

SENIOR LIVING FROM 3 VIEWPOINTS:

How Operators Can Use Data Insights and
Machine Learning to Guide Care Levels





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Senior living today is anything but one-size-fits-all. And yet, senior living operators in many cases are still using questionnaires, family testimonials and broad analyses to assign residents to specific care levels, such as assisted living.

That's not to say this isn't valuable data — it is. But gathering it manually takes time and doesn't always lead to the best results for residents. More and more, senior living operators are turning to machine learning and artificial intelligence to help them place residents in their ideal setting.

In the process, they are building for themselves a holistic view of their communities and residents' care journeys by employing three distinct viewpoints of residents:



Residents at admission



Residents during their stay



The community as a whole

In this white paper, you'll learn how senior living machine learning and AI can help operators give residents the best possible care, while also giving staff more tools with which to support them.



THE NECESSITY OF REAL-TIME DATA

Why operators need community-wide data at their fingertips

Having a robust data set to draw from can improve decision-making and help leaders stay on top of the most important tasks. But the timing of receiving that data matters greatly.

As senior living operators well know, residents' health conditions can change quickly, sometimes in a matter of hours — or even minutes. But if operators can only respond by sorting through paper charts or records, their response time can be slow.

Capturing data on health changes and reacting to them in real time can make all the difference in residents' care plans, especially when paired with machine learning, says Vivek Kumar, senior director of software engineering at software provider MatrixCare.

“During the course of each resident’s stay in the community, their needs are evolving,” Kumar says. “So it’s beneficial to know as soon as possible if there is enough change in condition that the care team’s approach needs to be changed.”

With real-time data, operators can even possibly prevent or better mitigate adverse health events such as a fall or hospitalization. And with MatrixCare software, senior care providers can access that data on multiple devices, from a computer’s browser to a smartphone or tablet.

But this is a process that requires a robust set of data, and it all starts at admissions.



4 BENEFITS OF CLINICAL ADVANCED INSIGHTS (CAI)

Falls are a major concern in the senior living space because they can lead to increased hospitalizations and rapid declines in quality of life. By using the MatrixCare machine-learning model, dubbed Clinical Advanced Insights, or CAI, operators can view their community’s real-time data at any time.

CAI can empower decision-makers with the best possible tools to help mitigate these costly risks. Using the tool and its dashboard, operators can:

- ✓ Track resident conditions
- ✓ Improve care
- ✓ Help allocate staff resources
- ✓ Reduce labor expenses
- ✓ Allow staff to be more proactive with care

MatrixCare starts collecting information upon admission and throughout a resident’s entire care journey, with more than 150 data points to analyze.

□ □ EMBRACING THE 3 VIEWPOINTS

□ :: Admission, stay—and the 30,000-foot view

To keep track of residents in a community and get a complete picture of all that happens there, senior living operators must both catalog specific resident needs at admission and during their stay, and also possess a high-level view on the entire community and operation.

Typically, this information is collected during meetings with families and other manual assessments. But most operators will tell you that simply speaking with family members is not enough to place their loved ones. Families don't always know what level of care would be appropriate, or they may disagree about the care level that the care team recommends.

That's where the right technology partner comes in. Operators today are increasingly swapping out their manual processes in favor of technology systems that help them gain the best possible resident insights from three viewpoints: admission, their overall stay, and where they fit into the community at large.

“We want to make sure before we get that resident in our buildings, that we're able to care appropriately for them.”

KELLY DANIELSON

Clinical Product Manager, MatrixCare





VIEWPOINT #1: Admission

During admission, MatrixCare collects information about residents, such as their health conditions, in order to help make a determination regarding their appropriate care level. This is among the most crucial steps of the process, as it helps determine a baseline.

“From a clinical standpoint, it’s a huge help,” says Kelly Danielson, RN, BSN, PHN, LNC, clinical product manager at MatrixCare. “The software saves caregivers time by consolidating all of the pertinent areas of the electronic chart into a single view, thus identifying residents who’ve had recent changes in order to prioritize them while further supporting leadership meetings and shift-to-shift handoffs”

While the information that MatrixCare collects might seem simple (see box for list), the reality is that these simple pieces form the foundation of the operator’s care for each resident.

“We want to make sure before we get that resident in our buildings that we’re able to care appropriately for them,” Danielson says.



EXAMPLES OF HEALTH INFORMATION COLLECTED AT ADMISSION:



Demographics



Diagnoses



Allergies



Medications



General orders



Care needs



Vitals



Discharge plans



VIEWPOINT #2: A resident's stay

The data that operators collect at admission turns into a “living, breathing document” that is updated continuously throughout a resident’s stay at the community where they live, Danielson says.

MatrixCare’s data follows residents through their care journey and as they move among different care settings. For example, it’s not uncommon for assisted living residents to one day need higher-acuity care from a skilled nursing facility. Or perhaps they no longer need care at the level they are receiving it. But for operators, that determination is not always easy to make, and it can take time away from other tasks.

That’s where real-time data becomes a game-changer.

“We send alerts on a 24-hour, 48-hour and 72-hour basis to let caregivers or clinicians know that there’s been a change in a resident’s condition,” Danielson says.



USING REAL-TIME DATA FOR PROACTIVE INTERVENTIONS

Operators may be able to use their resident health information to intervene in care before an acute event. For example, blood pressure data might show a resident is more at risk of a stroke, or gait data can show whether they are a fall risk.

“We’re going to show you that right on that dashboard, because with this information, you can take a proactive approach to each resident’s care,” Danielson says. “If that resident needs help, maybe I need to get them a walker to help prevent a fall.”

With machine learning such as the kind MatrixCare implements in its solutions, operators can spend less time on care planning and more time on what really matters: Spending time with residents.



VIEWPOINT #3:

The 30,000-foot view of all residents

Although MatrixCare's data is collected on the individual level, it is also able to compile that data into a holistic view of the community so that leaders can make better operational decisions.

The MatrixCare Service Plan Recommender can give an overview of how a community is allocating services throughout the building. And that data can help optimize workflows or discovery hidden issues that a human might not otherwise have noticed.

For example, a senior living operator might study the data and realize that their residents need four caregivers for bathroom assistance, not two. Thus, they are able to make informed, data-driven decisions and gain insights they might not otherwise have known.

Setting appropriate staffing levels is just one example of how that data can be used. Operators might also use it to track resident nutrition and come up with meal plans, or take note of overall community health when creating fitness plans or programming.

"It could be any services that senior living operators provide," Kumar says.

"We send alerts on a 24-hour, 48-hour and 72-hour basis to let caregivers or clinicians know that there's been a change in a resident's condition."

KELLY DANIELSON
Clinical Product Manager, MatrixCare



ALLOCATING STAFF

Using MatrixCare's dashboard, operators can get a full 360 degree view of their community. MatrixCare also assigns residents "acuity scores" so operators can see whether their needs are low, moderate or high and plan accordingly.

That can come in handy when assigning shifts -- and a little bit can go a long way.

For example, an operator might pull a worker off of one station and put them on another, even for just "20 or 30 minutes," Danielson says. And given the senior living industry's challenges hiring in 2022, knowing where to allocate workers can mean the difference between a community that is adequately staffed and one that is not.

The senior living tech wave is here to stay, and operations are only becoming more complicated. The only question is whether senior living operators take advantage of it with tools such as MatrixCare.

“It’s in real time, I know I’m not going to miss anything; any pertinent data is right at my fingertips at a glance, I can see it,” Danielson says.

Contact MatrixCare to learn more:

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