ANALYZING DATA QUICKLY TO MAKE MEDICAL BREAKTHROUGHS

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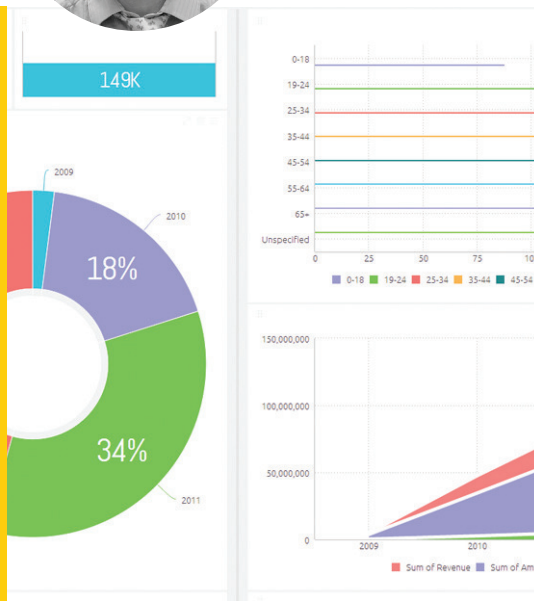
EXECUTIVE SUMMARY:

The Arizona Department of Health Services is a state agency that partners with public and private entities to improve the health and wellness of all Arizonans. A large part of the data they collect is from newborn screenings, which are run in partnership with hospitals in Arizona to screen for 28 disorders in the blood.

Luke Evans, Chief Technology Office Database Architect, learned through the State Laboratory Service that it was finding it too labor intensive to analyze the main causes of failed blood samples for some of its more than 90,000 newborns per year in Arizona. The Arizona Department of Health Services decided to turn to Sisense to help fix this problem. Adopting Sisense means that now data can be analyzed immediately through simple dashboards and by drilling into the data interactively.



THE CHALLENGE: ANALYZING DATA BEFORE IT LOSES VALUE

The Arizona Department of Health Services gathers information from hospitals around the state and puts it into production databases to communicate back to physicians, hospitals, and parents. This process failed to quickly identify where any newborn screening quality issues came from and, on top of that, it was difficult to put together all the information to analyze. Sometimes data would be realized too late since testing and early detection of these disorders is important for all babies. Early treatment can prevent or minimize serious symptoms like growth problems, brain damage, and even death. In an industry where timing is critical, the department knew they needed a better process.

According to Luke, it was a logistical nightmare, simply because it was extremely labor intensive to rapidly identify the cause and source of failed screens. What's more, the department were using Excel spreadsheets to document data, which made it difficult to "slice and dice" to find trends if you weren't an Excel expert. The IT team that support the state laboratory were having to carry out a lot of data preparation, which meant systems weren't being improved.

BOOSTED CONFIDENCE
IN THE TEAM TO ACCURATELY ANALYZE DATA

SAVED TIME
MINING SPREADSHEETS AND CREATING MANUAL GRAPHS

THE SEARCH IS ON

Luke and his team soon realized that their current process was unmanageable – the population of Arizona was constantly growing and the mission of the Agency was becoming increasingly more difficult to fulfill.

The state laboratory eventually engaged IT and asked them to help find a solution, which had them searching for tools and

> "WE NEEDED SOMETHING TO FIT OUR NEEDS, THAT HAD A SMALL FOOTPRINT YET WAS SCALABLE, AND SISENSE MATCHED OUR NEEDS REALLY, REALLY WELL."

gathering the high-level requirements they needed. They determined that they needed a tool that was easy to use (as the IT department didn't have time to build something), that allowed an easy on-boarding process for new employees, and that fit into a fairly tight funding budget.

Sisense ticked all the boxes. For Luke, the biggest benefit of Sisense was the ease of use and the simple onboarding process, which included training and a selection of great online resources.

ANALYZING DATA TO DETERMINE TRENDS

Today, the Arizona Department of Health Services is able to run quality analysis through Sisense, not only checking for any inconsistencies, but also tracking trends, too. They can easily load in the data every single day to immediately understand where quality issues lie.

Sisense helped the team get over their original slow and tedious process and allow staff to actually do their jobs instead of struggling to put data together in an Excel spreadsheet. When the Arizona Department of Health Services introduced the BI tool, they found they could automate everything to speed up the process. This meant no data was out of date.

There was no adoption process for implementing Sisense either, and the tool went live in just a day. Within a week, the IT team were able to start development work to build and share prototypes with stakeholders. Moving forward with the new version of Sisense, the team will be able to send quality alerts directly to the hospitals, making the process even quicker.

> "INSTALLATION TOOK A DAY – ONE DAY! WHICH I STILL CAN'T BELIEVE."

HERO MOMENT

It's not just data between the hospitals and the state laboratory that the Arizona Department of Health Services uses Sisense for. They ran an analysis on their IT applications portfolio after the Applications Architect found himself bogged down with too many questions that was taking up too much time to mine the spreadsheets for answers.

Now, the architect simply puts the data into a Sisense dashboard, giving them access to the information instantly.

> "THERE'S BEEN SO MUCH THAT WE'VE BEEN ABLE TO AUTOMATE THAT IT LEAVES THE HUMANS WITH THE ABILITY TO ACTUALLY HAVE TIME TO ANALYZE THE DATA AND TO MAKE DECISIONS ON THAT DATA."

> "SISENSE REALLY HELPED US TO GET OVER THAT HUMP AND TO ALLOW THE STAFF TO FOCUS ON ANALYTICS RATHER THAN STRUGGLING TO PUT DATA TOGETHER IN EXCEL AND DO GRAPHS MANUALLY EVERY SINGLE TIME."