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Care Model Redesign
Part 3: Supporting care model technology and analytics

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Technology and analytics are essential to care model redesign. These enablers are used in care management to identify patients with impactable needs, determine the care team members who can make the biggest impact, and measure volume and capacity to right-size the care team. In this blog, the third of a series, we discuss how technology and automation contribute to care management programs, as well as the pain points and critical success factors that our team encountered at various client organizations.

Multi-dimensional identification & stratification

Most provider organizations are already using a single-source method of identification or stratification focused on clinical risk or future utilization. Many of these organizations do not tailor risk scores for different programs, which end up overlapping with each other. While these methods can measure various components of patient clinical risk, they are only capturing a small piece of the greater patient profile. To take the care model to the next level, organizations need to pool multiple data points to form a comprehensive view of patients' risk through what our team calls a composite risk score. A composite risk score might look different from one organization to another based on data availability, data refresh possibilities, and the electronic health record (EHR) platform. Each organization is also empowered to customize how different inputs to the risk score are weighted and how they would prioritize the patients that are flagged as being high risk.
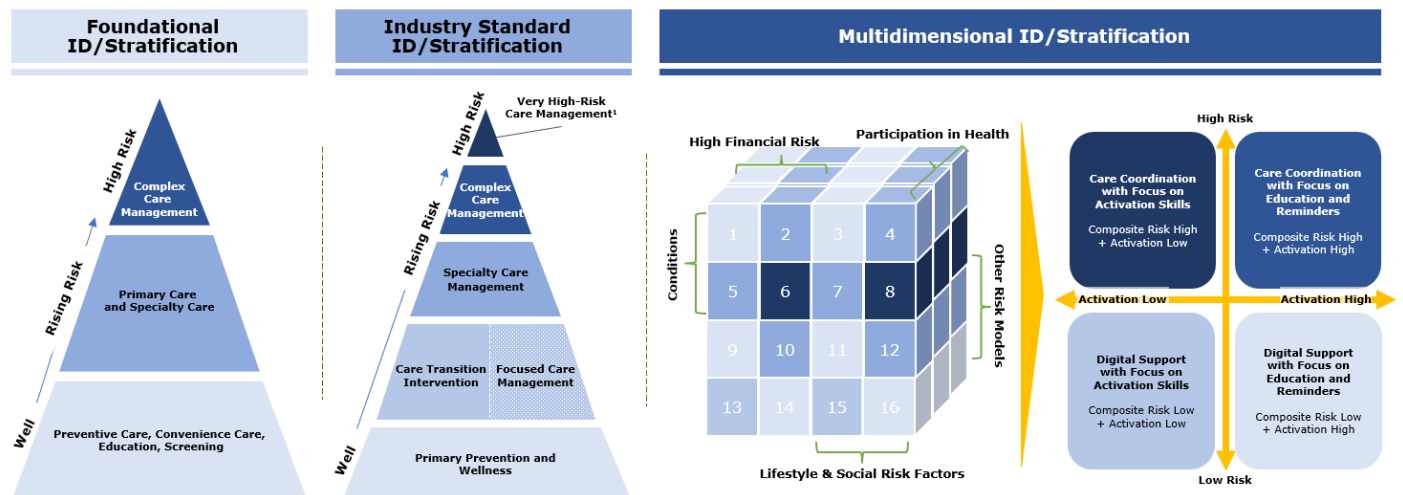

*Figure 1: Evolution of Identification & Stratification Models*

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Once the mechanics of the composite risk score are finalized, organizations need to decide how to prioritize patients based on their risk score. There are countless methodologies for composite risk score prioritization. The most appropriate method for each health system will depend on the types of contracts they participate in as well as the amount and type of risk they assume in the contracts. Ethically, clinical teams would like to help every patient with every condition, but with finite resources, organizations must be strategic with where and how they utilize them. Organizations may choose to prioritize at-risk patients by line of business, contract risk, individual risk, or potentially a combination of the three. As health systems shift their prioritization method for care management, it's important to remember that the prioritization approach does not mean that patients with lower risk should not receive care. Instead, the approach aims to prioritize patients with the highest risk first in a way that is financially sustainable so that the care management program can expand over time. This prioritization approach does not impact patients' ability to seek primary or specialty care. As the program grows, the care team will be able to reach patients at lower risk levels because of increased resources. All prioritizations will be done automatically to avoid manual triage processes and ensure the clinical team is optimizing their time and directly impacting patients.

Patient auto-assignment process

After the attributed patient population has been prioritized based on their composite risk score, the next use of technology and analytics is to assign each patient to the member of the care team most likely to address their most significant needs. As mentioned in the second piece of the blog series, the pod model that is implemented in care model redesign contains a clinical team of many different specialties (e.g., pharmacists, behavioral health specialists, social workers, etc.). Traditionally, it has been the duty of a nurse to look at patient profiles and determine if their risk suggests the need for expertise beyond a care manager. This practice is not only inefficient but also could lead to unconscious bias and inaccuracies. This is another opportunity for automation in the care model.
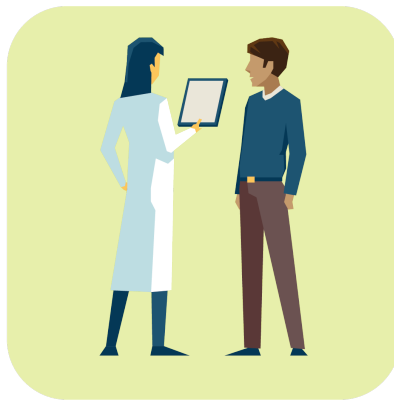
The automated process to assign patients to members of the care team looks at a decision tree to determine the appropriate role for the patient with different predetermined criteria for each clinical role. The assignment algorithm is run separately and succeeds the composite risk score prioritization process. A few examples of role assignments would include a patient with a history of substance abuse triaged to a behavioral health specialist or a patient taking more than ten medications assigned to a pharmacist to assist with medication reconciliation. In our client engagements, clinical leaders were given the opportunity to test the assignment process to validate that patients are being sorted to the right resources to gain comfort and conceptual understanding of the algorithm.

Custom staffing approach

With the composite risk score prioritization and assignment process, organizations will be able to measure patient volume and staff capacity quickly and accurately to right-size their clinical and non-clinical teams. Deloitte has evaluated the current state staffing composition at different clients using a robust staffing model that accounts for contract risk, patient panel size, site of service, and many other variables to provide a recommendation of team size by role to be successful in operating the new care model with supporting analytics.

These examples are only a small representation of how health care organizations should leverage technology and analytics to enable their care model redesign. Many more opportunities exist. Technology and analytics enable health systems to improve efficiency, improve outcomes, and enhance the experience for both the patient and the clinician. Analytics should continually evolve with the business and base growth on input from the business. Organizations need to be thoughtful and careful about how they measure performance and value to inform future decisions. Part four of this blog series will discuss what value looks like and how it can be measured from different lenses in the near and distant future.
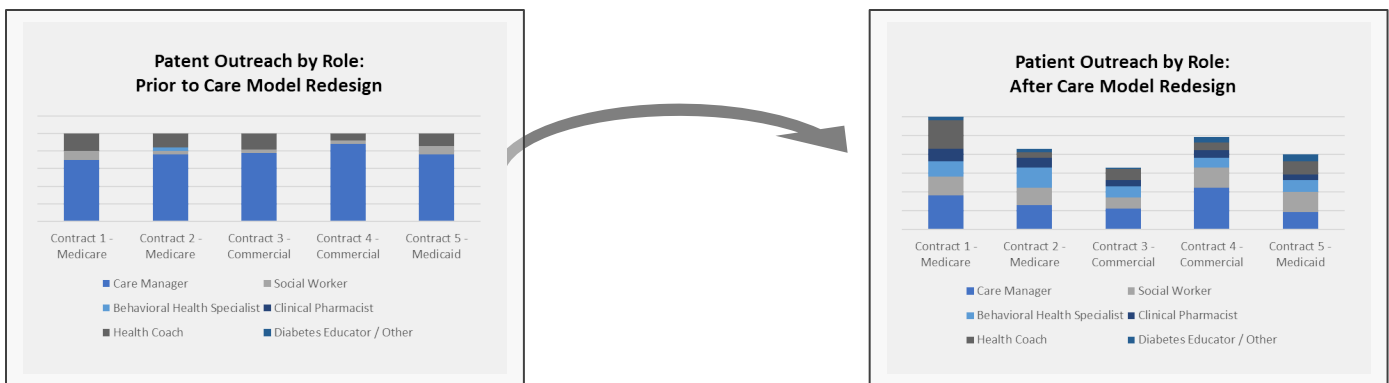

Figure 2: Illustrative Comparison of Patient Outreach Pre- and Post-Care Model Redesign

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