



ACHA QUARTERLY

Fall 2022



Summer Leadership Summit (SLS)

July 22 - July 24, Chicago, IL

Delivering Better Health Through Design

The Summer Leadership Summit (SLS) is co-organized by the AIA Academy of Architecture for Health and the American College of Healthcare Architects.

Technology and value-based care transitions were hot topics among multiple speakers at the Summit. The impacts and future of virtual care, along with big data's influence on clinical and payment models directed many discussions about facility design trends. The healthcare design event of the summer was filled with insightful presentations from industry leaders, fun prizes, and recognition for promising young professionals in healthcare architecture.

FGI workshops:

The 2022 volumes of the Facilities Guideline Institute Guidelines for the Design and Construction of Hospitals, Outpatient Facilities, and Residential Health, Care, and Support Facilities are now published and available. Overall, flexibility is a driver that is becoming more important in each edition, as well as the goal to always work towards simplified text in the revisions. One major focus in the 2022 cycle resulting from many pandemic lessons includes integrating emergency procedures into the standards. It was shared that attempts were made to coordinate with CMS and that NFPA has some overriding requirements. In general, FGI is trying to prompt more states to update to the newer guidelines.



ACHA Luncheon, Mary Mayhew, FHA



In looking at where we have been in healthcare and drives for change, we start with lack of data interoperability. Regulations at the state and national level have largely not kept pace with the realities of the consumer and reimbursement model, still mostly pay for service. It was noted that 3-year-old claims data is being used for current decisions. Payment systems are still focused on volume, versus quality, and it is difficult to disrupt established

business models. Unfortunately, these are the same discussions from 2005. Using Florida as an example, she pointed to how Medicare's share of the payment model (75% of state hospital revenues) and their payment restrictions are resisting the ability of care to be re-imagined to focused on population health issues. Currently, due to this system of addressing chronic illness versus wellness, 20% of the population is driving 80% of the healthcare spend. Similarly, staffing shortages continue to plague our healthcare facilities; we will soon be short 60,000 nurses, if not addressed. During capacity surges, contract staff increased 320%, which is not conducive to team-based care delivery – CMS is not adjusting their level of reimbursement. Improvement and opportunities for change may be found in leveraging telehealth and bedside technology and possibly in market consolidation.

Rapid Rise of Virtual Care - Brian Hasselfeld, MD

Coming off the most intense months of the pandemic, virtual care visits have risen dramatically: 1,000x difference from 2019, representing as much as 15-20% in ambulatory care (Johns Hopkins). Mental, behavioral health, genetics visits are high; ophthalmology is lowest. Convenience (92%) is seen as the most important consumer desire whereby visits are deemed more personal and efficient. We need to build and plan for early adopters because a physical presence is important. We can reimagine entire workflow and reeducation in clinical care. One trick will be identifying the right amount of privacy for both patients and providers. Another will be the creation of post-acute care teams and hospitalist/SNF/Long Term Care consult programs for same day consults if providers are not available.

Facility support might include virtual rounding, engaging family, enhanced ICU monitoring, and expansion of the teaching mission. From a technology perspective, Hospital at Home will require more devices and new direct-to-consumer patient offerings (apps), which need to find the best and most flexible options. The future for consumers may be a 'digital front door' and this will impact everything from staffing ratios, remote working, and an overall behavioral shift. This could also force systems to think about new buildings differently (i.e., need for office space) and force a more 'command center' approach to service offerings and scalable solutions.

Leveraging Technology for the Sustainable Future of Healthcare- Brian Renzenbrink, Cassandra Moore, Kali Arduini

In this roundtable panel discussion, topics centered on ways new solutions and technology can positively impact healthcare delivery. Innovation may mean keeping up with the change in the world; it may mean finding the right solutions to existing problems.

Innovations may include new technologies to allow monitoring of more acute situations. In fact, the installation of

cameras for pandemic reasons has yielded opportunities to see more detail or monitor from remote locations. However, similar workplace modifications that contributed to employee burnout are also very real issues. Re-thinking workweeks, engaging call centers, and applying care advocates are among some methodologies that will need to be considered. Robotics are creating a more effective use of space, managing the more mundane roles. Policy changes include payment models around telemedicine and the beginning of payments around outcomes, which ties into the public health emergency but could revert without further advocacy for permanent change.



AIA/ AAH / FHER / ACHA Update- Saturday AM Session

The AAH has a new structure focusing on sustainability, climate action, inclusion and diversity. There are two under 40 awards, a colleague-to-colleague mentorship program and a Next Generation committee. The Case studies program includes webinars live and on-demand.

ACHA Task Force Updates also include Equity and Diversity, Certificant Holder surveys, and coordination with the VA. The Masters Series has included Pediatrics, Real Estate, and Path to Health and will be more regular in terms of accessibility. There are now parallel paths to ACHA certification.

The Foundation for Health Environments Research (a recent re-name from the AAH Foundation) conducted a successful fundraiser the previous evening at the Chicago Cultural Center and is launching a new initiative for increased emphasis on research at all levels (the 'Health Design Research Prize').

Latest Trends and Novel Systems Approaches in Healthcare 4.0 - Ingrid Vasiliu-Felts, MD, MBA, FACHE, FAPA

The industrial evolution in this country is now version 4.0, transforming from manufacturing into a new paradigm. Similarly, Healthcare delivery is on the precipice of a foundational change, relating to smart and connected care models (Health Care 4.0). This seminar identified characteristics, challenges, and opportunities associated with the rapid rise of data informatics and its association with new methodologies in care delivery affecting outcomes. How do we reconfigure Healthcare? Currently, with the explosion of devices, data, sensors and telemedicine, there is a mix of full automation and no automation that does not yet take full advantage of their potential. Trends in employment of AI and the use of blockchain technologies is recognized by most care givers (76%) yet implementation remains inconsistent. Monitoring of patients at home and employed connectivity of devices including data interaction and ownership are being more widely accepted as mainstream tools. Synchronization and sharing essential data are crucial to success. Some ecosystem trends and directional changes are being noted, such as through precision and sustainable health, and even in architecture (increased use of smart

homes, automation, and eco-friendly but connected renovations). Metaverse (not the noun from Facebook) and digital health progressions are revolutionizing life and enterprise – this is not lost on the Healthcare delivery system. The explosion of telehealth / telemedicine and advancement of 5G technologies to render instant decision support is beginning to become more widely accepted by both physicians and patients alike, touching everything. Access to care, however, remains a big problem. In this realm, home, remote, and connected health (home as the new assessment area) can become successful if accuracy and affordability are addressed. Non-traditional design industry thinking (Disney and re-designing a Ped's ER so the patient would not want to leave) are becoming more accepted as ways to embrace a kaizen approach to re-imagining healthcare. Simply – does anyone ask the patient for their advice or expectations? Barriers to the successful implementation of Healthcare 4.0 will continue to include finance, insurance, sustainability, and the breaking of traditional care delivery models.

Diamond or Dust: Cancer Under Pressure - Melissa Childress

Delving into the recent history of cancer treatment and clinical trials, the speaker highlighted nine macro trends impacting all of healthcare but with significance for Cancer care. This includes everything from big data and utilization patterns to mergers, competition and collaborators. Although each of these trends were seen as important to understanding the complexities of the disease, its diagnosis, and treatment, there were several that stood out as particularly impactful: 1) Mergers, acquisitions, and impact of private equity could be a game changer in terms of investment opportunities and advancement of technology to deliver more efficient patient care (investors seeing healthcare as recession resistant). 2) Technology and Research advancing care delivery and outcomes. Genome Sequencing, AI, robotic surgery, hybrid radiotherapy and targeted / molecular therapies were identified as rapidly evolving and highly successful trends. 3) Payment models and their impact on the need to increase quality while decreasing costs. Under current models there is a barrier to limit adoption of new therapies or allowing efficient population health education methodologies such as prevention and screening. Drugs get reimbursed; devices do not. 4) Patient behavior, consumerism and retail changes: getting the patient involved in their care while being conscious of how that will be delivered and to their satisfaction. If this does not happen, expenses will be higher and outcomes worse. How will cancer care institutions and delivery survive? Focus on capabilities, retention and leverage research and growth, with an emphasis on consumer-driven expectations.

Digital Eye in the Sky: Better Health through Real-Time Insights and Responses - Shannon Allen, BS, BSN, MBA, RN

Technology will continue to play a central role in the future of holistic health of individuals and populations. The current state of healthcare delivery remains a sick/ episodic model, with long and chronic diseases driving many deaths. Social determinants of health are becoming more widespread in their understanding and need to proactively address, but diagnosis and access to care remain challenging, particularly in remote areas. The current state was seen as non-sustainable, particularly considering current spending growth and the shortage of healthcare workers. This includes a large number (30%) of nurses who are considering leaving the profession. Some emerging trends that affect this digital shift (the Pandemic actually helped) include increase in virtual consults, program shrinkage and cuts, hospital departments becoming re-evaluated for flexibility (the waiting room no longer a trusty buffer), and people advocating for their own health. Rises in the proliferation of the internet of things (IoT) and cloud computing, AI, and patient generated health data are all contributing to the need for directional oversight on digital technology. These technologies and advancements will help with specializations and treatment protocols but may also contribute to clinician burn-out if not managed properly. The digital health market is projected to increase to \$549B by 2030, with significant AI/IoT applications across cancer, neurological disease and cardiology. These uses should be seen as augmenting, not replacing,

but rather integrated, predictive and continuous in their application. The reality of this digital overlay is that there will be winners and losers, those looking to better consolidate and shift to a highly integrated and augmented environment coming out on top. Barriers are in the confidence of the data, ownership, privacy and security, interoperability, accessibility and education. There should be no haphazard applications.

From Brick & Mortar to Click & Order: Healthcare's Shifting Site-of-Care Landscape - Daran Gaus, MBA, Lt. Col (USAF)

With the shifting site of care landscape, baby boomers aging and the commercial insurance burden, value-based care adoption and the implications for design become critical. There are currently 10,000 Baby Boomers aging into Medicare every day, with insolvency becoming increasing ever closer and possible (currently estimated 2028). With the current fee for service system, it is safer to overprescribe than underprescribe, and there is a tendency to funnel the problem to the higher acuity / revenue generators. Breaking that mold is difficult, although there are signs of change. Shifting to a value-based care model with prevented medicine and team-based tech-enabled coordinated care and an alternative payment model does hold signs of promise. However, there is no "one size fits all." Segmentation will drive the models, with non-traditional (retail) and employer-based delivery becoming more prevalent. Implications for design would be the emergence of the 'payvider' (i.e. United Healthcare being the largest provider, yet not existing in Hospitals), and the continued increase in virtual care, particularly Behavioral Health. Non-traditional care settings and delivery, with a reliance on technology (including required infrastructure upgrades) will ramp up. Existing acute care settings will likely become more focused on centers of excellence and innovation hubs. The new front line is becoming the home, with many downstream implications, including older, sicker patients with longer stays for those in the hospital, but more hybrid models of total care.

A final key highlight of SLS was the opportunity for ACHA and AIA-AAH to recognize our Next Generation Scholarship Recipients, Catherine Tran, Jackson Reed, AIA, LEED GA and Emily McGee, Assoc. AIA, LEED GA. All three scholarship winners received complimentary registration to the event and an invitation to our ACHA luncheon. Congratulations to these up-and-coming healthcare design leaders! It was a pleasure to welcome them to SLS!



Also, during SLS, we held our first ever ACHA Referral Prize Drawing. The winners, Certificants Alisa Rice, AIA, ACHA, EDAC, LSSWB and William Downing, AIA, ACHA, each submitted referrals to people within their networks who are eligible for ACHA certification. A prize of \$275 was awarded toward each of the winners' SLS registration fee for next year. We are grateful for all those that participated in this year's drawing and for all the nominations we received! Your referrals will help us connect with additional healthcare architects that may qualify for Certification.