TEXAS HEALTHCARE SAFETY PLAN

TEXAS
Health and Human
Services

Texas Department of
State Health Services

2022

2022 Plan Updates

- The plan was renamed from "Texas HAI Plan" to "Texas Healthcare Safety Plan".
- The Mission and Vision of the Healthcare Safety Unit was added to the Background section.
- A new section was added to include a Purpose statement for the plan.
- The number of healthcare facilities, HAI/AR responses, and reportable conditions in Texas were updated to reflect 2021 counts.
- Priorities and implementation strategies were updated to reflect all activities conducted by the Healthcare Safety Unit.
- Monitoring of Preventable Adverse Events was added as a priority.

Background

The Healthcare Safety Unit (HCSU), within the Texas Department of State Health Services (DSHS), was created to promote safe and quality healthcare through awareness, education, transparency, monitoring, and response. The HCSU's vision is to help achieve safe and quality healthcare that improves the well-being of everyone in Texas. The Unit consists of the Healthcare Safety (HCS) Investigations Group, the HCS Data Reporting and Training Group, and the Antibiotic Resistance (AR)/Antibiotic Stewardship (AS) Group. These groups work together to increase and sustain infection prevention and control (IPC) expertise in local health departments (LHDs) and healthcare facilities in Texas.

Texas encompasses a total land area of approximately 268,000 square miles and is comprised of 254 counties. The Texas DSHS is divided into 8 public health regions (PHRs) and there are LHDs that operate at the county or city level. For those areas that do not have their own LHD, the PHR serves as their local health department. Texas has multiple large intercontinental airports and shares 1,254 miles of common border with Mexico. Texas has more hospitals and nursing homes than any other state in the U.S. As of February 2022, there were approximately 5,048 healthcare facilities in Texas including hospitals, ambulatory surgery centers, free standing emergency medical centers, nursing homes, and assisted living facilities.

In March 2020, the first case of COVID-19 was identified in Texas. As the virus spread, Texas healthcare facilities were required to respond quickly and adapt to the many challenges faced during the pandemic. Since the beginning of the pandemic, the HCSU focused on providing IPC subject matter expertise to healthcare facilities, LHDs, regulatory partners, and external stakeholders to prevent and control COVID-19 transmission in healthcare settings. From March 2020 to December 2021 the HCSU responded to over 1,819 COVID-19 outbreaks and conducted over 1,603 infection control assessments in healthcare facilities. These assessments were conducted to evaluate COVID-19 knowledge and practices using standardized tools, and were either

proactive – conducted prior to identified cases – or responsive to an outbreak. State and local partners used findings from the assessments to aid facilities by providing targeted and timely resources and support to mitigate identified gaps. These efforts are ongoing.

Healthcare Associated Infections (HAI) and AR are internationally and nationally recognized by the scientific and medical communities as serious public health threats, and are associated with increased morbidity and mortality, as well as increased healthcare costs. The implementation of the Antibiotic Resistance Laboratory Network (AR Lab Network) in 2017 increased the state's ability to identify novel or high concern AR organisms and corresponding resistant mechanisms. Improvements in detection methods have created awareness of the magnitude of the AR threat in Texas. In 2021, the HCSU conducted over 424 HAI/AR containment response investigations. AR responses were conducted following the steps outlined in the Texas AR Lab Network Response Plan. This plan was developed in collaboration with the Texas DSHS laboratory to solidify the Texas strategy for the containment of AR. HAI and AR investigations are complex in part because patients often receive healthcare services at multiple facilities in short periods of time. This healthcare facility interconnectivity highlights the importance of coordinated actions to prevent and control the spread of HAI and AR organisms.

The Texas Antibiotic Stewardship Program (ASP) is a necessary adjunct to HAI and AR activities to provide long-term sustainable reduction in antibiotic resistance. The implementation of ASPs across all spectrums of healthcare in tandem with coordinated, evidence-based surveillance, prevention, and response activities increases the Texas DSHS' capacity to positively impact patient safety, patient outcomes, and healthcare expenditures.

There are several other useful HAI and AR data sources that DSHS utilizes for action including Texas notifiable conditions, the National Healthcare Safety Network (NHSN), and the Texas Healthcare Safety Network (TxHSN). These data sources are reviewed and analyzed to determine where IPC resources should be allocated.

The Texas Health and Safety Code Chapter 81 and the Administrative Code (TAC) Title 25, Chapter 97 requires providers to report certain notifiable conditions, including carbapenem-resistant *Enterobacterales* (CRE), vancomycin-intermediate *Staphylococcus aureus* (VISA), vancomycin-resistant *Staphylococcus aureus* (VRSA), and *Candida auris*. In 2021, there were 881 cases of CRE, 4 cases of VISA, 0 cases of VRSA, and 270 cases of *C.auris* (49 clinical cases and 221 colonization/screening cases). The HCSU and LHDs promptly investigate all reported cases to ensure that proper containment measures are in place to prevent the organisms from spreading to other patients in healthcare facilities.

The Texas Health and Safety Code Chapter 98 and the TAC Title 25, Chapter

200 requires Texas general hospitals and ambulatory surgery centers (ASC) to report certain preventable adverse events (PAEs) and general hospitals to report selected HAIs. PAE data are reported through the TxHSN system and HAI data are reported through NHSN and then transferred to TxHSN. TxHSN is a web-based system that was developed to help coordinate and simplify the communication process between Texas and reporting healthcare facilities.

There were 2,870 PAEs reported in Texas in 2021. The three most frequently reported PAEs were: Stage 3, Stage 4 and unstageable skin pressure ulcers (1,733); patient falls that resulted in death or severe injury, usually bone fractures (426); and poor glycemic control resulting in diabetic ketoacidosis (105). Texas general hospitals reported 1,741 central-line associated bloodstream infections (CLABSI), 1,308 catheter associated urinary tract infections (CAUTI), 902 laboratory-identified Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremias and 2,966 *Clostridioides difficile* infections. In the same year, 1,046 surgical site infections were reported following colon surgery and an additional 324 surgical site infections (SSIs) were reported following abdominal hysterectomies.

Additionally, DSHS entered into a data use agreement (DUA) with the Centers for Disease Control and Prevention (CDC) in March 2019 to have access to Texas data from the NHSN that are not already obtained via mandatory reporting statute. These data are used to develop state antibiograms, establish baselines and identify trends to inform future prevention and quality improvement activities.

In 2021, DSHS continued a project to enhance the existing TxHSN, incorporating additional functionality to expand its use as a Healthcare Safety data warehouse. This will allow DSHS staff, as well as local and regional partners to run Healthcare Safety data reports and take action to prevent and contain the spread of HAIs and AR in Texas.

Purpose

The Texas Healthcare Safety Plan (HCS Plan) outlines the HCSU priorities and implementation strategies to promote safe, quality healthcare, and support infection prevention and control activities in the state. The implementation strategies provide a multifaceted approach to increase awareness, education, and response to healthcare safety events, such as HAIs, AR organisms, and PAEs.

The HCS Plan prioritizes detecting and containing HAIs and AR threats, addressing knowledge gaps in the healthcare community by providing training and education, and analyzing data to drive prevention efforts. It also prioritizes conducting proactive activities to enhance infection control practices in healthcare facilities, implementing antibiotic stewardship interventions, and tracking PAEs.

The HCS Plan encourages transparency in reporting healthcare safety events and collaborating with stakeholders to identify and implement evidence-based best practices. These concerted efforts will improve the health, safety, and well-being of Texans.

List of Acronyms

Acronym	Full Name
AR	Antibiotic Resistance
AS	Antibiotic Stewardship
ASC	Ambulatory Surgery Centers
ASP	Antibiotic Stewardship Program
CAUTI	Catheter Associated Urinary Tract Infections
CDC	Centers for Disease Control and Prevention
CLABSI	Central Line Associated Bloodstream Infections
CMS	Centers for Medicare and Medicaid Services
COVID-19	Coronavirus Disease 2019
CRE	Carbapenem-Resistant *Enterobacterales*
DSHS	Department of State Health Services
DUA	Data Use Agreement
ESRD	End Stage Renal Disease
HAI	Healthcare Associated Infection
HCS	Healthcare Safety
HCSU	Healthcare Safety Unit
IPC	Infection Prevention and Control
LHD	Local Health Department
MRSA	Methicillin-resistant *Staphylococcus aureus*
NHSN	National Healthcare Safety Network
PAE	Preventable Adverse Events
PHR	Public Health Region
SSI	Surgical Site Infection
TAC	Texas Administrative Code
TxHSN	Texas Healthcare Safety Network
VISA	Vancomycin-Intermediate *Staphylococcus aureus*
VRSA	Vancomycin-Resistant *Staphylococcus aureus*

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Priorities	Implementation Strategies
Respond to COVID-19 in healthcare facilities	• Track and contain COVID-19 outbreaks in healthcare facilities. Response activities can include conducting infection control assessments, providing ongoing guidance, and tracking cases until the outbreaks are contained. • Collaborate with LHDs and other external stakeholders to ensure consistent infection control guidance is provided to healthcare providers and facilities across the state.
Detect and contain HAI/AR threats	• Provide technical expertise to healthcare facilities when HAIs and AR threats are identified. Technical expertise can include conducting infection control assessments using a standardized tool, consulting on IPC practices, sharing resources, coordinating laboratory testing, and providing trainings. • Follow the Texas AR Lab Network Response Plan for the containment of AR threats. • Conduct a needs assessment for AR prevention activities in healthcare facilities and laboratories and use the results to develop a written AR prevention plan.
Enhance infection control practices in healthcare facilities	• Promote IPC best practices in healthcare settings and provide recommendations according to evidence-based guidelines and accreditation standards of care. • Conduct proactive infection control assessments in healthcare facilities to identify areas for improvement and to prepare them for future HAI/AR threats. • Sustain infection prevention and control expertise within the HCS Unit to continue providing IPC support to the healthcare community. • Engage with internal and external partners to collaborate on healthcare safety activities (e.g., ESRD Network, quality improvement organizations, regulatory/licensing entities, academic centers, and non-profit organizations).

Implement interventions to support antibiotic stewardship	• Consult on AS related public health interventions and promote appropriate antibiotic prescribing practices and policies. • Create and share ASP assessment tools and education materials for healthcare professionals and the public. • Strengthen the capacity to identify, develop, and implement the CDC's AS core elements. • Convene Antimicrobial Stewardship Regional Advisory Committee meetings to improve AS in long-term care facilities through collaborative action.
Analyze data to drive prevention strategies	• Analyze data from TxHSN, NHSN, Texas notifiable conditions, and the AR Lab Network to identify HAI and AR high-risk facilities where additional IPC support is needed. • Perform data validation audits on selected HAIs to ensure data quality. • Utilize NHSN data to produce annual antibiograms and track trends in antibiotic susceptibility of organisms causing HAI infections.
Monitor PAEs	• Track reportable PAEs and monitor the data to identify outliers and significant trends. • Share evidence-based best practices with public health and healthcare stakeholders to prevent and reduce PAEs in general hospitals and ambulatory surgery centers.
Address knowledge gaps by providing training and education	• Identify infection prevention learning needs by surveying Texas healthcare workers, public health, and allied professionals. • Work to reduce healthcare safety events by providing trainings and educational resources based on learning needs surveys, thereby increasing IPC capacity in healthcare facilities and LHDs. • Partner with public health and healthcare stakeholders to promote the Project Firstline training modules and educational materials. • Develop a web application that will house training-on-demand videos and recorded webinars for easy access to the healthcare community.