BEYOND THE BUZZ: UNLOCKING THE POTENTIAL OF PREDICTIVE ANALYTICS

A recent HIMSS Media survey finds healthcare systems are working hard to overcome key barriers and leverage predictive analytics.

With all the hype around predictive analytics, it's easy to lose sight of the potential behind the trend. But an August 2018 HIMSS Media report suggests that health organizations are seeing beyond the buzzword into a reality that offers new insights and promises better outcomes – even with obstacles strewn along the path.

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The survey, *The State of Predictive Analytics in Healthcare*, sponsored by the Center for Connected Medicine, sought to better understand how hospitals and health systems are leveraging predictive analytics in their operations and care delivery. The results are encouraging: 70 percent of the 100 respondents said they are taking some action to formulate or execute a predictive analytics strategy.

"Demand begets demand," said Pamela Peele, PhD, Chief Analytics Officer of UPMC Health Plan and UPMC Enterprises. "Healthcare systems want to be part of it because the dominancy in the industry is to consume predictive analytics."

The challenge remains, Peele argued, that healthcare systems may not fully understand the impact of predictive analytics nor the opportunities that exist to overcome key barriers.

Defining predictive analytics

Despite the enthusiasm around predictive analytics, the survey found that many health systems struggle with implementation. While 69 percent of respondents felt very effective at analyzing data to describe what has happened, less than half felt confident examining data to identify the likelihood of future outcomes.

The difference here, Peele noted, is between descriptive and predictive analytics. "What do we mean by predictive analytics? To one person, they'll be expecting a report. But reporting is about counting. We all need to count – that's where we start," she said. "But when we are capable of predictive analytics, it's more than reporting. We are ready to move into the domain of making new knowledge."

The difference is also a matter of trust. As Peele pointed out, care delivery already incorporates some standard predictive analytic models. “Physicians are quite knowledgeable about some classic models for cardiovascular risk that are actually predictive analytics. But when the analytics are locally produced, when we use data from our own hospital rather than a nationally published paper, the insights are seen with suspect,” she said. As organizations mature their analytics capabilities and transition from descriptive to predictive models, Peele trusts that confidence also will follow.

Barriers toward implementation

Still, the survey found that talent and interoperability were overwhelmingly the top barriers organizations faced when trying to implement a predictive analytics strategy. Peele doesn’t know a health system that isn’t feeling these pain points.

“This isn’t banking, finance or retail. This is medicine,” she said. “The stakes are different and the data are different.” Medical data requires industry knowledge to capture the nuance of each medical encounter. Consequently, there is a divide between those trained in analytic methods and those who have the inside knowledge to interpret and use these data.

And even with talent, hospitals and healthcare systems are confronted with the herculean task of bringing their data together. “Hospital systems have invested in a number point solutions over the years that were never stood up to be part of a holistic integrated data infrastructure,” said Peele. As such, executives have a substantial financial investment on the table and cannot afford integration if it comes at the cost of rip and replace.

Finding an interoperability breakthrough

Peele highlights the necessity of data integration tools and cloud computing in leveraging predictive analytics. These were points that respondents in the survey agreed with, listing EHR solutions, data integration tools and cloud computing as the top three accelerators needed for predictive analytics. “The bottom line,” she emphasized, “you need to integrate your data; you need to make it fit for consumption.”

UPMC successfully leveraged interoperability for its predictive analytics program. “We don’t have Cerner and Epic talk to each other. We scrape the free text out of our electronic medical records and then integrate those texts. We get Cerner and Epic to talk to us and then we take care of the data integration inside our own cloud solution,” Peele explained.

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From hype to reality

With seven out of 10 hospitals and health systems taking steps towards executing a predictive analytics strategy, it’s clear that this trend is becoming an actionable reality. But to unlock the power of predictive analytics, health systems cannot ignore the challenges of interoperability and talent gaps. This need not come at the cost of rip and replace, with either their team or their point solutions. Organizations of any size can use technology such as data integration tools and cloud computing to accelerate predictive analytics.

Learn more about predictive analytics and the Center for Connected Medicine at www.connectedmed.com.

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The Center for Connected Medicine (CCM) is a gathering place where those seeking to drive improvements in health care through technology come to connect with and inspire each other, both in the real and digital worlds. The CCM, operated by GE Healthcare, Nokia and UPMC, connects and inspires leaders and innovators to join the CCM community by cultivating thought-leadership activities, creating a relevant content hub, and fostering trusted relationships through exclusive events.

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