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HEARTLAND  
SUMMIT  
2021

## A special thank you to all our panel participants

- Adam Schechter, Chairman, President and CEO, Labcorp
- Aly Orady, Founder and CEO, Tonal Fitness
- Amir Rubin, Chairman, President and CEO, One Medical Group
- Andrew Parker, Founder and CEO, Papa
- Andy Roddick, Investor and Professional Tennis Player
- Benjamin Silver, Sector Head, Co-Chair Stock Committee, Maverick Capital
- Bob Bradway, Chairman and CEO, Amgen Inc.
- Carina Edwards, CEO, Quil Health
- Chris Gibson, Co-Founder and CEO, Recursion Pharmaceuticals, Inc.
- Daphne Koller, Founder and CEO, Insitro, Inc.
- Doug Baker, Executive Chairman and former CEO, Ecolab
- Eric Larsen, President, The Advisory Board Company
- Gene Munster, Manager Partner, Loup Ventures
- Geoff Martha, Chairman and CEO, Medtronic plc
- Gerald E. Harmon, M.D., President American Medical Association
- Giovanni Caforio, Chairman and CEO, Bristol-Myers Squibb
- Harith Rajagopalan, Co-Founder and CEO, Fractyl Health, Inc.
- Ido Schoenberg, Chairman and CEO, American Well Corporation
- Jason Coloma, CEO, Maze Therapeutics, Inc.
- John Kao, CEO, Alignment Healthcare, Inc.
- Karen Parkhill, CFO, Medtronic plc
- Kevin Lobo, Chairman and CEO, Stryker Corporation
- Kevin Sayer, Chairman, President and CEO, DexCom, Inc.
- Laura Kaiser, President and CEO, SSM Health Care Corporation
- Marc Casper, Chairman, President and CEO, Thermo Fisher Scientific Inc.
- Mark McKenna, President and CEO, Prometheus Biosciences
- Michael Williamson, Co-Founder and CEO, ViewFi
- Mick Farrell, CEO, ResMed Inc.
- Mike Minogue, Chairman, President and CEO, ABIOMED, Inc.
- Nadim Yared, President and CEO, CVRx, Inc.
- Raj Singh, CEO, Accolade
- Richard Migliori, M.D. Executive Vice President, Medical Affairs and Chief Medical Officer, UnitedHealth Group
- Rick Pollack, President and CEO, American Hospital Association Inc.
- Rod Hochman, M.D., President and CEO, Providence St. Joseph Health
- Sami Inkinen, Founder and CEO, Virta Health
- Scott Whitaker, President and CEO, AdvaMed
- Sebastian Guth, President, Pharmaceuticals, Americas Region, Bayer
- Sir Andrew Witty, CEO, UnitedHealth Group
- Stefano Pessina, Executive Chairman and former CEO, Walgreens Boots Alliance, Inc.
- Steve Rusckowski, Chairman, CEO and President, Quest Diagnostics Incorporated
- Steve Ubl, President and CEO, PhRMA
- Tom Mihaljevic, President and CEO, The Cleveland Clinic
- Tom Polen, Chairman, President and CEO, Becton, Dickinson and Company
- Ziad Bakri, CFA, M.D., Portfolio Manager, T. Rowe Price

## To our valued clients, partners and friends:

After a one-year hiatus, Piper Sandler was honored to reconvene the leading voices in healthcare at the Heartland Summit in Minneapolis on September 29 and 30.

Extraordinary circumstances necessitated the cancelation of the Heartland Summit in 2020. Under those extraordinary circumstances, we witnessed extraordinary resilience and extraordinary achievements from many of our partners in the healthcare industry. The amazing achievements during the pandemic were often the result of uncommon collaboration among organizations working together to solve unprecedented challenges. The Heartland Summit has always been a forum for this sort of connection and collaboration, and we were pleased to bring both familiar and new faces together again.

While many are still choosing to interact remotely, we also recognized the need to demonstrate a belief in the safety and efficacy of vaccinations and preventative measures advocated by healthcare leaders. We are proud that the Heartland Summit was one of the first industry conferences to convene in person since the start of the pandemic and are pleased to report that it was conducted safely and with no known transmissions of the COVID-19 virus among the attendees.

We would like to thank Bob Bradway of Amgen, Geoff Martha of Medtronic plc, Dr. Tom Mihaljevic of the Cleveland Clinic and Sir Andrew Witty of UnitedHealth Group for their continued leadership, participation and support for the Heartland Summit. We are grateful to the 39 panelists and 13 moderators who contributed their time to the important discussions, as well as the many luminary CEOs and healthcare leaders that simply attended the Heartland Summit – especially those who have chosen to return year after year.

We hope that fostering these important discussions and important relationships will be a genuine, impactful and lasting legacy of the Heartland Summit. We look forward to continuing this legacy and seeing you at the 2022 Heartland Summit.

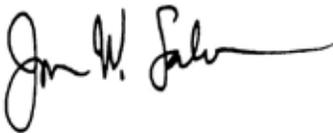
Regards,



J.P. Peltier  
Global Group Head  
Healthcare Investment Banking



Peter Day  
Global Group Head  
Healthcare Investment Banking



Jon Salvesson  
Vice Chairman  
Investment Banking



Matt Hemsley  
Piper Heartland Healthcare Capital, LLC  
Chairman of the Heartland Summit

## The Pandemic-Inspired Changes That Will Become a Permanent Part of the Healthcare Industry

**Panelists:** Bob Bradway, Chairman and CEO, Amgen, Inc.  
Tom Mihaljevic, President and CEO, The Cleveland Clinic  
Geoff Martha, Chairman and CEO, Medtronic plc  
Sir Andrew Witty, CEO, UnitedHealth Group

**Moderator:** Matt Hemsley, CEO, Piper Heartland Healthcare Capital

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The Piper Sandler Heartland Summit commenced with opening remarks from **Matt Hemsley, CEO, Piper Heartland Healthcare Capital**, who also served as the first panel's moderator. Hemsley warmly welcomed Heartland Summit guests back in person for the first time since 2019, due to the COVID-19 pandemic. He then introduced the first distinguished panel of the day from four major sectors of the healthcare ecosystem, highlighting the unique challenges and incredible interconnectivity of the healthcare industry. Over the last 18 months, the COVID-19 global pandemic has come with a host of unique features, inspiring and accelerating changes that will become a permanent part of the healthcare industry.

Reflecting on the collective response to COVID-19, the headlines are mixed with criticism and high praise. This pandemic spurred tremendous innovation. The fastest vaccine developed prior to the COVID-19 vaccine took four years. Developing a new vaccine, with a new modality, and distributing billions of doses in less than two years' time was unfathomable. One catalyst for this innovation was the unprecedented degrees of cooperation. **Bob Bradway, chairman and CEO, Amgen, Inc.**, shared his observations of how across the public and

private sector, regulators and industry participants came together with a common goal and expeditiously worked with one another. Organizations put aside who would get credit or how the economics would line up. The rare and historic partnership between J&J and Merck to develop a vaccine was one illustrative example. Two additional examples include Medtronic and The Cleveland Clinic, both of which collaborated with organizations they would not have thought possible prior to the onset of the pandemic. **Geoff Martha, chairman and CEO, Medtronic plc**, shared how his company's bold move to open source their ventilators resulted in 250,000 downloads and a manufacturing partnership with SpaceX. **Tom Mihaljevic, president and CEO, The Cleveland Clinic**, then added that the Cleveland Hospital system started to collaborate with their cross-town fierce competitor early in the pandemic by sharing resources, testing centers and vaccine distribution efforts, and ensuring capacity was optimized. This collaboration was so valuable that Mihaljevic recommended mandating such meetings on a regular basis to collaborate in job creation and improve operational areas such as those that involve the supply chain.



Bob Bradway, Amgen, Inc.



Geoff Martha, Medtronic plc



Tom Mihaljevic, The Cleveland Clinic



Sir Andrew Witty, UnitedHealth Group

In addition to expecting collaboration, cooperation and strategic partnerships to continue to drive the future of healthcare, Hemsley invited the panelists to share what innovations and realities they are most excited to see in the incoming months and years. **Sir Andrew Witty, CEO, UnitedHealth Group**, shared his excitement for the streamlining of payments, aiming for a paperless system and thinking through incentive alignment. Martha highlighted how the increase in computational power is putting us at the nexus of miniaturization, and robotics and technology will enable clinicians to figuratively push out the four walls of the hospital. Mihaljevic noted that he sees the biggest opportunity in finding meaningful ways to allow pharma and med tech to collaborate with providers and payors as well as further leveraging data. Bradway rounded out the topic of discussion, predicting a period of “unmatched productivity.”

The conversation then turned to address the recent shift in business operations and culture driven by increased corporate social responsibility and the war on talent. Employers are starting to realize that they cannot just support employees in the workplace, but must do so in a broader sense, including in the home. The seemingly overnight shift to virtual work has forced people to embrace enabling technology. The panelists agreed that their companies, and companies in the industry in general, must examine how they will balance a virtual workforce and the traditional model going forward. One noticeable shift is the increasing acceptance of geographic diversity and how going virtual has created a more diverse and inclusive environment to bring different individuals with different perspectives into organizations.

Wrapping up the conversation, the group expressed their optimism and increased restlessness in response to the incredible opportunity ahead. Sir Witty emphasized how the pandemic has driven people to become true consumers of healthcare: “Every family thinks about health more than they did two years ago.” In closing, Sir Witty stated that when the consumer becomes properly motivated and empowered, the industry better start reacting. This extraordinary panel of pandemic-inspired changes perfectly set the stage for the rest of the day’s busy agenda.

## Care Delivery 2.0: Mixing Old and New Models for Care Delivery

**Panelists:** Ido Schoenberg, Chairman and CEO, American Well Corporation  
John Kao, CEO, Alignment Healthcare, Inc.  
Raj Singh, CEO, Accolade  
Amir Rubin, Chairman, President and CEO, One Medical Group

**Moderator:** Sean Wieland, Senior Research Analyst, Piper Sandler

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**“Technology has a role to play, but it cannot replace the human being in healthcare ... it’s about technology enabling human beings to deliver healthcare.”**

– RAJ SINGH, CEO OF ACCOLADE

Primary care has seen major innovation in the last 20 years, especially since the emergence of COVID-19. New medical technology, such as telehealth and patient data analytics, have advanced the industry faster than we’ve ever seen before. CEOs from American Well Corporation, Alignment Healthcare, Accolade and One Medical Group discussed the change in primary care and what needs to be done to make the industry continue to evolve.

Considering numerous changes from “Primary Care 1.0” to “Primary Care 2.0”, **Sean Wieland, senior research analyst, Piper Sandler**, led the panel off in stating “the U.S. spends less than half of what other industrialized nations do in terms of primary care, yet primary care is a key fulcrum in controlling costs.” When asked about the problems with Primary Care 1.0,

the group highlighted poor structure leading to inefficiencies and high costs. The healthcare industry in general needs massive improvement. **Amir Rubin, chairman, president and CEO, One Medical Group**, highlighted the fact that in the United States it takes 29 days to get in to see a primary care provider, and there is 50% burnout in primary care physicians. Regulatory constraints such as risk adjustment and proper recordkeeping have also created an administrative burden and harsh inefficiencies for primary care providers. While numerous reasons were given as to why Primary Care 1.0 needed an upgrade, the panel agreed that digitization, virtual care delivery models and data analytics are what will make Primary Care 2.0 successful. Although digitization streamlines the patient experience, **Ido Schoenberg, chairman and CEO, American Well Corporation**, emphasized that it is the people who make primary care what it is. The utilization of a more digital primary care environment paired with human interaction has and will continue to propel the industry forward.

The conversation then pivoted toward the consequences of interfering with the primary care industry. One reason the panelists have been able to influence where the primary care industry is going is that they come from within the ecosystem. Through partnerships and industry experience, Rubin stated that One Medical Group requires membership fees to avoid capitation and



Ido Schoenberg, American Well Corporation



John Kao, Alignment Healthcare, Inc.



Raj Singh, Accolade

has created incentives for providers to deliver quality managed care. **John Kao, CEO, Alignment Healthcare Inc.**, iterated that COVID-19 has “forced both the adoption by the consumer to have alternative means of interaction with their provider, and it has forced the provider to be much more innovative.” The pandemic significantly increased the velocity of change within primary care. The group conversed about how roughly 20 percent of patients will make up 80 percent of medical costs. The implementation of technology and information-driven healthcare has assisted in identifying which patients may be in this category. The panel made a point of focusing on using technology to recognize which patients need more attention and using that information to spend adequate time with each patient without spreading resources too thin.

Subsequently, the dialogue shifted to innovations revolving around consumer frustration. **Raj Singh, CEO, Accolade**, spoke about improving the consumer experience by assembling a data set, collaborating with partners and humanizing the consumer, knowing that no two people require the exact same care. “Technology has a role to play, but it cannot replace the human being in healthcare ... it’s about technology enabling human beings to deliver healthcare,” Singh noted. Another topic of discussion regarding consumer frustration included the use of virtual healthcare to create a more unified experience. The ideal healthcare experience blends physical visits, virtual visits and automated care when appropriate.

Moving forward, Wieland facilitated a discussion about primary care providers as so-called “gatekeepers,” and whether the industry should revert back to the way it was when patients had to “go to the doctor before going to the doctor.” The group’s respective platforms have allowed providers not to act as gatekeepers, but more so as guides for patients. With the utilization of Primary Care 2.0, patients may take advantage of 24/7 virtual care, thus reducing visits to the hospital or emergency



Amir Rubin, One Medical Group

room. Not only does the new delivery of care account for the patient’s health and financial interest, but it also allows providers to allocate resources more efficiently. Tech-enabled primary care does not eliminate the choice of the user; rather, it affords the best options of care for them while considering the relationship the patient has with the provider. Kao expanded on this point with the fact that CMS is changing the weighting of CAHPS scores, focusing on consumer experience. Accessibility to care is incorporated into this scoring.

The conversation continued around ease of access reducing downstream costs. Schoenberg commented that “when thinking of an app or things of that nature, the thinking should not be that I’m replacing my conversation with my doctor with virtual care ... we are replacing the traditional model of care with a new model of care where [providers] do what they do best and are utilized when they need to be.” This comment prompted the topic of information-sharing as a means to reduce cost. Singh noted that with the digitization of care and sharing of information, physicians can now retrieve data they need to understand what a certain course of treatment will mean for a patient in terms of not only their health, but their finances.

The panel concluded with discussion of the successes and failures within the industry. Kao stated that the key is the transforming of data into actionable information to educate decision makers. This will make primary care providers more predictable, replicable, and scalable. The industry has undergone a lot of change, but with its powerful innovations, patients may receive the type of care that “used to only be available to the president”, according to Schoenberg. There was a shared sense of optimism among the panelists for the future of primary care, as the panel closed with a dialogue about the capabilities of virtual healthcare. The final note, made by Kao, emphasized that driven by the application of technology, mass advancement in the healthcare industry will come faster than anticipated.

## Care Delivery 2.0: How Healthcare Providers Are Responding to the Escalating Pace of Change

**Panelists:** Laura Kaiser, President and CEO, SSM Health Care Corporation  
Gerald E. Harmon, M.D., President, American Medical Association  
Rod Hochman, President and CEO, Providence St. Joseph Health  
Rick Pollack, President and CEO, American Hospital Association Inc.

**Moderator:** Eric Larsen, President, The Advisory Board Company

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### “We have to rebuild our health infrastructure and redefine it and respect it.”

– RICK POLLACK, PRESIDENT AND CEO, AMERICAN HOSPITAL ASSOCIATION INC.

The pandemic inspired many changes in the healthcare industry by highlighting numerous systemic flaws, both pre-existing and novel. This theme was explored by an all-star panel of healthcare industry leaders who were asked to elaborate on the largest challenges that providers are faced with now and how these challenges will influence innovation and change moving forward. A wide variety of challenges were discussed, including workforce shortages and provider burnout, health inequity, the regulatory environment and outdated payment models. Despite these challenges, the panelists remained optimistic for the future. Outside of tackling the aforementioned hurdles, many other opportunities to innovate were discussed, from novel industry collaboration to digitization, pointing to a bright future for all of healthcare.

**Rod Hochman, president and CEO, Providence St. Joseph Health**, began the panel by presenting six major challenges that the pandemic posed to the healthcare industry, which need to be confronted in future initiatives; biologic, financial, cyber and political instability, the expansion of health inequality and a growing carbon footprint. **Rick Pollack, president and CEO, American Hospital Association Inc.**, added behavioral care, regulatory easing and the workforce to the list, stating that going forward we need to consider what we stop, what we reboot and what we reimagine from the COVID experience to create a better healthcare system for the future. He further emphasized the “three R’s” that must be considered as we shake off the woes of the pandemic: monetary and regulatory relief, recovery and rebuilding.

Of these problem areas, the most prevalent is the current state of the workforce, namely the labor shortages and the resulting burnout that has been impacting all classes of medical providers. **Gerald Harmon, M.D., president, American Medical Association**, stressed that “[our providers] are emotionally and psychologically drained [...] what I am seeing now is battle fatigue.” Given how long it takes to train a provider, the turnover caused by this fatigue and burnout is a long-term



Rod Hochman, Providence St. Joseph Health



Rick Pollack, American Hospital Association Inc.



Gerald E. Harmon, M.D., American Medical Association



Laura Kaiser, SSM Health Care Corporation

problem, especially given that fewer people are going to school for healthcare than in the past. **Laura Kaiser, president and CEO, SSM Health Care Corporation**, emphasized that work is being done to combat these labor issues, such as unlimited employee assistance programs, but it is not enough. To make matters worse, Kaiser pointed out that labor shortages, partially a result and partially a cause of provider burnout, are increasing hiring costs at an unsustainable pace. In order to mitigate these challenges, she believes we must continue to show appreciation for and empower our healthcare workers, as well as increase access to healthcare jobs. The latter is a point that Gerald Harmon also believes quite strongly in, whose organization has made massive moves in the realm of health equity. All panelists agreed that labor issues are only one piece of the puzzle driving up healthcare costs in America; another is the outdated payment system, one which Kaiser calls the “rescue system”. Harmon noted that a better investment must be made in preventative, value-based care such that the front end of the healthcare ecosystem is strong enough to maintain costs on the back end.

Moderator **Eric Larsen, president, The Advisory Board Company**, then shifted the conversation to politics. Larsen asked Pollack, who is highly in tune with Washington, to comment on the current legislative environment in healthcare. Pollack felt that healthcare regulations have a long way to go. There is still too much bureaucratic tape that distracts from a provider’s true job, which is to care for their patients. While many changes have occurred in D.C., serious attention has yet to be given to important areas such as advancing payment models and tackling costs with value-based care, increasing price transparency and to expanding the abilities of telehealth. “Medicare for All” isn’t truly a focus anymore, with many regulators putting more energy toward simply expanding medical benefits.

In conclusion, despite these numerous challenges, the panelists were optimistic for the future, as the opportunity to correct the problems highlighted by the pandemic serves as a massive greenfield. In addition to the opportunities available by simply repairing the inefficiencies highlighted by the pandemic, Kaiser explained the growth potential from collaborations, both within and outside the healthcare industry, an opportunity realized during the pandemic as unlikely partnerships were formed to combat a common enemy. The benefits of collaboration are precisely why Harmon noted he was not disturbed by the (largely) private equity-backed consolidation and corporatization of medical providers that we see today, which has many caregivers choosing to shift away from entrepreneurial ‘mom and pop’ practice roles to safer roles at large providers. Hochman echoed this sentiment while highlighting the exciting shift toward digitization that is now well under way in the industry, fueled by a proliferation of data. Telehealth is a prime example, a digital health solution that was kick-started by the onset of Covid-19. Billions of dollars were spent on innovation during the pandemic, which will remain even after COVID-19 is in our rearview mirror. While many challenges persist in the healthcare sector, the pandemic served as a catalyst, sparking industry-wide renovation. Pollack summarized it best: “We have to rebuild our health infrastructure and redefine it and respect it.” The panelists agreed that the industry must continue to adapt and innovate, whether it be by fixing health inequities, workforce shortages, payment models or regulations, or increasing collaboration and digitization. The industry is riper than ever for transformative growth that will be good for all: shareholders, patients and otherwise.

## Filling the Service and Technology Gaps Needed to Enable Home Healthcare

**Panelists:** Andrew Parker, Founder and CEO, Papa  
Carina Edwards, CEO, Quil Health

**Moderator:** Jeff Garro, Senior Research Analyst, Piper Sandler

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The home healthcare industry has been permanently changed as a result of the COVID-19 pandemic. **Andrew Parker, founder and CEO, Papa**, believes new telehealth options are providing better results for patients, and that there may not be a need to return to the former modalities of traditional healthcare treatment anymore. **Carina Edwards, CEO, Quil Health**, agreed with Parker, and noted that technology-enabled solutions are also providing strong returns on investment. In this panel, moderated by **Jeff Garro, senior research analyst, Piper Sandler**, the panelists discussed how home healthcare solutions offered by companies like Papa and Quil can continue to fill the service and technology gap.

There has long been a focus on keeping patients out of healthcare facilities when they can be treated at home to reduce costs and improve patients comfort and quality of care. With the impact of COVID-19 accelerating this transition, Quil and Papa are further enabling patients to receive the care they need without leaving their homes. Edwards emphasized how the solution Quil provides through patient engagement and education allows patients to recover in the comfort of their home with better outcomes. Quil gives patients step-by-step guidance prescribed by their providers to guide them on their recovery journey. This solution is for all ages and demographics, whether

working through a pregnancy or recovering from an orthopedic surgery. Quil's solution translates complex clinical terms into simple terms that are easier for the patients to understand. Papa, on the other hand, approaches home healthcare from a different perspective. Papa connects seniors who don't need traditional homecare services with "Papa pals," who spend time and build relationships with them. Parker has found that through these connections, the senior populations are less isolated, and are able to live on their own for longer.

As Garro noted, both Papa and Quil provide support systems to patients in different ways; Parker and Edwards explained how. The Papa solution focuses on looking at the patient's particular needs and calculating a score using a proprietary A.I. system called the Papa Social Index. This score enables Papa to identify the services or products that the patient needs for further support. In many cases, Papa patients may have access to a system like Quil but are unsure of how it works. The Papa pals walk the patients through these systems, so they can use them when they feel comfortable. Quil works with patients to increase their familiarity with their clinical procedures and make them feel better prepared for them. They have found a 22 percent increase in discharge to home post-surgery, especially when the patient has a support network.



Andrew Parker, Papa



Carina Edwards, Quil Health



Andrew Parker, Papa; Carina Edwards, Quil Health; Jeff Garro, Piper Sandler



Carina Edwards, Quil Health; Jeff Garro, Piper Sandler

One of the most challenging aspects of healthcare is being able to measure success and deliver a better consumer experience. The conversation transitioned toward solutions to this challenge, and Parker used his company as a prime example. He explained that with recent regulatory changes, Papa and other home healthcare services are able to measure and take credit for the improved outcomes they drive. For example, Papa pals can identify patients who have specific issues, and work with them to make improvements to their home to mitigate risks. In the end, this reduces accidents and injury, thereby reducing healthcare costs. Separately, Edwards stated that Quil focuses on minimizing readmission rates and allowing providers to harvest the data collected to identify which patients may benefit from additional attention. As a result, they have found a reduction in providers' clinical time in the follow-up process by turning their attention to the patients who need it most.

The panel concluded with what the two panelists sharing their vision of the future. Technology advancements will further enable home healthcare adoption and ease of use. Edwards sees this starting with the increased prevalence of smart homes and more reliable communication networks such as 5G, becoming universal. This access to technology will further increase adoption rates of digital healthcare tools and patient engagement. Parker sees healthcare focusing on a more personalized treatment plan for each patient. He emphasized that "it's about making sure we are meeting people where they are" instead of grouping patients together as if they all have similar needs and comfort with technology. In closing, Parker stated that the pandemic provided a spark that jump started the telehealth industry, which will continue to evolve over the coming years.

## The Present and Future of Diabetes Care

**Panelists:** Kevin Sayer, Chairman, President and CEO, DexCom, Inc.  
Harith Rajagopalan, Co-Founder and CEO, Fractyl Health, Inc.  
Sami Inkinen, Founder and CEO, Virta Health

**Moderator:** Matt O'Brien, Senior Research Analyst, Piper Sandler

Moderator **Matt O'Brien, senior research analyst, Piper Sandler**, began the panel by asking **Sami Inkinen, founder and CEO, Virta Health** how his company is addressing diabetes care in the United States today. Inkinen referenced Einstein's definition of insanity – doing things over and over the same way and expecting difference results – to describe how the healthcare industry has attempted to tackle the issue of type 2 diabetes in the U.S. over the last 30 years. According to Inkinen, despite the various efforts to “manage” the disease thus far, the disease still adds \$300 billion in cost to the healthcare system annually, and more people now have type 2 diabetes than ten years ago. The efficacy of type 2 diabetes care is simply not improving, yet the industry has made little change to treatment and disease management. Virta Health's goal, however, is not to manage type 2 diabetes, but to reverse it altogether. Inkinen and Virta Health plan to do this through highly intensive virtual care and individualized nutrition protocols. Providers can use the Virta Health system to interact with their patients in a virtual setting two to three times daily. These providers do everything from adjusting their patients' medications, providing behavioral health support and addressing complications in real time – all in a virtual setting. This platform allows diabetes care to occur more frequently and reach a larger portion of the patient population. The second arm of the Virta Health platform, individualized nutrition planning, is arguably the most important.

Inkinen explained that “you can provide all the support, but if you don't have the right science, you aren't going to be able to reverse type 2 diabetes.” Using nutrition, and behavior changes – Virta aims to address the issues that are at the root cause of the disease in the first place. Type 2 diabetes will not be effectively reversed, much less managed, if the science that is at the core of the problem is also not addressed. Individualized carbohydrate restriction is Virta's solution to this issue.

**Harith Rajagopalan, co-founder and CEO, Fractyl Health, Inc.**, joined the conversation by explaining his company's solutions. Fractyl Health is focused on developing transformative therapies that aim to correct the underlying root cause of pathology in the body that causes type 2 diabetes. Much like Virta Health, Fractyl Health's goal is to provide a solution to help eradicate the disease. Rajagopalan emphasized the fact that many of the societal trends that increase the prevalence of type 2 diabetes are only going to worsen over the coming decades. If the healthcare industry continues on the current course, there will be 50 million people in the U.S. with type 2 diabetes by 2035 and the U.S. will be spending roughly \$1 trillion annually on the disease – one third on management and the other two thirds on complications such as dialyses and kidney failure. Fractyl Health offers a minimally invasive surgery that rejuvenates the lining of the duodenum by using hydrothermal ablation to safely remove the excessive layer of the duodenal mucosa, enabling patients'



Sami Inkinen, Virta Health



Kevin Sayer, DexCom, Inc.; Harith Rajagopalan, Fractyl Health, Inc.; Sami Inkinen, Virta Health; Matt O'Brien, Piper Sandler



Harith Rajagopalan, Fractyl Health, Inc.

insulin levels and sensitivity to return to normal. Rajagopalan and Fractyl Health arrived at their solution for the disease by studying how bariatric surgeries were reversing the effects of type 2 diabetes in patients. Rajagopalan later explained how the diabetes industry has spent most of its time and effort thus far thinking about blood sugar management as the solution, but bariatric surgery, seemingly unrelated and inconsequential to the effort to cure type 2 diabetes, ultimately normalizes blood sugar better than medical therapy.

DexCom has been extremely successful treating type 1 diabetes population, but now **Kevin Sayer, chairman, president and CEO, DexCom, Inc.**, plans for the company to begin addressing type 2 diabetes through their continuous glucose monitoring (CGM) solution. Sayer explained that, since studying the disease, he has realized the importance of addressing the disease at the individual level. When asked about the future of DexCom within the broader diabetes ecosystem, Sayer explained that their goal is for anyone using insulin in 2025 to be wearing a sensor. Within the type 1 diabetes group, they plan to drive costs down through scale, and combined with other insulin delivery systems, type 1 diabetes will be effectively managed. In terms of type 2 diabetes, their studies and past experiences have shown that patients are more likely to make efforts to reverse their disease when they have access to their own data. When they see how their body is being affected, "it sticks." They plan to invest roughly \$500 million on scale and their proprietary G7 equipment, as well as on software. Sayer highlighted the fact that since DexCom is also a technology company, their software must meet their customer's demands.



Kevin Sayer, DexCom, Inc.

At the core of these companies' solutions is the underlying assumption that type 2 diabetes is a progressive disease, and the attempts managing the disease have not yet been effective. Though this highlights the many challenges the disease poses to the healthcare industry, the three panelists agreed that it also represents the opportunity to shift the standards and methods of care for the disease, with the end goal of reversing and eradicating the disease altogether.

## Bringing New Technologies, Solutions and Measurements to Sports Medicine

**Panelists:** Aly Orady, Founder and CEO, Tonal Fitness  
Michael Williamson, Co-Founder and CEO, ViewFi  
Andy Roddick, Investor and Professional Tennis Player

**Moderator:** Richard Migliori, M.D., Executive Vice President, Medical Affairs & Chief Medical Officer, UnitedHealth Group

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**Richard Migliori, M.D., executive vice president, medical affairs & chief medical officer, UnitedHealth Group,** kicked off the panel with an insight from the payor side of healthcare: expenditures in physical medicine – musculoskeletal diseases – constitute around 15% of total healthcare costs. These expenditures can be immediately addressed through thoughtfulness of plan design and an understanding of patient benefit. He was joined by **Andy Roddick, investor and professional tennis player,** who spoke on his experiences when he needed care. He recounted how inefficient the in-person process of diagnosis often was with unnecessary steps prolonging the experience. Meanwhile, there is currently no diagnostic tool for identifying an injury over zoom effectively.

Migliori asked for the panel's observations about people trying to improve musculoskeletal health. **Aly Orady, founder and CEO, Tonal Fitness,** created the first digital strength-training system with the aim of offering an A.I. driven machine to consumers. However, as the user base grew, they found that users of Tonal Fitness were experiencing less back pain. The company was getting pulled more toward preventative care, specifically in the world of professional sports.

**Michael Williamson, co-founder and CEO, ViewFi,** and Roddick explained what they see as the problem with a traditional sports medicine office. Williamson stated that given the physical nature of musculoskeletal care, adoption of telehealth solutions has been slower than in other verticals of care. ViewFi began by wondering how the exam process could be done remotely and asynchronously, while being just as accurate as an in-person diagnostic exam. Roddick recounted that every visit seemed to require unnecessary imaging and tests, delaying diagnosis and treatment development. A more efficient initial interaction can improve outcomes. Tonal Fitness helps in this regard as the connectivity allows for real-time, consistent measurement of high-fidelity data, which opens the door for more informed decision making and better outcomes.

Williamson then spoke to the other components of enabling technologies. On the provider side, surgeons can do pre-operative work remotely; remote follow-ups also increase patient compliance. ViewFi enables early intervention, which prevents major downstream costs and complications. One of the biggest challenges of musculoskeletal care is that it is a very fragmented industry with many providers. Partnering on the front-end of this process with a physical examination has benefits in patient experience, cost and outcome. ViewFi also offers the ability to



Aly Orady, Tonal Fitness; Michael Williamson, ViewFi; Andy Roddick, Investor and Professional Tennis Player; Richard Migliori, M.D., UnitedHealth Group



Andy Roddick, Investor and Professional Tennis Player



Aly Orady, Tonal Fitness

be more inclusive. Roddick gave his perspective on his past life as a professional tennis player with access to the best doctors in the world whenever he needed them. This, he acknowledged, is something that most people do not have. With ViewFi, however, anyone can have access to a larger set of doctors. The worry of wondering if something is wrong and overlooked that could have been prevented is undoubtedly lessened.

The conversation then circled back to the payor. Migliori states that what the payor sees is what they don't see: the opacity of therapeutic intervention. Providers have typically had no line of sight into patients' compliance to plans and guidelines. They send patients home with rehab protocols without knowing whether they are done properly. Core to the efficiency of Tonal Fitness, Orady explained, is end-to-end data and transparency. "As the world of consumer and medicine and healthcare intersect, you have levers where you're able to drive more and more prevention." Building healthy habits with Tonal Fitness leads to less atrophy and less injury to begin with.

The panel shifted topics with Migliori's statement that the majority of orthopedic treatments, outside of trauma, are discretionary. "Virtually every guideline that comes out from the Professional Orthopedic Society regarding prevention calls for a trial of non-operative care," he prompted. Patients and providers have no way of continuously monitoring a condition as they try to address an issue without surgery because they wait out care. This ultimately adds up to 30 percent waste in the healthcare system. This 30 percent, the panel agreed, is caused by poor judgment and poor execution. The ability to retain the expertise of real experts in a consultative process creates an opportunity for much better care. Orady added to this point that the data, transparency, and convenience of getting a diagnosis without scheduling an appointment leads to better outcomes at less cost.



Michael Williamson, ViewFi

Taking one last look at ViewFi, Williamson spoke to the company's relationship to the payor, and the payor studies that are currently being conducted. There is a lot of low hanging fruit on the cost side, he said, whether it is unnecessary tests that can be replaced with a thorough exam by ViewFi, avoiding surgeries or a more effective and streamlined physical therapy processes. More notable opportunities include shortening and improving patient experience, meeting patients where they are and providing better and more equitable care. Migliori noted that this could potentially enhance productivity if applied in an occupational setting.

The panel wrapped up with discussion of what the group thinks the future of the industry entails. Orady sees the future as transparent, data-informed, and preventative, while Williamson believes there is an opportunity to transform brick and mortar care through technology. Finally, Roddick sees the future starting with patient confidence combined with equitable and consistent care.

## The Growing Use of A.I. and Machine Learning in Therapeutics

**Panelists:** Jason Coloma, CEO, Maze Therapeutics, Inc.  
Chris Gibson, Co-Founder and CEO, Recursion Pharmaceuticals, Inc.  
Daphne Koller, Founder and CEO, Insitro, Inc.  
Mark McKenna, President and CEO, Prometheus Biosciences

**Moderator:** Yasmeen Rahimi, Senior Research Analyst, Piper Sandler

**“The critical piece of building a company of the best and brightest machine learning talent is to give them a seat at the table where they are meaningfully co-leading along with the life scientists.”**

– DAPHNE KOLLER, FOUNDER & CEO, INSITRO

Artificial intelligence (A.I.) enabled technologies and machine learning are transforming the biopharma industry. These next-generation technologies address inefficiencies in drug development, candidate selection and clinical trial design. Moderator **Yasmeen Rahimi, senior research analyst, Piper Sandler**, led a panel of four guests through a series of questions about the role of this innovation in tandem with therapeutics.

Rahimi began the discussion by asking the panelists to name a few common misconceptions about the novel technology in this space. **Daphne Koller, founder and CEO, Insitro, Inc.**, emphasized the misconception that machine learning can solve



Mark McKenna, Prometheus Biosciences



Jason Coloma, Maze Therapeutics, Inc.

every problem. With the emergence of new technology comes great expectations. Koller noted that people often expect “magic to happen” when a large dataset is compiled. “While quantity is important, data quality is paramount in this space.” **Chris Gibson, co-founder and CEO, Recursion Pharmaceuticals, Inc.**, touched on the often-feared idea that machine learning will eliminate human jobs. He argued that the introduction of innovative technology in this space will do the opposite and “augment these people [...] to give scientists novel insights.” **Jason Coloma, CEO, Maze Therapeutics, Inc.**, added to Gibson’s remarks with the misconception that the field of machine learning is easy. While discussing that many companies use the phrase “machine learning” as a buzzword, Coloma noted that the execution of their work is not trivial; success in the field will come down to who is the best at executing.

The discussion transitioned into the use of data in driving new discoveries. The panelists agreed: internal, proprietary data was the crucial aspect that allowed them to differentiate their business from others. The reliance on internal datasets have allowed them to understand and solve the complexities of the human genome. **Mark McKenna, president and CEO, Prometheus Biosciences**, commented on the work of his

company in building a suitable internal database. He asserted that “over the last 25 years, [we] have been cultivating this dataset and building repositories of over 20,000 patients [and] 200,000 samples.” The accumulation of data has allowed next-generation technology companies to find genetically validated drug targets, which has accelerated the drug discovery process.

Taking the conversation further, Rahimi prompted the panelists to discuss how A.I. and machine learning allow scientists to find novel drug targets. Gibson expressed that the ability to find different drug targets stemmed from machine learning’s method of sorting through prior experiments and small molecules to predict drug targets for the future. He stated, “if one wanted to understand what a million molecules would look like across a model of every gene in the genome, it would take a thousand years, even with the latest technology.” Gibson summarized by stating that machine learning and A.I. infer results from large datasets to find appropriate drug targets at a much faster pace. Koller agreed, adding that next-generation technology allows researchers to understand the many subtypes of fatal diseases such as Alzheimer’s and breast cancer. “We think of breast cancer as one disease, but now we know that it is not. There are distinct subtypes that respond differently to different interventions,” Koller summarized. Coloma mentioned that although genetic associations with a specific disease has existed for decades, researchers are now able to understand gene variant functions. There are hundreds, if not thousands, of variants of a particular gene, and it’s important to understand how each one drives disease.

The panel expanded the discussion from next-generation technology in drug discovery to include its impact on the clinical trial space. Rahimi posed the question of “how A.I. is being used to reduce clinical risk?” The panelists all had a unified answer: human genetics. A clear way to reduce clinical risk, Koller noted, is selecting the right patient population to find a subset that might benefit the most from the drug. McKenna supported

human genetics driving enrollment in clinical trials and effectively increasing the rate in which a drug moves through trials. “By using a simple swab to identify genetics and predict pathways of disease, we can get a much higher level of inclusion in trials.”

The dialogue shifted again to the FDA’s perspective on A.I., both as a method for screening and in use as a clinical endpoint. Coloma believes the FDA is open and willing to embrace new technology. He stated, “as long as [the technology] does not impact data quality and integrity and there is an ability to audit this data, [...] there is an openness with the FDA” in embracing novel technology. His answer was echoed by the group. McKenna and Gibson both stressed that the agency wants to incorporate new methods and are willing to collaborate on innovative work.

Rahimi concluded with a final question regarding barriers for entry in replicating the work of companies in the A.I. and machine learning space. After a light-hearted jest about “stealing their playbook”, McKenna noted his company’s strong intellectual property and “know-how internally” to work with the vast quantity of available data. Gibson and Koller took a different route, equally stressing the importance of creating a great culture. Koller summarized her take: “The critical piece of building a company of the best and brightest machine learning talent is to give them a seat at the table where they are meaningfully co-leading along with the life scientists.”



Jason Coloma, Maze Therapeutics, Inc.; Mark McKenna, Prometheus Biosciences;  
Yasmeen Rahimi, Piper Sandler

Not pictured: Chris Gibson, Recursion Pharmaceuticals, Inc.; Daphne Koller, Insitro, Inc. (participated virtually)

## COVID's Impact on the Supply Chain and on Pharmaceutical Product Development – Designing More Resilience into the System to Survive What Comes Next

**Panelists:** Marc Casper, Chairman, President and CEO, Thermo Fisher Scientific Inc.  
Sebastian Guth, President, Pharmaceuticals, Americas Region, Bayer  
Adam Schechter, Chairman, President and CEO, Labcorp

**Moderator:** Chris Raymond, Senior Research Analyst, Piper Sandler

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“One of the things that you learn very quickly is that we are all in this together. The better we work together, the more effectively we work together, the better we could be fighting the pandemic.” **Adam Schechter, chairman, president and CEO, Labcorp**, kicked off the conversation by addressing the importance of collaboration amongst industry peers in the fight against the COVID-19 pandemic. **Sebastian Guth, president, pharmaceuticals, Americas region, Bayer**, mentioned that it was truly inspiring to see the degree of collaboration and the willingness to “do what’s right” while putting all corporate considerations on the back burner.

**Chris Raymond, senior research analyst, Piper Sandler**, shifted the conversation toward the challenges faced during the pandemic, specifically relating to early supply chain issues and how things have evolved over 18 months later. With supply disrupted and significantly increased demand, supply chain expertise, flexibility and adaptation became core to navigating the pandemic. Companies were forced to be innovative and establish alternative methods to strengthen supply chains. Guth mentioned several international challenges that Bayer experienced, including a significant impact on their ability to

physically move product, by both air and sea freight, as well as additional trade barriers that were set in place. Using the experience and lessons learned over the past 18 months, the panel was prompted to reflect on how their industry would prepare the diagnostics supply chain for the next pandemic. Schechter noted that much has been learned, and processes can be improved in the future. He called out three particular items he would do differently. First, increase supply on-hand, specifically the stockpiling of critical supplies. Second, learning to run at a lower capacity so things can be added quickly if necessary. Third, a duplicative supply chain. Schechter explained, “you can’t count on just one area of the world to give you the supplies [you need].” **Marc Casper, chairman, president and CEO, Thermo Fisher Scientific Inc.**, added, “There is a need for companies in the industry to build different redundancies that weren’t required before to build a more robust supply chain overall.”

Raymond expanded the conversation by digging deeper into how the vaccines were developed so quickly. Schechter outlined these key factors that enabled vaccines to hit the market quicker than any prior vaccines. Namely, they started building



Adam Schechter, Labcorp



Sebastian Guth, Bayer



Marc Casper, Thermo Fisher Scientific Inc.



Marc Casper, Thermo Fisher Scientific Inc.; Sebastian Guth, Bayer; Adam Schechter, Labcorp; Chris Raymond, Piper Sandler

manufacturing plants before they knew the vaccines worked. “Typically, you wait to see that the vaccine works and then you build the manufacturing plant,” Schechter explained. Since the virus was so widespread, enrollment in vaccine trials was significantly faster, which saved six months to a year of valuable time. To conclude, Schechter noted they would typically wait to collect all data before submitting it to regulatory agencies. Due to the COVID-19 pandemic, data was submitted in real-time, allowing regulatory agencies to act within days or weeks – not months or years.

Raymond rounded out the discussion with the topic of biopharma outsourcing, specifically asking about the current industry trends as a result of the pandemic. Casper described how the pandemic “radically” increased the rate of the outsourcing partnership. Largely due to the race against time and the ability to build redundant capabilities with partners rather than internally investing the capital. The pandemic has accelerated this trend in a dramatic way, from the roles of CROs in terms of the clinical trial services to the development and manufacturing of medicines. Casper believes we will continue to see this collaborative, external model going forward.

The panel closed with the subject of what the group believes will be the next “crisis” or next big challenge. Rather than predict the unknown, the panel collectively suggested to focus on learning from the experiences of the current pandemic environment and setting up their companies to act quickly and efficiently should the situation arise again.

## Discussions on Capitol Hill that Are Impacting the Future of the Biopharma Industry

**Panelists:** Sebastian Guth, President, Pharmaceuticals, Americas Region, Bayer  
Giovanni Caforio, M.D., Chairman and CEO, Bristol-Myers Squibb

**Moderator:** Steve Ubl, President and CEO, PhRMA

At the forefront of many Washington debates, the biopharmaceutical industry is constantly monitoring the various discussions surrounding healthcare reform. While some topics are more practical than others, it goes without saying that with each decision made, the future trajectory of the biopharmaceutical industry is impacted. In this discussion, two of biopharma's most influential leaders address how they conceptualize these proposed reforms and where the future will take the biopharma sector.

At the onset of the panel, moderator **Stephen Ubl, president and CEO, PhRMA**, gave insight into how the relationship between the government and the overall biopharmaceutical industry has developed in recent months due to the pressures of COVID-19. While the idea of collaboration between a robust biotech industry and the government was mentioned as a critical driving force in combatting the pandemic, it was noted that the success of biotech did not come overnight. After exemplifying how innovation is rapidly advancing, Ubl challenged the panelists by asking them to consider the implications of decisions by congress and which reforms they expect, and which cause concern.

In response, **Giovanni Caforio, M.D., chairman and CEO, Bristol-Myers Squibb**, articulated how this was truly a fantastic



Sebastian Guth, Bayer



Sebastian Guth, Bayer; Giovanni Caforio, Bristol-Myers Squibb; Steve Ubl, PhRMA

time for biotech, but remained adamant about the ability of every patient to have access to medicines that they need. Caforio stated that he is open to practical reform. A main argument Caforio addressed was tackling the issue related to the cost of innovation and increasing affordability. Capping out-of-pocket costs to patients was something Caforio stated needed to be analyzed and changed. He also alluded to challenges around global corporations dealing with different styles of governments across the globe. The difficulty arises, in part, due to governments setting prices arbitrarily, which “results in an environment where it’s not easy to invest in innovation and the access of patients to medicines is delayed.” **Sebastian Guth, president, pharmaceuticals, Americas region, Bayer**, voiced his own support for the aforementioned out-of-pocket cost cap for patients, but also considered that the patient care would likely improve because of the new-found affordability. His argument stemmed from the concept of discontinuation of treatment due to excessive prices.

Transitioning from a macroenvironmental view, Ubl portrayed the deflationary period occurring where biopharma companies are keeping increasingly smaller shares, and yet patients have not seen out-of-pocket costs decrease. This disconnect prompted Ubl to reduce the scope of the conversation to the arbitrarily set

drug prices in foreign countries and asked the panelists to speak on their experiences encountering that process.

Probing further into striking a balance of innovation and keeping costs low, Guth pinpointed the delayed treatment options in countries outside of the United States. By having prices set, other countries hamper their innovational process and ultimately deter their healthcare practices by not having some treatments readily available for patients. Guth's concluding remarks were, "recognizing that innovation ultimately is the solution and the path forward" and is "what we need to preserve here in the United States specifically."

The group then shifted toward a discussion about Medicare part D and characterizing the negotiations that are constantly occurring. Caforio shared how there are aspects of Medicare part D that do work, however, explained that when the plan was designed, some medicines that were covered in part D were different. Pointing out how the industry has progressed as a whole, Caforio does believe there is an opportunity to reform in order to realign the objectives of part D. Wrapping up this topic of discussion, Guth supported Caforio's opinion, claiming that "in many ways, we have a system where the sick pay for the healthy, rather than the healthy pay for the sick, and I think that's what we need to rethink."

Expanding further, Ubl asked the panelists to describe their level of confidence that the issues facing the healthcare system in the U.S. will comprehensively be resolved in the future. Guth admitted he was skeptical this would happen, although remains optimistic. "If you want to address, and we must address healthcare affordability and quality in its entirety," Guth continued, "it takes more than only the pharmaceutical industry, which is what we are advocating for." Echoing this sentiment, Caforio explained that there are multiple players that need to come together in order to create true change. This change can only be sustainable, and ultimately make sense, if it's a change that spans the board.

The conversation then transitioned to the subject of how their individual companies' pipelines are advancing and what to expect in the future. The convergence of biology and technology was an immediate discussion topic as the industry continues to collectively make incredible headway. Also mentioned by the panelists was the positioning of their oncology programs, development of gene and cell therapies, the research and development of virology that has been taking enormous strides, and cardiovascular program progression among various other indications. Ubl prompted the panelists to absorb how the network of healthcare is continuously developing, and what opportunities they see for increased collaboration amongst all different subsectors of the biopharma industry. Caforio again alluded to the use of data and technology and how this will be transformative as they continue to collect and understand different nuanced components of care. This idea was supplemented with developing more partnerships for the clinical research portion of his company. Creating a "global network" akin to the way immunology grew from the ground up is something that Caforio valued as a way to continue to make progress. To further emphasize the power of collaboration, Guth addressed the challenges COVID-19 presented over the last 18 months. From the cross-industry teamwork to the academia setting and throughout the government collaboration, it exemplified to Guth the prowess of collaboration.

The panel concluded their discussion on a note of change. Derived from COVID-19, the panelists were asked what specific changes occurred at large pharmaceutical companies and how those changes will impact companies moving forward. Both panelists were inspired by the efforts put forth from their own employees, but also the industry as whole in their ability to collaborate, adapt and rise to the occasion. Caforio ended the segment with a positive outlook mentioning that he hopes that a precedent has been set. He is optimistic that COVID-19 will be a catalyst for the acceleration of other therapeutic areas and with the same ferocity that the industry has showcased.



Giovanni Caforio, Bristol-Myers Squibb

## How Changes in the Regulatory and Reimbursement Landscape Are Impacting Investment and Innovation in Medical Devices

**Panelists:** Kevin Lobo, Chairman and CEO, Stryker Corporation  
Nadim Yared, President and CEO, CVRx, Inc.  
Mike Minogue, Chairman, President and CEO, ABIOMED, Inc.

**Moderator:** Scott Whitaker, President and CEO, AdvaMed

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Moderator **Scott Whitaker, president and CEO, AdvaMed**, began the discussion by asking the panelists to reflect on lessons learned from the response to the COVID-19 pandemic by the broader med tech market and each of their respective companies. **Kevin Lobo, chairman and CEO, Stryker Corporation**, noted he was impressed by the way the med tech industry stepped up during the pandemic. All panelists expressed pride in the way med tech companies have collaborated, adapted and innovated over the past 18 months. **Mike Minogue, chairman, president and CEO, ABIOMED, Inc.**, offered an example of how the COVID-19 pandemic changed his company. Pre-pandemic, ABIOMED had 50 hospitals with patients managed in the cloud. Currently, that number is over 15,000 hospitals. Minogue guesses this would have taken four or five years without the pandemic. He also discussed the secondary impact that COVID-19 has had on patients with other medical issues. Specifically, in the cardiovascular space, he emphasized that heart attack patients who were not able to go to the CATH lab or surgical suite immediately due to limited ICU capacity. **Nadim Yared, chairman, president and CEO, CVRx, Inc.**, joined the dialogue, highlighting the struggles his company faced being a single-product company preparing to launch its first product during the middle of a global pandemic.

Prompted by Whitaker, the panel shifted its discussion toward the biggest lessons they learned from the pandemic and the value of public-private partnerships. The work done with the FDA during the pandemic was remarkable, the group agreed. They discussed the progress the FDA has made over the past decade in working with companies more collaboratively – expectations and guidelines have become clearer. Yared believes the FDA and its relationship with med tech companies are moving in the right direction. All three panelists are very pleased with the FDA's mindset around new technologies – Lobo clarified that the process to bring new technologies to the market was much more difficult 10 years ago than it is today.

“At the end of the day, what matters most for our patients is the time from invention to adoption,” Yared said, as he transitioned to the challenges the industry is facing from the payor side. The reimbursement aspect of innovation is more fragmented with CMS and private payors in terms of coding, payment and coverage. The med tech industry has done a lot of work to bolster the FDA's predictability and reliability, but there is a lot more to be done on the CMS side of things. One of the current limitations is the lack of resources relative to the FDA. Another problem for investors is that they need to know approximately when they will be able to exit their investment. Predictability from



Kevin Lobo, Stryker Corporation



Mike Minogue, ABIOMED, Inc.



Nadim Yared, CVRx, Inc.



Scott Whitaker, AdvaMed

CMS is vastly important, especially for small companies trying to innovate. Notably, there is currently a dialogue with CMS on the importance of innovation and the panel is optimistic about the future of the relationship with CMS.

Transitioning to the tax environment, all three panelists expressed concern about a corporate tax rate increase. They explained that taxes are not good for innovation or R&D as they divert funds away from investing in product development. Lobo mentioned that, as a U.S. company, he would like to be on equal footing with international competitors.

Whitaker then shifted the topic of discussion to the extreme importance of diversity and inclusion when it comes to success and quality work in the industry. There has been a large push in the industry to become more diverse, not only because it is the right thing to do, but because it produces better results in every area. The panel acknowledged that there is still much work to be done but were proud to highlight that their teams focused on diversity and inclusion at their respective companies. In addition to the diversity of workforces, Yared also emphasized the importance of looking at the diversity of customers, not just of employees.

Switching topics once more, on the push for “Buy America,” Lobo discussed the potential to build redundant capabilities and drive up costs. He noted that we need to focus on what is best for the patient, and global supply chains can keep costs down, which ultimately benefits customers and patients. The panel highlighted the importance of having a reliable supply chain, especially considering emergency situations like the COVID-19 pandemic. On the sales side, Lobo emphasized emerging markets as the largest opportunity for Stryker moving forward. In order to get more penetration in certain price-sensitive emerging markets, there needs to be real studies around healthcare system cost savings.

To conclude the panel, Whitaker posed an important question to the group: what matters most in terms of policy for the rest of the year? Minogue’s response detailed the importance of creating policy with a focus on improving the lives of patients. He noted that innovation is what drives the best outcomes for patients. Yared highlighted that med tech is not a part of the problem in terms of the rising costs of healthcare, but part of the solution. Med tech only accounts for six percent of total healthcare in the U.S., which has steadily decreased over time. Not because we aren’t selling more; but because we are solving more problems as we do.

## Altering the Inertia of Large Organizations: Implementing Strategic and Cultural Changes Within Leading Healthcare Companies

**Panelists:** Mick Farrell, CEO, ResMed Inc.  
Tom Polen, Chairman, President and CEO, Becton, Dickinson and Company  
Karen Parkhill, CFO, Medtronic plc  
Steve Rusckowski, Chairman, CEO and President, Quest Diagnostics Incorporated

**Moderator:** Jason Bednar, Senior Research Analyst, Piper Sandler

Culture can be a delimiting factor or a factor of growth. This is no different for some of med tech's leading players. Sometimes the hardest part of culture is changing it. Every organization tackles this problem, and each response is unique in form and function.

**Jason Bednar, senior research analyst, Piper Sandler,** began the panel with a focus on the acquisition of culture. **Tom Polen, chairman, president and CEO, Becton, Dickinson and Company (BD),** first spoke to his company's experience. When discussing BD's acquisition of CareFusion, Polen noted that anytime there is a transformative deal, it is about creating a new organization and thinking about how to combine the best of those two worlds. He used the acquisition of Bard as an example of combining the smaller and scrappier dynamics with the larger BD organization to make sure the strong culture was retained. However, as Polen explained, culture is not easily measured, but rather is understood through several soft factors. Chief among these soft factors is celebration. Celebrating the wins becomes pivotal to building the culture and creating key incentives for driving growth and future success.

The group further expanded on this topic when **Karen Parkhill, CFO, Medtronic,** added to Polen's idea of soft factors by

discussing the empowerment of employees and business leaders to drive growth. Medtronic, Parkhill noted, implemented a new operating model in the beginning of the pandemic. The executive leadership team spent numerous hours on Zoom deciding how to combine the smaller structures of the company into one Medtronic. This emboldened the operating platforms underneath, which resulted in new jobs for many people. The Medtronic mission has been and always will be a key focus for the company, but it is the culture that promotes growth. **Mick Farrell, CEO, ResMed** elaborated further on these factors of cultural changes driven through adaptations to the larger organization. When ResMed began to implement software into their historically hardware focused business, Farrell had to make it acceptable not only to be the plastics or mechanical engineer, but the software engineer. This cultural change of the "one" company approach is spreading through the larger med tech ecosystem and driving large organizations forward.

**Steve Rusckowski, chairman, CEO and president, Quest Diagnostics Incorporated,** then joined the culture-centered dialogue. Rusckowski discussed his time spent at Hewlett-Packard in the '80s and the culture around the high-tech space. He was able to compare this to his experience working at Philips



Tom Polen, Becton, Dickinson and Company



Karen Parkhill, Medtronic plc



Mick Farrell, ResMed Inc.



Steve Rusckowski, Quest Diagnostics Incorporated

later in his career, which he noted had many differences, but also many similarities when it came to the culture – the largest of which, was the focus on good people doing good work. When Rusckowski joined Quest, he made note of the difficulties in the culture. While the mission of doing good was prominent at the company, there were certain behaviors that needed to change going forward. Culture, as Rusckowski summarized, does not change quickly. Rather, it takes time and a continuous effort to maintain and build.

Following this discussion, Polen commented on the effects of COVID-19 to companies' cultures. He began by citing a Harvard case study that detailed BD's CareFusion acquisition. The study's objective was to forecast what the organization would look like in 2025 with a key emphasis on the company's culture and innovation. A questionnaire following this study then asked the employees at BD how they thought these cultural and business objectives would be achieved, which allowed for a unified vision to be shared at every level of the organization. When the pandemic came to fruition, the organization was already focused on the "BD 2025" goal. However, the pandemic then served as a catalyst for the key factor of the BD 2025 goal around continued growth. The need to create a rapid COVID-19 test in 90 days was unheard of in the organization, but the strong culture of innovation and growth helped drive the organization to accomplish this goal, one that no one would have thought possible. Rusckowski then added, "it is like sports. There are role models; you need to see it, but you [more so] need to practice it." For Rusckowski, this meant transparency in his role. For Polen, this meant providing guidance and paving the way for the research and development personnel to push forward toward a seemingly impossible goal. Farrell summarized the discussion by saying that the Venn diagram between doing good in general and doing good for your shareholders is "incredibly powerful." Culture is what falls at the epicenter of that circle and harnessing those common goals helps push culture forward.

The panel closed with a prompt about how to implement and continue the growth of culture in such large organizations. Polen concluded by stating, "just when you think you have talked about it enough, you talk about it ten million more times and you keep having those discussions at every level of the organization."

## Executive Transition: Reflections on Planning for Succession and Leaving the Corner Office

**Panelists:** Stefano Pessina, Executive Chairman and Former CEO, Walgreens Boots Alliance, Inc.  
Doug Baker, Executive Chairman and Former CEO, Ecolab

**Moderator:** Jon Salveson, Vice Chairman, Investment Banking, Piper Sandler

**“As a retired CEO, I keep focusing on what my job is until my last day, and it is not about me: it is about how I [leave] the company in its best position moving forward before my departure.”**

– STEFANO PESSINA, EXECUTIVE CHAIRMAN AND FORMER CEO, WALGREENS BOOTS ALLIANCE, INC.

One of the most important and critical facets of a company is its succession plan. Great leaders aim to leave an imprint on their company and their successor in a way that only they can. Their successor will do the same, and so will theirs. To dig deeper into this complex topic, panelists **Doug Baker, executive chairman and former CEO, Ecolab**, and **Stefano Pessina, executive chairman and former CEO, Walgreens Boots Alliance (WBA)**, reflected on their leadership roles, and more importantly, their transition out of them.

Pessina served as CEO of WBA from the initiation of the Walgreens and Boots Alliance merger in 2015, to 2021. He now serves as executive chairman of the board of WBA. With

a long-standing entrepreneurial background, Pessina was the main driver behind the growth strategy of the Walgreens and Boots Alliance merger, resulting in one of the most prominent global leaders in retail pharmacy. Following the merger, Pessina continued his tenure as CEO to ensure the company’s stability through the pandemic before retiring this year. Baker served as CEO of Ecolab from 2004 to December of 2020 and currently serves as executive chairman of the board of Ecolab. With such notable CEOs on the panel, the discussion immediately began with the innerworkings of handing over the reins. Baker offered his thoughts on seeking candidates for the role and how involved he was in the decision process before he retired. Whether it is an internal candidate who has been with the company for a long period of time or an outside candidate, they must align with the company’s vision and values. During his transition, Baker felt that the board of directors should make the final decision about his successor, in the best interest of both the company’s future and of his successor. “It comes down to the board [to determine] who can do the job best,” he noted.

**Jon Salveson, vice chairman, investment banking, Piper Sandler**, then invited the panelists to speak on their decisions to delay their retirements. Both Baker and Pessina had planned to retire as CEOs sooner, but the pandemic altered those plans, leading to longer tenures in both cases. Pessina retired two



Stefano Pessina, Walgreens Boots Alliance, Inc.; Doug Baker, Ecolab; Jon Salveson, Piper Sandler



Doug Baker, Ecolab



Stefano Pessina, Walgreens Boots Alliance, Inc.



Jon Salveson, Piper Sandler

months ago, while Baker retired nearly a year ago. In response to Salveson, they agreed: it was in the best interest of their companies to step down when the environment became more stable, and a sense of normalcy had started to set in. In both Pessina's and Baker's situations, they had already publicly announced their future retirement before the pandemic emerged. With that in mind, Salveson prompted the question of whether they thought they had been treated or thought of differently once those announcements were made public. Neither thought that to be the case. They developed, and have continued to maintain, strong relationships with their successors and felt positively about the position they left their companies in upon retirement.

The conversation shifted to the topic of overseeing a successful transition and how to pave a successful path for their companies' new leaders. Baker first began with a personal example. He stated one thing he made sure to do was take care of the more risk-filled projects before his successor took over. He further explained that if he were to leave those projects for the next CEO and something went wrong, the public wouldn't be as forgiving so soon into someone's tenure. Baker, on the other hand, a CEO at the company for over 16 years, had "built up enough chips" to tackle that type of project before retirement and could better bounce back if it didn't go as planned. Pessina added his own insight from his transition, stating that to take on such a role requires enough time to learn the company before digging in. He told his successor to take that time before moving too quickly into anything too large.

To conclude, they emphasized the importance of being present for any questions, but not too present that they interfered in the process. It may be difficult to predict the performance of their respective companies' new leaders after only a number of months, but the two distinguished panelists felt their successors were doing a great job in leading their companies toward the future.

## Investor Round-Up: Reflections on the Day and the State of the Industry

**Panelists:** Ziad Bakri, CFA, M.D., Portfolio Manager, T. Rowe Price  
Benjamin Silver, Sector Head, Co-Chair Stock Committee, Maverick Capital

**Moderator:** Gene Munster, Managing Partner and Co-Founder, Loup Ventures

**“There was ten years of change in 18 months. The amount of care being consumed virtually has gone through the roof, and I don’t see that reversing.”**

– BENJAMIN SILVER, SECTOR HEAD, CO-CHAIR STOCK COMMITTEE, MAVERICK CAPITAL

**Gene Munster, managing partner and co-founder, Loup Ventures**, kicked off the final panel of the summit by expressing an interest in understanding what factors influenced how the final panelists of the day decided to pursue careers in investment management.

**Benjamin Silver, sector head and co-chair of the stock committee, Maverick Capital** responded first, elaborating on how he had always had a passion for investing and constantly followed the market from a young age. “At the time when the ‘dotcom bubble’ was going on,” he elaborated, “I made a lot of money, and then I lost it. It was a really great learning experience.” As Silver mused over the fact that his parents



Gene Munster, Loup Ventures



Benjamin Silver, Maverick Capital

were doctors who did not know much about business, but were aware that he was losing money, Munster empathized that he, also an investment savvy teenager, was born to parents working in medicine and ended up making a career of investing in the healthcare industry.

**Ziad Bakri, portfolio manager, T. Rowe Price**, and the fourth of five children, shared a similar story to Silver in that his family had a very prominent background in medicine. Following in his father’s older siblings’ footsteps, he enrolled in medical school at the age of 18. Although Bakri worked as an emergency doctor in the national health service for a number of years after graduating, he concluded that he was more interested in an investment management career. He further explained how even at 13 and 14 years old, he was drawn to the moves of the market, and that he was “infatuated by the way [he] really didn’t understand it.”

After hearing a background on Silver and Bakri, Munster shifted the conversation to present day and inquired about the panelists’ views on near-term market forecasts. Specifically, Munster prompted them to share their insights on how macroeconomic factors and outlooks impacted their respective investment strategies. As Silver did not view the market as heading toward

an extreme high or low, he expressed that Maverick remained “committed to finding great companies,” and holding them over extended periods of time to weather volatile conditions. “Great companies over any reasonable timeframe will outperform the market,” he concluded. Bakri shared a similar view in that most clients in his line of work (401k management) put their money into the market and trust that the power of compound investing will likely negate market volatility over a 30-year timeframe. However, Bakri did identify interest rate trends and inflation as the largest threats to the economy.

Worthy of note, Munster expressed that trouble in Washington could lead to the downgrading of United States debt, causing a potential selloff. However, he agreed with the long-term investment timeframe thesis put forth by Silver and Bakri and agreed with the focus on great companies as opposed to timing the market.

Munster transitioned to the effects of the pandemic, asking Silver how he sees the pandemic impacting investment in healthcare. “There was ten years of change in 18 months,” Silver responded, referring to the advancement of care delivery. “The amount of care being consumed virtually has gone through the roof, and I don’t see that reversing.” Silver later identified the removal of geographic barriers and the associated increase in market competition as a benefit of the virtualization of care. Bakri added that the pandemic has increased governmental interest in investing in innovation, specifically in the biotech space, which is a tailwind for the industry. Specifically, Bakri predicted that in preparation for a new pandemic event, the government may be “much more willing to spend money on pandemic preparedness,” stocking up on vaccines and incentivizing entrepreneurs to start a biotech company to produce treatments for rare diseases, despite the low probability that they will be used.

After discussing the investment opportunity associated with the virtualization of care, the panel shifted the conversation toward



Ziad Bakri, CFA, M.D., T. Rowe Price

the cost issues of the U.S. healthcare system. When comparing the ratio of the average healthcare costs to per capita gross domestic product (GDP) in the U.S. to other areas of the world, Silver expressed, “everybody would agree that we have a cost problem.” Both panelists agreed that the U.S. could deliver care much more efficiently. Silver also noted that we are currently seeing models of care proliferating, particularly in Medicare Advantage, that are combatting the trends of rising healthcare costs. He stated that there is a huge investment opportunity in business models that deliver better care at lower costs. Prime examples, he noted, included One Medical, Accolade and other primary care clinics that take risk. Furthering this topic, Bakri added that the U.S. proportion of GDP allocated to healthcare spent is significantly higher than the U.K.’s, but the life expectancy is not much different. Part of the reason for this, he noted, may be that people in the U.S. care more about their health when compared to their counterparts around the world. He went on to argue that one benefit of the expenses of the U.S. healthcare system is that “everything gets a good price here,” which draws investment and incentivizing innovation.

Following the discussion addressing healthcare costs in the US healthcare system, Munster asked Bakri how he defined the differentiation between “platform” and “product” investments. Bakri explained that product investments make it hard to compound wealth, as success with one product does not necessarily correlate with success in the following products or projects. Platform investments focus on identifying the scalable aspects of a company, product or therapy that made it successful in one application, and applying these relative strengths to subsequent ventures, thus enhancing the probability of success. Bakri cited Moderna’s work with mRNA therapies as an example of a potential multi-product, platform investment.

To conclude the final panel of this year’s remarkable Heartland Summit, Munster engaged the group in a series of rapid-fire questions, in which Bakri answered that he did not see an immediate path to profitability for the gene therapeutics industry and gave his opinion that curing one disease will only extend life long enough to face another. Munster then posed one last question to Silver, asking him to identify the “FANGG”, or the top performing companies, of healthcare. Silver concluded that the healthcare industry was far too fragmented for any single company to assert utter dominance, but that UHG and Thermo Fisher, in his mind, were the closest comparisons.

