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# HEALTH ANALYTICS

FROM EHR  
TO ROI



**Providers have become fairly familiar with the front end of digital health—the uses for apps and wearables is an oft-heard story. But the use of digital health tools to improve operations processes is less common and could be a profitable source of undiscovered value.**

Most provider organizations have failed to exploit some of the practical uses for essential operations data that is held in fundamental technology systems. Health analytics could be the answer to realizing the elusive return on investment that providers are seeking from these systems. For example, analytics can help translate EHR investment into economic value by supporting the creation of new staffing models that could see tangible returns.

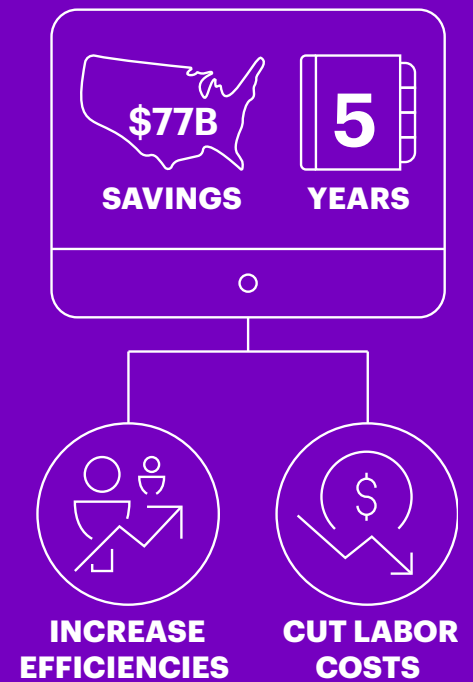
**EHR data offers providers an untapped opportunity to use analytics to drive efficiencies and cost savings.**

Many providers have made significant investments in EHR and have seen improvements on the clinical side as a result. On the operations side, Accenture analysis shows that by applying analytics to EHR data to create predictive staffing models, providers can not only drive efficiencies but also capture billions in cost savings, thereby increasing ROI from EHR technology.

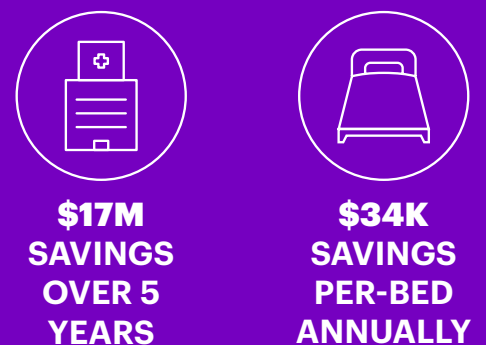
Provider organizations’ staffing decisions are typically based on historical averages. Any unexpected spike in staffing demand generally means overtime costs—extra labor costs that are unplanned and not within the budget. The same is true for an unexpected lull in staffing demand—having excess staff when beds are empty results in excess labor operating costs. However, by applying health analytics to historical trend data of patient visits and complexities (such as work hours per unit of service) from EHR and ERP data sources, providers could glean insights that can reduce staff overtime and total labor costs.

Accenture analysis shows that United States healthcare provider organizations could save US\$77 billion over five years using analytics-driven predictive staffing models to increase efficiencies and cut labor costs. For a 100-bed hospital, this translates into savings of about US\$17 million over the same timeframe, an average annual per-bed saving of US\$34,000. (See Figure 1.)

Figure 1.  
**U.S. healthcare providers could save US\$77 billion over five years**



**For a 100-bed hospital, this means:**



Source: Accenture analysis

## Provider organizations can improve operating margins by implementing analytics-driven staffing models.

Typically, labor costs make up at least 50 percent of a provider organization's operating costs. Using EHR data in new ways can help predict demand and introduce the smarter use of existing labor to cut the cost of overtime and bring savings through redeploying and using resources more wisely. When applied to data from EHRs and other sources, health analytics could help provider organizations more accurately assess how many people should be on duty and could better manage staffing and cut overtime—with a direct impact on their operating margins. Accenture analysis shows that, regardless of size, a hospital can see an increase in operating margin of 180 basis points as a result of analytics-driven labor cost savings.

“ A hospital can see an **increase in operating margin of 180 basis points** as a result of analytics-driven labor cost savings. ”



## Health analytics can open up a wealth of operational improvement opportunities.

Optimizing EHR data is just one of the unexpected ways provider organizations can use health analytics to find hidden pockets of value. Accenture analysis highlights the quantifiable financial impact that analytics can have and demonstrates how analytics can play an important role, not only in how provider organizations run, but also how they identify new sources of value.

Health analytics is not a one-trick pony; it can serve providers well in many other ways. Data insights can be used to reduce malpractice suits, to introduce more targeted interventions with complex conditions like sepsis, or reduce administrative time by making use of natural language processing. The potential benefits are clear: If analytics can be applied to a common provider cost center such as labor in this way, imagine the opportunities that may be uncovered by using analytics throughout the rest of provider operations.

## FOR MORE INFORMATION



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## METHODOLOGY

Accenture generated an economic model to estimate the potential cost savings that could be achieved by the United States healthcare provider market and individual provider organizations by applying analytics to EHR data to develop predictive staffing models. The analysis estimated healthcare provider organization operational costs, labor costs, labor cost savings and operating margin improvement using public data sources, including Moody's, American Hospital Association, Fitch Ratings and multiple professional service firms. The analysis assumed 50 percent of provider organizations are already using some form of predictive analytics to optimize staffing.

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