



THE COMPUTERWORLD
HONORS PROGRAM

The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

LOCATION:
Glendale, AZ, US

YEAR:
2008

STATUS:
Laureate

CATEGORY:
Non-Profit Organizations

Technology Area:
*Management of enterprise-
wide wireless/mobility
infrastructure, policy,
program and applications*

ORGANIZATION:
Touchstone Behavioral Health

ORGANIZATION URL:
<http://www.touchstonebh.org>

PROJECT NAME:
Secure EMR for Remote Providers

Introductory Overview

Touchstone Behavioral Health is a recognized leader in providing positive outcome, evidence-based, behavioral health services to youth and their families throughout Arizona. TBH serves at risk kids who qualify for AHCCCS, Arizona's Medicaid program for those who are not privately insured. Without Touchstone, many of these children could face life long challenges. A staff of 160, of which 120 are health care providers, serve approximately 3,000 children between the ages of three and 17 who may be experiencing a broad range of mental health issues. Partnering with families, with a focus on prevention and outpatient therapy, is the model for the agency which receives referrals from state agencies, schools and courts.

Executive Management had long been committed to implementing an Electronic Medical Records system in order to improve efficiencies in documentation and billing processes. After much research and a false start, we settled on a hosted, web-based system that combines ease of use for our care givers and tight integration with accounting. Additionally, accessing our client data via the web offers a level of mobility that closely matches our model of providing services outside of a clinical

environment, and instead meeting clients where they are most comfortable.

We also opted for an aggressive implementation schedule, allowing just over 100 days from agreement to live. Initially, management believed that our staff would continue to capture paper notes in the field and then return to our offices to transcribe the documentation, but as we continued to achieve milestones faith in the premise of remote accessibility grew. Approximately 60 days prior to launch the decision was made to equip our front-line staff with portable computers, providing real-time access to read and append client data.

Not only did the IT staff need to procure, provision and deploy 90 laptops simultaneous to the existing training and launch schedules, but the security infrastructure of the agency needed to be modified to support an entirely different set of risks and vulnerabilities. Policies were updated and processes modified with the goal of providing HIPAA compliant security while remaining unobtrusive to a non-technical end user population. Finally, monitoring and reporting capabilities were required for the EMR system and endpoint security solution to ensure the integrity of both client data and our internal network resources.

The Importance of Technology

How did the technology you used contribute to this project and why was it important?

Choosing Credible Behavioral Health Software is the basis for our EMR success. The intuitive user interface was designed from a clinical perspective, minimizing the learning curve and maximizing user acceptance. Utilizing a Software-as-a-Service solution has allowed us to closely budget both our initial and ongoing expenses, as well as to focus our limited IT resources on daily operations, enterprise security, and support. Having an Internet-based product has sustained the ‘anywhere, anytime’ premise that is one of the cornerstones of our organization.

Still, the mobility implied by this system would not be possible without a stable infrastructure. In addition to the standard requirements for securing internal resources behind multiple layers of defense we must safeguard critically sensitive client data while our workforce is

outside of the network with live Internet connections. The challenges posed by a remote staff of behavioral health specialists require a dependable, affordable, manageable and unobtrusive solution that provides world-class protection for our most valuable assets. We turned to Symantec Endpoint Protection.

Benefits

Has your project helped those it was designed to help? Yes

Has your project fundamentally changed how tasks are performed? Yes

What new advantage or opportunity does your project provide to people?

The EMR system has greatly improved the workplace for the providers, the agency, and its clients. It allows the caregivers to provide better service to more clients while relieving stress associated with documentation. The tools and software allow them to better utilize their time.

Benefits of the new process include:

- **Accessibility.** Patient charts are available in real time in the field over a secure website and can be updated from anywhere. These charts travel with the health care team and are also available simultaneously to staff at the office.
- **Efficiency.** Hours are saved doing reports, allowing providers to spend more time with clients. Manpower is reduced because duplication is eliminated. Everything is maintained within a single point of contact.
- **Accuracy.** Accuracy in documentation is improved because the person involved is directly inputting the data, eliminating transcription errors. From July 1 through December 31, 2007, approximately 80,000 notes were entered into the system with better than 99.99% accuracy.
- **Improved Communications.** The entire team has access to client information in real time. Each team member knows what has happened with the client, whether it is information from a doctor's visit, problem at school, medication change or other changes in treatment.
- **Process Improvement.** Processes have been streamlined in all departments. The system is entirely electronic with clinical notes tied to accounting. Billings are sent and payments received electronically. Billing code errors are eliminated.

- Support for Supervisors. Because of the efficiency and accuracy, supervision is easier. Staff can be tracked where they are, what they are doing, their caseloads, their results. Because Touchstone is a 24/7 organization, supervisors can access the data they need, particularly in a crisis situation, anytime and anywhere they have an Internet connection.
- Productivity. Billings increased an average of 5% per provider over the first six months of implementation.
- Physical resources. Cost savings associated with paper and chart storage.
- Accountability. Full HIPAA log and chart modification history.

If possible, include an example of how the project has benefited a specific individual, enterprise or organization. Please include personal quotes from individuals who have directly benefited from your work.

Ellen Ryder, intake therapist, said “Initially, I had some concern about what our clients would think of us typing into a computer when we are with them but they are not offended at all. They see it as very professional, which is a good reflection on us.”

Kris Kirchner, Functional Family Therapy Supervisor, travels the entire state of Arizona serving Touchstone clients. She and her team work from their cars and homes as they drive to reach their clientele. “For me, it has definitely helped my supervisory role. I can see what my therapists are doing and jump in if they need me.” She also said that if she gets a call from a concerned parent, all she needs to do is pull up the record from her laptop and see the exact situation. “This is a lot better than telling them I will get back to them. I am there for them immediately.

“If we had reports that were due to the office in Glendale by the end of the month, and I was in Northern Arizona, I would need to arrange my schedule so I could meet the deadline. Now I can do it electronically and spend time on treatment.”

By having the client’s records and charts with them via the web, they don’t have to wait to get back to the office for information or answers.

“When you have a big case load like we have, you can’t remember everything,” said Gigi Marteney, Outpatient Therapist. “Clients have a lot of questions and now we have the answers at our fingertips. We don’t have to run to the medical records room, which is in another building, to find it,” she said. Another plus for the clients is obtaining their signature onsite electronically, again avoiding multiple trips.

Marteney said she knows that everyone is keeping better notes and doing them quicker since they can bring the laptops home. “This keeps us more up to date,” she added.

Kourtney Stafford, WIT Program Manager feels the system has allowed Touchstone to gain a higher level of trust among its clients. She said, “Since the family sees the notes immediately and is constantly kept involved, they can see how treatment is progressing. They sign off on the notes and they have a say in what is being written in their medical records. They like this.”

Not only is patient/parent involvement improved, but so is communications with the new mobile record keeping system. Frank Saverino, Clinical Services Director summed up the project saying, “In the five years I have been with Touchstone Behavioral Health, nothing has impacted the agency more than this program.”

Originality

Is it the first, the only, the best or the most effective application of its kind? Most effective

What are the exceptional aspects of your project?

While Electronic Medical Record systems themselves are not particularly unique, implementation is relatively new in the behavioral health field and Touchstone is one of the first agencies of our size to carry it to this depth in Arizona. We’ve deployed a secure solution that provides caregivers a mobile platform from which they can complete the documentation mandated by State, Federal, and HIPAA requirements. Within our region we are building a reputation of matching our exceptional quality of care with the innovation of our technology.

Solutions include:

- Integrated scheduling allows team members to track mobile staff.
- Wirelessly schedule repeat or follow up services from the field. Add unscheduled services on the fly.
- Refer back to client chart as needed while performing services in the field.
- Caregivers know whom they are seeing. They can refer to client details before starting a service and can be accessed at any time.
- Know that the service was completed by capturing a digitized signature.
- Control who sees the data. Access to client data is granted using a supervisor hierarchy. Teams can work as groups or on direct assignment.
- Secure. The data is secured immediately from the time of entry with encryption.
- Service. Supervisors can review and edit reports and forms throughout the day without waiting for paper to be brought back to the office. No waiting for data entry staff.
- Record keeping is simplified with easy view and search features.
- Improves quality of care.

The beauty of our project is that we've quietly implemented an unobtrusive culture of security within the organization. Starting with our foundation of network and endpoint solutions we've added an ongoing campaign designed to heighten awareness of the threats, particularly those pervasive across the Internet. Through proactive monitoring, policy enforcement, patch management and continued training we've not had a security incident despite our expanded exposure.

Difficulty

What were the most important obstacles that had to be overcome in order for your work to be successful?

Technical problems? Resources? Expertise?

Organizational problems?

The biggest hurdle to overcome was the cultural change of moving from paper to data entry. Until we could actually demonstrate the system it was difficult to convey the concept of entering information at a single point and then displaying it on a number of different forms, because

“it isn’t the way we’ve always done it”. Staff and management buy-in came at different rates, so the requisite process transition came through a number of iterations.

Based on our previous ‘learning experience’ with an EMR system designed for large hospital groups, staff trepidation at the thought of completely changing even their vocabulary in order to use the new program was understandable. We gathered thought leaders from all levels of the agency and began system reviews at an early stage. This group was able to provide positive reports back to their departments which helped build the buzz our Executive Team felt we needed to generate prior to launch. Still, there was some doubt among our providers prior to training. As Gigi Marteney said, “Some of us were afraid of it in the beginning but it was easy to learn and now I love it.”

Our system also represents a significant financial investment in implementation costs, mobility hardware and software, and monthly licensing fees. It is a tribute to our C-Level management and Board of Directors that they were willing to commit the resources and dedication to move a mid-sized not-profit onto the leading edge of behavioral health services.

Often the most innovative projects encounter the greatest resistance when they are originally proposed. If you had to fight for approval or funding, please provide a summary of the objections you faced and how you overcame them.

We encountered no such problems.

Success

Has your project achieved or exceeded its goals?

Exceeded

Is it fully operational? Yes

How do you see your project's innovation benefiting other applications, organizations, or global communities?

Our EMR system will provide the foundation for enhancing services to our community. As we gather information about symptoms, treatment plans,

medications and outcomes we can begin doing predictive analytics to better anticipate and modify behaviors. While our clients will receive more effective, evidence based care, the real benefit is to our staff. By lowering the number of cases concurrently in crisis we reduce the stress related to providing care, which should lead to longer staff retention and thereby reduce recruitment costs.

As more organizations move to an electronic solution we should also be able to reduce overhead and improve efficiencies by moving referral and treatment information electronically. By automating processes for the routine operations we free staff to spend more time working on the exceptions that will always be part of our business.

How quickly has your targeted audience of users embraced your innovation? Or, how rapidly do you predict they will?

Because our EMR system is so intuitive, initial training was limited to four hours for each user. Our staff has varying degrees of technical expertise, so we counted on peer support to bring everyone up to speed. Within the first week of launch we were generating several hundred distinct notes per day, and have continued expand from that base. As we learn more about our new capabilities we continue to evolve our processes, often based on the suggestions of our users. Our deployment follows the classic software model of identifying the need, development, deployment, and training, then repeating the process.