Early EMR implementation improves internal operations but new focus on interoperability positions MJHS as an attractive partner to a larger network

The eleventh in a series of case studies from the Preparing for the Future Report

- EMR data reduced travel time and associated expenses when clinicians were assigned clients in well-defined geographic areas that were closer to home
- EMRs also improved care transitions, raising referral rates of clients discharged from nursing facilities to home care agencies from 30% to 85%
- Customizable data about outcomes positions MJHS as a valuable partner in the future with ACOs, health homes, capitation health plans and payment bundling
- Investment in the Brooklyn Health Information Exchange to achieve internal interoperability of its two EMRs reflects MJHS's recognition of the long-term value in sharing electronic data with hospitals, emergency departments and physicians

The Organization

MJHS is a charitable, not-for-profit organization with more than a century of experience providing health care services to the community. It was founded in 1907 by four courageous Brooklyn Ladies who believed in the values of compassion, dignity and respect for every culture. Since then, MJHS has grown into one of the most expansive health systems in the New York metropolitan area. The participating programs and agencies of MJHS provide home care, pioneering hospice and palliative care, state-of-the-art rehabilitation and nursing care, adult day health care, senior housing and affordable health plans to more than 40,000 individuals and their families in the region.

Technology-Enabled Model or Service

MJHS has deployed a variety of technology-enabled services and models, including electronic medical records (EMR) and telehealth. It also has made a number of investments in technology ventures.

Implementation Approaches and Outcomes

Electronic Medical Records: After conducting a strategic review of its operations about 10 years ago, MJHS decided to convert all of its paper medical records into an integrated EMR system. EMR adoption began with MJHS Home Care in 2006 and was fully implemented in 2008. EMR adoption in the skilled nursing setting started up in 2008 and was completed in 2010. Deployment across MJHS' home care activities was challenging due to the structure of that multifaceted, multi-layered business line, which includes several home care corporations and a number of joint ventures.

The EMR has helped to make MJHS's home care agencies much more efficient. Aggregated data from its EMRs helped MJHS redraw its service area in order to better group care delivery so that clinicians could work closer to their homes with clients who lived in well-defined geographic areas. These changes helped clinicians reduce the time they spent traveling and reduced the organization's expenditure on gasoline and parking fees.

The EMR system has also provided MJHS with access to better information about the referrals being made when residents are discharged by its centers for rehabilitation and nursing care. Prior to the EMR adoption, only 30 percent of clients discharged to home care by one MJHS nursing home were being referred to a MJHS home care agency. Armed with these statistics, MJHS evaluated the demographic make-up of both its nursing home and home care populations and made adjustments to the availability of home care services and to how the organization represented itself to various demographic groups. Now the same nursing facility refers 85 percent of its discharged clients to MJHS-operated home care agencies.

In the future, MJHS' investment in home care EMR will allow the system to provide both internal and external referral sources with information regarding rehospitalizations, payer mix and clinical outcomes. MJHS believes that the ability to provide customized data about outcomes to partners and payers will be a key success factor in a future environment that will most certainly include payment bundling, capitation, health homes and Accountable Care Organizations (ACO).

MJHS's skilled nursing facilities and its home care agencies use two different EMR systems that are not directly interoperable. The nursing facilities use EMR software from SigmaCare while the home care division uses an Allscripts EMR system. The organization is currently testing its ability to use the Brooklyn Health Information Exchange (BHIX) to achieve internal interoperability, however. If MJHS is successful, its nursing facilities would be able to send data to the BHIX network and then use BHIX to send the data back to the MJHS home care division.

MJHS made a strategic decision to use BHIX to facilitate its internal interoperability. Instead of investing its information technology dollars in efforts to combine its two EMR systems, the organization decided that it would reap more long-term benefits if it supported BHIX financially so the network would eventually allow MJHS to share electronic data with local hospitals, emergencies rooms and physicians. MJHS has also been instrumental, along with over 50 other New York City-based LeadingAge members and local associations (including the Continuing Care Leadership Coalition) in creating the Continuum of Care Improvement Through Information New York (CCITI NY). CCITI NY is a local health technology adoption agency focused on improving information exchange between hospitals and skilled nursing facilities through regional health information organizations like BHIX.

Telehealth: Through a partnership with the State University of New York (SUNY) Downstate Medical Center in Brooklyn, MJHS offers intensive follow-up services to kidney transplant patients after their discharge from the hospital. At the core of the MJHS service package is MedMinder, an electronic pill box called Maya that provides medication reminders and a variety of alerts when doses are missed. The device helps transplant patients remain compliant with medications, which is a critical factor in ensuring their long-term health.

Because patients in the SUNY Downstate program tend to have difficulty complying with medication and healthy behavior regimens, MJHS staff members combine the high-tech MedMinder with high-touch interventions that include checking on patients regularly to remind them about medical appointments and provide education about healthy behaviors and nutrition. This combination of high-tech and high-touch approaches has helped MJHS and SUNY Downstate reduce mortality rates among transplant patients by a statistically significant percentage. MJHS recently expanded its post-discharge outreach program to include patients on SUNY Downstate's transplant waiting list. The initial seven-percent mortality rate among waitlist patients has dropped to zero since MJHS began providing telehealth services.

Keys to Success

Culture of Innovation: MJHS is proud of its innovation culture and credits that culture with much of its success. Over the years, the organization has not been afraid to redefine its business model in order to put MHJS in a better market position. For example, while services to the elderly is still a major focus of the MJHS mission, the organization also operates one of the largest pediatric hospice programs in New York and is now exploring ways to serve the growing population of people under age 65 who have multiple chronic diseases.

The MJHS philosophy is that in order to win, an organization cannot be risk averse and should be strategic with investments. This philosophy allows staff to make mistakes in the creation of new businesses or the exploration of new technologies for the sake of testing a new service that could add value to the organization. It also allows the organization to take calculated risks, including its move into the field of Medicare and Medicaid managed care, which now accounts for 52 percent of MJHS revenues.

Proactive technology deployments: A dedicated project management department manages each technology deployment at MJHS and works proactively to address challenges that inevitably accompany implementation. This department gets staff teams involved in the early stages of implementation, creates enthusiasm about the launch, and educates staff about the technology before and after it is implemented. It also conducts root-cause analysis when employees push back against technology to ensure that the push-back isn't related to a problem with the technology.

The Business Case

MJHS has used a number of vehicles to finance its technology deployments. For example, it made a capital investment to finance its EMR program but received grant funds to connect itself with the Brooklyn Health Information Exchange. The organization views its spending on technology as a worthwhile investment aimed at reducing the cost of labor and improving the outcomes of individuals. In addition, MJHS offers technology-enabled services that it believes are unique and will differentiate it from competitors.

MJHS also has a long tradition of investing in the development of new aging services technologies. In the late 1990s, the organization helped to establish the Israel Center for Assistive Technology and Aging (GeronTech), a joint venture with the Association for the Planning & Development of Services for the Aged in Israel. GeronTech supplies seed money to help launch emerging technologies that might otherwise not be developed. MJHS is currently in the process of launching two distinct programs that

are focused on technology development: the MJHS Research and Development Endowment, and the MJHS Venture Fund. These two programs will invest in start-up technology companies focusing on medical and assistive technologies that help aging service providers deliver better care to the elderly and chronically ill.

Advice to Others

Learn about technology. Attend a LeadingAge conference and visit the CAST website. Don't be afraid to explore various technology options and invite staff to help determine if they will integrate with your existing or planned service lines and make your business more efficient. Work with staff and your board of directors to set aside capital for technology investment.

Find a technology champion. Every organization needs champions—both at the grassroots and middle-management level—who will support and encourage adoption of a particular technology.

Use technology as a tool, not as an end in itself. Every technology initiative should be designed to improve the quality of a service or program, and should fit into the organization's strategic vision. Technology should not replace what organizations are doing or what they plan to do. Instead, it should make that business more cost-effective and efficient. When developed in this way, technology can become an asset that the organization can bring to the table when collaborating with community stakeholders through medical homes or ACOs. ∎