



Cutting Days in AR by Two-Thirds

Virtua Health System

Case Study

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Vital Stats

Name of Healthcare organization: Virtua Health System

Facilities/locations: Virtua Memorial, Virtua Berlin, Virtua Voorhees, Virtua Marlton

Number of employees: 7,900 +

Number of physicians: 1,800

Number of beds: 975

At a Glance

- Largest healthcare employer in southern New Jersey
- Outpatient emergency/ambulatory center
- Two rehabilitation and long-term care centers
- Home health agency
- Health and fitness center
- Physician organization
- Four freestanding surgical centers, one radiation oncology program — all joint ventures with physicians

Achieving Industry-Leading Accounts Receivable (AR) and Denial Metrics

Very often, the value that information technology brings to an organization lies as much in its ability to accelerate culture change as in its ability to streamline a work process.

Virtua, the Marlton, N.J.-based health system comprising four hospitals as well as a growing number of outpatient centers, serves as a case in point. Today, the organization's breakthrough achievement of reaching key financial milestones clearly demonstrates the difference information technology and process improvement can make to revenue cycle management.

By any measure, those achievements are industry-leading, especially when it comes to the amount of time it takes to collect payment for services. Today, Virtua's over 60 days in AR is at 19 percent.

The accomplishment is all the more impressive in light of just how far Virtua has come in a relatively short period of time. In 2003, payments were received, on average, 86 days following service — nearly three times as long as today.

According to HFMA, the average for U.S. hospitals is between 49 and 52 days.¹ The impact of days in AR and the ability to provide high-quality patient care are increasingly recognized as a systemic, nationwide challenge. And the level of a hospital's financial resources can ultimately affect its ability to provide excellent care.

¹ Healthcare Financial Management Association, HFMA Key Hospital Financial Statistics and Ratio Medians, December 2008.

By 2008, Virtua reduced its average days in accounts receivable from more than 85 to 30. That compares to an average of about 50 for health systems nationwide.

Denial rates are closely tied to this metric. Many hospitals are writing off up to 4 percent of net patient revenues because of payer denials. For a mid-size hospital (358 beds) with annual net patient revenues of \$370 million, this represents more than \$14 million in at-risk revenue and operating margin.²

A payment that is initially denied by payers, for whatever reason, will spend more time in accounts receivable than need be. It is not uncommon for providers to experience a denial rate of between 10 and 20 percent. For example, according to one survey of 200 healthcare executives, one in five claims is delayed or denied.³

The prevailing rates of denials are in sharp contrast to those at Virtua, which in 2008 were only 4 percent.

But managing denials was not always as effective at Virtua. In 2005, the denial rate for the organization was 11.5 percent.

“We bill out some 42,000 claims a month,” says Cindy Biggio, Virtua’s director of Patient Accounting. “So 11 percent of that is more than 4,000 denied claims a month. And that impacts your cash flow.”

The remedy was not simply a matter of installing more technology. The fast pace of improvement arose from a strategic vision at the top of the organization, a clear-cut set of directions, an emphasis on accountability at all levels, and a commitment to change shared by everyone involved.

²Moody’s 2007 Not-for-Profit Healthcare Medians

³PNC Financial Services Group, Automated Billing/Payment Process Can Reduce U.S. Health Care Costs without Sacrificing Patient Care, November 2007.

Siemens Revenue Cycle Management Technologies at Virtua

- INVISION® Patient Accounting
- Net Access™
- Soarian® Electronic Document Management (EDM)
- Contract Management
- Receivables Management Workstation
- Receivables Policy Manager
- Denial Management
- Browser-Enabled Patient Accounting
- HDX Integrated Eligibility Services



Process Improvement and Change Acceleration

The tipping point was reached only once the technology was fully embraced by the people who needed to use it. That meant stepping outside the comfort zone for many — a difficult step, even though it offered the opportunity to make higher-level contributions to Virtua’s financial well-being.

Virtua kicked off a system-wide Six Sigma initiative that examined root causes of the denials rates and delays in collecting receivables. It emerged with a

set of standardized processes based on efforts to define goals, measure aspects of current processes, and discover cause-and-effect relationships.

“We realized that we needed to use the systems to their fullest extent to be successful,” says Cindy.

The magnitude of improvements at Virtua, and the speed with which they were accomplished, called for a new way of looking at things – not just at technology, but at how work is done and the roles of those who do it.

Virtua’s Record of Excellence

- Two-time recipient of the prestigious New Jersey Governor’s Award for excellence in quality and a systematic approach to management.
- Recipient of six Clinical Excellence Awards from Voluntary Hospitals of America (AHA).
- Multi-year recipient of the Consumer Choice Award by National Research Corporation.
- Outstanding Achievement Award (2007) recipient from the Commission on Cancer of the American College of Surgeons.
- Named Best Place to Work in the Delaware Valley by the *Philadelphia Business Journal* and entered into the publication’s Hall of Fame for receiving this recognition three years in a row.
- Recipient of The Joint Commission disease-specific certifications:
 - First accredited stroke program in South Jersey
 - First accredited total joint replacement program in the Northeast
 - First accredited spine program in the Northeast and second nationwide

The results of Virtua's change acceleration initiative included a reduction of payment denials from 11.5 percent to 4 percent in three years.

Discovery, Measurement, Analysis, and Improvement

Change came about not only through strategic initiatives kicked off at the top of the organization, but also at the grass-roots level.

"We did focus groups and assembled special test teams to ask the staff how they wanted work to be set up," says Robin Thiel, supervisor, Virtua Patient Accounting. "Our training and development played a crucial role in helping people embrace technology and change."

A key question at the focus groups was "What can the system do for you so you don't have to touch every account?"

The effort revealed measures that could be taken fairly easily and that could result in early successes, giving the team a taste of what else could be achieved by rethinking processes.

"We also developed impact-versus-effort grids, what was low-hanging fruit, what was a lot of work but low impact," says Cindy.

One example: Virtua's HDX Integrated Eligibility Service for verifying that claims meet insurance payers' requirements prior to care was not being fully used at patient registration.

"As a result of the studies performed by the Six Sigma team, we gathered data showing that registrars were using HDX only 50 percent of the time," Cindy says. "And when they did use it, they were reading and using the reply only 25 percent of the time."

Up-front eligibility verification, performed as part of the ordinary part of the registration routine, would have an immediate impact on reducing denials. And, this improvement would be realized without new investments or implementation efforts.

"We generated standard operating procedures for the front end, and within the first month, our denials dropped from 11 to 7 percent," says Cindy. "And they just kept going down. That was a great success story."



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That change was an example of how improvements came about almost like peeling back an onion, in which success in one area helped the team uncover other opportunities.

“We were able to trend our accounts receivable over 60 days by payer, and the graph for that metric followed the one for denials,” Cindy says. “You could see that when your denials go down, your AR over 60 days went down as well.”

Another tool for helping to better control and predict payer activity is the Siemens Contract Management system, which helped handle complex payer contracts and recover payment discrepancies.

“In 2003, only two payer agreements were set up in Contract Management,” Cindy said. “Now, we have nearly all contracts set up.”

As a result, Virtua could more easily identify payment variances and identify root causes of payment delays, leading to cleaner bills and a reduction in AR days.

Once again, one success led to another, engaging the team and building a desire to see what more could be done with the technology already in place.

“It was when we moved to our Receivables Policy Manager system that we realized that people were touching things they didn’t need to be touching,” says Cindy. “We only wanted our reps to touch accounts by exception, and not look at every single thing.”

The system helped to eliminate much of the repetitive manual data entry. With staff freed from handling all aspects of each patient account, there was more time to focus on tougher challenges that really called for their level of skill and experience. Claims representatives are now able to concentrate on receivables and collecting cash.





Gaining Buy In, Accountability, and Results

For Virtua's process improvement vision to be realized, all team members needed to be accountable for the key results relating to their individual responsibilities.

This requirement helped motivate staff to embrace the entire array of technologies available to them — such as Receivables Management Workstation and Electronic Document Management.

To encourage buy-in, Virtua involved users in the review and design of the process, as well as the definition of new metrics and targets. A bonus program was put in place to provide a financial reward for reaching key targets.

Posting results at each step of the way allowed the users to see the outcome of change and gain further support for other initiatives, like moving to a more paperless environment. Management worked with staff members to give them time to adjust, minimize their reliance on paper, and become comfortable with the more streamlined workflow the tools were designed to support.

"Information is Power"

"Every month we use a Six Sigma tool that shows the amount of opportunity in your defects," says Cindy. "It gives us a percentage for each campus. The report goes to all the COOs, the CFO, the patient access managers, and facility-based assistant vice presidents for finance so that everyone knows where we are."

Today, Virtua is recognized as a leader in the application of Six Sigma, Lean, and Change Acceleration Process in the healthcare environment. The organization has hosted healthcare leaders from around the United States as well as globally from countries such as Finland, Spain, and South America, who came to learn about Virtua's application of these processes.

"Once we got the actual staff involved, things really started moving. It's all about getting buy in. Information is power."

For more information about how Siemens Revenue Cycle Management can help your organization, call 1-888-826-9072 or visit www.usa.siemens.com/revenue-cycle.

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