



**2018 Predictive  
Analytics in  
Healthcare  
Trend Forecast**



# Predictive Analytics in Healthcare Trends

The Society of Actuaries conducted a survey of 218 health payer and provider executives from April 23, 2018 to May 10, 2018 to reveal insights about future Predictive Analytics trends in the healthcare industry.

## The survey found:



60%

of healthcare **executives** forecast that using predictive analytics will **save their organization 15% or more** over the next five years

➤ Among those that currently use predictive analytics

87%

of **executives** say predictive analytics is **important to the future** of their business

➤ Among those that currently use predictive analytics

87%

of **providers**

83%

of **payers**

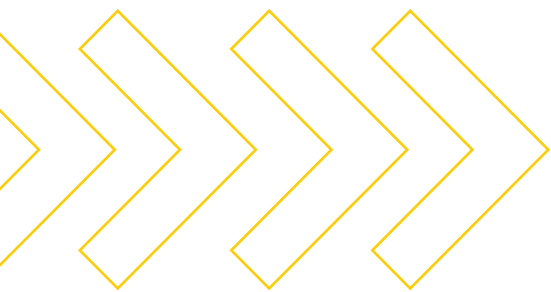
either **currently use predictive analytics** or plan to do so in the next five years

➤ Among total respondents

52%

of **executives** say **reducing costs is the most important** outcome to achieve with predictive analytics

➤ Among total respondents

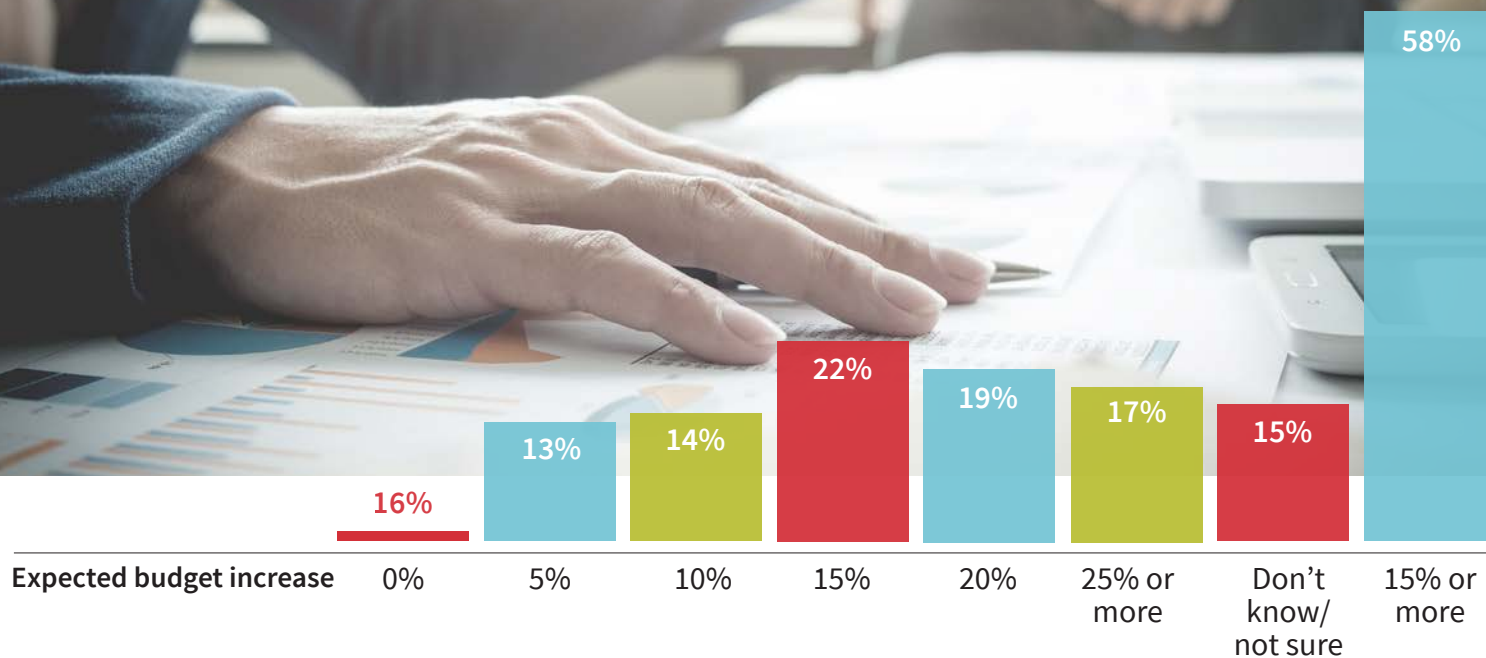


## Healthcare executives are dedicating budget to predictive analytics – and forecasting significant cost-savings in return

More than half of healthcare executives (58%) anticipate dedicating 15 percent or more of their budget to predictive analytics in 2018, a five-point increase from 2017. The year-over-year increase spans both payer and provider organizations. Further, sixty percent of healthcare executives forecast that predictive analytics will save their organization 15 percent or more over the next five years. Significantly more provider executives (75%) say they are more likely than payers (44%) to foresee this return on investment from predictive analytics.

**Over the next five years, organizations that currently use predictive analytics are expected to increase their budget by:**

➤ Among those that currently use predictive analytics





# Healthcare executives continue to see predictive analytics as a priority for the future of their business, but they are still navigating barriers to adoption

Projected predictive analytics use remains steady since 2017, with 85 percent of executives indicating they either currently use predictive analytics or plan to in the next five years. A majority (87%) of healthcare executives also indicate that predictive analytics is important to the future of their business.

## Organization's current and projected predictive analytics use

**85%**

Use or plan to use predictive analytics in the next 5 years

**3%**

No, and we have no plans to use predictive analytics in the future

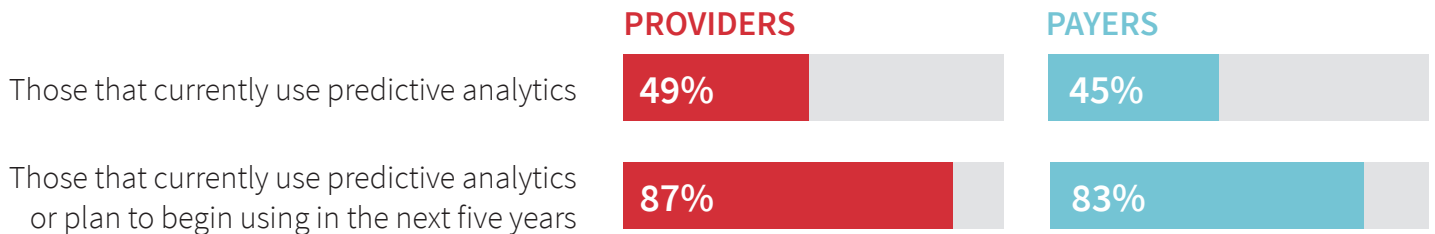
**12%**

No, or unsure as to whether or not we'll use predictive analytics in the future



While current use is high, there was a notable seven-point year-over-year decline in the overall number of executives currently using predictive analytics, driven primarily by payers. However, it's also important to note that 26 percent of payers anticipate using predictive analytics in the next year, a 10-point increase from last year, which indicates the potential for future growth.

## Current and projected predictive analytics use among providers versus payers



> Among total respondents



“ We may be seeing a decline in payers’ use of predictive analytics this year because they don’t think they have staff with the right skills to analyze large data sets to spot trends and draw conclusions. However, actuaries have the training and education to unearth insights that solve healthcare industry challenges, and can help payers become more comfortable with predictive modeling.”

- Lillian Dittrick, Fellow of the Society of Actuaries

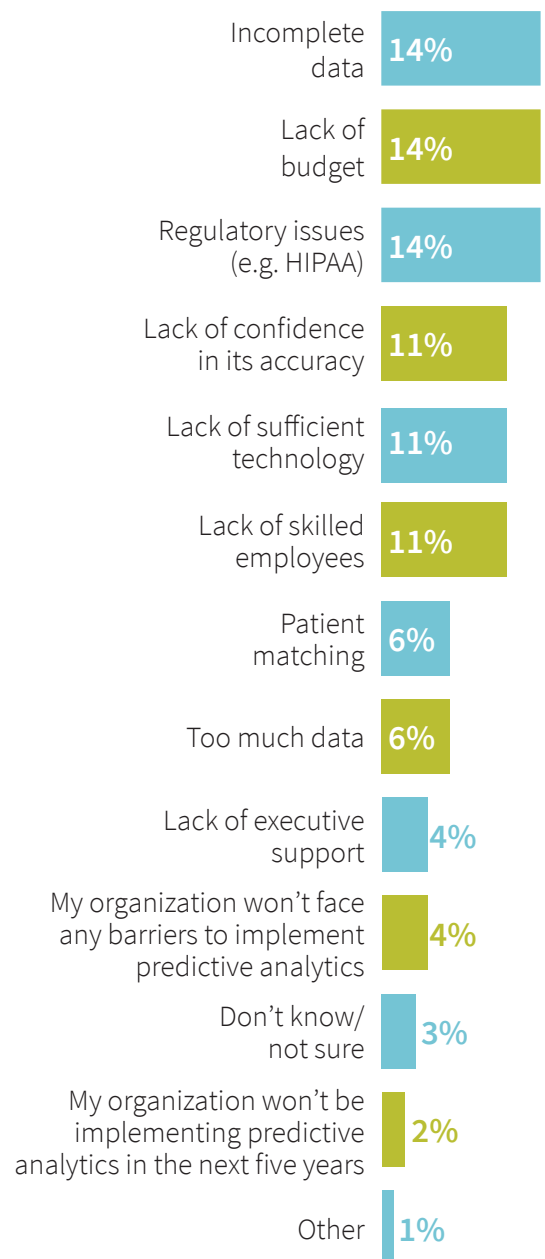
Survey results also suggest that challenges to implementing predictive analytics processes may be affecting current use. For example, in 2017, ‘lack of budget’ (16%) was the biggest challenge for both payers and providers. But, in 2018, healthcare executives cited two additional issues with implementing predictive analytics processes, with lack of budget (14%), regulatory issues (14%) and incomplete data (14%) all seen as equal challenges.



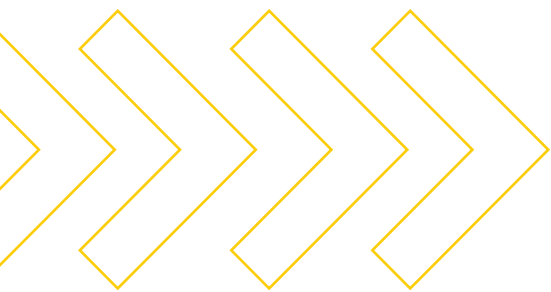
“ You don’t need to have perfect datasets to perform actionable modeling. Payers and providers should evaluate the data they have, and use supplemental data and techniques to fill any gaps left from perceived incomplete datasets.”

- Lillian Dittrick, Fellow of the Society of Actuaries

## Biggest challenge to implementing predictive analytics in organization over the next five years



> Among total respondents

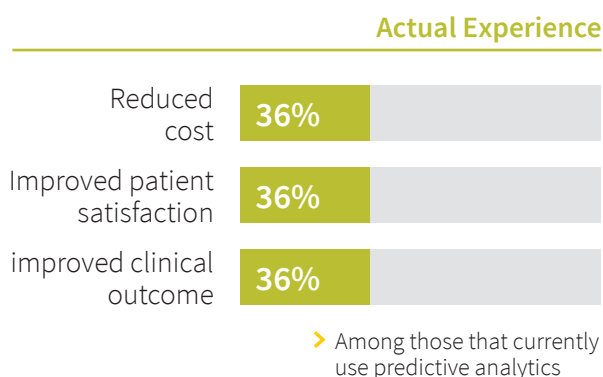
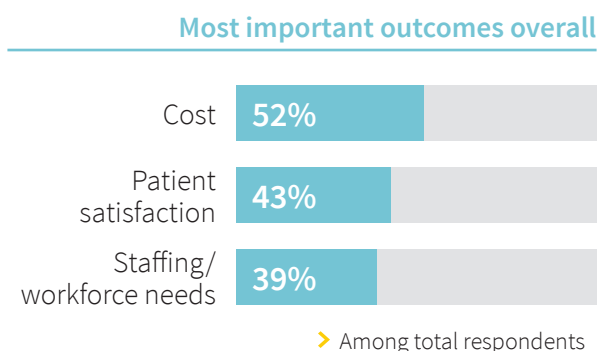


# Actual experience with predictive analytics is aligning with the most important outcomes

A majority (52%) of healthcare executives cite the ability to reduce costs as the most important outcome to achieve with predictive analytics. Not only is this a significant (9-point) increase from last year, this year, executives who are currently using predictive analytics cited a reduction in costs as the number one actual outcome (36%) they've experienced with predictive analytics.

Beyond cost, healthcare executives see patient satisfaction (43%) and staffing/workforce needs (39%) as valuable outcomes to foresee using predictive analytics.

## Most desired outcomes with predictive analytics versus actual experience



“ Predictive modeling has been invaluable for identifying patients at risk for readmission, patients likely to be high cost claimants, and even those likely to develop an addiction to opioids. Thanks to predictive modeling, these patients can receive tailored disease management designed to minimize their risks and ultimately lower healthcare costs.”

- Lillian Dittrick, Fellow of the Society of Actuaries



“ The value of predictive analytics is realized through data visualization, which arms providers with actionable insights that can help consumers change the behaviors that put them at the most risk. Our models and data analytics cannot be implemented without strong data interpretation and visualization that allows us to tell a compelling, actionable story.”

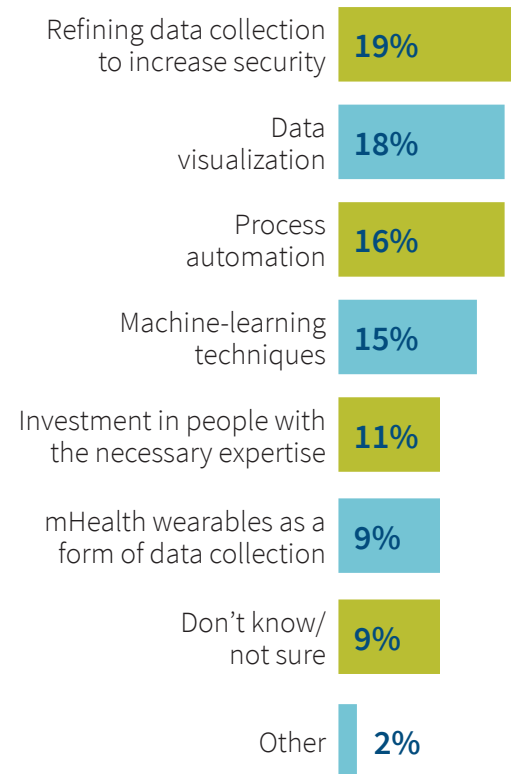
- Lillian Dittrick, Fellow of the Society of Actuaries



## The future of predictive analytics lies in refining data collection methods to increase security, and data visualization

Once again, executives anticipate that the future of predictive analytics lies in refining data collection methods to increase security (19%), and data visualization (18%). Additional forecasts for the future of predictive analytics include improving process automation (16%) and machine-learning techniques (15%).

### Expectations for the future of predictive analytics capabilities



➤ Among total respondents

For additional information, please visit:  
<https://www.soa.org/healthcare-analytics/>



#### About the SOA

With roots dating back to 1889, the Society of Actuaries (SOA) is the world's largest actuarial professional organization with more than 30,000 actuaries as members. Through research and education, the SOA's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal challenges. The SOA's vision is for actuaries to be the leading professionals in the measurement and management of risk. [www.SOA.org](http://www.SOA.org)