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HEARTLAND
SUMMIT
2022

A special thank you to all our panel participants:

- Alex Gorsky, former CEO, Johnson & Johnson (JNJ)
- Amanda Packel, Director of the Rock Center for Corporate Governance, Stanford University
- Ann Gallo, Head of Healthcare, Wellington Management Group LLP
- Arthur Sands, CEO, Nurix Therapeutics, Inc.
- Bill Gassen, President & CEO, Sanford Health
- Bob Bradway, CEO, Amgen Inc. (AMGN)
- Brooke Story, President, Integrated Diagnostic Solutions, Becton, Dickinson and Company (BDX)
- Caitlin Zulla, CEO, Surgical Care Affiliates (Optum Care)
- Eddie Yoon, Healthcare Portfolio Manager, Fidelity Investments
- Eric Larsen, President, The Advisory Board Company (UnitedHealth Group Incorporated (UNH))
- Erica Rogers, President & CEO, Silk Road Medical, Inc. (SILK)
- Gary Glick, Founder & CEO, Odyssey Thera, Inc.
- Geoff Martha, CEO, Medtronic plc (MDT)
- Hemant Taneja, Managing Partner, General Catalyst Group Management, LLC
- Jakub Tolar, Dean of the Medical School, Vice President for Clinical Affairs, University of Minnesota
- James Min, Founder & CEO, Cleerly, Inc.
- Jeff Lavers, President of Consumer & Interim President of Healthcare, 3M Company (MMM)
- Jim Davis, CEO-Elect, Quest Diagnostics Incorporated (DGX)
- Joaquin Duato, CEO, Johnson & Johnson (JNJ)
- Jonathan Wolf, Co-Founder & CEO, ZOE
- Julia Cheek, CEO, Everly Health, Inc.
- Julie Yoo, General Partner, Andreessen Horowitz LLC
- Kevin Sayer, CEO, DexCom, Inc. (DXCM)
- Krishna Yeshwant, Co-Head of Healthcare, GV Management Company, LLC
- Laura Kaiser, CEO, SSM Health Care Corporation
- Lisa Shannon, CEO, Allina Health System, Inc.
- Lucy Vereshchagina, Vice President of Science and Regulatory Affairs, PhRMA
- Marcelo Bigal, CEO, Ventus Therapeutics
- Matt Eyles, CEO, America's Health Insurance Plans
- Mike Pykosz, CEO, Oak Street Health, Inc. (OSH)
- Nima Farzan, CEO, Kinnate Biopharma Inc.
- Ron Williams, former CEO, Aetna Inc.
- Sarah London, CEO, Centene Corporation (CNC)
- Scott Whitaker, CEO, AdvaMed
- Sir Andrew Witty, CEO, UnitedHealth Group (UNH)
- Stan Bergman, CEO, Henry Schein, Inc. (HSIC)
- Steve Rusckowski, Chairman, CEO & President, Quest Diagnostics Incorporated (DGX)
- Steve Ubl, CEO, PhRMA
- Sujay Jadhav, CEO, Verana Health, Inc.
- Taymour Tamaddon, Portfolio Manager, T. Rowe Price Group, Inc.

To our valued clients, partners and friends:

For the 8th time, Piper Sandler was honored to reconvene the leading voices in healthcare at the Heartland Summit in Minneapolis, this year held on September 21st and 22nd.

Still in the fading shadow of a global pandemic,

From the feeling of relief and pride of accomplishment and resiliency coming out of the pandemic, the world has been met with an entirely new set of challenges. These challenges, the unintended consequences of our collective response to the pandemic, have further stressed the already fragile healthcare ecosystem. From front line workers and supply chains to the volatility in the capital markets – these challenges require new solutions, new partnerships, and steady leadership. These are the themes we explore at the Heartland Summit this year in our illuminating and insightful panel discussions.

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 more than 30 panelists who contributed their time to these important discussions, as well as the many luminary CEOs and healthcare leaders that simply attended the Heartland Summit. We are especially grateful to those who have chosen to return year after year, bringing that continuity of leadership.

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 2023 Heartland Summit.



J.P. Peltier
Global Group Head
Healthcare Investment Banking



Pete Day
Global Group Head
Healthcare Investment Banking



Jon Salvesson
Vice Chairman
Healthcare Investment Banking



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

Economic Outlook and Implications for the Healthcare System

Speaker: Nancy Lazar, Chief Economist, Piper Sandler

The 8th annual Heartland Summit kicked off with a compelling and insightful summary of the current and projected state of the global economy, presented by **Nancy Lazar, Chief Economist, Piper Sandler**.

Lazar walked the audience through a rapid-fire overview of the economic outlook. As she put it, the U.S. economy was “an F150 going into” the pandemic. With the stimulus approach the Fed took during the pandemic, “we ended up being an F350, and the Feds can’t stop it.”

Now, in reaction, the Fed has to tighten aggressively by raising rates, which will put the U.S. economy into a recession, leading to unemployment. Several times she pointed out it’s a trade-off. “The mantra is unemployment affects a few people; inflation affects everyone.”

“We’re getting this recession today because the Fed eased way too much. And in turn, we have way too high inflation. We are much better off taking this recession now, allowing a few people to get negatively impacted by higher unemployment, than to allow a period of ingrained inflation like the 1970s. No one in this room understands how painful inflation can really be, how it destroys everybody. That’s what happened from the late 1960s through the early 1980s. We’re better off nipping this in the bud right now rather than letting it become ingrained.”

Going back through financial history, she showed past cycles and talked about what worked and didn’t, in terms of strengthening the economy, while emphasizing that every cycle is different.



Our current cycle is characterized by:

- 1) The aggressive tightening into an economy that's slowing. This increases the odds of inflation because of sticky inflation, with aggressive supply and demand.
- 2) A reflection of demand due to the stay-at-home bubble. Quite simply, we all bought too much "stuff," like furniture and other durable goods.
- 3) A monetary and fiscal cliff. Dramatic federal outlays gave individuals and companies an infusion of cash, which ended up in revenue. We saw high corporate revenue growth which isn't sustainable, especially with the slow-down in demand as the "stay-at-home" bubble slowly fades for most people. Now prices are rising and revenue growth will decrease to a more realistic single digit.

Her recommendation is to take the recession now, which is better than to take a period of extended inflation as we had in 1960s through early 80s. While businesses are concerned about the economy, they're not laying people off quickly enough. That puts profit margins at risk.

In summary, given how health the economy was prior to the pandemic, even as part of a global economy, "it's going to take a lot to slow this thing down." While keeping a close watch over the next 12-18 months, her feeling is one of optimism if the mistakes of the past are avoided.



Nancy Lazar, Piper Sandler

Market Reaction: Public Market Healthcare Investing in the Face of Economic Uncertainty

Panelists: Eddie Yoon, Healthcare Portfolio Manager, Fidelity Investments
Ann Gallo, Head of Healthcare, Wellington Management Group LLP
Taymour Tamaddon, Portfolio Manager, T. Rowe Price Group, Inc.

Moderator: Jim Fehrenbach, Managing Director & COO, Global Equities, Piper Sandler

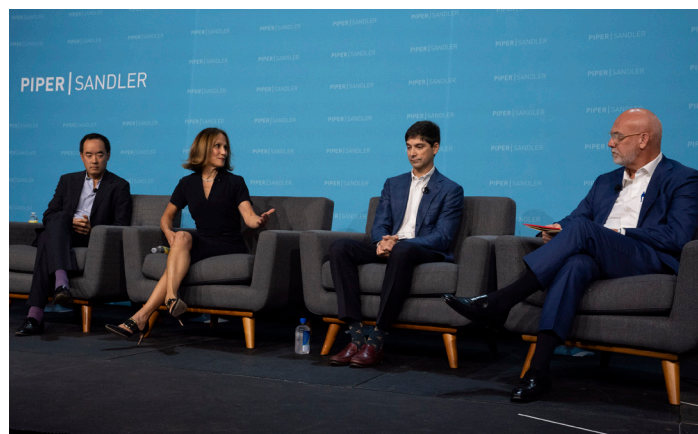
Jim Fehrenbach, Managing Director & COO, Global Equities, at Piper Sandler moderated a panel on public market healthcare investing in the current economic uncertainty.

He jumped in with a question for each panelist: how do you position your portfolios for these environments, over the next 12-24 months?

Taymour Tamaddon, Portfolio Manager for T. Rowe Price Group, who runs a diversified portfolio, said his focus is on trying to find best healthcare stocks with attractive risks/rewards. He positions his portfolio to keep up with other healthy stocks, which can be a challenge for health stocks during the go-go times.

Ann Gallo, Head of Healthcare for Wellington Management Group talked about paying attention to exposures to the sector and the sub-sectors. She compared it to having the best house in a bad neighborhood — still not good! It's important to get the sub-sectors right. Recently she's been leaning into medical device companies and cutting back exposure to life science tools & technology. On the pharmaceutical side, her firm is skewing more toward larger cap than normal.

Fehrenbach then asked the panel what would it take to move back to the smaller cap.



Eddie Yoon, Fidelity Investments; Ann Gallo, Wellington Management Group LLP; Taymour Tamaddon, T. Rowe Price Group, Inc.; Jim Fehrenbach, Piper Sandler

Living through macro uncertainties is not unusual, pointed out **Eddie Yoon, Healthcare Portfolio Manager, Fidelity Investments**. It happens to be a bit more acute and unique right now. He looks for thematic trends that will carry the industry through good times and bad.

The ability to fund your operations is really important, the panel agreed. In the past, people were looking at revenue multiples. It's time to focus on earnings. Companies were funded that shouldn't have been; sales and marketing were growing faster than revenue. As Yoon pointed out, that's not sustainable. "What we're seeing now is painful, but it's healthy."

Looking ahead to capital markets in 2023, Tamaddon feels it will be better in terms of IPOs (granted it's a low bar, given relatively low numbers), with more reasonable valuations. As Gallo said, "We have a lot further to go between expectations and reality. We'll see some loans get pulled in. Some companies go out of business. In terms of the quality of the IPOs, especially on the biotech side, many became public earlier than they should. Some never should have become public." The group is seeing more M&A activity, yet slower than expected due to lower quality.



Eddie Yoon, Fidelity Investments



Taymour Tamaddon, T. Rowe Price Group, Inc.



Ann Gallo, Wellington Management Group LLP

With value expectations different than nine months ago, the portfolio managers are looking for higher quality companies, those that can really change the way things are done.

The question then turned to, if some companies went public that shouldn't have, what do you look for in companies going public? What stands out?

Leadership is the answer. Leaders who set strategic direction, how to get from point A to point B, who are active in problem-solving. Yoon pointed out that a good leadership team is not afraid to tell a CEO when something is a bad idea. And (with apologies to those in the room) good leadership doesn't listen as much to Wall Street as they do to their customers.

They agreed one common thread runs across good management teams: thinking deeply about the customer. "Customer-obsessed" is the term that was used. You want to reward people who do the right thing for the customer, which might in the short term hurt the company.

The story was shared of working for Amazon decades ago. Jeff Bezos told the team to put Circuit City products on that same website page as the Amazon ones. "That was crazy because Circuit City bought every single DVD player \$50 less than we could." But it was better for the customer, so that's what they did. It's that kind of customer focus.

The panel wrapped up by talking about how healthcare investing has changed. With faster news cycles, there's simply more to absorb — more noise. While investors have become more sophisticated, the North Star remains the same: cash flow per share growth.

Market Reaction: Venture Capital Healthcare Investing in the Face of Economic Uncertainty

Panelists: Hemant Taneja, Managing Partner, General Catalyst Group Management, LLC
Julie Yoo, General Partner, Andreessen Horowitz LLC
Krishna Yeshwant, Co-Head of Healthcare, GV Management Company, LLC

Moderator: Eric Larsen, President, The Advisory Board Company (UnitedHealth Group Incorporated (UNH))

Moderated by **Eric Larsen, President, The Advisory Board Company (UnitedHealth Group Incorporated)**, the next panel started with the context of \$72B in venture capital. About half was in digital health, with 11,000 new digital health companies created over the course of the pandemic in diabetes, behavioral health, cardiopulmonary, nonclinical workflow, and the list goes on.

Larsen asked the panelists to deconstruct what happened over the last 24 months and comment on how it will play out.

Julie Yoo, General Partner, Andreessen Horowitz LLC pointed out a remarkable data point. In 2021, 40% of the investments were made by first-time investors in digital health. In some cases that meant immature investments, some “heat seeking,” with dozens of companies getting funded in a given space, many of which were undifferentiated. Going forward, you’ll see a flight to quality. She compared this time period to the early days of the Internet. Maturity will come; it’s a very new market.

Hemant Taneja, Managing Partner, General Catalyst Group Management, LLC, agreed that growth rates are going to be adjusted because of the recession. The industry will need to come together cohesively if there’s hope of transforming this particular ecosystem. From 11,000 companies today, how many are going to become platforms that can partner with existing organizations to transform.

Shifting from the general industry to biotech, Eric asked the panel to demystify what happened with 700 biotech equities, one-third of which are trading for less than cash, and look toward the future.

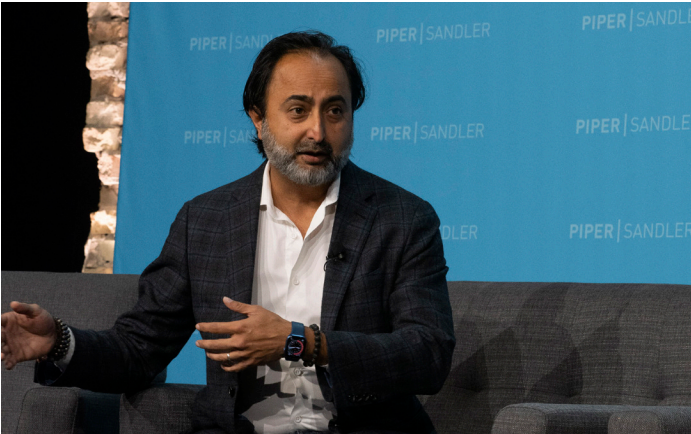
As **Krishna Yeshwant, Co-Head of Healthcare, GV Management Company, LLC**, said, when it comes to the future, “capitalism will happen.” Some biotech firms will shut down, some will be licensed. While he agrees that many companies were started that didn’t make sense, he sees the industry following a pattern, and noted that many of these have great biology and assets.



Eric Larsen, The Advisory Board Company



Julie Yoo, Andreessen Horowitz LLC



Hemant Taneja, General Catalyst Group Management, LLC

“Part of the reason we do biotech is it’s the most disruptive thing we can think of in the industry. Take patients who would show up in hospital who no longer do because they don’t have the disease anymore.”

The panel then discussed the philosophy of health assurance, a vibrant ecosystem that inter-operates, moving away from point solutions.

Echoing that future theme of working differently, Yoo pointed out the recognition that historic models of in-person, labor-based models can’t be relied on. Just as software took over in retail, travel, hospitality, we’re now seeing it in healthcare. With the pressure on value-based care and decreasing costs, there’s a strong push to innovate.



Krishna Yeshwant, GV Management Company, LLC

Speaking of innovation, liquidity has dried up lately with only 18 IPOs so far this year. How does that affect the entrepreneurs who created these companies, who want to bring their innovation to market to solve problems?

The advice is to bend the cost curve by using technology as a true leverage point. “Don’t try to live in the world where growth is valued rather than fundamentals.”

While funding is low right now, many different types of investors are available. Yoo compared it to the proliferation of “TV” options over time, from just three major networks to cable to streaming options. Just like entertainment, now there’s a fund for everything. That’s the silver lining: more options for companies to get the funding they need.

Healthcare in a Post-Pandemic World: How to keep the Momentum in Innovation and Adoption while Wrestling with Continued Challenges

Panelists: Sir Andrew Witty, CEO, UnitedHealth Group (UNH)
Joaquin Duato, CEO, Johnson & Johnson (JNJ)

Moderator: Matt Hemsley, CEO, Piper Heartland Healthcare Capital & Chair of the Heartland Summit

Several times throughout the summit, people talked about the unprecedented collaboration and innovation in the industry during the pandemic. We're also now in a different place in terms of consumer expectations: how can health care respond? That's the question moderator **Matt Hemsley, moderator and CEO, Piper Heartland Healthcare Capital & Chair of the Heartland Summit** posed to the panelists.

Joaquin Duato, CEO, Johnson & Johnson, shared the trends they're seeing in their consumer business. For example, sales of products like Listerine have more than doubled. Vitamins and supplements have also increased as people show more interest in their health. And not only physical health. As an employer, J&J has seen requests for mental health assistance skyrocketing among their global workforce of 50,000.

Another trend seen on the clinical side of the business is the delay in providing care, especially for chronic conditions, leading to people getting diagnoses later. Coupled with that negative is another effect of Covid: increased visibility of health inequities.

Sir Andrew Witty, CEO, UnitedHealth Group is also seeing all those phenomenon, both among employees and consumers. Blending the pandemic and the cost of living pressures, you get a different environment to lean into, compared to pre-pandemic.

One effect of more reliance on technology during the pandemic is an amplification around demanding value in the healthcare system. As Sir Andrew put it, "why is it so much more complicated than other things in my life? I can buy a car more easily than I can fill a prescription." He predicts a sustained upward trend of consumer activism in healthcare with a focus on value, simplification, and good outcomes.

Based on that, Hemsley asked both panelists to move from the industry overall to specifically how their organizations are responding.

At J&J, they're answering the need for value and simplification through increased virtual doctor visits and telemedicine, through simpler sites of care, and continuity of care. Duato cautioned that digitizing the patient experience is not simple. Even in countries with a single payor, you still have tensions when it comes to a seamless patient experience.

Sir Andrew cited three specific examples for UHG. One is capitated care and clinics now moving much more in parallel. A second is working to accelerate access, especially for behavioral health. And a third is thinking about patients as consumers.



Matt Hemsley, Piper Heartland Healthcare Capital



Sir Andrew Witty, UnitedHealth Group



Sir Andrew Witty, UnitedHealth Group; Joaquin Duato, Johnson & Johnson;
Matt Hemsley, Piper Heartland Healthcare Capital

In addition to UHG's existing relationship with 100M patients who are consumers, the organization is working with partners like RVO Health, with digital consumer capabilities, and Wal-Mart to put clinics into stores. Relationships like those change the engagement to lean into the consumer connection for a more integrated experience.

In addition to accelerating patient access, companies have the opportunity to accelerate technology for medical devices. For example, J&J has a whole group dedicated to robotic surgery. They now have as many software engineers as mechanical. Chemists and biologists work alongside data scientists, looking at how to design clinical trials and accelerate development by using synthetic control groups, for example.

Building on that example, the conversation then turned to collaboration, a focus of both organizations. J&J has multiple partnerships with Microsoft, Google, and Salesforce, to name a few. "We know that the majority of innovation will come from companies that are different than us. In everything we do there's a component of partnership."

Sir Andrew agreed that collaboration and partnership are necessary, and building those is a skill set they're strengthening. One example is the auto adjudication of claims at the point of treatment. As soon as your credit card hits the system, your claim is paid, right away. Something that fast relies on a number of collaborations behind the scenes. "If you look at the grind, it's the complexity and slowness of transactions, for everyone. We're building portfolios of partnerships to address that," said Sir Andrew.



Joaquin Duato, Johnson & Johnson

The last part of the conversation focused on the partnership with employees, and how the relationship expectation with employees has changed.

Both organizations have flexible work arrangements, and always have. They're each focused more on what makes being in the office special and different versus working remotely or from home. In person "you can create things, you can ideate, you can create synergy, you can create serendipity," true, said Sir Andrew. But why would anyone commute 90 minutes to do the exact thing you can do at home.

Right now organizations have "the opportunity to engage supervisory and managerial folks in the organization around reimagining how you create value in a team," he added. "It's a really interesting opportunity to create productivity opportunities in the future."

The Hidden Moats Associated with Scale: International Business Durability, Enrollment in Clinical Studies, Attractiveness of the

Panelists: Bob Bradway, CEO, Amgen Inc. (AMGN)
Geoff Martha, CEO, Medtronic plc (MDT)

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

When you're a large global business, what are the advantages, and how do you use them? Moderator **Matt O'Brien, Senior Research Analyst, Piper Sandler** posed those questions to Amgen and Medtronic.

The first advantage they talked about was speed. "In some respects, scale and speed don't necessarily associate with each other. In our case we've made speed a focus on the business, because frankly the medicines we're developing are designed for people suffering serious illnesses. Most of those have the feeling of being urgent illnesses. We understand the importance of moving quickly. We've spent a lot of time focusing on the white spaces and working to eliminate those," said **Bob Bradway, CEO of Amgen**.

In terms of scalability, one example where Amgen uses their size for that advantage is operating globally across a number of therapeutic categories, which increases access to patients to enroll in clinical trials. That's a definite advantage for Amgen, a "moat of sorts that may not be obvious to those who look at the industry from the outside," he added.

"We're at the early innings of really harnessing our data to improve," said **CEO Geoff Martha, Medtronic**. For example, with med tech devices, you have "little computers" in the body that equate to millions of data points every day. For

Medtronic, they can automate the learning (for example, deep-brain stimulation for Parkinson's disease), using data so that the device can auto-correct without surgery. That saves time, money, and most importantly, creates better outcomes for the patient. Using data to improve outcomes and bring down costs translates economically into both expanded markets and increased market share.

Amgen, too, is harnessing data at the patient level. "Precision medicine is something we're all trying to focus on," said Bradway. Start with an understanding of human data, human genetics. Then gather a range of other human data to inform about the nature of disease, to select patients to quickly get answers as to whether a drug is safe and effective. That conviction around the importance of data allows Amgen to use adaptive clinical trial design, where they can change dosage, expand or shrink the patient pool, as they get more information.

They've also look at how to use real-world data in active clinical trials. The example he shared was a leukemia drug, which had real-world data as its comparator arm. We could demonstrate a novel approach with that real-world data, and then do confirmatory clinical trials.



Matt O'Brien, Piper Sandler



Bob Bradway, Amgen Inc.; Geoff Martha, Medtronic plc; Matt O'Brien, Piper Sandler



Bob Bradway, Amgen Inc.



Geoff Martha, Medtronic plc

O'Brien then posed the question, does data allow an organization to de-risk a trial in advance, for example by sizing up the quantitative impact? Or does having access to large amounts of data and artificial intelligence (AI) speed up the decision-tree once a trial is initiated?

Rather than an either/or, “the answer is yes,” said Bradway. Amgen has invested hugely in human genetics. He shared one example of how having access to data saved both time and money by avoiding the need for a trial at all. The question was: would raising HDL have a beneficial effect on heart attack and stroke? Those studies cost billions of dollars and take decades. When Amgen looked at the genetics, they found HDL doesn't seem to matter, so they didn't need to run those trials.

Machine learning — for example, the [AlphaFold](#) software program that makes it possible to predict protein structures from amino acid sequence — allows for faster molecule design. People who want to be world-class at designing biologic molecules have to have comfort in interrogating data using that kind of tool for machine learning. It will be increasingly relevant across the value chain.

Staying on the topic of clinical trials, the conversation turned to the benefits of clinical studies in terms of product development and commercialization. One benefit is creating new markets. These trials, when done properly, build credibility with regulators, with payors, and with key physicians. Those relationships with physicians, who need to see your authentic desire for good outcomes, are vital to future success. Having the size and scope to do quality trials allows Medtronic to be standard of care versus a niche.

As the talk turned to the benefits of having scale and a diversified revenue stream, both CEOs pointed out the talent acquisition aspect of being large global companies who are leaders in their fields. “You need to access talent pools globally,”

said Bradway, “The most important thing is being seen as a cutting-edge, world-class, science-based organization.” He cited one instance where they had ninety applicants for one job in Copenhagen, which is a function of their global reputation.

From hiring talent the conversation then shifted to the supply chain. What are the advantages of scale there?

Martha shared they haven't historically used their scale to its full extent and have recently gone outside of med tech to hire the head of supply chain from Wal-Mart. They see a dramatic opportunity for cost of goods cost reduction through factors like fewer suppliers, simplified architecture, better quality. A stronger supply chain will allow them to put more funding into R&D and improve resiliency.

The last question regarded investors: What are they missing about the importance of scale?

From Bradway's perspective, it's the competitive differentiation, in their case biologics manufacturing. That's where they're putting scale to work. Martha cited taking innovation to scale quickly and globally, for example the leadless pacemaker.

Looking ahead, an opportunity that's underestimated is all the relationships a global leader has, which equals access to other data and other technology. As Martha put it, “It's the specialists that are doing the procedures in the med tech world. We have those relationships. We have a lot of data to change care pathways and the opportunity to incorporate data from other sources that we don't generate, wearables and patches [for example].” Those relationships and that data positions global med tech to unleash expanded access and reduction of cost and better outcomes at the same time.

Healthcare Politics: Discussing the Range of Current Changes in the Political Landscape for Healthcare

Panelists: Steve Ubl, CEO, PhRMA
Scott Whitaker, CEO, AdvaMed
Matt Eyles, CEO, America's Health Insurance Plans

Moderator: Andy Laperriere, Head of US Policy Research, Piper Sandler

Hosted by **Andy Laperriere, Head of US Policy Research, Piper Sandler**, the next panel focused on the how changes in political party power might affect healthcare.

As the panel pointed out, historically, the trend is toward volatility. In the 60s and 70s, party control flipped three times. In the 80s and 90s, it flipped four times, while from 2000 to 2020, it happened nine times. The volatility that's built into our system right now argues for a switch in Congress. As **Scott Whitaker, CEO, AdvaMed**, pointed out, when party control changes, policy-making shifts from legislative bodies to regulatory bodies, with not much legislation passed. Typically the focus transfers to oversight.

Matt Eyles, CEO, America's Health Insurance Plans, pointed out that even with unpredictable voter turnout, with each party having intense issues, a switch is likely and we won't see much healthcare legislation. In fact, a few areas of bipartisan agreement that are relatively noncontroversial, like behavioral health, telemedicine, and virtual care, might get more attention.

Even without much potential health care legislation in the future, both parties are concerned about the deficit. The quickest way to get the money is the two entitlement programs of Medicaid and Medicare.

Next the panel turned to conversation around the recently passed Inflation Reduction Act (IRA), with Laperriere asking about the disconnect between "policy wonk" Republicans and investors.

Steve Ubl, CEO, PhRMA, believes the bill "fails the test of providing incentives for innovation and doesn't do nearly enough to help consumers." He cited independent estimates suggesting the bill will take \$300B out of the industry, lose 100 or more medicines, and referenced the challenge of having a limited time to use medication for other diseases (especially small molecule programs). One positive is the out-of-pocket cap for Medicare part D, but even there, it will only benefit 10% of Medicare beneficiaries.

'As was said earlier on other panels, 80% of healthcare spending is driven by 20% of people with one or more chronic diseases. What's the best way out of that box? It's better treatments and cures that keep people out of the hospital and visiting the physician.'

Whitaker echoed that: "The reality is innovation drives patients to better outcomes more than anything else. And when Congress is solely focused on saving potential money in a system without looking at how it impacts patients, it's a huge mistake."



Steve Ubl, PhRMA



Scott Whitaker, AdvaMed



Matt Eyles, America's Health Insurance Plans

One area of shared party interest is pharmacy benefit managers (PBMs). There's evidence that low-cost insulin drugs, for example, have a hard time making it onto formulary lists. Both parties have an interest in reforms that address blockages like that.

The conversation went further into cost issues in healthcare. "What's driving health care costs: pharmaceuticals and hospitals," said Matt Eyles, CEO, America's Health Insurance Plans. "There are misaligned incentives for sure."

The panel agreed that when policy makers think about healthcare policy, "they need to start thinking about patient access first, whether it's access to insurance or access to technologies" as Whitaker put it, "then deal with the budgetary impacts later."

The final question centered on one area of focus from each panelist that the audience should know about.



Andy Laperriere, Piper Sandler

The IRA bill, per Ubl. "Lots of ways the bill could be narrowed to smooth the jagged edges," such as the timeframe, and fundamentally on the administrative side, how it's going to work.

Whitaker said their focus will be on improving the process at CMS so patients can get access to new technologies quicker; a clear pathway to coverage and to payment; and that it's consistent. "It doesn't necessarily have to be faster, but it has to be predictable." The uncertainty when you're trying to get a new product to market is a problem.

"The end of public health emergency, and what that will mean for coverage, especially coverage redeterminations in Medicaid," said Eyles. He pointed out the uninsurance rate — the lowest we've ever seen at 8.3 percent. What will that mean for Medicaid and for the marketplace. "If people don't have the coverage, they can't afford the drugs or the technologies."

Healthcare Politics: FDA Proposals from Optimus, to ORBIS to RTOR and CONFIRM – How Might These Proposals Impact Oncology Drug Development and Implications?

Panelists: Nima Farzan, CEO, Kinnate Biopharma Inc.
Arthur Sands, CEO, Nurix Therapeutics, Inc.
Lucy Vereshchagina, Vice President of Science and Regulatory Affairs, PhRMA

Moderator: Chris Raymond, Senior Research Analyst, Piper Sandler

The Food & Drug Administration (FDA) is working on proposals to speed up drug development. That sounds good, but how is it working, and what does it signal for the future?

One proposal, called [Project Optimus](#), is designed to reform dose optimization and dose selection in oncology. As moderator **Chris Raymond, Senior Research Analyst, Piper Sandler**, put it, there's a lot of investor interest in this. The FDA socialized the concept last year, and some high-profile drugs have had to go back to optimize their doses.

Lucy Vereshchagina, Vice President of Science and Regulatory Affairs, PhRMA, shared that of all the FDA projects, this is the one with the most questions and comments. As she characterized it, "it's fair to say there is not universal buy-in that you slow down initially to speed up drug development program overall." The FDA's decision is driven by data; they want as much data as possible. On the patient side, they want the process to move quickly. The key is to make sure those conversations between drug developer and FDA happen as early as possible.

Arthur Sands, CEO, Nurix Therapeutics, Inc., shared the sequence of events that led to a change in their dose of a targeted protein degrader drug aimed at diseases like leukemia and lymphomas. (Prior to this, the only way to remove protein from cells was through genetics using CRISPR technology.)

To determine the dose, Nurix suggested a dose range and the FDA agreed. The first dose was good, as were clinical responses. Based on the Optimus directive, they realized they needed to try a lower dose, which is "hard to do when you had a dose that looks good," as Sands put it. "But we do need to know if a lower dose would work." The reality is that in any drug trial sponsors need move doses up or down depending on patient reaction.

Another FDA proposal is [real-time oncology review innovation](#) (RTOR) from the FDA, which is viewed as a positive development. How does RTOR factor into their thinking? "Certainly, a positive development," said **Nima Farzan, CEO, Kinnate Biopharma Inc.** "The RTOR could have the possibility to really move the needle. Really looking forward to engaging the agency on that. It does provide an incentive for certain types of drugs in development."



Arthur Sands, Nurix Therapeutics, Inc.



Lucy Vereshchagina, PhRMA



Chris Raymond, Piper Sandler

Beyond portfolios and timing, new programs like these require more resources from both the FDA and the companies, such as a focused regulatory team.

Vereshchagina added that there is quite a bit of excitement about this program specifically from the industry side. The FDA took a very thoughtful approach, with multiple stakeholder sessions, and input into how the program would work. In fact, they expanded the original scope.

Raymond cited a recent article that seemed to be pointing out difficulties with accelerated approval, mentioning several drugs that had to be delayed. The question was, how do the panelists see the accelerated approval in terms of risk/reward?



Nima Farzan, Kinnate Biopharma Inc.

“The opportunity to get your earlier line approval faster is meaningful, especially in light of what was talked about with the previous panel, the Inflation Reduction Act, and small molecules having a shorter timeframe until price negotiations,” said Sands. “So that big market opportunity of a first line adjuvant approval is a big prize and, and some of what the agency was proposing in this article can make that happen faster.”

“The negative is that you are making that investment, potentially a very substantial investment off of a lot less data and at an earlier stage as a company where your cost of capital is high.” That’s the tradeoff.

Even with that, the panelists agreed that if you have a drug that works, it will be worthy of the investment.

Navigating a Dynamic Supply Chain Environment

Panelists: Stan Bergman, CEO, Henry Schein, Inc. (HSIC)
Jeff Lavers, President of Consumer & Interim President of Healthcare, 3M Company (MMM)
Jim Davis, CEO-Elect, Quest Diagnostics Incorporated (DGX)

Moderator: Jason Bednar, Senior Research Analyst, Piper Sandler

Switching from future drug approvals to past supply chain challenges, **Jason Bednar, Senior Research Analyst, Piper Sandler**, invited the panel to share their supply chain experiences during the pandemic.

Stan Bergman, CEO, Henry Schein, Inc., painted the picture of shifting demand, from donating masks to an NGO in China and then bracing for a rush from consumers for the same masks that previously they only supplied to dentists. “We had to move into an environment of dealing with suppliers who had the government telling them not to sell to us, and us being told to send our supplies where we didn’t traditionally. It was a jump ball situation — whoever had the most money got it.”

Jeff Lavers, President of Consumer & Interim President of Healthcare, 3M Company, pointed out if you wanted to write a book on how to wreck a supply chain, the Covid pandemic was it. “We learned who was good and who wasn’t. You figure out who to partner with, who to buy from, who to sell to. We were moving to globalization, which was perceived as an advantage, but it hurt us.”

While one side of the supply chain focused on personal protection equipment, another concentrated on ramping up the supply chain for testing equipment. “We ramped from little to 4.5M tests/day,” shared **Jim Davis, CEO-Elect, Quest**

Diagnostics Incorporated. One of the benefits of the pressure and limited supply was seeing innovation from smaller suppliers. In the case of Quest, the example was pipette tips. They found small suppliers with injection molding equipment who went from unknown partner to producing pipettes within weeks.

The panel then shifted to the future: this isn’t the end of pandemics. What have we learned that we can apply going forward?

One concern they all shared was the viability of each country producing their own supplies. While the government provided grants to build factories, it’s not currently cost-effective to make supplies like gloves and masks regionally. “The factories are going back to mothballs,” as Stan puts it. With one country controlling 70% of the output, what does that mean for the next global pandemic?

Lavers agreed with the global challenges. Even if a company has a large part of manufacturing in a certain region, sourcing components come from different parts of the world. “If you can’t get them, it doesn’t matter,” said Lavers. “Now you have to stand up your regionalization all the way through from end to end.” 3M, like many others, experienced challenges with lockdowns and labor shortages. Coupled with supply chain, those pressures have created a whole new dynamic in terms of how they look at manufacturing plants.



Jason Bednar, Piper Sandler



Stan Bergman, Henry Schein, Inc.



Jeff Lavers, 3M Company



Jim Davis, Quest Diagnostics Incorporated

Bednar then turned the conversation to how to manage the rising cost of supply chain without risking P&L. The key is to work other elements of the productivity equation, for example automating manual processes, including in the field of microbiology – using machine learning to do the first reads on slides, cutting down on paper between physicians and labs.

Lavers agreed the key is to look at multiple levers, for example using pricing to offset raw material increases, looking at vertical integration to reduce the need for transportation between factories. That kind of cost-savings turned the conversation to multi-national versus regional providers.

As Bergman said, “you have to work with everyone.” When the ports are snarled, you have to work with sophisticated players who capable of dealing with governments. On the other hand, as Jeff pointed out, you have to work with companies (typically smaller ones) who can show agility. Across the board, what matters is people who are reliable.

While the team agreed that strong relationships were forged during Covid, and relationships were key, they see Covid as a big setback to globalization. “We can’t be reliant on any one country or region.”

Ending on a positive note, Bednar asked about the positives from the pandemic. All three panelists agreed — relationships. Not only with suppliers, but also with government agencies like HHS and the FDA. In fact, better vertical integration based on stronger relationships led to faster processes to speed up the testing for the recent outbreak of monkey pox. “That will continue to benefit us going forward,” said Davis.

Topics in Leadership: How Leading Healthcare Organizations are bringing the value of Perspective to ESG

Panelists: Laura Kaiser, CEO, SSM Health Care Corporation
Erica Rogers, President & CEO, Silk Road Medical, Inc. (SILK)
Brooke Story, President, Integrated Diagnostic Solutions, Becton, Dickinson and Company (BDX)

Moderator: Amanda Packel, Director of the Rock Center for Corporate Governance, Stanford University

The topic of ESG (environmental, social, governmental) used to be an offshoot of corporate social responsibility, referring to areas outside of core business. Increasingly it's now understood to be part of key operational and business risks with asset managers like Blackrock and State Street emphasizing the importance of paying attention to these factors, which are critical to long-term value.

In fact, the SEC has proposed a new rule in this area, with more expected. However a company defines it, these issues can't be ignored. Leadership needs to identify, manage, monitor, and communicate accurately and sensitively.

Amanda Packel, Director of the Rock Center for Corporate Governance, Stanford University, asked the panelists to start with the "E" of ESG — climate change.

Brooke Story, President, Integrated Diagnostic Solutions, Becton, Dickinson and Company shared they've created a plan around the environment and environmental stewardship in line with their business. The plan focuses on reducing the company's footprint, decreasing water usage, and changing packaging, to name just a few. Due to supply chain challenges, "we've had to qualify more suppliers in the last 18 months than we did in the prior 5 years," as Story put it. "That gave us an

opportunity to look at the supplier and figure out if we could reduce our footprint and move toward our goals."

As **Erica Rogers, President & CEO, Silk Road Medical, Inc.** said, "It's hard to ignore climate issues when you're a company in California." As a smaller company, they look at where we can make small changes, for example, supporting sustainable transportation like bikes and trains for employees. The company also looks at the built environment to make sure facilities are as energy-efficient as possible, and of course, scrutinizes the supply chain. One specific example Rogers called out in terms of the complexity of sustainability is cradle to grave packaging, meaning where and how it's produced, how it's transported, how it's disposed of.

As **Laura Kaiser, CEO, SSM Health Care Corporation** put it, from their perspective, there's no option about whether to do environmental work or not: "if there's no planet, the rest doesn't really matter." SSM Health Care has many initiatives around reducing the carbon footprint. She cited that healthcare collectively produces 8.5% of the greenhouse gases, and specific to healthcare, anesthesia gases. As a faith-based organization, they had a high level of support to pursue things like plant-based substitutes for plastic (which they've done successfully). It's a continuous focus, with a mix of large and small changes, all done in partnership.



Erica Rogers, Silk Road Medical, Inc.



Brooke Story, President, Becton, Dickinson and Company



Amanda Packel, Stanford University

Packel then asked the panel about the importance of addressing social issues, which can be even thornier.

From an external perspective, as a socially minded faith-based organization, SSM Health Care earned a lower rating, because that positioning can be seen as risky by the ratings agencies. Nonetheless, they're committed to doing social good, believing that our society is as strong as our weakest link. They carry out that social work in collaboration with the community. Packel then asked how these leaders engender trust with their various constituents.

Transparency and accountability was the answer. Say what you're going to do, and do what you said you would do. Be transparent about metrics on diversity, on environmental impacts, on your purpose. (Granted that full transparency can be tricky if you're a public company, as Rogers pointed out.) Stakeholders want to see you living and breathing your focus.

Given the breadth and depth of social issues, Packel asked how they as leaders decide which to take on.

Kaiser shared her perspective that as a leader "you have to be thoughtful about which ones to engage on yourself, as well as your organization." Her father gave her advice to focus on things you really care about, because you'll have more energy. "Be thoughtful about what you're good at. Look for others who can complement what you're good at so that you can expand your impact."



Laura Kaiser, SSM Health Care Corporation

For Rogers it's been more challenging than before, with issues ranging from the pandemic to gun control to vaccination that she's called on as a leader to think about. "How much of my time and our leaders' time are we spending on those, versus running the business? We try to think about it holistically. Where is the intersection between shareholder value and social issues." One example she shared was vaccination. That was clear for them. And where there's real injustice, it's very clear where the company can take a stand and the employees will support it.

Story shared their approach is through public/private partnerships. For example they might be involved in a clinic, that also offers other services for that population. "We do what we're good at" and then allow others to do what they're good at. "That's been a good formula for us."

The last topic was the "G" for governmental, which is about structuring and implementing a system for alignment.

In all cases each organization had robust processes, either the full board or the nominating and governance committees. As Story put it, "Our entire board engages in these conversations around ESG" with thoughtfulness and care.

Topics in Leadership: The Importance of Planning for a Successful Succession and Leaving the Corner Office

Panelists: Alex Gorsky, former CEO, Johnson & Johnson (JNJ)
Steve Rusckowski, Chairman, CEO & President, Quest Diagnostics Incorporated (DGX)

Moderator: Ron Williams, former CEO, Aetna Inc.

This CEO panel focused on lessons learned on the road to becoming a CEO and then “not becoming a CEO,” as moderator **Ron Williams, former CEO, Aetna Inc.**, put it.

Alex Gorsky, former CEO, Johnson & Johnson was part of a planned transition process as became CEO. Even so, “it’s one of the things you prepare for your whole life, but almost no other job brings everything together, the responsible and the challenge goes right to that chair.”

Coming to the CEO role differently, **Steve Rusckowski, Chairman, CEO & President, Quest Diagnostics Incorporated**, came from outside the company, after running Philips healthcare in Amsterdam. The entire hiring process was through the board. Prior to becoming CEO, he had never set foot in any of the facilities. On Day One “I met my first employee who was my admin assistant. They miked me up and I had to do a town hall meeting. So there clearly was not an orderly management transition!”

For Gorsky, who rose through the ranks, Williams asked about the experience of being a peer and then being that same person’s boss. Gorsky responded: “There were times when relationships changed; you try to adapt. At times it works, others it doesn’t.” He stressed the importance of having real connection to people who can react to you without your title, because

“suddenly your strategies become very clear and your jokes become very funny” when you take on the CEO title.

Gorsky commented on the concept you read in many business books about having a 30- or a 90-day plan. Both leaders agreed: don’t jump into a plan, even if you’ve been with the company prior to taking on leadership. “The first thing you need to do is listen, is learn. You’re going to hear perspectives, and then when you do have a plan, you’ll have more buy-in. Listen, observe, reflect. You’ll be so much more grounded,” as Gorsky put it.

The conversation then shifted to planning for succession. Both leaders advocated for a thoughtful process, with plenty of time to listen, observe, reflect. It’s also important to be silent at certain points so that the CEO opinion (on the successor) doesn’t sway the board too much.

In terms of timing, while it’s good to have a plan right away (the “hit by a truck” scenario), you don’t want to share your retirement date too soon. You need some flexibility to make sure the time is right, while having some elements of a succession plan in place.

In Rusckowski’s case, every year he had a conversation with the board about the successor. Then the pandemic hit, and they had to shift some plans (like delaying a few retirements). As



Ron Williams, former CEO, Aetna Inc.



Alex Gorsky, former CEO, Johnson & Johnson



Alex Gorsky, former CEO, Johnson & Johnson; Steve Ruscowski, Quest Diagnostics Incorporated; Ron Williams, former CEO, Aetna Inc.



Steve Ruscowski, Quest Diagnostics Incorporated

the pandemic looked like it was ending, they resumed talking about the plan. For good diligence, they considered external and internal candidates. Overall the process was deliberate and careful, with room for adjustments over the years.

Gorsky also had to make changes to succession planning due to the pandemic, as well as a family health crisis: “It was 24/7 to the wall every day.” That combination of crises underlined the importance of always having successors prepared and maintaining open communication with the board.

Speaking of the board, how does a CEO make sure they’re engaged around succession?

Both agreed, the key is transparency — open and honest conversation. A board gets a snapshot of an individual, versus being in the trenches every day with them. Those who are in the trenches can not only see their leadership but feel the tone and tempo of it. That’s why the CEO has to be a good communicator with the board, realizing they’re at a distance.

Once the right candidate has accepted, since “two objects can’t occupy the same space at the same time,” how do you manage an entrance and an exit?

Trust is an irreplaceable asset. As an incoming CEO, you’re grateful. You also have a different point of view, which the board and other stakeholders expect. Let the incoming CEO know you’re there to support them, and be very explicit about who’s doing what, where are the lanes in which you’ll each operate. From relationships to running meetings to setting policy, know who’s doing what and have a clear plan while one ramps down and one ramps up.

Taking leadership for the board is different. As the outgoing CEO you need to give the incoming CEO the space to be a member of the board and to take a leadership role.

As each CEO looks ahead, they see breakthrough opportunities in healthcare in the next 10 years as well as opportunities for them to participate differently. Parting words from Gorsky for those who are in the field: “You can do good, you can do well, and you can make a lot of difference in the world.”

Healthcare Data and Information: How Artificial Intelligence and Machine Learning is Making Gains in Biotech and Gaining Traction Among Investors

Panelists: Marcelo Bigal, CEO, Ventus Therapeutics
Sujay Jadhav, CEO, Verana Health, Inc.
Gary Glick, Founder & CEO, Odyssey Thera, Inc.

Moderator: Yasmeen Rahimi, Senior Research Analyst, Piper Sandler

The session opened with moderator **Yasmeen Rahimi, Senior Research Analyst, Piper Sandler** asking what investors are interested in, and what about those still on the sidelines: what would the panelists tell them about investing in biotech?

Gary Glick, Founder & CEO, Odyssey Thera, Inc., sees an interest across a range of investors, such as the more traditional bio-tech investors. That's a contrast to 25 years ago, when the closest a general tech investor would get to tech was personal tech. Now the interest has expanded to a specific focus on healthcare, and more specifically, biotech, with active interest from big pharma.

The conversation then moved from the investors in general to the specific advantages of artificial intelligence (AI).

Before answering that, **Marcelo Bigal, CEO, Ventus Therapeutics**, pointed out the disservice the industry does to itself when using jargon. A few years ago, it was "big data" and every company needed to use it. Then it was sensors, now it's AI. As he pointed out, when you take away the jargon: "Machine learning is a tool that helps us to understand certain things, to solve problems of drug delivery."



Gary Glick, Odyssey Thera, Inc.

In biotech, AI can be used at different points along the value chain, from discovery to efficiency, to attack problems medicinal chemistry can't solve on its own.

Sujay Jadhav, CEO, Verana Health, Inc. is using AI to get access to additional data sources, like taking unstructured data and getting different levels of insights. Another way they use it is in analyzing images for point of care and improvements in screening for drug delivery. The question is how to leverage real-world data to forecast what the effects would be. If you do that, it reduces the need for actual patients in trials by creating a "simulation arena."

Given the positives, Rahimi shifted the conversation to any limitations.

Amount of data is one limitation. Given that what's important is data, and AI is excellent at working with large quantities of data, it's challenging to train AI machine learning with small amounts of data.

One classic example Bigal shared is lead optimization. But the balance is that AI ML doesn't have to resolve all the problems; other tools can step in.



Yasmeen Rahimi, Piper Sandler



Marcelo Bigal, Ventus Therapeutics



Sujoy Jadhav, Verana Health, Inc.

Sujoy pointed out that in addition to not being good with small amounts of data, in many ways machine learning itself is also learning. For example, many examples have been found of bias in AI. As it's identified, it can be corrected, but "it's learning as we go."

Clearly scientists have a more in-depth understanding of AI. What are important questions for investors to ask when looking at AI ML platforms?

The group advised to start with the basics of performance in general. Then look at the ability to ingest multiple types of data, so you can get a holistic view of the patient. Next look at the model itself, and check for biases. Those will affect the outcomes if they're not corrected. Specifically look to see if the company has experience in the therapeutic area you're interested in, as an investor.

On a big picture level, as an investor, it's also important to understand the why, as in why is the company resourcing to this tool, what is the intent, what are the plans to partner with chemists, with biologists and other scientists.

Glick advised to think through: can the tools solve hard problems we haven't been able to solve before. What are the qualities of what's coming out? At Odyssey they've had teams with and without AI go head to head and then look at output. As Signal put it: "AI ML is not the product, it's the tool." In terms of when to invest in health care companies with AI ML in their platforms, it's already happening. Big pharma is already invested in this, with data scientists and AI ML capabilities in house.

Companies that have the tools and the talent now will make so much more progress. In effect, they'll have a moat around them. Companies that start later simply won't be able to compete.

Healthcare Data and Information: How Data is Being Utilized to Bend the Cost Curve And Deliver Better Patient Outcomes

Panelists: James Min, Founder & CEO, Cleerly, Inc.
Sarah London, CEO, Centene Corporation (CNC)
Mike Pykosz, CEO, Oak Street Health, Inc. (OSH)

Moderator: JP Peltier, Co-Head of Healthcare, Piper Sandler

Moderator **JP Peltier, Co-Head of Healthcare, Piper Sandler**, kicked off by asking how each panelist has used clinical data to deliver better results.

Mike Pykosz, CEO, Oak Street Health, Inc., talked about getting ahead of acute episodes. Doing that is not only better for outcomes, but it also provides huge cost savings from using data more successfully to identify where there is risk, and how to get ahead of it. “How do we understand where we can intervene, and how do we keep them out of the hospital.”

While there are advantages to using data, the promise of data remains unfulfilled. The first step is getting all the data in one place — which is difficult. Then there’s the analysis and insights; that’s the simpler part. Third is how to take the right actions from those insights, which continues to be a struggle.

Sarah London, CEO, Centene Corporation, agreed that data is both the greatest mandate for our industry and also the biggest challenge. That’s particularly true when you think about serving low-income populations and operating in a thin margin environment. Data gaps persist around factors that drive health outcomes, beyond even health care or medical conditions. For example, knowing the trade-offs patients are making in terms

of food insecurity, housing, or job training that free them up to listen to their provider and drive behaviors to improve their health. “It’s like a brain cramp at some level,” as she put it, referring to the levels and types of data needed, both inside and outside of the healthcare system.

Health care is inherently complex. For example, prescription drugs: what’s in or not in a PBM, how do rebates factor in, what role does the co-pay play in the patient taking the medication or not. Missed medication can lead to hospitalizations, which increase cost and decrease care. The people with the highest health care literacy can figure out the complexity, but those with the least health care access also have the lowest literacy, and that same population also generally has the highest degree of chronic conditions.

The complexity of the system exacerbates the inequities, yet data should be able to get us to a point with higher transparency, which could rebalance those inequities.

Centene has made good progress with their data, but needs to do more in terms of “liberating it, getting to a place where we know how to operate on a data layer, not on a technology layer,” as London put it, to provide more agility in responding to patients.



James Min, Cleerly, Inc.



Sarah London, Centene Corporation (CNC)



Mike Pykosz, Oak Street Health, Inc. (OSH)

The next horizon is moving from inside the system to what is going on around a patient in the community. Who are the community organization that create an impact on a patient's journey? How do you codify that data and use it to help? And then, if a healthcare system does have that kind of data, how do they drive more services through the most high-performing, "boots-on-the-ground," connected resources?

At **Cleerly, CEO & Founder James Min** shared their different data perspective. They have a vertical focus on one condition: heart-attack prevention. While large studies and randomized control trials are "big data," Dr. Min characterized their data as "small and deep."

Cleerly studies data for one person via, for example, non-invasive imaging, which allows them to use sub-millimeter precision to "tell you exactly what kind of disease an individual has." From a data perspective, "if you combine big data that has causal inferences, and then the small data of one person, that combination is a very targeted approach that can work well to solve one specific problem."

The promise of data comes in using both types. In huge data sets, big data will show associations, for example certain likelihoods. Then you need to personalize data to identify specific individuals. Big data is only the first step in the journey in figuring out how to best care for people.



JP Peltier, Piper Sandler

London shared an example. Analyzing all of the data points for pediatric asthma, mold in the homes was the biggest predictor. Knowing that, action can healthcare take? "They can't move the child out of the homes that have molds, even though that's what the data says." Making the data useful and useable is complicated.

Given the role of data, Peltier asked where the industry is in terms of fully optimizing the information we have available to drive better outcomes and lower the cost of care. The panelists agreed: we're maybe at the top of second inning, but it's a high scoring game. Healthcare is still in a place where our core systems were built as transactional systems to support the financial infrastructure, not with value-based care, prevention, or workflow in mind. We've built systems on top of that, which proliferate the complexity.

We need "the innovation of start-ups and the commitment of incumbents to get behind systems change and invest in the data," as London said. Over time, artificial intelligence and machine learning will revolutionize care. It's not a straight line, though. The growth will be curvilinear.

Healthcare Data and Information: How Companies that are making Health Data Comprehensible and Product Design Accessible are Putting Consumers at the Forefront of their Health Journey

Panelists: Julia Cheek, CEO, Everly Health, Inc.
Kevin Sayer, CEO, DexCom, Inc. (DXCM)
Jonathan Wolf, Co-Founder & CEO, ZOE

Moderator: Jon Salveson, Vice Chairman, Piper Sandler

Moderator **Jon Salveson, Vice Chairman, Piper Sandler**, set up the conversation by asking: if you look at the thread about data, meaning clinical gains and bending the cost curve, what does that mean for the consumer? How do you design data to be usable, consumable, and understandable?

Julia Cheek, CEO, Everly Health, talked about the feedback loop of Everly products. Last year they served about 40M consumers in the US (they consider patients and consumers synonymous). The company delivered a product, the consumer delivered fees in return, and also shared feedback. So in Everly's case, they have both quantitative feedback that the data they're providing is useful (via sales) and qualitative (via feedback). "We can test and learn because of the value exchange. If you're not directly giving the consumer something they choose, it's harder to get feedback."

At ZOE, they consider they have customers, not patients. As **Jonathan Wolf, Co-Founder & CEO**, put it, the demand is there for the data. In the past your doctor was in charge; they had all the information and they chose what to share. Now people want to take control. They want to understand what happens before

they get sick. "For them, it's their data, they want to understand it. This is the direction — the genie is out of the bottle. No one will go back to how it was 50 years ago."

Kevin Sayer, CEO, DexCom, agreed. "When I first started, we enhanced the quality of the product [continuous glucose monitoring for diabetes management], and then the data storm started. People wanted the data immediately. Sharing and giving people access is huge."

The conversation shifted to prevention: what is the role of consumer data there? Wolf gave the example of your car: you take your car in once a year; they diagnose it and tell you what's about to break. "With health care you get sick first, then they fix it." The trajectory is such that in 10 years, "we can't imagine it will still be that way." Consumers need to understand risks to their health, and also learn how to adjust.

As Sayer put it, "If you put a sensor on somebody, they know what happens when they eat sugar or skip medicine." You can't engage in prevention without information. Now that information is much more widely available.



Julia Cheek, Everly Health, Inc.



Kevin Sayer, DexCom, Inc.



Jonathan Wolf, ZOE

ZOE sees that desire for information to shift behavior in their customers as well. “When you see what happens when you eat two different foods with same number of calories,” that can shift your mindset on whether you make a behavior change.

Given the FDA has said the leading cause of death in the U.S. is misinformation, Salveson asked the panelists to talk about the benefit and the risk of the patient having the data.

Cheek feels the risk is high. She pointed out that multiple lab results can be correct and have different numbers. “It’s complex to explain how labs work. It’s nearly impossible to ensure you’re educating them in the way they deserve. The worst results is to draw a conclusion from a number that has a lot of other factors. You can get an indicator of thyroid but still have to go through a medical intake process. It just has to be there.”

Dexcom pointed out additional risks: “We have to ensure that cybersecurity is in place. We have safeguards on our data because it’s real-time and live.” And he agreed that the educating customers on the data is difficult.



Jon Salveson, Piper Sandler

Combining the appetite for data with the high need for education, creates the challenge of setting the standard for adding value. “Is there a super nova moment where all the data comes flying at you?” asked Salveson.

There’s a balance of getting data to where it can be ingested usefully. For example, two to three markers might give you the information you need to understand a particular condition, versus multiple. In addition, the data has to be connected “back through the rails to the healthcare system, deep into the infrastructure built year ago.” In some ways the data available has outpaced the system’s ability to make use of it.

From Apps to ASCs: How Leading Health Systems are Investing in the Future of Care Delivery

Panelists: Bill Gassen, President & CEO, Sanford Health
Lisa Shannon, CEO, Allina Health System, Inc.
Jakub Tolar, Dean of the Medical School, Vice President for Clinical Affairs, University of Minnesota
Caitlin Zulla, CEO, Surgical Care Affiliates (Optum Care)

Moderator: Jessica Tassan, Senior Research Analyst, Piper Sandler

Before talking about the future of care delivery, moderator **Jessica Tassan, Senior Research Analyst, Piper Sandler**, asked the panelists about the current environment.

In all cases, it's a difficult environment, with pressure from macro-economic challenges around labor and supply chain, as well as a tired workforce. "I worry first, second and third about our workforce," as **Lisa Shannon, CEO, Allina Health System**, described it, and at the same time "I'm very encouraged by the resolve of our caregivers."

Shifting to look at the future, the panelists discussed what Covid changes will endure.

Telemedicine is a positive that will remain. For **Bill Gassen, President & CEO, Sanford Health**, as the largest rural health provider "we also want to be the highest quality "which means access to world-class care. "We did see the willingness increase [to use virtual care/telemedicine] and we've seen it remain." In fact, Sanford just broke ground on a virtual clinic for training as well as residency, fellowships, and innovation with partners.

Mental health is a negative from Covid that continues, which can benefit from the increase in virtual care. "We are seeing profound increases in digital service for mental health," said Shannon. "Ninety percent of care was delivered that way. Even if it comes down, if we can reach people earlier in those depressive moments" that's a huge benefit.

Attitudes have shifted during Covid and those new expectations remain. Patients just won't wait if it takes forever to get through a system. In many cases patients will simply go to where things are better.

The last aspect they discussed was the distribution of care, with nodes of super acute care, telemedicine, and rural care. All of those shifts will create very capital light environments.

Looking to the future, **Caitlin Zulla, CEO of Surgical Care Affiliates** shared they're excited about improvements in data management and risk-based platforms. As an organization that's part of a larger one (Optum Care), they have significant size and breadth. Their focus is on "how to unite the different components for a value-oriented healthcare system that serves the patient first and foremost and serves as a great place to work."



Lisa Shannon, Allina Health System, Inc.



Bill Gassen, Sanford Health



Caitlin Zulla, Surgical Care Affiliates (Optum Care)



Jakub Tolar, University of Minnesota

Jakub Tolar, Dean of the Medical School and Vice President for Clinical Affairs at the University of Minnesota is similarly optimistic. He described the future as a teenager: the potential is there, but you don't quite know what's going to come out of it. "We're at the forefront of what will make us good ancestors for generations to come."

Shannon, looking at a more urban care delivery model, sees the opportunity "to make our population holistically better. We screen our primary patients for social determinants. We care about surrounding our patients holistically. The potential is to get on the other side of disease care, and become truly anchored around what's possible."

Gassen, looking at a rural care model, sees continuing innovation and expanded access for everyone, "regardless of who they are or where they come from. And to do it in a sustainable way. We have the unique privilege of caring for a community, not just those who come through our doors."

And for each panelist, the continuing focus is prioritizing their workforce.

