

Taking innovation to new levels

Dear Reader:

The Health Innovation Think Tank brings together many of the industry's top thought leaders to do one thing: create a tsunami of ideas that can have a significant impact on healthcare. The Think Tank first achieved this when 50 health system, payer, policy maker and innovation leaders met in June and then again in October of 2017 at our inaugural events. During these summits, which were co-hosted by Lenovo Health, Justin Barnes Advisors, The Center for Connected Medicine, Syneos Health and HIMSS Media, the group examined issues associated with the adoption of innovations needed to support value-based care, connected health and virtual care.

During the October Think Tank event, for example, participants learned how UPMC, located in Pittsburgh, Pennsylvania, uses claims and other data to determine the topology of chronic conditions in specific geographic areas, enabling leaders to determine which locales have a high prevalence of chronic conditions and deploy resources to meet patient needs; and how Boston Medical Center is using "Louise," a virtual patient advocate, to deliver discharge instructions and education at the bedside.

In addition, various thought leaders envisioned future possibilities. For example, Rasu Shrestha, MD, Chief Innovation Officer at UPMC and Executive Vice President at UPMC Enterprises, talked about the need for "bedless hospitals" that are designed to keep people out of inpatient facilities, while Jim Pursley, Chief Commercial Officer at Livongo Health, spoke of the need for more intelligent and appropriate engagement when working with chronic care patients. And, perhaps most importantly, participants put their heads together to come up with variety of current day and future best practices.

We invite you to peruse this eBook and see how the Think Tank leaders are envisioning a future of improved patient care and outcomes. We also welcome your thoughts and ideas on what best practices you are experiencing in regards to value-based care, connected health and virtual care.

Craig Arold and Justin Barnes

Co-founders of the Health Innovation Think Tank

Mapping out a value-based care transition plan



Health Innovation Think Tank focuses on forging a path toward value



Value-based care: popular in theory, but what's holding it back in practice?

Value-based care appears to be taking hold – as 55 percent of U.S. healthcare executives said that they expect the majority of U.S. healthcare payments to be value-based by 2020, according to the results of a survey conducted by Lazard.¹ This market shift presents unprecedented opportunities and challenges, as healthcare organizations are now looking to move beyond fee-for-service models that place a premium on the volume of services delivered, and toward value-based models that reward outcomes.

Successfully transitioning to this new model requires “80 percent process, 20 percent technology and 100 percent culture change,” said Holly Miller, MD, Chief Medical Officer at MedAllies.

The crux of the change, of course, centers on the need to take on financial risk. Physicians, themselves, should take on risk as well as the responsibility for coordinating care, according to Daniel Brooks, Co-founder of CURA Management. When payers take the helm, physicians are forced to answer to several different care coordinators – making it difficult to stay on track.

To succeed under such scenarios, healthcare organizations need to use data to determine who their patients are, what they need and what resources are required, according to Pamela Peele, PhD, Chief Analytics Officer at UPMC Health Plan and UPMC Enterprises. “If you don’t have the data, you are just shooting in the dark,” she said.

3 Value-Based Care Takeaways

- Leverage community resources to facilitate patient needs – i.e., community wellness programs and local grocery store nutritionists for diabetic care.
- Reward and penalize physicians to improve outcomes, which could prompt physicians to explore their office team structures, shared savings and risk.
- Physicians should take on more risk and change workflows to be in the “wellness business.”

¹ Lazard, [Lazard Releases Global Healthcare Leaders Study](#), May 15, 2017

Connected health: An increasingly crucial component of care delivery

Connected health is becoming an essential component of care. Consider the following: Over the next 10 years, physicians will spend 85 percent more time using data from apps and wearables; 67 percent more time triaging patients; 65 percent more time managing medically complex patients; and 5 percent less time conducting in-person care, according to research presented by Chris Fickle, Director of Sales at Qualcomm Life, during the second Think Tank meeting.

So, the need to engage with patients electronically is undisputable. Healthcare providers, however, can't presume that patients will want to connect just because they can. "People who have a chronic disease don't really want their lives to be defined by the disease. The reality for most people dealing with a chronic condition is that their disease is the least favorite part of their life. So, they don't really want to be more engaged. They want to spend less time and experience better health. That is innovation – not getting them to do more," said Jim Pursley, Chief Commercial Officer at Livongo Health.

To accomplish this, healthcare organizations need to create the kind of connected experiences that patients want. That most likely means offering an "effortless connectivity experience similar to what patients experience with their Kindle," Fickle pointed out. "They want to open the box, turn on the device and use it. The patient wants to be able to put on a patch and let it transfer whatever data is needed over to the provider. They don't want to do any work to get the data to the provider."

3 Connected Health Takeaways

- Evolve to become a collaborative care model.
- Rearchitect the way care is provided.
- Find better solutions to pay for necessary investments in healthcare tech and services.



*Beyond the hospital walls:
Moving care forward by focusing
on connected health*



*Connected health offers plenty of
potential to fill existing care gaps*

Real strategies for virtual care success

The global telemedicine market size was valued at USD 24.9 billion in 2016 and is expected to grow at a CAGR of 18.3 percent over the forecast period, according to Grand View Research.²

While growth has hit break-neck speeds, it was initially slow. “Virtual care will be the 30-year overnight success story. People have been working on it for a long time. Now, the macro trends are finally at a tipping point, and we are seeing much more adoption and utilization,” said Sylvan Waller, MD, Principal at Waller MD.

As virtual care moves from futuristic notion to practical reality, though, healthcare organizations need to nurture its implementation to make it successful. As such, Waller suggests that healthcare organizations adopt the following strategies:

- **Voice First, not Voice Only.** Reduce friction in these transformational strategies. Voice has shown to lower the friction with patients and post-care instructions.
- **Integrate virtual care into the existing healthcare fabric.** Telehealth, for example, should not be offered as a stand-alone service. Instead, telehealth must be delivered in conjunction with other care services.
- **Acknowledge the importance of change management and buy-in.** To adopt virtual technologies, physicians and care teams first must recognize how such care will benefit them and their patients.

3 Virtual Care Takeaways

- Payers need to reimburse for telehealth.
- “On-demand care” should replace web-based physician appointments.
- Successful telehealth models will be patient-driven with telehealth being a “digital front door.”



Virtual Care: Primed to solve healthcare's cost and quality challenges



Virtual care can turn solving the access challenge from impossible to possible mission

² Grand View Research. *Telemedicine Market Size & Trend Analysis By Product (Hardware, Connectivity & Network), By Region (North America, Europe, Asia Pacific, Latin America, Middle East & Africa), And Segment Forecasts, 2014 - 2025*, April 2017,

“We need to challenge the status quo. This is about rethinking the current paradigm and reimagining a better tomorrow.”

— *Rasu Shrestha, MD*
Chief Innovation Officer
UPMC
Executive Vice President
UPMC Enterprises

Crystal-balling innovation in healthcare

“We need to challenge the status quo. This is about rethinking the current paradigm and reimagining a better tomorrow. We need to take the brilliance and the passion that you all bring to the table and capitalize on that,” Shrestha said, as he welcomed participants to the Center for Connected Medicine in Pittsburgh for the second Think Tank meeting.

Participants rose to the challenge as they offered up several prognostications:

- “Healthcare needs to focus more on the outcomes and keeping people healthy as opposed to treating symptoms. As managed care continues to shift the burden of the cost back on to the patient, price and quality transparency is going to be required,” said Bradley Dick, CIO at Resurgens Orthopaedics.
- “We must find a way to provide care more economically than we do today. That will require the use of technology. I see a significant use of voice technology in the future. I also see a use of nanotechnology so that testing and monitoring of the chronically ill can be done remotely, reducing the cost. I see a future where interoperability is a given. All data on a given patient will be readily available at the site of service, reducing the need for duplicate testing,” said Marty Fattig, CEO at Nemaha County Hospital, in Auburn, Nebraska.
- “Value-based care will change incentives dramatically. One impact of these changes will be to incentivize health communication and health education, including health literacy, shared decision making, teach-back methods – activities that should be, but are not now part of routine clinical care,” said Brian Jack, MD, Professor and Chair of the Department of Family Medicine at Boston University School of Medicine and Boston Medical Center.

3 Future Cast Takeaways

- Institute better incentives and support for leveraging EHR data.
- Establish valuable connectivity and exchange – instead of interoperability for the sake of interoperability.
- Establish the home as a setting of care, leveraging a simplistic approach to meshing remote monitoring, the use of Alexa and telehealth for the opportunity to virtualize care.

Changing the dialogue in healthcare

The healthcare industry is facing a variety of challenges such as the need to:

- **Serve an aging population.** The number of Americans age 65 and older is projected to more than double from 46 million in 2016 to more than 98 million by 2060, and the 65-and-older age group's share of the total population will rise to nearly 24 percent from 15 percent.³
- **Care for a sicker population.** By 2025, chronic diseases will affect an estimated 164 million Americans – nearly half (49 percent) of the population.⁴
- **Embrace wellness.** With value-based care models taking hold, healthcare organizations and their patients will be more keenly focused on staying well.
- **Do all this with a shrinking pool of clinicians.** The United States is expected to experience a shortage of between 61,700 and 94,700 physicians by 2025, according to the Association of American Medical Colleges.⁵ In addition, by 2025, the nursing shortfall is expected to be “more than twice as large as any nurse shortage experienced since the introduction of Medicare and Medicaid in the mid-1960s,” according to a team of Vanderbilt University nursing researchers.⁶

With these challenges looming, healthcare leaders are realizing that they can't meet patient needs simply by trying to do what they currently do more efficiently. “With a growing and aging population contracting more chronic conditions, and with fewer professionals to deliver care, the current care delivery model is unsustainable and must change,” Arold said.

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— Craig Arold
Co-founder
Health Innovation Think Tank

³ Population Reference Bureau. Fact Sheet.

⁴ Partnership for Solutions. *Chronic Conditions: Making the Case for Ongoing Care*. September 2004 Update. Accessed on April 17, 2007.

⁵ Association of American Medical Colleges. *New Research Confirms Looming Physician Shortage*.

⁶ Buerhaus, D. et. al. *The Recent Surge in Nurse Employment: Causes and Implications*. *Health Affairs*, July/August 2009.

Delivering smarter care, better results via the intelligent medical home

Instead of simply discussing how to improve current care delivery practices, leaders are realizing that they must move the conversation up a notch – and focus on the need to “transform or be transformed,” Barnes said.

“It’s really about changing the way in which we deliver care. Healthcare organizations need to transform care delivery now, if they are going to remain competitive,” Barnes said. “Health system leaders tend to always want to talk about what happens when patients get to their facilities, what happens when they get into the hospital, what happens when they get into the clinic. They need to start talking about what happens to patients when they get home.”

To move in this direction, healthcare organization need to create and support the intelligent medical home. Such homes will combine a variety of technologies including telehealth, personal assistants empowered with artificial intelligence and integrated devices, that makes it possible for patients to take their own blood pressure, heart rate, respiratory, oxygen saturation, temperature, glucose and electrocardiogram readings. As such, patients -- many of whom are older and not technology savvy – can use this one device to monitor their health status and press just one button to share all of this information remotely with care providers.

“With this technology supporting intelligent medical homes, healthcare organizations will be able to embrace the virtual care models needed to transform care delivery. As a result, they will meet the many challenges that simply cannot be met with the traditional care delivery model that is in place today,” Barnes said.

For more information about Lenovo Health solutions, go to [LenovoHealth.com](https://www.lenovohealth.com).

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— Justin Barnes
Co-founder
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Lenovo **Health**

About Lenovo Health:

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Think Tank Collaborators

UPMC

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