



The Computerworld Honors Program

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Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
California Correctional Health Care Services (CCHCS)

Organization URL:
<http://www.cphcs.ca.gov/>

Project Name:
CCHCS Telemedicine Program

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

In 2001, a federal class-action lawsuit alleged that the dire state of medical care in California prisons violated the 8th amendment of the U.S. Constitution, which prohibits cruel and unusual punishment against any persons, including inmates. It was deemed that inmates in California correctional institutions were not being given adequate medical healthcare. Inmates who have not received adequate medical or mental health treatment put the safety and health of law-abiding members of the general public at risk. With more than 10,000 inmates being released from correctional facilities into California communities every month, it was clear that a change in the health services of California correctional institutes had to take place. In 2002, the state of California agreed to reform the system by transferring control of prison medical care to a federal Receiver (a temporary caretaker of the property for the court) -- in this case, California Correctional Health Care Services (CCHCS). Since then, the CCHCS has been in charge of delivering a standard level of medical care to California prisons and inmates. Every year, the CCHCS provides healthcare for over 166,000 inmates at 33 adult correctional facilities throughout California. However, many of the prisons under CCHCS's care are located in rural areas, where healthcare specialists are in short supply. To tackle this healthcare discrepancy, in 2009, the CCHCS implemented a robust solution: the CCHCS Telemedicine Program. Through the Telemedicine Program, CCHCS contracts with private healthcare entities to provide virtual specialty care services to California inmates, an initiative that necessitates collaborating with over

7,000 California healthcare and prison staff, including doctors, nurses, administrative staff and pharmacists.

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.

To provide even the most rural institutions with specialty healthcare, the CCHCS needed a network infrastructure strong enough to support operations at 33 correctional facilities as well as CCHCS headquarters. CCHCS deployed the following technologies in order to expand their Telemedicine Program: Telemedicine Scheduling System (TMSS): The Office of Telemedicine Services took a major jump, transitioning from a pen-and-paper scheduling process to designing and implementing an electronic scheduling system. Report Manager: In conjunction with deploying TMSS, a website ("Report Manager") was created to facilitate wide-scale healthcare reporting. This is a centralized platform to manage doctors' reports, organize scheduler use, and assemble institutional data in one place. Web portal: CCHCS implemented a Web portal, a web platform that creates a fault-tolerant mesh of teleradiology/telemedicine web servers that can share workload among telemedicine staff at institutions and specialty physicians. This technology was used to eliminate faxing enormous amounts of sensitive medical files and information, and cuts down on errors and paper consumption -- dramatically increasing the security and reliability of highly sensitive sent and received information. Endpoints: The core of the Telemedicine Program is 81 "endpoints," a mix of Cisco video conferencing technology, including clinical TelePresence systems (which enables virtual face-to-face communications). The technology works together to enable virtual healthcare to prisons. For example, endpoints at the institutions (on the patient side) link to endpoints located at HUB locations (physician side) throughout the state. IP Rollout, Retirement of ISDN: In 2011, the Office of Telemedicine Services finished its Internet Protocol (IP) rollout project, which retired the use of ISDN (Integrated Services Digital Network) lines. Now, telemedicine endpoints all run on IP.

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

I. Enhanced Public Safety Specialty healthcare centers are often miles from any given California correctional institution. By providing virtual healthcare, CCHCS has ensured that California inmates, when medically appropriate, no longer have to be transported to facilities/provider offices throughout the state. This decreases potential risks to public safety, including the department of corrections staff, incurred during inmate transportation. II. Improved Primary and Specialized Healthcare: In partnership with Health Net, a managed care company, CCHCS has developed a statewide specialty telemedicine healthcare provider network for California prison inmates. The Telemedicine Program has a total of fifteen HUB sites located throughout California, which creates a link to specialized physicians. This has increased the reliability and quality of specialty healthcare offered to California inmates. For example, inmates at select California correctional facilities now have additional access to quality HIV and Hepatitis C support. Beyond specialty practices, the goal of providing access to care support for institutions with severe primary care physician shortages and chronic recruitment challenges has been achieved through the Telemedicine Program. The correctional institutions with chronic physician shortages now have access to primary care telemedicine providers to offer primary care medicine via telemedicine until an onsite provider can be recruited and trained. As demonstrated by Appendix 1, following the implementation of the CCHCS Telemedicine Program, inmate medical encounters increased by 21 percent from FY 2009/2010 to 2010/2011 and is projected to increase by another 44 percent in 2011/2012. Statewide mental health encounters increased by 9 percent from FY 2009/2010 to 2010/2011 and is projected to increase by another 2 percent from FY 2010/2011 to 2011/2012. The increase is attributed to several factors, including: the expansion of the provider network, the addition of primary care services and the initial phase of expansion and upgrades.

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.

Because CCHCS's Telemedicine Program eliminates the need for inmate travel, a cost which includes security, gas, and room and board expenses, California taxpayer dollars are saved. In addition, due to the advances made in the CCHCS Telemedicine Program in the areas of technology, tools and applications, telemedicine nurses located in the 33 prisons throughout California serving an inmate population of approximately 150,000 are able to offer specialty consultations to the inmate/patient population from an offering of 25 specialties. Virtual specialty clinics are conducted M-F. Telemedicine provides access to care and enhances public safety while achieving cost avoidance.