

The Future of Healthcare Technology Roundtable

PART 2 | Physicians

The Future of Healthcare Technology Roundtable Series assembles insights from five important cohorts; Innovators, Physicians, Executives, Payors and Policy Makers, to discuss emerging trends and opportunities in today's healthcare environment. We hope to enlighten, inform, and provide thought leadership through this five-part written forum.

The Future of Healthcare Technology Roundtable Series is produced by Hyr Medical (www.hyrmed.com) and Axuall (www.axuall.com), both located in Cleveland, Ohio.





Q: Please give a short description of your company/ role within the company?



Sunil Pandya, MD MBA

I am currently serving as the Chief Strategy Officer of Hyr Medical, a fully online and fully transparent marketplace for physicians to match with real and immediate freelance opportunities. By leveraging technology over an outdated, cloaked, and inefficient brick and mortar model, we are able to drastically reduce overhead and pass along that savings to optimize physician compensation. As a result, no longer are in need facilities provided with uncommitted and transient "locums docs" with sometimes questionable credentials, but fully vetted and pre-screened freelancers signed onto our accountable technology.



Sanjay Gandhi, MD MBA

I have been an Interventional Cardiologist at MetroHealth hospital in Cleveland, for the last 12 years and currently serve as the Medical Director of Hospital Strategy and Innovation for the MetroHealth system. I believe in Metro Health's mission of "Leading the way to a healthier you and a healthier community through service, teaching, discovery and teamwork". We are building a new hospital and reimagined main campus with \$946M in hospital-revenue bonds, slated to open in 2022. In addition to transforming our physical space, we are transforming delivery of healthcare and addressing social and economic needs of our community.

I believe that true healthcare is more than providing care for the patients in the hospitals and doctors' office, on our terms and on our schedule. It is truly meeting the patients in their homes and community and serving their healthcare and wellness needs on their terms, in the most cost effective manner.



Leah Houston, MD

The majority of physicians are currently unhappily employed. Their ability to securely communicate with each other is limited to their place of employment, which limits choice for their patients. HPEC aims to create a decentralized digital community of physicians where they will be able to communicate and practice their trade free from these restrictions. The community will be organized through digital identity and portable credentialing solutions.

Credentialing is a costly and unnecessarily administratively burdensome 2-6 month process. Portable digital credentials will allow physicians to move freely between employed, and independent practice. Digital identities will allow them to communicate directly with each other and with patients regardless of where the care occurred, with reduced cybersecurity risks. The community will create an ecosystem of collective organization and communication around any data that the physician community generates. Once physicians own their professional right to work, communicate with their patients, and to move freely between health systems and independent practice they will once again be able to put their patients first.



Laura DeWitt, MD MBA

I am an anesthesiologist in clinical practice with Rainier Anesthesia Associates, a group of CRNAs and physicians practicing in a team format and providing anesthesia services 24/7 for three hospitals within the MultiCare Hospital system located in WA state. Rainier also provides anesthesia services for several free-standing surgery centers, pediatric dental clinics and other similar office-based practices requiring anesthetic patient management. My current practice is primarily that of a generalist with a significant amount of time management on obstetrics/ labor-delivery. A typical day involves responsibility for clinical management of elective and emergent patients' pre-op, intra op, post op course and establishing anesthetic clearance for elective surgical cases scheduled in the upcoming weeks. **Q:** In your opinion, what are the top three opportunities for technology to affect healthcare efficiency over the next five years?



Sunil Pandya, MD MBA

First I believe that the world of Health Information Exchange, HIE, is going to become more of a universe than any of us could have ever imagined even 5 years ago. And not just the gathering, analyzing, and securing of Health Information, but the speed, accuracy, and efficiency at which such information can be verified, and then utilized to improve the delivery of care. It is my opinion that Blockchain will be the vessel by which we traverse this vast space. I see the advent of digital wallets for many levels of healthcare personnel in the not too distant future, followed by applications for individual hospitals, health systems, payors, the pharmaceutical industry, and even governmental bodies. We all entering the next decade not with the challenge of information gathering but of filtering, verifying, and processing it. Blockchain will be the accepted and common thread solution.

A second trend I see is the creation of online marketplaces for many applications that we already accept as common place in our non-healthcare lives. I believe Hyr Medical, and other such provider matching marketplaces, are just the beginning of this vertical as we shall see trust build and reliance on technology skyrocket.

A third opportunity I see is the blue sky of the "second generation EHR." The first generation was largely created for the payor – specifically the government – to make sure certain deadlines were met and certain minimal legally mandated modernizations were completed. Now we have entered a second stage whereby we are all invited to look at the electronic health record and re-imagine how to analyze the data we are amassing and perhaps through AI algorithms apply that knowledge to leverage trends, forecast outcomes and improve overall quality.



Sanjay Gandhi, MD MBA

Healthcare providers spent a lot of time with Electronic Medical records (EMR). For each hour the physicians spend face to face with the patient, they spend equal amount of time filling information in EMR. I anticipate that we have the technology to disrupt the current EMR structure and make it more user friendly and adaptable. In addition, smart AI technology to listen to and document patient/physician interaction would reduce the administrative/documentation burden for providers. This would not only lead to enormous efficiency in healthcare system but also increase provider satisfaction and wellbeing and help address burnout among providers.

We have an increase in patient derived information from consumer devices like Apple watch and Fitbit. Integrating and managing this data with clinical workflows in a meaningful way will be important. Healthcare systems can use consumer devices to monitor care at home, precheck in for visits in office and detect clinical problems before necessitating emergency room visit.

Technology can help to bring medical care to patients in their own homes and on demand. With technology like augmented realty, telehealth etc. patients will have increased access to medical care at a lower cost and greater flexibility.



Q: In your opinion, what are the top three opportunities for technology to affect healthcare efficiency over the next five years?



Leah Houston, MD

1.) Internet of Things and Distributed Ledger Technology for secure and accurate data organization and data transfer. Currently healthcare data is highly inaccurate and this leads to wasted time and revenue. In the worst cases it costs patient lives. This technology can be applied to keeping physician and provider identity data accurate, as well as patient data. It can also be used to assure quality control in the pharmaceutical supply chain, and improve administrative costs on the billing and payment side as well.

2.) Machine Learning / Artificial Intelligence / Automation There is a shortage of physicians. Although I do not feel AI and ML will replace physicians I do believe algorithms will be designed to allow the physicians time to be used more efficiently in order to identify low vs high risk cases, and pick up outliers in the data to improve outcomes and efficiency.

3.) Digital health devices that combine wearables with data analytics in order to make appropriate suggestions to patients that prevent poor outcomes. Specifically, devices that appropriately track heart rhythm, vital signs and falls will have the greatest impact.



Laura DeWitt, MD MBA

1.) One of the first would be establishing a common platform for the various existing EHRs so providers can easily access patients' records, treatments, etc. across different hospital systems, offices, and clinics. Though an EHR may work effectively within one hospital system, that effectiveness disappears when trying to obtain information from a hospital/office/clinic using another system. Easier access to information, more efficient, less bloated clinical decision-making tools, and overall ease of interaction with EMR systems would help improve morale and reduce frustration. Holding people accountable for time tables and accurate diagnoses with suboptimal systems is a problem; better technology could alleviate these seeming unrelated issues and improve efficiency.

2.) With emerging provider shortages, minimizing the redundancy, time, and expense of onboarding medical personnel can't be understated. Covering staff shortfalls and workforce burn out depends on it. Digitally verified provider credentials will reduce time windows of credentialing from months to a few days and online staffing platforms can provide necessary flexibility in hiring.

3.)Technology to coordinate and optimize the many elements of care transition, particularly at hospital discharge, will give improved productivity to all involved including the patient.



Q: How can technology innovation impact long term sustainable change in healthcare from a physician/provider point of view?



Sunil Pandya, MD MBA

Adoption. The key to long term sustainable change is to get buy-in and full adoption from not just the physicians, but all healthcare professionals that need to be interacting with the change product. If providers have a commitment to learn the technology and there is a consistent use of the healthcare innovation, then the change will not only be impactful and revolutionary, but sustainable.



Leah Houston, MD

The problems in our current healthcare system arise from malaligned incentives. Third parties interfere with the doctor patient relationship. Administrative burdens leave less time for patient care. Special interests gain market share through back door deals. There is confusion about the cost of healthcare and who is paying for what, and innovation is stifled by regulation. Any technology that puts the patient at the center, and eliminates the mal aligned incentives by alleviating any of the aforementioned problems has a greater potential to lead to sustainable changes in healthcare.



Sanjay Gandhi, MD MBA

The physicians and providers need to embrace the changes being brought in by technology and innovation rather than allow themselves to be stuck in current models of healthcare delivery. The physician and providers can help shape the technological evolution to meet the needs of their patients in the most effective way. Partnerships between healthcare systems and technology companies are going to be crucial to long term sustainable change.



Laura DeWitt, MD MBA

Long term change involves meeting conditions of various elements. Tech innovation that reduces stress and production pressure on the provider while simultaneously producing higher quality work, more conversing with the patient, and noticeable improvement in efficiency will stimulate the cultural shift needed with hospital providers. It's a tall order. Another electronic list or series of check boxes to fill out is not what is needed. Technology will be welcome when it demonstrably solves a problem as opposed to presenting a new version of the problem. **Q:** What is the biggest roadblock physicians/ healthcare systems face in bringing new health tech innovation to the market?



Sunil Pandya, MD MBA

It is not easy to enter a given health tech market without a previous track record of market dominance and even more difficult to clear the various hurdles put before you to be able to be considered a breakthrough technology. Many companies thus raise vast amounts of funding seeking to climb over this obstacle. Most end up stuck in endless rounds of series funding, only to have their original technology either watered down or so convoluted, it no longer makes anything more efficient or reliable. It is for this reason that many tech companies are now self funding or finding single institutional investors with like mindedness to get to market in an agile and timely manner.



Leah Houston, MD

Roadblocks to adopting any technology usually lie in the people, and leadership who would be adopting it. Currently many in charge of decisions have the bottom line in mind rather than the patient's best interests. Whether a new technology is adopted is also culturally influenced, which, for the American healthcare system, has been influenced through layers of rudimentary regulations that have been stacked on top of one another over the years. In our current system, solutions have a higher chance of being adopted if they can convince leadership that they will save money and either comply with, or appropriately leverage these regulations.



Sanjay Gandhi, MD MBA

The medical field has a very scientific vetting process. The new technological changes are moving at a scale and scope that will challenge the current evidence-based algorithms/clinical trials that the physicians are used to. This makes them uncomfortable with change.

Second, with so much technology being touted daily, it is difficult to filter noise from breakthroughs. Technological advances that solve the pain points of providers and healthcare systems will be easier to adapt.

Third, the physicians are carrying a large burden of clinical care and do not have enough time/resources to understand/apply new technology as it evolves.



Laura DeWitt, MD MBA

Cost is an obvious issue particularly for cash strapped hospitals serving poor communities. A firm understanding by administrators of what tech will make a difference for the facility and its patient population is also important. A very critical roadblock is the slow pace of modernization in healthcare policy at a federal level. Meaningful updates to policies like Stark Law, the Federal Anti-Kickback Statute, and HIPPA are needed to support innovation and implementation in the healthcare marketplace. **Q:** What trends do you see shaping healthcare from a business model perspective: pertaining to providers/physicians?



Sunil Pandya, MD MBA

The concept of Healthcare rather than "sick care" will be the overarching theme of the next decade. Wellness centers will match hospitals in number and size over the next 2 to 3 de-cades as a result. Insurance plans will heavily reward those who wish to be engaged in their own health and maintain it. Similarly, I see the government continuing to mandate the alignment of interests between payers and providers – through bundled payments models, accountable care organizations, and MSO's. The promotion of wellness and the sharing of risk will shape the business landscape of the 2020's.



Leah Houston, MD

With regards to the consolidation of physician talent, at first yes, the trend will continue, but in 5-10 years it will reverse. We will then see a trend towards independent open decentralized networks of physicians who are connected digitally. Physicians will adopt systems where collaboration and communication is free from attachment to siloed, centralized and vertically integrated systems that put their patients protected health information at risk. Especially as reimbursement drops, and price transparency becomes the norm systems will no longer be able to retain physician talent. Patients will also leave because health systems will no longer be able to hide behind obscure pricing models. As the physician population is increasingly squeezed in an attempt to save revenue we will see a mass exodus of physicians into private practice again.



Sanjay Gandhi, MD MBA

There is increased emphasis on value-based care and more healthcare systems are moving towards risk sharing for patients' outcomes. This will lead to realignment of incentives from current productivity-based measures to outcomes-based measures. Physicians will be incentivized to keep patients healthy rather than focus on treating illness.

Increase financial pressures on healthcare systems from decreased reimbursement will lead to further consolidation in healthcare delivery.

Finally, the healthcare systems are going to expand their focus from disease management to community health. There is already an increased appreciation of role of social determinants of health in patient outcomes. Healthcare systems will play a greater role in addressing social needs of the communities they serve.





Laura DeWitt, MD MBA

There will be increased pressure from government-based payors towards alternative payment models (APM) that require incorporation of more risk on the part of hospitals and providers; also known as a 'two-sided model'. Fee-for-service will endure more shrinkage and the bundling of services will continue. Other trends will be the increased management of so called 'rule based' care by mid-level providers like nurse practitioners and physician assistants. Walgreen's Express Care clinics and CVS' MinuteClinic are good examples of this.

Biographies



Sunil Pandya, MD MBA

With an expertise in healthcare, medical technologies, and luxury brand development, Dr Sunil Pandya, a practicing hospitalist with over 15 years of bedside clinical experience in nearly every aspect of inpatient care, is a highly sought after consultant to physician groups, hospital systems, tech corporations, and management organizations looking for assistance with HealthTech innovation, executive M & A, or Population Health strategy.

After successfully creating, owning, operating and exiting 5 healthcare companies to various leading national physician management corporations, he held such executive leadership roles as Chief Medical Officer, Chief Strategy Officer, and National Medical Director.

Dr Sunil has earned an MBA from the Harbert School of Business @ Auburn University, as well as a Masters in Healthcare Innovation from Arizona State University, whose Edson School of Innovation is nationally ranked # 1 four years running.

Dr. Sunil is currently involved in 3 healthcare start-up ventures. He leads the executive strategy of Hyr Medical, an online freelance marketplace solution aimed at placing quality available physicians to open opportunities nationwide; the clinical strategy of Green Earth Medical Solutions, with their Path03gen Solution to disinfect floors of killer superbugs, and the innovation and market strategy of his personal innovation, Baton a SaaS platform created to make the discharge process from a hospital to a post acute care facility both efficient and accurate.

While Dr Sunil is privately involved in these 3 Healthcare technologies, through his firm, Agape Health, he offers his consulting expertise to those seeking assistance in the latest information management systems or grass roots hospitalist/ transitional care program optimization.

To this day, Dr Sunil remains clinically active with Vitas Hospice as director of their Inpatient Unit.



Sanjay Gandhi, MD MBA in

Sanjay Gandhi is a physician executive with a history of success in delivery of accountable, high quality and high value health care services. He currently serves as the Medical Director for Hospital Strategy and Innovation for the Metrohealth system. He has previously served as the Medical director for the Heart and Vascular Center for the Metrohealth hospital as well. He is an innovative and collaborative leader able to manage calculated risks, create solutions and motivate high performing teams with diverse skill sets that meet or exceed stretch goals. He is the current Governor for the Ohio Chapter of American College of Cardiology, leading over 1800 members. He is the Chief Medical Office for nGageIT, breath diagnostics company pioneering new medical treatment breakthroughs and serves on the board for Lobesity, a biopharmaceutical company focused on the discovery and development of innovative therapies for the treatment of obesity and related disorders.

Biographies



Leah Houston, MD



Laura DeWitt, MD MBA

Leah Houston, MD is the founder of HPEC, and a board-certified Emergency Physician. While practicing emergency medicine across the US for nearly 10 years she recognized a common problem: uncompensated administrative burdens related to physician employment and credentialing are a leading cause of administrative waste and physician burn out.

She realized that distributed ledger technology could solve the obstructive regulatory problems in healthcare, by creating a decentralized community of physicians. She began working on the project and named it HPEC - the Humanitarian Physicians Empowerment Community. HPEC is a platform that gives every physician a self-sovereign digital identity attached to their credentials in order to create a democratic digital physicians guild. HPEC streamlines the current antiquated and laborious process of credentialing, reduce administrative waste, improve access to care and give physicians sovereign ownership of their data and employment rights. The organization creates an opportunity for physicians to communicate more efficiently about policy, and practice in order to improve patient care.

Dr. Houston is a recognized and requested national speaker on the topic of decentralized identity as it relates to healthcare. Laura DeWitt, MD is an established and highly skilled anesthesiologist with 20+ years of experience in private practice and academic medicine.

Dr. DeWitt holds a Physician Executive MBA from Auburn University Raymond J. Harbert College of Business, an AACSB top ranked program. She is currently involved with two healthcare tech companies and has participated in pilot studies for a third.

She takes great pride in training and educating resident physicians, and has extensive experience working with both graduate and student CRNAs.

Dr. DeWitt is a patient advocate committed to helping individuals, families, and communities navigate healthcare. She has focused on quality as it applies to clinical care and patient management and has past experience with quality work having held the anesthesia QA chairman position for many years. She is board certified in Healthcare Quality Management through the American Board of Quality Assurance and Utilization Review Physicians.

Dr. DeWitt currently practices in WA state for Rainier Anesthesia Associates, P.C. and is also the Regional VP of Anesthesia Services for Hyr Medical, Inc. .