

INSIGHT

Designing for a Pandemic

Keeping residents of senior living communities healthy during a pandemic

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As a viral pandemic threatens our health and wellbeing, the architects and designers at JSA Design are working with clients to ensure their facilities provide the safest, healthiest environment possible. How do we keep communities safe from this virus? Even with a vaccine in the works, our country's leading scientists say it could be a year or more before we will see life returning to normal. And what will normal look like, particularly in our senior living communities, as we prepare for the inevitable next pandemic?

We have worked to understand how the virus is spread, sought feedback from architects across the country, participated in webinars, and spoken with current and past clients. Our research has led us to reconsider some of the basic design assumptions we've made for years.

We will need to provide greater program and spatial flexibility, especially as it relates to common areas; a requirement of more space for social distancing is inevitable; outdoors accommodation will expand; advances in technology will prevent viral spread and mitigate the negative impacts of social distancing; more sophisticated mechanical systems will become standard; and easily cleaned, antimicrobial finish materials will become commonplace.

Senior living reimagined

Seniors are one of our most vulnerable populations. In March 2020, senior living communities across the country locked their doors to outside visitors in an effort to keep residents safe from the virus. The once social dining rooms and activity spaces that kept seniors engaged, connected, and happy were now off-limits, and residents were isolated to their small apartments.

We see a return to the small household model, or some variation on it, that will provide benefits in the next pandemic. Buildings can be designed so there are options to divide floors into smaller groups that can then make their own social bubble. Smaller common area rooms can be turned into small dining rooms. Residents won't have to travel in elevators or to different floors. The devastating social isolation can be mitigated and new bonds formed.



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As dining is the most important social activity of the day for most residents, adapting existing dining rooms to meet social distancing requirements is a priority task. Grab n’ go and take-out meals were already popular. During the shut-down, they were sometimes the only option. Buffets and salad bars are a thing of the past; open dining rooms with tables close together are not a viable option either. Small seating clusters, attractive dividers that provide intimate and separate seating zones, and booths are all comfortable and popular ways to provide socially-distant dining experiences.



We heard from clients that the connection to the outdoors was one of the most important features for their residents’ mental and physical health. We should create outside spaces for dining and other activities, but also provide an outdoor connection from each apartment for those residents who are unable to leave their units. Operable windows, Juliette windows, and small balconies will let residents access the outside directly from their apartments.

Michael Flaherty, CEO and president of Taylor Communities in Laconia and Wolfeboro, NH, says they were fortunate that last year they built an outdoor recreation area with bocce, shuffleboard, an outdoor kitchen and a pavilion. “The outdoor gathering spaces were critical for us,” he noted. This gave them the space to hold dining and other activities outside throughout the spring, summer and early fall.

Taylor also converted a three-season porch to year-round use and added a glass wall with speakers on both sides, so it feels as if everyone is in the same room. They saw an immediate improvement in the residents’ mood when they were able to eat a meal while visiting with family, even when separated by the glass wall.

Technological innovation

The pandemic has resulted in many seniors embracing technology for alternative ways of completing ordinary tasks. Telehealth visits with doctors, for example, let seniors maintain contact with familiar health care professionals while reducing the need to travel outside to less safe environments. Social meetings with family, caregivers and friends now take place via video.

We spoke with Kena Phillips, regional director of operations for Sunshine Retirement Living, who was thrilled that they won a grant to upscale their technology and provide more Facetime visitation opportunities for residents and their families. They found they could bring





memory care residents much needed comfort in this isolating time by recording conversations the residents had with family members and then playing it back to them when they were agitated. “At Sunshine, we think of this and other challenges as an opportunity for us to think outside the box and find new ways to engage our residents,” she said.

Taylor Community has several 70-inch flat-screen TVs located throughout their buildings where residents can connect to exercise classes and town hall meetings. Sunshine has recently implemented virtual reality technology into their activity program, which gives them the ability to “check off many bucket-list items for their residents!” Military veterans were able to virtually tour the monuments in Washington DC, while other residents chose to take a train ride through the Swiss Alps, or visit national parks that they always wanted to tour.

It will be increasingly important to have large screens in all of the apartments with remote controls that take vocal instructions, i.e.: “Call Joan.” With the senior population, phones and even tablets may be too small to make a real visual connection. Having the ability to visually connect at a large scale is, and will be, important for their emotional wellbeing.

Touch-less technology eliminates the opportunity for viruses to be spread on surfaces. Touch-less faucets, toilets, paper towel dispensers, and door openers make bathrooms and other areas safer environments for all. Cleanable materials have always been an important part of our design for senior living communities, but now they are critical. Furniture manufacturers have developed anti-microbial wood finishes that are safe to be cleaned with Virox and other next-generation disinfectants. Plastic laminates are available with antimicrobial protection that inhibits the growth of stain- and odor-causing bacteria and mold. Bleach-cleanable woven fabrics are available from a variety of manufacturers that are still attractive and soft to the touch.

Mechanical system changes will be a major part of the newly designed senior living building. Zoned mechanical systems with technologies that can kill 99 percent of the virus in ductwork in thirty minutes (UVGI), MERV filters, and needle-point bipolar ionization (NPBI) will be commonplace in new designs. Many of these systems can, and will, be retrofitted into existing buildings. There are also new innovations in lighting that disinfect using UV light.

The use of new mechanical technologies can improve visiting areas in new and existing senior living environments. Positioning a small area or room near the building entrance where residents and family members can interact is a good first step. Additionally, these rooms can be isolated with a separate mechanical unit to provide air washing technology that will allow visitation across clean air without requiring Plexiglas or other barriers. This is similar to technology employed in commercial airplanes between passengers.

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Resident well-being

Well-being of residents is the core focus of senior living communities. During the pandemic, mental health, in particular, became an important focus.

Sunrise Senior Living Senior Vice President of Memory Care and Programming Rita Altman shared this, “A key part of each resident’s care plan at Sunrise is the Designated Care Manager (DCM), a staff position we had in place long before COVID 19. DCM’s interact with their residents every day and know their

personalities, needs, and preferences, allowing them to provide regular feedback to loved ones. These care managers are uniquely equipped to notice changes in a resident’s physical or emotional health.”

“Change can be hard and confusing for residents, especially those living with cognitive impairments,” she continued. “When a resident feels emotional in response to the challenges of the pandemic, their designated care manager, trained in communication skills that reduce stress and enhance dignity, is there

to listen with empathy and to work with the resident, their family and our interdisciplinary team to enact strategies that focus on well-being.”

Our healthy-building commitment

Designing healthy environments has always been a special focus for JSA Design. An integral part of our design process involves using evidence-based design to evaluate the potential health impacts of material, equipment and system choices. The pandemic highlights the critical nature of this effort. We strive to provide the safest possible environments, particularly for vulnerable populations, with flexible thinking and flexible designs – a hallmark of JSA Design.



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