

# Performance Strategies

for Healthcare Leaders



Use Healthcare Business Intelligence to Improve Performance

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## A Model for Information Transparency and Shared Accountability



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### Integrating Technology for Maximum Flexibility

To keep pace with mounting clinical performance requirements, the [University of Washington Medical Center \(UWMC\)](#) decided to move beyond its home-grown decision support system to a more integrated model. We sought greater Web-based reporting flexibility that could combine disparate sources of clinical and financial data in a single warehouse, easily accessible to all.

We implemented McKesson's [healthcare business intelligence](#) solution, which delivers comprehensive, actionable information to everyone from front-line managers to executive leadership. Using real-time reporting from the solution, we can:

- Quickly identify best practices and evaluate root causes
- Accelerate time-to-value for clinical improvement initiatives
- Enhance predictive modeling and analysis
- Manage and measure performance as part of the clinical process

UWMC has gone a step further and integrated analytics as a critical path in our strategic planning. We do more than simply generate reports; we've embraced a model for information transparency and shared accountability throughout our healthcare system.

### Analytics Change Behavior, Improve Performance



Under the leadership of Seth Hennessey, manager of our Center for Clinical Excellence, we use analytics to help us track and improve performance in three critical areas.

**Mortality:** Mortality is one of our top strategic metrics. To achieve a low observed-to-expected mortality rate, we must do three things well: provide care, document that care and code that care. It's vital that we accurately and completely track mortality rates and document ICD-9 codes that make up the patient record. Analytics technology enables us to collect this data, process it and send it to various locations such as state agencies, a medical database and our clinical benchmarking partner, the [University HealthSystem Consortium \(UHC\)](#).

UHC provides risk adjustment for each patient and returns "new" data points to enable comparative analysis. We re-import that data into our performance analytics solution and break it down even further to determine trends meaningful to us. For example, if the data were to show a high observed-to-expected mortality rate for our heart failure patients, we have the ability to drill down to find out who is treating these patients and what other services they've received.

**Core Measures:** Core measure data collection and analysis used to take months. Now, we can predict several months in advance how this information will look, and we can tell within a week how well changes have worked.

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## A Model for Information Transparency and Shared Accountability (Cont.)

We've successfully changed behaviors by providing our physicians with the information they need. For example, on-time delivery of antibiotics has improved from the 70% range to less than one failure in 1,000. Data identifies the caregivers, surgical start time, antibiotic start time and antibiotic use for each patient. Customized views show residents their delivery trends over time. These views also identify high and low performers and enable the residents to analyze their performance relative to peers.

Antibiotic stewardship also has improved. When presented with detailed data on high use of broad-spectrum antibiotics, our infectious disease physicians reversed the trend. These drugs are now used more wisely, targeted to specific organisms.

Our goal is to produce timely, actionable data across the board. As we work to integrate our electronic health record, we look forward to the day when readily identifiable, computer-extracted Type I data is available for all core measures.

**Patient Safety:** Recently, we began using the performance analytics solution to examine Patient Safety Indicators developed by the Agency for Healthcare Research and Quality (AHRQ). Over the next six months, we will work to clean up the data so that every indicator we report is a true depiction of the care received. Because these safety indicators are reported on hospital comparison Web sites, they must be as accurate as possible.

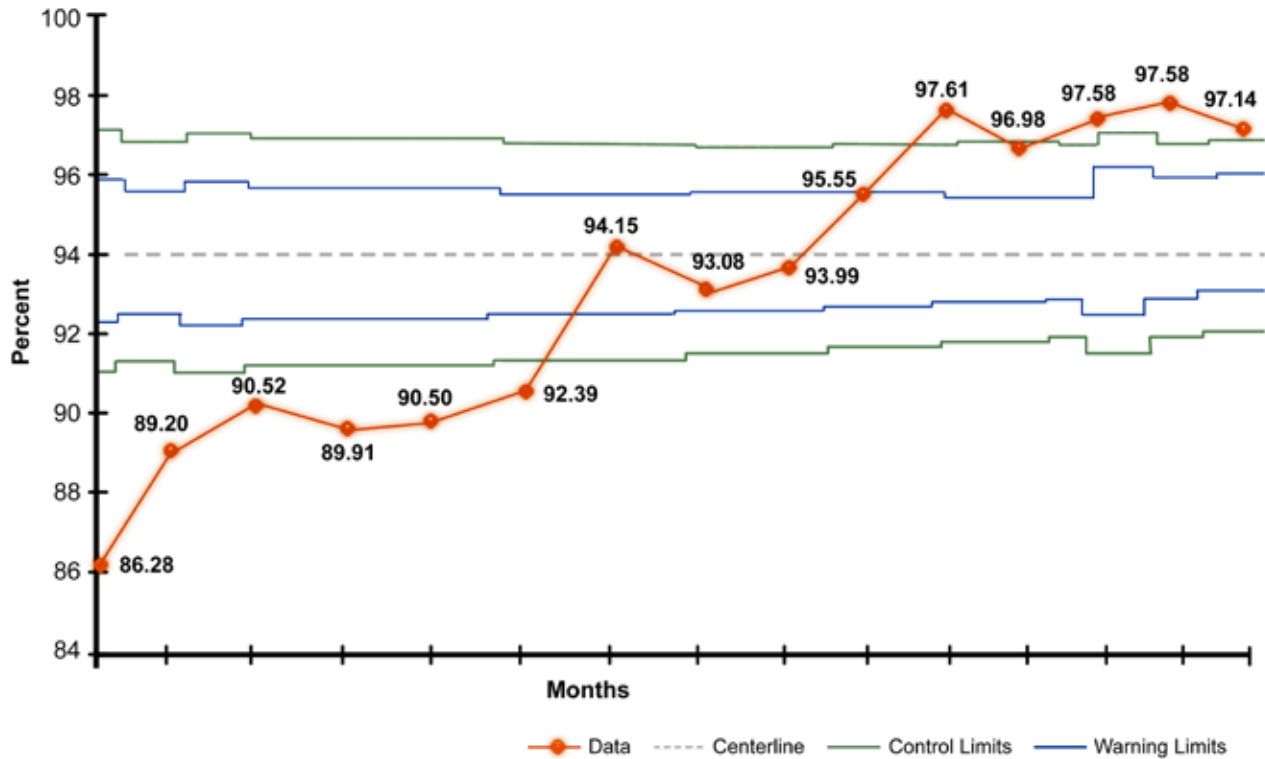
### Fast Answers Yield Safer Care

The performance analytics solution enables us to locate data and answer questions quickly and efficiently. For example, when a surgeon recently sought information on medication safety, we were able to break out every medication error in the past year on a specific floor, including the drugs and patients involved. The information was collected and analyzed in a matter of hours. If we didn't have such a remarkable infrastructure in place, we couldn't have done it.

By leveraging the capabilities of analytics, we expect to continue to improve clinical and operational outcomes. Having a solution that integrates analytics across the enterprise for both clinical and financial data enables us to identify comprehensive solutions for process improvement.

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### Percent of On-Time Delivery of Pre-Operative Antibiotics



The scorecard shows the improvement in University of Washington Medical Center's on-time delivery of antibiotics to patients prior to surgery. This is a Center for Medicare Services Core Measure. This graph represents multiple PDCA (plan-do-check-act) improvement cycles following installation of an automated anesthesia information management system (AIMS).

## Learn More

[IHI: Execution of Strategic Improvement Initiatives](#)

[AHRQ: Identifying, Categorizing, and Evaluating Health Care Efficiency Measures](#)

[Information Management: Financial Analytics — The New Role of Finance](#)