The Computerworld Honors Program

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Final Copy of Case Study

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STATUS:
Laureate

Organization:
Morpheon Corporation d/b/a ChartBase Medical Systems

Organization URL:
www.chartbasemedical.com

Project Name:
ChartBase: Delivering Paperless Efficiency to Occupational Healthcare

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

Healthcare is perhaps the last major industry that hasn't been revolutionized by technology in terms of the productivity and efficiency gains that many other industries have seen. One healthcare segment in particular occupational and industrial medicine is particularly laden with paperwork and highlights the need for a technology solution to bring healthcare management into the 21st century. Providers of occupational and industrial medicine treat injured workers and ensure that an employer's workforce is fit for duty. State regulations impose significant paperwork and reporting requirements, tasks which are exacerbated by the high patient volume of many clinics. For a typical clinic, the burdens of record keeping and reporting have encroached significantly on the primary duty of ensuring the occupational health and safety of its patients. ChartBase, an innovative practice management and electronic medical records solution from Morpheon Corporation, fully automates the operation of an occupational-industrial medical clinic with a simple, intuitive and elegant interface that is robust

yet enjoyable to use. ChartBase automates scheduling and patient flow, provides documentation and assessment tools for doctors and other providers, and automates the completion and submission of state-mandated forms and reports while eliminating the use of paper. Furthermore, to comply with the special claim filing requirements of workers' compensation insurance carriers, ChartBase automatically compiles and submits all of the required supporting documentation so that doctors are reimbursed for their services in a timely manner without complications. Metrics for Success: 100% elimination of paperwork from the process of assessing and treating injuries and filing reimbursement claims; improved reimbursement times from several months to as few as two weeks; reduced compliance burden, since state-mandated forms are generated automatically from the medical records; automation of repetitive and rote tasks, allowing providers to treat more patients and to provide better care for patients.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

Morpheon utilized Sybase's PowerBuilder development environment to rapidly prototype and implement rich, interactive, data-driven features in ChartBase. The highly complex queries and large volumes of data are managed using Sybase's SQL Anywhere database. Graphical Diagnosis: One particular innovation is a graphical query tool, unique to ChartBase, that assists doctors in recording diagnoses. To properly document a work-related injury, a doctor must record the appropriate ICD-9 or ICD-10 diagnosis code after assessing the patient. Rather than looking up the code on paper or entering search terms and scrolling through a list of results, ChartBase enables the provider to simply click on an image of a human body, then select from a narrow list of possible conditions and diagnosis codes related to that part of the body. See a video demonstration: http://www.youtube.com/watch?v=6JGDFs8dOrw. Bird's Eye View of the Clinic: ChartBase offers a unique view of a clinic that shows a virtual sign-in sheet as well as the status of each room, doctor, and patient, including waiting times and alerts for late and missed appointments. Office personnel update the status and manage patient flow via drag and drop. Employer Web Portal: A secure, private login to the ChartBase Employer Web Portal provides employers with instantaneous communication about the status of injured employees, as well as drug screen and exam results. Challenges Overcome: Morpheon has been a pioneer in this market segment, building ChartBase from scratch to meet the unique needs of the occupational-industrial healthcare sector. Morpheon spent a significant amount of time researching workers' compensation and other regulations, and observing the staffs of medical offices struggling in their attempts to utilize medical software which was not designed for occupational-industrial healthcare providers.

Please list the specific humanitarian benefits the project has yielded so far.

Among the humanitarian benefits that Morpheon's ChartBase application has contributed to are: reduced frustration among healthcare personnel in their interactions with technology; reduced time spent by healthcare personnel on rote activities, as repetitive tasks and reporting compliance are automated; more time spent by doctors, nurses and other providers with patients and more patients seen per day, resulting in better and more timely outcomes for those patients; reduced time for reimbursement of healthcare providers for the services rendered to their patients. By enabling the efficient operation of occupational and industrial healthcare clinics, ChartBase facilitates the promotion and maintenance of a healthy workforce, empowering workers and their employers to be more productive members of the economy and society.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

One organization transforming its operations through its implementation of ChartBase is Healthpointe Medical Group, which has 60 physicians and 300 support staff deployed in 10 offices throughout California. James Aviles, CTO, says that ChartBase is the end-user application that Healthpointe relies on most, since it has automated so many processes including patient exams, billing, and the completion of regulatory forms. "ChartBase allows our employer clients to start the process by filling out a form online when they have an employee that needs medical treatment due to a work-related injury," Aviles says. "As each patient goes through the steps of checking in, seeing a medical technician and then a doctor, the form automatically progresses from one person to the next with all the previous information that has been entered. Once the visit is completed, the employer receives the final exam report along with any other necessary forms." Aviles emphasizes that the automation provided by ChartBase has had a definite positive impact on patient care: "We don't have to go looking for any paper forms, and doctors can complete exam forms much faster. This frees up doctors so that they can spend more time on each patient and see more patients per day. This ultimately leads to patients recovering faster." Another key benefit that Aviles points to is the ability of ChartBase to integrate with any other medical-office system. "ChartBase links with our X-ray application so doctors can easily pull in X-rays and attach to other paperwork associated with a patient," Aviles says. "We can also connect ChartBase to our VoIP call center to assist with billing collections. ChartBase truly interconnects our various systems so that the entire office runs more efficiently, which in turn allows us to increase the level of service we provide to patients."