



# **Interoperability for Texas: Powering Health 2018**

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## Executive Summary

The interoperability of health care systems is growing in recognition as a catalyst for improving health care outcomes and decreasing health care costs.

Interoperability is defined as: “[T]he ability of two or more systems to exchange and use electronic health information from other systems without special effort on the part of the user<sup>1</sup>,” Federal and state-level initiatives continue to encourage access to health information across health care providers through the continued expansion of interoperability. Readily available sharing of information across providers’ electronic medical records systems enables an integrated view of patients’ health that supports improved coordination of care, minimizes unnecessary duplication of services, and creates efficiencies which can ultimately start to bend the healthcare cost curve.

This is the second biennial report to the Legislative Budget Board (LBB) and the Governor regarding Texas Health and Human Services (HHS) agencies’ progress on advancing the interoperability of information systems that exchange protected health information (PHI) within and across HHS agencies and between HHS agencies and healthcare providers.

Changes at the federal level resulting from the 21<sup>st</sup> Century Cures Act and the federal plan for updating the nationwide exchange of health information are outlined in this report.

This report builds on the 2016 report by updating the agency’s progress and plans for improving interoperability in the state. It includes an update on the status of the interoperability of HHS systems and provides examples of the information sharing and collaboration between HHS and its health care stakeholders.

HHS has continued working to align and adapt resources across the stakeholder community to ensure interoperability investments minimize their impact on the provider community and improve HHS’ ability to accomplish its mission.

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<sup>1</sup>[https://hhs.texas.gov/laws-regulations/reports-and-presentations/search-results?title=&field\\_category\\_tid=All&field\\_bill\\_number\\_tid=&date\\_filter%5Bvalue%5D%5Bmonth%5D=12&date\\_filter%5Bvalue%5D%5Byear%5D=2016](https://hhs.texas.gov/laws-regulations/reports-and-presentations/search-results?title=&field_category_tid=All&field_bill_number_tid=&date_filter%5Bvalue%5D%5Bmonth%5D=12&date_filter%5Bvalue%5D%5Byear%5D=2016). Retrieved October 1, 2018.

# 1. Introduction

Government Code, Section 541.007, requires HHSC to submit a report to the LBB and the Governor regarding Texas HHS agencies' progress on advancing the interoperability of its information systems that exchange PHI within and across HHS agencies and between HHS agencies and healthcare providers.

Interoperability enables entities involved in health care, including providers, payers, and public health entities, to efficiently exchange patient information with each other to provide improved health care services, improve the patient experience, better manage costs, facilitate research, and protect the public from health risks. Texas' HHS agencies have long been engaged in using technology to achieve and advance interoperability, facilitating the exchange of information between agencies and supporting the electronic exchange of information between providers and state agencies. Interoperability facilitates the ability of all healthcare stakeholders to leverage health information at the individual and aggregate levels to further efforts such as precision medicine, medical research and population health management, improving the health of all Texans.

Collaboration across the Texas HHS system, and between Texas HHS agencies and stakeholders, remains essential to achieving full interoperability. Key focus areas include standards development and adoption, establishing connections between trading partners, ensuring privacy and confidentiality, and addressing information security.

This report includes an assessment of the progress made in achieving HHS' goals related to the exchange of health information, care coordination among the agencies, quality improvement, and realizing cost savings. The report recognizes the importance of ongoing collaboration between business and technology areas within Texas HHS, and between Texas HHS agencies and stakeholders, in identifying how interoperability may affect the delivery of health care services, manage costs, and improve health through the use of applicable standards. Finally, the report shows how Texas HHS is continuing to expand the capacity of its information systems to utilize interoperability to meet the health needs of Texans.<sup>2</sup>

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<sup>2</sup> [hhs.texas.gov/laws-regulations/reports-and-presentations/search-results?title=&field\\_category\\_tid=All&field\\_bill\\_number\\_tid=&date\\_filter%5Bvalue%5D%5Bmonth%5D=12&date\\_filter%5Bvalue%5D%5Byear%5D=2016](https://hhs.texas.gov/laws-regulations/reports-and-presentations/search-results?title=&field_category_tid=All&field_bill_number_tid=&date_filter%5Bvalue%5D%5Bmonth%5D=12&date_filter%5Bvalue%5D%5Byear%5D=2016). Retrieved September 21, 2018.

## 2. Background

### National Advancement of Interoperability and Standards

The adoption and use of standards at the national level are intended to:

- Help reduce costs by minimizing the need to modify systems to comply with divergent requirements at the state level,
- Facilitate the exchange of information between providers and across state borders to provide better care, and
- Increase the ability to understand and apply changes that improve the quality of health care.

Texas' continued utilization of national standards can reduce the costs of customizing software for public and private health care entities and leverage the experience of other states to improve health care delivery.

There are multiple initiatives underway at the federal level that will affect the connectivity and information exchange capability of Texas' healthcare stakeholders and the ability to achieve the triple aim.<sup>3</sup>

The development and use of standards for exchanging PHI has continued to evolve over the last two years, supported at the federal level through new legislation such as the 21<sup>st</sup> Century Cures Act<sup>4</sup>, the Interoperability Standards Advisory (ISA)<sup>5</sup> tool, the *Patients over Paperwork*<sup>6</sup> federal initiative, and updated regulations for Medicare and Medicaid *Promoting Interoperability*<sup>7</sup> programs.

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<sup>3</sup> The triple aim is defined by the Institute for Healthcare improvement as "improving the patient experience of care (including quality and satisfaction); improving the health of populations; and reducing the per capita cost of health care."

<http://www.ihl.org/Topics/TripleAim/Pages/Overview.aspx> , Retrieved November 15, 2018

<sup>4</sup> <https://www.healthit.gov/buzz-blog/interoperability/achieving-the-interoperability-promise-of-21st-century-cures/>

<sup>5</sup> <https://www.healthit.gov/isa>

<sup>6</sup> <https://www.cms.gov/About-CMS/story-page/patients-over-paperwork.html>

<sup>7</sup> <https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html>

## 21st Century Cures Act

On December 13, 2016, the 114<sup>th</sup> US Congress passed H.R. 34, otherwise known as the 21<sup>st</sup> Century Cures Act (the Act). The Act is an omnibus bill that promotes medical research and innovation; improves the services and supports to address mental health, substance abuse and the opioid crisis; and requires the development of a framework for the secure exchange of electronic health information, and patient access to their own health information in a convenient form. Additionally, the Act prohibits health IT developers and providers from engaging in information blocking and directs the U.S. Department of Health and Human Services (U.S. HHS) to reduce regulatory or administrative burdens related to the use of electronic health records (EHR).<sup>8</sup>

## Trusted Exchange Framework and Common Agreement (TEFCA)

To address requirements in the 21<sup>st</sup> Century Cures Act, the Office of the National Coordinator for Health Information Technology (ONC) within U.S. HHS has begun to develop TEFCA to facilitate health data exchange.<sup>9</sup> The goal of TEFCA is to establish a framework where health care providers and other healthcare stakeholders can exchange health information nationally through a series of interconnected networks, coordinated through a single coordinating entity. TEFCA supports the U.S. Core Data for Interoperability (USCDI)<sup>10</sup>, to advance the exchange of data and specifies a predictable, transparent, and collaborative process for supporting medical treatment, patient access to data, public health, and administrative services. The TEFCA was presented as a draft for comment in January 2018, the ONC is reviewing the feedback it received and a second draft of the TEFCA is expected in late 2018. See Appendix A for additional information.

## Information Blocking

A significant challenge to interoperability is information blocking<sup>11</sup>. In a 2015 report to Congress, the ONC stated that health care providers have significant economic

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<sup>8</sup> <https://www.congress.gov/bill/114th-congress/house-bill/34/>

<sup>9</sup> <https://www.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement>

<sup>10</sup> Ibid.

<sup>11</sup> "Information blocking occurs when a person or entity -typically a health care provider, IT developer, or EHR vendor - knowingly and unreasonably interferes with the exchange and use of electronic health information..." <https://www.healthit.gov/topic/information-blocking> - Retrieved November 15, 2018

incentives to not share health information and to slow progress towards greater data exchange.<sup>12</sup> Some providers view electronic health information as a commodity and a way to maintain their market share, and some healthcare IT developers make it cost prohibitive for providers to share electronic health information as a means to “deter exchanges with competing technologies or services”.<sup>13</sup> The Act addresses information blocking by providing a comprehensive response to these concerns by generally prohibiting health care providers, health IT developers, exchanges, and networks from blocking information, and permits the imposition of penalties for information blocking. Exceptions to the prohibition may be established by the U.S. HHS Secretary. The U.S. HHS is responsible for developing regulations to implement these requirements.

## **Interoperability Standards Advisory (ISA)**

The ONC developed the ISA, an annually published resource to provide a publicly-accessible list of standards for the exchange of health information. A key aspect of the ISA is to serve as a tool to drive dialogue regarding standards selection when more than one approach to address a particular business need has been identified. The 2017 and 2018 editions have been expanded to better address public health needs and research interoperability. In 2018, the needs of administrative functions which includes healthcare claims as well as non-claims transactions such as enrollment, eligibility, referrals and authorizations are also addressed.

It is important to note that the inclusion of a specification in the ISA does not imply that it must always be used. Texas HHS programs and information technology services use the ISA to help identify appropriate standards for use by its agency programs.

## **Patients over Paperwork**

*Patients over Paperwork* is a Centers for Medicare and Medicaid Services (CMS) initiative focused on evaluating and streamlining which regulations should be eliminated or updated to reduce the amount of time providers spend on administrative activities to increase time spent with patients.

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<sup>12</sup> [https://www.healthit.gov/sites/default/files/reports/info\\_blocking\\_040915.pdf](https://www.healthit.gov/sites/default/files/reports/info_blocking_040915.pdf)

<sup>13</sup> Ibid page 15-16

## Promoting Interoperability Programs

In 2009, the Health Information Technology for Economic and Clinical Health (HITECH) Act was passed, creating the Medicare and Medicaid Meaningful Use Electronic Health Record (EHR) Incentive Payment Program providing financial incentives for Medicare and Medicaid providers to adopt, implement, and use certified EHR technology. In 2018 CMS renamed the program to *Promoting Interoperability* (PI) programs, and, for Medicare, shifted the program from an incentive program to a requirement for participating providers to maximize payment rates.<sup>14</sup> In the summer of 2018, CMS released new regulations revising the Medicare programs for both hospitals and ambulatory providers to place greater emphasis on interoperability between health care providers and patient access to their own data. Within the Medicare program, CMS modified what used to be known as “Public Health and Clinical Data Reporting” to “Public Health and Clinical Data Exchange,” recognizing the importance of support for the bi-directional exchange of information that can meet the needs of providers caring for individual patients as well as needs at the community level to address community health risks and develop resources to meet population needs. The updated regulations support the use of Application Program Interfaces (API)<sup>15</sup>, updated data retrieval methods, as a method for real-time interoperable electronic information exchanges between health information computer systems.

The regulations alter the data exchange requirements between the participant provider community and public health agencies. CMS is examining whether to continue to include exchange with public health as an objective in its PI programs beyond Calendar Year 2021. While altering these federal programs has no impact on state laws requiring data exchange with the Texas Department of State Health Services (DSHS), the additional economic impact for participating in PI may have raised usage rates for participating providers.

## Standards Development and Adoption

Organizations such as Health Level 7 (HL7), an American National Standards Institute (ANSI)-accredited standards development organization (SDO), the Council for Affordable Quality Healthcare (CAQH) Committee on Operating Rules for

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<sup>14</sup> <https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html>

<sup>15</sup> APIs or application programming interfaces are predefined system to system communications that do not require human intervention, greatly simplifying a computer programs' ability to include data from remote sources

Information Exchange (CORE), and other entities have worked to improve and advance standards supporting the delivery and management of health services. HHS staff have participated in the development of many of these standards, helping to ensure the national standards meet Texas-specific needs.

## **Fast Healthcare Interoperability Resources (FHIR)<sup>16</sup>**

FHIR (pronounced “Fire”), a standard from HL7, is an emerging standard for exchanging healthcare information electronically. FHIR builds on previous standards developed by HL7, but instead of using message-like tools for exchanging data such as entire documents, it focuses more on real-time transactions between information systems and uses web standards and communications protocols to exchange and present discreet data. Basic information about patients, such as demographics, admissions, diagnostic reports, and medications can each be accessed independently. It enables interoperability between legacy health care systems and other systems.

## **National Health Information Exchange Activity**

Two organizations with significant provider participation rates that have emerged at the national level to facilitate the exchange of clinical information among healthcare providers, are Carequality and the CommonWell Health Alliance. Carequality<sup>17</sup>, initially established under the Sequoia Project, and now an independent non-profit organization, provides a national, consensus-driven, shared interoperability framework that enables exchange between and among health data sharing networks. It has established technical and policy agreements to enable data to flow between and among networks and platforms nationwide. Since 2016, Carequality has grown substantially in size and has recently established connectivity with the CommonWell Health Alliance (CommonWell). CommonWell is a not-for-profit trade association which has established a national infrastructure that enables the exchange of data across different providers’ systems. CommonWell’s core services aim to enable health care providers to manage patient identity, link patients across organizations, and facilitate secure data access and exchange across providers<sup>18</sup>.

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<sup>16</sup> <https://www.hl7.org/fhir/overview.html>, Retrieved October 1, 2018.

<sup>17</sup> <https://sequoiaproject.org/restructure/>. Retrieved October 19, 2018.

<sup>18</sup> <https://www.commonwellalliance.org/services/>. Retrieved 11/12/18.

## 3. State-Level Actions Regarding Interoperability

### Texas Health Services Authority (THSA)<sup>19</sup>

Interoperability for PHI in Texas is supported by the Texas Health Services Authority, a legislatively-established public-private collaborative, formed as a 501(c)(3) organization, which is responsible for serving as a “catalyst for the development of a seamless electronic health information infrastructure to support the health care system in the state and to improve patient safety and quality of care”<sup>20</sup>. The THSA Board of Directors (THSA Board) is appointed by the Governor, and HHSC and DSHS are represented on the THSA Board in an *ex officio* capacity. To promote interoperability and the exchange of clinical data across the state and beyond Texas, THSA implemented HIETexas and identified its purposes to:

- Serve as a connection point across Health information exchanges (HIEs) serving Texas,
- Serve as a connection point between national networks and HIEs for Texas,
- Provide relevant state-level services, and
- Serve as a gateway to services provided by state agencies.

Texas HHS agencies work with the THSA, HIEs, and other stakeholders to advance the use of standards to support interoperability. Currently the THSA is focused on:

- 1) Expanding connectivity
- 2) Emergency department notifications,
- 3) Support for statewide disaster response, and
- 4) Public health reporting.

### Expanding Connectivity

Using enhanced federal funding provided under the Health Information Technology for Economic and Clinical Health (HITECH) Act, where the state supplies 10% and CMS supplies 90% of necessary funding, HHSC and DSHS are working with stakeholders to expand the state’s infrastructure to establish connectivity and interoperability between providers and Medicaid, leveraging the efficiencies that HIEs and HIETexas can provide. This work builds upon progress accomplished through the Medicare and Medicaid EHR Incentive Programs and the 1115 Medicaid

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<sup>19</sup> <http://www.thsa.org/>; see also, Chapter 182, Health & Safety Code.

<sup>20</sup> Texas Health and Safety Code, Chapter 182, Sec 182.001

waiver (1115 Waiver) and leverages other investments from public and private sources. This connectivity is critical if Texas HHS is to realize the value of HIEs in reducing the number of connections a provider needs to establish to effectively exchange patient information both between providers and between providers and state agencies serving those providers and the public.

Providers are expected to use this connectivity to reduce current administrative burdens by using the provided tools to support improved treatment and coordination of patient care. Examples of improvements include ready access to and exchange of patient history, the elimination of unnecessary medical testing, and a reduction in the repetitive questioning of patients. Medicaid providers can leverage this exchange technology to meet requirements for value-based care and the 1115 Waiver.

## **Emergency Department Notification (EDEN) System**

HHSC is working with its Medicaid Managed Care Organizations (MCOs), the THSA, the HIEs, and providers to advance the EDEN system, which supports the real-time exchange of key patient information such as identification, symptomology, and diagnosis information. This information is important to coordinate care after the patient leaves the hospital. Through EDEN, critical patient information will be sent automatically from the hospital emergency departments to MCOs, informing the MCO of patient arrival at, admission to, and discharge from participating hospitals' emergency departments. This information can also be electronically transmitted to the patient's primary care provider. The EDEN system is expected to deploy in 2019.

## **Disaster Response**

Interoperable health information systems can support disaster response by facilitating access to patient information across care settings, such as emergency shelters, and as individual's transition locations. Patient information can include prescription histories, care summaries, and other important information to support ongoing care.

The State of California, in partnership with the Office of the National Coordinator for Health Information Technology (ONC) and CMS, has piloted the Patient Unified Lookup System for Emergencies (PULSE). PULSE leverages connectivity established for the regular, daily exchange of information to support disaster services by providing emergency shelters the ability to access, though not supply, PHI in real time as patients present for services. This technology can also be used for other

health-related services, as it is connected to the national health information exchange system. Texas HHS is exploring the implementation of this technology to provide electronic access to the statewide health information network in emergency shelter locations. Securing adequate funding will be one of the major challenges Texas HHS will face in achieving this level of disaster response.

## **HIEs**

Chapter 182 of the Texas Health and Safety Code defines an HIE as an organization that:<sup>21</sup>

- 1) assists in the transmission or receipt of health-related information among organizations transmitting or receiving the information according to nationally recognized standards and under an express written agreement with the organizations;
- 2) compiles or organizes health-related information designed to be securely transmitted by the organization among physicians, other health care providers, or entities within a region, state, community, or hospital system; or
- 3) assists in the transmission or receipt of electronic health-related information among physicians, other health care providers, or entities within:
  - a) a hospital system;
  - b) a physician organization;
  - c) a health care collaborative, as defined by Section 848.001, Insurance Code;
  - d) an accountable care organization participating in the Pioneer Model under the initiative by the Innovation Center of the Centers for Medicare and Medicaid Services; or,
  - e) an accountable care organization participating in the Medicare Shared Savings Program under 42 U.S.C. Section 1395jjj.

Many exchanges of health information are provided through a number of locally-controlled, community-based HIEs. Each HIE may serve a different, potentially overlapping area and can provide a different array of services such as:

- Exchange of data with other providers,
- Connectivity with Emergency Medical Services,
- Advanced analytics,
- Messaging,
- Connectivity with social determinant of health information; and,
- Other services.

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<sup>21</sup> Texas Health and Safety Code Chapter 182, Subchapter D §182.151

Providers connected to local HIEs can exchange electronic health information with other connected health care providers on their shared patient populations. This exchange can include specialty care, primary care, behavioral health, pharmacy and other care providers. Under some value-based care payment strategies primary care providers are responsible for all care costs associated with their attributed patient whether they provided the care or not. This would include instances when a member of their attributed patient population visits an Emergency Room. Local HIEs connected to hospitals can transmit information on ER admissions, discharges, and transfers to provider EHRs, enabling the provider to manage their patients care needs when they change care environments.

HHS' plans for expanded and enhanced clinical information exchange include leveraging Texas' statewide HIE network.

## 4. Health and Human Services Agencies

### HHS Infrastructure to Support Interoperability

#### Integration and Data Exchange Center of Excellence

HHS is working to establish an Integration and Data Exchange Center of Excellence (iCOE) that enhances the capabilities and capacities currently used to exchange clinical data with external providers. Current operations support provider reporting of clinical data using standards-based transactions but employ multiple versions of software making its support and use resource intensive. The iCOE solution is business driven collaboration between program and IT. It simplifies the exchange of clinical data with internal and external stakeholders and the administrative processing requirements of clinical data. The solution implements technology that aligns with business processes; accommodates multiple standards, protocols, and code sets; and centralizes services needed for “real-time” data exchange.

This solution can be adopted on an incremental basis, allowing the time needed for external and internal stakeholders to modify their systems to work with the agreed upon standards from the ISA. Leveraging the gateway’s ability to exchange and transform data, the iCOE can help to reduce the ongoing costs associated with modifying internally-used applications to accommodate multiple standard data formats. It creates a consolidated, standards-enabled connection point for providers exchanging data with HHS directly from their EHRs or through HIETexas.

The iCOE solution also supports Medicaid. It is scalable and can accommodate the anticipated large volume of clinical data transmitted from Medicaid providers including Admission, Discharge, and Transfer data, other clinical data, and lab reports on Medicaid clients. The iCOE will enable Medicaid to receive and transmit this data to the MCOs in support of care coordination as well as use the data internally to enhance Medicaid’s program business activities. Using the skills and expertise within the HHSC Center for Analytics and Decision Support, IT Data Analytics and the Medicaid Modernization team, this data will provide valuable insights and tools that can enhance business processes across the HHS system.

## **CAQH CORE<sup>22</sup>**

One of the standards for processing Medicaid claims that HHS has adopted is the CAQH CORE standards. HHS has the potential to realize savings as it moves towards the full adoption of all four phases of operating rules for electronic transactions and verifying through CORE Certification. The savings result from automation, standardization and simplification of healthcare administrative transactions amongst trading partners. The more widely these operating rules are adopted, the greater the savings to the claims processing entities.

## **DSHS Public Health Information Systems**

DSHS operates a broad range of information systems to support public health services. Included in its portfolio are systems used to manage vital statistics, general health care data, and health registries. DSHS also operates the state health laboratory which utilizes a variety of systems. Several of the programs DSHS operates support providers participating in CMS' Promoting Interoperability Medicare and Medicaid programs.

## **Texas Electronic Vital Events Registrar (TXEVER)**

DSHS is continuing to implement a Modified Commercial off The Shelf (MCOTS)<sup>23</sup> system, TXEVER, a comprehensive electronic vital records system that includes registration and data collection for birth, death, fetal death, marriage, and divorce. TXEVER is currently scheduled for deployment January 1, 2019.

## **Center for Health Statistics-Inpatient and Outpatient Discharge Data**

The Center for Health Statistics at DSHS operates the Texas Health Care Information Collection (THCIC). THCIC collects and reports on health care activity in select healthcare facilities (hospitals and ambulatory surgery centers) and health maintenance organizations operating in Texas. THCIC collects information on inpatient and outpatient discharges from Texas hospitals and ambulatory surgery centers, including patient and facility characteristics, diagnoses, procedures, and charges. The goal is to provide consumers with information on the charges and

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<sup>22</sup> <https://www.caqh.org/about/press-release/medicaid-can-save-more-48-billion-moving-fully-electronic-transactions>. Retrieved 11/1/18.

<sup>23</sup> A MCOTS system requires some customization for deployment but is not a fully custom-built system. This allows the purchaser to share the cost of developing the core technology across a number of customers while also realizing some of the benefits of have a custom-designed solution.

quality of health care in Texas. A new data collection system is in the process of being acquired. The new system will utilize the applicable ANSI claim file data standards and also be compliant with HIPAA and subsequent amendments.

### **The Texas Cancer Registry (TCR)**

TCR collects, maintains, and disseminates timely, complete, and accurate cancer data that contributes towards cancer prevention and control, improving diagnoses, treatment, survival, and quality of life for all cancer patients. TCR cancer data is the foundation for measuring Texas's cancer burden; comprehensive cancer control efforts; health disparities; and progress in prevention, diagnosis, treatment, and survivorship. Information is collected in a variety of ways, including the electronic submission of data by providers using either a format developed by the North American Association of Central Cancer Registries (NAACCR) or an HL7 standard consistent with the Promoting Interoperability program requirements.

### **Communicable Disease Reporting (Electronic Laboratory Reporting)**

Electronic Laboratory Reporting enables hospitals and laboratories to electronically submit laboratory reports into Texas' implementation of the National Electronic Disease Surveillance System (NEDSS). NEDSS is a key system for conducting public health surveillance, used to identify and respond to disease outbreaks. Data reported are laboratory results with the patient demographic information for Texas and National notifiable conditions. Messages are submitted in a specific HL7 format, consistent with nationally-adopted standards.

### **ImmTrac2, the Texas Immunization Registry**

ImmTrac2, launched in 2017 as a replacement for ImmTrac, is a secure immunization registry provided by the State of Texas. The web-based registry receives immunization information for children and adults from private and public health care providers, health plans, and other information sources. It allows registered providers to see immunization history for patients, add immunization encounters to patient records, and add consented individuals to the registry.

ImmTrac2 is also used for emergency responders and their family members, as well as for tracking immunizations, anti-virals and medications provided in response to or in preparation for a disaster.

ImmTrac2 supports standards-based messaging using HL7 message formats consistent with Promoting Interoperability program requirements.

## Syndromic Surveillance

Texas Syndromic Surveillance (TxS2) is the statewide syndromic surveillance system hosted by the DSHS for use by Local Health Departments (LHDs), DSHS Public Health Regions, DSHS central office, and data providers (hospitals, free standing emergency centers, and urgent care centers)<sup>24</sup>. The purpose of syndromic surveillance is to protect the health of the community through public health interventions based on enhanced surveillance of emerging public health conditions and consolidation of health-related data statewide. Syndromic surveillance allows for early detection of abnormal health patterns that could result in high morbidity and mortality. For the system to be valuable to help early detection of diseases like Zika and information about opioid abuse, the data within the system must be viewed and analyzed by experienced public health officials throughout the state.

Currently, over 200 hospitals are participating in the system, exchanging data using standards-based messages, either with DSHS or Tarrant County. DSHS and the Houston Health Department are working to finalize connectivity between systems which will complete a state-wide view of syndromic surveillance data when using TxS2.

## Laboratory Services

The Laboratory at DSHS (the Lab) has been serving Texans for 90 years<sup>25</sup>. The Lab is one of the largest public health laboratories in the U.S. Last year alone it tested more than 1 million specimens for infectious and foodborne diseases, clinical and environmental chemistry and biological agents. Every year more than 400,000 Texas babies are screened twice for 53 metabolic and genetic disorders. The Lab is continuing to improve its interoperability, working to implement standards-based Electronic Test Ordering and Results capabilities to simplify the process for submitting orders and retrieving results. One tool the laboratory has implemented is functionality to support simultaneous printing of specimen labels and generation of an electronic lab order, enabling lab staff to readily conduct the specified tests.

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<sup>24</sup> <https://dshs.texas.gov/txs2/>. Retrieved 11/12/18

<sup>25</sup> <http://dshs.texas.gov/lab90/>. Retrieved 11/12/18

## **Health and Human Services e-Health Advisory Committee**

Texas HHSC established the e-Health Advisory Committee (eHAC), to advise the executive commissioner and HHS agencies on strategic planning, policy, rules and services related to the use of health information technology, HIE systems, telemedicine, telehealth, and home telemonitoring services.

The 2016 Interoperability Plan and Report identified five areas as shaping a framework of supports for interoperability planning: Infrastructure, Governance, Business/Technical Operations, Policy and Practice, and Communications. The eHAC adopted this framework and developed workgroups that met with HHSC subject matter experts from each area to learn about current business processes and challenges. All of the workgroups recognized that measuring interoperability progress in some areas may be difficult, and that there is a need for increased collaboration and communications between Texas HHS and healthcare stakeholders in the governance and change management processes impacting interoperability. Specific workgroup recommendations are available in the appendices.

### **Policy and Practice**

The policy and practice workgroup examined Texas HHS's approach to the establishment and maintenance of reporting requirements, standards, privacy, security, and data access. The workgroup focused on the simplification of provider requirements and the utilization of a stable technology platform allowing for HHS programs and stakeholders to place emphasis on business activities. The workgroup viewed the capabilities of the Health Services Gateway as a means to implement a consistent mechanism for providers to exchange data with HHS.

### **Infrastructure**

The infrastructure workgroup examined the ability to leverage the HHS Gateway, HIETexas, and local HIE infrastructures to improve coordination of care for HHS clients. They reviewed the potential for exchange between the State Supported Living Centers and the Local Mental Health Authorities to support the continuity of care as clients are transferred between in-patient services and community-based care. The workgroup also recognized the potential for the HIEs to support coordination of care between behavioral health and primary care providers.

## **Business and Technology**

The workgroup conducted an overview of business services supported through HHS interoperability services, HHS standards adoption, data use agreements, data sharing and the HHS Gateway. The workgroup drilled down into pharmacy systems and the potential for tracking patient compliance with prescription drugs. The workgroup recognized the variation that exists across each system with regards to clients, providers, formats and usage. The workgroup asked “are there better ways to exchange data to give more access to particular data points and how do we measure that going forward?” One recommendation the workgroup arrived at was for HHSC to conduct a pilot on medication adherence that compared prescriptions ordered to prescriptions filled.

## **Communications**

The Communications workgroup focused on the opportunity for more refined communications as HHS improved alignment with national Health IT standards of existing or new information systems. The workgroup identified HHS’ limited information on the effectiveness of its communications. Providers receive multiple communications and have difficulty discerning which ones are relevant or important. Clients are not always receptive to government communications. HHS does not always know if their communications are effective in changing the behavior of targeted populations.

## **Governance**

Overall this workgroup focused on the use of national standards for the electronic exchange of health information in Texas. They surveyed the committee members for information on national standards applicability. Pharmacy and Behavioral Health were two areas where national standards did not apply to 100 percent of the business cases.

## **Intellectual and Developmental Disabilities and Behavioral Health Services (IDD-BHS)**

Intellectual and Developmental Disabilities and Behavioral Health (IDD-BH) Services continue to improve and advance interoperability between state and contracted provider’s systems. While there may be high-level standards for exchanging general medical information, there has been limited development of national standards for specific behavioral health evaluation tools such as the

Childhood Assessment of Needs and Strengths (CANS) and the Adult Needs and Strengths Assessment (ANSA).

### **Local Intellectual Developmental Disability Authorities (LIDDA)**

Since 2013, the Legislature has continued to make significant investments to support HHSC's efforts in expanding its technology and operational needs for the federally mandated Preadmission Screening and Resident Review (PASRR) requirements which are applied to all individuals seeking admission to a Medicaid-certified nursing facility, regardless of funding source. In June of 2017, the Medicaid portal was modified to support full automation of previous manual authorization processes for specialized services resulting from a PASRR Evaluation. The system enhancement has since improved the timeliness and accuracy of tracking and reporting for all nursing facility authorization for specialized services for individuals seeking services.

### **Local Mental Health Authorities**

State Opioid Response (SOR) Enhancements in the Clinical Management for Behavioral Health Services (CMBHS) system.

HHSC is initiating a project to implement electronic data exchange for SOR. If approved, this would be the first time there will be computer-computer exchange of substance use disorder data between providers' systems and CMBHS. Federal regulation regarding the confidentiality of substance abuse patient records, 42 CFR Part 2, creates challenges for information sharing amongst providers treating patients with substance use disorders. Enhancements to this system continue to maintain confidentiality requirements while enabling lawful information disclosures to promote more integrated care for these individuals.

### **Batching in CMBHS for Home and Community Based Services-Adult Mental Health (HCBS-AMH)**

Currently, the HCBS-AMH program providers must complete all functions manually, without the benefit of automation. In September 2018, HHSC began the process of automating those functions, with a tentative deployment date of August 23, 2019.

In partnership with the CMBHS team, the Texas Council of Community Centers, and current providers, Behavioral Health Services (BHS) continues working through this process, which will include batching, identified as a critical change based on feedback from stakeholders.

## **Batching in CMBHS for Youth Empowerment Services (YES)**

On May 11, 2018, the HHSC CMBHS team completed the deployment and testing window for batch functionality for YES documents in CMBHS, enabling machine to machine exchange of data. Functionality for full YES documents leveraged work on exchange of Service Notes, clinical eligibility, and an individual plan of care.

## **Disaster Response**

### **HIEs**

During Hurricane Harvey, the THSA, in collaboration with HHSC and local HIEs, implemented services to provide access to healthcare providers working in emergency shelters in Houston and San Antonio by making medical information, such as medication histories, available to on-site medical staff. This helped facilitate medical treatment as individuals moved around the state. Ongoing participation in HIEs proved to be important for Texas' recovery from disaster events.

Prior to Hurricane Harvey, the impact of cross-regional medical information sharing through HIEs had not been realized in Texas. With the movement of many Texans across the state because of the hurricane, timely access to individuals' medical information, regardless of their home city, has been demonstrated as valuable in helping ensure medical needs are appropriately addressed.

HHSC, DSHS, and THSA are collaborating to enrich future disaster response efforts through the HIEs and other resources across the state by exploring the opportunity to implement PULSE and other tools to improve disaster preparedness and response.

### **Electronic Health Records**

During Hurricane Harvey, 213 residents were evacuated from the State Supported Living Center (SSLC) in Corpus Christi. Since the SSLCs had implemented Cerner's Electronic Health Record System, known as Integrated Resident Information System (IRIS), patient records were stored electronically instead of on paper. Utilizing IRIS made the evacuation, in regards to patient information, relatively seamless. Prior to the implementation of the IRIS system, when residents were evacuated paper files had to also travel with them. With IRIS, medical history records and prescription information were readily available at the sheltering location for all of the evacuated residents.

## 5. Conclusion

Progress on the interoperability of information technology systems continues to be made at both the state and national levels. Throughout the HHS system, efforts are underway to expand interoperability through the onboarding of providers using interoperability standards that improve the state's capabilities in disease prevention, population health management and program oversight. HHS agencies continue to work towards fully leveraging the connections being established through HIETexas to health information exchanges and the health care provider community at the state and national levels to improve opportunities for care coordination and Texas' disaster response posture.

HHS endeavors to improve its stakeholders' involvement in planning for the implementation of new systems and processes supporting interoperability, incorporating the recommendations from the eHealth Advisory Committee and feedback from its clients and provider communities. HHS fully acknowledges the important role interoperability can play in improving the health, safety, and well-being of Texans.

## List of Acronyms

<b>Acronym</b>	<b>Full Name</b>
ANSA	Adult Needs and Strengths Assessment
ANSI	American National Standards Institute
CANS	Child and Adolescent Needs and Strengths
CMBHS	Clinical Management for Behavioral Health Services
CMS	Centers for Medicare and Medicaid
CORE	Committee on Operating Rules
DHHS	U.S. Department of Health and Human Services
DSHS	Texas Department of State Health Services
EHR	Electronic Health Record
eHAC	HHSC e-Health Advisory Committee
FHIR	Fast Healthcare Interoperability Resources
HCBS-AMH	Home and Community-Based Services - Adult Mental Health
HHS	Health and Human Services
HHSC	Texas Health and Human Services Commission
HHSC IT	Texas Health and Human Services Commission Information Technology
HIE	Health Information Exchange
HIETexas	Health Information Exchange public network in Texas
HIPAA	Health Insurance Portability and Accountability Act

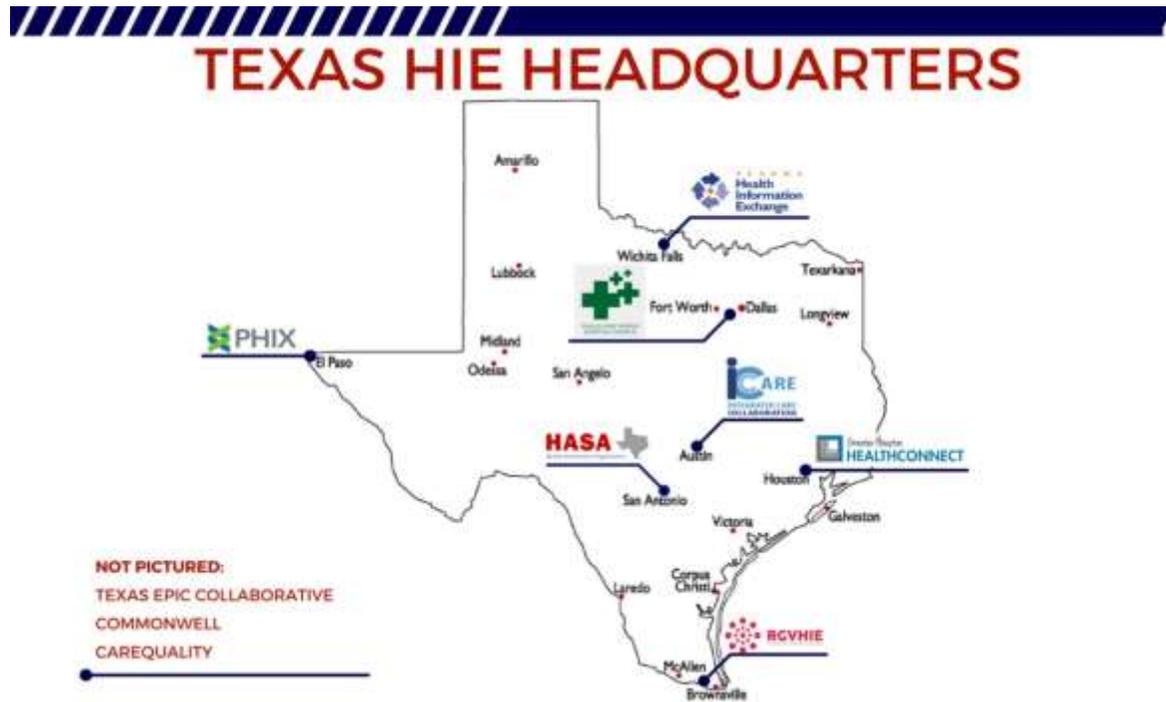
<b>Acronym</b>	<b>Full Name</b>
HIT	Health Information Technology
HL7	Health Level Seven
iCOE	Integration and Data Exchange Center of Excellence
IDD	Intellectual and Developmental Disability
ImmTrac	State of Texas Immunization Registry
ImmTrac2	State of Texas Immunization Registry replacement
ISA	Interoperability Standard Advisory
LIDDA	Local Intellectual and Developmental Disability Authority
MCOTS	Modified Commercial-Off-the-Shelf Software
MMIS	Medicaid Management Information System
NAACCR	North American Association of Central Cancer Registries
NEDSS	National Electronic Disease Surveillance System
ONC	Office of the National Coordinator for Health Information Technology
PASRR	Preadmission Screening and Resident Review
PHI	Protected Health Information
PI	Promoting Interoperability
SDO	Standards Development Organization
SOR	State Opioid Response
SSLC	State Supported Living Centers
TCR	Texas Cancer Registry

<b>Acronym</b>	<b>Full Name</b>
TEFCA	Trusted Exchange Framework and Common Agreement
Texas HHS	Texas Health and Human Services
THCIC	Texas Health Care Information Collection
THSA	Texas Health Services Authority
TxS2	Texas Syndromic Surveillance
TXEVER	Texas Electronic Vital Events Registrar
USCDI	U.S. Core Data for Interoperability
US HHS	United States Health and Human Services
YES	Youth Empowerment System

## Appendix A. TEFCA



## Appendix B. HIEs in Texas



## **Appendix C. eHAC Recommendations**

Health and Human Services Commission eHAC Recommendations by Workgroup

### **Policy and Practice**

- Recommend HHS conduct formal, systematic and comprehensive conversations with entities that provide data to HHS. Expand the use of focus groups to get information on our information providers
- HHS should ensure new systems implement national standards where possible
- Electronic data filing requirements implemented by HHS should recognize the processes the filer uses to obtain that data

### **Infrastructure**

- Recommend HHS continue to use and expand the use of the Health Services Gateway
- Use HIETexas in conjunction with local HIEs to exchange data through the Health Services Gateway
- Develop a common patient identifier for use across HHS systems and if a national patient identifier is adopted HHS should participate
- Document future uses identified on the Health IT Strategic Plan and Roadmap (OeHC)

### **Business and Technology**

- Recommendation HHS conduct a pilot on Medicaid member medication adherence by comparing claims level pharmacy information with pharmacist information on filled prescriptions and eventually adding PMP data.
- Provide pharmacy adherence information back to providers.
- HHSC conduct a study to identify how individual health information maintained by the agencies is currently made available to trading partners.

### **Communications**

- Recommend HHS conduct market research through surveys and focus groups to get a better understanding of how HHS communications are received.
- HHS should continually measure web hits and information on email information from its email broadcast system,

- Since a large percentage of the Medicaid population are children or young adults the workgroup recommended HHS focus on bridging the gap to younger audiences using snapchat, YouTube or Instagram. They also recommended the use of graduate students to assist with some of the messaging to youth.

## **Governance**

- HHSC should follow national standards for new systems if they are available.
- HHSC should communicate with external stakeholders on every phase of each project that impacts external stakeholders exchanging information with HHS