Interoperability Needs and Technology Readiness of Behavioral Health Service Providers

**As Required by
Senate Bill 640, 87th Legislature,
Regular Session, 2021**

**Texas Health and Human Services
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Executive Summary

Senate Bill (S.B.) 640, 87th Legislature, Regular Session, 2021, requires the Health and Human Services Commission (HHSC) to conduct a study to assess the interoperability needs and technology readiness of behavioral health (BH) providers in Texas. Interoperability, as defined in Section 4003 of the 21st Century Cures Act, is Health IT that a) enables the secure exchange of electronic health information with, and use of electronic health information from, other Health Information Technology (HIT or Health IT) without special effort on the part of the user; b) allows for complete access, exchange, and use of all electronically accessible health information for authorized use under applicable state or federal law; and c) does not constitute information blocking as defined in section 3022(a). Based on the results of the study, S.B. 640 (e) requires HHSC to submit a report including:

(1) a state plan, including a proposed timeline, for aligning the interoperability and technological capabilities in the provision of behavioral health services with applicable law, including:

(A) the 21st Century Cures Act (Pub. L. No. 114-255);

(B) federal or state law on health information technology; and

(C) the delivery system reform incentive payment program and uniform hospital rate increase program.

(2) information on gaps in education, and recommendations for closing those gaps, regarding the appropriate sharing of behavioral health data, including education on:

(A) the sharing of progress notes versus psychotherapy notes;

(B) obtaining consent for electronic data sharing; and

(C) common provider and patient misunderstandings of applicable law;

(3) an evaluation of the differences and similarities between federal and state law on the interoperability and technological requirements in the provision of behavioral health services; and

(4) recommendations for standardizing the use of social determinants of health.

The report is due to the legislature, lieutenant governor, and governor by August 31, 2022.

HHSC established a project workgroup of internal and external stakeholders including HHSC's e-Health Advisory Committee's Behavioral Health Subcommittee,

the Behavioral Health Advisory Committee, the Social Determinants of Health Workgroup, and the Statewide Behavioral Health Coordinating Council to develop a survey to conduct the study. Members met in fall 2021 and early 2022 to plan implementation, develop a survey tool, and execute a survey to better understand the opportunities and barriers to sharing clinical data with other health care providers.

This report describes the survey tool development and findings, presents the state implementation plan and timeline, and offers recommendations. Survey results identified gaps in the use of electronic health records (EHRs) and health information exchanges (HIEs) by some BH providers. Concerns related to costs, inefficiencies, patient consent, and confusion relating to requirements of federal and state laws were also identified. Recommendations include technology-related initiatives to address interoperability needs and challenges and standardizing the use of social determinants of health (SDOH).

Introduction

S.B. 640, 87th Legislature, Regular Session, 2021, requires HHSC to conduct a study assessing the interoperability needs and technology readiness of Texas BH providers, including state hospitals, as defined by Health and Safety Code Section 552.0011; local mental health authorities, as defined by Health and Safety Code Section 531.002; freestanding psychiatric hospitals; high volume provider groups under the STAR+PLUS, STAR Kids, or STAR Health Medicaid managed care programs (MCOs); Medicaid payors; county jails; municipal jails; and other local law enforcement entities involved in providing BH services; and trauma service area regional advisory council. S.B. 640 also requires HHSC to submit a report of the findings and a state plan with a timeline for implementation of any recommendations based on the survey results.

This S.B. 640 study determines which providers use an EHR management system and when the EHR system was implemented. The study also identifies the following:

- Whether the provider is also connected to other systems outside their EHR, how they are connected, and what type of information is shared with and/or received from the outside systems.

- What the provider values in using an EHR or connecting to an outside system, including:

    ‣ Whether the provider uses a prescription monitoring program (PMP) as part of the EHR or outside system, or the provider's reason for not using one;

    ‣ Whether the provider finds the qualitative data valuable in improving patient care; and

    ‣ The provider's opinion on the efficiency and cost-effectiveness of using an EHR or connecting to an outside system.

- Barriers to providers.

- Reasons unconnected providers value connection (i.e., providers are pursuing connection or want to be connected) to an EHR for treating patients.

Background

BH is an important focus area of health care in Texas, including through the objectives of the Statewide Behavioral Health Strategic Plan (May 2016) and the Delivery System Reform Incentive Payment (DSRIP) program's investments (2012-2021).

With the DSRIP program authorized through September 30, 2021, HHSC released the DSRIP Transition Plan in 2020. The transition plan proposes milestones for Texas to sustain the delivery system reform without DSRIP funding and the subsequent incentive payments to performing providers. HHSC identified BH as a major focus area in the transition plan to develop options to sustain successful DSRIP initiatives and address emerging areas of innovation in health care. The DSRIP transition plan[a] states "it is necessary … to continue to improve health information data sharing so that Medicaid and Children's Health Insurance Program (CHIP) managed care organizations and providers have access to timely data for value-based purchasing and advancing delivery system transformation."

In addition to the DSRIP Transition Plan, HHSC submitted a HIT Strategic Plan[b] to the Centers for Medicare & Medicaid Services and Office of the National Coordinator for Health Information Technology (ONC) in March 2020. The plan supports the goals of the DSRIP transition plan and focuses on interoperability with Texas' local HIEs. It also points out "the low percentage of … behavioral health … providers using EHRs and connected to health information networks" and "the cost and administrative barriers providers face regarding participation in the Health IT ecosystem."

To incentivize and monitor adoption by providers, HHSC added a structure measure to three new Directed Payment Programs, which were part of DSRIP transition, to measure the electronic exchange of clinical data by hospitals, physician groups, and BH providers. Structure measures indicate a provider's capacity, infrastructure, and strategy for delivering evidence-based best practices for high quality care.

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[a] https://www.hhs.texas.gov/sites/default/files/documents/laws-regulations/policies-rules/Waivers/medicaid-1115-waiver/dsrip-transition-plan.pdf

[b] https://www.hhs.texas.gov/sites/default/files/documents/laws-regulations/policies-rules/1115-waiver/waiver-renewal/health-it-strategic-plan-draft.pdf

The federal government has also focused on improving the quality of health care, expanding care coordination, and increasing health care operation efficiency. Federally funded projects, that both include and exclude BH providers, are described in the [Aligning Interoperability and Technological Capabilities](#) section of the report. Related federal legislation is summarized below.

- The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 passed and incentivizes healthcare providers to adopt an EHR, assists in the technological investment, and leverages data sharing through HIEs. Medical providers and hospitals in Texas received $866.6 million in incentives under HITECH. BH was excluded from the HITECH EHR Incentive Program [since renamed, Promoting Interoperability (PI) Program].

- This effort was continued in 2009 through the American Recovery and Reinvestment Act funding to support health information organizations in each state to facilitate the purchase or use of certified EHRs, training for the use of EHRs, and for the exchange of health information.

- In 2016, the federal government passed the [21st Century Cures Act](#) building on the EHR PI Program by focusing on the ease of data sharing, advancing interoperability, and increasing patient access to digital healthcare information. The Cures Act addressed both BH and health care broadly.[c]

With the exclusion from the HITECH incentive dollars, the high cost of technology implementation, and the current BH reimbursement rates, BH stakeholders expressed their uncertainty of provider adoption of EHRs or connections to HIEs.

Interoperability has a positive impact on clinical outcomes and cost reduction in health care through early detection, care coordination, reduced duplication, reduction of poly pharmacy, closed loop referrals, medication reconciliation and reduction in costly and harmful errors.[d] Like medical care, BH can realize the benefits of interoperability. However, BH has not had the same access to investment in infrastructure, support, and reimbursement to achieve these positive outcomes.

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[c] https://www.samhsa.gov/about-us/who-we-are/laws-regulations

[d] [Does Health Information Exchange Improve Patient Outcomes? Empirical Evidence From Florida Hospitals | Health Affairs](#)
[benefits of health information exchange: an updated systematic review | Journal of the American Medical Informatics Association | Oxford Academic (oup.com)](#)

1. Initial Implementation Steps

Assessment Process and Survey

Survey Tool

In consultation with external stakeholders, HHSC subject matter experts (SMEs) developed the survey tool consisting of questions organized into the following sections. The full survey is available in Appendix A.

- Type of organization

- Standardized methods for collecting demographic information and billing

- EHR or other external system use, certification, and capabilities for managing BH data

- Connections to outside systems

- Types of clinical and BH data shared

- Use of prescription monitoring program/interface

- Sharing of substance use disorder (SUD) data

- Value of sharing different data types and barriers to sharing

- Provision of mental health services through telemedicine/telehealth modalities

- Sharing of SDOH data

The facility type categories available include:

- State hospital, as defined by Health and Safety Code Section 552.0011,

- Local mental health authority (LMHA), as defined by Health and Safety Code Section 531.002,

- Freestanding psychiatric hospital,

- High volume provider group under the STAR+PLUS, STAR Kids, or STAR Health Medicaid managed care programs,

- Medicaid payor,

- County jail, municipal jail, and other local law enforcement entity involved in providing BH services, and

- Trauma service area regional advisory council.

The survey opened February 24, 2022, and closed March 18, 2022. HHSC distributed the link to the survey to various groups and independent providers, related advisory committees, and related BH professional organizations, including the Texas Council of Community Centers, The Hogg Foundation, Federation of Texas Psychiatry, Association of Substance Abuse Providers, the National Alliance on Mental Health Illness-Texas, the Texas Hospital Association, the Texas Coalition for Healthy Minds, the Coalition of Texans with Disabilities, trauma and response entities, and the Texas Commission on Jail Standards.

The link to the survey was sent to organizations representing each of the categories identified in S.B. 640. HHSC received approximately 160 responses from BH providers and related stakeholders. An analysis of their responses is provided in the following section.

Survey Data Results

Organization Type

The most common respondents were LMHA providers. Local law enforcement entities involved in providing BH services represented two percent of respondents. No state hospitals responded to the survey.

Response rates per total organization type in Texas were:

- State hospital - zero percent (zero of 10 State hospitals)

- Local mental health authority - 47 percent of total responses (64 responses)[e]

- Freestanding psychiatric hospital – 11 percent of total responses (15 responses)

- High volume provider group under the STAR+PLUS, STAR Kids, or STAR Health Medicaid Managed Care programs – 35 percent of total responses (48 responses)

- Medicaid payor – five percent of total responses (seven responses)

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[e] HHSC contracts with 37 local mental health authorities and two local behavioral health authorities.
https://www.hhs.texas.gov/services/mental-health-substance-use/mental-health-substance-use-resources/find-your-local-mental-health-or-behavioral-health-authority

- County jail, municipal jail, and other local law enforcement entity involved in providing BH services - one percent of total responses (two responses)
- Trauma service area regional advisory council – one percent of total responses (one response)

Provider Use of EHR or External System

After identification of organization type, respondents were asked about the use of an EHR or a HIE, direct connections to another facility, public health registry, or system outside of their EHR.

Approximately 75 percent of respondents indicated use of an EHR and over 62 percent use a Certified Electronic Health Record Technology (CEHRT) EHR. Of those respondents, over 66 percent indicated use of a CEHRT with blocking capability for "Part 2" information related to SUD. "Part 2" refers to Title 42, Code of Federal Regulations (CFR), Part 2: Confidentiality of Substance Use Disorder Patient Records (Part 2) which protects the release of SUD patients' records, depending on the circumstances. Almost 84 percent of respondents indicated use of a CEHRT with capability for segmenting psychotherapy notes versus general progress notes.

HIE Connection

Approximately half of respondents use a CEHRT with the capability to synchronize with an HIE. Of those who have these capabilities:

- Fifteen percent use the capability to connect to an HIE,
- Twenty percent do not connect to an HIE due to the inability to segregate sensitive data,
- Forty percent do not connect to an HIE due to system limitations, and
- Twenty-five percent do not connect to a to an HIE due to high cost.

Implementation of EHRs

Initial implementation of EHRs is reported to range from as early as 1996 to 2021. The most significant implementation period occurred between 2017 and 2021. The following five EHRs were reported as most used: Cerner, Netsmart, Simple Practice, Streamline's SmartCare, and Therapy Notes / Appointments.

Collection, Sharing, and Receipt of Information

Collection of Demographic Information

Respondents were asked if their organization has a standardized method for collecting specific patient demographic information such as ethnicity, race, sex, and gender. Most respondents reported collection of such information. "Sex" and "gender" were reported as most collected of the specific demographic information assessed. "Sex" was reported collected at approximately 83 percent, followed by over 81 percent collection of "gender" data. "Race" and "ethnicity" followed at approximately 72 and 71 percent collection, respectively.

Respondents were asked what types of information (such as admissions and discharges, dispensing of medication, clinical notes, BH information, diagnoses, medical history, and SDOH) are shared or not shared electronically. Other information shared electronically with outside organizations included "anything on a continuity of care document (CCD)," "lab orders," "emergency contact," "care team members," "social history," "treatment plan," and "upcoming appointments."

EHR/External System and Billing

Respondents were asked about the provision of patient health information (PHI) records for billing payment, how patient consent is obtained for the purposes of billing and care coordination and continuity, and through what means providers or facilities deliver PHI to other health care providers for the purposes of continuity and coordination of care.

Provision of PHI for Billing Payment

The primary method for providing records for the purposes of billing payment was reported as electronic, followed by paper. Some respondents indicated the use of fax, and a few reported also using email and virtual calls from health plans in request of additional payment-related information. Since some respondents reported using multiple methods, total percentages in Tables 1–3, below, exceed 100 percent.

Table 1: Method Used to Provide HI Records for Billing Payment

Method for Providing Health Information Records for Billing Payment	Percentage
Paper	40%
Electronic	86%
Fax	19%

Method for Providing Health Information Records for Billing Payment	Percentage
Other (Email and virtual calls by health plans requesting additional payment-related details)	1%

Obtaining Consent for Billing, Continuity, and Care Coordination

Obtaining consent via paper format is reported as the most common practice for billing, continuity, and care coordination. Obtaining consent via electronic format occurs almost equally in practice, followed by fax as a less common practice. A few respondents indicated email as a method for obtaining consent and verbal consent, particularly during the COVID-19 public health emergency, if the patient had no other means for granting consent.

Table 2: Method for Obtaining Consent for Billing and Continuity and Care Coordination

Method for Obtaining Consent for Purposes of Billing and Continuity and Care Coordination	Percentage
Paper	71%
Electronic	69%
Fax	13%
Other (Email and Verbal Consent – During COVID-19)	1%

The use of paper records for the purpose of consent and coordination of care is less efficient than electronic exchange of information. Converting paper records into digital copies may be required for health providers to better collaborate.

Provision of PHI to Other Providers for Continuity and Care Coordination

BH providers were asked by what means they provide PHI to other health care providers for the purposes of continuity and care coordination. Respondents reported use of electronic and fax methods equally at 65 percent. Use of paper was reported as slightly less practiced, 51 percent, followed by other methods such as certified mail, telephone, and password protected flash drives.

Table 3: Method for Providing HI Records to Other Providers for Continuity and Care Coordination

Method for Providing Health Information Records to Other Providers for Purposes of Continuity and Care Coordination	Percentage
Paper	51%
Electronic	65%
Fax	65%
Other (Certified Mail, Telephone, Password Protected Flash Drives)	4%

Are your providers or facilities 'Part 2' SUD providers?

"Part 2" SUD providers require a patient's written consent before disclosing protected records. Twenty-eight percent of respondents identified as "Part 2" SUD providers. Respondents were then asked how patient consent was obtained for "Part 2" information for the purposes of billing and care coordination and provided four response options: "Paper," "Electronic," "Fax," and "Other." Eighteen percent of respondents indicated they obtain patient consent on paper, 22 percent reported electronic collection, three percent use Fax and none reported "Other" forms of consent collection.

Collection of consent by obtaining a patient's signature on paper appears to continue as an option when the EHR system does not contain discrete fields for granular consent. Psychiatric notes and all data covered by Title 42, CFR, Part 2 require additional consent from the patient. EHRs for BH and SUD should have the capability to support these legal consent and authorization requirements. In addition, as SDOH data is shared more among clinics and Community Based Organizations, the ability to support consent and data filtering protects the individual.

Regarding sharing of health and demographic information, respondents indicated a significant number of providers use EHRs with no sharing capability. Survey results also reflected a wide variety in the type of information shared with outside organizations. Large variability in EHR types, information collected, and sharing capabilities indicate that achieving interoperability is challenging without standardization.

Regarding interoperability, paper-based health record systems are not efficient for the consistent use of health information. BH providers using EHRs and supplementing their billing information with clinical records on paper (printed) indicate the data exported from the EHR for billing is inadequate to support the

claim. EHR vendors may require user training, configuration, or upgrades to support billing requirements.

EHR – To and From Other Systems

Types of Information SHARED Electronically with Outside Systems

Respondents identified approximately 13 external systems (health information network, regional, state, or national) to which their EHRs connect. Some respondents communicated sharing of the following data in small percentages: admissions, discharges, medications, clinical notes, BH information, diagnoses, medical histories, and SDOH. Other types of data shared included CCD, assessments, treatment plans, demographic and financial information; laboratory orders and results, as well as encounter or visit history; allergies, emergency contact, care team members, social history, treatment plan, and upcoming appointments.

Other respondents communicated not sharing any of the above information, psychotherapy notes, or other PHI the individual requested not be shared.

Types of Information RECEIVED Electronically from Outside Systems

Seven percent of respondents reported receiving information from an outside system. Respondents identified receiving the following additional information electronically: assessments, demographic and financial information, identifiers for other systems, and CCD data.

Benefits of Using an EHR

Seventy-five percent of respondents reported use of an EHR. Respondents indicated improvement in quality of care, reduced costs of care, reduction in errors, and faster care delivery as benefits to using an EHR. Respondents also cited data reporting and management, shared information between providers serving the same individual, and interoperability with outside systems, as additional benefits to using an EHR. Other benefits included medication reconciliation and easier transitions of care.

Use of the Prescription Monitoring Program (PMP)

Respondents were specifically asked if their organization uses or participates in the Texas PMP. Over 15 percent answered yes and reported integration with their EHR. Approximately 22 percent answered yes but reported only directly accessing the PMP portal. Over 63 percent reported not using or participating in the Texas PMP.

Most providers surveyed do not access the PMP, citing the reason as not being a prescribing provider. Other reasons for not using the PMP included it not being a requirement for inpatient visits, not needed, lack of familiarity with it, and plans for future use.

Other providers noted the Texas Government Code, Chapter 481, Texas Health and Safety Code, Section 481.0764, requirement for prescribers and pharmacists to first check the patient's history in the PMP before prescribing or dispensing certain medications in Texas as the primary reason for accessing the PMP. Additional reasons for accessing included client safety, ease of care, aiding in patient monitoring, accessing information in a timely manner, a best practice requirement, and prescription and controlled substance monitoring.

Opinions on Value of EHR and Data Sharing

Efficiency and Cost Effectiveness

EHR Use

Respondents were asked their opinion on the efficiency and cost effectiveness of using EHRs and connection to other external systems. With respect to efficiency in EHR use, a majority (76 percent) of respondents indicated the use of an EHR has positive benefits for productivity while cost of implementation is considered a negative component. Three percent indicated a decrease in productivity while approximately 21 percent noted no effect on their organization.

In terms of cost effectiveness of EHR use, approximately 44 percent noted an increase in costs, 30 percent noted a decrease in costs, and 27 percent reported no effect on their organization.

Connection to Other External Systems

Regarding efficiency of being connected to an outside system, 54 percent of respondents reported an improvement in productivity, four percent reported a

decrease in productivity, and 43 percent reported no effect. Regarding cost-effectiveness, 36 percent of respondents reported an increase in costs and 18 percent reported a decrease. Forty-six percent reported no effect.

Barriers of EHR Use and Implementation

Factors to Becoming Digital and Use of Interoperable EHR

Respondents were also asked to identify any barriers to using and/or implementing EHRs and connections to external systems. To assess the cost of using either system, including security, privacy concerns, patient consent issues, or legal, regulatory, or licensing factors, respondents identified the following from a list of potential barriers:

- Implementation cost – 60 percent of responses

- Recurring costs – 54 percent of responses

- Additional costs for add-on services – 51 percent of responses

- Security or privacy – 44 percent of responses

- Legal factors – 30 percent of responses

- Patient consent – 26 percent of responses

- Provider adoption – 27 percent of responses

- Regulatory factors – 24 percent of responses

- Professional licensing factors – 10 percent of responses

- Leadership priorities – 9 percent of responses

Reasons for not adopting/implementing an EHR

Respondents indicated cost as a primary reason for not using an EHR. Qualitative feedback received indicated the clinical use of EHRs is time consuming compared to other documentation methods. Other reasons reported include the lack of need for an EHR, lack of user friendliness for their specific need, and EHRs being too complicated.

When asked to respond to their organization's needs for becoming digital and enabled to use an interoperable EHR, respondents again identified cost and resources as key needs. IT staffing requirements, coupled with workforce challenges, could make adopting an EHR challenging in some areas. Additional

input included the need for "increased inventory of computers, improved Internet speed, enhanced security, (and) staff training," training on use of EHR, and "a product tailored to behavioral health." One respondent stated the need for "simple, user-friendly format" in which to write progress notes and document services rendered and another noted the need for and "extra employee," in addition to coverage of cost.

Other Factors to Consider for Sharing BH Information

Respondents were asked to identify other factors that should be considered for the sharing of BH information among providers. HHSC received a variety of responses which are summarized below. Several respondents cited requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Title 42, Code of Federal Regulations (CFR), Part 2: Confidentiality of Substance Use Disorder Patient Records (Part 2), "privacy," "confidentiality," and "stigmatization," the standardization of BH information sharing formats across all data exchange practices, standardization of security protocols, inclusion of a HIPAA statement to display during release/exchange of information, and "effective systems for access to shared data."

Respondents noted a lack of usage of available electronic data exchange tools and recommended adopting a standardized statewide system (or) protocol and increase HIEs across the state with focus on regions lacking the technology. A lack of a standardized protocol results in instances where technology capabilities differ between external organizations. Technology differences pose issues such as:

- Manual processes using paper form (fax and scanned) which prevents use of specific data elements in reporting and tracking
- Inconsistencies in the data sharing process, both sending and receiving
- Lower adoption rates of HIE technology

Respondents also requested simplification of the data sharing process with clearer rules and governing laws to aid in increasing engagement of organizations. Additionally, they voiced legal and ethical concerns on how the shared information is used both internally by staff and externally by other organizations. For example, one respondent stressed patient consent be considered and described concern about schools and educators using mental health information to make decisions without parental consent or an appropriate provider on campus.

Additional feedback indicated HHSC should consider the types of data providers are willing to share (appointment date, diagnosis, and current procedural terminology codes, but no clinical notes) when exploring ways to simplify the data sharing process. Other ideas were to implement standardized release of information forms, system configuration to check data quality, and consideration of impacts to smaller, independent providers (e.g., staff, time, and costs). Also noted, the willingness to share data varies among provider types and specialties.

Concerns Relating to State or Federal Laws

Respondents were asked for any considerations or concerns related to state or federal laws and the electronic exchange of BH information between providers. Respondents' concerns and considerations varied from high-level to detailed examples. Some of the high-level feedback includes:

- Privacy and security (both patient and data)

- The complexity of the federal and state laws

- The BH arena lagging by approximately 10 years in relation to interoperability compliance

- Concerns with file access restrictions

- Undue burden

- Differences between HIPPA and Title 42, CFR, Part 2, and the need for encrypted software for the actual exchange

The more detailed examples offered further insight, including:

- The laws related to the exchange of treatment for SUDs are complicated, enhancing stigma, and impeding quality patient care.

- This is viewed as a disservice to clients as it reduces the provider's ability to provide coordination of care and treatment of the whole individual.

- The requirement to enter service information into the Clinical Management for Behavioral Health Services (CMBHS) system, a web-based software program designed specifically for documentation of community substance abuse and mental health services in an EHR format. Both CMBHS and the EHR format are viewed as an undue burden placed on providers. The suggestion was made for technology to negate the need for staff to perform entry into two systems.

- A recommendation for making the flexibilities implemented for COVID-19 permanent in relation to HIPAA and security.

- At least two respondents submitted geographical location as a consideration due to being in a "white space" area of the state with no HIE available. The respondent indicated that despite having the electronic functionality to share data there are no entities in their area that can accept or send data via Health Level Seven International (HL7) which is a set of standards, formats, and definitions for exchanging and developing EHRs. Local HIEs in Texas are not restricted by their region and may connect to hospitals and providers throughout the state. The Texas Health Services Authority is conducting outreach in underserved areas of Texas to connect directly with hospitals.

Furthermore, significant feedback was received regarding the PMP. Respondents suggested that prioritizing the integration of the PMP into provider EHR workflows would increase service efficiencies. Clinical service time is lost when providers need to navigate multiple disconnected systems to complete a service, such as opening a new browser window to review PMP when charting simultaneously in an EHR screen. If PMP data is automatically made available to the prescriber, for example as a prefetch, it would increase use and useability, increasing the opportunity to prevent medication overuse.

Of respondents who neither use an EHR or the PMP, approximately 90 percent do not connect to any other outside system such as a HIE, direct connection to any other facility or a public health registry or system. The Council for Affordable Quality Healthcare and Health Passport, a computer-based system that has health data about children in the STAR Health program, were identified as outside systems used among the 10 percent of external system users. Forty-four percent of respondents indicated internal EHRs provide valuable qualitative data for the improvement of patient care. Approximately 34 percent noted that both EHRs and outside systems provide qualitative data, while almost 19 percent reported neither system as a provider of qualitative data.

BH service providers communicated the potential benefits of external data to manage their patients but are in a position that their EHR does not support practical interoperability and/or it costs too much. Scaling interoperability could reduce, but not eliminate, the cost.

Other Survey Data

Other information obtained through the survey indicated approximately 93 percent of respondents provide patient care related services via telemedicine/telehealth. Respondents reported varying percentages of provision of telehealth services; varying from "as needed" to 95 percent.

2. State Implementation Plan

Aligning Interoperability and Technological Capabilities

Since 2019, Health and Human Services (HHS) conducted the following changes to increase access to health data across the healthcare continuum through improvements in provider technologies, such as EHR systems and interoperability. The HHS IT changes to improve health data include BH.

- In 2019, HHS IT created the Chief Data Architect position to coordinate the strategy, technical capabilities, and implementation of data, analytics, integration, and interoperability services across all HHS programs. In the same year, HHS IT improved data sharing through collection, curation, documentation, and implementation of HHS' business and application metadata into a Master Data Repository. Since late 2019, over 75 Medicaid systems have been identified in data dictionaries and glossaries. The systems were mapped back to the Medicaid Information Technology Framework which provided HHS insights to improve data and information sharing.

- In 2021, the Chief Data Architect also assumed de facto responsibility of data management delegated to the Chief Information Officer (CIO) from the Executive Commissioner for the implementation of S.B. 475.

- In 2022, the Chief Data Architect created an Interoperability Center of Excellence (iCoE) in collaboration with the Chief Technology Officer, under the purview of the Deputy CIO for Strategy in IT. HHS refines integration and interoperability of health care systems and data by advancing the iCoE technology service. The iCoE is intended to be the primary point for data exchange between HHS agencies, healthcare providers, MCOs, and other entities. Incorporating an ecosystem of people, processes, technologies, and standards the iCoE supports the exchange and integration of select health data and will evolve to support the incorporation of data for a broad range of HHS programs. The iCoE supports and aligns with the HIE Connectivity Project, funded through HHSC's HIE Implementation Advanced Planning Document.

- HHS IT continues to collaborate with HHSC and the Department of State Health Services (DSHS) programs, the HHSC Office of Data Analytics and Performance, the HHSC Records Management Office, and the DSHS Data Governance Director

to enable and advance data lifecycle and analytics. These changes align with the 21st Century Cures Act and HIT federal and state laws.

- In 2022, HHSC launched the Performance Management & Analytics System – Medicaid/CHIP Health Information Exchange HIE Connectivity Project, a collaboration pilot between HHSC programs and contracted services to coordinate the care of clients and provide real-time information and insights to the programs. This platform will serve as a repository for Admission, Discharge, Transfer (ADT) alerts and clinical information of Medicaid clients via the HIE Connectivity Project. The initiative analyzed over 75,000 files and outcomes related to hospital readmission rates. Additionally, the national data standards for HL7 and Fast Healthcare Interoperability Resources are being incorporated to the existing system.

- Currently, HHSC Medicaid and CHIP Services (MCS) and HHS IT are collaborating to increase the usability of data collected from the HIE Connectivity Project for HHSC programs, by creating a centralized location for reporting and data visualization. The HIE Connectivity Project promotes the use of local HIEs by Texas Medicaid providers by offering funds to offset connection costs. Additionally, it creates and maintains infrastructure to support HIE services statewide.

- HHS is exploring extending this HIE architecture to include non-Medicaid clients in the Behavioral Health Services (BHS) program.

Several HHS IT interoperability projects are in also production at the time of this report. Many of the projects will be delivered within the next three to five years and more projects continue to be planned. Projects include:

- Interoperability and information security support for patient data exchange by providing Medicaid clients access to their health information using Application Programming Interfaces.

- Initiatives to build a reciprocal data flow from CMBHS (which accesses mental health-related data from Mental and Behavioral Health Outpatient Data Warehouse to deliver BH services) to the Texas Law Enforcement Telecommunication System (which is similar to CMBHS for the criminal justice system).

- Proposals to increase HHSC's access to hospitalization data, including both emergency room visits and inpatient hospitalizations. HHSC BH services'

hospitalization data is largely from hospitals funded by HHSC (which are mostly state hospitals).

The Table 4 Implementation Timeline below summarizes the current and future HHS IT interoperability efforts described above.

Table 4: Implementation Timeline

2022–2023 Foundational IT Elements	2024-2025 Continuation of Foundational Elements	2026-2027 and Beyond
Continuation of Master Data Repository acquisition initiatives.	Discovery and prototype of the transition from On-Prem infrastructure to the Cloud.	Currently, HHS program strategy and CIO is working on a strategic plan to bring data and HHS decision-makers closer together.
Complete connecting to data sources to important primary data sources (e.g., client eligibility and enrollment).	Prototype a cloud platform infrastructure, like the State Health Analytic Reporting Platform (SHARP), which will enable agility, reliability, and improved cybersecurity across stakeholder enterprises.	Explore new technologies to bring a more agile business/program, both technically and programmatically, to HHS.
Provider Network Adequacy continuous analysis efforts.	N/A	Improve and refine the HHS data management processes and practices to support and align with new and emergent technologies.
HIE Connectivity initiatives.	N/A	N/A
Complete MCS HIE connectivity initiative (started in 2020-2021).	N/A	N/A
Complete BH service HIE connectivity discovery initiative (started in 2020-2021).	N/A	N/A

Addressing Gaps in Education

In 2015, the Department of Health and Human Services' ONC released the final Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap[f], (roadmap) which serves as overarching guidance to the healthcare community. The roadmap suggests coordinating committees, interagency workgroups, navigation to the ONC resource pages, and additional communication via existing channels. Aligned with the roadmap, Texas HHS uses existing venues

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[f] A Shared Nationwide Interoperability Roadmap (healthit.gov)

for interacting with the community to address gaps in education. HHSC can further explore partnerships with existing public sector entities advocating for national interoperability standards for care coordination and positive outcomes for SDOH. Potential partnerships include the National Institutes of Health, U.S. Department of Veterans Affairs, U.S. Department of Health and Human Services (U.S. HHS), and the Health Resources and Services Administration.

Recommendations for Standardizing the Use of SDOH

In response to the survey administered to BH providers, 57 percent of respondents stated their organization did not have a standardized method for collecting information on patients' SDOH such as food insecurity, housing, and transportation. Among the 43 percent of organizations that do track SDOH, respondents indicated their organization collected standard SDOH data such as food insecurity, housing, transportation, interpersonal violence, utility access, employment, education, or digital access. Respondents reported tracking such data at levels varying between eight and 37 percent. Less than three percent of respondents indicated their organization used standardized SDOH instruments such as the Hunger Vital Signs, the Accountable Health Communities' Tool, the Protocol for Responding to and Assessing Patients' Assets Risks and Experiences (PRAPARE) assessment tool, the American Academy of Family Physicians (AAFP) Everyone Project Social Needs Screening tool, or the Health Leads Screening Toolkit. Less than 16 percent of respondents indicated their organization shared their SDOH data with law enforcement, other clinicians, community-based organizations, public health, funders, payors, or other groups.

Respondents were asked to identify any SDOH screening questions or tools used by their organization. The Adult Needs and Strengths Assessment (ANSA) was identified as the most used tool by approximately 20 percent of respondents, followed by approximately 15 percent who identified "other-internal" tools.

Table 4: SDOH Tools Used by Provider

SDOH Question / Tool / Toolkit Category	Percentage
Hunger Vital Signs	1%
Accountable Health Communities Tool (AHC)	1%
Protocol for Responding to and Assessing Patients Assets, Risk, and Experience (PRAPARE) Assessment Tool	2%

SDOH Question / Tool / Toolkit Category	Percentage
American Academy of Family Physicians (AAFP) Everyone Project Social Needs	3%
Health Leads Screening Toolkit	1%
Adult Needs and Strengths Assessment (ANSA) Tool	20%
EHR	7%
Other – External	1%
Other - Internal	15%

Respondents selecting "other-internal" provided the following additional information:

- Internally developed form based on national standards,

- Proprietary tool / Questions built into patient intake form(s), and

- Talk Therapy.

Respondents indicated their organization collected SDOH data at different intervals (e.g., every visit, only at new visits, once annually, or at unspecified frequencies). Regarding SDOH data infrastructure, roughly one-fourth of respondents stated their organizations collect and store SDOH information on paper. Respondents indicated their organizations face the following challenges when collecting or attempting to collect SDOH data: lack of familiarity with SDOH concepts, costs, and other obstacles specific to their organization. Qualitative data provided by respondents indicated significant deviation in the method of SDOH data collection, the staff involved, the time intervals, and specific forms used.

Among respondents who collected SDOH data, 77 percent indicated their organization did not collect information regarding food insecurity. Utilization of this SDOH data is a challenge given this relatively low adoption rate as prior data shows food insecurity to be occurring within one in nine Texans. Sixty-three percent of respondents who collected SDOH data indicated their organization did not collect information regarding housing. Housing is a particular concern for those with BH conditions. A recent study showed in Texas "over 20 percent of individuals experiencing homelessness have a severe mental illness, and almost 16 percent of individuals experiencing homelessness have a chronic substance use condition." Seventy percent of respondents who collected SDOH data did not collect information regarding transportation. Transportation barriers are challenging as the All-Texas Access report indicated that geographical issues are obstacles to care in rural communities.

Providing SDOH-focused technical assistance to providers would be beneficial, given evidence tying SDOH factors to health outcomes. However, survey results indicated significant variation in knowledge regarding the process for SDOH data collection and application. Further assistance on recognition and use of SDOH data would be helpful in addressing this need.

HHSC recommends further assessing the use of a single or combined evidence-based, reliable, valid SDOH assessment tool. While a single tool would efficiently capture consistent data, Texas BH providers, like most providers in Texas, serve individuals through various programs and are reimbursed by different payers. These programs and payers, as well as the providers themselves, have different needs when it comes to standardizing data and information about SDOH. In addition, some programs already have initiatives in place which may be leveraging certain data elements in a broader quality or payment program. In order to address this variation, HHSC recommends building on the results of the survey and using relationships among agencies and stakeholders to further explore standardizing the use of SDOH. Any potential future recommendations would need to consider state and federal requirements in different programs, current program initiatives, existing provider and payer infrastructure, and costs.

List of Acronyms

Acronym	Full Name
AAFP	American Academy of Family Physicians
BH	Behavioral Health
BHS	Behavioral Health Services
CCD	Continuity of Care Document
CEHRT	Certified Electronic Health Record Technology
CHIP	Children's Health Insurance Program
CIO	Chief Information Officer
CMBHS	Clinical Management for Behavioral Health Service
COR	Change Order Request
DPP	Direct Payment Program
DSHS	Department of State Health Services
DSRIP	Delivery System Reform Incentive Payment
EHR	Electronic Health Record
EVV	Electronic Visit Verification
HHS	Health and Human Services
HHSC	Health and Human Services Commission
HIE	Health Information Exchange
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health
HIPPA	Health Insurance Portability and Accountability Act of 1996
HL7	Health Level Seven International
ICD 10	International Statistical Classification of Diseases Related Health Problems
iCoE	Interoperability Center of Excellence
IDD BHS	Intellectual and Developmental Disability and Behavioral Health Services
IT	Information Technology
LMHA	Local Mental Health Authority
MCO	Managed Care Organization
MCS	Medicaid and CHIP Services
ONC	Office of the National Coordinator for Health Information Technology
PHI	Patient Health Information
PMP	Prescription Monitoring Program
PRAPARE	Protocol for Responding to and Assessing Patients' Assets Risks and Experiences
S.B.	Senate Bill
SDOH	Social Determinants of Health
SME	Subject Matter Expert
SUD	Substance Use Disorder
THSA	Texas Health Services Authority

Appendix A. S.B. 640 Behavioral Health Provider Survey

Subject to Senate Bill (S.B.) 640 (87th Legislature, 2021, Regular Session), the intent of this survey is to assess the interoperability needs and technology readiness of behavioral health (BH) service providers in this state. The Texas Health and Human Services Commission (HHSC), in collaboration with BH stakeholders, is conducting a brief survey of BH facilities to better understand the opportunities and barriers to sharing clinical data with other health care providers.

Participation in this survey is voluntary and will not impact participation in any Texas state healthcare programs. All survey information will be made anonymous prior to publication of results.

Completion of this survey is estimated at approximately 15 – 20 minutes.

Section 1: Organization and Patient Management

Your organization type?

For reference:

Section 552.0011, Health and Safety Code

Section 531.002, Health and Safety Code

- State hospital, as defined by Section 52.0011, Health and Safety Code
- Local mental health authority, as defined by Section 531.002, Health and Safety Code
- Freestanding psychiatric hospital
- High volume provider group under the STAR+PLUS, STAR Kids, or STAR Health Medicaid managed care programs
- Medicaid payor
- County jail, municipal jail, and other local law enforcement entity involved in providing behavioral health services
- Trauma service area regional advisory council

Does your organization have a standardized method for collecting information on the following patient demographic information?

- Ethnicity
- Race
- Sex
- Gender

How (through what means) do you provide patient health information records for billing payment?

- Paper
- Electronic
- Fax
- Other

If "Other" was selected, subsequent question displayed as follows:

- Other methods for sharing records for billing? (Open Text Box)

How is patient consent obtained for the purposes of billing and care coordination and continuity?

- Paper
- Electronic
- Fax
- Other

If "Other" was selected, subsequent question displayed as follows:

- Other methods for collecting consent for billing? (Open Text Box)

How (through what means) does your provider or facility provide patient health information to other health care providers for the purposes of continuity and coordination of care?

- Paper
- Electronic
- Fax

Revised: 8/2022

- Other

If "Other" was selected, subsequent question displayed as follows:

- Other methods for care coordination? (Open Text Box)

Section 2: Electronic Health Record (EHR)

Does your provider or organization use an electronic health record (EHR)?

- Yes

- No

If response was "Yes", subsequent questions displayed as follows:

- Does your provider or organization use a certified electronic health record (CEHRT)?
  - ‣ Yes
  - ‣ No
- When was the EHR system implemented? (Open Text Box for entering year)
- Name of EHR system used at your organization? (Open Text Box)
- Does your electronic health record have the ability to sync with health information exchanges?
  - ‣ Yes
  - ‣ No
- Is your organization connected to any other system or entity (e.g., health information exchange, direct connection to another facility, public health registry or system) outside of your EHR?
  - ‣ Yes
  - ‣ No – too costly
  - ‣ No – system limitations
  - ‣ No – can't segregate sensitive data

If response was "No" to use of EHR, subsequent questions displayed as follows:

- Reasons for not using an EHR?

- ‣ Cost

- ‣ Excluded from incentive funding

- ‣ Suitable system

- ‣ EHR does not block "Part 2" SUD information

- ‣ EHR does not segment psychotherapy notes

- ‣ Patient consent

- ‣ Other

If "Other" was selected, the subsequent question was displayed:

- Other reasons for not using an EHR (Open Text Box)

Section 3: PMP and other external systems

Does your organization use or participate in the State prescription drug monitoring program (PMP)?

- No

- Yes – through the PMP portal

- Yes – integrated with EHR

If response was "No" to use of State PMP – subsequent questions displayed as follows:

- Please describe your organization's reasons for not using or participating in the PMP? (Open Text Box)

- If not using an EHR or PMP, is your organization connected to other outside systems (e.g., health information exchange, direct connection to another facility, public health registry or system)?

   - ‣ Yes

   - ‣ No

If "Yes" selected to above question, subsequent questions displayed as follows:

- What is the name of any outside system used? (Open Text Box)

- Please indicate which systems provide valuable qualitative data for improving patient care.

- ‣ Internal EHR

- ‣ Connected outside systems

- ‣ Both of the above

- ‣ None of the above

If response was "Yes, through PMP portal" to use of PMP – subsequent questions displayed as follows:

- Please describe your organization's reasons for using or participating in the PMP? (Open Text Box)

- Please indicate which systems provide valuable qualitative data for improving patient care.

  - ‣ Internal EHR

  - ‣ Connected outside systems

  - ‣ Both of the above

  - ‣ None of the above

If response was "Yes, Integrated with EHR" to use of PMP – subsequent question displayed as follows:

- Please describe your organization's reasons for using or participating in the PMP? (Open Text Box)

- Please indicate which systems provide valuable qualitative data for improving patient care.

  - ‣ Internal EHR

  - ‣ Connected outside systems

  - ‣ Both of the above

  - ‣ None of the above

Section 4: Opinions on value of EHR and data sharing

What is your organization's opinion on the efficiency of using an EHR?

- No effect

- Improves productivity
- Decreases productivity

What is your organization's opinion on the cost-effectiveness of using an EHR?

- No effect
- Improves productivity
- Decreases productivity

What is your organization's opinion on the efficiency benefits of being connected to outside systems?

- No effect
- Improves productivity
- Decreases productivity

What is your organization's opinion on the cost-effectiveness benefits of being connected to outside systems?

- No effect
- Improves productivity
- Decreases productivity

What are any barriers to using and/or implementing electronic health record management systems and connections to outside systems?

- Implementation cost
- Recurring costs
- Additional costs for add on services
- Security or privacy
- Patient consent
- Legal factors
- Regulatory factors
- Leadership priorities
- Provider adoption

- Professional licensing factors

What would your organization need to become digital and use an interoperable EHR? (Open Text Box)

Other factors that should be considered for the sharing of behavioral health information among providers? (Open Text Box)

Why does your organization consider being connected to an EHR or outside system(s) valuable or useful to treating patients? (Open Text Box)

What are other considerations or concerns related to state or federal laws and the electronic exchange of behavioral health information between providers, including matters such as restrictions creating an undue burden, challenges in continuity of care and/or the stigmatization of mental illness? (Open Text Box)

Section 5: Substance Use Disorder (SUD)

Are your providers or facilities "Part 2" SUD providers?

- Yes
- No

If response was "Yes" – subsequent questions displayed as follows:

- How is patient consent obtained for "Part 2" information for the purposes of billing and care coordination?
    - ‣ Paper
    - ‣ Electronic
    - ‣ Fax
    - ‣ Other
- Approximately what percentage of patients with a SUD diagnosis have a co-occurring serious mental illness diagnosis? (Open Text Box)

If "Other" – subsequent questions displayed as follows:

- Other methods for collecting Part 2 consent? (Open Text Box)

Section 6: Telehealth

Are mental health services provided through telemedicine/telehealth modalities?

- Yes

- No

If response was "Yes" – subsequent question displayed as follows:

- What percentage of services are provided through telemedicine/telehealth? (Open Text Box)

Section 7: Social Determinants of Health (SDOH)

Does your organization have a standardized method for collecting information on patients' SDOH such as food insecurity, housing, and transportation?

- Yes

- No

If response was "Yes" – subsequent questions displayed as follows:

- Does your organization collect and store this SDOH information?
  - ‣ Only electronically
  - ‣ Only via paper

- Does your organization collect and store this SDOH information?
  - ‣ Only electronically
  - ‣ Only via paper

- How often does your organization collect information on patients' SDOH?
  - ‣ Once annually
  - ‣ Every visit (new and follow-up)
  - ‣ New visits only
  - ‣ Other

If "Other" was selected, subsequent question displayed as follows:

- For other frequency, please specify (Open Text Box)

To help HHSC better understand key practices, please describe your organization's standardized method for collecting information on patients' SDOH. (Open Text Box)

Which of the following types of SDOH does your organization track?

- Food insecurity

- Housing

- Transportation

- Interpersonal violence

- Utilities

- Employment

- Education

- Digital Access

- Other

If "Other" was selected, subsequent question displayed as follows:

- Please list other SDOH types collected: (Open Text Box)

Which of the following SDOH screening questions or tools does your organization use?

- Hunger Vital Signs (2 Questions)

- Accountable Health Communities (AHC) Tool

- Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE Assessment) tool

- American Academy of Family Physicians (AAFP) Everyone Project Social Needs Screening tool

- Health Leads Screening Toolkit

- Adult Needs and Strengths Assessment (ANSA)

- Electronic Health Record (EHR)-based built-in SDOH Questions

- Other SDOH screening questions(s) or tool(s) by external developers

- Other SDOH screening question(s) or tool(s) developed specifically for your organization

If "Electronic Health Record (EHR)-based built-in SDOH Questions" was selected, subsequent question displayed as follows:

- Please provide additional specification of screening tools from question above: (Open Text Box)

If "Other SDOH screening question(s) or tool(s) by external developers" was selected, subsequent question displayed as follows:

- Please provide additional specification of screening tools from questions above: (Open Text Box)

If "Other SDOH screening question(s) or tool(s) developed specifically for your organization" was selected, subsequent two questions displayed as follows:

- Please provide additional specification of screening tools from question above: (Open Text Box)

- Would you be willing to share the SDOH screening question(s) or tool(s) that have been developed for your organization?
    - ▸ Yes
    - ▸ No

If your organization collects SDOH data, how is that data used? (Open Text Box)

Do you share SDOH with other organizations?

- Law enforcement
- Other clinicians
- Community based organizations
- Public health
- Funders
- Payors
- Others

If "Other" was selected, subsequent question displayed as follows:

- Other organization types your organization shares SDOH with? (Open Text Box)

Estimated accuracy of SDOH data collected at your organization?

- High

- Medium

- Low

Section 8: Closing Options

Please feel free to upload a pdf attachment of relevant information that would be helpful to HHSC to understand barriers to sharing behavioral, SUD or SDOH information. (Offered option to Upload File)

Please provide your organization NPI or name. This information is collected only for the purposes of us requesting needed clarification. It will not be included in any results analysis or summary. (Submit Survey button)