POPULATION HEALTH FORUMS

Innovation, Big Data, and Collaboration: Improving Population Health

Somesh Nigam, PhD
*Senior Vice President and
Chief Informatics Officer
Independence Blue Cross
April 9, 2014*

Somesh Nigam, PhD leads the Informatics Division at Independence Blue Cross (IBC) which plays an important role in the IBC Family of Companies through the delivery of actionable information to associates and stakeholders including members, physicians, customers, consultants, and brokers. Dr. Nigam has led IBC efforts to partner with top institutions to leverage big data and analytics to improve quality of care. Prior to IBC, Nigam was vice president of health care informatics, scientific and clinical affairs, for the medical device and diagnostics division of Johnson & Johnson.

Dr. Nigam began the Forum presentation with the question, "How can we collaborate across the spectrum?" Philadelphia is a "medical capital" and with an environment that has the capacity to nurture a culture of collaboration.

Nigam first shared the big picture context of how the U.S. is situated in terms of health care spending. It is projected that national health spending is going to approach nearly 20% of GDP. He explained that people in the U.S. don't seek primary care as frequently as they do in other countries such as Japan, Germany, and Canada. In offering a regional context, Nigam discussed healthcare utilization and quality data. Inpatient admissions and readmissions tend to be very high in the greater Philadelphia area, and are higher than the national average. He described the plethora of quality improvement and cost-containment strategies that have met with varying degrees of success.

Nigam does feel very positive about the model of The Medical Neighborhood part of the

Patient-Centered Medical Home (PCMH). "We have really felt that this medical neighborhood concept is what will propel us to improve health care, bring cost down, and improve the quality in a patient-centered way," states Nigam. Approximately 40% of all primary care practices contracted with IBC in PA are PCMHs. He indicated that Jefferson Family Medicine, an early adopter of this model is a part of this 'revolution in the making.'

Nigam points out that NCQA Recognition Guidelines are critical to the PCMH transformation and promote the practice of good medicine. IBC and NCQA work together to identify which features and practices of the PCMH are most effective. Preliminary results show that care for members with chronic conditions has improved.

IBC data has been able to distinguish differences in care gaps between PCMH and non-PCMH practices. For example, PCMHs show increase in the percentage of members with diabetes who did have required testing as well as increase in the percentage of patients who had cancer screenings. Nigam and his colleagues at IBC have recently published several studies noting the positive impact of the PCMH model in peer reviewed journals. Some of the key findings are:

- Diabetic members affiliated with a PCMH had 21% lower total costs, related to inpatient costs. *J Pub Health Manage & Practice. March 31, 2014.*

- Significant reductions occurred over time in inpatient admissions and costs for chronically-ill and high-risk members. *Am J Manag Care. 2014;20(3):e61-e71.*

- High risk members affiliated with a PCMH had 11% lower costs related to inpatient costs. *Am J Manag Care. 2014;20(3):e61-e71.*

IBC will continue to explore PCMH adoption, patient experiences, and quality of care. There may be a trend toward adaption of PCMH in specialty areas and therefore, IBC is working with NCQA to pilot a study that will examine the feasibility of establishing PCMH recognition program for Oncology practices.

Nigam went on to describe IBC's expertise in big data and predictive modeling. Predictive modeling helps to identify patients who are at the highest risk of being re-hospitalized for care management outreach. It can also enhance the efficacy of chronic disease management and help to detect undiagnosed and undertreated chronic diseases.

IBC is very involved with many initiatives, including a program focused on the use of machine learning algorithms for early detection of diabetes. Using a number of data sources (i.e. eligibility, pharmacy, medical, lab records), the model produces the probability of being diagnosed with diabetes within 24 months for every member and can zoom in on a particular population. The next steps will include implementation (outreach) and expansion of models (additional research and capacities) to include Likelihood-of-Engagement.

The Forum was followed by the **Grandon Workshop**. This is a special additional session of the Forum for Grandon Society members. The Grandon Workshop included a lively panel discussion with Dr. Nigam, and his colleagues, Ravi Chawla, MS, MBA, Director, Client Solutions, Informatics Division, and Aaron Smith-McLallen, PhD, Senior Research Scientist at IBC. They went on to engage the audience in a discussion about data, population health and ways that data can be used and shared across the region to improve heathcare delivery. They discussed the integration of EMR data with claims data and the importance of data collaboration.