaboration and cooperation. That said, public pressure continues to mount for some kind of demonstrable change so the President-elect, his team, and Democrats at large are likely eager to show progress in healthcare, particularly drug pricing.

Addressing the pricing issue, as with gaining public trust, will require businesses to adopt an organizational mindset of transparency. The COVID-19 crisis has put the drug development process under a microscope, enabling a population that is incredibly more informed on the efforts and investments businesses must make in order to create a successful treatment. Businesses in the industry should continue to capitalize on this exposure, bringing more insight into how prices are developed, the various stakeholders across the healthcare value-chain, the costs that go into each step of the process, and how decisions are made in bringing a treatment to market. Creating an understanding through transparency won't immediately quell the pricing debate, given the complexity and need for deeper understanding. It will, however, help to remove the "good" (patients) vs. "evil" (drug makers) mindset in the debate and allow for a more effective dialogue in addressing the challenge of drug pricing.



TREND #3:

The industry must be prepared to meet the rising demands of consumerization

The rapid digitalization surge in 2020 simultaneously accelerated a host of long-awaited transformations and innovations in the healthcare value chain. Remote work, telemedicine, remote monitoring, de-centralized clinical trials, and more were all thrust forward as the new norm when widespread lockdowns and safety measures went into effect. Touching each of these innovations is a broader macro trend that has been slowly building over the industry's recent history – the rising consumerization of the modern patient. Fast, efficient, and easily accessible and intuitive technology has become the norm across dozens of industries. These conveniences across nearly all areas of life have created a modern patient with high expectations of convenience, ease, and self-service.

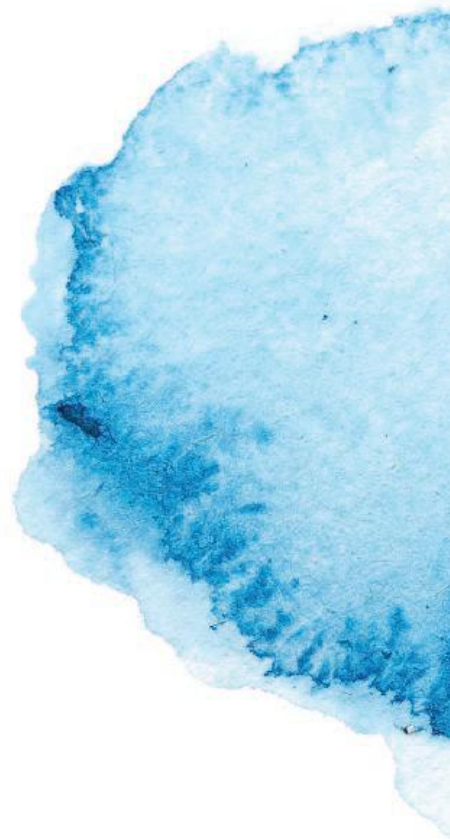
Consumerization has been building for years as fitness tracking wearables like FitBit, Garmin, and the Apple Watch and at-home genetic testing courtesy of companies like 23andMe and Ancestry have grown in popularity and given patients more info related to their health. At its core, consumerization in life sciences means that patients are increasingly demanding greater personalization, access, convenience, and ease-of-use from every constituent in their sphere of care. For providers, this comes in the form of virtual check-ups and appointments but what does it mean for the life sciences industry?

To start, effectively meeting these expectations begins with a comprehensive assessment of the global patient experience. As with the buyer's journey in consumer-facing industries, understanding your patient's journey allows you to more proactively meet your patients where they are and engage them more successfully.

Keep in mind, this shouldn't just be a linear patient journey map. To be truly impactful, the view of the patient journey should be backed by empathy and understanding. That is, you should know what the process from diagnosis to testing to treatment looks like for your patients but also, how will each stage of care impact the patient mentally and emotionally? Where in the process are things likely to not go as expected? With this understanding, a more engaging strategy already begins to take shape.

Consider the patient's treatment regime. Is there a particular step or aspect that's especially uncomfortable for the patient? That presents an opportunity to demonstrate pathos by adding a sympathetic touchpoint to your communication strategy for those specific patients. Or perhaps there comes a point during a treatment plan where communicating via text is better than email, can patients easily shift communication preferences?

A perfect storm of various technological innovations and shifts in consumer behavior has created consumerization in the industry but the same perfect storm is what will allow life sciences companies to effectively meet the trend. Data doesn't sleep. It's being collected from countless channels and sources every second, creating exponentially [more available data on a daily basis](#). This data provides the framework for your understanding of the patient needs and the scientific advances for the future, and also allows you to continuously improve and evolve that understanding as more data becomes available. Bolstering this data with direct patient feedback (via focus groups, for examples) will allow you to paint a clearer picture that more accurately reflects the personal experiences of your patients.



TREND #4:

Pressures continue to mount in logistics

The end of 2020 and beginning of 2021 saw the initial dissemination of highly-publicized COVID vaccines, chiefly to frontline healthcare and essential workers. While the greater public may feel this is the beginning of the end, logistics leaders recognize the massive undertaking still to come in effectively and safely distributing these vaccines at scale. And prior to the discovery of a successful vaccine, the impacts of a global epidemiological disaster posed substantial challenges for logistics leaders, highlighting potential weaknesses and threats to supply chain operations. Needless to say, the past year has introduced a host of challenges and obstacles that logistics leaders will be feeling well into the new year and beyond.

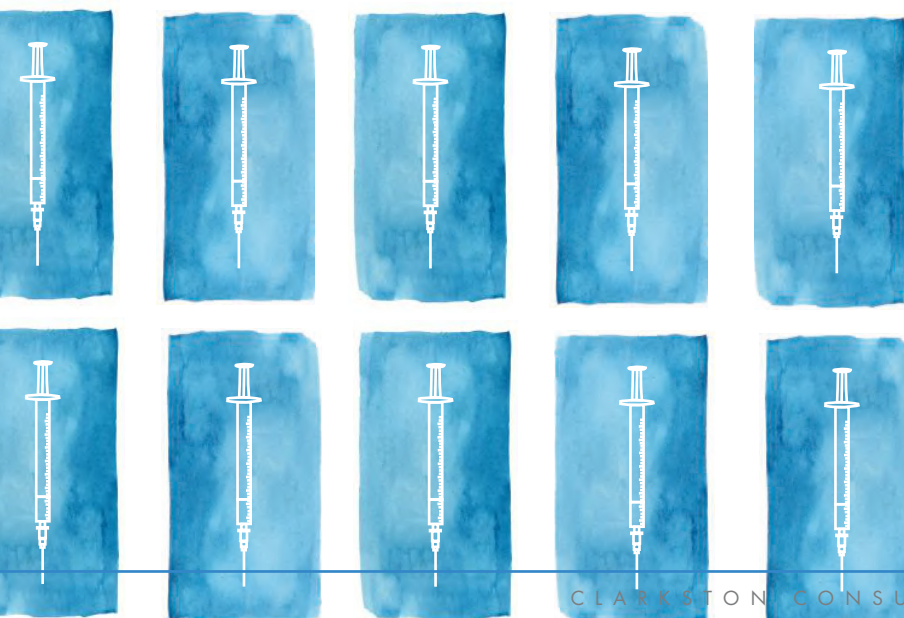
Attention in 2020 was heavily focused to the research, development, and testing of a COVID vaccine. Moving into 2021, that focus is shifting towards distribution and administration. The vaccine supply chain is complex on its own. Add to that the fact that the mRNA-based treatments developed by Moderna and Pfizer/BioNTech require low or ultra-low temperature storage – storage that most clinics are not prepared to provide at the scale required for multinational distribution. Fortunately for many, the unique nature of biologics as well as cell and gene therapy treatments has precipitated investments in cold storage already. Like digitalization, the move towards cold storage capabilities has been building for years and is now rapidly accelerating as a result of the pandemic.

But beyond the technical requirements, successful vaccine distribution will also require forecasting and scheduling for multi-dose treatments, alignment with multiple care facilities and vaccine sites, and a deep level of coordination across various nodes in the sprawling vaccine supply chain. Even for those businesses that have not developed a COVID vaccine, the ancillary supplies needed for administering the vaccine must be equally coordinated, putting pressure on medical device makers to ensure adequate supplies of syringes, needles, PPE, and more.

On top of the complex orchestration of global vaccine distribution, supply chain leaders are under pressure to address the risks highlighted by COVID. In the initial months of the pandemic, supply chain leaders were feeling the effects of global shutdowns as API and raw material sourcing from leading suppliers in China and India slowed considerably. Beyond global shutdowns, pseudo-nationalistic tendencies heightened to keep supplies within a country's own borders. In logistics, this highlighted a need for greater supply chain resilience and moving through the new year will require leaders to carefully assess current supply sites against a larger array of broad geopolitical threats.

Whether it's successful vaccine distribution or improving supply chain resilience, 2021 will see more earnest movement towards digitalization of the supply chain, including investments in areas such as:

- Artificial Intelligence and Machine Learning
- Internet of Things
- Digital Twins
- Quantum Computing
- Additive Manufacturing
- Robotics and Automation





The integration, coordination, and visibility afforded by a digital supply chain ensures that leaders are able to more nimbly assess and react to external forces. End-to-end visibility of the supply chain was a seemingly ethereal end goal for many just a few years ago but now, it's become a true necessity for the life sciences supply chain. This is particularly true as collaboration becomes more widespread in the industry, requiring that businesses have the ability to communicate and coordinate effectively.

TREND #5:

Digital transformation is still happening

The move to cloud-based, digital ecosystems is a textbook example of a business initiative rapidly accelerated by the events of 2020. For years, many life sciences businesses have pursued digital transformation with various degrees of intensity – some using digital core technology like SAP S/4HANA® as a launchpad and others adopting a piecemeal approach, upgrading specific technologies or functions to the cloud. But when the pandemic struck, the industry was tasked with not only moving the organization to a virtual environment and providing tools to enable as many employees as possible to quarantine while simultaneously and continuously providing medical necessities and pursuing a COVID cure.

As we move through 2021, businesses will continue to pursue digital transformation as its benefits have been well-documented, particularly over the past year. While this shift begins to expand and scale across the industry, two specific areas represent the greatest threat to sustained digital transformation – change management and cybersecurity.

With a digital transformation partner, your business can ensure an effective implementation of digital systems and tools and prevent any downtime or ill effects to the business. That new digital system, while new and pristine, will be useless without users that are properly trained and engaged in the process and new system. Change management should be layered into every step of the digitalization process, ensuring that users and those impacted by the change are involved early and often.

Cybersecurity is perhaps the most readily evident and well publicized threat to digital transformation. Day after day, headlines from across the globe highlight a new cybersecurity attack, loss of personal information, and/or potential harm. Unfortunately, this threat is only growing as the digital landscape becomes more diverse, fragmented, and complex with each day. Life sciences businesses must also contend with meeting evolving compliance and regulatory requirements related to cybersecurity. Addressing cybersecurity effectively requires coordination of various strategic, operational, and technological efforts to be successful. Building a culture of cybersecurity is an essential first step as hackers increasingly use social engineering, people-focused methods to gain access to the enterprise's data. Cybersecurity training and awareness must exist as a standard part of your digital transformation journey, included in any training or change management activities.

Digital transformation, while historically slow in the industry, has been radically accelerated by the events of 2020. As 2021 unfolds, businesses in the life sciences industry will have the opportunity to optimize their digital transformation and more quickly realize the trove of business benefits to be had by a truly digital, integrated ecosystem.

TREND #6:

The most innovative advancements will continue to rely on a simple task – data integration

The events of the past year have forced life sciences businesses to operate virtually and remotely with both internal and external stakeholders and partners in their value chain. In terms of drug development, many businesses have realized the value in collaborative partnerships and will likely continue this going forward – only strengthening the need for the organizational ability to integrate partner and/or third-party data. Furthermore, as businesses continue to adopt a wider variety of standalone cloud systems, data integration will serve as the linchpin for effective enterprise coordination.

Data integration has been a challenge in the industry for years, if not decades. Often businesses undertake a data integration initiative and quickly discover a lack of organizational consensus on what data is available, how it's stored, it's state, maintaining the integrity, etc. The exponential increase of data available to life sciences companies only serves to further complicate a data integration initiative.

Data integration is ultimately accomplished through a combination of both manual and automatic processes to assess, extract, standardize, and reload data. Dozens of advanced solutions on the market tout the ability to integrate data quickly and securely. Before investing in a solution, it's critical to assess the state of your current enterprise landscape and compare that to the broader strategic business goals. From there, you can begin to understand the role a potential standalone solution could play and how it could impact the incorporation of future technologies and data sources that support strategic objectives.

Resting as the foundation of nearly every trend in this report is data integration. It should surprise no one in the industry but the ability to effectively share, store, and analyze data across multiple parties, systems, and sources while maintaining the integrity of the data will be paramount for any business moving forward. Recent years have proven the efficacy of cloud technology, artificial intelligence, machine learning, digital capabilities, and more to drive improvements across a wide variety of functional areas. Each of those innovations, and those still to come, will succeed or fail on an organization's ability to effectively integrate data in real-time.

Close

While none could have predicted the events of last year and their impact to the life sciences industry, many of the 2021 life sciences trends reflect the macro trade winds that have been shifting in the industry well before 2020. The acceleration of certain trends will continue to impact life sciences businesses this year and for years to come and lead to entirely new disruptions down the road. Navigating the new landscape effectively requires life sciences companies to tap into the same capacity for innovation that has led to the creation of the industry's life-saving treatments.

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