Demystifying data and analytics for skilled nursing facilities.

Analytics solutions, how to implement them, and what they can do for your organization.

MatrixCare®
by **ResMed**

Roughly 15,600 nursing facilities with 1.7 million licensed beds provide care for about 2.5 million residents in the United States. Even before the pandemic, many skilled nursing facilities were struggling to stay afloat and provide quality care. A 2019 report found that roughly half of U.S. skilled nursing facilities were not operating profitably. The COVID-19 crisis has compounded the issue, with 97% of nursing homes losing revenue due to COVID-19.[1]

Simply put, skilled nursing facilities must provide high-quality yet cost-efficient care to be competitive in today's challenging SNF environment. The industry's staff turnover is high, and there's a critical shortage of people qualified to provide patient care. Over the past four years, 4% of nursing homes (more than 550) closed, and that trend is accelerating.

In order to gain a competitive edge, providers must be able to use data. By using data and KPIs, skilled nursing facilities can better understand the business aspect of their facility and survive the pressures of the industry.

> **This eBook explores the role data should play when it comes to informing the decisions that will lead to a better business—and ultimately, better care.**

1. https://www.ahcancal.org/News-and-Communications/Fact-Sheets/FactSheets/Survey-SNF-COVID-Costs.pdf

Analytics: The competitive advantage.

Skilled nursing facilities across the United States face many challenges including reduced operating margins, staffing shortages, implementation of the Patient Driven Payment Model (PDPM), and increased competition that may cause many facilities to close or raise rates for residents.

In addition, the SNF resident profile is shifting toward patients with more complex clinical conditions. Despite our aging society, SNF occupancy is declining, with the national average falling to 78% in 2018. Lengths of stay are also decreasing, with data showing an average of 143 days, compared to stays that used to be measured in years.[2] Providers are working with narrowing referral networks, which means that facilities that can improve outcomes and meet KPIs will be better positioned to increase occupancy rates. Despite this challenging environment, there are many opportunities for SNFs to focus on their operating revenue to enhance profitability.

2. https://www.mcknights.com/blogs/the-five-big-trends-affecting-all-skilled-nursing-facilities/#:~:text=Despite%20our%20aging%20society%2C%20SNF,to%20independent%20or%20assisted%20living

Analytics: The competitive advantage.

The secret sauce for a competitive advantage.

With the need for care in skilled nursing settings on the rise, facilities need to understand how referrals and patients are driven to their organizations. In addition, using data to develop a plan for handling labor and financial challenges in crucial in today's environment. Data-driven outcome strategies are the secret sauce that can give providers a competitive advantage in this rapidly changing market.

You can't measure quality without data. You can't take action without meaningful data. Analytics will support root cause analysis and help prevent adverse events. Leveraging analytics is your key to lowering hospital readmissions and improving overall quality of care.

Kevin Whitehurst, senior vice president, Skilled Nursing Solutions, MatrixCare

Defining analytics as the solution.

The benefits of analytics are simple: A pre-built dashboard delivers a visualization of key metrics in a summarized form. This visualization should be easy to use and automated, with the ability to present historical trends and allow you to customize the data you need.

Having a thorough understanding of analytics terms is important when you're working with vendors that provide these solutions. You need to know your options and how they can benefit your organization.

Descriptive analytics:	*What happened and when?*
Diagnostic analytics:	*Why did it happen?*
Predictive analytics:	*What will happen?*
Prescriptive analytics:	*How can we make it happen?*

While different kinds of analytics can provide different data, it's a visual tool at its core that merges information from different sources in a way that provides answers to your specific questions.

Defining analytics as the solution.

Predictive analytics.

Machine learning algorithms trained against a large and varied data model can help predict which residents are most likely to fall, allowing staff to take action for fall prevention. Fall risk predictions are one element of an overall acuity score, which pulls several clinically relevant data points from across a resident's EHR. The acuity score presents concise findings to proactively alert staff about residents in their nursing unit who need extra care and attention without running multiple reports or chart abstractions.

The combination of descriptive, diagnostic, and predictive analytics lets clinicians make decisions based on real-time feedback and insights. This helps improve outcomes and can highlight opportunities to maximize reimbursement. Analytics provides data-based insights that help staff improve in areas ranging from individual resident assessments to systemic performance reviews. Analyzing current and historical data can help predict trends and identify areas for clinical and operational improvements. This is what it means to become a data-driven organization.

Many falls can be prevented. Reducing falls by even a fraction could greatly improve outcomes and reduce health system costs for residents and facilities.

Defining analytics as the solution.

Understanding data access.

Another term important to understand is data access—providing direct access to key system tables in your platform, to support a more technical analytic approach. Compared to analytics, data access is an IT project focused on analyzing important business trends and macro decision-making.

With analytics, we were able to automate census and other reporting. For daily reports, I estimated that it saves $100,000 in opportunity costs for each report we automate. And it frees up our staff's time to do the things that they're supposed to be doing, rather than manually compiling reports.

Mike Easley, CIO, American Senior Communities

The need for data access can span your entire organization. From executive C-suite leaders to management, to associates, data access offers important tools that can deliver immediate insights that can be valuable to a range of roles.
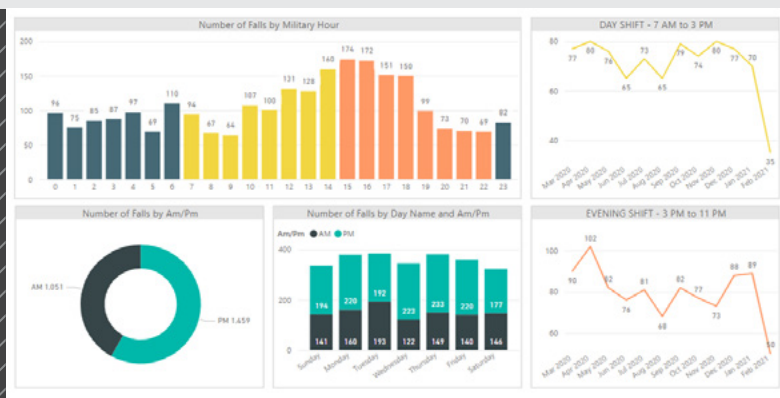
Regardless of the complexity of the data you need, if you're advocating for analytics in your organization, you need to start with the why. Consider the industry challenges you need to navigate, and settle for nothing less than a platform that provides information in near real time, saves hours of compiling data, and includes both clinical and operational analytics.

Defining analytics as the solution.

Data access leads to a data-driven organization.

With the ability to see data in near real time, attach your own licensed toolset, and with zero footprint on your source system, direct data access gives you the most flexibility.

- *How does it work?*
  There are no connections to the primary database that powers your EHR. Instead, a clone of the primary allows you to attach tools to a secondary access to the database.

- *Why is it set up this way?*
  This architecture helps avoid crashing your primary "operational" database where people are working around the clock to support resident care. Best practices dictate that reporting databases are architected separately from the primary database to ensure best possible performance for all stakeholders.

- *What does this do for me?*
  This approach allows you to stop relying exclusively on EHR/RCM vendor reports, and to work independently with your own IT staff or hired consultant for your data-driven use cases.

Many organizations already incorporate data access into their analytics strategies by combining data—including payroll, CMS information, and even your own visualization tool—to create a "single pane of glass" for the leadership team.

While this approach is undoubtedly the most powerful, it's important to be realistic. If you don't have an IT staff or technical expertise, this is not the path to pursue. It's not uncommon for organizations to lack this skillset. If you want to pursue data access without an IT team, you could hire consultants to build custom data access tools or ask your vendor if they provide a partner. Regardless of how you go about getting this analytics solution, the benefits are immense, saving potentially six figures in opportunity cost for each report automated.

> *With MatrixCare, the analytics that are built into the visuals make it easy to understand either where the problem is or where the trend is going.*
>
> **Jesse Marinelli**, chief transformation officer, PruittHealth

Why you need an analytics solution (when you make do with reporting).
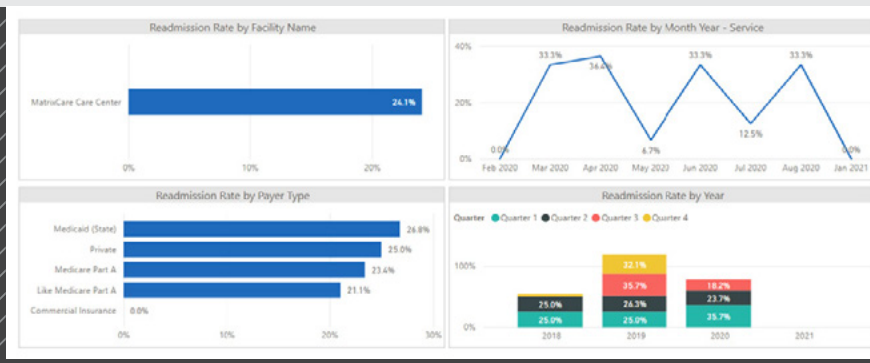
If you wonder why you need an analytics solution beyond reporting, you should understand that there's a significant difference between the two. Reporting is a page-based layout, operationally focused in real time. Its downside is that each run affects the application database, which can take up cycles on the server and cause the system to be sluggish for other users.

A true analytics solution allows you to slice and dice data in multiple ways. It should give you a visualization of your data through charts, funnels, and breakdowns that cut across multiple offices.
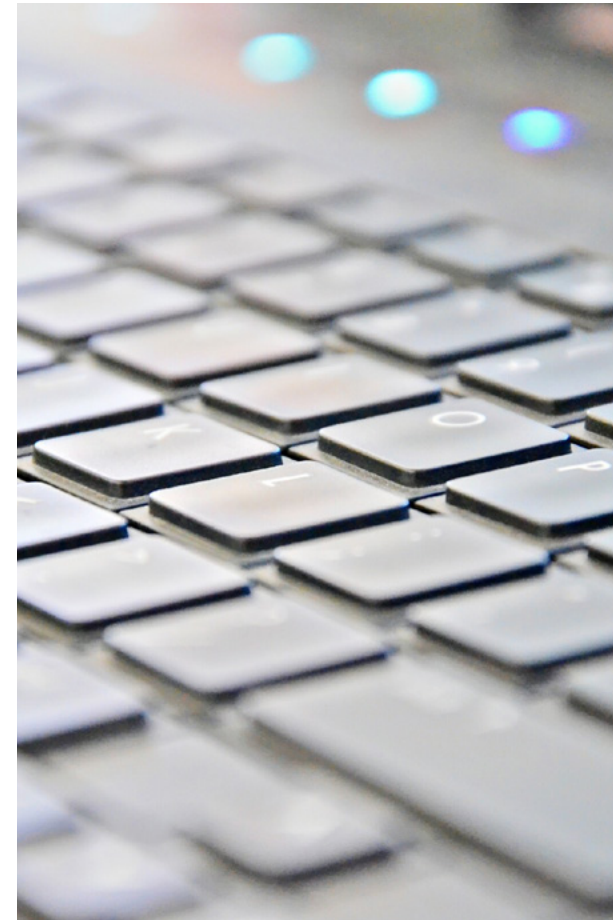
Why you need an analytics solution (when you make do with reporting).

Analytics should:

- Include a robust library of pre-built reports that are geared toward leadership
- Summarize KPIs across the enterprise using near real-time trends
- Have its own visualization tool suited for leadership to monitor key trends
- Invite analytical discovery
- Allow you to drill down into data
- Have near real-time updates throughout the day and self-service
- Be simple and easy
- Be available on mobile devices and web browsers
- Have zero footprint on the source system
- Compliment the source system's operational reports

Analytics should not:

- Make you log into the RCM or EHR system
- Require you to build your own content
- Be viewed as a replacement for any operational report request that the source system cannot deliver
- Be complicated in adoption or implementation
- Require an IT skillset to use

While analytics will not solve every single thing, it's a key driver to the success of your business. Simply put, embedded analytics makes your system smarter.

The ability to track admissions and discharges, where they came from, and why they left has directed us to go to those people and specifically work on our length of stays and our readmission rates.

Kevin Clark, director of electronic medical records, American Senior Communities
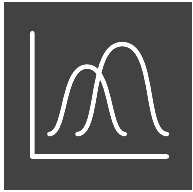
It's not the data in isolation. It's the trend.

In skilled nursing, there are several KPIs that are critically important. When considering data, you wouldn't focus solely on a drop in revenue from your largest payer. You would also focus on census trends, readmission rates, admissions, and discharge trends for the same payer to gain insight to overall macro factors that could be impacting the KPI.

In other words, it's not the data in isolation that matters— it's the trend. Once you see a trend going in a direction, analytics can help you answer the why.

By using a variety of insights—clinical, operational, or financial—you can discover why trends are happening. And while you can get this data in reports, it would be pages of information. Analytics makes it much easier to spot trends and discover the "why" behind the numbers.

Accurate data and being able to support data driven decision making is critical to our success.

Allison Rainey, , director of IT, National Healthcare Corporation

Prioritizing data drives better outcomes.

Analytics solutions can be like getting a new toy. You get excited about everything it can do, but soon you're overloaded with details, causing information paralysis.

This is why it's important to understand your why: the business problems you need to solve, and what that will cost. You should also communicate with your vendor about what kind of analytics solution they can provide, what elements can be customized, and what the implementation process looks like.

Choose what makes sense for your organization and your market. And ultimately, commit to using and making data-based decisions. Removing subjectivity and using analytics as a tool can drive better outcomes for your organization—and better care for your patients.
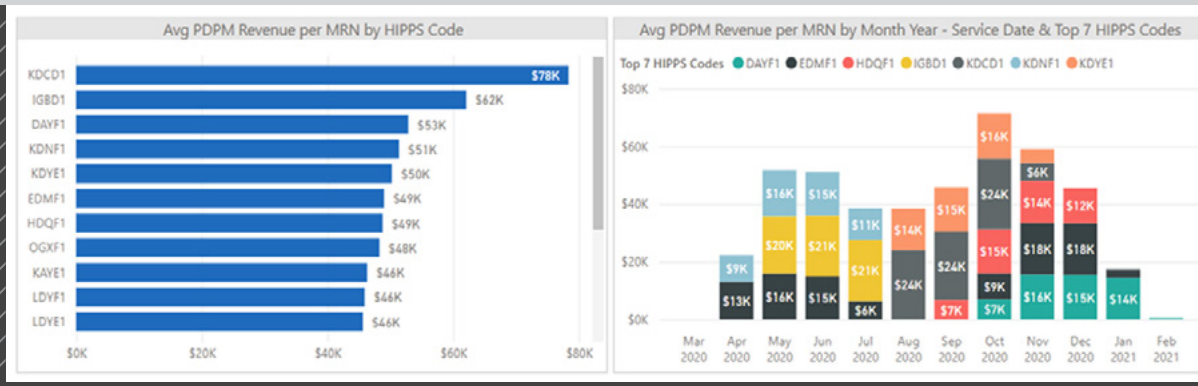
ⓘ More about MatrixCare.

MatrixCare is a wholly owned subsidiary of ResMed, a world-leading digital health company. Our software solutions change the way people receive care in settings outside of the hospital and empower providers with tools that help people live healthier, high-quality lives. This integration gives you everything you need to attract, hire, and onboard your best team—helping to navigate the caregiver shortage for skilled nursing facilities.

Resources

The links below further reveal current industry challenges and trends that reinforce the need to adopt a data and analytics solution built to enhance business and clinical operations.

https://www.marketwatch.com/story/3-reasons-there-will-be-a-wave-of-nursing-home-closures-11605221403

https://www.marketplace.org/2021/02/11/the-economics-of-nursing-homes-and-paying-for-one/

https://www.forbes.com/sites/howardgleckman/2020/03/02/why-are-so-many-nursing-homes-shutting-down/?sh=626d000b1712

https://www.nytimes.com/2020/04/21/business/coronavirus-nursing-home-finances.html

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or call 866-469-3766.