

## CASE STUDY: Monitoring patient satisfaction and quality-of-care using Press Ganey and the QlikView Business Discovery platform.

Working with one of the USA's largest integrated pediatric health systems. Aculytics' client provides hospital and clinic-based specialty care, prevention and health information services, as well as research and medical education programs. Their activities aim at improving the lives of children and families throughout North East and South East United States.

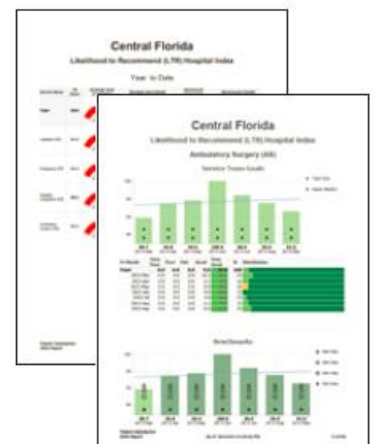
Offering a broad range of medical services spread across multiple service locations the client's continuous improvement team was faced with the challenge of monitoring patient satisfaction and quality-of-care among their large network of healthcare professionals. Aculytics, specializing in the use of QlikView designed and built a custom business intelligence (BI) solution enabling them to create and monitor performance against goals that span multiple service areas and service locations.

### Background

Aculytics' client has many US based service locations throughout the North East and South East United States offering a wide variety of specialty care and other pediatric healthcare services. To monitor the quality-of-care and measure the satisfaction of patients and their families they use Press Ganey's survey distribution and collection services. The ability to manage and process this data efficiently promised a greater level of success with better outcomes and higher patient satisfaction. Thus, the client wanted to analyze the survey data provided by Press Ganey and measure performance against a set of custom goals defined by their executive team.

### Challenges

While Press Ganey offers online reporting and analysis capabilities the client was seeking to create and measure custom patient satisfaction measures not supported by Press Ganey's native reporting and analysis tools. Additionally, their organization needed the ability to combine survey data stored in Press Ganey's proprietary HCAHPS database with other disparate data sources such as Epic Clarity's EHR (Electronic Health Record) data warehouse. To accomplish this they required not only a tool that could source data from multiple systems but also from multiple formats including healthcare data stored in a local on premise instance of Oracle and survey data provided to them in the form of XML documents transmitted to them on a regular basis via FTP.



Associating the two separate data sources would allow for the inclusion of important dimensions not included within the survey's default demographics, as well as the ability to associate additional dimensions in the future via the patient medical records. As a final requirement the client needed the system to remain flexible and dynamic so that survey measures and goals could easily be added or modified over time.

## Solution

The client's continuous improvement team needed a solution that would allow them to analyze Press Ganey's complex XML data while also giving them the ability to further enrich survey demographics with data stored in the Epic Clarity's EHR data warehouse. Additionally, their business analysts wanted to maintain the ability to drill down from high-level survey indexes all the way to individual survey responses and questions.

Aculytics' solution, built with QlikView gathers and processes the patient satisfaction survey data and joins data from multiple external sources to enrich the data with new levels of dimensionality and perform data cleansing such as mapping older renamed departments to their current values, enabling business analysts to view historical trends with ease.

The resulting data is then displayed in a robust and dynamic dashboard. Allowing business users and analyst to navigate from high-level summary views down to response distribution reports and individual survey results with ease. The QlikView application also produces a series charts and graphics using Aculytics Mini Chart Image Generate (MCIG) product to create custom visualizations not natively support by Qlik. These custom visualizations are then made part of the PDF reports which are automatically generated on a regular basis using QlikView Publisher and distributed on the client's SharePoint web portal.

## Benefits

Thanks to QlikView the client can now measure patient satisfaction in more efficient custom rollup's that span multiple service areas and/or locations. Providing valuable business insights into developing trends and patterns in the performance of individual locations, departments, or physicians.

The QlikView solution developed by Aculytics has automated what was once a tedious and time confusing task. Resulting in a reduction of time spent manually generating static reports by members of the client's continuous improvement team every month. Allowing the business analysts previously responsible for generating the legacy reports to focus their time and effort on analyzing the survey data vs. compiling static reports.

The client's executive team and management staff also benefit from the results of the QlikView based Press Ganey dashboard. Today using the solution they are capable of integrating patient satisfaction measures such as Likelihood to Recommend (LTR) and Care Provider Overall scores into many other QlikView and Qlik Sense dashboards and reports with ease. Resulting in a greater visibility into data and performance for strategic patient satisfaction and quality-of-service measures.

"The Press Ganey dashboard solution is a perfect example of how Qlik can be used to automate manual task usually performed in applications like MS Excel while simultaneously further enriching the data and providing the organization with capabilities they previously thought impossible or impractical to achieve."  
– Andrew Pettit,  
Executive VP of Aculytics