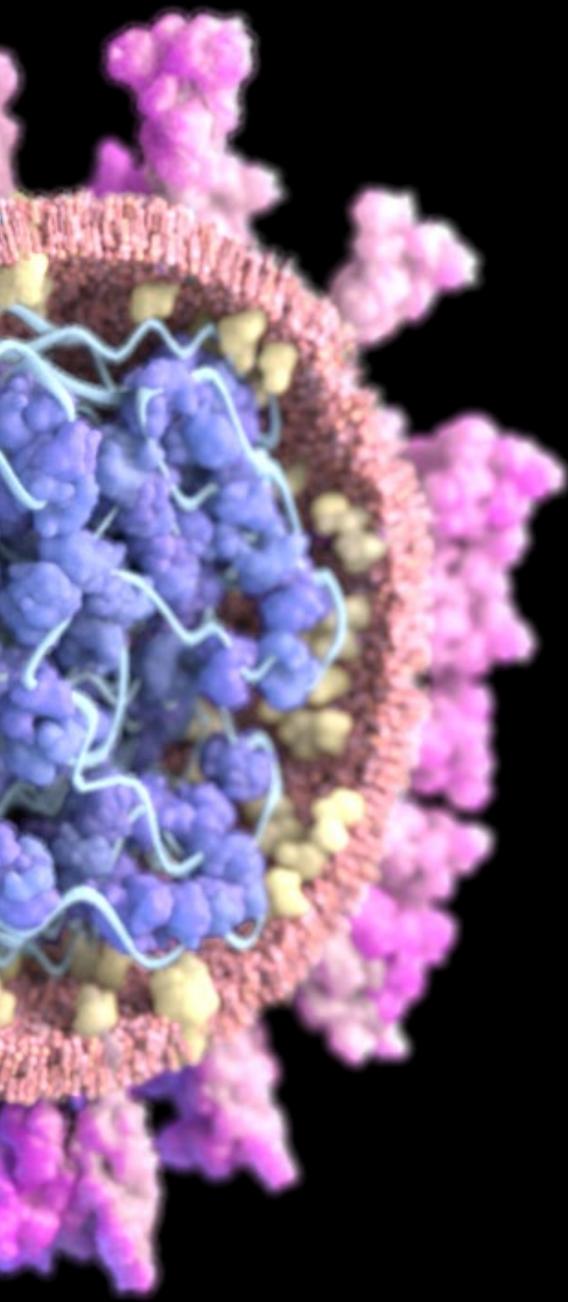




## **Citizen as First Responder**

**Authored by**  
**Samantha Dolin, Executive Creative Director**  
**and Leslie Jamison, EVP Corporate Ventures**



**The piece you're about to read is from Klick Health's Life (Sciences) After COVID-19 series,** a collection of expert perspectives designed to inform and inspire the life sciences community for the coming changes and opportunities we anticipate as a result of this global health crisis.

We invite you to engage with a multitude of these viewpoints by seeking out other pieces from this series, including *Changing Contexts Changes Habits* and *The Power of Scientific Rigor* at **[covid19.klick.com](https://covid19.klick.com)**.

# THE INSIGHT

For many years, we have seen the rise of consumerism in healthcare shifting us from being passive to active players in our own health. This has been driven by the desire for convenient, on-demand, accessible, and transparent care. Disruptive new players have offered us on-demand access to healthcare providers through mobile apps, online offerings, and convenient locations.

U.S. healthcare has been slow to adapt to these consumer desires due to a system that was built around face-to-face interactions, lack of a digital infrastructure, ingrained behaviors, misaligned incentives, and regulations that have made change difficult.

But the COVID-19 pandemic has forced many legacy barriers to be removed in order to limit the spread of the virus and to ensure resources are focused on those whom need care the most. This has accelerated access to digital options that have opened up new ways and places to manage our own health.

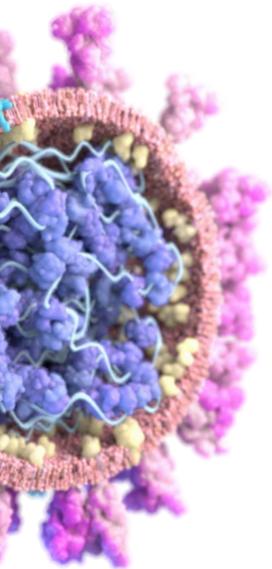
This experience, together with the affordability of ongoing technological advancements and increasing numbers of direct-to-consumer (DTC) offerings, are enabling us to not only be active participants in our own care but to become “first responders” in managing our health.



We define a “first responder” as a person who provides their own medical care before more highly trained medical personnel are consulted. The current prerequisites for being a medical first responder, such as emergency medical technicians, include basic emergency knowledge, speed of service, access to needed diagnostics, and tools to stabilize. The gap between the citizen and medical first responder skills and access will need to be narrowed.

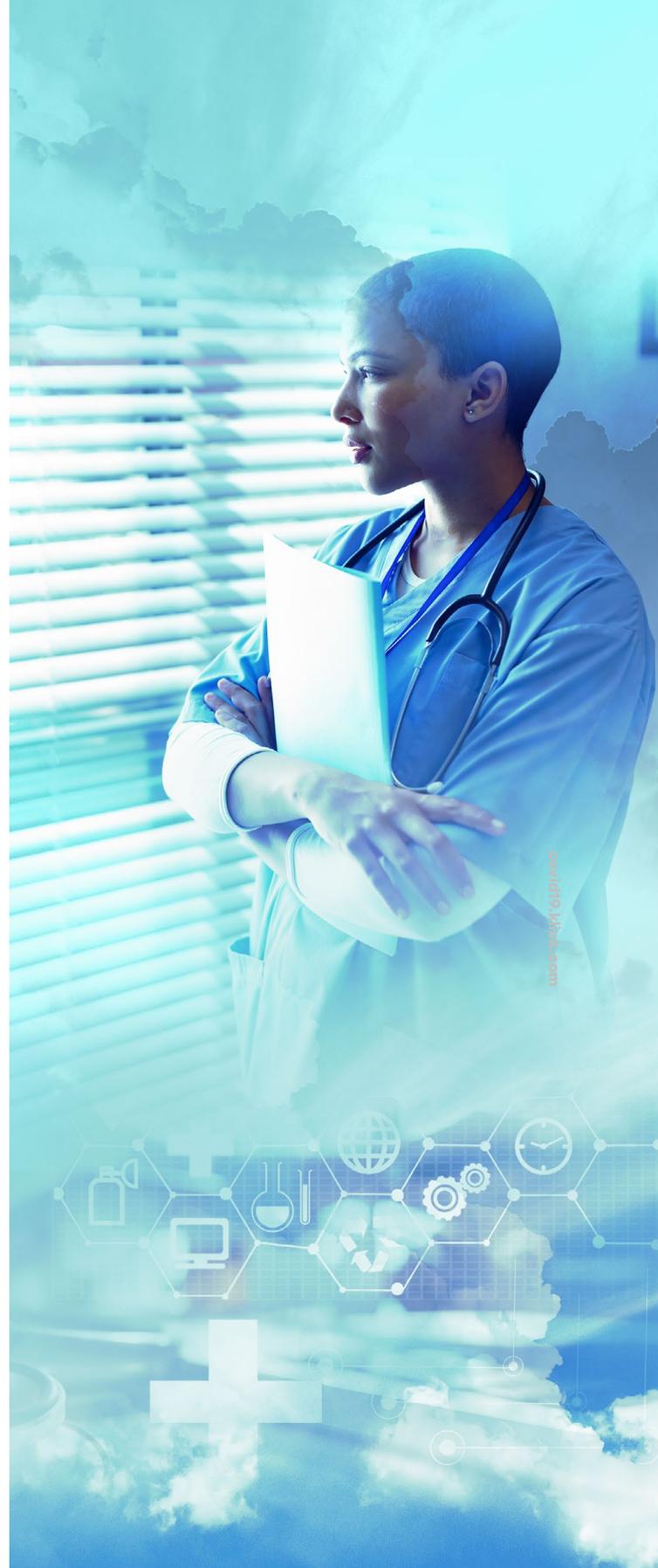
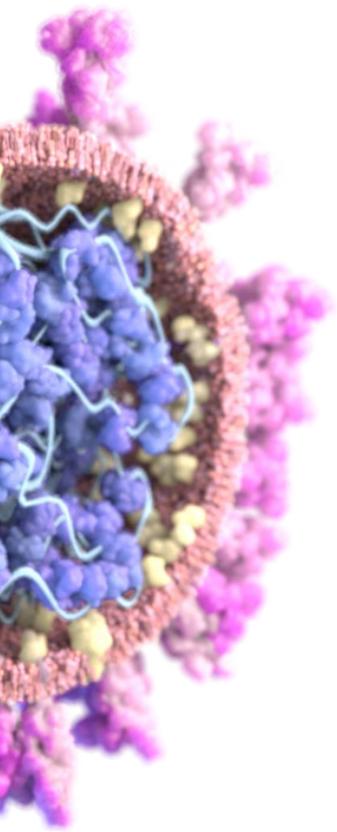
And as a collective of citizens, we have also been asked to be first responders in preventing the spread of COVID-19 by staying home, washing our hands, social distancing, getting tested, and allowing for contact tracing. The onus and responsibility is even greater now that restrictions have been lifted.

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If citizens become first responders for their own health, what will be the implications for life sciences leaders?

- **What education and service are required to ensure citizens and patients get the tools and resources they need to be effective first responders to various types of acute issues or changes in their chronic conditions?**
- **How do we ensure the health data that citizens collect and create is interpreted in the right way and is both easily understandable and actionable?**
- **How will these radical evolutions in the healthcare space change the way we, as healthcare communicators, connect and support healthcare professionals, patients, and care partners?**
- **Will we see more of a DTC model accelerate, somewhat disintermediating current physician interaction? How will this impact physicians financially, emotionally, and reputationally?**
- **If such a shift were to occur, what are the unknown unknowns? Would it open up new opportunities and threats to our system?**



# THE EVIDENCE

We have observed three drivers that will accelerate our ability to become first responders.

## 1. Digitization of Health

Prior to the pandemic, we saw the increasing availability of digital health technologies, connected medical devices, and portable diagnostics for personal use. Companies are providing apps with at-home exam kits that allow the patient to check their own heart, lungs, ears, temperature, and skin while being guided by a physician virtually.



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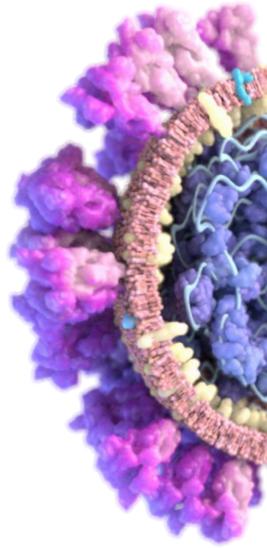
DTC genome testing, telehealth, prescription delivery, electrocardiogram measurement from home, and virtual assistants all have enabled citizens to move from being an active participant to a proactive participant in their own care.

We know that ambient home sensors, biometrics, and wearables will increase in availability and will measure our vitals, movement, and more. This data, together with other data sources, can and will be used for preventative self-care, as well as for continuous monitoring of chronic conditions, so we and others can intervene when necessary.

## 2. Changing Regulations: Access to Our Own Health Data

In March of 2020, it was announced that two rules carrying out the provisions of the 21st Century Cures Act, finalized by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology, and the Centers for Medicare & Medicaid Services (CMS), will let patients have access to their health data so that they can make better healthcare decisions.<sup>1</sup>

Seema Verma, the Administrator of the CMS, in support of the proposed rule said, "By requiring health insurers to share their information in an accessible format by 2020, 125 million patients will have access to their health claims information electronically. This unprecedented step toward a healthcare future where patients are able to obtain and share their health data, securely and privately, with just a few clicks, is just the beginning of a digital data revolution that truly empowers American patients."



### 3. Forced to be First Responders

Citizens are acting as first responders in various health situations during the COVID-19 pandemic out of fear of going to the hospital, urgent care, or the doctor's office.

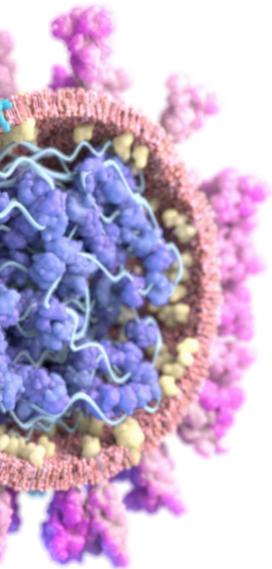
We have all felt responsible to not only ensure that we reduce the spread of COVID-19, but also that we diagnose and manage the virus ourselves provided we don't need hospitalization. The onus has been on us, as citizens, to triage our own symptoms through online chat bots or symptom trackers in order to determine what the best next step should be—and to manage the virus on our own, at home, through virtual consultations if needed. Some patients are even asking to be switched to medications that could be administered at home to avoid clinics or hospitals.

The downside of citizens and patients being first responders during the pandemic is that they are choosing when they will, or will not, seek care. People in need of serious medical attention are not going to the emergency room (ER) out of fear of getting sick or concern about taxing the hospital systems even further. A survey of nine major hospitals in April showed the number of severe heart attacks being treated in US hospitals had dropped by nearly 40%.<sup>2</sup> The same is true for stroke, appendicitis, oncologic biopsies, and other critical health situations.<sup>3</sup>



If citizens are going to be first responders for their own care, we need to ensure that all levels of health literacy, economic status, and ethnicities are equally equipped to appropriately manage the responsibility that this carries. Without equal access to resources, this would only further the inequity divide.

As a collective of citizens, we are allowing contact tracing and antibody testing to help others—not get ill nor help others that are already ill.





# THE POSSIBLE FUTURES

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There are technologies available today, like smartphone diagnostics, Apple Watch heart monitoring, digital inhaler platforms, self-administered symptom checkers, drug-drug interaction tools, hospital visit validation checklists, and connected pill bottles, that track and monitor adherence to provide data that helps us be first responder citizens. However, as technology continues to evolve and becomes more integrated, we imagine the future of citizens as first responders to look something like this:

*It's early Monday morning and you tell your alarm to turn off. As you do, you are greeted with a data readout from the biosensors that your bedsheets have been collecting while you sleep. Based on your heart rate, respiratory rate, and temperature, you had a relatively good sleep, though your heart rate did seem to peak a bit. Probably just a dream.*

*As you step into the bathroom to wash your face, the mirror scans your eyes and complexion—looks like your allergies might be acting up a bit today. Might be time to take an antihistamine.*

*While brushing your teeth, the toothbrush takes your temperature and reads your saliva for enzymes. Hmmm, running a slight fever—might not be allergies after all.*

*The virtual health assistant on your Apple Watch is triggered and sends a push notification asking if you'd like to consult with the doctor later today. You think, "Nah, it's really probably nothing—I'll just wait it out."*

*As you step into the shower, your full body scan initiates and after 30 seconds, it starts beeping—it's a tier 2 alert—you have a rash on your leg. Probably from the new laundry detergent you tried this weekend. You're not that worried.*

*You get dressed and have breakfast—time to tackle the day. By 11 a.m., your smartshirt has gathered data that your temperature is actually going up and by 11:15 a.m., your desk chair has recognized a change in your breathing. Hmm, you feel pretty good all-in-all, far from that flu you had last fall. Maybe you should call the doctor, but you have that big presentation to prepare for. It's probably stress and nerves—after all, there's a lot riding on your meeting. You put your head down, pop some aspirin, and keep working.*

*Twenty minutes later, your phone rings and it's your doctor. She's concerned about the data she sees transmitting to your real-time vitals chart. You had previously given your doctor permission to have access to all of your data. You tell her you think it's just allergies and nothing to worry about. You don't really think anything's wrong. She starts going through your stats and asking questions. She then asks for any biometrics and data you collected through the day. After a brief pause to review, she asks to do a video consultation. She starts the virtual exam by immediately asking about the rash on your leg. That really can't be something,*



*can it? But the doctor seems more concerned. As she triangulates the data and cross-references it against the database for other patients with a similar profile, she's concerned that this rash could be Lyme disease, cellulitis, or a reaction to the new medication you are taking. An in-person exam is scheduled for later that day and it becomes clear that it was a good thing you went in because it was a reaction to the new medication.*

*New prescriptions—both to treat the reaction and replace the original medication—are sent electronically to your pharmacy—paid for, processed, and delivered to your door by the time you get home. You're already beginning to feel a bit better. Before the day wraps, a push notification comes to your device from your virtual health assistant prompting a follow-up appointment with your doctor to assess your progress. The virtual assistant scans your calendar for available time slots and presents the three best options based on past preferences. You make your selection and confirm your appointment.*

## The Case for Citizen as First Responder...

The future we painted may not be one that everyone will be able to access at first, but being responsible for our own health is a future we would like to see for all. As technology becomes even more accessible and affordable, it will become more ubiquitous. Not everyone will want to take on the decision-making role of when to seek professional healthcare but everyone will strive to be a proactive player in their own care. In reality, we have all played the role of first responder when we don't feel well and decide to go to the ER or set up a doctor's appointment. We envision a future where citizens and patients are better informed and understand the importance of preventative care and don't just take action when they feel sick. Technology and data are the enablers of this healthcare future and we envision that people will become more literate in interpreting data and knowing what health issues they can and can't manage on their own. We envision a world where citizens and patients opt-in to share all the data that they collect on their health status with their health team. This will create a safety net where the healthcare team can intervene if they see concerning data that has not been acted on by the individual. Artificial intelligence (AI) and technology will play an important role in this future by aiding critical decisions for care as we weigh the benefits versus the risks from our living rooms.

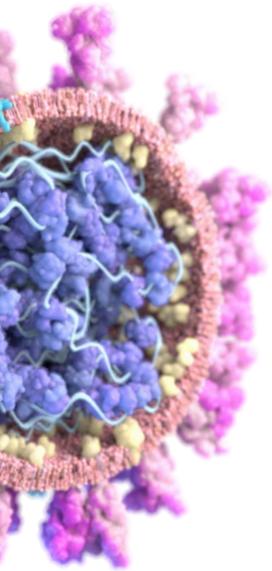
We also see a future where citizens and patients will contribute their health data (with their preferred desired privacy protection) to help provide insight that can be used to inform research, risk stratification analysis for population health management, and future health innovations.

This future may not apply to all instances or illnesses, but for some it may become the default standard of care led by citizens as first responders.

## The Case Against Citizen as First Responder...

The concerns may outweigh the benefits. How confident will citizens and patients be in the level of reliability and trust in the data that they will be basing their decisions on? Trust in the data and that the synthesis of the aggregated data is done correctly will be critical to a first responder's success. Also, where is the dividing line between everyday objects providing data and one of those objects becoming a medical device? When is a mirror simply providing data versus medical advice?

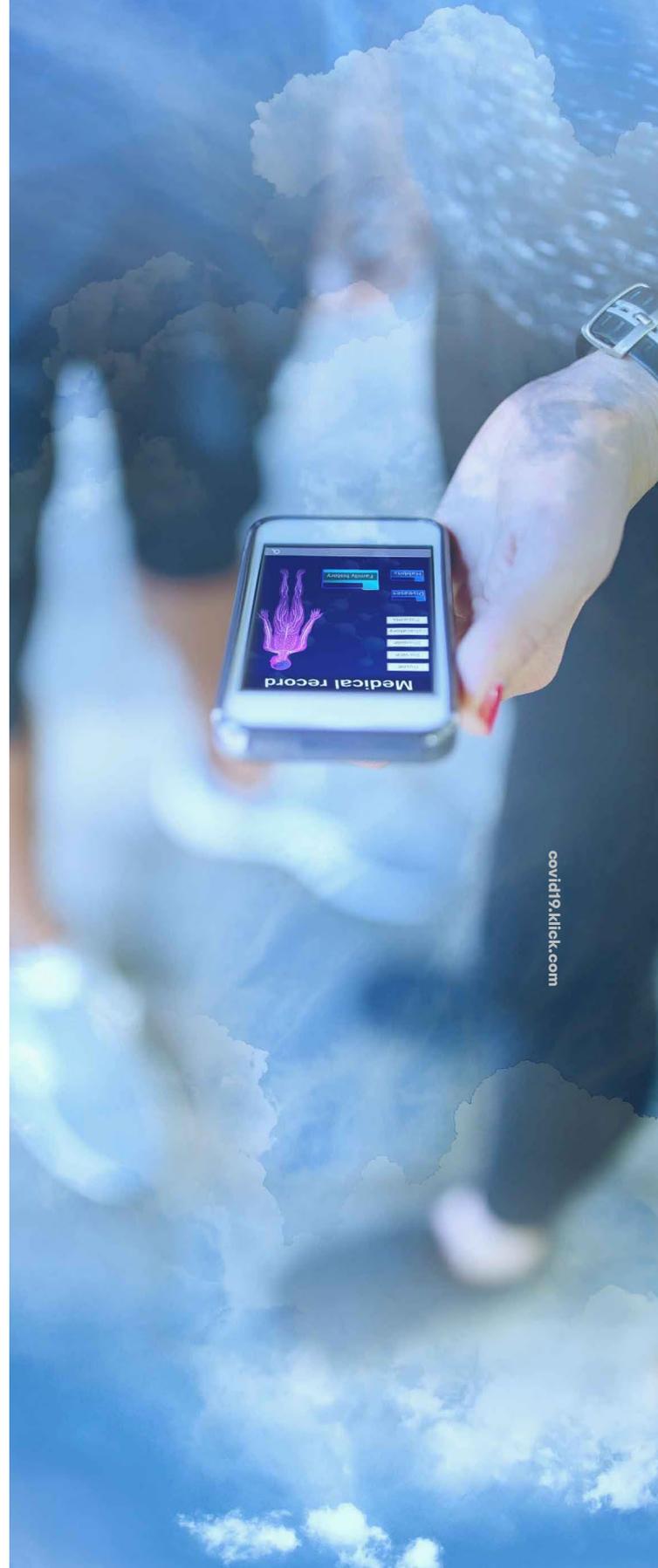
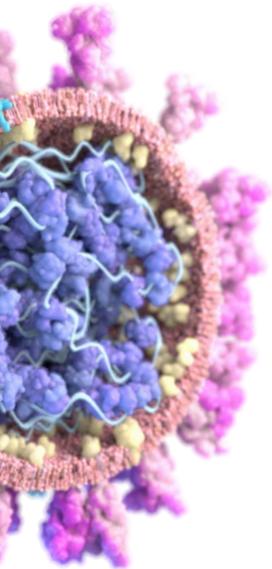
The second big concern will be if we misinterpret the data and/or cues that could delay our first response. Will we be adding anxiety and stress if there are false alarms or unreliable data? Who would we blame? There is a strong possibility that technology providers could be held liable if the right measures, checks, and balances are not put in place.



The other concern will be around interpretation: Can everyone interpret the data and can everyone interpret it in the same way? It will be critical to make the data easily understood by all so that we can reduce some of the disparity in healthcare in the future. How do we make sure the elderly or less tech savvy have a chance to participate in this future as well?

As the pace of data collection increases, and patients who are currently monitoring their chronic conditions become awash in complementary or maybe conflicting data that have probabilities attached, data that are modeled or AI-predicted, consumers (and physicians) may struggle to interpret it all, let alone correctly. Additionally, there will be people who don't want to be responsible for their own health data and will continue to rely on professional medical interpretation.

Complacency could also set in. If our health is passively monitored constantly, might we develop a false sense of security that everything is fine if nothing else happens? Not all citizens and patients will want to share their health data with their health team, which would remove the safety net ensuring that interventions are happening on a timely basis.



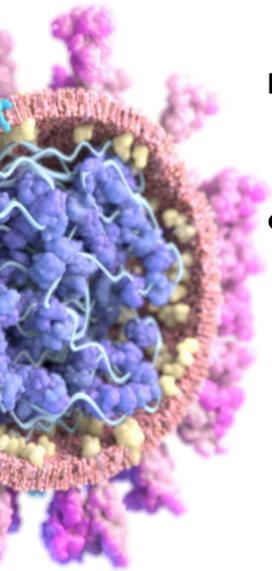
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# THE ACTION PLAN FOR LIFE SCIENCES LEADERS

## 1. Changing the Role of Health Communication

Our role as health communicators should take shape in three priority areas:

- a. How do we now help **educate** patients about the data they are collecting and appropriate escalation points?
  - How do we package the data/readout/interpretation for optimal health literacy and any potential language barriers?
  - Data literacy is a new dimension of health literacy around which education is required.
- b. How do we help doctors synthesize and **interpret** this data?
- c. How can we leverage our deep knowledge and expertise to **create and innovate tools** that help with both of the above?



## 2. Increase and Accelerate the Development of Data Capture for Your Therapeutic Areas

- a. First responders will require medication for acute situations but will also need to collect the right data for different diseases they may be at risk of developing. Think about enabling the data collection that your future patients will need to capture.

## 3. Partnering in New Ways with Patients and Providers

- a. Life sciences leaders need to partner with patients in this new world where they will own their own health data and can share it with whomever they want.
- b. The opportunity exists to help physicians navigate a world where citizens and patients become first responders.
- c. Brands need to truly shift from product-first to people-first to help them navigate their new role as first responders.
- d. Play an active role in providing standards for data interoperability.

## 4. Play a More Active Role in Preemptive and On-Going Care

- a. Think about disease education as becoming an even more important tool in support of understanding and treatment.
- b. Educate first responders on their role in ongoing care.

## 5. Rethink Your Relationship with the Food and Drug Administration (FDA) to be One Based on Collaboration

- a. Work collaboratively with the FDA to figure out an appropriate regulatory structure for a vastly expanded universe of devices that will provide medical information.
- b. How does a watch, smart mirror, or biosensor get approval going forward?

## References:

1. <https://www.hhs.gov/about/news/2020/03/09/hhs-finalizes-historic-rules-to-provide-patients-more-control-of-their-health-data.html>
2. <https://www.onlinejacc.org/content/accj/early/2020/04/07/jacc.2020.04.011.full.pdf>
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We hope you've found this piece from our Life (Sciences) After COVID-19 series valuable and engaging. For more content like this, download our other published perspectives at **covid19.klick.com** and sign-up to receive future insights as soon as they become available.



# Samantha Dolin

## Executive Creative Director

Klick Executive Creative Director  
Sam leads her team with a boundless passion; committed to effective, innovative, and purpose-led work.

Sam believes that deep insight and strategic foundation are vital success factors to all creative endeavors because the power of communication and inspiration is the power to change people's lives for the better. Prior to her role at Klick, Sam worked at a global network agency, where she was Chief Creative Officer (CCO). With a reputation for being a builder of communities, she is always looking to challenge her team to aspire toward greatness.

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*Sam comes from an extensive pharmaceutical marketing background spanning professional, patient, and the broader health and wellness and consumer arenas. Her work has been launched in the U.S. as well as globally for first-in-class and blockbuster brands in countless categories spanning oncology, central nervous system, cardiovascular, infectious disease, diabetes, respiratory, vaccines, and more.*

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Highly decorated, Sam's work has led to countless awards for her agencies across the top shows in the industry, including The Global Awards, RX Club, PM360, MM&M, DTC, Manny Awards, International Health & Medical Media Awards, Web Marketing Association, The Freddie Awards, and eHealthcare Leadership Awards.



# Leslie Jamison

## Executive Vice President, Corporate Ventures

As the Executive Vice President of Corporate Ventures, Leslie leverages her expertise in business, marketing, science, and human insights to identify and de-risk venture opportunities and grow them into successful businesses within life sciences that improve the lives of patients.

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*Previously, Leslie built and led the Brand Strategy team at Klick Health, drawing upon a 25-year proven track record in building successful brands that create meaningful connections with customers. As part of her mandate, she established a center of excellence in brand development that helped fuel the agency's hypergrowth.*

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Prior to joining Klick, she served as the Managing Director & Partner of an independent insights-driven brand consultancy. There, she created strategic offerings to enable healthcare clients to build their brands and drove business development that resulted in year-over-year revenue growth. Leslie also played a key role at a Fortune 500 company where she developed the value proposition and client acquisition strategy that resulted in both a new revenue stream for the company and a new standard for the sector.

She has an MBA from IMD in Lausanne, Switzerland and a Bachelor of Science degree in Chemical Engineering from Queen's University. In 2019, she was recognized with a PM360 ELITE Award for strategic excellence in the life sciences industry.



While change can create challenges, it also opens the door to new opportunities. Join us as we explore the many imaginable paths to post-pandemic growth. We welcome you to start a dialogue with the authors of this piece:

**Samantha Dolin**

[sdolin@klick.com](mailto:sdolin@klick.com)

**Leslie Jamison**

[ljamison@klick.com](mailto:ljamison@klick.com)

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