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**Care management transformation:
Harnessing an analytics-driven approach**

Part of the *Sustaining Success series* on health care performance improvement topics

Changes to the health care industry, driven by the Affordable Care Act, demand improved care coordination, enhanced patient engagement and experience, and cost containment. In a fragmented health care delivery system, this presents many challenges to transforming clinical and financial operating models. Care and utilization management (CM) programs are uniquely positioned to positively impact care coordination to help reduce cost, increase patient/family engagement, and improve outcomes. Today, more than ever before, an innovative and analytics-driven model for care management is imperative. As a patient transitions across the care continuum, there are disconnects within the care delivery system that tend to result in redundant testing, clinical services rendered at a higher level than medically necessary and loss of financial information – all impacting quality of care, patient experience, and reimbursement. The ability to connect care delivery with revenue cycle operations is a meaningful goal that can drive both better patient outcomes and improved margins. The right technology infrastructure and workflow processes that include when, how and what information is documented can provide valuable data that drive analytics to support care transformation.

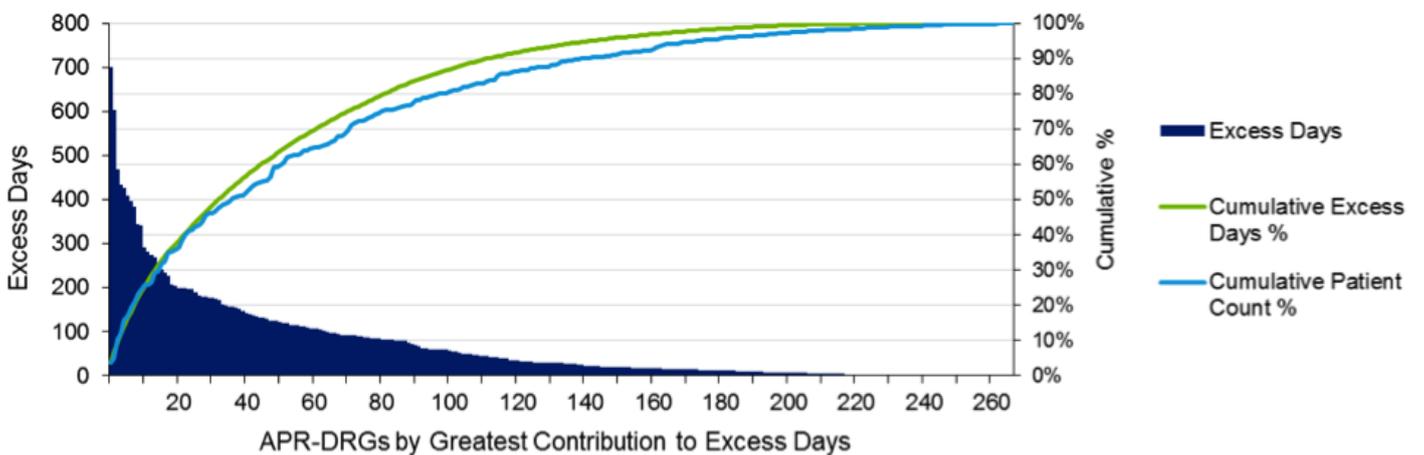
There are a number of sources, in addition to clinical information systems, that provide data points to better understand resource allocation and consumption, and drive throughput. With millions of data points, understanding what is meaningful and delivers actionable insights is important. One approach is to use patient stratification to understand the patient populations and variances in care to drive operating model changes.

Insights and analytics

This approach was applied to an East Coast integrated health delivery network. Post-merger and acquisition activity, the health network needed to integrate and standardize their care management model. Patient stratification is a key differentiator of a leading care management model, allowing CM resources and nursing to apply the appropriate level of services based on patient complexity. This can lead to cost and length of stay (LOS) reductions as CM resources are focused on complex cases while working collaboratively with utilization review staff and bedside nursing in managing the care delivery. For this health delivery network, the directed analysis and modeling demonstrated:

- Analysis of LOS across all patient encounters, by DRG, identified that the majority of excess days are accounted for by just 1-2 extra days for most admissions.
- Excess days are costly—the value of each day can be as high as \$950 - \$1,000 for a health system. A reduction of length of stays/excess days by 30% across DRGs was made through designing a process for patient stratification and developing a predictive model to set LOS targets based on DRG.
- Chief Medical Officer engagement and development of an educational feedback loop to physicians and staff is crucial to gain and maintain buy-in for compliance of timely discharge orders to reduce the excess days identified.
- 2016 reporting indicated a reduction of 17,000 excess days, or approximately \$17 million in cost avoidance, due to reduction in LOS.

Understanding Variation in LOS by Diagnosis



Source: Client finance encounter data

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Key considerations

Provider executives ready to implement a successful care management model transformation should consider:

- Is it possible to hardwire protocol-driven standardized processes that align with clinical and financial objectives?
- How do we manage key access points for inpatient and observation populations?
- Can a predictive model for stratification and LOS target setting be built to identify and incorporate this target in the patient's care plan?
- How are complex case patients identified and is there a process to ensure the right level of care and a transition plan is assigned?
- Is there an integrated and collaborative model between care management and revenue cycle to address integration points such as denial prevention and management?

- Can existing technology be optimized to support redesigned workflow processes and generate performance data?
- How can data and analytics be assimilated to establish actionable reports and hold key stakeholders accountable?

To sustain a care management program transformation, ongoing monitoring and reporting of outcomes is fundamental. Once patient stratification and a predictive model is in place, it is important to track the improvement in care quality and LOS reduction.

- How many excess days were reduced?
- Has there been a reduction in risks to readmissions and medical necessity denials?

The Bottom Line

Patient stratification is a key differentiator of a leading care management model. Through the use of analytics and predictive modeling, care management programs will likely impact LOS excess days reduction and promote denial prevention activities. Health systems can use this information to coordinate care delivery that can provide a better patient experience while reducing excess days and the overall cost of care.

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