

Analyze This!

Assessing the Data Analytics Era



Data analytics need a human touch to truly add value.

BY MARK D. KAUFMANN, MD

>> We are now entering the data analytics era, and it may be a rocky ride.

The development and implementation of the electronic health record heralded the beginning of the data collection era. Now, bolstered by advances in technology and the move toward value-based care, innovative platforms are culling this data to guide care decisions, recruit clinical trial participants, reduce medical errors, cut costs, and more.

And this industry is set to surge. The global big data analytics in healthcare market was valued at \$16.87 billion in 2017 and is projected to reach \$67.82 billion by 2025, growing at a compound annual growth rate of 19.1 percent from 2018 to 2025, according to new research from Big Market Research. Key players are Allscripts, Cerner, Dell EMC, Epic System Corporation, GE Healthcare, Hewlett Packard Enterprise (HPE), International Business Machines (IBM) Corporation, Microsoft, Optum. Of note, Oracle Corporation and other smaller entities such as Clinithink are also making a name for themselves in this space. Still, questions remain including whether these type of systems are “smart” enough to understand the data they are analyzing and, if they do, what it will that mean for our future.

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AI IN ACTION

Clinithink’s platforms analyze unstructured data, such as progress reports, discharge summaries, and operative reports—information that typically goes unused—across patient populations to help medical professionals diagnose conditions and plan treatment. They offer several programs based on and around this technology.

For example, Northwell Health recently implemented Clinithink’s CLiX to help identify candidates for clinical trials, many who may have been missed. And it is pinpointing them in hours, not months.

So far, so good. In a proof-of-

concept study of chronic obstructive pulmonary disease, the total patient cohort considered was 939,378 patients, and there were 3.3 million associated documents for review. CLiX assessed these patients against 22 individual criteria in 30 hours—a fraction of the time it would have taken previously—and identified 88 patients to review, all of whom were highly relevant to the trial. This type of efficiency can fast-track drug development, but it’s not a panacea for all clinical trial dilemmas. Identifying candidates is just one part of the process, albeit a critical one. Researchers will still be tasked with convincing patients to

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by the numbers

\$67.82 Billion

The projected value of the global big data analytics in healthcare market by 2025. The market was valued at \$16.87 billion in 2017.

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participate in a trial and making sure they are not lost to follow up.

Other systems are analyzing de-identified data to glean insights from patterns that will help guide clinical care decisions.

THE HUMAN TOUCH IS ESSENTIAL

But if a computer algorithm can spit out a treatment plan, do we really need doctors or just more data entry clerks? It is one thing to say that a certain treatment is the most effective or efficacious based on data, but other factors play a role. In-office treatments may work well for certain dermatologic conditions, but what if the patient can't drive? In this case, an at-home treatment may be more appropriate. The human touch will always be needed to counsel patients and help overcome compliance and psychosocial issues, among other hurdles. ■

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Mark D. Kaufmann, MD is an Associate Clinical Professor of Dermatology, Dept. of Dermatology at the Icahn School of Medicine at Mount Sinai in New York City.