



ELDERMARK
SENIOR LIVING SOFTWARE



ELDERSMARTS
ANALYTICS AND INSIGHTS

Unlocking the Power of Data and AI in Senior Living



Introduction

In the rapidly evolving senior living industry, integrating data analytics has become crucial for driving operational efficiency, enhancing resident care, and optimizing financial performance. Based on an article from PR Newswire, 9% of operators say they currently use AI-aided technology today, and one-third of executives (34%) say they plan to adopt this type of technology in the future.

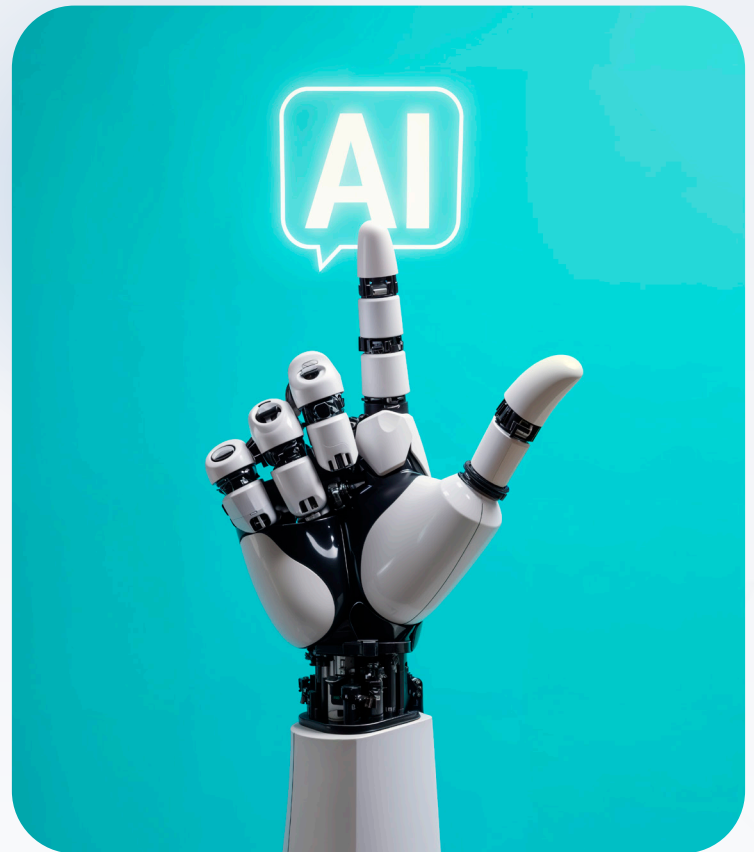
By effectively harnessing data and leveraging new tools (such as AI) as they become available, senior living communities can experience better decision-making and improved outcomes. This white paper explores the transformative power of data in senior living, focusing on how analytics can streamline processes, bridge gaps, and elevate the standard of care provided to residents.



Streamlining Data Management in Senior Living

Data management in senior living has traditionally been fragmented and resource intensive. Unlike other healthcare sectors, senior living is not required to report metrics or quality indicators to regulatory authorities, resulting in a lack of standardization. This inconsistency has led to varied approaches to measuring and monitoring performance, with many operators using different technologies and dedicated staff to collect and organize data. The challenge has been to connect these fragmented systems and provide a cohesive view of operations. This is where Analytics as a Service becomes essential. A comprehensive analytics platform can offer senior living communities' end-to-end visibility across their operations, from clinical care to financial management.

Effective data utilization in senior living starts with understanding the diverse sources of data within a community. These sources include clinical electronic health records (EHRs), resident occupancy data, electronic medication administration records (EMAR), wearable sensor technology, billing and payment systems, and more. Integrating these disparate sources into a unified platform is key to unlocking the power of this data. This integration simplifies data management and enables operators to make data-driven decisions that enhance resident care, improve operational efficiency, and optimize financial performance.



A comprehensive analytics tool can leverage decades of domain knowledge and expertise in senior living, providing tailored solutions to address the unique challenges faced by these communities. One significant advantage of this service is its ability to deliver insights directly to users, eliminating the need to log into multiple systems. This



approach, often called the "morning paper," ensures that critical metrics and alerts are delivered to the right people at the right time. Caregivers, financial managers, and executives each receive the specific data they need to perform their duties effectively. This prescriptive approach to analytics saves time and ensures that important issues are addressed promptly, leading to better outcomes for residents and more efficient operations.

Analytics Transforming Senior Living Operations

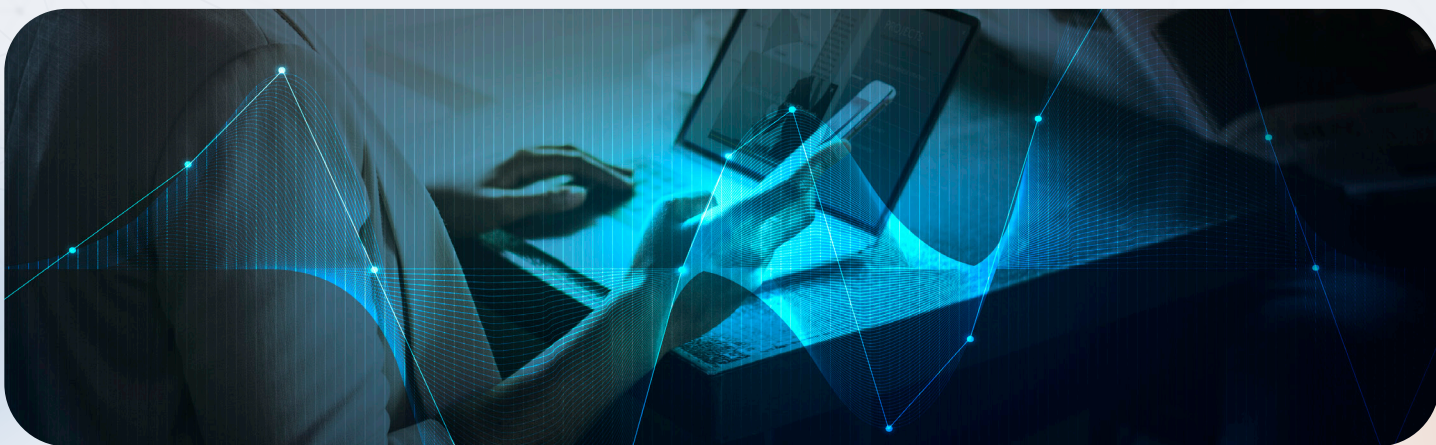
The evolution of analytics in senior living has been significantly enhanced by the integration of advanced technologies such as artificial intelligence (AI). Leveraging AI enables analytics platforms to progress from descriptive and diagnostic analytics to predictive and prescriptive analytics. This transition allows platforms to report past events and reasons, predict future trends, and recommend actions for desired outcomes. For instance, AI can analyze historical data to foresee potential health issues in residents, enabling proactive caregiver interventions. Predictive analytics also aid financial managers in forecasting budgetary needs and cashflow – key to meeting financial goals and optimizing resource allocation for more sustainable operations.



The core value of advanced analytics is its ability to aggregate and synthesize data from multiple systems, providing a comprehensive view across different operational areas. In the senior living sector, platforms like Eldermark exemplify this by integrating CRM data with clinical resident records, medication administration, and invoicing systems. This integration ensures continuity of care and operational efficiency, optimizing every aspect of the resident's experience. Identifying discrepancies, such as a resident being in the wrong level of care, can significantly impact both the resident's well-being and the organization's financial health.



The evolution of analytics in senior living has been significantly enhanced by the integration of advanced technologies such as artificial intelligence (AI). Leveraging AI enables analytics platforms to progress from descriptive and diagnostic analytics to predictive and prescriptive analytics. This transition allows platforms to report past events and reasons, predict future trends, and recommend actions for desired outcomes. For instance, AI can analyze historical data to foresee potential health issues in residents, enabling proactive caregiver interventions. Predictive analytics also aid financial managers in forecasting budgetary needs and cashflow – key to meeting financial goals



and optimizing resource allocation for more sustainable operations.

The core value of advanced analytics is its ability to aggregate and synthesize data from multiple systems, providing a comprehensive view across different operational areas. In the senior living sector, platforms like Eldermark exemplify this by integrating CRM data with clinical resident records, medication administration, and invoicing systems. This integration ensures continuity of care and operational efficiency, optimizing every aspect of the resident's experience. Identifying discrepancies, such as a resident being in the wrong level of care, can significantly impact both the resident's well-being and the organization's financial health.

Understanding the distinction between dashboards, reports, and analytics is crucial for deriving deep insights from data. Dashboards offer real-time data, and reports provide snapshots of specific metrics. In contrast, analytics delivers descriptive, diagnostic, predictive, and prescriptive insights. This means analytics can explain what is happening, why it is happening, predict future trends, and prescribe actions to optimize outcomes. In senior living, analytics can track performance metrics over time, compare them against industry benchmarks, and provide actionable insights that drive strategic and



AI Enhancing Healthcare Operations and Risk Management

AI models excel in analyzing vast amounts of data, connecting various metrics, and generating actionable insights. In the senior living sector, AI can review patient records, assessments, nurse's notes, incident reports, and vital signs to create comprehensive risk scores for each resident. This dynamic scoring system helps healthcare providers identify individuals at higher risk of falls, enabling prompt implementation of preventive measures. In customer trials, our AI technology successfully predicted higher fall risk than the on-site team before 3 consecutive days of falls occurred. Predicting and mitigating risks based on historical data and real-time inputs significantly improves patient care and operational efficiency.

The continuous learning capability of AI models ensures that their accuracy improves over time. As these models process more data, they refine their predictions and recommendations, becoming increasingly reliable. This iterative learning process is particularly beneficial in environments where conditions are constantly changing, such as healthcare facilities. By providing caregivers with prioritized lists of residents needing immediate attention, AI helps streamline daily operations, reduce risks, and enhance overall service quality. Integrating AI into daily workflows transforms how businesses approach problem-solving and decision-making.

AI's impact extends beyond risk management to critical areas such as financial performance and staffing. For instance, AI can analyze financial data to identify discrepancies, forecast revenue, and optimize resource allocation. In staffing, AI models can align workforce deployment with service demand, ensuring the right number of staff is

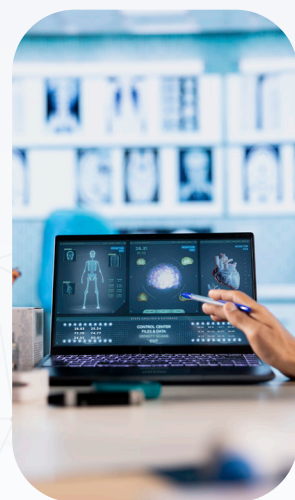


demand, ensuring the right number of staff is available at the right time. This alignment improves service delivery and enhances employee satisfaction by reducing overwork and burnout. Data-driven decisions in these areas lead to better financial health and more efficient operations.

One of the most exciting AI developments is its application in predicting resident turnover in healthcare facilities. The median annual resident turnover rate in assisted living communities was approximately 46.8% in 2024 (Senior Housing News). By analyzing patterns and trends in resident behavior and interactions, AI can forecast potential move-outs, allowing providers to take preemptive actions to retain residents. This predictive capability is invaluable in managing occupancy rates and ensuring steady revenue streams. Additionally, AI-driven insights into quality measures and clinical outcomes help providers maintain high standards of care, comply with regulatory requirements, and improve patient satisfaction.

Enterprise analytics provides a comprehensive view across multiple systems within an organization, going beyond traditional electronic health record (EHR) systems. This holistic approach is essential for senior living facilities that rely on various data sources to make informed decisions. By integrating data from different systems, enterprise analytics offers a unified perspective that enhances visibility and operational efficiency. This is particularly valuable in senior living, where accessing and analyzing data from diverse sources can lead to improved outcomes and better resource allocation. Analytics as a service further simplifies this process by delivering tailored analytics solutions without significant internal investments.

AI in senior living analytics is not limited to fall prevention. AI models are being developed to predict other critical events, such as resident move-outs, which can significantly impact facility operations. Leveraging AI, senior living facilities can gain insights into potential future events and take proactive measures to address them. This forward-thinking approach is driven by collaboration between domain experts and technology providers, ensuring that the solutions developed are practical and effective. Continuous feedback from users in the field helps refine these models, making them more accurate and reliable over time.



Data governance is crucial for managing analytics in senior living. Ensuring data accuracy, consistency, and security is essential for making reliable decisions. Overlapping data requests and multiple sources of truth can lead to confusion and inefficiencies. Establishing clear data governance policies aligns data usage with organizational goals, ensuring everyone works from the same set of accurate information. This alignment is vital for maintaining the integrity of analytics and maximizing their value. Effective data governance also involves managing data access and ensuring compliance with relevant regulations, which is particularly important in the healthcare sector.

Integrating data analytics into senior living is essential for operational transformation, enhanced resident care, and improved financial performance. Utilizing diverse data sources within a unified platform offers actionable insights that drive continuous improvement. Advanced analytics platforms further boost operational efficiency by consolidating data, enabling benchmarking, and leveraging domain expertise.

These tools facilitate proactive care management and resource optimization, which is crucial for thriving in today's competitive landscape. AI and machine learning improve decision-making and performance by enhancing business operations through real-time monitoring, predictive insights, and prescriptive actions.



In conclusion, the integration of data analytics and artificial intelligence in senior living is not merely a trend but a transformative necessity that enhances operational efficiency, improves resident care, and bolsters financial performance. By unifying disparate data sources into cohesive analytics platforms, senior living communities can gain invaluable insights that empower informed decision-making and proactive care management.

As the industry continues to evolve, leveraging advanced technologies such as AI will be crucial in addressing the unique challenges faced by these facilities. The potential benefits, including improved resident outcomes, optimized resource allocation, and streamlined operations, underscore the importance of adopting a data-driven approach. Embracing these innovations will not only advance the quality of care provided to seniors but will also position senior living communities for sustained success in a competitive landscape.

To learn more about Eldermark's Data and AI features, contact us:

Website:

www.eldermark.com/products/eldersmarts

Email:

sales@eldermark.com

