



The Banquet Of Analytics In Healthcare: Will You Be At The Table?

It's no secret data analytics have stormed into everyday life. While the use of analytics is not new to other industries, there has been a dramatic upswing in the amount of attention paid to them in healthcare, the technology that accompanies them, and – more importantly – what can be done with clean and aggregated healthcare patient data.

And, analytics aren't going away anytime soon. In fact, Vinod Khosla, one of the founders of Sun Microsystems, **has predicted the next ten years of digital transformation in healthcare will match or exceed gains in medical science.**

In other industries, such as retail, decisions are routinely influenced by access to analytic data. Retailers know much more about you than you suspect and most of that information is provided by you and your own shopping patterns. The difference between the two industries is what retailers *do* with their data. They are bound by similar strict confidentiality requirements just like healthcare, but retailers have found ways to use customer data to drive preferred outcomes. Simplistic workflows compared to healthcare for sure, but the goal is the same: changing behaviors of the consumer or the patient.

With more data available, the predictive value of data gets better and more accurate. Predictive algorithms in healthcare will greatly streamline diagnostic steps, lower the work flow friction facing the patient going through a procedure, and lower cost. All of great benefit to patient, especially the outcomes they enjoy.

The coming cornucopia of healthcare data is made up of aggregated patient information which is simply chock full of insights and best practices. It is the

responsibility of industry leaders, data scientists, data stewards, and managers in this industry to use every means available to bend the cost curve. It will simply take nothing less.

The current trajectory of healthcare costs puts it out of reach for many and a tremendous financial burden for most. Inefficiency must be driven out of the healthcare system, but you can't cut what you can't find. What information do you already have that is hidden now waiting for discovery?

The promise of true insight is achieved with the integration of existing data in the formation of a synthetic overview of what's taking place in the system in real time. Indeed, the secondary use of the data may show patterns, which can be picked apart for the opportunities to improve. Here, secondary use would be defined as patient data viewed in the aggregate for research purposes.

In my years of working in hospitals, it was commonplace to see ineffective processes, re-work, and unnecessary generation of overhead. No doubt we have the best healthcare access in the world, but it comes with a steep price tag. As Warren Buffet said, "If you take costs out of the healthcare system, somebody no longer gets paid." Generally true, but there is a huge loophole in that statement, namely using analytics to take cost out of the system without a corresponding reduction in care. Many in the industry acknowledge that the highest quality care often is the least expensive.

The analytics banquet in the not-too-distant future healthcare market will be substantial and we will experience a veritable windfall of patient care benefits. The day will come (if not already here) when analytics are viewed as an indispensable part of continuing

patient care. Outside of emergency care, medical decisions will not and should not be done without knowing the overall view of the patient provided by analytics. Clinical and administrative transaction systems of all sorts buzz along happily in hospitals across the country and will continue to generate data at an unprecedented rate. The term Big Data hardly seems to do healthcare data volumes justice. It's only when the analytics comes into play that the true value of big data begins to emerge.

Analytic information is best served up at the point of decision – the moment of truth for the end-user. It might be at the bedside or maybe it is from a

desktop in the patient's room. More likely though, the clinician or decision maker will be mobile a good portion of their day and it's then that you must have fast, complete, and accurate data served up in a consumable format to keep close tabs on costs.

In the modern delivery of medicine, practically everyone on the care team is mobile, with the exception of the inpatient, who is anything but mobile. This is where analytics really matters. Getting the right information to the right person at the right time results in the full realization of value from the digitization of healthcare.

ABOUT THE AUTHOR

R. Chris Christy, FACHE has been engaged in healthcare for more than 30 years, working in hospitals and healthcare software companies. He brings 16 years of healthcare provider industry experience and previously held administrative roles with nonprofit and proprietary healthcare systems. He served five years as Associate Administrator and COO at several hospitals that were part of American Medical International. He also served nine years as VP at St. Paul Medical Center, a 600 bed facility in Dallas, TX operated by the Daughters of Charity National Health System, followed by two years as Regional Vice President at Emcare, an ED physician staffing firm. He is a Fellow in the American College of Healthcare Executives and received his Masters of Science in Public Health from the University of Missouri in Columbia, MO.

