

Case Studies Inside:

- New York City Health and Human Services
- Louisiana Rural Health Information Exchange
- Chicago Department of Public Health



IT for Health and Human Services: Citizen Expectations and Economic Challenges Drive Government Transformation

In tough times, integrated management solutions make it possible for state and local governments to improve and expand their services for vulnerable constituents.

Transforming Health and Human Services

Technology enables the service and agility citizens demand while keeping costs down.

Technology has turned citizens into customers with high expectations. When they interact with government, citizens today require the same high quality of customer care they get from tech-savvy companies such as FedEx and Amazon.com. They want one-stop shopping: a single place on the Web where they can conduct a wide variety of transactions. They expect government employees to have at their fingertips all the information they need to solve constituents' problems and answer their questions regardless of the interoperability issues involved. They need agencies to climb out of their IT silos, pulling together to tackle the serious issues that challenge our communities. For example, schools, the juvenile justice system, family services agencies and substance abuse programs need to collaborate on the problem of substance abuse among teens.

Governments are under tremendous pressure to do more for citizens, and to do it better. At the same time, the recent financial crisis has forced state and local governments to cut budgets and freeze hiring. Public officials are left trying to accomplish more for constituents with fewer resources.

This poses a difficult challenge, of course. But for government CIOs, it also presents an opportunity to transform the way government delivers services. Nowhere is this transformation more crucial than in health and human services agencies, which address constituents' most basic needs to promote their well-being and self-sufficiency.

To meet these growing demands, government CIOs must find, evaluate and choose technologies that, when

deployed wisely, will help produce a leaner, more agile government that exceeds its citizens' expectations. Several technologies that are used extensively in the private sector also offer the same kinds of advantages to governments.

Project and Portfolio Management: Helping Deliver Timely, Relevant Services

As stewards of public resources, IT managers must keep their projects on time and on budget and make sure they correctly align with agencies' business needs. When conducting multiple projects, they must carefully orchestrate their efforts, establish priorities, assign resources and keep stakeholders aware of their progress. In health and human services, for example, executives might simultaneously monitor projects involving health clinics, substance abuse treatment facilities, juvenile justice programs, homeless shelters, services for the aging and a great deal more.

Project and portfolio management (PPM) tools help keep IT projects on track and ensure that government agencies get the greatest possible return on scarce resources.

Grants Management: A Life Cycle Approach

Without grants, state and local governments would find it impossible to conduct some of their most important programs. Managing the grant life cycle — from choosing which opportunities to pursue, to submitting a successful application, to conducting the program and reporting on the outcome — is a complex process.

A centralized grants management solution, based on proven PPM methodologies, automates the process, saving time and standardizing procedures. This helps governments pursue grants more efficiently and use the resulting funds more effectively.

Identity and Access Management: Securing Effective Collaboration

E-government services and Web-based collaboration are feasible only if the data at the heart of these applications stays secure. While protecting citizens' personal data and complying with federal regulations, governments still must make it easy for employees and citizens to use online applications.

An effective identity and access management (IAM) solution automates the administration of credentials and permissions — based on business rules and the roles of individual users — and also provides automated auditing. An effective IAM solution should be highly scalable and must be capable of operating across many platforms to ensure interoperability. Because it uses open interfaces, agencies can integrate it into their infrastructures without changing existing applications or systems.

Because their customers include their most vulnerable citizens, health and human services agencies face especially critical challenges in difficult economic times. By embracing IT solutions that transform the way they do business, HHS agencies can continue to provide increasingly better service to all their constituents. ♦

New York City Health and Human Services

A massive, multiagency effort to develop holistic services uses an integrated project and portfolio management solution to weave all the threads into a strong fabric.



“As you handle multiple projects in flight, you need to figure out how they correlate with one another.”

— Kamal Bherwani, CIO, Health and Human Services, New York City

New York City’s health and human services (HHS) agencies provide a vast array of services to millions of people. Many client households receive services from several programs and several different agencies, addressing varied aspects of their lives, such as health care, housing, children’s services, mental health and others.

Traditionally each program has worked on individual issues, with little idea of what else was going on in clients’ lives or what other agencies were assisting them. Caseworkers had no way to access client information that other agencies had collected and stored in their own systems.

To better serve its clients, New York City is working to break down the information silos that separate its HHS agencies and programs. The goal is to give citizens a central view of government, so they can obtain services easily. Instead of each agency addressing one issue in a vacuum

— just school lunch eligibility, just housing or just health care, for example — agencies can collaborate to assist the whole person or family.

“We’ll have a better idea of the correlation and the impact of different services as we deliver them to the client.”

— Kamal Bherwani, CIO, Health and Human Services, New York City

Taking the first step toward this goal, the city developed ACCESS NYC, a self-service portal that New Yorkers employ to determine whether they are eligible for benefits from 35 city, state and federal programs administered by a variety of agencies. “We have by far the broadest and deepest prescreening eligibility portal anywhere in the world,” said Kamal Bherwani, the city’s chief information officer (CIO) of Health and Human Services.

City residents looking for services no longer need to figure out which agencies to call or visit, or waste time applying for services for which they don’t qualify. Whether they seek health care, food stamps, a rent increase exemption or a host of other services, clients can use a single portal to provide information about their households, interacting with the system in English, Spanish, Chinese, Korean, Russian, Arabic or Haitian Creole. Through ACCESS NYC, users can obtain lists of benefits for which they might be eligible, print application forms, get the locations of agencies they need to visit and create accounts so they can access their information at another time.

Under the leadership of Deputy Mayor Linda Gibbs, the City of New York launched HHS-Connect, created an Office of the CIO for HHS and gave this newly created office responsibility for HHS-Connect — an initiative that will allow more than a dozen city agencies, plus community-based organizations (CBOs), to serve their clients more efficiently. HHS-Connect, an expansion of ACCESS NYC, provides a mechanism

for agencies to share client information while still safeguarding confidentiality.

As part of HHS-Connect, the city is developing a new enterprise case management system for some of its agencies and integrating information systems so agencies can pool data about clients they share. It is also adding tools to ACCESS NYC that let constituents conduct transactions, such as applying for free or reduced-price school meals. It’s also building portals for employees at



“Clarity gives us easier access to information and more consistent information.”

— Kamal Bherwani, CIO, Health and Human Services, New York City

agencies and CBOs, so they can access comprehensive information about their clients, with access tailored to users' roles and rights.

The broad initiative also includes many smaller projects. For example, HHS must convert paper forms to an electronic format and develop a central framework for authentication and identity management. Among other innovations, it plans to create mobile applications on portable devices for field workers and implement self-service kiosks for clients.

It All Has to Tie Together

“It’s an expansive project because it hits the client directly and it hits the agencies,” said Bherwani, who serves as executive director of HHS-Connect. Implementing and integrating this constellation of systems requires a tremendous amount of coordination. “All of this has to tie together in one big fabric at once. The phasing, the dependencies — all the pieces that have to fall in place over time to build out our enterprise architecture for this project — become very complex.”

In the past, HHS used a variety of manual procedures and nonintegrated IT solutions to manage projects and portfolios of projects. That approach wasn’t up to the challenge posed by HHS-Connect. “You couldn’t get the

big picture. And you couldn’t see the way things correlated with one another,” Bherwani said. Nor did those solutions offer a reporting capability that enabled visibility into projects tailored to the needs of different viewers — high-level overviews for portfolio managers and executives, and detailed status reports for project managers.

Only an integrated PPM solution provides the tools that keep a program of this magnitude on track, Bherwani said. “As you handle multiple projects in flight, you need to figure out how they correlate with one another, and you need to be able to present all the answers in a status report across a portfolio of projects.” To meet these needs, New York chose CA Clarity™ Project and Portfolio Management solution. “Clarity gives us easier access to information and more consistent information,” he said.

Although it will take three to four years to fully develop HHS-Connect, by the end of 2009, program managers expect to have several pieces of the system up and running, such as a common client index, a document image management system and the worker portal. “Our quick wins will help build our long-term strategy and show the value of the platform we’re building,” Bherwani said.

In the long run, HHS-Connect will make agencies more efficient, saving them money. Also, as clients gain the ability to conduct more transactions online, case workers will spend less time on routine procedures, leaving them free to focus on tasks that create greater value.

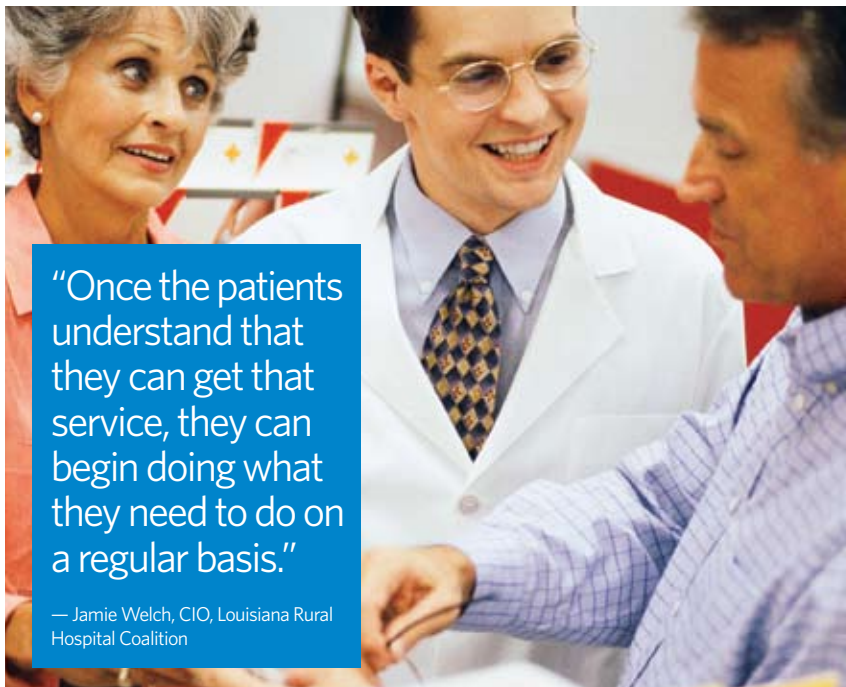
Also, as agencies start sharing data about clients they serve in common, that information will help them refine their policies and programs. “We’ll have a better idea of the correlation and the impact of different services as we deliver them to the client,” Bherwani said.

New York City’s various HHS agencies serve largely the same population but without linking the data, it’s impossible to know where the overlaps occur, Bherwani said. “If you can’t uniquely identify the client, you can’t give the best services possible, because you don’t know all the facts.”

HHS-Connect will provide those facts, helping New York City’s health and human services agencies to address citizen’s needs holistically. That is the most effective strategy, Bherwani said. “In many cases, it takes a multi-prong approach to make a difference in the lives of the people we serve.” ♦

Louisiana Rural Health Information Exchange

Physicians gain secure, instant access to patient records, wherever they reside.



“Once the patients understand that they can get that service, they can begin doing what they need to do on a regular basis.”

— Jamie Welch, CIO, Louisiana Rural Hospital Coalition

When Hurricane Katrina closed hospitals in New Orleans in 2005, that left the Louisiana State University Health Sciences Center in Shreveport (LSUHSC-S) for a time Louisiana’s only level one trauma center. The hospital also is one of the few in the state that offers specialty care to uninsured and underinsured patients — about one-quarter of Louisiana’s residents.

With so many patients arriving for care, LSUHSC-S has been under stress. “For a couple of years, they had to run above capacity six days a week,” said Jamie Welch, CIO of the Louisiana Rural Hospital Coalition. Based in Baton Rouge, the Coalition is a nonprofit organization that provides consulting and lobbying services to 41 small, rural hospitals across the state.

The situation wasn’t healthy for patients, either. People in rural areas, where local hospitals don’t offer specialty services, travel up to 268 miles round trip to get care at LSUHSC-S. A low-income patient can ill afford to

miss a day’s work and run through a tank of expensive gas just for a test or a brief consultation. In the past, though, these patients had no choice.

Another challenge Louisiana hospitals faced was that patients who evacuated north after Katrina often showed up in emergency rooms where they had never been seen before. Hospitals seeing patients for the first time had no records for them, and many of them couldn’t remember all their medications, allergies or medical histories. Without such information, hospitals were forced to give tests that the patients might already have received in other hospitals.

To meet both of these challenges, hospitals in Louisiana have created the Louisiana Rural Health Information Exchange (LARHIX), a system that gives physicians Web-based access to patient records no matter where that information resides.

In 2006, officials at LSUHSC-S and the Coalition started to discuss installing telemedicine systems in rural

hospitals. These systems would let at least some rural patients get care from specialists in Shreveport without making the long trip, and without over-burdening LSU’s facility.

Although they liked this plan, physicians pointed out one major obstacle. Doctors at LSUHSC-S would need to see patients’ medical records. Shipping paper records from one facility to another is a notoriously slow process. “It usually takes weeks,” said Welch, who is also CIO of the LARHIX.

The group conceived the LARHIX to solve that problem. In 2007, Louisiana’s legislature provided \$13 million for a pilot implementation of the Exchange, incorporating seven of the Coalition’s 41 member facilities. These hospitals installed the telemedicine infrastructure and started converting their patient files into electronic records. At each hospital, administrators could implement whichever electronic hospital information system (HIS) they felt best fit their needs, as long as that HIS met the minimum criteria put forth by the Coalition.

CA served as prime contractor for the LARHIX implementation. Its partner, Carefx of Scottsdale, Ariz., developed a Web portal for the Exchange. A second partner, Chicago-based Initiate Systems, developed a master patient index.

The system is built on a federated architecture. Instead of extracting data from each HIS, converting it to a common format and storing it in a central repository, it leaves the data in each hospital’s own information system. Physicians use the portal to get a read-only view of patient information.

Privacy Requirements

While making it convenient for physicians to view patient records, of course the system also needs to comply with all the privacy provisions of the Health Insurance Portability and Accountability Act (HIPAA). “The consequences of

not making the system secure would be substantial," Welch said.

LARHIX needed an identity and access management (IAM) solution that not only provided strong security, but that could also accommodate hospitals of different sizes, using different HIS technologies. This would become especially important as more Coalition members joined the Exchange. "We had to make sure it was very flexible, very scalable and easy to manage," Welch said. For example, the system would have to manage credentials for temporary rotations, setting up doctors to access patient data and then automatically canceling their access six weeks later.

One key element of the IAM solution that LARHIX deployed is CA Identity Manager, which provides users with credentials for entering the Web portal. CA SiteMinder® manages that user's access, verifying that he or she is a valid user and determining which records he or she is permitted to view based on roles and privileges. There's also an auditing mechanism, managed through CA Audit, which monitors activity on the Exchange and ensures accountability.

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— Jamie Welch, CIO, Louisiana Rural Hospital Coalition

A doctor with credentials on the system uses a single sign-on to access patient records at any participating hospital. The secure proxy server validates the credentials against the user directory and then checks them against a policy directory to determine that user's privileges. The doctor doesn't even need to know where the records reside; he or she just enters the patient's name, and the system pulls together a medical history, using data from all LARHIX facilities that the patient has visited.

While safeguarding patient information, the system is easy and cost-efficient to administer, Welch said. "We have 2,500 available licenses, and we're running it with a staff of three."

LARHIX conducted a proof-of-concept demonstration in March 2008. By February 2009, it expects to have

all of the first seven hospitals up and running on the system.

The Exchange is already producing major benefits. In October, for example, a patient at Bunkie General Hospital, the Exchange member farthest from Shreveport, used the telemedicine system for a nephrology consultation. "It was a simple, 15-minute consultation that the patient would have had to make the drive for," Welch said. "Instead, the patient got in front of the telemedicine system and was able to talk to the physician at LSU."

The Exchange helps to eliminate redundant procedures when patients visit multiple hospitals. And when a physician sees a patient for the first time, it helps to put that patient's condition in context. "They check to make sure there wasn't a CAT scan run yesterday, so that you don't unnecessarily order another one today," Welch said. "And if you do need another one, they have something to compare it to."

A medical system backed by telemedicine and the Exchange will encourage more rural patients to get the routine care they need, Welch said. "The diabetic patients who never did anything, because they had to drive so far to get it done, can now go right down the road to get the foot exam and other procedures that a specialist would normally do." In the long run, this will keep patients healthier and reduce trips to emergency rooms, she said. "Once the patients understand that they can get that service, they can begin doing what they need to do on a regular basis." ♦



Chicago Department of Public Health

A new, integrated solution will help CDPH to manage grants more effectively and better match administrative resources to program needs.



“When risks arise that impact our ability to spend, we’ll be able to redirect that funding at an earlier stage.”

— Carlo Govia, first deputy commissioner and chief financial officer, Chicago Department of Public Health

The Chicago Department of Public Health (CDPH) relies on grants for about 65 percent of its operating budget. That’s approximately \$110 million a year in new grants, primarily from the Centers for Disease Control and Prevention, the U.S. Health Resources and Services Administration and the State of Illinois.

For years, grants management at the CDPH has suffered from the department’s siloed structure, insufficient information technology and broken business processes. The consequences of these types of problems have been serious, and nowhere more so than in the process by which grants were applied for and managed. For example, grant-funded programs were communicating directly with funders in making changes to budgets and commitments, rather than working through the grants and finance offices, which are charged with supporting their efforts. Sometimes the department missed opportunities to apply for grants it might otherwise win. And programs haven’t always spent their grant money on schedule. Each year, the CDPH has closed out its grant periods with large proportions of unspent funds and has either lost those dollars or had to ask permission to carry them over into the next grant year. The problem was at its worst in 2006 when nearly \$10 million in grant funds were

unspent. “Our grants have steadily been cut because we’re not able to spend the money in an effective way,” said Carlo Govia, first deputy commissioner and chief financial officer at CDPH.

Also, the CDPH developed grant budgets for individual programs without considering the needs of the entire department or what services could already be provided by another functional unit. That practice has led to waste, as, for example, some programs often duplicate functions that the financial unit already provides on their behalf. The CDPH did not have sufficient visibility into existing capabilities or capabilities being created elsewhere in the department’s various units at any given time. It also lacked the information required to forecast needs and plan grant management activities.

All this is changing as the CDPH has started using a new grant development, execution and governance solution based on CA Clarity™ Project and Portfolio Management (PPM) technology.

The CDPH was already using CA Clarity™ in its program management office to manage information technology projects when it started looking at that technology to fill other needs. “Further discussions with our CA team led to the unique configuration of the Clarity solution to use it as our grants administration and management tool,” Govia said.

The department will use the new solution to inform program managers about grant opportunities, create project plans for pursuing grants and monitor progress on those applications. When a program wins an award, the system will convert the application plan to an implementation work plan. Then, as the program and support units execute each task, the grants staff will use CA Clarity to track its progress. “This is a new role for the grants unit, to monitor implementation,” said Erica Salem, the department’s director of grants.

CA Clarity also will help the finance unit manage the department’s entire portfolio, matching resources to demand. “The Clarity tools give us better visibility to manipulate and do what-if scenarios, and do planning and forecasting,” Govia said.

Data from the system will help the unit understand how much effort each grant requires, so it can apportion staff time more effectively, said Salem. It also will provide metrics for monitoring program performance, so the end of a funding period brings no unhappy surprises.

“When risks arise that impact our ability to spend, we’ll be able to redirect that funding at an earlier stage,” Govia said. “This way, we won’t have huge carry-over requests at the end of the grant’s life cycle.”

Eventually the Health Commissioner and all support units within the CDPH will have access to the application and will be able to use the information for decision making.

As the CDPH starts managing grants more efficiently and spending funds more effectively, officials will spend less time on grant administration. “We hope to bring grant administration down to 10 percent or less and be able to focus 80 to 90 percent of our time on program outcomes,” Govia said. Less time spent pushing paper and responding to emergencies means a great deal more time available to serve Chicago’s residents. ❖

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