
In collaboration with the National Association of County and City Health Officials and the Centers for Disease Control and Prevention, NORC at the University of Chicago is compiling a series of best practice reports highlighting successful practices in public health information systems and health IT on the state and local levels. The findings and conclusions in this document are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention. This case study was supported by funds made available from the Centers for Disease Control and Prevention, Office for State, Tribal, Local and Territorial Support, under Grant #3U38HM000449-04S2, CFDA # 93.283.

BACKGROUND

In Texas, the Health and Human Services Commission (HHSC) operates as a superagency in a largely decentralized public health system. There are four sister agencies under the umbrella of HHSC: Department of State and Health Services, Department of Aging and Disability Services, Department of Family and Protective Services, and Department of Assistive and Rehabilitative Services. The majority of Texas’ population is served by mostly autonomous local health department (LHDs). However, there are also regional health offices that represent state public health. In low-population areas, regional health offices may act as the local public health entity. The Assistant Commissioner for Regional Local Health is the primary liaison between regional health departments and LHDs. At the state-level, planning for public health and health care activities are conducted on a program-to-program basis. The Department of State Health Services (DSHS) coordinates with the Texas/Medicaid/CHIP Division and the Office of Health Coordination (all within the HHSC umbrella) on health information technology (IT) matters. In early 2010, Texas DSHS initiated the Health IT Steering Committee with both executive and IT representation. The purpose of the Health IT Steering Committee is to examine policy decisions regarding expenditures and structure to evolve into a more global agency. DSHS also worked with consultants to develop a roadmap to move away from siloed work and funding to more collaborative overall processes.
APPROACH TO HEALTH IT

HHSC is collaborating with the Texas Medicaid/CHIP Division, the Director of Health IT, and DSHS to meet public health meaningful use objectives and enhance health IT capabilities. The purpose of inter-agency collaboration is to ensure that all sister agencies adopt similar capabilities and policies to enable interoperability. The Medicaid/CHIP Division in Texas recently adopted standards that are aligned with meaningful use. These standards and requirements are specific to the programs administered under the four sister agencies. This approach also supports an “enterprise data management approach.”

HEALTH IT STRATEGIES

Texas is no exception to the recent push for health IT and public health improvement from the federal government and is initiating improvements to their health IT systems. DSHS coordinates with the Texas Health Services Authority, an independent, multi-sector organization that contributes a public health perspective to task forces and examines data security. DSHS remains mindful to ensure that their vision is shared and understood by LHDs.

Public Health Meaningful Use Objectives

DSHS is working with providers to examine their ability to receive and exchange data according to federal standards. The agency, along with consultants, conducted a comprehensive assessment to determine the most appropriate solutions to improve registries. DSHS is applying information from the assessment to adopt federal interoperability standards and the ability to communicate with state-level HIEs. As part of meaningful use, DSHS’s public health priority areas are aimed at Stage 1 and Stage 2 for qualified immunization registries, cancer registries, electronic lab reporting, and syndromic surveillance. There is also an effort to deploy an executive-level, comprehensive registry to include trauma, health-care associated infections, lead screenings, and birth defect data. The immunization and cancer registries are oriented towards meeting public health meaningful use objectives while the “comprehensive registry” emerged from a three year improvement plan. DSHS has identified major chronic disease categories for initial registry management program activities.

The LHDs throughout Texas are also at various stages of addressing public health meaningful use objectives. San Antonio County is focusing on electronic laboratory reporting (ELR), by employing their StarLIMS system to support electronic lab reporting (ELR) functions. They are also focused on immunization reporting, through the e-San Antonio Immunization Registry System (eSAIRS) program, and provide data entry training to Vaccines for Children (VFC) providers who use eSAIRS.

San Antonio and Houston health departments are also involved in efforts to improve system integration. Communication between systems requires the use of HL7 messaging standard; however, both health departments plan to utilize the Rhapsody Integration Engine to integrate legacy systems. Rhapsody will enable timely electronic health data exchange and sharing at a cost lower than traditional approaches. In Houston, specifically, Rhapsody supports bidirectional data exchange for syndromic surveillance between hospital emergency departments and health department systems. Dallas County Health and Human Services is currently coordinating with partner organizations, such as hospitals and school districts, to assess which objectives would benefit their programmatic goals and needs.

Performance Management and Quality Improvement Activities

DSHS’s vision expands beyond implementing and enhancing IT systems and prioritizes performance management and quality improvement. Currently, DSHS is strategically planning to use funding from the National Public Health Improvement Initiative (NPHII) to conduct an assessment of existing dashboards and
The concept is that once data is electronically collected and reported, it can be used multiple times to serve multiple purposes.

The LHDs in Texas are at various stages of performance management, improvement, and dashboard development. For example, Houston is in the early stages of considering a dashboard as they assess their health department’s needs and areas for improvement. Dallas County Health and Human Services is using their NPHII Component I funding to conduct a baseline assessment of performance measures logging them with performance management software. After the best way to gather and analyze data is determined, Dallas County Health and Human Services intends to develop a dashboard linked to CDC’s National Public Health Performance Standards and Public Health Accreditation Board measures.

In San Antonio, part of the health IT performance improvement efforts is the Digital Health Department system for the Division of Food and Environmental Services. The system allows sanitarians in the field to complete reporting electronically. Timely electronic data can be used more effectively for evaluation and performance improvement. From the Digital Health Department’s planning to deployment, it took four years to implement an interoperable system with geographic information system (GIS) and accounting capabilities. They are also using a health IT system called the ChallengerSoft to enhance their HealthyStart Program. The HealthyStart program will begin to transition from paper records to an electronic patient information system. The Digital Health Department System, StarLIMS ELR system, and ChallengerSoft are all examples of information systems in San Antonio that will need to be integrated with a dashboard system in order to enhance data management. San Antonio health department staff envisions deploying a dashboard with a user-friendly interface that displays program specific information that supports prioritization and decision making.

**Workforce Capacity**

To help address health IT workforce shortages, the University of Texas at Austin in collaboration with the Seton Family of Hospitals, the Texas e-Health Alliance, the TMF Health Quality Institute, the Texas Medical Association, and members of the Health IT industry have worked together to create four health IT certificate programs. Two certificate programs have already graduated students while the other two health IT certificate programs are being developed and will be offered within the next three years. The University of Texas at Austin program partners with health IT companies to help place students in appropriate positions -- graduates of the certificate program have found health IT employment in Texas and across the nation. DSHS plans to engage more state employees through the certificate program as well.

**WHAT HAS BEEN ACCOMPLISHED?**

**Successes**

Success in health IT and public health infrastructure is not always directly related to technology. Local and state public health officials in Texas credit the leadership’s acumen and ability to plan ahead for health IT as keys to their success. Tapping into leadership through committees helps advance policy, coordination, and planning (e.g., the Roadmap for Integration is a successful approach in Texas). Also, as it pertains to “people” resources, the workforce training program has been successful in training students that are able to contribute their newly gained expertise in health IT-related positions. Texas public health officials believe there are many opportunities to modernize registries and improve exchanges for better surveillance and overall public health function. San Antonio is leveraging opportunities through enhancements of the existing digital Health Department System and soon-to-be launched StarLIMS ELR system.
**Challenges and Barriers**

Budget cuts at the state and federal levels are a significant challenge in Texas. Public health officials noted that there is not enough funding to support health IT projects, particularly those related to public health readiness for meaningful use. Advances in health IT that require data exchange require systems to be upgraded and consolidated—tasks that are costly and complicated. There are also barriers to coordination between the state and local health departments related to budgets and policy issues.

In working towards establishing HIEs, “moving targets” present a challenge to establishing a vision and planning for the future—especially in public health. An ongoing issue associated with increased electronic data exchange is data security. Leadership in Texas is working on methods to improve security such as implementing new policies, practices, and procedures.

**LESSONS LEARNED**

Texas recognized the challenges in trying to develop a collaborative system in light of the fact that the readiness to do so is varied across agencies. In addition, there is a limited amount of time and funding, and there are barriers to necessary coordination. However, it is clear that HIT has become a more prominent issue, and health department leadership has gotten involved across the agencies. This has led to additional attention and action for HIT efforts. Finally, it is critical to research systems prior to selecting technology platforms to assure that health departments will see the greatest return on investment for the price and the needs of the organization.

**LOOKING FORWARD**

A Quality Improvement Taskforce is assessing how performance is being measured using registry data as well as developing dashboard metrics based on performance metrics. There is great potential for more complete surveillance and reporting system to better support public health functions that will enhance customers’ experiences.

**ADVICE FOR HEALTH DEPARTMENTS**

- It is important to research systems to ensure that selected information systems will give the best return on investment.

- An IT or information system investment needs to be based on a business case that demonstrates how a prospective system can save a program/department money.

**FOR MORE INFORMATION**

**Texas Department of State Health Services**
- [www.dshs.state.tx.us/](http://www.dshs.state.tx.us/)

**San Antonio Metropolitan Health District**
- [www-sanantonio.gov/health/](http://www-sanantonio.gov/health/)

**Dallas County Health and Human Services**
- [www.dallascounty.org/department/hhs/home.html](http://www.dallascounty.org/department/hhs/home.html)

**Houston Department of Health and Human Services**
- [www.houstontx.gov/health/](http://www.houstontx.gov/health/)
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