

December 5, 2016 |

Healthcare IT 2016: An Annual Wellness Check

As 2016 draws to a close, it's a good time to reflect on some of the major milestones in healthcare IT this year and what IT teams will want to prioritize and plan for in 2017. One thing those of us working in the field know for certain is that healthcare IT is a rapidly changing field – not just from the technology standpoint, but also in how it's affected by regulations, changes in service delivery, and even how it fits into national and global events. Another truth we practitioners know for certain is that IT only matters in healthcare if it's able to help deliver better patient outcomes, contribute to better research, and reduce the costs of one of the most expensive parts of our daily lives. It's in the return on investment – in myriad ways – that healthcare IT has really come into its own in 2016.

Rather than talk about some of the gains in patient health outcomes that IT innovations have made possible this year I want to start on security. This year, security has been a major focus for every part of the healthcare ecosystem following a number of high profile ransomware attacks against hospital systems and healthcare providers. CIOs and CISOs in the field already had their hands full with cyberattacks aimed at exfiltrating Protected Health Information (PHI) and patient records, so these highly effective attacks that can take an entire facility off-line are a heavy burden to bear.

However, healthcare organizations and IT providers have moved very quickly to embrace advanced, predictive analysis vectors to identify breaches before damage can be done, moving organizations from a defensive to an offensive security posture. But IT leaders aren't stopping there – they're also looking at how to mitigate the impact of an attack at the level of infrastructure design. With the ability to create snapshots or backups every hour, or even every 15 minutes, of a complex data environment, ransomware loses some of its menacing impact. Where healthcare organizations once had to wait for hours and perhaps days for a complete back up and recovery of both clinical and insurance/payer data, it now takes minutes. So rather than losing hours, if not days of patient data (or paying a hefty ransom) disrupting patient care and likely compromise patient outcomes, the data is backed-up and available without disruption.

Beyond information security, one area of healthcare IT innovation that has a direct and highly positive impact on patient care is the ability to use data and predictive analytics tools to derive meaningful improvements in outcomes. Recently, I was part of NetApp's annual Advisory Board meeting where C-level executives from healthcare organizations around the country share their challenges and we brainstorm ways emerging technologies can drive solutions.

During this meeting, one of our keynote speakers, Damian Mingle, Chief Data Scientist for WPC Healthcare, discussed how WPC Healthcare, developed a system that provided early identification of a patient's susceptibility to sepsis. By collecting demographic data at the point of registration, several hours before post-admission clinical observation would begin and that data would be collated, caregivers had early alert to at risk patients. The system was able to reduce mortality by a little over 30 percent per sepsis patient, with identification of those patients occurring 4 hours earlier than through clinical methods alone, and reducing these patients' length-of-stay by 3 – 6 days. These are tremendous improvements in the treatment and outcomes of a costly and prevalent disease process, with many of the improvements made through analysis based upon easily obtainable demographic information.



Spencer Hamons, CHCIO, FACHE, is the Regional Chief Information Officer, Healthcare Division at NetApp.

Healthcare IT 2016: An Annual Wellness Check

This is just one example of real-world improvements that healthcare IT can make not only in patient care, but also for hospital operations and clinician work flow. And it's all based on basic information that every hospital routinely collects and retains as part of admissions and clinical observation. By investing in and using cloud-based data management tools, hospitals are able to integrate analytics capabilities swiftly into their processes and drive significant returns on investment for all members in a healthcare ecosystem.

Given the vast data repositories that healthcare organizations already have on hand and that continue to expand each and every day, we're just at the beginning of a data-driven revolution in healthcare. So, while it's been a big story in 2016, it's definitely going to be a big part of 2017 as well.

One of the biggest issues that healthcare organizations continue to struggle with, no matter whether they're a provider or payer, is financial viability, particularly with the considerable M&A activity that is ongoing within the industry. While there are definite benefits that come with merging services and developing a shared services infrastructure, it takes a long time to achieve the resulting economies of scale and financial benefits. When health systems acquire independent facilities, the cost of integration is very high for the first few years and, if there are subsequent acquisitions, there are further delays that off-set the economic benefits.

Reducing costs now, and assuring the resulting ROI is actually going to develop and be maintained over time is a difficult task, and one that many organizations truly aren't equipped to undertake. Many forget that technology leaders are actually a fundamental part of the transition team and a key player in re-creating healthcare from a cost-center to a business unit that leads with innovation and profitability. In the same way that Damian Mingle and his team at WPC Healthcare used data and predictive analytics to reduce mortality rates and costs associated with sepsis care, it will be incumbent upon healthcare IT teams to facilitate and drive change, and become partners in the enterprise.

There are undoubtedly many interesting developments, twists, and turns awaiting those of us in the healthcare field in the coming year. What's important to remember when thinking about investing in backend solutions is to be able to explain the value, not just in terms of benefit to our teams, but the benefit it brings to all key stakeholders, the most important of whom are the patients.