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What's Next for Healthcare Facilities in These Unsettled Times?

The Future of
Acute Care | Outpatient | Tele-Health
Hospitals | Clinics | MOBs | Retail Medicine | Non-Clinical

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Recap & Takeaways

Reported by Linda Stallard Johnson (*rightondeadline@gmail.com*), a freelance writer and editor in the Dallas-Fort Worth area. She is a veteran of The Dallas Morning News, Houston Chronicle, and edits AIA Dallas' quarterly magazine.

Healthcare Gymnastics – Comparing 2018 & 2022 FGI Guidelines & Texas Hospital Licensing Rules

Tina Duncan, AIA, ACHA, CBO, Facility Guidelines Institute Board of Directors, AIA AAH Codes and Standards Chair

Duncan gave an overview of the 2022 Facility Guidelines Institute, covering changes from the 2018 FGI version and those of the state of Texas, whose standards are from 2001. Her presentation, on hospitals only, were her interpretation of the updates, she said. Here are the highlights.

FUNCTIONAL PROGRAM: The 2022 FGI Guidelines adds the project's purpose and expectations of patient care to its requirements. "I would strongly encourage you to make this as robust as possible because that may save you in the long run on a lot of big decisions" you make during a project, she said. "We really, really want you to dive in and tell us what the purpose of your project is so that we can be designing it appropriately based on what those goals are." A multidisciplinary safety risk assessment is also added.

INVASIVE PROCEDURES: Texas uses the definition of CMS of invasive procedure, "so it gets complicated real fast," Duncan said. "They're going to consider caths an invasive procedure. That means that your cath needs to be in the restricted environment." The 2018 and 2022 guidelines do define invasive procedures but don't include cath labs. But the definition still rests with the state. For those using the guidelines outside of Texas, Duncan recommends for "any procedure that you're doing that is questionable, have those discussions with the state prior to getting too far in design because it makes a major difference."

BEDS: FGI does not define bed size. "What they want you to do is determine those clearances that are required around the bed by the bed that's being used or the structure that's being used. … That means you have to know that information at the onset of the project," Duncan said. "Please know that the designers need to know those sizes in order to size the room properly, because they are going to be based off of the side clearances, sometimes the head, always the foot."

HANDS-FREE FAUCETS: Texas rules include no specific size for faucet blades. The 2018 FGI Guidelines did not refer to faucets operated with wrist blades or single levers, but the 2022 guidelines add 4-inch blades.

ISOLATION AND ANTEROOMS: Texas requires at least one isolation room per 30 acute beds and one per each type of CCU, with a minimum of one anteroom. For 2022, FGI says that ICRA will determine anteroom requirements and that there be added space for donning and doffing PPE when entering an anteroom from a corridor.

ELEVATORS: In FGI, elevator openings are tweaked from at least 4 feet 6 inches wide and 7 feet high in 2018 to at least 4 feet wide and 7 feet high in 2022. The idea is to widen the choice of providers. Variances for smoke guards may be allowed in the final version. Be mindful of separate International Building Code requirements and local amendments.

NEONATAL COUPLET ROOMS: Under the 2022 FGI guidelines, if a new mom and her baby both need care, they can be put in the same room. Lactation rooms are going to be required, too. A federal law requires them, but there are not many rules governing them, which is why they were added to the 2022 revision.

Future of Health Care Real Estate

Michael Arvin, Exec VP, Strategy and Development, New Era Partners

Kyle Marden, Corp. Director, Real Estate & Development, Medical City Healthcare, HCA Healthcare

Sharon Carter, Managing Director, Healthcare Real Estate Solutions Group, Ankua

The trend in patient care: Care is moving from higher acute settings to lower acute locations, creating outpatient opportunities. MOBs and healthcare delivery are moving farther from hospitals but still in appropriate locations that allow them to have cross-functionality for certain services.

Third-party capital a question of opportunity vs. cost: Whether to seek third-party capital depends on the size of the project and the decision-maker. One business executive may see the opportunity presented by using third-party capital to do projects; another may focus on cost, wanting to keep all projects in-house.

Effect of COVID-19: When the pandemic struck, offices, schools and much more shut down. But healthcare facilities stayed open, a factor that has since not only attracted investment dollars but also much larger capital investments in portfolios. MOBs were already magnets for investment pre-pandemic, and now that has spread to outpatient ambulatory centers, surgery centers, cancer centers and other healthcare settings not necessarily tied to the hospital.

So now it's a seller's market: Capital markets have become more educated about the opportunities in healthcare real estate, especially on the discharge planning side as patients progress to outpatient clinics and other care services. With capital flowing into healthcare real estate in amounts not seen in years, properties are attracting a premium.

Addressing behavioral health: Behavioral health is a broad space and long underfunded by the state of Texas. And while hospitals can perform mental evaluations, transferring patients to outside treatment is difficult, CEOs say. However, opportunities exist in geriatric mental health for hospitals located near senior populations. Hospital systems can function as a developer, putting up the capital for the real estate of a mental health provider and helping the provider get established. In turn, the provider takes the transfers. Medicare reimbursements are key.

Telemedicine isn't displacing MOBs: Although telemedicine visits soared with COVID-19, the technology is unlikely to spell the end of MOBs. Doctor visits may become a hybrid of in-person and online. Although some predict physicians will need less square footage with telemedicine, offices will still need room to house the IT equipment in addition to their traditional needs. Another consideration: Patients may not have the internet access to do remote visits. Also, CMS approved paying for telemedicine visits at the same rate as for in-person as an emergency provision during the COVID-19 crisis. But that policy may not stick or could be scaled back.

Patients first: It's not always about the money. It's about the best value in delivering care to patients so that they will look back at it as a good experience.

New Frontiers in Indoor Air Quality

Dr. Garrett Peel, MD, MHS, FACS, Founding Principal, Integrated Viral Protection Solutions

One of the lessons from COVID-19 is that stopping its transmission requires a good offense. But it's hard to know whether pathogens are wafting through the air.

IVP has also developed a heated air filter that uses a metal mesh foam to catch and kill viruses of all types as well as removing allergens and molds. Peel says the heated filtration system can destroy COVID-19 particles in a single pass without heating the ambient air.

IVP has developed mobile devices and HVAC filters that can be retrofitted or forward fitted into commercial systems.

Monzer Hourani, inventor of the patient pending biodefense indoor air system, received Engineering News-Record's highest honor, the 2021 ENR Award of Excellence. Hourani is CEO of Medistar and Chairman of Houston-based Integrated Viral Protection.

Clean Air – Applying Lessons Learned In the Pandemic

Mark Davidson, Manager Technical Marketing Camfil, and ASHRAE 170 Committee Member

Brent Rutherford, CEM, CHFM, CBCP, Director of Facilities, Texas Health Frisco

Brent Rutherford's brand new hospital, Texas Health Frisco, had only been approved to take patients for 10 minutes when it went straight into emergency management mode as COVID-19 patients streamed in. "We became the primary hospital in the Frisco region treating all COVID patients in the region," he said. The other hospitals didn't have capacity or the equipment to handle these patients properly.

Here are the lessons learned:

CREATING ISOLATION ROOMS: "One of the things that we had to do real fast was trying to decide how could we create isolation for these patients," he said. That's when air filtration and air control became crucial. After consulting with the hospital's infection control specialists and with mechanical engineers, Texas Health Frisco purchased HEPA air scrubbers for patient rooms.

RETURN AIR: "We didn't put up an air box in the room and start recirculating the air, we actually ducted it to our returning air so that we could increase our exhaust into the plenum. But it was filtered at that point," Rutherford said. "So every place we needed an isolation room, we were able to go in and create a negative room in a regular patient room without having to negatively impact air."

DEPLOYING AIR SCRUBBERS: "One of the things that we learned real fast was how many of those could we deploy at a time," Rutherford said. For Texas Health Frisco, the number was seven for each side of a 15-bay wing. Beyond that, the air control couldn't be maintained and led to positive rooms.

TRAPPING VIRUS PARTICLES: "One of the things that's important to point out is that the virus size is roughly 0.125 microns," said Mark Davidson of Camfil. An H14 HEPA filter can catch such small particles as well as the larger penetrating ones. "So that's why you were able to recirculate the air because you weren't spreading any viruses, or any other pathogens for that matter, because they were being captured," he said.

HUMIDITY IS KEY: Keeping humidity between 40% and 45% increases filters' effectiveness in capturing virus particles, Davidson said.

REMOVING SCRUBBERS: Rutherford said the scrubbers could be removed in cases when an entire floor is dedicated to COVID cases or when a patient is intubated.

TEXAS HEALTH FRISCO RESULTS: The hospital had no COVID fatalities for nearly a year, Rutherford said. "To me, that was proof we were doing what works."

How PDC & Facilities Collectively Met the COVID Challenge Head-On

Gil Manalo, Director of Construction Programs, Medxcel

Mark Schultz, Regional Director, Tennessee / St. Thomas Health Ministry, Medxcel

An insider look at how the team responsible for over 160 hospitals and 2,600 care sites responded to COVID-19

SEEING THE SURGE COMING: When COVID-19 began to spread, Schultz likened it to seeing "a slow train coming down the tracks at us. But we didn't really gear up. And then we got our first positive patient" at a Nashville hospital.

INCIDENT COMMAND CENTER: The first step was to create an incident command center, and the questions poured in. Hospital leadership wanted immediate solutions, not a 48- or 72-hour wait. The coronavirus was so new that how it spread and how long it lived on surfaces were unknowns.

ISOLATION ROOMS: The isolation rooms were scattered throughout the hospital rather than grouped together. That created problems because it wouldn't work for one nurse to take care of one COVID-19 patient and five non-COVID patients. It also meant that the hospital burned through more PPE. Instead of more isolation rooms, "we were creating rooms that had negative airflow."

RED FLAGS: When the conversation turned to creating negative airflow operating rooms, "that's when really the flags went up and I said, 'Hey, we really need some more controls on this.' We needed a group to come in and kind of slow things down," Schultz said.

THE FAST TEAM: Manalo's Facility Assessment Support Team developed plans with Schultz's staff. "What it gave me is a timeout," Schultz said. "It gave me the ability to take a very emotional situation, put some guardrails around it, have a very dedicated group of subject matter experts look at what we wanted to do." Pushing proposals up to the national level ensured safety for patients and staff as well as provided a check on economic feasibility.

FAST TEAM ADVANTAGES: As soon as a hospital emailed the documentation for a proposal, the FAST team met within hours. The team then placed a conference call back with its advice. The process got "control of some of these requests that were coming down the line. Because if you were in the hospital facility guy, the first couple of weeks [of COVID], we were getting really creative with what we were doing," Schultz said.

ALGEBRA PROBLEM: The FAST team includes staffers from facility operations, energy, facility performance, safety, compliance, and infection prevention. "We're literally on the phone within three or four hours to talk about the issue" once a request comes in, Manalo said. By talking to the person who

made the request, "we get a better idea of what it is they're feeling. And again, no emotions. We're looking at this from the perspective that we've got an algebra problem we've got to solve."

RESULTS: "During the first 100 days, the majority of what we're working on was negative air pressure conversions," Manalo said. "So in that 100 days, we ended up with 1,000 converted rooms across our entire system. … What we're seeing now is more requests to decommission or restore these things back to normal operations, which is great."

Rising Importance of Sustainability in Healthcare

Myrrh Caplan, WELL AP, LEED AP, ENV SP, Senior Sustainability Director, Skanska

Jana Gerber, Sustainability Consulting Principal, Schneider Electric

Abigail Lipperman, PE, LEED AP, CHFM, CHEPP, SFP, Chair of Children's Medical Center's Health Sustainability Council

It's not *why* sustainability is good, it's the *how*: Decide what your goals should be, what should be included, and what you are measuring. When do you want to meet your goals, and how are you going to report them?

Pressures are mounting for corporations and organizations to act to limit global warming to no more than 1.5 degrees Celsius by 2030. Blackrock Chairman Larry Fink, in a letter to CEOs, said climate risk is investment risk.

Watch out for silos among company departments: Children's Medical Center in Dallas formed a sustainability council after finding that Food Service had switched from Styrofoam to biodegradable containers, Engineering was putting variable frequency drives on the chilled water system, and operating rooms were reprocessing single-use devices – but no one knew what other departments were doing.

Energy efficiency also creates cost savings. Using more efficient LEDs not only cuts electric bills, but also cuts maintenance costs because they last longer. Children's Medical Center estimates it saved $24,000 a year in electricity and kept over 500,000 pounds of coal from being burned when it replaced its employee parking garage lighting.

Sustainable practices enhance your public image: Schneider Electric, Skanska and Dallas Children's Medical Center all offer examples of how their environmental efforts are integral to their companies, helping build their reputations.

A green image helps in recruiting: A *Wall Street Journal* poll found 80% of young professionals want to work for an organization where they could be proactive or positively impact the environment. And 92% would be more interested in taking a job with an organization known for its environmental friendliness.

Think sustainable in your designs: Skanska looks through "at least a dozen lenses when we're making decisions around sustainable design aspects for our buildings and sustainable operations," Caplan says. Cost is always a factor, but so is looking at the greatest benefit.

Benchmark your efforts against similar organizations: Practice Greenheath publishes an annual benchmarking report that compares 250 hospitals. "So it helps, you know: How much should we be recycling? What should we be recycling?" Lipperman says.

Be innovative: Skanska developed the polycarbonate construction calculator, which compares building materials, in a partnership with the Leadership Forum and University of Washington. "It's a huge deal

when it comes to concrete and steel. Your embodied carbon footprint on your building is enormous," Caplan said.

Innovation in Healthcare Delivery & Design: Mirroring The Auto Industry

Beth Carroll, AIA, ACHA, Principal, Page

Robert Doane, AIA, ACHA, Principal, Page

Kurt Neubek, FAIA, CSSBB, Healthcare Practice Leader, Lean Advocate, Page

Genesis of the car industry idea: A client told the Page team, "If you're designing for us, we're a concept car. Give us all the really cool ideas out there. They don't have to be practical today." This is an ideas presentation. But good design matters.

The current reality: COVID-19 has already forced a reimagining of healthcare. Think of touchless devices, the rise of telemedicine, triaging patients before they enter emergency rooms, planning for surge capacity, and the ability to flex more ICU beds.

The long-term trend is toward outpatient care: Expect to see larger outpatient centers. At the same time, the patient population of hospitals will be those who are sicker.

The hospital of the future: As innovation occurs in medicine, the facilities and the design will likewise evolve. Architects are building in flexibility "that accommodates the things you can't even see now." But they are also mindful of costs for the client.

Consumers want a retail experience: Think of an Apple Genius Bar experience where an employee, rather than sitting at a desk, comes to the patient to help that person sync a medical device or learn about a wellness program. In designing a hospital, make it part of the community with a street entrance for a coffee shop or paths connecting to parks and trails.

Design for wellness, sustainability – and cost efficiency: "We need to be building in designing ideas that become the default so that when you enter a facility, the default is take the stairs." By making the stairs obvious, along with similar ideas to promote wellness, there's no need to spend money on a fitness center. Architects are also returning to day lighting and operable windows to achieve net zero energy goals.

Avoiding Regulatory Compliance Traps in Leased Facilities

Jason Hinkel, Vice President, Property Management & Leasing, Caddis Healthcare Real Estate

Dr. Michael Walker, EdD, RPA, CHFM, Director Real Estate Operations-North, Texas Health Resources & President, BOMA Dallas

CMS surveyors are taking harder looks: Take extra care in site selection for a healthcare facility. CMS is bringing the same rigorous level of inspection to outpatient hospital services done in MOBs as it does for hospitals. Feasibility studies are crucial, especially as hospitals take outpatient services to the communities they serve.

Think for the long term: First, leases for medical buildings are typically for seven to 10 years, so the landlord and tenant sides need to work as a team so that everyone understands the expectations. Health systems also seek the broadest operational use in a space and want the ability to convert the space to new medical uses.

New office buildings are the best choice: When a health system, large or small, decides to move outpatient operations into the marketplace, a new building is ideal. Look for a savvy developer who understands the vision for bringing healthcare services to that particular community. That way, upfront, you can nail down your space requirements, operational needs, and pave an easier path with multidisciplinary teams.

Existing office buildings may pose pitfalls: Consider whether the building is even suitable for medical uses. Before a medical tenant moves in, make sure the mechanical systems, the plumbing infrastructure such as common-area restrooms, and the elevators can stand up to the use. Also pay attention to drop-off areas and the potential impact on parking.

Attendee Feedback & Comments on Social Media

Dallas, Texas, November 16, 2021

Wonderful event and look forward to another one in the future.

Well Attended. Venue was great. Topics were relevant.

Thanks for hosting a great event!

Strong program. Accolades to Glenn Fischer and Alan Whitson for developing excellent content.

Lunch was very good.

Innovative presentation by the Page team

Great to see everyone in person

Great to see and visit with so many after the hiatus

Great Conversation at the What's Next for Healthcare Facilities

Good Topics!

Exceptional information was shared. Enjoyed meeting new folks and seeing familiar faces!

Enjoying being with industry friends and colleagues as we learn the best methods and trends to continuously improve the delivery of care.

An enjoyable conference

Alan Whitson, RPA and Glenn Fischer organize consistently high quality and high-value events

A great event - look forward to others in the future!

Industry Partners