Healthcare Evolves with Big Data

Healthcare organizations are being inundated by Big Data that includes structured and unstructured data from an array of sources, including electronic health and medical records, computerized physician order entry, clinical decision support systems, medical sensors, accounting systems and more.

Rather than being overwhelmed by Big Data, it’s time for healthcare agencies to take advantage of the volume, velocity and variety of data from internal and external sources. By unifying dispersed data sets and applying advanced analytics, healthcare organizations have the opportunity to improve medical outcomes, lower costs and inform strategic planning. Find out how forward-thinking healthcare agencies are transforming and unlocking key insights from Big Data in the following healthcare-specific use cases.

IMPROVE AT-RISK PRIORITIZATION
Healthcare organizations can use analytics to predict which patients are at risk of non-compliance with clinical guidelines for treatable conditions like diabetes or osteoporosis, which improves medical outcomes, reduces hospitalization and boosts HEDIS scores.

How: Build predictive variables from clinical, financial and behavioral data; apply a range of segmentation and regression models.

SIMPLIFY CLAIMS & OPERATIONS
By using pattern matching to find possible excess charges and prioritizing bills for review before payments, healthcare payers can avoid overpayment and detect questionable charges, avoiding pay and chase.

How: Maintain near real-time patient, provider and condition profiles using new in-memory tools such as SAP HANA®, Pivotal™ GemFire® and Apache™ Spark™.

MAINTAIN OPTIMAL STAFFING
Using Big Data analytic models to forecast patient visits and accurately predict changes in census, hospitals can avoid overstaffing, improve staffing flexibility with real-time updates and lower overall staffing costs without sacrificing patient care.

How: Collect financial, billing and clinical data, and combine third-party data and web scraping to segment locations down to the block level.

STRENGTHEN MARKETING & EXPANSION PLANNING
Healthcare organizations can use clinical, financial and demographic data to micro-segment the market for preventative and elective procedures – or even systematically choose sites for planned expansion – with enriched datasets and non-linear, multivariate predictive analytic models.

How: Collect financial, billing and clinical data, and combine third-party data and web scraping to segment locations down to the block level.

Healthcare organizations are using Big Data analytics, such as non-linear, multivariate predictive analytic models, and new Big Data technologies like SAP HANA® to:

• Improve patient care and clinical outcomes
• Reduce labor costs without sacrificing outcomes
• Reduce costs with bill review efficiencies
• Expand more strategically

Find out how WWT’s Big Data and Healthcare experts can help you build and implement Big Data solutions that meet your business goals by visiting wwt.com or emailing bigdata@wwt.com.