Believe it or not, here we are: already just a month away from the biggest and best health IT show in the world. It’s time to formulate a plan of action. The HIMSS Global Health Conference & Exhibition takes place March 9-13 at the Orange County Convention Center in Orlando, Florida.

HIMSS20, as veteran conference-goers know, offers a unique opportunity to spend a week hobnobbing with some 45,000 or so of your closest friends. It plays host to health IT professionals of all stripes: vendors, clinicians, health system executives, policymakers, military health leaders, patient advocates and other healthcare professionals from across the globe.

Its 350-plus education sessions offer not just CE credits but invaluable perspectives and best practices from industry experts tackling the biggest challenges in healthcare. Its slate of well-known keynote speakers bring galvanizing words to spark inspiration. Its social and networking opportunities are terrific opportunities to share and learn from innovative new ideas.

As veteran conference-goers also know, careful planning of one’s time in Orlando is key to getting the most out of all that activity. With so much going on at once across the sprawling convention center, having a flexible but well thought out to-do list is essential. By Mike Miliard

Beyond some of the obvious points that are repeated each year – wear comfortable shoes, as they will log many miles! – here’s some other advice from someone who has been to 10 HIMSS conferences so far.

For those heading to HIMSS20 for the first time, HIMSS will offer an orientation webinar on Wednesday, February 26, from 11 a.m.-noon. The HIMSS20 pocket guide also offers other key advice: badge pickup, guides for education, exhibition, and networking, onsite information desk and complimentary shuttle service to hotels and the airport.

Full conference registration includes entry to the Monday night opening reception, all keynote and Views from the Top sessions, all general education sessions between March 10 and March 13, as well as access to the exhibition floor Tuesday-Thursday.

But an extra fee gains access to a jam-packed day of preconference education and networking on Monday, March 9.
Reimagining health through a time of disruptive change

By Hal Wolf, HIMSS CEO

When great minds come together to reimagine health and wellness – for everyone, everywhere – the possibility for change and transformation comes to life. The 2020 HIMSS Global Health Conference & Exhibition can help ignite the spark needed to evolve the health ecosystem, and I am thrilled to join together with you all for another great week of collaboration, learning and sharing, March 9-13 in Orlando.

In 2019, there was a significant shift in advanced delivery systems: from a focus on technology to the use of information, from large monolithic application implementations to capable modules or unique add-on suites.

This also included the addition of patient focused applications that either reflect or project coordinated patient engagement between the medical model and the personalized health model.

The renewed focus on patient-centered care is incredibly important in aiding us in the process of transformation. With consumer expectations becoming more and more sophisticated, the industry is being tasked to evolve to meet the customers demands for healthcare when and where they want it.

Healthcare has always been dynamic, but today, the pace of change is virtually continuous with clear signs of a revolution on the horizon.

What needs to change? As new technologies make their way into the workplace at an unprecedented pace, a redesign of workflow and a general improvement on the design or configuration of the tools implemented needs to continue.

Concerns over the requirements of input of data taking away from the direct eye contact between patient and provide is real and in need of solutions.

Information is only valuable if you can use it in an unobstructed way, and the heart of the information is the data collected, so a balance has to be created.

The answer is not less information, but how that information is collected, with voice driven input as a singular example of innovation, is already underway.

That said, there is recognition that email and tele-health, for example, open new channels that reflect previously suppressed demand by the patient for more consistent and accessible communication.

To support the new channels, the workflow and accountabilities of clinicians needs to be adjusted or the days will get longer and work life balance will suffer further in a losing game of personnel supply and demand.

In 2020, looking end to end will never been more important, and focusing on making care available outside the traditional brick and mortar settings verses inside out, is imperative. This will result in increased calls for workforce development to complement operational redesign.

As training improves and scaled deployments increase, the appetite for improved interfaces and streamlining of applications will remain in 2020, as it did in 2019.

Disruptors are going to enter the market this year, at scale. The gaps that exist within care being delivered between the medical model and personal health model are now going to be exploited by firms who have deep pockets and excellent consumer experience working with their retail partners and benefit management entrepreneurs.

The filling of those gaps will soon look like commodities with speed and cost efficiency.

System operators who are in the line of sight of these disruptors need to clearly see the gaps that will be filled in the next 12-18 months, and make a critical decision to try to fill them themselves or be prepared to strategize around them or play off the disruptors.

To me, owning the full end-to-end encounter and administration chain will be less important than understanding how to aggregate the end-to-end chain in order to maximize care quality, operational efficiency, improved knowledge management and customer satisfaction.

Get ready for the year of the disruptor. It’s here. The lessons the ecosystem absorbs from the advanced systems impacted will blaze a trail globally.

As always, the demand will be to innovate the delivery of care with the focus on the patient, with integration of tools and technology that provide them efficiencies for their end-to-end health care needs when and where they now demand it.

But the stakes are getting higher and the playbook may well be rewritten faster than we previously thought.
There are stalwarts such as the CHIME-HIMSS CIO Forum, the AMDIS/HIMSS Physicians’ Executive Symposium, the Interoperability and HIE Symposium and the Nursing Informatics Symposium, of course.

But there are plenty of other daylong sessions to pique the interest of professionals from all corners of the healthcare space: innovation and digital transformation, aging technology, AI, big data, blockchain, cloud and consumerism – and much, much more.

HIMSS20 gets started in earnest on Tuesday, March 10, with the opening keynote and discussion: Dr. Gianrico Farrugia, president and CEO of Mayo Clinic, George Halvorson, chair and CEO of the Institute for InterGroup Understanding and Dr. Rod Hochman, president & CEO, Providence St. Joseph Health will talk “Digital Health Transformation: The Path Forward.”

Throughout the week, other big names scheduled to give keynotes include National Coordinator for Health IT Dr. Donald Rucker, CMS Administrator Seema Verma, former Governors Chris Christie and Terry McAuliffe and baseball great Alex Rodriguez.

When it comes to education sessions, there’s no shortage of them. High-level Views from the Top presentations will offer industry leaders discussing everything from AI to APIs, value-based care to virtual reality.

And the hundreds of other education session taking place during the week – use the handy search function on the conference website or with the HIMSS Mobile App – to find the ones most relevant for you – cover nearly every topic imaginable: cybersecurity, interoperability, organizational change management, personalized medicine, population health, quality improvement, user experience, venture investment, and much more.

The beating heart of HIMSS20 will be the Exhibition Floor, with more than 1,300 vendors (including 300-plus first-time exhibitors) showing the latest in technology innovation, and hundreds more targeted education sessions. Plan your solution seeking with HIMSS’ interactive map.

Attendees should also be sure to stop by any or all of the many Specialty Pavilions, such as the Career Expo, Consumerism/Patient Engagement, Cybersecurity Command Center, Debut Square, Federal Health, Innovation Live, University Row, Value of Healthcare – and, of course, the venerable Intelligent Health Pavilion and Interoperability Showcase.

Throughout the week, be sure to keep an eye on social media, too. HIMSS and Healthcare IT News will be offering a stream on new updates via Facebook and Twitter, so follow the hashtag #HIMSS20 for all the latest. Following the feeds of HIMSS’ newest class of digital influencers is another great way to stay in the loop with all the latest buzz.

The official HIMSS Global Health Conference Mobile App – expected to be made available in February – is another must-download, with all the info on educational sessions, exhibitor listings, floor maps, news, networking opportunities (including a new matchmaking service, PeerConnect) and more. Attend the orientation on Thursday, February 20, from 11 a.m. to noon ET, to learn more about its functionality.

And speaking of networking events – there’s a ton of them on tap for Orlando in March: an array of receptions, meet-ups, community events, HIMSS chapter confabs, the annual awards gala, and many more.

HIMSS20 takes place March 9-13 at the Orange County Convention Center in Orlando.
Until very recently, healthcare was behind the curve on technology adoption and innovation. Other industries – from banking to retail to transportation – have seen tech-enabled disruption of products, services and entire business models, while healthcare has been notoriously slow to embrace the digital era.

That is beginning to change. Rapid advancements in health technology in recent years are ushering in a new golden age for the industry, re-inventing everything from the way we track public health threats to the way doctors communicate with patients.

Treatments that once seemed impossible are quickly becoming standard, thanks to the intersection of data and technology. From artificial intelligence solutions that can predict who is at risk for certain diseases, to the use of virtual reality to treat pain, innovation abounds. We are seemingly only limited by our imaginations.

However, the relentless focus on innovation overlooks a key issue: that many healthcare organizations are struggling with implementation of technologies that already exist. Health systems everywhere see the value in the latest digital health solutions, but they face challenges adopting these solutions and integrating them into their existing systems and workflows.

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We have amazing capabilities in areas such as remote monitoring, digital therapeutics and data analysis, but the reality is that many organizations are still working to fully digitize their health records, a process that began in earnest in the 1990s and continues to this day.

Innovation has outpaced implementation. Before we can realize the full promise of data and technology in healthcare, we need to acknowledge the implementation gap. Right now, healthcare is investing more heavily in discovery than introduction.

It’s certainly understandable, given the exciting emerging technologies coming to market every day. However, at the end of the day it’s about the patient, and whether clinicians have what they need to provide the best possible care.

In that sense, we would be better served to invest in helping providers and health systems make smart, pragmatic choices about their technology investments, and support them in addressing their implementation challenges.

This isn’t to suggest that innovation should stop. We can and should continue pushing the boundaries of what’s next in health – but we should be thoughtful about how we do it. Thoughtful discovery that puts the patient and clinician and first can ease implementation challenges down the road.

Would-be innovators need to ask themselves: “Why are we doing this? Why does the patient or clinician need this solution? How will the patient access their care? Where will the patient access their records?”

By getting back to the fundamentals and asking these questions first, we can help ensure we are developing technology for patient-focused results.

It’s an incredibly exciting time to be working in healthcare. The ever-expanding potential of digital health tools enables all of us to live healthier, happier lives.

As healthcare organizations continue seeking ways to integrate emerging technologies into their existing systems, technology providers have an opportunity to harness the power of data and technology for our shared goal – connecting patients to better health.

Steve Wretling is HIMSS Chief Technology and Innovation Officer

CHIME and HIMSS have named Marc Probst, longtime chief information officer at Salt Lake City-based Intermountain Healthcare, the 2019 John E. Gall Jr. CIO of the Year. The award is given each year at the HIMSS Global Health Conference & Exhibition to an IT executive who has demonstrated leadership and commitment to transforming healthcare with information and technology.

“Marc has been a transformation leader blazing the trail in advancing technology to improve health and care,” said HIMSS President and CEO Hal Wolf. “His work exemplifies what it means to be a changemaker – an innovator who rigorously challenges the status quo and empowers others to follow suit in the journey to providing better health for everyone, everywhere.”

“He has been instrumental in CHIME’s growth, domestically and internationally,” said CHIME President and CEO Russell Branzell.

Probst will be honored at the HIMSS20 awards gala on March 11.
As HIMSS pursues a renewed focus as an evolved brand, we have launched new digital influencer program. At HIMSS20 and beyond, these influencers will help HIMSS and the global health community identify and nurture the opportunities to build what's next for health. The program will consist of a series of digital content campaigns and resources co-developed by HIMSS digital influencers and subject matter experts.

Audiences can expect year-round multimedia content that spans healthcare topics, formats and perspectives shared across HIMSS content platforms: video interviews and roundtables; in-depth thought leadership articles; themed, topical, snackable content; influencer perspective collections; monthly themed social media discussions, and more. The aim for the program centers on a singular premise: enriching the digital experience for HIMSS members and audiences.

All program campaigns, tactics and events over the next year will be in service of building momentum and awareness for applied innovation; elevating discourse, addressing pressing challenges, touting notable successes, deepening collaboration through in-person, social networking and more.

The 2020 HIMSS Digital Influencer program theme is #BeTheChange. The theme reflects influencers’ commitment to being changemakers in health and wellness while also acknowledging this powerful call to action among global citizens to make a difference in their own way. Follow HIMSS and #BeTheChange hashtag on Facebook, Twitter, LinkedIn, Instagram.

MEET THE CHANGEMAKERS
We call influencers, and the passionate communities who energize them, changemakers: innovators who challenge the status quo to build a brighter health future for everyone, everywhere. Over the next year, the following changemakers will make up the inaugural class of HIMSS Digital Influencers:

- Chrissa McFarlane | Founder & CEO, Patientory | @ChrissaTanelia
- Geeta Nayyar, MD | Chief Medical Officer, Greenway Health | @gnayyar
- Jamey Edwards | CEO, Cloudbreak Health | @jameyedwards
- Jen Horonjeff | Founder & CEO, Savvy Cooperative | @jhoronjeff
- Lygeia Ricciardi | Chief Transformation Officer, Carium | @Lygeia
- Matthew Fisher | Partner, Mirick O’Connell | @Matt_R_Fisher
- Mike Rucker | Chief Digital Officer, Active Wellness | @performbetter
- Rasu Shrestha, MD | Chief Strategy Officer, Atrium Health | @RasuShrestha
- Stacy Hurt, MHA, MBA | Patient Consultant | @stacy_hurt
- Vincent Keunen | CEO & Founder, Andaman7 | @VincentKeunen

Michael Gaspar is HIMSS Manager of Enterprise Content Marketing
When Beth Israel Deaconess Medical Center in Boston decided to make the move to a cloud-based environment to support a host of new applications and prepare for a cloud-centric future, Manu Tandon, the health system’s chief information officer, knew preparedness and experience would be the twin pillars of success.

“We are one of the few medical centers running a homegrown electronic health record system, and we have several other major systems that we run ourselves,” Tandon explained. “That means we have a big need for a data center, and so we have been managing our own data center for decades.”

One of the reasons BIDMC was looking for other options when it comes to data storage was the lease for its own data center is coming up, which means they started looking at cloud options more than three years ago.

“After nine months of design work, we realized we needed to own the process and make sure it was designed in a secure manner,” said Tandon.

He noted that while most cloud providers offer a basic infrastructure environment, it’s up to the customer to design it – and to own it.

“We had expertise in server management, so we brought that into the design process, and we opened it for business about two years back, and have since then migrated about 50 percent of our data center, include our HR system, our finance system, and other applications to the cloud,” Tandon explained.

He said the goal now is to try and finish this migration by the middle of 2021, but he points out that not everything is suitable for the cloud.

“Radiology systems, for example, are not going to perform well on the cloud, and the performance will not work,” he said.

Crucially, Tandon pointed out that while BIDMC will continued to have residual data centers, any new apps it purchases, buys or builds will follow a cloud-first strategy.

He said what he and his colleagues discovered very quickly is that it’s easier to try out new innovations on the cloud, because the cycle times to test something are dramatically lower in a cloud environments, because you can essentially just turn a service on to try it.

“That helps us develop a whole innovation program around the cloud,” he said.

“Mobile, digital, as well as machine learning and artificial intelligence solutions can all be hosted on the cloud.

He said that while he expects the health system’s migration to the cloud will end within the next 18 months or so, the innovation part will continue to be a contributing factor as the hospitals looks to develop additional EHR solutions through its EHR+ strategy.

“We’re looking to do all these additional EHR functions and applications on the cloud,” Tandon explained.

To that end, the BIDMC launched the Health Technology Exploration Center in 2018, which leverages the power of emerging cloud services to support medical decision-making and innovative new mobile applications that help patients to manage their own health while improving overall communication between patients and their health care providers.

With HTEC, Tandon said, the vision is to take a look at technologies that have already matured in the non-healthcare sector and bring them in.

“That ranges from AI and ML to technologies like natural language processing,” he said. “The platform we are using to explore these options is the cloud, because it’s so much faster on the cloud – it plays a key role in HTEC.”

Tandon points to BIDMC’s experience in managing its own data centers as a critical factor to the success of its cloud migration.

“In our case, because we basically moved at the pace we wanted to move, we moved non-critical apps first, and we spent a lot of time designing and training, there weren’t
so many unexpected challenges – we basically found it exactly as we predicted it,” he said. “If we had just pushed things over, it might have gone differently.

He said the cloud can actually be much more secure or much less secure than on-premises solutions, depending on how much planning is put into it.

“If you don’t pay attention to the way the cloud is configured, it can be quite insecure – one should not make the assumption that because it’s on the cloud it’s secure,” he said.

The goal at BIDMC was to have the cloud no less secure than the provider’s on-premises services, and Tandon said the hospital was able to do that by making sure staffers were comfortable with the pace at which they were moving, and were making the most of their experience and training.

In the years that Tandon has been facilitating the migration to cloud technologies, he he cloud has matured, gotten less expensive, and cloud providers now offering a lot of add-ons.

“It’s no more just based off computing and storage. The availability of platforms that the vendors are doing is growing – for example some vendors using programs that make it easier to write machine learning, which is something new.”

Tandon said the cloud has enabled the democratization of technologies that were limited to labs or scientists only.

“A lot of our app developer types were able to re-train themselves and write code because of the frameworks available,” he explained.

He also pointed to the big strides made in natural language processing solutions and OTC solutions, and some of them have “become pretty easy to use.” And, as they become more popular, it means its easier to find more resources on the open market.

For other providers looking to make the move to cloud-based services, he says its important to ask around and seek advice from other providers, and take a close look at their experiences.

“The vast majority of medical centers are not-for-profit and have lots of challenges, and so there are a lot of similarities across our situations,” said Tandon. “Hospitals are constantly under cost pressure and need to ask themselves if they want to be in the data center business.”

Manu Tandon will speak at the HIMSS20 Cloud Forum, March 9 at Rosen Centre Grand Ballroom D
Yale experts offer strategies for successful clinical AI rollouts

As regulatory oversight for predictive decision support evolves, certain best practices can help health systems get the most from machine learning-powered CDS models. By Mike Miliard

At HIMSS20 this March, two clinicians from Yale School of Medicine will offer their perspective and advice for safe and effective implementation of artificial-intelligence-powered clinical decision support.

In Orlando, Dr. Wade L. Schulz, director of informatics at Yale School of Medicine, and Dr. Harlan Krumholz, a cardiologist and researcher at Yale University and Yale-New Haven Hospital, will offer an overview of the shifting regulatory landscape for AI and machine learning algorithms in the clinical setting — and suggest some best practices for hospitals hoping to harness these technologies as the rules governing them evolve.

Decision support tools are being changed fundamentally by AI and ML, with new predictive algorithms built from real-world electronic health record and imaging data changing the calculus for how care choices are made.

But there’s plenty still to be ironed-out when it comes to regulatory oversight of these fast-changing technologies, with federal agencies such as FDA and FTC still honing their approaches to safety and efficacy rules.

In their session, Schulz and Krumholz will provide an overview of various approaches for AI and clinical decision support regs, and offer some specific use cases they say are promising for successful implementation of predictive algorithms in the meantime as specific rule frameworks are devised.

They’ll spotlight some limitations of real-world data, describe efforts to reduce bias and error in machine learning models and suggest a few best practices for implementation and local validation these advanced CDS tools.

It’s critical to “make sure we have high-quality models when we’re looking at deploying algorithms or clinical decision support that’s provider or patient-facing,” said Schulz.

“Validation and Regulatory Oversight”

Schulz emphasizes that the point of the talk is not to be naysayers of these emerging technologies — only to offer a note of caution.

“We don’t want to be a block to things that are new and exciting and can have good outcomes,” he said. “We’ve just seen too many times things have gone badly because we haven’t looked closely at the things that go into it. We won’t necessarily catch every error but if we can think of efficient ways to catch the majority of errors, things will improve for patients fairly quickly.”

INFORMED DECISIONS

Schulz says his Krumholz’s HIMSS20 presentation is aimed partly at CIOs and CMIOs: “the people who are often pitched these tools by outside companies.”

Oftentimes, he points out, “you’re lucky if they even have been vetted by more than one institution. So if you have a vendor come in, how can you really evaluate what they’ve done to make sure that tool will be safe and effective in a clinical setting for you? What are the steps that you can do to help validate that algorithm?”

The right approach, of course, “rather than saying this is a really slick tool that’s advertised with outcomes, let’s integrate it into our EHR next week and push it out to physicians, let’s see what it looks like for validating and getting that back out to the clinical frontline to make sure it is safe and effective.”

The talk is also aimed at an analytics and data science audience, said Schulz, and aims to offer some “details on those analytic steps, especially if you’re building your own algorithm rather than something off the shelf from a vendor — what can you build out so you have on file all of that data to support the validation, and if you wanted to you could move forward for regulatory submission.”

The challenge at the moment, he explained, is that for these AI-powered CDS tools, there is “currently no regulatory pathway other than 510(k) clearance, which is not required. So the concern is that there really isn’t a good regulatory pathway right now, so a lot of these algorithms just deploy without having been seen by regulators, which is kind of concerning.

“You can’t go in with the assumption that a vendor or researcher has gone through this effort,” he added. “So, as physicians, as the stewards of what goes into healthcare IT, what can you do as a CIO or a CMIO, despite not necessarily having a regulatory framework, to ensure what you’re doing is safe before you implement it? You want to be able to get these up quickly, but you have to do it safely.”

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Dr. Wade L. Schulz and Dr. Harlan Krumholz will discuss these emerging technologies in their HIMSS20 session, “Validation and Regulatory Oversight of Clinical AI Tools.” It’s scheduled for Tuesday, March 10, from 10:30-11:30 a.m. in room W230A.

Schulz was interviewed for this story by Jonah Comstock
Gauging a patient’s recovery status is tricky if you don’t know what they should be expected to recover to. Researchers are using data collected from patient-worn sensors, such as Apple Watch or Fitbit, to build a “digital twin” of baseline patient health information.

A digital twin is essentially like creating a backup of a patient’s physical state before a procedure, so providers know what to look for a patient to work towards in recovery, said Dr. Mohamed Rehman, a professor and clinician at Johns Hopkins All Children’s Hospital, who will explain the concept in a session at HIMSS20 on March 11.

Currently, data points such as steps, heart rate, and hours of sleep are used to monitor patients in a variety of settings, but Dr. Rehman says there are greater capabilities on the horizon. “Once we develop the digital twin, we can use it to improve the person,” he explained. “You can use it as a metric for improvement.”

The ability to spot abnormalities and the health impacts they may portend is where Dr. Rehman sees the digital twin headed.

For instance, if a 30-year-old patient normally takes 12,000 steps a day, and gets eight hours of sleep a night and suddenly goes to 6000 steps, and five hours of sleep, something could be seriously wrong.

A system that can track deviations from baseline can pick up issues much earlier, says Dr. Rehman. Real-time monitoring means the possibilities for new data sources are wide. Dr. Rehman says even using a metric like time spent on social media can be valuable. If a teenager usually spends three hours a day on social media and gradually drops to an hour to 30 minutes, it could be a harbinger of problems with their mental or physical health.

The insights brought by a digital twin means that care can become more precise, targeted, and based on the most accurate and real-time personal data possible.

Dr. Rehman notes that the current paradigm relies on a doctor asking a patient how they feel. Wider use of digital twins could change this. “When you go to the doctor, they’ll already have data off your digital twin,” said Dr. Rehman – noting that wearable technology is ubiquitous and that many people are already capturing this data. Imagine if a doctor already had clues about a patient’s health before they even walked in the door.

“Today you’re giving them subjective data,” he said. “This will be objective data.”

Dr. Rehman will discuss this emerging approach to personalized medicine at HIMSS20 in his session, “Creating Digital Twins: Leveraging the IoMT.” It’s scheduled for Wednesday, March 11, from 2:30-3:30 p.m. in room W230A.
FDA, MITRE offer tips for med device cybersecurity

Healthcare providers and device manufacturers are both responsible for putting mitigations in place to address patient safety risks, says FDA’s Suzanne Schwartz.

By Nathan Eddy

Because threats and vulnerabilities cannot be eliminated, reducing cybersecurity risks is especially challenging – and medical device manufacturers and health care delivery organizations need to take steps to ensure appropriate safeguards are in place.

The U.S. Food and Drug Administration, in partnership with the MITRE Corporation, has already championed two initiatives to improve medical device cybersecurity preparedness and response.

The first is the development and use of a medical device cybersecurity sandbox to enable security research and technical evaluation of medical device vulnerabilities and potential mitigations across health systems, device manufacturers, and the FDA.

“The FDA recognizes the importance of having a medical system-of-systems environment, such as sandboxes, that can simulate cyber attacks, assess medical device vulnerabilities, and test out remediation and mitigation strategies, without exposing patients to risk,” said Dr. Suzanne Schwartz, director of the office of strategic partnerships and technology innovation at FDA.

Schwartz, who will speak March 11 at HIMSS20 alongside an expert from MITRE, explained that medical device manufacturers and the healthcare community at large could benefit from the availability of clinical simulation centers and sandboxes as a safe space to identify, analyze and manage security vulnerabilities – all toward the goal of minimizing the potential impacts to device performance and enhancing patient safety.

The second initiative involves the exploration of the viability and execution of a CyberMed Safety Analysis Board to integrate critical patient safety and clinical environment dimensions into the assessment and validation of high-risk/high-impact device vulnerabilities and incidents.

Schwartz said the FDA strongly encourages communication sharing regarding cybersecurity risks and vulnerabilities between stakeholders, and routinely disseminates information publicly, pointing to a list of cybersecurity safety communications can be found here.

“Additionally, the FDA has various cybersecurity information sharing agreements with various stakeholders to help us further protect and promote the public health,” Schwartz said, noting additional helpful information is available on the FDA’s website.

She explained that as the number of medical devices that are susceptible to cybersecurity threats grows, it will be increasingly important that stakeholders, including medical device manufacturers, the user, the information technology system integrator, health IT developers, and an array of IT vendors that provide products that are not regulated by the FDA, have shared responsibility for cybersecurity risk management.

“The healthcare environment is complex, and manufacturers, hospitals, and facilities must work together to manage cybersecurity risks,” Schwartz said. “For example, medical device manufacturers are responsible for remaining vigilant about identifying risks and hazards associated with their medical devices.

This includes risks related to cybersecurity and health care delivery organizations should evaluate their network security and protect their hospital systems.

“Both are responsible for putting appropriate mitigations in place to address patient safety risks and ensure proper device performance,” she said.

Suzanne Schwartz of FDA and Margie Zuk of MITRE will share other device security recommendations at HIMSS20 in their session, “Getting to Ground Truth on Medical Device Vulnerabilities.” It’s scheduled for Wednesday, March 11, from 1-2 p.m. in room W204A.
It’s difficult for a healthcare provider to remain relevant without acknowledging the importance of patient experience. And for many patients, that experience begins when they first call the hospital.

Since technology is rapidly changing both care delivery and patients’ interactions with their caregivers, it helps if a call center is equipped with the latest advancements. At Boston Children’s Hospital, that means employing artificial intelligence and robotic processing, and two-way texting.

Kevin Pawl, senior director of patient access at Boston Children’s, will be talking about his hospital’s efforts on that front at HIMSS20. For Pawl, it’s important that people be empowered with choice when they call the hospital – and that the hospital becomes more efficient at handling these calls.

“We have massive call centers, and we’re challenged to keep costs down,” he said. “And you can’t keep adding people to the call centers.”

Boston Children’s call center records all incoming calls, and by listening through those calls, it was estimated that about half of them are non-scheduling calls. That leaves a window open for smart technology to route patients to the appropriate person.

“A lot of these calls could be front-ended with some technology so we can get the right patient to the right person without a lot of traditional phone trees or voicemail,” said Pawl. “Being able to have that Alexa 2.0-type of experience where it’s actually smart enough to get me to the right place – if we can get some of those transactions off our phone lines, we can focus more on the patients who have urgent, complex needs,” he said.

A better experience allows the hospital to foster a better relationship with the patient, which holds the potential for a healthy return on investment.

“There’s going to be significant ROI – three or five times potential when you have it fully up and running,” said Pawl. “But it definitely has to evolve. We want to make sure if it’s not connecting someone to where they want to go, we have an empathetic human.”

Indeed, it’s important to keep human beings at the center of all of this, he said. “Whether it’s a robotic experience or an AI experience, we have an opportunity to better connect people to what they need.”

Kevin Pawl will explain more in his HIMSS20 session, “AI and Patient Experience: A Balancing Act.” It’s scheduled for Tuesday, March 10, from 10:30-11:30 a.m. in room W303A.
Christiana Care helping ‘personalize the black box’ of machine learning

At HIMSS20, its Chief Health Information Officer will show how the health system is simplifying AI models so care managers can better understand them – and be more likely to use them. By Mike Miliard

A basic challenge for hospitals looking to deploy AI is the skepticism from frontline staff – a hesitance to use predictive models that, even if they aren’t inherently biased, are certainly hard to understand.

At Delaware-based Christiana Care Health System, the past few years have seen efforts to “simplify the model without sacrificing precision,” says Dr. Terri Steinberg, its chief health information officer and VP of population health informatics.

“That the simpler the model, the more human beings will accept it,” said Steinberg. At HIMSS20, alongside Health Catalyst Chief Data Scientist Jason Jones, she’ll show how Christiana Care has been working to streamline its machine learning processes, to ensure they’re more approachable – and thus more liable to be embraced – by its care teams. They’ll explain how to assign relative value to pop health data and show how ML can segment populations and spotlight strategies for using new data sources that will boost the value and utility of predictive models.

At Christiana Care, he said, the goal instead has been to “help people understand as much as they would like about how the models are working,” so that they will trust and actually use them.

In years past, “when we built the model and put it in front of our care managers and said, ‘Here you go, now customize your treatment plans based on the risk score,’ what we discovered is that they basically ignored the score and did what they wanted,” Steinberg explained.

But by simplifying a given model to the “smallest number of participants and data elements that can be,” that enables the development of something “small enough for people to understand the list of components, so that they think that they know why the model has made a specific prediction,” she said.

Steinberg and Jones’ HIMSS20 session, “Machine Learning and Data Selection for Population Health,” is scheduled for Thursday, March 12, from 10-11 a.m. in room W414A. Read more at: bit.ly/ChristianaAI
EPIC TO DEBUT NEW AMBIENT VOICE ASSISTANT TECHNOLOGY AT HIMSS20

“Just like you use your smart speaker at home, clinicians soon will be able to say ‘Hey Epic’ to quickly get the information they need and take action,” an exec reveals. By Bill Siwicki

Epic Systems will debut at HIMSS20 in March its ambient voice technology voice assistant called “Hey Epic!”

“Just like you use your smart speaker at home to play your favorite song, clinicians soon will be able to say ‘Hey Epic’ to quickly get the information they need and take action,” said Sean Bina, vice president of access and patient engagement.

In the future, providers will be able to use ambient voice technology for an even broader range of requests and commands, and even complete entire visits without ever touching a mouse or a keyboard, Bina contended.

“Today, providers already can activate the voice assistant from their phone to access information about their patients,” he explained. “They might ask, ‘Who is my next patient?’ Or request information like ‘Show me the last cholesterol results’ so they can prepare for each visit. They also can take action by placing orders for medications or calling the patient.”

As nurses are rounding on an inpatient unit, they might say, “Remind me to bring ice chips to room 104” to quickly add tasks to their worklist, he added. All of this is made possible through integration with technologies from vendors Nuance Communications and M*Modal, now part of 3M.

Later this year, Hey Epic! will become more interactive with the ability to respond with follow-up questions or confirmation that an action is complete. It also will be completely hands-free, so providers can simply say “Hey, Epic” to activate the voice assistant.

“At HIMSS 2020, Epic will demo these existing features, show what’s coming soon, and introduce plans for the expansion of voice integration to include secure chat, conversational capture and automatic note creation,” Bina noted.

Ambient voice technology has the potential to completely change the way that providers engage with patients and complete documentation.

“One of the most pressing issues for physicians today is finding ways to use the vast amount of data available to provide more personalized, effective care for patients, even as there are increasing demands on physicians’ time,” Bina said. “Ambient voice technology is one way to quickly bring important information to the surface so physicians can make the most of the time with their patients.”

Voice integration also has the potential to help providers in situations where they cannot click or type, like in an operating room. Once surgeons have scrubbed in, if they have ambient voice technology they still will be able to get the information they need without removing their gloves.

“There are many ways that ambient voice technology could be useful for patients, too,” Bina added. “They might ask, ‘Hey, Epic, when is my appointment with Dr. Johnson?’ Or say ‘Hey, Epic, refill my medication.”

Epic is at booth 2159
Read more at: bit.ly/HIMSS20-Epic

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Google Cloud prioritizing AI, interoperability and security at HIMSS20

The cloud giant’s director of product, healthcare and life sciences discusses these three trends and why they will be important at the big HIMSS20 event. By Bill Siwicki

Dr. Joe Corkery, director of product, healthcare and life sciences at Google Cloud, says the company is focused on three trends and technologies for HIMSS20: AI in healthcare, data interoperability and data security and privacy.

“The past few years have seen some incredible demonstrations of the power of and potential for AI in healthcare – for example, breast cancer detection and diabetic retinopathy detection,” he said. “As well as a lot of discussion around how AI will be used, integrated and regulated as part of clinical practice.”

The Google Cloud AI Platform provides a code-based data science development environment that empowers machine learning developers, data scientists and engineers to go from ideation to deployment quickly and cost-effectively, said Corkery. And its healthcare API is designed to enable Google Cloud to “speak the language of healthcare” by providing the necessary connections between standardized health data and Google’s Cloud AI capabilities, he said.

In addition to AI’s continuing evolution in healthcare, Corkery says another major trend at HIMSS20 will be data Interoperability.

“Data silos continue to be a significant challenge in the healthcare industry and, as a result, data interoperability continues to be an important theme as we head into HIMSS 2020,” he said. “In 2019, we saw the announcement of the CMS Interoperability and Patient Access Proposed Rule, and its focus on FHIR as the API standard for patient data access.”

Interest in and adoption of FHIR as a standard is rapidly increasing, with this proposed rule as just one prominent example.

“Google is a strong supporter of open standards broadly and, in particular, FHIR for healthcare,” Corkery said. “The Google Cloud Healthcare API provides an engine for data interoperability as a cloud-based managed service that supports multiple industry standards including FHIR, HL7v2 and DICOM. It bridges the gap between existing systems and the advanced data analytics and machine learning capabilities offered by Google Cloud.”

The third trend or issue Corkery and Google say will be key around HIMSS20 will be data security and privacy. Not a new issue, but one of increasing importance.

“Healthcare institutions are increasingly worried about the security of their systems and, in particular, the patient data stored in those systems,” Corkery said. “This is partly due to an increase in breaches and cyberattacks, and also to a growing realization by providers that their legacy IT systems have become too sprawling, complex and vulnerable.”

Read more at: bit.ly/HIMSS20-GoogleCloud
"As the country moves toward value-based care, artificial intelligence and machine learning, paired with data interoperability, will improve patient outcomes while driving operational efficiency to lower the overall cost of care," said Dr. Shez Partovi, director of worldwide business development for healthcare, life sciences and genomics at AWS.

An example of work like this already underway is a machine learning model developed by Cerner and AWS that predicts congestive heart failure up to 15 months before clinical manifestation. Pairing this predictive tool with real-time integration into individual health records can support provider decision making in real time, Partovi said.

"Another example is INOVA Translational Medicine Institute, which is assembling one of the world's largest whole-genome sequence databases that will enable researchers to track 30 billion genetic variants," he explained. "AWS architecture facilitates the storage and management of this secure data and enables ITMI researchers to develop personalized treatments and predictive care for newborns suffering from congenital disorders and patients of all ages with cancer-causing genetic mutations."

AWS clients are also working to create a frictionless and more personalized experience for their patients. The company says healthcare today is operating in a consumer-centric world where the best experience anywhere is what people expect everywhere.

Zocdoc, for example, an online healthcare scheduling service, uses Amazon Image Recognition that allows the patient to simply hold the insurance card in front of the camera to process all required information, including the patient's eligibility for insurance. It also schedules an appointment within network. That AI helps create a digital front door so that patients have a better, simpler and frictionless experience, said Partovi.

Meanwhile, AWS says it's helping tackle one of healthcare's longest standing challenges: interoperability. "By eliminating barriers and providing greater visibility into a patient's medical history, interoperability will not only provide a better patient experience anywhere, but it will also empower patients to take greater control over their entire healthcare journey," he said.

At the AWS booth, HIMSS20 attendees can see demos from the company's key partners and learn about how to apply AWS AI and machine learning services in their healthcare organizations. In addition, AWS is the premier sponsor of the 2nd Annual Pharma Forum at HIMSS20, which brings together leaders to discuss emerging collaborations and partnerships between pharma, payers, providers and patients.

AWS is at booth 858
Read more at: bit.ly/HIMSS20-AWS

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