Quality improvement programs come and go in health care and other industries. Many CIOs remember the days when Total Quality Management and Continuous Quality Improvement were the de rigueur programs that promised to squeeze the inefficiencies out of the care delivery process. Those initiatives, however, for the most part fell far short of expectations. But now there’s a new kid on the quality improvement block: Six Sigma, a program that has been embraced by many Fortune 500 companies and is making inroads in health care.

Some organizations are hesitant to embrace Six Sigma, fearing that it’s just a repackaged version of past—read “failed”—quality programs. But proponents say Six Sigma brings definitive and lasting benefits and will have the staying power the other quality initiatives did not.

The quality program is a disciplined methodology that uses data and statistical analysis to measure and improve a company’s operational performance by identifying and eliminating “defects” in manufacturing and service-related processes. The goal of the methodology is to have less than 3.4 defects per million “opportunities,” as defined by Six Sigma.

What it is
In the 1980s, the late William Smith, an engineer with Motorola Inc. of Schaumburg, Ill., developed the concept of Six Sigma and urged CEO Robert Galvin to adopt the quality program.

Motorola did so in 1987 and the following year was one of the first recipients of the Department of Commerce’s Malcolm Baldrige National Quality Award, which was established to recognize business excellence in the United States.

One convert was Jack Welch, then the CEO of General Electric Co. in New York. The company adopted Six Sigma in 1996.

A core tenet of Six Sigma is identifying, measuring and controlling variables. Any Six Sigma project has five basic phases—define, measure, analyze, improve and control.

However, quality improvement does not come just from the top under Six Sigma, says Russell Esposito, vice president and CIO of Vytra Health Plans, a Melville, N.Y.-based managed care payer. Vytra’s first Six Sigma project—improving enrollment processes to reduce its high claims processing error rate—came from the top as executives put their imprint on the initiative, Esposito says.

Since then, however, project ideas have come from all ‘rungs’ of the organization, he says. Vytra now has three or four major Six Sigma projects, and five or six smaller ones, going on at any given time. “All levels are empowered,” he says.

“Production-level people must think the same way as quality improvement experts and senior executives.” As for Vytra’s problematic enrollment process, changes to addresses, other demographic information or benefit levels—such as a member’s eligibility for physical therapy—were not getting updated in adjudication systems, resulting in claims being pending for manual intervention.

This “hidden factory” of reworking claims is very expensive, reducing productivity and profits, Esposito says. After fixing the enrollment and other processes, the payer’s 10% internal error rate in claims processing fell to 3%.

Esposito credits Six Sigma programs with helping the insurer pay 95% of paper or electronic claims within 15 days of receipt. “That goes a long way in terms of relationships with hospitals and physicians.”