

Technology: Changing the future



McKnight's June 2020

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Thank you to our everyday heroes.

By any measure, these are extraordinary times. We at *McKnight's* hope that you, your loved ones and your business associates remain safe and well.

We'd like to express our profound gratitude to all the medical professionals, caregivers and other essential workers keeping our loved ones and communities safe during this crisis.

Our publications, webinars, e-newsletters and other offerings are here to help. We will do our level best to make them as meaningful, relevant and useful as possible.

What we know about people in this sector is that they are remarkably resilient. Many have dealt with challenging economic, regulatory and competitive times before — and have always emerged stronger for the experience.

Above all, know this: We will get through this together.

Be strong and stay safe.

McKnight's
LONG-TERM CARE NEWS

McKnight's SENIOR LIVING
News, perspective and analysis



McKnight's Tech Awards open for entries

The 2020 *McKnight's* Excellence in Technology Awards program is now open for nominations. Entries will be accepted through July 24.

The competition features two tracks — one for senior living, and one for skilled nursing — with six categories each.

"Chances are more than good that your organization is harnessing several tech tools to make life better for those you serve," said John O'Connor, editorial director of *McKnight's Senior Living* and *McKnight's Long-Term Care News*, "and as long as you are already doing that, why not get rewarded for the effort?"

The annual contest recognizes providers that convey how technology — simple or advanced — has improved care and operations in their organizations. Categories in the senior living track include Quality, High-Tech/High-Touch, Innovator of the Year, Keep It Super Simple, Safety, and Activities.

Categories in the skilled nursing track are the same, except Transitions takes the place



The logo for the 2020 McKnight's Excellence in Technology Awards. It features the text "2020 McKnight's EXCELLENCE in TECHNOLOGY AWARDS" in a large, bold, sans-serif font. "2020" is in grey, "McKnight's" is in red, "EXCELLENCE" is in large grey letters, "in" is in smaller grey letters, "TECHNOLOGY" is in large grey letters, and "AWARDS" is in large red letters. Below the main title, there are two sponsor logos: "Platinum Sponsor STANLEY Healthcare" and "Gold Sponsor Senior Living MatrixCare".

of Activities. Entries must be submitted by senior living and skilled nursing provider organizations.

Stanley Healthcare is the Platinum sponsor

of the program this year. MatrixCare is the Gold sponsor for the senior living track.

For more information, visit mcknights.techawards.com. ■

More embracing EHRs, HIEs, study finds

More assisted living operators are harnessing electronic health record systems and participating in health information exchanges, according to a report from the Centers for Disease Control and Prevention's National Center for Health Statistics.

Communities using EHRs increased to 26% from 20% between 2012 and 2016, noted "Trends in Electronic Health Record Use Among Residential Care Communities." Investigators also found that health information exchange capacity among communities increased to 55% from 47.2% during those years.

"This report provides the most recent national description of EHR use and computerized support for health information exchange among a major provider of community-based long-term services and supports — residential care," the authors said.

Initiative may quicken COVID-19 testing

The National Institutes of Health has unveiled a \$1.5 billion "Shark Tank-like" initiative to rapidly develop coronavirus diagnostics. The effort could lead to the deployment of "millions of tests per week" by late summer or fall, the agency claims.

The project relies on a "national COVID-19 testing challenge," in which scientists and inventors developing coronavirus tests across the country will compete for a share of a \$500 million pool earmarked for diagnostic development. Successful entrants will get paired with manufacturers and business leaders who can speed up production of resulting tests.

"Shark Tank" is a television program in which capital-seeking entrepreneurs pitch business partnerships to a panel of five investors, or "sharks."

"We need all innovators, from the basement to the boardroom, to come together to advance diagnostic technologies, no mat-

ter where they are in development," the agency noted.

Older adults like email, looking up weather

An AARP survey provides insights into technology use by those in their 70s.

A total of 2,607 people aged 50 or more years participated in the AARP's online "2020 Tech and the 50+ Survey," and 781 of them were aged 70 or more years.

Sixty-two percent of those aged 70 or more years reported using smartphones in 2019. Of them, 88% said they use them daily.

Forty percent of respondents in this age group said they use

tablet computers. Of them, 61% said they use them daily.

Among the older adults who own smartphones or tablets, the most popular uses were looking up the weather (69%), sending email (67%), using the internet (56%), looking at photos (55%) and using social media (50%).

Fifty percent of the older respondents who own smartphones or tablets said they use social media at least once a week.

By far, the most popular types of social media used by those aged 70 or more years were Facebook (59%) and YouTube (23%).

The next most popular form of social media, Instagram, was used by only 8% of the older respondents, and 31% of people in this age group reported not using social media at all.

In fact, Facebook and YouTube, by far, also were the most popular types of social media used by those in their 50s and 60s who took the survey, with Instagram ranking in a distant third place for them as well.

Only 37% of those aged 70 or more years said they used social media daily to stay connected with friends and family members.

Study finds 'digital divide' with internet use

Some older adults may be missing out on the health and wellness benefits that can result from internet use, according to the results of a newly published study, which noted a "digital divide."

Researchers analyzed data from 107,500 older adults who participated in the California Health Interview Survey and



Photo: Amazon.com, Inc.

Amazon's Alexa and other so-called virtual assistants increasingly are used by senior living and care residents either on their own or as technology integrated into other systems used at their communities.

"Older individuals who use the internet to seek health-related information experienced improved outcomes."

Journal of Applied Gerontology authors

found that internet use among those aged 60 or more years increased from 60.2% to 66.4% from 2011 to 2016.

"When it comes to specific sociodemographic subgroups," however, they said, "the significant increases in internet use between 2011 and 2016 were observed among those who were young-old [60 to 74], old-old [75 to 84], female, and non-Hispanic whites, and those with high school graduation or above."

That is, statistically significant increases were not seen among the "oldest-old" (aged 85 or more years), men, those who had not graduated from high school, and racial/ethnic groups other than white.

Findings, published in the *Journal of Applied Gerontology*, are important, according to the authors, "given the importance

of the internet as a means of sharing information, and given older adults' greater need for health information."

"Studies report that older individuals who use the internet to seek health-related information experienced improved outcomes with respect to their knowledge of health issues, health communication with medical professionals, and appropriate use of health services," they said.

"In addition, numerous studies report other benefits for older adults of using the internet such as improving interpersonal interactions, promoting better cognitive functioning, and enhancing their experience of control and independence."

Drug info now accessible via Alexa queries

Amazon's Alexa and other

so-called virtual assistants increasingly are used by senior living and care residents either on their own or as technology integrated into other systems used at their communities.

Now, through a partnership with First Databank, residents and others are able to access drug information through Alexa queries.

A subset of FDB's drug information, used for more than 40 years by healthcare professionals, now can be accessed by consumers from any Alexa-enabled device.

Individuals are able to ask about drug interactions, side effects, precautions and a drug's class in English and Spanish. Examples of some common medication-related queries that Alexa now will answer:

- "Alexa, what type of drug is ibuprofen?"
- "Alexa, what are the side effects of sertraline?"
- "Alexa, does Zoloft interact with Aleve?"
- "Alexa, what's the difference between Tylenol and Advil?"

"People lead busy lives, and voice provides a simple way to get helpful information about medications, including side effects and drug interactions, for themselves and the people they care for," FDB President Bob Katter said.

"This information will complement advice from their medical and pharmacy teams. Ultimately, we believe that more informed consumers will lead to improved medication adherence, the reduction of adverse drug events and better patient outcomes," he added. ■



Tablets to the rescue

Devices facilitate family communication when in-person visits aren't possible

By Lois A. Bowers

Senior living communities and nursing facilities got creative to keep the lines of communication open when safety guidelines were issued and shelter-in-place orders went into effect across the country this spring. No-visitor policies prevented residents from interacting with loved ones, and social distancing recommendations restricted in-community activities that could take place.

Often, iPads and similar tablet computers, equipped with apps such as FaceTime, Skype, Google Hangouts or Zoom, have offered a solution.

"When we had to tell families, 'You can't come visit your loved ones,' we were equipped, because all of our residents are issued an iPad when they move in," said Lori Alford, chief operating officer of The Woodlands, TX-based Avanti Senior Living, which has locations across three states.

Once family members signed up for Skype and Avanti connected them on the community's end, she said, "They instantly had access."

The funny thing is, Alford said, families always have had the capability of speaking with Avanti community residents via an app. And residents have had iPads since Avanti's inception.

Some people used the capability, "but that wasn't a big deal to them, because they would rather come and visit their moms," she said. "When all of this went down, everybody got on it."



Birdsong in use at Westminster-Canterbury on Chesapeake Bay.

Families also are able to log into a Touchtown portal to see videos and photos that Avanti has uploaded, as well as planned activities and meals, Alford said.

Residents of the nonprofit Westminster-Canterbury on Chesapeake Bay, a life plan community in Virginia Beach, VA, didn't have to look far for a technologic way to communicate with their friends and family members. The Birdsong Tablet touchscreen device was developed by Birdsong, the innovation division of the CCRC, and offers video chat capabilities.

The tablet is designed especially for those with limited technology experience or physical or cognitive limitations. Large, picture-based icons, large font sizes, and a permanent home button are some of the device's accessibility features.

"Older adults and their loved ones at home, even those in senior living communities with visitor restrictions, can use video chat to stay connected, giving peace of mind to families," Westminster-Canterbury on Chesapeake Bay President and CEO J. Benjamin Unkle Jr. said.

Additionally, the Birdsong website contains thousands of curated entertainment experiences and video communications tools that are being made available for free as well while social distancing and sheltering-in-place is occurring.

Westport, CT-based Maplewood Senior Living, with communities in multiple states, has purchased several iPads for each community, and video calls are scheduled via life enrichment team members. "We feel it's our duty and obligation to make

sure that the residents are getting some social connection," said Brian Geyser, vice president of clinical innovation and population health.

The tablet devices are a favorite technology among residents at communities, he added, "because their friend visits or family visits through the iPad."

The technology serves other purposes, too, and Geyser doesn't see use of the tablets ending when visitation policies change.

"The tablet will continue to be part of our programming," he said. "A lot of our residents have mobility challenges, or they may be feeling under the weather and isolated in their apartments. So we'll be able to leverage those tablets for the future even beyond the pandemic." ■



Flipping the switch

Operators across the senior living and care spectrum embrace telehealth

By Kim Marselas

This spring's fight to keep older adults healthy in the face of the coronavirus pushed many healthcare providers and senior living and care communities into the willing arms of telehealth.

Previously, cash-strapped operators or many embracing a hospitality model argued there'd been little incentive to roll out robust virtual services that could address therapy needs, help residents manage chronic conditions or get a diagnosis for a new condition without leaving home.

Even those who had telehealth capabilities weren't necessarily using the tools to their full extent just a few months ago.

Six Avanti Senior Living communities in Arizona, Louisiana and Texas each had rounding physicians, a medical concierge suite with exam room, and an existing telehealth portal as part of a new Avanti Health service. That existing infrastructure, including signal repeaters to ensure dependable wireless coverage, made it easier for the luxury assisted living and memory care provider to limit the number of therapists and clinicians entering once visitors were restricted.

"We didn't want any Tom, Dick or Harry in our buildings. That's why we're still COVID-free," Chief Operating Officer Lori Alford said.

Avanti and its peers had a headstart on many skilled



Photos: John Fedele/Getty Images Plus

Increasing consumer demand and rapidly improving capabilities will ensure that telehealth finally becomes a permanent component of the aging services portfolio.

nursing providers, whose use of telehealth had largely been limited to rural locations.

But then the Centers for Medicare & Medicaid Services stripped away several barriers to Medicare telehealth coverage in mid-March, and many private insurers followed. The government relaxed Health Insurance Portability and Accountability Act enforcement so physicians could use cell phones and other devices to discuss resident and patient health and allowed more flexibility for healthcare providers to reduce cost-sharing for telehealth visits.

By late March, CMS was paying for more than 80 new telehealth services, including initial

nursing home and discharge visits. Although CMS couched the changes as temporary, experts say regulatory and payer changes, increasing consumer demand and rapidly improving capabilities will ensure that telehealth finally becomes a permanent component of the aging services portfolio.

Not a choice

"People that have seen it as a choice will be left behind," said Lisa McCracken, who tracks technology use as director of senior living research and development for investment banking firm Ziegler. "That's the reality of it."

As of late 2018, a joint study

conducted by Ziegler and LeadingAge found that almost 20% of the nation's 200 largest nonprofit providers were using telehealth or remote patient monitoring, whereas only 16.5% had more active telecare or behavioral monitoring services.

But a late-March survey conducted by Trinity Life Sciences found 46% of healthcare providers across settings and specialties are using more telehealth than before COVID-19, with specialties such as cardiology and psychiatry experiencing an extra spike in popularity.

And COVID-19's isolation requirements have highlighted visibility gaps in independent living and assisted living. As an

example, McCracken said that a resident who tends to stay in his or her own unit might go undetected for a long period of time after falling. Voice-activated technology could allow that resident to call for help, and remote monitoring would give providers insights that speed response times.

No longer Big Brother

McCracken expects that telehealth use will remain elevated as the power of such solutions becomes more obvious.

Where once such tools might have been viewed as the work of Big Brother, residents now may shift their view on sharing data — both with their facility and their family members who can't get in to visit or reach nurses during busy periods.

Families, hospitals and payers, she noted, also are watching how facilities have managed to care for residents at home during incidents that previously might have precipitated an emergency department visit.

At Avanti, the HIPAA-compliant portal allows residents to log in and schedule visits monitored by the operator's national medical director. Nurses join residents for their appointments, equipped with iPads, e-stethoscopes and e-blood pressure cuffs. Such visits have helped the communities assess whether a resident might have COVID-19, examine potential pressure wounds and determine whether an emergency department trip was needed following a fall.

Although it's not a replacement for a hospital in a true emergency, virtual care has reduced the number of Avanti residents going to local hospitals

and cut their risk of COVID-19 infection, Alford said. That factor may be important for senior living communities, which don't stand to benefit from revised CMS payment rules the way skilled nursing facilities do.

Regardless of how they bill for it, providers almost certainly will have to meet increased consumer demand for on-site health services now that residents and families are accustomed to it, McCracken said.

Her sentiment is echoed by Bob Kramer, founder of the National Investment Center for Seniors Housing & Care, who recently launched Nexus Insights to rethink aging services in light of the pandemic's effects.

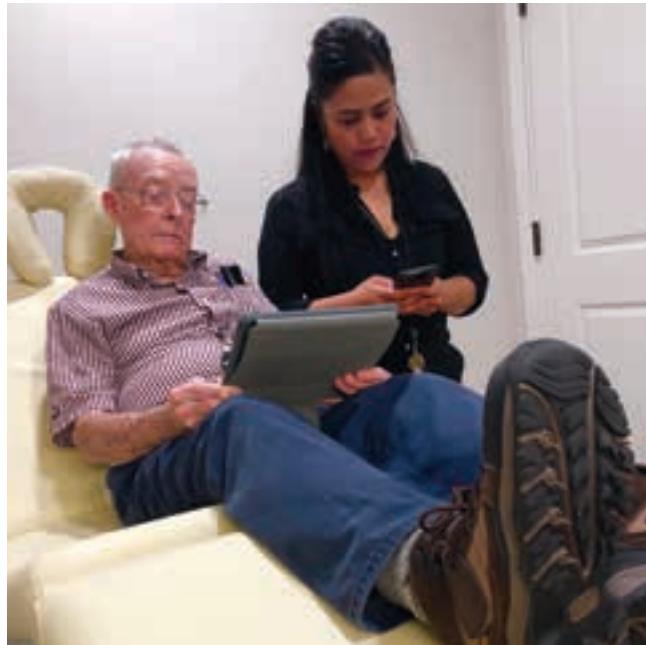
"Telehealth and telemedicine have overnight become the accepted ... practice in healthcare, and that has huge implications for seniors housing," Kramer said. "If we think we're going to continue to have our overnight shift basically, for healthcare, use paramedics and the ER, we won't survive. Families will not tolerate that."

He predicts that payers, especially those running managed Medicare plans, won't accept hospital visits in the way they traditionally have, further speeding the use of telehealth.

Never more choices

For operators that aren't necessarily reimbursed for all of their telehealth services, the question of investment remains.

In late March, the Federal Communications Commission chairman approved \$200 million in congressionally appropriated funds to support healthcare providers' COVID-19-related purchase of telecommunica-



A resident of Augusta Pines at Avanti Living in Spring, TX, assisted by a nurse, has a telehealth visit.

Photo: Avanti Senior Living

tions, broadband connectivity and telehealth devices. The FCC also has launched the broader, long-term Connected Care Pilot Program, which makes available another \$100 million to help defray costs of providing telehealth services to patients at home or in mobile locations.

Telehealth providers are racing to launch new applications, and software providers are helping long-term care providers integrate platforms with existing devices, electronic records and health information exchanges. Holiday Retirement added telehealth access at all 261 of its communities. Others have coverage in some locations, such as Wisconsin-based Heritage Senior Living's use of Dictum Health's cart systems in five communities.

To be sure, providers never have had more choices about what services to use. The number of telehealth platforms is

proliferating almost as quickly as the use of virtual appointments.

Amwell said use of its nursing home solution increased 350% nationwide so far this year. It launched a new app in April. Medici, already serving 20,000, reported a 1,800% increase in provider registration in April.

Those who don't receive federal funding or direct reimbursement still should like the return that comes from adding or refining services, McCracken said. Offsetting savings may be found in reduced transportation for off-site care or less need for personal protective equipment.

Even as implementation affects the bottom line, McCracken said it will be difficult to deny telehealth's necessity. "It shouldn't be [viewed] as an expense," she said. "The expense of losing prospective residents or staff not wanting to come work for you — there's a cost to that, too." ■



Robots and drones

Pandemic shapes use of technology for older adults

By Kimberly Bonvissuto

Robots and drones are just two types of technology being called into service in senior living and care to address challenges presented by the COVID-19 pandemic.

Shelter-in-place, social distancing and no-visitor orders have senior living communities looking for new options to keep residents engaged and connected.

Connecticut-based Maplewood Senior Living found a creative way to support its residents while maintaining their overall health and wellness by introducing robot "friends" to its 15 communities in five states.

The Temi personal robots, powered by technology from Massachusetts-based Connected Living, come with pre-configured tablets, Alexa-enabled skills, a TV channel with programming designed for seniors, and a smartphone app to help seniors stay connected with their families.

Maplewood originally planned to launch the Temi robots as a unique feature at Inspir Carnegie Hill, a soon-to-be-opened, luxury modern senior living residence in Manhattan, said Shane Herlet, Maplewood's chief operating officer. The robots initially were going to be rolled out primarily for individualized education and entertainment, then phased into programming at suburban Maplewood communities.

Brian Geyser, vice president of



Photos: Maplewood



"They're cute. They're entertaining. The residents love them," Maplewood Senior Living's Brian Geyser said of the robot "friends" in the communities.

clinical innovation and population health at Maplewood, said the company was looking into robotics, knowing it would play a role in senior living in the future. With the COVID-19 pandemic, he said it was an opportunity to "pull the trigger" on a program to help residents cope with social distancing.

"They're cute. They're entertaining. The residents love them," Geyser said. "They have kind of personalities. They tell jokes and they'll give the weather and they'll ask ques-

tions. They're just nice to have around."

Temi interacts with residents via autonomous navigation, including 3-D mapping, navigation, user detection and tracking, obstacle avoidance and path planning; dynamic video, audio and artificial intelligence. The Temi robots cruise around the community interacting with residents and have become part of the fabric of each community now, Geyser said.

Herlet said that although the robots don't replace human

interaction, they do help residents feel more connected by allowing more frequent video chats with families, physicians and the internal teams. The robots also deliver packages to residents' rooms, and residents are learning how to train them to do certain tasks, such as picking up items from the dining room.

"While the robots provide a real functionality to normalizing daily life with strict social distancing and social isolation rules, the real benefit that we were hoping for and are seeing is their ability to lift the spirits of the residents," Herlet said. "We see our residents dance to the music Temi plays, laugh along with its jokes, follow Temi-led hallway exercise sessions, and utilize the video chat function to see family members who are temporarily not able to visit."

According to Connected Living, the virtual learning and engagement opportunities offered include live stream religious services, entertainment, education, and art and music therapy, including live concerts, lectures and virtual tours of museums and art galleries. The devices also can offer programming to reduce stress and anxiety, including guided meditation and yoga. Independent programming to keep residents engaged in their rooms or apartments includes reading materials, crossword puzzles, Sudoku, online trivia and gaming resources.

The robots also can connect residents with telehealth services.

"Temi allows us to safely check temperatures at the door, set up family and doctor social or health visits, and interact with unlimited engagement content," said Connected Living co-founder and CEO Sarah Hoit.

"We know that people who are actively engaged lead better lives, plain and simple. While we already rely heavily on technology to keep our residents engaged, the outbreak of the coronavirus has inspired us to find creative new ways to do so, while keeping residents safe," Maplewood President and CEO Gregory D. Smith said.

Drone delivery service launched

Meanwhile, in Florida, residents of The Villages, one of the country's largest retirement communities, began receiving prescription deliveries via drones in May, UPS announced.

Deliveries are dropped autonomously by drone at a location near the Sumter County, FL, retirement community from a nearby CVS pharmacy. A UPS ground vehicle completes the delivery to the doorsteps of the community's 135,000 residents.

The service involves UPS subsidiary UPS Flight Forward, established in 2019, and CVS Health Corp. subsidiary CVS Pharmacy, using the M2 drone system developed by UPS partner Matternet, a California-based aerial delivery company.

The first flights have been less than a half mile, but the potential exists to expand deliv-



Photo: UPS



In the new medication delivery program, deliveries are dropped autonomously by a drone near The Villages retirement community from a nearby CVS Pharmacy, then a UPS ground vehicle completes the delivery.

eries from two additional CVS pharmacies in the area, UPS said. The ultimate goal of the program is to make deliveries directly, with the drone lowering packages by winch, according to the company.

"Our drone delivery service will help CVS provide safe and efficient deliveries of medicines to this large retirement community, enabling residents to receive medications without leaving their homes," Scott Price, UPS chief strategy and transformation officer, said in a statement.

The drone service program supports social-distancing during the COVID-19 pandemic and is meant to provide faster, same-day delivery of time- or

temperature-sensitive medications. The Federal Aviation Administration approved the program under its Part 107 rules for small unmanned aircraft "to operate through the pandemic and explore ongoing needs after that period."

The service follows a similar pilot program from UPSFF and CVS to a North Carolina retirement community resident in November.

"Now more than ever, it's important that our customers have access to their prescriptions," Jon Roberts, CVS Health executive vice president and chief operating officer, said in a statement. "In addition to our in-store pickup, free delivery services and drive-through

pickup, this drone delivery service provides an innovative method to reach some of our customers."

CVS is the first retail partner using drone delivery with UPSFF, although UPSFF and Matternet have been working with the University of California San Diego Health System and WakeMed Hospital in Raleigh, NC, where they have completed more than 3,700 flights since launching service there in March 2019.

UPSFF and Matternet are now testing service in Virginia with the U.S. government and partners to determine how drones can assist medical professionals in the fight against COVID-19. ■



Tech use balloons in shrinking COVID-19 world

Devices and virtual care capabilities have become more than accessories

By Kimberly Marselas

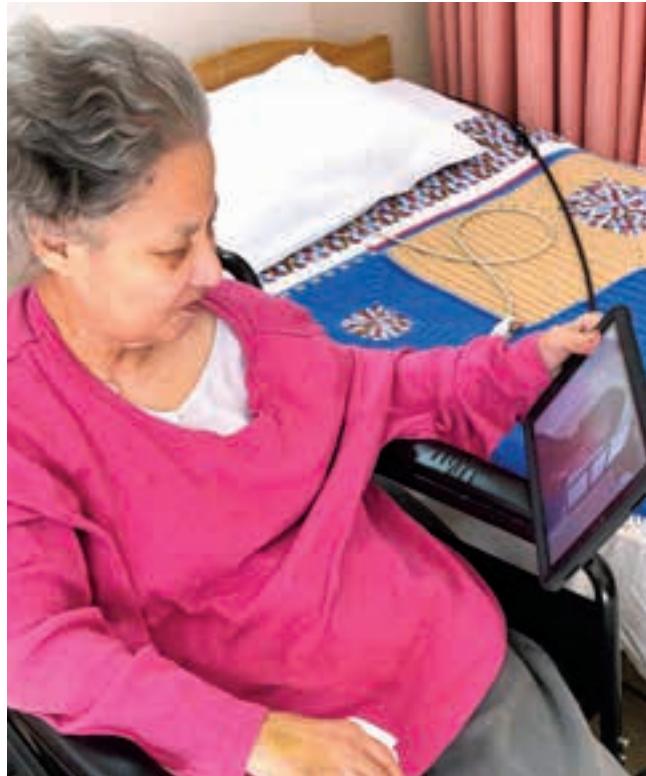
Tablets, telehealth and other technology have long been part of the model of care at The Allure Group, a network of six New York City skilled nursing facilities.

Therapy robotics, remote monitoring and social engagement platforms were available to most of the chain's 1,400 clients, though many shied away from various technology because they simply weren't accustomed to it.

But since the COVID-19 outbreak arrived in the United States, devices and virtual care capabilities have become more than accessories. As is the case with many healthcare providers and senior living operators, Allure expects more — and more powerful — technology tools to remain a permanent and robust part of its business model long for the foreseeable future.

"While this pandemic has been uniquely difficult for all healthcare and eldercare facilities, having cutting-edge technology in place has helped us weather this most challenging time to the best of our abilities," said Joel Landau, Allure's founder and chairman. "If the crisis encourages a wider-spread adoption of life-saving technology, it's certainly a silver lining in an otherwise catastrophic event."

Majd Alwan, Ph.D., LeadingAge executive director for the Center for Aging Services Technologies, or CAST, tracks technology adoption among aging



A resident uses an in-room tablet equipped with PadInMotion at The Allure Group in hard-hit New York City.

survey, with almost half of all participating providers reporting use of some kind of tool offering connectedness via a mobile device or television.

But, Alwan acknowledged, the coronavirus and the social distancing requirements it has necessitated undoubtedly have changed the habits of providers and residents.

"The foot in the door we're seeing is the social connectedness aspect, but the developers are starting to layer in and exploit the platform for additional needs-based aspects, what I call the 'wants-based services,'" Alwan said.

If a community already has given its residents tablets, developers are jumping at the chance to equip that same device with medication reminders or community-wide messages or enable it with remote vitals-tracking services.

There also has been a spike in interest in voice command and voice interaction tools because of their intuitive user interfaces, Alwan said. Such devices can help with in-room needs such as food ordering or connecting with a concierge to schedule a telehealth visit.

If resident devices have cameras and secure access, then providers even can repurpose them for remote physician or therapy visits — and from there, providers are able to incorporate nurses' notes and diagnoses into their electronic medical records.

In 2018, about 75% of all LZ

"Having cutting-edge technology in place has helped us weather this most challenging time."

Joel Landau, Allure founder and chairman

services providers. LeadingAge and senior-focused investment bank Ziegler team up for an annual survey of the nation's 200 largest nonprofit aging services providers that pinpoints technology trends.

The 2019 report found technology adoption rates were stagnant in many categories

compared with previous years. Only the use of telehealth, telemonitoring and medication monitoring tools had grown significantly between 2013 and 2018.

Engagement growing

Social engagement tools have only just entered the tracking



200 technology survey participants used EMRs — many of them on the senior living side.

'At an inflection point'

Alwan expects the urgency of the current situation will turn some users into permanent adopters.

"We're at an inflection point," he said. "I don't see this going back to 'normal.' It will be similar to what's happening with telework and online trainings."

Usually, technology begets more technology, Alwan added. Don't necessarily expect providers that start spending money on telehealth services or engagement suites to cut back elsewhere in their technology budgets.

In fact, many will have to spend more to keep the services they're implementing now dependable and accessible. There likely will be more provider investments in network bandwidth, internet speed, blanket WiFi and related components, Alwan predicted.

"Clearly, the virtual realm and technology medium has just exploded during COVID-19," added Lisa McCracken, director of senior living research and development for Ziegler. "Yes, it's out of necessity. But people are also adapting really well and finding they may never go back. ... We have advanced more in the last two months than in the last several years."

Landau said that having his staff members trained to use technology pre-COVID-19 helped with increased use during the crisis. But restrictions on visitors — and shifts in how the federal government covers telehealth — also have encouraged



Photos: Ziegler, LeadingAge

Lisa McCracken, Ziegler director of senior living research and development, and Majd Alwan, Ph.D., executive director of LeadingAge Center for Aging Services Technologies.

reluctant seniors to use more technology.

For instance, Allure's year-old Samsung tablets are equipped with PadInMotion, which can power anything from food ordering to telemedicine solutions.

"While they initially provided residents with entertainment and stress relief, they are now helping them stay in touch with their loved ones over audio and video chats," Landau said.

User rates have "skyrocketed," he adds.

Allure staff members also added a "call tree" app that allows representatives to offer families hotline access for video conference scheduling or condition updates and rolled out Vis-a-Vis, a service for virtual doctor visits post-discharge. Patients are given a small, handheld device to take home and help manage their transi-

"We're at an inflection point. I don't see this going back to 'normal.' "

Majd Alwan, Ph.D.

tion through telehealth.

Vendors innovate in new ways

Providers and their employees aren't the only ones becoming more nimble. Vendors also have innovated in ways unthought of just a year or two ago.

"The companies that are able to do a quick pivot and add on services remotely [with no need for in-person installation], they've been at a strategic

advantage during this time," McCracken said.

Both she and Alwan expect that future LZ 200 surveys will reflect increased adoption, although the urgency of this year's crisis will make select categories spike. Other categories, such as the already highly popular EHR, likely will continue steadily chugging upward.

For every new technology adopted, of course, providers get more data about residents, their families and staff members. And savvy providers likely also will invest in tech that can put that information to work.

Coming from CAST

Later this year, CAST will launch a new selection service for data analytics tools that produce business intelligence, and Alwan expects the category to show up on the 2021 LZ 200 data. ■

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4 costs associated with tech adoption

By Jared Darlington

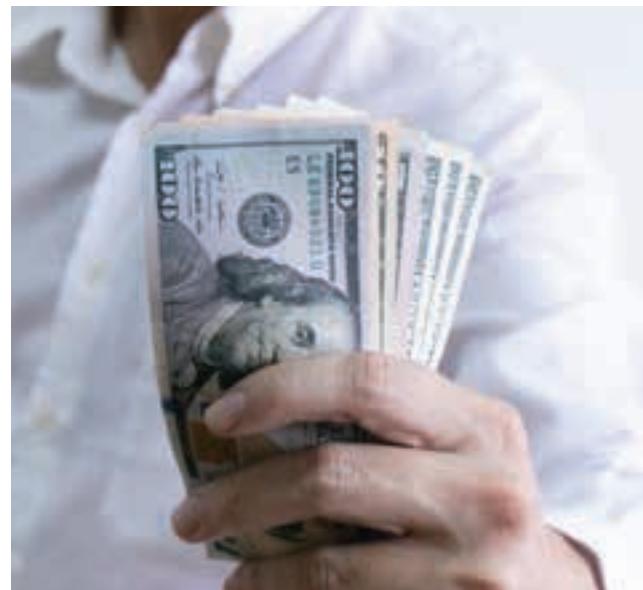
Innovative senior living and care organizations and leaders are using technology to improve the care and service experience for residents, families and staff members.

Before embarking on a new technology within your communities or facilities, conduct a deep dive into the benefits for both your residents and organization, from a resident experience and operational standpoint, and compare the potential outcome with the costs. Does this technology address current issues within your organization by increasing your quality of care, and are you prepared to continue to invest in technology in the future?

Five years ago, new technology in our sector may have consisted of electronic medical records, point-of-care systems and community internet access. Now, these technologies are expected. The next generation of new technology consists of resident monitoring, wearable devices and telemedicine/telehealth, among other types.

The cost of adding new technology to your organization should be viewed according to upfront equipment expense, monthly subscription/maintenance costs and operational cost concerning staff time. As an organization, you will need to identify what costs you can absorb and whether your pricing model allows costs to be passed on to residents.

• Capital costs



Determine the costs and benefits before undertaking any projects.

a light bulb, but now, that light bulb may be a greater cost and may need to be integrated into the smart lighting system.

• Operational costs

Operational costs must be addressed in many aspects, from the beginning of any new project. What are the actual costs associated with additional staff members and training to use the new technology? Will this technology require additional, specialized IT staff members, or does the technology provider offer support from a technical standpoint at an included or additional cost?

As an organization, you will need to determine the cost/benefits before undertaking any project for your communities. Understanding these points in all phases of implementation can help any organization maximize the benefits and minimize the cost while providing the best possible experience for the residents and family members. ■

Before embarking on a new technology within your facilities, conduct a deep dive into the benefits for your residents and organization.

Capital costs include costs of equipment for your communities/homes that your staff may use (such as tablets and mobile devices), upgrades to the structure of your homes (security, fall-monitoring systems, smart-enabled lighting) and costs for wearable devices for your residents. Leasing offers benefits over ownership, from both a cost and future upgrade standpoint.

Also, as devices become smaller, the chances for devices to go missing (via theft or misplacement) become greater. Consider factoring in a certain percentage

of your fleet of devices that may need to be replaced.

• Subscription costs

Subscription costs could include monthly internet costs required to run new technology and costs associated with software platforms that can consist of additional use costs for telemedicine.

• Maintenance costs

Maintenance costs include anything associated with the upkeep of your technology. A good example is smart lighting. In the past, your maintenance staff simply may have replaced



The author is the founder and CEO of Symmes Township, OH-based Cornucopia Family Homes.



2 steps to help with cyberattacks, data breaches

By Bradford P. Meisel, Esq., and Diane D. Reynolds, Esq.

The healthcare sector, including long-term care, has become a primary target of cyberattacks and data breaches.

Data breach incidents increased by 424% between 2017 and 2018, according to a 2019 report by cybersecurity firm 4iQ. Cybersecurity research firm Protenus found that 285 healthcare data breaches affecting more than 31 million patient records occurred between January and June of 2019.

Such incidents include ransomware attacks, in which malware prevents a provider from accessing its computer system unless it pays a hacker a requested amount of cryptocurrency, and data breaches in which hackers obtain residents' and patients' personally identifiable information.

Many such incidents have disrupted and compromised resident and patient care, including in long-term care. Moreover, the number of deaths that occur in long-term care facilities make such facilities desirable targets for cyber criminals.

Hackers have begun to obtain and use the personal information of recently deceased individuals in a practice known as "ghosting." According to the AARP, identity thieves annually use the identities of more than 700,000 deceased Americans to "open credit card accounts" or obtain services. Because it can take up to six months for the Social Security Adminis-



Diane D. Reynolds, Esq., and Bradford P. Meisel, Esq.



Photos: McElroy, Deutsch, Mulvaney & Carpenter

tration, financial institutions and credit reporting agencies to process death records, and because grieving family members are unlikely to check their recently deceased loved ones' credit, ghosting often can go undetected for weeks or even months.

In 2018, cybersecurity researchers observed hackers on the dark web selling large collections of recently deceased older adults' medical records that potentially had been obtained during cyberattacks on providers. These records contain names, Social Security numbers, phone numbers, addresses, dates of birth and insurance information. Therefore, long-term care facilities that possess personally identifying and identifiable information about recently deceased residents and patients can be inviting targets for hackers seeking to sell vast collections of data for use in large-scale ghosting schemes.

Long-term care facilities can face serious consequences in the event of a data breach or cyberattack.

Long-term care facilities can face serious consequences in the event of a data breach or cyberattack if they are found to have violated the Health Insurance Portability and Accountability Act. Fines for HIPAA violations can total as much as \$1.5 million per entity per violation.

What's next

So what steps can a facility take? First, retain an interdisciplinary team of professionals headed by a law firm with experience

in healthcare law, including HIPAA compliance. This firm can retain and supervise technology experts and professionals to evaluate your cybersecurity risks, develop and institute incident-prevention measures and best practices, and ensure compliance with HIPAA and any other applicable federal, state and international data security and breach notification laws.

Second, purchase cybersecurity insurance to cover liability in the event of a data breach and business interruption and remediation costs that are incurred as a result of such an incident. ■

Diane D. Reynolds, Esq., is a partner at McElroy, Deutsch, Mulvaney & Carpenter, LLP, who heads the firm's cybersecurity, data protection, and privacy practice. Bradford P. Meisel, Esq., is an associate at McElroy, Deutsch, Mulvaney & Carpenter, LLP.



Telehealth innovations are on the horizon

The new model can be a 'weave of services that support and protect the patient'

By John Hall

Telehealth has come quite a long way since first being mentioned in an 1879 *Lancet* article that briefly hinted at the futuristic concept of using a telephone to avoid costly physician office visits for relatively trivial matters. Now a pair of health industry professionals think telehealth can be taken to new frontiers in what they call an entirely new category.

It's "a weave of services that support and protect the patient, resident and the facility," says David Chess, M.D., founder, CEO and chief medical officer of TapestryHealth. The company recently changed its name from TapestryCare to reflect a service consisting of primary care physicians who not only evaluate but treat nursing home residents while doing everything from prescribing medication and ordering lab tests to hands-on wound care.

Ideally, Chess says, telehealth should be "a platform for patient-centric holistic medicine" that integrates care "around the patient."

Traditional telehealth, according to Chess and his business partner, Mordy Eisenberg, co-founder and chief operating officer, often is a stop-gap product through which a random physician sees a patient remotely and determines whether that



Residents and patients are seen when they need to be seen.

when companies assign clinicians to specific facilities, so people and their care providers are able to bond.

Innovations on the horizon, Chess and Eisenberg say, include predictive analytics in treatment regimens, which offer an additional proactive measure to help avoid trips to the hospital; live patient monitoring; a Quality Assurance and Performance Improvement playbook to help facilities minimize medication use and drive best practices; and tools to help clinicians, MDS nurses and facility staff accurately capture diagnoses. ■

person needs to go to the hospital or can be safely cared for in the facility by a nurse.

The new model they advocate, however, integrates a network of general practitioners and specialists around freestanding telehealth hardware inside each nursing facility, Chess says. In addition to making daily virtual rounds in each client nursing facility, for instance, clinicians review each resident's or patient's records while working with facility staff to create care plans and keep local doctors and families informed. Such integration of 24/7 on- and offsite clinicians with remote evaluations is essential to reducing or eliminating rehospitalizations, Eisenberg says.

Another important differentia-

tor in the new model is the ability to have a specialist network in each geographic area in which the telehealth company operates. "These are highly renowned specialists that most facilities and their patients would never have access to," he adds.

In the case of TapestryHealth, the hardware involved is a proprietary platform designed to bring instant remote consultation with one-button technology in the privacy of a resident's room. On-board diagnostic equipment, as well as a high-definition camera system, allows clinicians, with the assistance of facility caregivers, to conduct extreme close-up examinations, file photos of the exam as part of the individual's medical record, and make accurate assessments before treatment.

"Nursing home residents are seen when they need to be seen, without having to face the stress of leaving their facility 'home' when they are already compromised," Chess says.

Ideally, Chess and Eisenberg believe, residents are best served

Three Tips

1 Contact the telehealth service immediately whenever help is needed. The technology always is secondary to the people behind the screen. "We have created a savant group of clinicians experienced in caring for people in skilled nursing facilities but also genetically driven to treat people as if they are family," Chess says. "Our job is to enable these great clinicians to provide their care as effortlessly and efficiently as possible."

2 Practice early reporting. Early detection of a change in condition is paramount. "Along with remote monitoring, this will save lives," Chess says.

3 Keep the remote care unit close at hand. Facilities need to make it easy for nurses to access it.

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AI and predictive analytics are coming

For its mitigation capabilities, facility maintenance is more important than ever in the COVID-19 era

By John Hall

Facility management in senior living and care often has been unfairly overlooked when everything works, Dan Roberge believes.

That all changed when the coronavirus hit.

The recent outbreak of COVID-19 and its disproportionate effect on residents and their caregivers have awoken the public to the importance of a well-maintained facility, says Roberge, president and CEO of Maintenance Care. "From pandemic preparedness to implementing quarantine measures and performing sanitization tasks, facility maintenance plays a more-important-than-ever role in mitigating the effects of the virus outbreak on people's health and safety," he says.

"I believe that the changes we are seeing right now will leave an impact on the way our society approaches senior care and pandemic preparedness in general," he adds. "And I certainly hope it will be for the better."

Facilities are more than just businesses, Roberge says. They are places where healthcare professionals, administrators, housekeepers, cooks, custodians, physiotherapists, volunteers, family members and people in numerous other roles "come together to create safe and



Photo: FG Trade/E+/Getty Images Plus

healing environments for senior members of society to enjoy around-the-clock professional care in a community of peers."

Client communities often tell Roberge they never will go back to paper documentation and spreadsheets after switching to cloud-based computerized maintenance management systems (CMMS), which can save work and money.

"It's an upward spiral of mutually reinforcing supply and demand, and I believe that users will keep reaping the benefits of current and future technological progress," he says. "A lot of work time in facilities gets lost because of a lack of coordination and

progress-tracking. I see a large potential in streamlining work processes and task management, which can improve buildings' overall quality, functionality, safety standards and asset value."

The switch to CMMS

CMMS systems can vary widely in adaptability, efficiency and customizability. "Most of them will do the basics, but some facilities require veritable treasure chests of functionality to yield the expected benefits," he says. Roberge advises managers to choose systems based on their community's priorities and to not be intimidated by such futuristic tools as voice-assisted implementation.

"Don't make cost the deciding factor," he cautions. "Maintenance software starts at about the same price point as an average monthly mobile phone contract and goes up to about the price of monthly car insurance." Because of this, CMMS pays for itself many times over in effi-

ciency and avoided repair costs.

Those CMMS providers with an edge typically rank high in customer service and customization options, he adds.

Future innovations

Facility managers can look forward to a plethora of improvements, many of which will be shaped as databases mature.

Artificial intelligence also could play a more prominent role in future systems by predicting better solutions and work processes for more industries. They'll also empower future systems to dispatch maintenance staff according to changing variables such as location, task urgency and weather.

Near-future improvements will include 3-D virtual spaces, voice assistant support and seamless program integration. ■

Three Tips

1

Invest in a computerized maintenance management system (CMMS).

2

Build a habit: No matter how you use the CMMS of your choice, it's most powerful if you fully commit to using it. Especially during COVID-19 and quarantine, communication features and remote progress tracking options have proven to be invaluable.

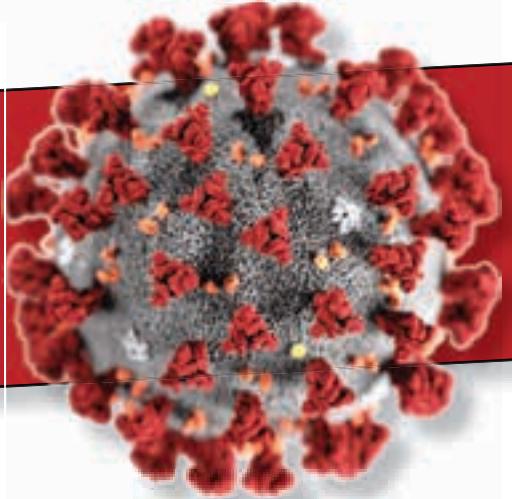
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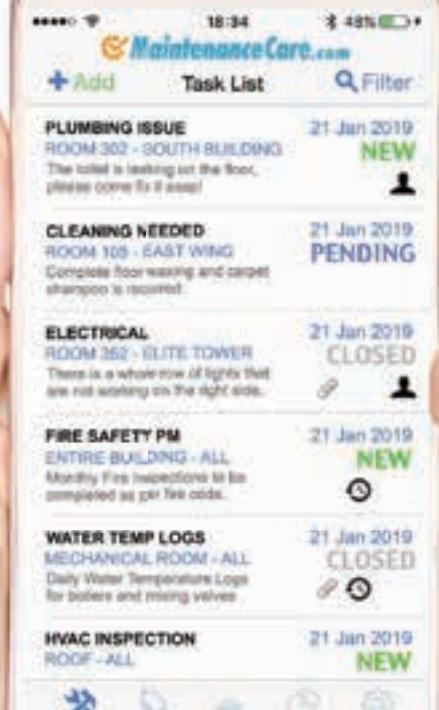
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