CES

TRENDS & INSIGHTS

Publicis Health Media

OVERVIEW

Andrea Palmer

President, PHM

CES 2021 was a departure in many ways. No in-person meetings, no touring football fields of products, no rushing from session to session and (thankfully) no interminable cab lines. But kudos to the organizers for transitioning the world's largest technology showcase to the virtual realm, complete with a product showcase.

It's worth noting that even in its reduced scope, health topics and technology were heavily featured at CES relative to other topic tracks. No surprise in this year of a pandemic, but also a continuation of trends begun well before this. Health tech has claimed a spotlight that isn't likely to dim anytime soon.

PHM attended sessions on health topics and reviewed new products, and let me just say, CES 2021 didn't come to play. This was a serious show, with meaningful takeaways.

Panels and presenters parsed the last year's events in terms of COVID's impact on technology.

PHM's team of attendees found that home health solutions are exploding, buoyed by technology advances such as 5G. Higher speeds are fueling development and making adoption easier by both consumers and HCPs. Telehealth will progress from being a born of necessity default to a preferred channel for some demographics and disease states. There will be no return to a post-pandemic normal.

What does this mean for the health industry and health media in particular? We attempt to unpack the many ideas floated here and believe health technology is coalescing around five central themes: trust, equity, AI and data accuracy, telehealth and retail health. And since this is CES after all, we've got a roundup of hot tech in health.

Read on…

Andrea

KEY THEMES

Trust　　》》

Equity　　》》

Telehealth　　》》

AI　　》》

Retail Health　　》》

Hot Tech　　》》

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PUBLICIS WELCOMES CNET'S BRIAN COOLEY TO KICK OFF CES 2021

SUMMARY

Publicis once again welcomed CNET's Brian Cooley to give a personalized review of CES, curated for our clients. For 2021, Cooley's presentation was weighted heavily toward health technology, a reflection of our current state of affairs and need state. Technology in this regard is being forced to innovate at a greatly accelerated pace and is being helped by faster data transfer speeds including 5G. We are now living in a platform world, said Cooley, and platforms are being built to scale to meet rapidly shifting needs. The pandemic has also forced consumers and producers to more rationally evaluate what is truly needed vs future-forward flash.

KEY TAKEAWAYS

- COVID has driven 10 years of innovation in a mere moment in telemedicine. Mid-pandemic usage soared from necessity and post-pandemic, users may find it a better experience than in-person in some instances. Watch for telehealth to better sync/merge with tech-derived signals such as the OMRON VitalSight blood pressure monitor which syncs directly into a patient's chart.

- Home medical devices and ambient tech are providing more transparent data to enhance the patient visit with HCPs, including the integration of emergency medical response into more products including light fixtures.

- Tech is also enhancing Rx compliance through devices like Validose's Smart Atomizer—the Disruption Garage prize package winner at PHM's 2019 HealthFront—an at-home intranasal platform that optimizes drug delivery for controlled substances and other drugs to prevent medication misuse.

- Devices expand use beyond specific disease states as evidence by Abbott's Libre Sense, a glucose monitor for athletes—the first not strictly for medical use by diabetics.

- HIPAA is being tuned to increase portability beyond just being about protecting privacy.

RELEVANCE TO HEALTH / HEALTH MEDIA

Focus has shifted away from some areas—education and autonomous cars, in particular—to home environments, contactless technology and applications and health, in response to the pandemic. Virtual tech is also poised for a breakout. Advises Cooley: "If your brand needs tactical experience, you need to give serious consideration how you use virtual technologies."
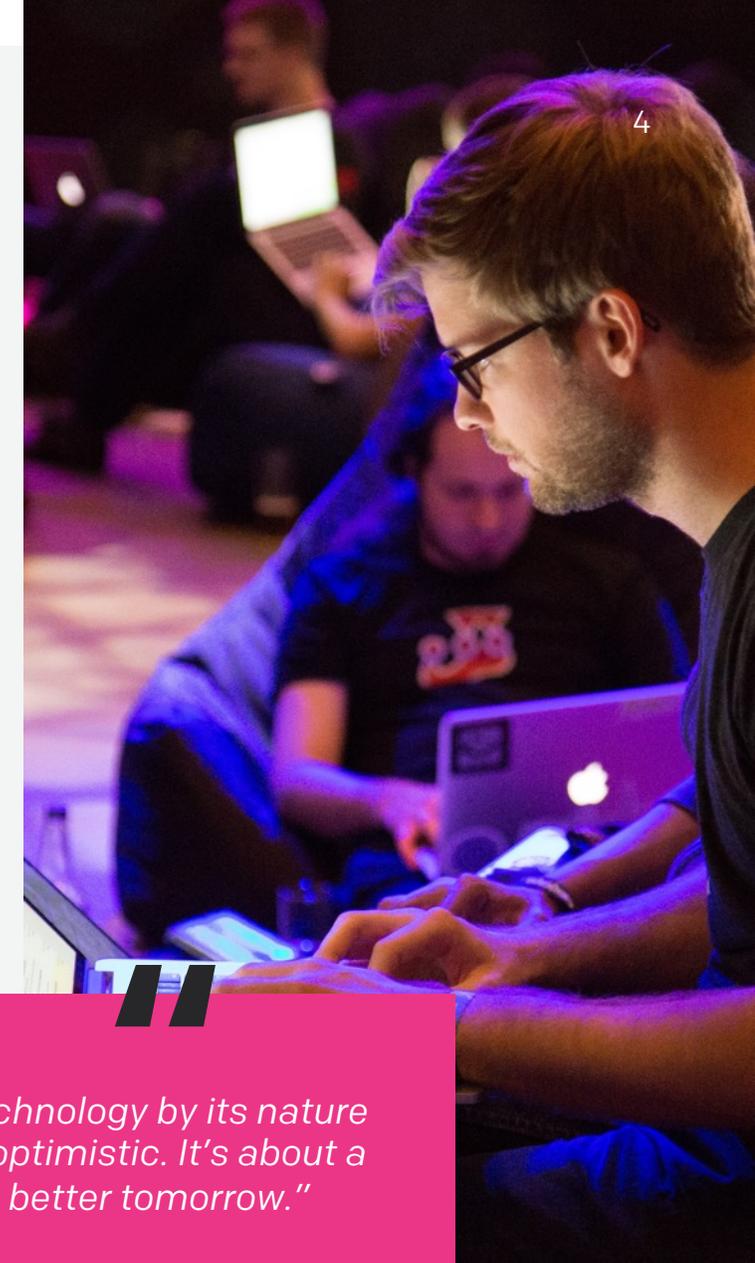
> Technology by its nature is optimistic. It's about a better tomorrow."
>
> Brian Cooley
> CNET

TRUST

SUMMARY

Trust was a big topic at this year's CES across all content tracks, especially Digital Health. CES, with its tech focus, served up trust as a running theme and a particularly powerful one relative to health tech. We cannot begin to realize the possibilities of innovative technology without a strong foundation of trust on both the consumer and physician side. Trust as a requirement for success sits at the center of health, and in health tech, it's required to build out solutions that will successfully impact outcomes for the better.

Trust lies not so much in the technology itself but rather at the intersection of human and machine — the "trust intersection," noted one panelist. Without collaboration between humans and technology, the promise tech holds to drive better health outcomes falls flat. Earning the trust of HCPs and patients is paramount here. The future potential of AI, predictive modeling, treatment and prevention sits at that trust intersection. During a time when trust in is at an all-time low, how do we maintain and build trust in a technology that has the power to change the world of human health?

KEY TAKEAWAYS

- AI adoption is built on a foundation of trust—trust in the inputs which must be comprehensive and representative. Health tech and AI need to earn the trust of the patient and physician community before it can be truly transformational.
- Collaboration between physicians, software engineers and technology is necessary to ensure all parties get what they need and feel confident in the possibilities and results.
- The design of the user interface and experience has to be intuitive and user friendly. This is an element of trust often neglected.
- Outcomes—without positive outcomes, there is no point. Too often, the outcome is secondary to the tech. This has been true of most tech product introductions at CES, but in the health category this tendency has more dire consequences and impedes progress in improving outcomes.

RELEVANCE TO HEALTH / HEALTH MEDIA

The first and most important point is to interrogate the data that is informing your decisions. Too many marketers trust the output of the data without understanding the input and the context of the input. Marketers will achieve better outcomes with more inclusive inputs and will build a lot more trust with patients and HCP audiences along the way. Trust and growth go hand in hand.

> *There's no shortcut to building trust. People have to be committed and be in it to win it. This is a long game."*
>
> Iris Frye
> Parity Health

EQUITY

SUMMARY

COVID-29 opened the eyes of many outside the health community to the social disparities of health, and the technology industry is paying attention. In September the Consumer Technology Association partnered with the Connected Health Initiative, a public/private partnership to address disparity. At CES, important conversations were had to help advance this effort.

Even non-CES attendee Apple joined in by announcing more details about its $100 million Racial Equity and Justice Initiative.

KEY TAKEAWAYS

- The shift to telemedicine helps reduce disparity in some disease states, namely mental health where stigma is high among communities of color and by extending specialty care to underserved/rural communities.

- AI is part of both the problem and solution—use cases will increase once inputs are expanded to better recognize voice and skin tone differentials.

- Representation counts—organizations and panel discussions need more diverse voices.

- Distinguish between equal and equitable—equal means everybody is measured by exactly the same yard stick. Equitable is saying the yard stick is the one that holistically encompasses a person's skills, experiences and perspectives.

RELEVANCE TO HEALTH / HEALTH MEDIA

In healthcare, differences matter. To reduce disparity and improve outcomes, it's critical to include diverse voices in planning, development and testing. Technology can close some gaps, but there are questions around access and trust. And without diverse data sets built on diverse populations, the models will continue to fall short by only predicting commonalities.

In addition to ensuring equitable financial support to the diversity-owned and diversity-oriented media community, it's important that we are working with the health media community to ensure representative voices are being brought to the table when considering editorial and content alignment. This is the only way that health stories in the media will begin to reshape.

> "
> *Inclusive inputs lead to inclusive outputs.*"
>
> Annie Jean-Baptiste
> Head of Product Inclusion at Google

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TELEHEALTH

SUMMARY

With the rapid growth in telehealth comes a demand to elevate the experience in order to provide the clinical-grade health insights that patients might only have received in the doctor's office. New companies have stepped up to deliver innovative clinical-grade tools for patients and consumers alike, allowing them to communicate accurate information directly to care providers—even from a distance. Leveraging new telehealth solutions, from general home exams to more critical cases, we are entering a new phase of what it means to be treated remotely.

Virtual care has solved many problems during the pandemic and will be needed to manage the health workforce shortages that will likely result from pandemic fatigue and stressors.

KEY TAKEAWAYS

- Telehealth can make a global impact at scale. It's helping to overcome barriers to access and improve health equity by bringing specialty practices to underserved communities and allowing access to mental health services in previously reluctant demographics.

- Software integration is key — both telehealth software and EMR systems.

- Successful virtual care must incorporate diagnostic devices that are easily assessable to patients — some new tech, such as MedWand, are leading the way.

- Regulatory and licensing issues are large barriers to advancement in telehealth; technology here is outpacing the norms of health policy.

- Improved data integration will improve the telehealth experience. New products at CES are providing a more comprehensive view of a patient's life and delivering data streams directly into patient files for HCP access.

RELEVANCE TO HEALTH / HEALTH MEDIA

Once the pandemic recedes usage will likely fluctuate by demographic and specialty, but adoption is indisputably on an accelerated course. Telehealth creates new digital platforms and new digital health products will interact directly with these platforms, creating new points of contact with patients and providers, as well as opportunities for brands.

"

There is nothing virtual about [telehealth], we are providing actual care."

Richard Zane
UC Health

PHM

AI

SUMMARY

AI—ever learning, ever evolving—continues to be controversial in regard to health technology. At CES 2021, the focus was more often on what AI was not, or did not, solve for. Understanding how AI is developed, how data is fed into the systems and how clinicians are involved in the process is crucial for robust AI usage in health care. Many stakeholders must be considered—patient, HCP, software developers, regulators and payers—for AI to work properly and consistently.

AI adoption is built on a foundation of trust. Enhancing the transparency of AI will embolden more trust from the healthcare system. Ultimately, AI needs to help HCPs move from managing data to managing patients. The seamlessness of experience happens when there is end-to-end trust—knowing the context in which the data is collected and why, knowing how the software and the algorithms are designed, whether they work and when they do or don't, and finally regular monitoring to ensure that the outputs are really improving performance and giving quality insights.

KEY TAKEAWAYS

- AI is only as good as its inputs. For example, early and even current iterations of voice assistants don't recognize children's voices, or elderly speech. Some visual technologies can't "see" darker skin.
- Don't be blinded by the data. People are sometimes so focused on using the data, they don't look at where it is coming from.
- Trust is an important part in AI adoption
  - Technical Trust – is it doing what it is supposed to be doing without bias, or flaws in the data.
  - Regulatory Trust – need partnership with regulatory bodies to ensure adoption fits models.
  - Human Interaction Trust – poor interface with end user undermines trust. Design must account for cultural differences

RELEVANCE TO HEALTH / HEALTH MEDIA

AI needs to solve these underlying trust issues including appropriate data sources and developing an ability to identify more granular differences in patient populations. HCPs wonder about reimbursement for integration and use, and liability—AI may learn over time, but physicians and clinicians can't allow for errors along the way. They are wondering what the performance improvement is vs. the risk.
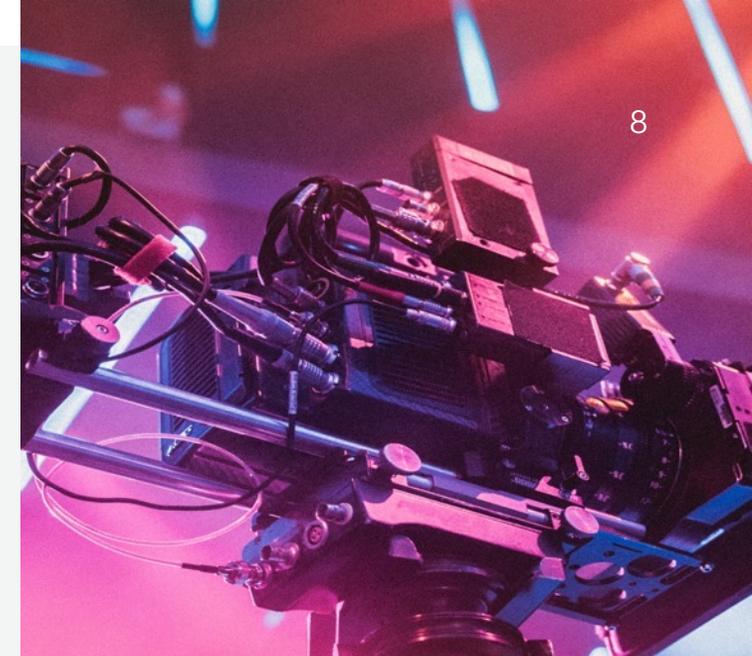
Physicians are asking, 'Will it work – in my population, in my setting, etc.? Will I get paid for it? Will I be sued?"

Jesse Ehrenfeld
American Medical Association

RETAIL HEALTH

SUMMARY

Retail technology, an emerging area of focus at CES, took its cue from COVID-19 and turned its attention to health-related products and initiatives. Walmart CEO Doug McMillon delivered a keynote (significant here, as tech company CEO's typically dominate the agenda) and outlined how the events of the past 12 months have supercharged Walmart's focus. It's important to note that Walmart (and other retailers) had programs in the works prior to the pandemic, but have since shifted or accelerated efforts.

Retailers are doubling down on clinics and solutions around preventative care, a shift from urgent care only. Walmart expects to have 22 Walmart Health Clinics by the end of 2021. Trust was also a theme—CVS, Walgreens and Walmart all claim brand equity to be key to winning consumers. Walmart, notably, with transparent pricing that bypasses healthcare providers and goes directly to customers.

KEY TAKEAWAYS

- Telehealth has exploded and retailers are exploring ways to tap into this. "There are offerings we can stitch together, in a way," said McMillon. Retailers are uniquely qualified to merge both digital and physical health offerings similar to how they've solved for omnichannel commerce.

- Home health monitoring devices are can create stronger bonds with customers, including home health hubs for seniors to keep them connected with family and HCPs, noted CVS' Adam Pellegrini in one panel. Best Buy, too, is expanding in this space.

- Chief Medical Officers are more important in retail than ever. McMillon expressly cited its CMO as key in helping navigate COVID.

- Retailers are already leaders in contactless technology, from the use of QR codes to access information in stores and online, to pickup and delivery options and unassisted checkout. This tech could migrate from retail to health.

- Smart home adoption has lagged but could get a boost mid- and post-pandemic, mused several speakers at CES, including CNET's Brian Cooley. Roughly 75% of U.S. homes have no "smart" devices but lower prices paired with increased functionality could boost adoption.

RELEVANCE TO HEALTH / HEALTH MEDIA

COVID helped cement retailers' role as trusted sources of health information and care, a trend that should accelerate in 2021 as in-store clinics expand testing and vaccination programs. Sensors, smart home adoption and trust around data all stand to cement retail's role as gatekeeper to the consumer.

> "
> I just celebrated 30 years with Walmart and there's more change happening right now than at any point in those 30 years."
>
> Doug McMillon
> CEO, Walmart

HOT TECH

SUMMARY

True, product showcases just aren't as much fun (or educational) in a virtual setting, but the reasons behind this shift away from an in-person event also helped inform the products featured this year.

Contactless, home-monitoring and pandemic-appropriate product advancements abounded. Contactless solutions aren't just for shopping and remote patient monitoring devices are becoming more sophisticated. Some of the most interesting advances at CES promise to detect from afar changes in an occupant's vital signs. These innocuous, otherwise passive devices are replacing or augmenting wearables as a health monitoring solution.

Home tests for everything from blood analysis to vision dominated CES' Innovation Awards and editor's picks. Many are awaiting approval but note that emergency use requests could speed them to market as manufacturers tap into the accelerated approval process put in place during the pandemic.

- Wearables move beyond fitness trackers as tiny, and even ingestible sensors were much discussed on panels. While no specific product or use case stood out, the technology holds promise and is one to watch.

- New data collection devices assist HCPs with the gathering and tracking of a patient's vital signs such as the Omron VitalSight Blood Pressure Cuff, which sends the information to the HCP and automatically uploads the results into an existing chart via a secure internal connection.

- Fluo Labs Flō uses Near Infrared light to stop the release of histamines and reduce inflammation. Still awaiting FDA approval, this $100 device promises to replace or reduce the use of allergy medication.

- Sexual health was again on display with the Satisfyer Love Triangle, a Bluetooth enabled stimulation device that pairs with an app for greater customization. This category, controversial in the past, had a strong showing at CES in 2020 and appears here to stay.

- Cannabis made its debut at CES 2021 (last year's lock box doesn't count) with Mode, a smart vape that uses a high-pressure sensor and predictive algorithm to determine dosage per individual and treatment.

RELEVANCE TO HEALTH / HEALTH MEDIA

The continued advancement of home health aides and monitoring devices promise new ways to connect with patients with distinct disease states or needs. At-home exams parallel the rise in telehealth and while they can't replace in-person visits, forcing the development of new solutions to connect with consumers and HCPs outside of traditional media channels.

As brands look to build trust with people, new and hot technologies can play a role in enhancing the overall value being delivered from a relationship with a brand. Contemporary technology can help deliver a better holistic brand experience.

PHM

Q&A With Andrea Palmer & Jill Gilbert

PHM President Andrea Palmer sat down with Digital Health producer Jill Gilbert, to dissect the show and talk health tech trends for 2021.

This conversation has been edited for clarity and brevity

Andrea Palmer: This was a year like no other in health. How has the content at CES differed than recent events?

Jill Gilbert: A lot of our content was driven by current events and public health, which hasn't necessarily driven a lot of our content in the past. We're seeing he escalation of innovation, the need to escalate regulations, processes and efficiencies that they've never done before and the drive to utilize technology to serve the public health crisis. It was novel for us to take a step back and think about the drivers and do it with a reduced capacity. We went from 35-40 sessions to 12 that had to be hyper meaningful.

AP: There were a lot more that were super timely—the pandemic, the rapidly accelerated need for innovation involved and equity.

JG: We've talked a lot about women in health a lot over the years, but we've never really talked about disparity in a wider sense. We knew that this year it was critical to talk about these things. It's our responsibility in technology to help serve these populations and really call it out.

Jill Gilbert
Producer, CES Digital Health Summit

AP: In addition to equity and tech, trust was another major topic—it was woven through a bunch of sessions. What technologies are helping in this quest to gain trust?

JG: So, important! Public health innovation is happening at warp speed. How to win the trust of people when it comes to the vaccination, when so many say they won't take it? Technology can help discover who they are, to find niches of people with shared characteristics and who they trust in terms of influencers. Identify and educate. Chatbots use AI and machine learning. Microsoft and Verily launched new ones launched right away [to assist medical professionals during the pandemic]. They need to do this to assist with vaccinations, and are working on it.

Telemedicine has an opportunity [to move beyond video]. There are going to be a bunch of apparatuses to help augment the telemedicine experience, for someone to have a device to help with diagnostics at home.

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AP: Telehealth has been pretty good at connecting doctors with patients, but less so at connecting doctors with pharma. Everyone's anxious about making it into a marketing channel, taking it from a transactional experience to an educational platform.

JG: Telemedicine works well when reaching an existing provider, but where do consumers go to find a specialist? People don't really know where to begin.

AP: That's such a good point, when there's a million small providers that have a tiny area of focus, how to you choose? It's not like you've been prescribed or gotten a referral.

JG: There's a real need to for resources—pharma could really play a big role in that.

Andrea Palmer
President, PHM

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To learn more about our 2021 CES program or if you have any questions on our Trends and Insights, please email laura.heller@publicishealthmedia.com