



## Mercy: Maximizing the Value of Big Data and Analytics to Improve Patient Care

To become a best-in-class Accountable Care Organization, Mercy integrated SAP® BusinessObjects™ business intelligence solutions with its Epic electronic health record system to enable the Daily Visit Planner tool. Now Mercy can aggregate and deliver data at the point of care to close clinical gaps and improve both patient and population health.

# Executive overview

## Organization

Mercy

## Headquarters

Saint Louis, Missouri

## Industry

Healthcare

## Products and Services

Compassionate care and exceptional services in acute care hospitals, specialty hospitals, clinics, and outpatient facilities, as well as ministry outreach services

## Employees

40,000

## Revenue

US\$4.3 billion

## Web Site

[www.mercy.net](http://www.mercy.net)



## BUSINESS TRANSFORMATION

### The company's top objectives

- Integrate data from several sources and use analytics for one-stop reporting
- Proactively improve disease management and close gaps in care
- Measure the efficacy of the Daily Visit Planner to improve care

### The resolution

- Implemented SAP® BusinessObjects™ business intelligence solutions
- Integrated with the Epic electronic health record (EHR) system

### The key benefits

- Empowers clinicians with data at the point of care that is simple to access and yields actionable insight from diverse treatment settings
- Provides fast data access through a user-friendly interface and establishes key performance indicators to measure progress against strategic and operational goals
- Identifies gaps in care and improves patient population health management
- Positions Mercy locations as value-based Accountable Care Organizations

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“Whether it is maximizing the value of our data, streamlining our operations, or improving care, Mercy will continue partnering with SAP to help make those goals a reality.”

Mark Brinley, Executive Director for Data Analytics and Reporting, Mercy

## TOP BENEFITS ACHIEVED

# 300K

Patients covered with actionable data for 50 clinical measures and 9 disease states

# >100

Full-time employees in equivalent time and effort saved over one year

# 10%

Performance improvement in three areas of preventive care (breast cancer screenings, colorectal screenings and Hemoglobin A1c values) within four months

See more metrics ►

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Resolution

Business transformation

Future plans

# Exceptional service and successful outcomes

With 35 acute care centers, 11 specialty hospitals, and 700 outpatient facilities, Mercy is the fifth-largest Catholic healthcare system in the United States and a long-time pioneer and advocate for high-quality healthcare.

In 2013 the Center for Medicare and Medicaid Services (CMS) selected the Mercy primary care community in Springfield, Missouri, to participate in a Medicare initiative as an Accountable Care Organization (ACO). The ACO model allows providers to share in savings realized through care collaboration efforts that keep patients healthier and eliminate unnecessary expenses. Mercy needed to enable patient-centered, outcome-based analysis to measure, compare, and promote successes to support its participation in the ACO initiative.

This required a single point of view for population health and disease management using combined data from sources such as claims, CMS patient cohorts, patient survey information, enterprise resource planning (ERP) data, and clinical data from Mercy's electronic health record (EHR) system, Epic. These initiatives required a robust health IT infrastructure and powerful analytics to support more-complex business and clinical processes, and they were critical for the transition to a value-based payment environment of improved quality and reduced costs.

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“Our goal was to consolidate as much information for outpatient care as possible so the physician and care team can act on it while the patient is here, filling any gaps. With focused data integrated into our EHR, we're more efficient and patients stay healthier.”

Dr. Rogers, VP of Primary Care, Mercy



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# Big Data and powerful analytics are an all-star combination

To support the ACO and other clinical quality and population health initiatives, Mercy is leveraging Big Data and powerful analytics. With SAP® BusinessObjects™ business intelligence solutions, it has the speed to process and analyze large data sets through clear, comprehensive reporting tools.

As part of the ACO initiative, Mercy developed the Daily Visit Planner (DVP) report, providing a single view of patient information that integrates EHR data as well as data from external sources, including claims. Used by Mercy's primary caregivers, the DVP provides a summary view of patients, tracking approximately 50 measures related to clinical quality across nine disease states. Some of these measures are defined by CMS for the ACO and some are for quality tracking programs like the Five-Star Quality Rating System; others help drive effective preventive care for high-risk patient populations with chronic diseases.

The DVP was embedded directly in the EHR system to boost productivity by combining reports in one tool. Now clinicians have focused, actionable information without ever logging out of the EHR.

The initiative has been such a success that Mercy was recognized by Health Data Management magazine as an "analytics all-star," winning ACO Project of the Year.<sup>1</sup>

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"The game changer this year is that we've taken reports and integrated them into our Epic EHR. Before, providers had to go to a separate reporting tool. Now, for physicians who spend all their time in Epic, the report is right there at the point of care."

Gil Hoffman, CIO, Mercy



1. "Mercy's ACO Analytics Take Top Honor," June 27, 2014, [www.mercy.net/newsroom/2014-06-27/mercys-aco-analytics-take-top-honor](http://www.mercy.net/newsroom/2014-06-27/mercys-aco-analytics-take-top-honor).

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# Better care, greater productivity, and continued improvement

When addressing pay-for-performance requirements, it is now easier for clinical staff to compile and analyze long lists of clinical measures to improve performance. By eliminating time spent searching for patient information, automated data collection is saving Mercy the time it would take over 100 full-time employees to manually retrieve, rescan, and upload data for thousands of patients over the course of a year.

Mercy is seeing what the National Committee for Quality Assurance (NCQA) considers significant change (10% or greater) in performance with its DVP. Centralized data lets caregivers see at a glance when a performance indicator is above or below a defined threshold or when preventive care is due or overdue, allowing them to intervene with a patient to close the gaps or implement a care plan to better control disease.

To validate the efficacy of the DVP, Mercy tested three measures and users that were not part of the ACO pilot. Mercy's Springfield and Four Rivers communities were first adopters of the DVP. But other Mercy primary care communities were relatively new to managing populations and didn't have the resources or infrastructure of an ACO. In just four months, Mercy's validation efforts demonstrated that these chosen communities saw a 10% increase in patients identified by their clinicians and scheduled for breast cancer and colorectal cancer screenings. Also, caregivers saw a 10% reduction in the number of diabetic patients with Hemoglobin A1C values greater than 9, thanks to the information presented by the DVP and embedded in the EHR.



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## Next steps toward deeper integration and insight

Mercy is committed to transforming into a truly data-driven organization. The next steps include fully integrating reporting with more links connecting SAP software and the Epic EHR.

As Mark Brinley, executive director for data analytics and reporting at Mercy, notes, “Whether it is maximizing the value of our data, streamlining our operations, or improving care, Mercy will continue partnering with SAP to help make those goals a reality.”



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