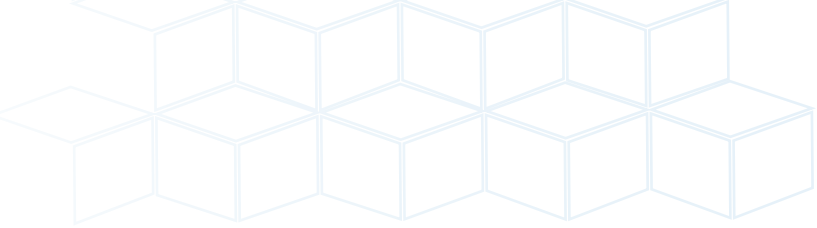




# UNDERSTANDING DATA TRUST IN HEALTHCARE: A CIO'S PERSPECTIVE

*A survey by Dimensional Insight*



For U.S. healthcare leaders, trusted data is more important than ever, as their organizations migrate from the fee-for-service model to value-based care. During this transition, healthcare organizations must weigh investments, risks, and trade-offs objectively with quantitative, trustworthy data. This kind of data driven decision-making will be critical in shaping the initiatives and high-stakes choices required by value-based care.

But what is the current state of data trust and access? How much trust do CIOs and stakeholders have in their clinical, financial, and operational data these days? How many have direct, self-service access to the information they need to make data-driven decisions? Are healthcare organizations ready to invest funds to improve trust in data and self-service capabilities?

Dimensional Insight set out to answer these questions. In August 2018, the company surveyed 85 members of a professional organization for chief information officers and other senior healthcare IT leaders about trust in data across their enterprises.

The survey probed three realms within healthcare organizations: clinical, financial, and operational. For each realm, respondents were asked:

- How would you rate the index of trust in data within your various user communities?
- What percentage of your user population would you consider to be self-served in making data-driven decisions?
- Do you plan to increase or decrease your investment towards improving data trust?
- Do you plan to increase or decrease your investment towards self-service analytics?

## SUMMARY OF THE DATA

The survey revealed that few organizations have very strong levels of trust in data while levels of self-service maturity vary across the enterprise. Respondents clearly see room for growth in both areas, with most of the healthcare organizations planning to increase investments aimed at improving trust in data as well as self-service capabilities.

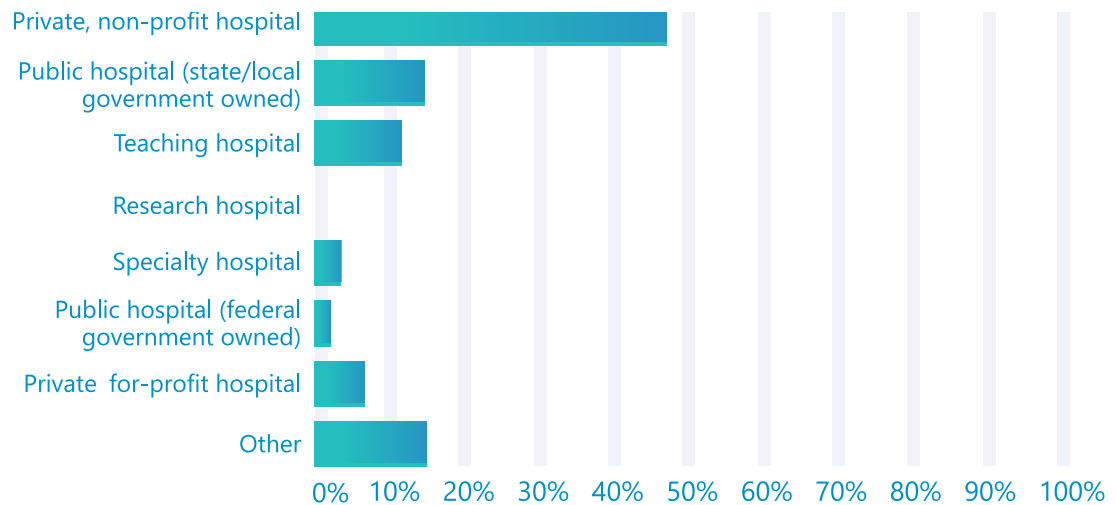
Other high-level findings:

- When asked to rate data trust on a 10-point scale, 48% of respondents assessed financial data as an 8 or above. The percentage of "8-and-up" responses was 40% for clinical and 36% for operational.
- Clinical users have the lowest levels of self-service in making data-driven decisions.
- Approximately three-quarters of healthcare organizations plan to increase investments to improve trust in data and self-service capabilities.

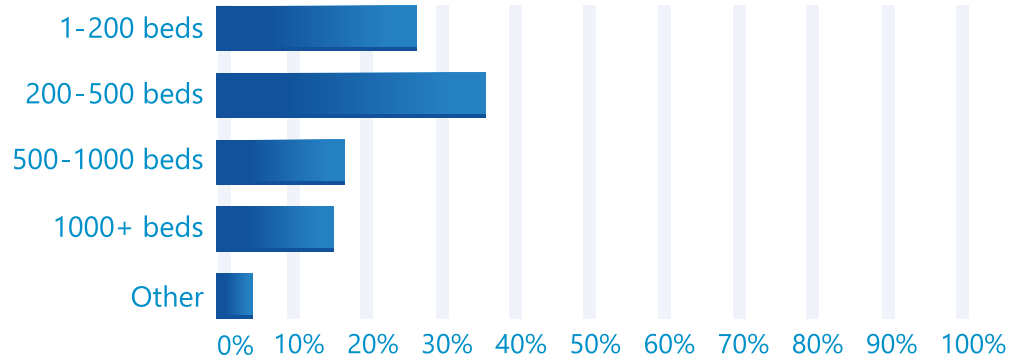
## A CLOSER LOOK AT THE DATA

### Respondent profile

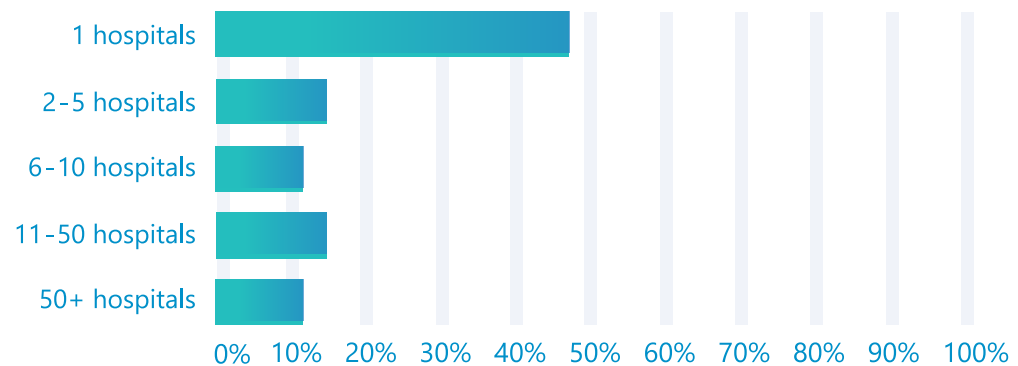
#### What type of hospital is your organization?

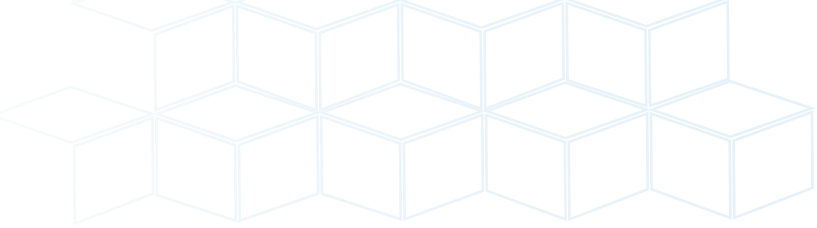


#### What is the total number of beds at your hospital?



#### What is the total number of hospitals in your health system?



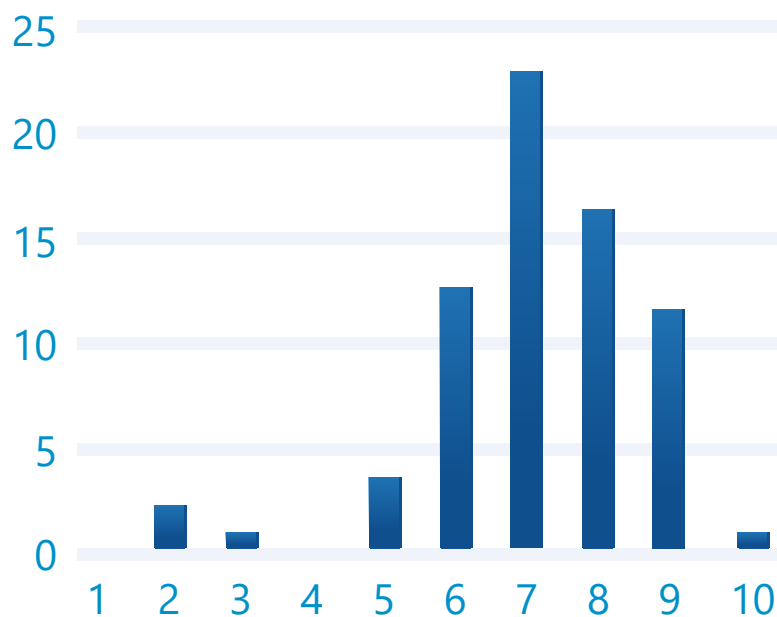


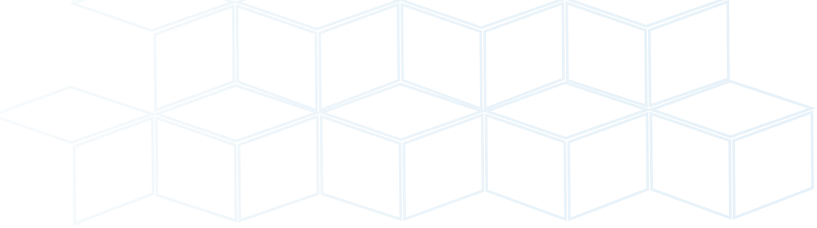
### Levels of trust

Respondents were asked to rate their user communities' index of trust on 1–10 scale, with 10 being the highest. The index of trust was defined as how strongly “user populations believe that they can trust the data provided to make decisions.”

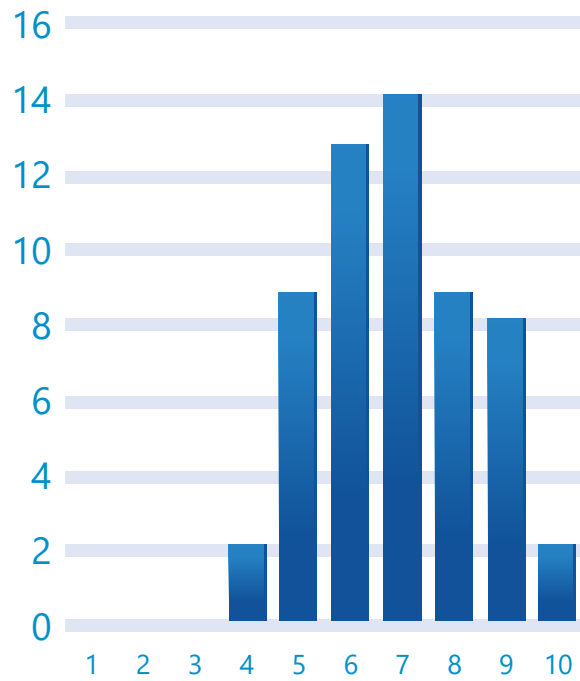
Overall, less than half of healthcare organizations show very strong levels of trust in their data. 48% of respondents rate their trust in financial data as an 8 or higher on the 10-point scale. Clinical data was rated 8 or higher by 40% of respondents while operational data yielded 36%.

## Clinical Trust Index

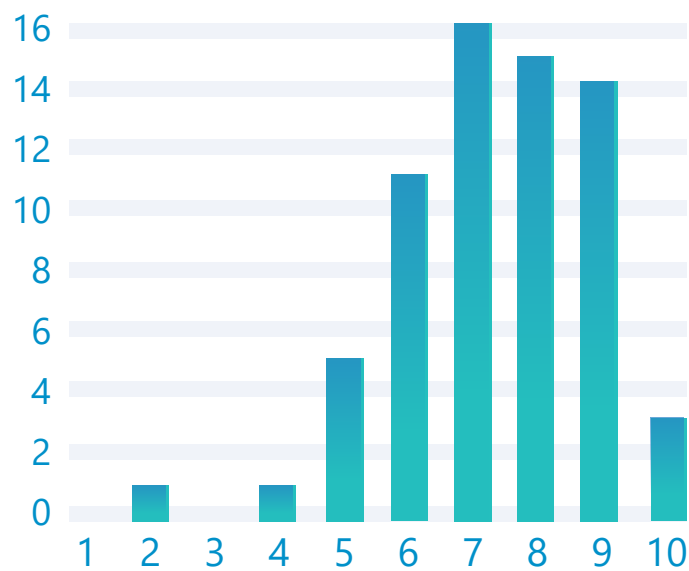


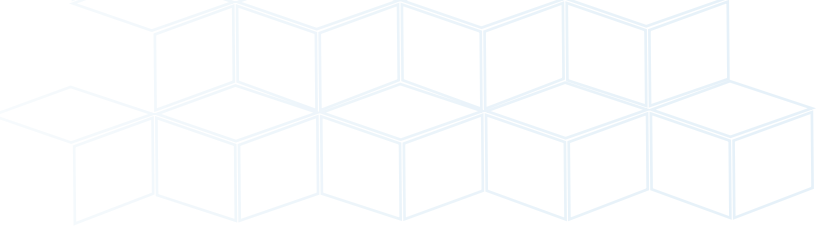


## Operational Trust Index



## Financial Trust Index



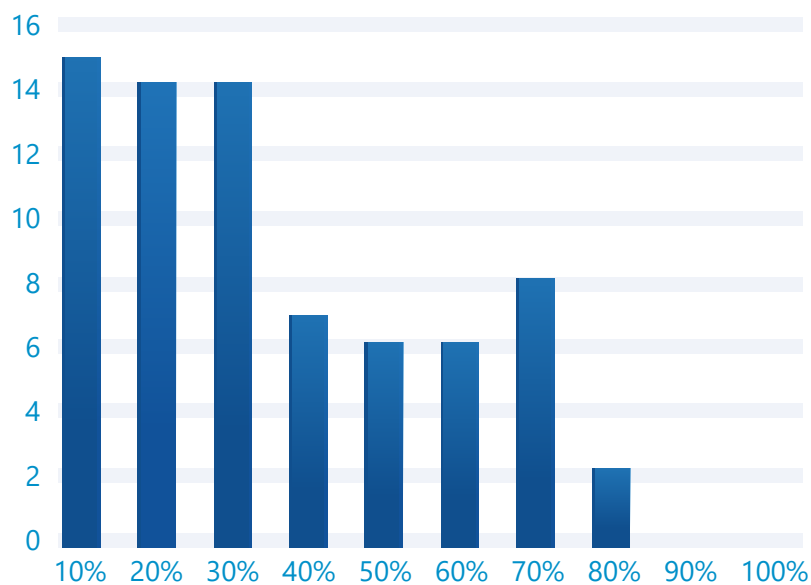


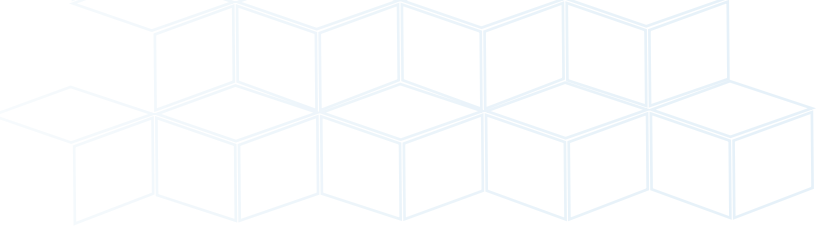
### Levels of self-service

The survey's second set of questions asked "What percentage of your user population would you consider to be self-served in making data-driven decisions?" Why does self-service matter? For both content and context. Self-service applications allow users to work with the data that is the most germane to their objectives and to put it in the proper context. In short, working only from standardized reports limits the power of data analytics.

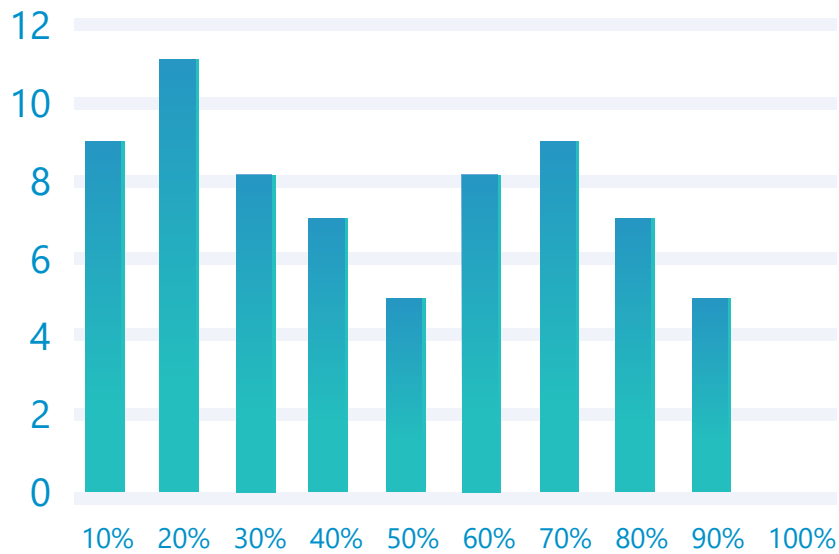
The survey responses show healthcare organizations currently have low levels of self-service, especially in clinical and operational settings.

## % Clinical Population that is Self-Service

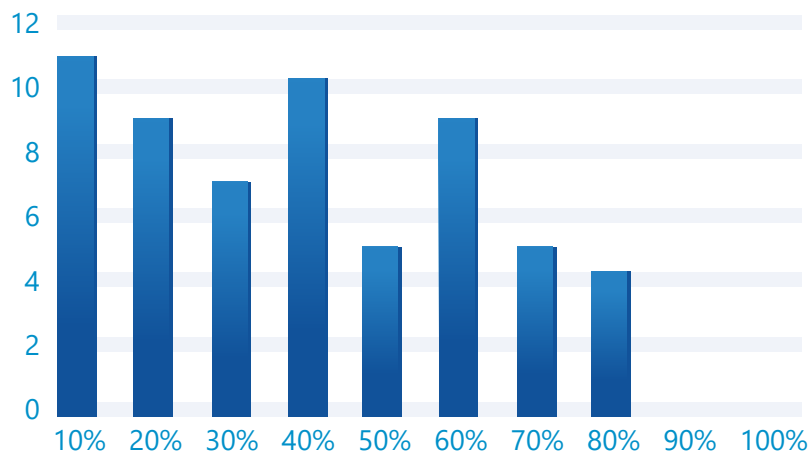




## % Finance Population that is Self-Service



## % Operations Population that is Self-Service



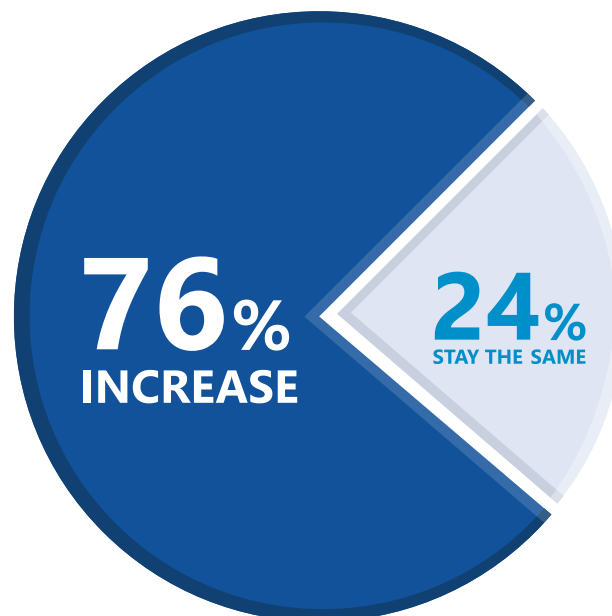
### *Investment plans*

The survey results indicate that healthcare organizations recognize room for improvement in both data trust and self-service, and that they plan to invest money to make those improvements.

Survey questions about whether organizations plan to invest towards improving data trust and self-service invited three possible responses: "yes," "no," and "stay the same." Most organizations plan to increase their investments in both. At least 70% responded "yes" to investments in trusted data in each of the three realms. In addition, most organizations (68-78%) plan to increase their investments towards improving users' capacity for self-service data analytics. Only 1 or 2% plan to decrease investments.

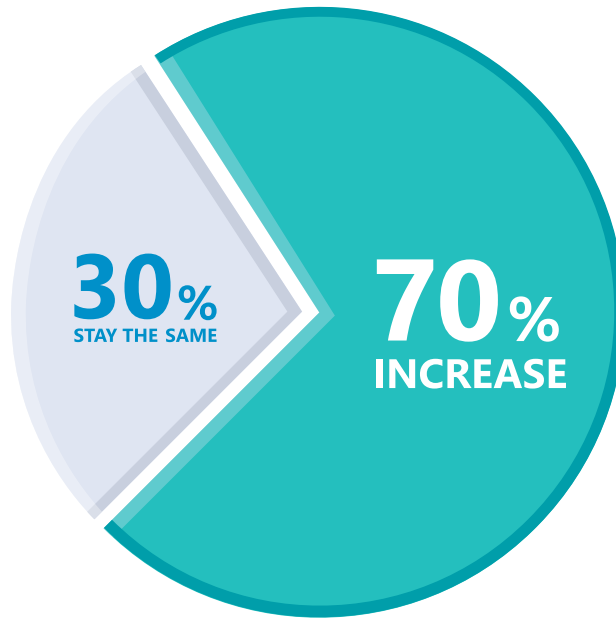
**Q: Do you plan to increase or decrease your investment towards improving data trust within your user community?**

## Plan to increase or decrease investment towards improving clinical data trust?

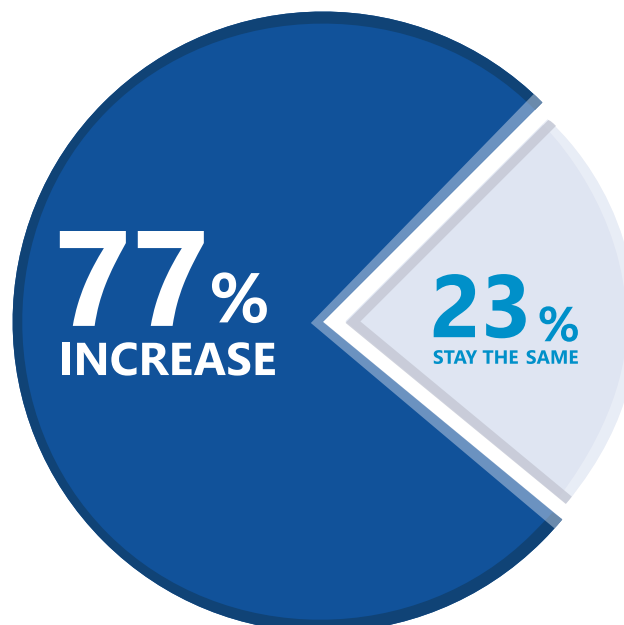




## Plan to increase or decrease investment towards improving financial data trust?

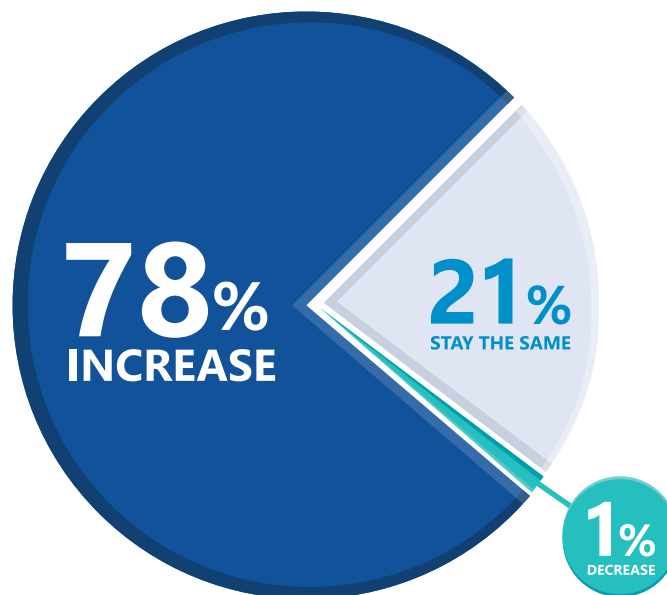


## Plan to increase or decrease investment towards improving operational data trust?

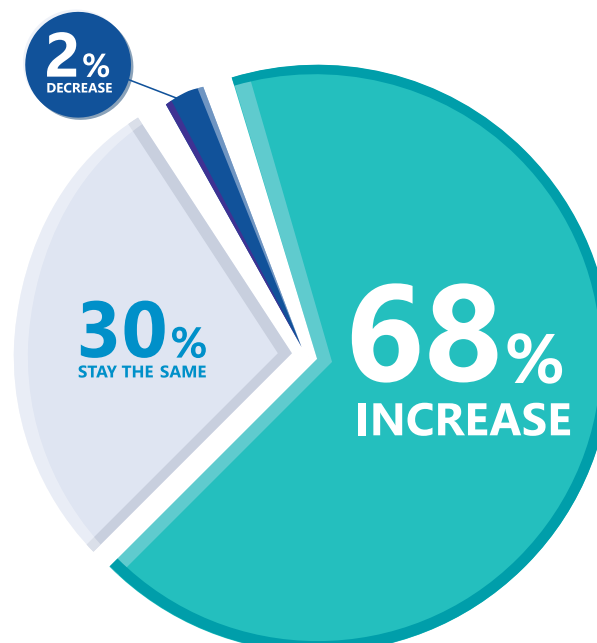


Q: Do you plan to increase or decrease your investment towards self-service analysis?

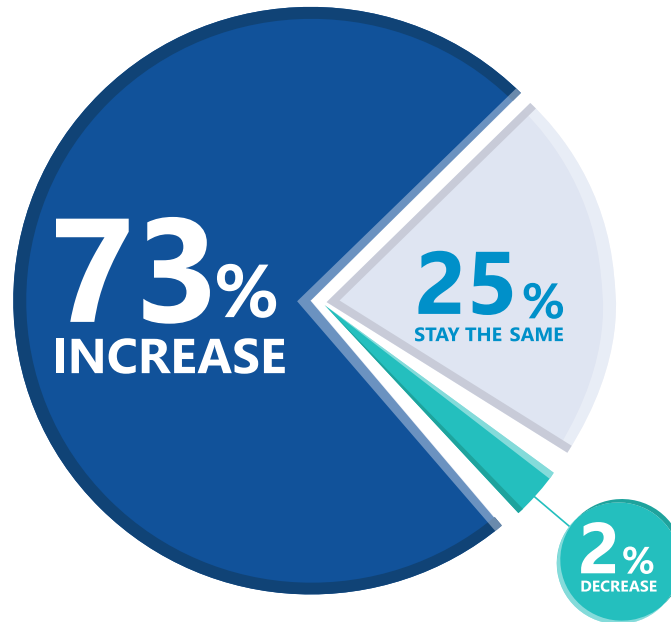
## Plan to increase or decrease investment towards clinical self-service analytics?



## Plan to increase or decrease investment towards financial self-service analytics?



## Plan to increase or decrease investment towards operational self-service analytics?



### TAKEAWAYS

This survey demonstrates that healthcare organizations have a long way to go in developing rock-solid trust in their data and self-service access to it. It appears that executives are aware of these challenges and are ready to dedicate resources to improve both trust and access.

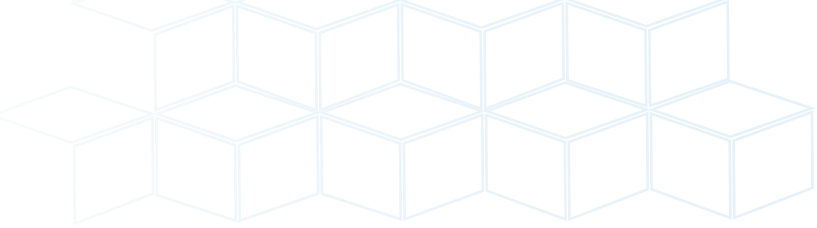
Data trust and access are especially important during the transition to value-based care. The transition will require increased, high-level collaboration among different constituencies within a healthcare enterprise. It also will require decisions to be quantitatively assessed against reliable, trustworthy data.

### HOW TO CREATE MORE TRUSTED DATA

George Dealy, Dimensional Insight's vice president of healthcare applications, offers three tactics for improving trust in data and increasing self-service capabilities.

#### 1. Keep subject matter experts close to the data

Healthcare organizations will need programmers and data engineers to extract data from the source systems, but it is the subject matter experts who best understand the data and how it will be used. Subject matter experts should be integrally involved in designing and implementing the systems that provide information critical to decision-making. They are also in the best position to determine the context for presenting information to the user community that best fosters understanding—and ultimately builds trust. Clinical involvement is crucial, especially by clinicians who know which data to include, as well as how it needs to be represented to deliver insights.



## 2. Automate business logic transformations

More automation is better when it comes to the often complex logic required to transform raw data into meaningful information. Analysts need to be able to define this logic at a level that makes sense to them and then have the computer do the heavy lifting. They also need help in understanding how the impact of a single, seemingly simple change could cascade through a system of interrelated data and measures. This is only possible with an analytics framework that was designed with this approach in mind. Automation helps to avoid the mistakes of error-prone humans and makes a system more agile and adaptable to change.

## 3. Promote transparency and visibility

The best way to make sure data is right is to let people—the frontline information consumers—at it. Once you get past the fear of throwing open the doors, you may be surprised at how engaged the organization becomes in both using information and continually improving it. The key to achieving this lies in the combination of awareness and access.

- Awareness means knowing the information exists and having insight into what it represents. Effective “catalogs and dictionaries” will help members of your organization discover what is available.
- Access is the ability to easily get to the specific information required for a particular decision. This typically demands more than summarized overviews, but rather the “nitty gritty” behind those summary numbers. The opportunity to perform deeper analysis is key to making optimally informed decisions. When there are big dollars at stake, details matter.

Of course, there are limits to how much visibility a healthcare organization will want to provide, especially given regulatory implications. That’s where a robust analytics architecture comes in, helping your organization to be selectively transparent and protective of data at the same time.

## ABOUT DIMENSIONAL INSIGHT

Dimensional Insight® is a leading provider of analytics and data management solutions, offering a complete portfolio of capabilities ranging from data integration and modeling to sophisticated reporting, analytics, and dashboards. Founded in 1989, Dimensional Insight has thousands of customer organizations worldwide. Dimensional Insight’s Diver Platform™ consistently ranks as a top performing analytics platform by customers and industry analysts in its core market segments including healthcare, manufacturing, and beverage alcohol. For more information, please visit <https://www.dimins.com>.

