Modern Healthcare

Achieving a Successful Application of Data in Population Health Initiatives

Translating both “big data” and “little data” into clinical and operational excellence

Physicians, nurses and allied clinicians are trained to practice medicine at an N of 1. They're asked to practice with incomplete information, creating stress and life-threatening risks to their patients’ lives. According to Jonathan Scholl, President of the Health Group for Leidos, health systems are learning that silo-busting information systems and migration to effective analytics are the foundation of successful population health management strategies and the empowerment of reliable medicine at that N of 1.

How is population health management serving as an effective strategy to improving quality and patient outcomes?

JS: The term population health is a catch all for many initiatives underway, from accountable care organizations (ACOs) and health plan value-based contracts to employer-led health programs like the recently announced joint venture between Berkshire Hathaway, Amazon and J.P. Morgan Chase. The easy answer to your question is to jump into a litany of tactics: patient care navigation, high value provider networks and alternative payment models to name a few. At Leidos, our conversations with health systems start with first principles: turning data from local, real world experience into information that brings into focus a deeper understanding of the individual patient/member segments that add up to their “population” and to arm clinical professionals with that information to organize and execute care models constructed for mass customization.

What are some of the key factors in defining these patient/member segments? And once those groups are identified, how does a health system deploy an effective strategy to serve their varied needs?

JS: In our experience, the key factor is not only to see the patient as an individual with unique needs, but also to be able to connect unique needs to actionable, common programs of intervening. Tapping into the right data sets—capturing both clinical information and data on the 80% of social and environmental factors that determine whether we maintain good health or decompensate to the point where we need acute care—to unearth actionable information to match individual patient needs with care services backed by real world evidence. So, while its popular to focus on “Big Data” solutions, it the “little data” trapped in multiple system silos that leads to bigger improvements in outcomes. It takes the right technology to extract data into a platform that can use pattern recognition to support development of reliable care pathways and make it easier for physicians, nurses and non-clinical caregivers to act with confidence and timeliness at the point of care.
After a population is accurately defined and a strategy is developed, what are the most effective tactics health systems can deploy to ensure their population health services are successful in prevention and improving the quality of care patients receive?

**JS:** The most important success factors continue to be developing a culture of practicing medicine as a team sport and the discipline to make and act on care decisions based on local practice-based evidence. None of that is possible without the situational awareness that comes with high-reliability systems integration across the continuum of care, from home to clinic to facilities and back to home.

What's next for population health?

**JS:** The next frontier in population health is tying predictive modeling to effective analytics. There's exciting technology we've deployed for Leidos clients that identifies predictors for high-risk illnesses in a hospital setting. We can take this technology and protocols and apply them in ambulatory settings to identify high-risk patients who may deviate from their care plans. Pairing what we know with tools that help health systems know how to execute these preemptive interventions is the real game changer. This will make a huge impact on quality writ large—keeping people healthy, treating them when they are acutely ill and supporting their recovery—in a manner that puts health spending in line with what makes us healthy rather than what we can do for people after they get sick. We're optimistic and excited about what's to come in this space.

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