



SIX SIGMA

Six Sigma At Cigna

by **Susan E. Daniels, editor at large**

At Cigna Corp., a 28,000-employee provider of employee healthcare and related insurance benefits, the vice president of Six Sigma business excellence is just two levels below the CEO on the organizational chart.

The woman who holds this title, Leslie Behnke,

reports directly to a member of the corporation's management team. This simple fact helps to explain the rapid growth, holistic use and impressive results of Six Sigma at Cigna.

In 2002, Cigna leadership initiated a grass-roots driven quality program based on Six Sigma.

"We recognized that we could not continue to get by as gatekeepers in a marketplace in which dramatic changes were moving on the horizon," explains E. Edward Hanway, CEO. "We recognized that we had to listen more closely to the voice of the employee consumer and not just to that of our employer customers."

One of Cigna's first big steps on the road to bringing best in class Six Sigma methods to the healthcare industry was to hire Behnke, an ASQ member and 25-year veteran of Motorola, where Six Sigma was started. Behnke had led Motorola's Six Sigma activities for more than a decade.

When Behnke arrived at Cigna, her department



THE FIRST: CEO E. Edward Hanway was the first at Cigna to receive a certificate from Leslie Behnke for completing Cigna's executive blue belt training.

In 50 Words Or Less

- **Cigna Corp., a provider of employee benefits, used Six Sigma to adapt to dramatic changes in the healthcare industry.**
- **A Motorola veteran came on board to ensure a holistic approach using best in class methods.**
- **Six Sigma initiatives at Cigna are pervasive and fully integrated with other improvement efforts.**



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had a mere two employees; today, there are more than 20. The first class of Black Belts (BBs) graduated in summer of 2003.

Today, there are more than 165 BBs in the organization, along with more than 250 Green Belts. Another couple thousand employees are trained as yellow belts to serve on improvement teams.

“We recognized that we had to listen more closely to the voice of the employee consumer and not just to that of our employer customers.”

Cigna chose Forrest Breyfogle and his consulting firm, Smarter Solutions, to conduct the training it needed to build a Six Sigma infrastructure within the company and to set up a method of integrating and aligning lean Six Sigma with business strategy and customer needs.

Leadership and Strategic Planning

Cigna has five strategic imperatives:

1. Establish a meaningful cost advantage relative to the competition.
2. Help improve the health and well-being of

members and the people Cigna insures.

3. Bring innovative products and services to market.
4. Become the partner of choice to its customers.
5. Create a winning environment in the organization.

“Our fifth imperative is arguably the most important in that we can’t fulfill the other four without it,” Hanway says. He stresses the importance of top leadership in creating and sustaining a culture in which continuous improvement is a way of life—not just another ad hoc initiative.

“Essentially, we strive at every level to give our employees the resources they need to succeed,” Hanway adds. “We work hard to help our people understand implicitly that when Cigna succeeds, they succeed—that their success is tied inextricably to the company’s success.”

Notably, Cigna has blue belt training, in which executives and managers learn the basics of Six Sigma, lean, *kaizen* and the basics of design for Six Sigma (DFSS). Hanway was the first graduate of the blue belt course.

Managers also learn what behaviors are required to ensure the following:

- There is continuous improvement.
- The right projects are selected with the right people to lead them.
- There is ongoing assessment of projects.
- People have time to serve on projects.
- Managers ask the right questions during each phase of a project.

Hanway says strategic planning is an absolute necessity in a company like Cigna that competes in a tough, volatile marketplace. “You implement your strategic plan to make your vision a reality,” he says.

“Six Sigma is a means to that end,” he adds. “It gives us the wherewithal to execute effectively on our strategic plan and to do so in a way that enhances quality, reduces costs and makes us a stronger competitor.”

Strategic planning has become increasingly important as Six Sigma has matured at Cigna, Behnke adds. She wants to link quality, Six Sigma, DFSS and *kaizen* to strategy so that

Cigna by the Numbers

- Net income of \$1.2 billion in 2006 compared to \$1.6 billion in 2005 (lower in 2006 because 2005 included \$349 million from discontinued operations)
- Income per share of \$10.50 in 2006, compared with \$10.02 per share in 2005
- Share price up 18% in 2006, outperforming both the Standard & Poor’s 500 and all its major competitors



they're impacting things of the most strategic importance. "This will enable us to reach our strategic goals," she explains.

Communication

Cigna puts a premium on candid, forthright and assertive communications, according to Hanway. "It's also worth noting that communication at Cigna is not a top-down process," he says. "It's all about give and take and the healthy exchange of ideas and information."

"Ultimately," Hanway adds, "two-way communication generates enthusiasm and confidence and helps employees understand in specific terms how they contribute to our success."

At the more practical level, Behnke uses a multipronged approach to communicate with employees:

- Monthly or quarterly business group town hall type meetings that always include training and success stories
- An internal website that is live all the time for messaging training and success stories.
- A Cigna Central intranet where employees can access tools, news and monthly stories about quality and Six Sigma
- Events where successes are celebrated

Cost of Quality

When Six Sigma was launched at Cigna, leadership made it clear the approach would be holistic (see Figure 1). "We specifically said it would not just be productivity improvement but would require behavioral changes and a focus on customers," says Behnke. "While there was a cost cutting component,

FIGURE 1 Cigna's Holistic Six Sigma Model

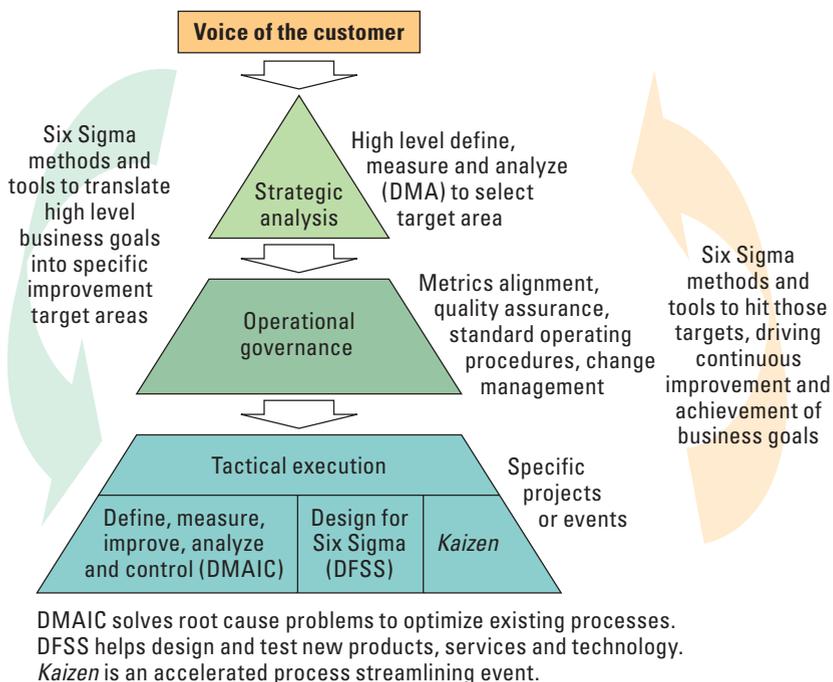
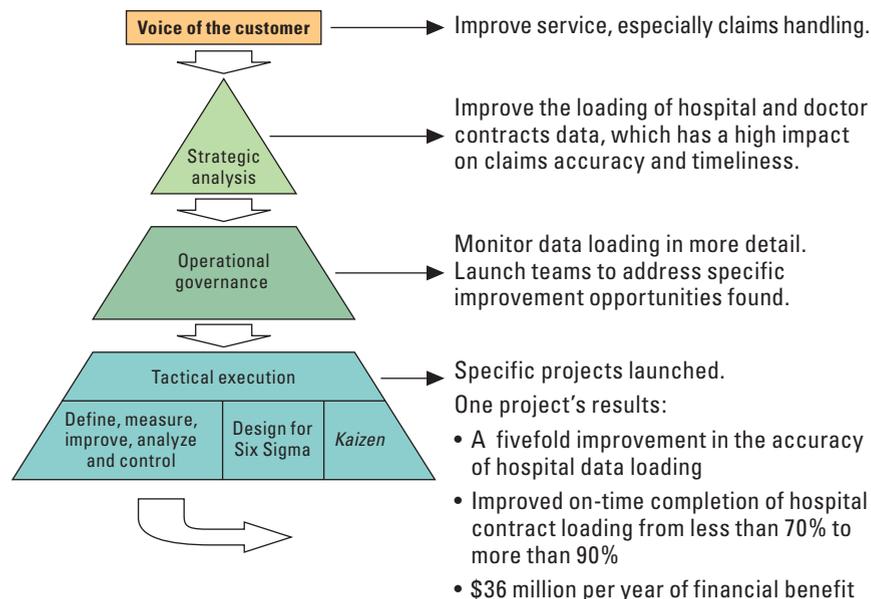


FIGURE 2 Improving Claims Handling





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early projects were very customer specific.”

One such project involved one of Cigna’s largest clients, which was dissatisfied with errors and how long it was taking to pay claims accurately. This customer got its own BBs to work with Cigna. “The resulting cross business Six Sigma project exceeded

the customers’ expectations from both timeliness and quality standpoints,” says Behnke. “In fact, the customer was so satisfied, it gave us additional business.”

Cigna looks at the cost of doing nothing differently, figures how much improvement it can make

Major Success Story

Cigna achieved a 49% decrease in total inpatient case costs following one Six Sigma project.

Background

To better meet the needs of clients with more complex problems, Cigna Behavioral Health (CBH) developed an intensive case management (ICM) program.

The program’s purpose was to assign personal ICM care managers to improve patients’ ability to engage and stay compliant with their medications and outpatient treatment recommendations. It was hoped this would reduce re-admission rates for problems such as substance abuse.

These rates were high and increasing, despite ICM activities, which included care manager contact with the patient, assistance with educating patients on their illness and medications, working with the patient’s family, coordination of treatment plans with mental health and medical providers, and assistance in managing the patient’s available benefits.

Problem

Despite all these activities, re-admission rates for certain types of mental illness and substance abuse were increasing.

Approach

CBH launched a define, measure, analyze, improve and control project to identify potential causes of the gap between perceived performance and goals for readmission under the ICM program and to implement improvements and monitor long-term results.

Findings

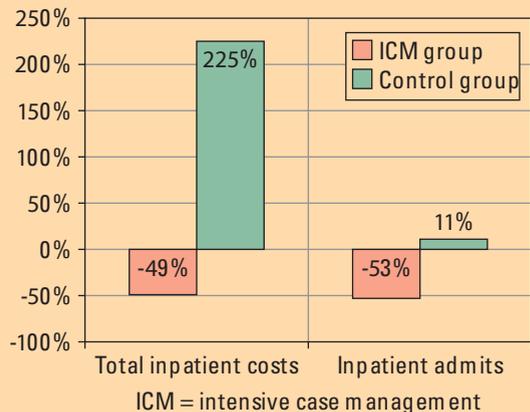
Analysis revealed some interesting facts, including:

- Re-admission metrics were misleading—in fact, understated—because they did not include subsequent admissions and treatments of problems other than those related to the original diagnosis and treatment.
- Identification or engagement of patients at high risk was inadequate.
- Follow-up discharge plans and use of outpatient treatment were inadequate.
- Follow-up communication was not effective (too much and too confusing).

Improvements Implemented

Actions taken included five improvements:

1. Redefine a more comprehensive, customer focused re-admission metric.
2. Improve discharge and follow-up planning.





and then comes up with a dollar differential. “The amount is usually huge, and presenting that number initially ends up making it easier to get managers to free up people to serve on the process improvement teams,” Behnke explains. “A 0.1% improvement can save millions.”

3. Provide automatic ICM enrollment to providers and patients.
4. Consolidate patient communications, and improve delivery.
5. Implement protocols, templates and training for all care coordinators, including employee assistance programs and nonclinical services, while emphasizing the importance of a comprehensive, holistic approach to care.

Control Phase

A full-year study was designed using 286 patients enrolled in the ICM program compared with 517 patients with similar problems in a control group.

Results

Results were impressive:

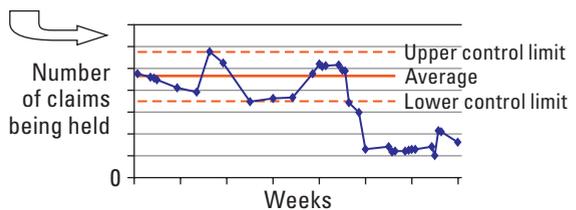
- A 53% decrease in re-admissions
- Savings of about \$3,000 per patient and the previously mentioned 49% decrease in total in-patient care costs
- A 14.9% improvement in the rate of patients taking medications as prescribed

Along with the impressive cost savings in outpatient care, Cigna saw even more significant savings for patients in the ICM inpatient care program:

- The total number of admissions in the ICM group decreased 53% vs. increasing 11% in the control group.
- The total cost for inpatient care decreased by 49% in the ICM group vs. an increase of 225% in the control group (see figure at left).

FIGURE 3 Dramatic Claims Processing Improvements

- 90% productivity gain in number of claims processed per hour
- 49% reduction in rework (claims adjustments)
- 75% reduction in held claims



- 70% reduction in processing time to add a new doctor to Cigna's network

Figure 2 (p. 45) shows the dramatic improvements in claims processing productivity and timeliness that were achieved early at one Cigna location following a Six Sigma project. Figure 3 shows the improvements in claims processing productivity and timeliness in a later Six Sigma project using a *kaizen* approach.

Hanway believes Six Sigma has become the catalyst for creating synergy throughout Cigna, with cross functional teams building stronger communications across divisions.

“Everyone shares statistical tools and metrics and uses a common approach and language,” Hanway explains. “Altogether, the initiative demonstrates that if an organization focuses only on cost, its quality may decline, but if instead it focuses on quality, its costs are generally lower.”

Cigna's Way

Before Six Sigma, another fact of life at Cigna was that a history of mergers, acquisitions and decentralization had left Cigna with a proliferation of processes and systems. Rather than running Six Sigma initiatives parallel to other process improvement initiatives, at Cigna the method is integrated with DFSS, *kaizen*, *hoshin kanri*, behavioral performance management and other efforts.

“To gain maximum flexibility and results,



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we've included every tool ever invented in our Six Sigma toolbox," says Leonard C. Javinett, operations director, business excellence. "But we include all of these in a common, logical framework."

While initial concentration was on efforts that would bring quick and significant results, in the last two years as Six Sigma at Cigna has matured, it has increasingly focused on impacting goals of the most strategic importance to the organization.

Some business units have used and fully integrated these tools. Cigna's program is flexible, with Six Sigma practitioners free to use anything in the toolbox as long as the focus is on the voice of the customer (VOC) and the drivers are VOC and business results. The skills of knowing which tools to use and how to apply them—and being flexible in their application—are combined with consistent training, methods and measurement, according to Behnke.

And, while the focus has to be on the customer, lean methods must be looked at in everything. "Even when using DMAIC, lean tools are considered, and integration is total," Behnke adds.

Healthcare's Big Picture

The challenges of the huge cost of care and quality of care facing U.S. healthcare have led Hanway to wonder whether Cigna could extend its improvement methodology to the industry as a whole.

Hanway notes rapid changes in the U.S. healthcare marketplace, including:

- A shift away from cost based models of healthcare toward a value based system
- Medical care cost inflation
- Demographic changes that necessitate the need for more care availability
- Inconsistent quality of care
- The growing number of Americans who use emergency rooms for primary care because they lack health insurance
- Rising consumer expectations fueled by greater transparency of quality

"Six Sigma is about quality, continuous improvement and sustained excellence—all of which should



NEOC AWARD: The North East Quality Council (NEOC), representing a group of ASQ sections in the northeast United States, recently gave an annual award for quality excellence to Cigna. Pictured (left to right) are Paul Williams, director, network operations; Srinivas Sarathy, Black Belt (BB), business excellence; Leslie Behnke; LaWanda Miller, BB, business excellence; Leonard C. Javinett, operations director, business excellence; John Watson, Master BB, business excellence; and Rau Cheser, Mike Fontana, Shane Gerson and Darryl Grafton, all BBs, business excellence.

be basic to the mission of every organization that's in the business of providing access to healthcare," concludes Hanway. "At Cigna, we knew that if we wanted to strengthen our leadership position, we had to offer consumers meaningful choices in benefits, care and providers and become trusted advisers, coaches and enablers—true health advocates."

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