Best in Class

Medical Solutions **met with the five top-level executives of Virtua, New Jersey's innovative Healthcare System, at their state-of-the-art hospital in Voorhees, New Jersey. The company is leading the way to future population health awareness – with a set of Siemens IT solutions at the core.**

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Richard Miller

"We are putting the patient at the center of the healthcare process."

Richard Miller is the President and CEO of Virtua. According to many of the managers and staff at Virtua, it is his vision for population healthcare that has made this New Jersey healthcare system not just a leader of the industry, but also best in class.

In your opinion, what are the main contributing factors to Virtua's success?

Miller: There are three variables that are crucial: people, strategy, and process. Good people and good management are crucial, and I think we have both in abundance. Success requires a good strategy, and we have set a good course for U.S. health systems. The third thing is process: How do you take the strategy you've developed through a process that will get you to the end results? And how do you measure the success of that process?

Facing today's challenges, what are your main priorities?

Miller: Cost, quality, and access. In the USA, the cost of the product has to be brought down; it's too costly for business and for people in general. The quality of the product has to improve – we need high quality at low costs. Another key will be access to healthcare in the community. We will have fewer hospital beds in the future, but we need more access to outpatient services in the marketplace, especially primary care services for patients.

What strategies are you deploying to facilitate this outpatient care?

Miller: We are putting the patient at the center of the healthcare process. The setting is no longer the acute care center, but the patient's home and other settings outside the hospital. We are focusing on an accountable care model that looks at taking resources and transferring them from the hospital setting to the outpatient or at-home setting. We have to manage care for patients with chronic disease differently. Then we will see lower costs in healthcare.

How do you plan to help the population lead a healthier life?

Miller: The focus for us now is health and wellness. We're making a big bet here on keeping people well, making sure people exercise and eat properly. We're trying to improve the lifestyles of 8,500 employees and their families – 12,000 to 13,000 lives – to lower the cost of care for our own staff. We will do everything to support a healthy lifestyle. At the end of the day, if the consumer doesn't follow what we're trying to accomplish, it's going to cost him or her more.

How is modern technology helping you in achieving your goals?

Miller: Modern technology is a key factor. Our journey started when we installed Soarian® here for a base model for clinicals at Virtua. We went through an exhaustive search. The Soarian product is the foundation of our electronic medical record, so you have to make a good decision there, because that is where all the core information is going – to inform the physician's clinical decisions. We have a pretty robust health information exchange here at Virtua, with the Siemens product being at the centerpiece. Information technology today can measure outcome and success, and you can benchmark clinical quality

very well. The future is very bright in that area, because we'll be connecting a lot more together, as health systems. Even competing health systems now have converted to Virtua's health information exchange, for the benefit of their patients and their physicians.

Where does Siemens help you to be measurably more effective?

Miller: To have nursing documentation and physician order entry coming in electronically is huge. It's a life-saver for us and for a lot of hospitals around the country that no longer depend on handwritten notes from a physician, it's on the record, its electronic and clear – so there is no guesswork with physician orders or nursing documentation. Siemens has been at the beginning of Virtua's IT revolution in terms of getting us where we need to be.

How do you make sure you will still be on top of the industry even ten years from now?

Miller: One factor is that Siemens and Virtua are working together and preparing for what is coming in healthcare ten years from now. Information will be disseminated very quickly. Choices will be made on the Internet about healthcare. Most of it will be delivered on an outpatient basis. There will be a much better process of care. Eventually, you won't have to open a chest up for heart repair; I think this will be done minimally invasively at some future point. And technology has to keep up with that.

You have formed some innovative, strategic alliances in the past. What are you looking for in such ventures?

Miller: A partnership is based on how we gain value from each other. How can Siemens use Virtua as a research and development site for future products and to leverage a brainstorming and thought process? If you have a thought leader in healthcare and a thought leader in IT and diagnostic technology, you'll be thinking together. There are bright minds on both sides that can help figure out together what the future will bring.

Bob Segin

"We like to work with best-in-class organizations – and Siemens is certainly one of them."

Bob Segin is the Executive Vice President and CFO of Virtua. He has been with the company for almost 30 years, and today oversees strategy in terms of mergers and acquisitions, the overall finance department, corporate compliance support services, and health information management.

As a CFO you have a special interest in running a tight ship. Can you share some of your strategies?

Segin: In our organization, we set a five-year strategic financial plan. If you provide excellent service, the financial results will come. It's never finance first and operations second. Our business is to provide outstanding patient care. If we do that, the financial results will follow. Fortunately for us, the plan has been very accurate. Now, we're already planning five years out from where we think we are going to be financially.

You have a lot of data coming in. How do you manage the data flow?

Segin: We are very rigorous in data collection. Every Friday morning, we ▸

hold a mandatory financial briefing. We project within one standard deviation what our monthly financial close and bottom line will be. Behind all that we have all the statistics of our businesses, all of the financial revenue, and expenses of each business unit projected out on a weekly basis to the end of the month. As a matter of fact, the system works so well that our latest meeting took only 45 minutes to cover our entire business projection and estimate for the month.

So that allows you to course-correct very quickly, should something not go according to plan?

Segin: Typically, in the real world, you get your budget variance report three weeks subsequent to the end of the month. It may take another manager three to four weeks to look at it, so you're already two months behind in terms of course-correction. At Virtua, we look at it weekly, based on a projection, and we course-correct within that week. The question is not why you have the variance, but how to fix it. We applaud managers seeking help and guidance with other managers to help them mend their problem.

How do you select people for Virtua's managing workforce?

Segin: We have a portfolio of high-performing managers. So if a manager exits, we already know who could fill that slot in terms of succession planning. There's no guessing; we already know in advance, based on our best people review process, who can take that next position. We try to educate and groom top-level people and to coach and mentor people that need improvement.

How does Siemens help you as a partner?

Segin: Siemens has helped Virtua get to where we are in IT at this point in time. We feel connected to Siemens as an organization, and they give us terrific support. Now, we are going to move into implementing the revenue cycle system via Soarian. We take pride in working with organizations that are best in class. So if Siemens is producing best-in-class products, Virtua would like to be at the table with Siemens and acquire these products. We like to work with best-in-class organizations, and certainly Siemens is one of them.

Al Campanella

"Efficiency is really the point."

In Al Campanella's view, Siemens Soarian is not only very proactive. The Executive Vice President for Strategic Business Growth and Analytics at Virtua oversees business and strategic development, and heads the internal consulting group. He steers the IT operation as a whole, the organization's wellness programs, and their access navigation centers.

What are the main priorities in managing a modern hospital?

Campanella: The main priorities are to serve the community, as we have for over 100 years, while also re-engineering and re-positioning ourselves for the future. As you know, here in the U.S., we are facing a major healthcare reform driven not only by government changes, but also by changes in demographics. There is a great ageing of the population here. The baby boomers are rapidly becoming the dominant portion of the population. At the same time, employers are demanding that overall healthcare costs be reduced so that the premiums for employees can be reduced. Healthcare providers need to deliver care more efficiently and effectively.

How can you reduce costs while at the same time investing in the most modern technology?

Campanella: Efficiency is really the point. You need to have investment in modern infrastructure, but hopefully all of these factors contribute to greater efficiencies, so you make it up. Siemens has been a great partner with us in terms of technology and innovation. Our electronic medical record includes a set of components that not only allow our nurses and doctors to document care effectively, but also to perform very critical functions such as dispensing medications in a safe manner, ordering tests in a very safe manner, and running major operations. For instance, we use the Siemens pharmacy system and the radiology system, and those are two very large supporting departments to the daily activity. All that combined makes us very efficient and makes us a modern hospital.

Do you have a specific example where the process gained in efficiency?

Campanella: Siemens Soarian includes many tools. One of these is the workflow engine, and that set of technologies creates alerts, and reminds the nurses and physicians of necessary care tasks. It helps keep the day moving at a very good pace, and ensure that certain activities and certain things they are trying to do for patients really happen. It's very proactive.

With more than 20 years of experience in healthcare planning, you've seen almost revolutionary changes. What are some of the most memorable?

Campanella: The government's had a huge influence over the years in terms of how they want care delivered, setting standards. For example, the HITECH Act provided funding for both hospitals and physician offices to install EMRs so there could be a new standard of care, documenting care, and decision support. The data is available now and can be analyzed. Consumers are becoming more savvy, and they're seeking out those providers who have high quality and high standards, and whether the hospital uses modern technology.

Michael Kotzen

"Partnering with Siemens really paid off."

Michael Kotzen is the Executive Vice President for Population Health Management at Virtua. He is responsible for the operations across the system, collaboration of hospitals, ambulatory services, and the post-acute network.

How has technology changed the healthcare system in recent years?

Kotzen: As healthcare becomes more about managing populations, as opposed to the acute episode that's right in front of us, we're really dependent on technology to bridge those gaps across the levels of care. And we need healthcare to be more efficient. There's a lot of pressure on the industry to reduce the cost of healthcare. Technology can help drive that.

What are the challenges that you experienced in going fully electronic?

Kotzen: We had heard a lot of horror stories about implementing electronic medical records, and physician order ▸

entry. But our experience couldn't have been better. I was responsible for building this new 400-bed hospital in Vorhees, New Jersey. We spent a lot of time with Siemens to make sure we had that smooth transition. It really paid off. We are able to pull much stronger data to see whether our initiatives in re-admissions, safety in the hospital, and so on are really working. There's so much more that we need to do in terms of population health, and I think the possibilities are limitless.

You're planning a shift from treating disease to helping populations maintain their health. The USA is not the easiest country to make such a shift. How do you go about it?

Kotzen: I think one of the biggest challenges is in engaging the population in their own health. If we don't have that engaged patient population, we're just going to be adding another level of complexity without making the impact we want with the resources we're expending.

Is the population ready to take part in this shift?

Kotzen: I think so. For example, we have a number of initiatives for improving patients' medication management once they're discharged from a hospital and connecting that with our primary care physicians. But we'd like to see a broader impact, and be able to say that our population has improved in this respect. The health needs assessment will help us get there. I'm proud to say that in terms of patient satisfaction, we are in the top seven percent of all hospitals in the country.

Tom Gordon

"It's not about the amount of data, but about finding the most valuable information."

Entering data into an electronic record is one thing. But analyzing that information and making it available to the right person at the right time is key, explains Tom Gordon, the Chief Information Officer at Virtua. He is responsible for an IT department consisting of 175 employees, multiple platforms of technology and telephone services, and the technology strategy across the Virtua continuum.

Can you describe the Virtua healthcare system from an IT perspective?

Gordon: We have a very robust technology platform that enables us to coordinate care. Looking at care across the continuum is really important, especially in terms of quality and efficiency. Connecting the physician ambulatory record to the acute record, to our health information exchange platform, and then of course to our electronic medical record creates a plat-

form that has helped us reduce medication errors. We've increased legibility, reduced variation in care, and we have faster order turnaround. IT has an important role in patient care.

Surely this new technology brings challenges...

Gordon: Just getting the data into an electronic record is one thing. But analyzing that information and making it available to the right person at the right time is key. The data has grown exponentially. Now we must bring the most important data to the forefront and turn it into useful information. It's also a question of cost. We want to ensure that we don't enter the same information into the same system multiple times. We want that information to be in the right electronic medical record and entered by the right person.

Do you have to be a computer expert to work at a modern hospital?

Gordon: The electronic record certainly has changed the workflow. Evidence-based care and decision support requires information to be put into the system in a certain way. Information needs to be readily available, medication errors need to be reduced, all leading to better patient care and quality. Clinicians no longer look at scripts. They're looking at a screen version or structured data as opposed to handwriting. That has really improved the quality of the data and accelerated processes. ■

Roman Elsener is the U.S. Head Correspondent for the Swiss News Agency SDA in New York. He has worked as editor, reporter and producer for various European and media. He has produced stories for, among others, Neue Zürcher Zeitung, NZZ am Sonntag, Swiss Television SRF, German TV ZDF, Spiegel Online, Handels-Zeitung and many more.

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Further Information

www.siemens.com/soarian

Virtua at a Glance

- Virtua is a multi-facility healthcare system in New Jersey that puts ***health and wellness at the center of patient care.***
- Physicians at all four Virtua hospitals (Berlin, Marlton, Mount Holly, and Voorhees) are **entering clinical orders electronically** through the use of the Soarian Clinicals enterprise health IT solution by Siemens.
- A non-profit organization, Virtua is one of the area's largest employers. Virtua employs about ***8,500 clinical and administrative personnel.***
- More than 1,800 physicians serve on the medical staff.
- Virtua is chosen by more patients than any other healthcare provider in South Jersey. Virtua delivers more than ***8,000 babies a year*** at its hospitals in Mount Holly and Voorhees.
- Virtua has a **customer satisfaction rate of 93 percent,** in the top ten of all hospitals in the USA.
- Virtua offers free classes to educate people about disease prevention, facilitate support groups, and conduct a variety of health screenings.
- Virtua provides **clinical training** not only for local nurses, paramedics, and physicians, but also for the community including pediatric and adult cardiopulmonary resuscitation.
- Virtua has been honored twice with the ***New Jersey Governor's Award for Clinical Excellence*** (Bronze in 2005; Silver in 2006) and recognized with the ***Leadership Award*** for Outstanding Achievement by Voluntary Hospitals of America. Virtua is the recipient of the 2010/2011, 2009/2010 and 2007/2008 ***Consumer Choice Awards*** given by National Research Corporation.
- The New Jersey Technology Council awarded its annual top prize – **Master Technology Company of the Year** to Virtua. The key considerations for the award include ***long-term growth and profitability,*** substantial impact on industry and market within the last 10 years, advancement of industry standards, and accomplishments as an outstanding corporate citizen.

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