

## **Predictive Analytics: Proactive Integrated Capacity Management**

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### **Abstract**

Despite differences in how healthcare systems are funded and administered worldwide, nursing leaders often face similar challenges and can learn from one another. One challenge consistently facing nurse executives is how to improve clinical outcomes and drive efficiency while reducing labor costs. The answer: creating transparency in a data-driven culture and facilitating a cultural shift from a reactive to proactive culture. In this session, you'll hear executives from three different organizations across the United States. They will share their diverse stories of how they are using data to maximize efficiencies, optimize care delivery and obtain outcomes that help sustain or improve financial margin. These nursing executives will guide you through examples of organizational change, operationalizing efficiency through predicting demand, balancing staffing, delivering high quality care and managing avoidable days while enhancing productivity. The drive to organizational excellence requires new processes and embedding the use of technology into daily operations to create true cultural change. The data obtained along the journey - when employed correctly - can be a strong staff motivator to further the buy-in and effort. Nursing executives and staff created transparency using real-time data to track patients, identify bottlenecks and streamline care coordination, optimizing patient flow to minimize length of acute care stays. Process changes that included creating quality flow rounds with visual displays ensured that clinicians are in sync with patient needs and status. These processes among others support the early identification of patients with complex psychosocial needs or complicated discharges that are likely to miss an expected discharge date and time. Managing quality parameters, such as vaccines delivered prior to discharge, indwelling lines, and consultations, were noted daily in the quality flow rounds, ensuring care team collaboration towards related goals. When clinicians can be proactive, leveraging data across nursing units and departments, and with ease of availability, they are empowered and engaged with optimizing the patient journey. Additional outcomes include using predictive analytics to meet patient demand and effectively manage staffing, enabling the executives to achieve significant financial impact. Staffing efficiently requires forecasting along the continuum to include long-term, monthly, weekly, and daily planning. Executives and staff were able to predict patient and staffing demand, allowing them to proactively optimize staffing and create innovative staffing models, achieve unit agility, and open new units. Creating a data driven culture requires nursing leadership, a commitment to transparency and empowerment, and the ability to understand and use technology as an agent of change. Stepping back to assess the culture, nurture a plan, and engage staff makes optimization attainable. After this session, you, too, can lead the way to change in your organization.