

The Need for Business Decision Support in Healthcare

The amount of data being used in healthcare today is large and rapidly increasing. In fact, the growth in healthcare data is expected to outpace other industries through 2025¹. As a result of the abundance of data and rising costs of providing care, a new class of health IT solution is becoming more prevalent. Business decision support solutions can utilize provider data to support and improve the strategic decision-making process for long-term efficiency and productivity.

Meaningful Use

Hospitals have long been monitoring their clinical, financial, and operational performance. Beginning with the passage of the Health Information Technology for Economic and Clinical Health (HITECH) Act in 2009, the US Department of Health and Human Service (HHS) established criteria for the ‘meaningful use’ of electronic health records (EHRs), leading to increased adoption of EHRs and synergistic health IT. The goal of increased ‘meaningful’ electronic health record adoption is to create a more efficient, patient-

centered health care system by lowering providers’ administrative costs, improving coordination of care, and increasing patients’ participation in their own care.

As a result of these programs, 86% of non-Federal general acute care hospitals are now using certified EHRs (Figure 1). Hospitals across the country now have significant amounts of patient data to manage, track, and potentially use for improving the quality and delivery of the care they provide.

Adoption of Electronic Health Records by Hospital Service Type

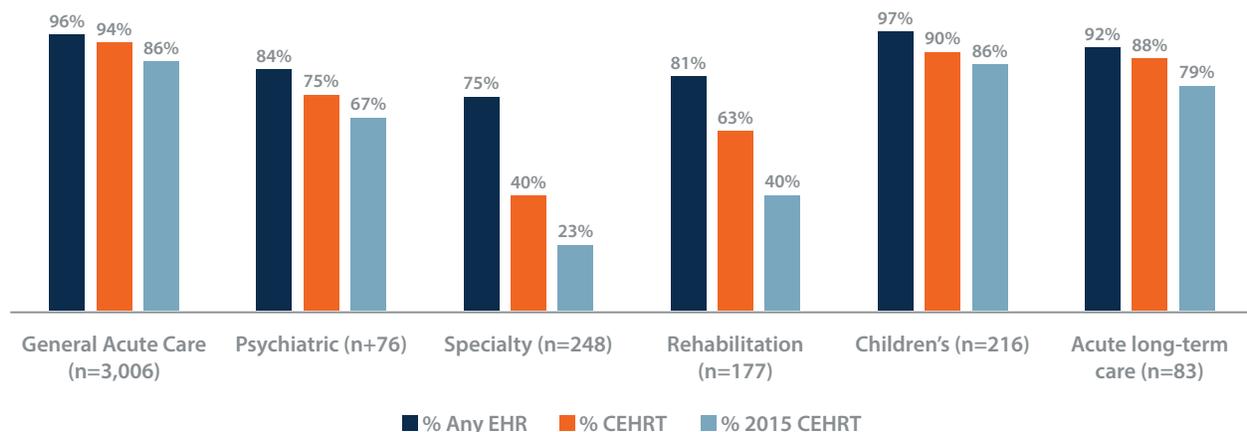


Figure 1: Adoption of Electronic Health Records by Hospital Service Type, 2019-2021
Source: HealthIT.gov

¹ Coughlin et al Internal Medicine Journal article “Looking to tomorrow’s healthcare today: a participatory health perspective”. IDC White Paper, Doc#US44413318, November 2018: The Digitization of the World – From Edge to Core.

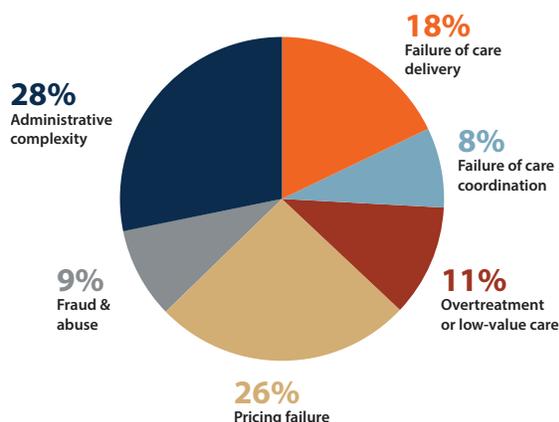
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Data-Driven Programs Improve Care

The resultant increase in digital data has provided the basis for the development and monitoring of various quality improvement programs by the Center for Medicare and Medicaid. These programs are currently consolidated under the Merit-Based Incentive Payment System (MIPS) and have significant requirements for data reporting. Top performing organizations can benefit via higher payments, while lesser performers are penalized. These types of programs have led to the adoption of a continuous improvement mindset because provider performance is evaluated, and can change, annually.

The Cost of Healthcare

Estimates of the waste in the US healthcare system range from \$760 billion to \$935 billion annually, or nearly 25% of total healthcare spending. A breakdown of the source of waste can be seen to the right. Much of the patient data generated to improve care can also be used to reduce waste, improving the financial health of the organization.



Source: "Waste in the U.S. Health Care System – Estimated Costs and Potential for Savings," JAMA. doi:10.1001/jama.2019.13978. Published online Oct. 7, 2019

Data Analytics

Notwithstanding, the pandemic has also greatly impacted healthcare delivery. A large percentage of healthcare systems have sustained significant financial loss. Furthermore, the delivery of care has continued to shift away from hospitals with the rise of telehealth and more numerous outpatient procedures.

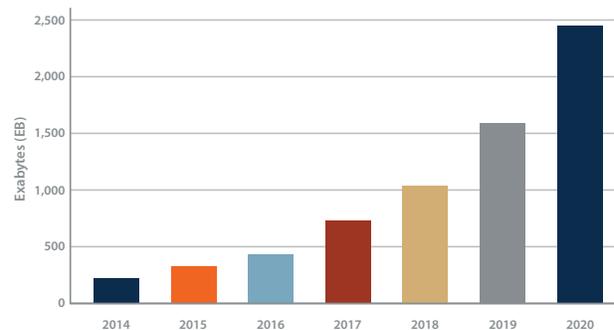


Figure 2: Growth in Available Data

Source: Vertical Industry Brief: Digital Universe Driving Data Growth in Healthcare, EMC, 2014

To remain, or become competitive today requires providers be able to quickly understand the workings of their operations and adapt to the changing environment. Analytics enable providers to utilize existing data, identify trends, and extrapolate changes for long-term improvement.

The need for data analytics has led to the rise of business intelligence solutions or Business Decision Support Systems (BDSSs). Unlike Clinical Decision Support Systems (CDSSs) which help providers to optimize the treatment of patients, BDSSs support the improvement in organizational decisions of a financial nature.

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Business Decision Support

Business decision support involves taking data and proven analytics into the decision-making process to promote ongoing efficiency and productivity. Understanding where revenue or margins can be improved and how these improvements will create synergies across the organization is key for strategic improvement. In this way decision support can impact areas often overlooked by traditional planning, such as cost accounting, contracting, purchasing, payer reimbursement, contracts, financial planning, and the quality of care.

Leading business decision support systems combine clinical and financial data to help organizations examine trends and identify insights into the care they provide, including the management of

individual service lines, identification of financial variability in care, evaluation of expansion or contraction opportunities, as well as meeting the various value-based care guidelines.

Summary

Healthcare data is growing significantly, and will continue to do so. At the same time, providers are faced with significant waste, a higher level of competition, and the need to manage and improve their quality of care while keeping a sharp eye on the bottom line. Business decision support solutions are becoming increasingly popular and help providers to use their data to create a more strategic approach to improving their operations.

