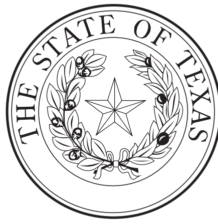

Interim Report
to the 86th Texas Legislature

House Committee on Public Health

December 2018

HOUSE COMMITTEE ON PUBLIC HEALTH
TEXAS HOUSE OF REPRESENTATIVES
INTERIM REPORT 2018

A REPORT TO THE
HOUSE OF REPRESENTATIVES
86TH TEXAS LEGISLATURE

FOUR PRICE
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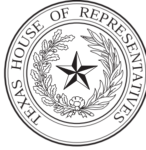

Committee On
Public Health

December 14, 2018

Four Price
Chairman

P.O. Box 2910
Austin, Texas 78768-2910

The Honorable Joe Straus
Speaker, Texas House of Representatives
Members of the Texas House of Representatives
Texas State Capitol, Rm. 2W.13
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Public Health of the Eighty-fifth Legislature hereby submits its interim report including recommendations for consideration by the Eighty-sixth Legislature.

Respectfully submitted,

Four Price, Chairman

J.D. Sheffield , Vice Chairman

Representative Diana Arévalo

Representative Cindy Burkett

Representative Garnet Coleman

Representative Nicole Collier

Representative Philip Cortez

Representative R.D. "Bobby" Guerra

Representative Stephanie Klick

Representative Tom Oliverson

Representative Bill Zedler

ACKNOWLEDGMENTS

The Chairman, the Vice-Chairman, and the members of the House Committee on Public Health would like to acknowledge and thank Ms. Sandra Talton, Committee Director, for her dedication throughout the entire committee process and for preparation of this report.

The Chairman, the Vice-Chairman, and the Members of the House Committee on Public Health also express gratitude to Ms. Elizabeth Farley, Assistant Committee Clerk, for her assistance during the committee process and in the writing of this report and to each Member's respective office staff for their efforts on the success of the House Committee on Public Health.

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HOUSE COMMITTEE ON PUBLIC HEALTH
EXECUTIVE SUMMARY

The overall health of the residents of Texas impacts every Texan.

With jurisdiction over the state agencies which license and regulate medical professionals and which generally oversee matters related to the overall health of the state's population, the Public Health Committee (Committee) is committed to patients' safety in the provision of healthcare, prevention and containment of the spread of diseases, promoting healthy lifestyles, and the study of ideas to improve health.

The Honorable Joe Straus, Speaker of the Texas House of Representatives, assigned the Committee eight charges related to public health in Texas to study during the interim of the 85th Legislature. Specific topics assigned to the Committee encompass women's health; traumatic brain injury, Alzheimer's disease, and dementia; mental illness, specifically in children; housing instability/homelessness and mental illness; healthcare delivery in rural and urban medically underserved areas; the prevalence of children involved with Child Protective Services (CPS) due to their having a mental illness/substance use disorder or due to a guardian having a substance abuse disorder or untreated mental illness; organ and bone marrow donation; and implementation of certain bills passed during the 85th Legislative Session. Additionally, the Committee was assigned to review school safety and mental health in children.

The Committee held seven public hearings, three of which were joint hearings with other House committees, to address the charges.

Regarding Charge 1, related to women's health, numerous programs and services are provided to low-income women/families by the Texas Health and Human Services Commission (HHSC) with an emphasis on maternal health. Programs include Healthy Texas Women (HTW), the Family Planning Program (FPP), Breast and Cervical Cancer Services (BCCS) program, Better Birth Outcomes (BBO) initiatives, Substance Use Prevention and Treatment Services, Neonatal Abstinence Syndrome (NAS), and the Office of Disability Prevention for Children (ODPC).

Regarding Charge 1, related to reducing maternal deaths and morbidity, the Texas Maternal Mortality and Morbidity Task Force and the Department of State Health Services (DSHS) has performed an intense review of causes and contributing factors of reported pregnancy-related deaths in Texas. An enhanced case review method for analysis of pregnancy related deaths is now being utilized to ensure accuracy of maternal mortality information records.

Regarding Charge 2, related to traumatic brain injury, Alzheimer's disease, and dementia, groundbreaking research is being performed in Texas in advancing treatment for neuro-degeneration caused by traumatic brain injury and dementia, including Alzheimer's. Numerous organizations and state agencies are involved in ensuring the public's awareness of symptoms of these brain disorders, in the provision of care. State resources are also appropriated for research at Texas university medical schools and health science centers.

Regarding Charge 3, related to the improvement of services for identifying and treating children with mental illness and analyzing the role of the Texas Education Agency and the Education Service Centers, emphasis is on early and accurate diagnoses, intervention, and treatment. Mental health disorders touch virtually every Texan. As the majority of mental health disorders present before adulthood, prevention and diagnosis efforts integrated into schools is a growing endeavor for the potential early recognition of mental health issues.

Regarding Charge 4, related to the overlays of housing instability, homelessness, and mental illness, and the availability of supportive housing opportunities for individuals with mental illness, the Texas Health and Human Services Commission (HHSC) and the Texas Department of Housing and Community Affairs (TDHCA) provided information on housing programs available in Texas to the homeless population. Varied entities provided insight about the importance of permanent supportive housing options to reintegrate the homeless back into society and how a continuum of care program is proven to increase the potential success of an individual upon his/her release from a program.

Regarding Charge 5, related to improving population health and healthcare delivery in rural and urban medically underserved areas, hospitals, universities, and advocates discussed access to healthcare throughout the state. Detailed information concerning local, federal, and state programs currently in-place, innovative considerations for rural hospitals, initiatives for urban medically underserved area hospitals and rural communities, and benefits of telemedicine were presented.

Regarding Charge 6, related to the prevalence of children involved with Child Protective Services (CPS) due to the child having a mental illness and/or a substance use disorder or due to the child's guardian having a substance abuse disorder or an untreated mental illness, the Department of Family Protective Services (DFPS) reports that risk factors such as substance abuse, mental health concerns, and domestic violence are common factors in confirmed child abuse and neglect fatalities. Efforts by the state emphasize family preservation programs, including specialty courts and family based services.

Regarding Charge 7, related to organ and bone marrow donations, the number of persons registering to donate organs has increased due to the opportunity for donor registration when obtaining or renewing one's driver's license. Additionally, science and medical procedures for obtaining bone marrow have advanced. Education and added outreach efforts have the potential to further increase the number of persons donating bone marrow and registering to donate organs.

Regarding Charge 8, related to monitoring the implementation of legislation passed during the 85th Legislative Session, the Texas Health and Human Services Commission (HHSC) provided updates on the status of House Bill 10 (85R) addressing mental health insurance parity; House Bill 13 (85R) creating a statewide community mental health grant program to foster the formation of local collaboratives working together to solve local mental health issues; House Bill 337 (85R) regarding suspending and reinstating Medicaid benefits for individuals incarcerated in a county jail; and Senate Bill 292 (85R) creating a statewide mental health jail diversion grant program to reduce recidivism of individuals with mental health disorders in the criminal justice system.

Regarding the committee's additional charge related to school safety, continued emphasis is placed on recognition and treatment of mental health illness in children. Proven programs in use throughout the state include the Telemedicine, Wellness, Intervention, Triage, and Referral (TWITR) program, the Trauma and Grief Center program, Mental Health First Aid, and the Education Service Center Positive Behavior Interventions and Supports (PBIS) program. Also, numerous school districts with an integrated mental healthcare model embedded in the schools are realizing positive outcomes.

Legislators have a significant interest in the health of Texans and will continue to address public health issues affecting the citizens of Texas. An increase in services and programs typically requires increased funding, and funds are limited, whether federal, state, or local. A constant review of current services and programs is required to ensure efficient utilization of monies. Recognizing technological innovations, such as telemedicine, capitalizing on best practices, and involving of local communities in identifying and addressing their specific issues is critical in statewide health management.

INTRODUCTION

At the beginning of the 85th Texas Legislative Session, the Honorable Joe Straus, Speaker of the Texas House of Representatives, appointed eleven members to serve on the House Committee on Public Health (Committee). The Committee membership consists of Representatives Four Price (Chairman), J.D. Sheffield (Vice-Chairman), Diana Arévalo, Cindy Burkett, Garnet Coleman, Nicole Collier, Philip Cortez, R.D. "Bobby" Guerra, Stephanie Klick, Tom Oliverson, and Bill Zedler.

Pursuant to House Rule 3 Section 31, (85th Legislature), the Committee shall have 11 members, with jurisdiction over all matters pertaining to:

(1) the protection of public health, including supervision and control of the practice of medicine and dentistry and other allied health services;
(2) mental health and the development of programs incident thereto;
(3) the prevention and treatment of mental illness;
(4) oversight of the Health and Human Services Commission as it relates to the subject matter jurisdiction of this committee; and
(5) the following state agencies: the Department of State Health Services, the Anatomical Board of the State of Texas, the Texas Funeral Service Commission, the Hearing Instrument Fitters and Dispensers Advisory Board, the Texas Health Services Authority, the Texas Optometry Board, the Texas Radiation Advisory Board, the Texas State Board of Pharmacy, the Interagency Obesity Council, the Texas Board of Nursing, the Texas Board of Chiropractic Examiners, the Texas Board of Physical Therapy Examiners, the Texas State Board of Podiatric Medical Examiners, the Texas State Board of Examiners of Psychologists, the State Board of Dental Examiners, the Texas Medical Board, the Advisory Board of Athletic Trainers, the Dental Hygiene Advisory Committee, the Cancer Prevention and Research Institute of Texas, the Texas State Board of Acupuncture Examiners, the Health Professionals Council, the Office of Patient Protection, and the Texas Board of Occupational Therapy Examiners.[1]

In October 2017, following the 85th Legislative Session, Speaker Straus assigned the Committee eight interim charges to study, advise findings, and make recommendations for the 86th Legislative Session. The charges were:

1. Review state programs that provide women's health services and recommend solutions to increase access to effective and timely care. During the review, identify services provided in each program, the number of providers and clients participating in the programs, and the enrollment and transition process between programs. Monitor the work of the Maternal Mortality and Morbidity Task Force and recommend solutions to reduce maternal deaths and morbidity. In addition, review the correlation between pre-term and low birth weight births and the use of alcohol and tobacco. Consider options to increase treatment options and deter usage of these substances.

2. Study treatment of traumatic brain injury, Alzheimer's, and dementia, and recommend opportunities for advancing treatment and cures.
3. Study and make recommendations to improve services available for identifying and treating children with mental illness, including the application of trauma- and grief-informed practices. Identify strategies to assist in understanding the impact and recognizing the signs of trauma in children and providing school-based or community-based mental health services to children who need them. Analyze the role of the Texas Education Agency and of the regional Education Service Centers regarding mental health. In addition, review programs that treat early psychosis among youth and young adults.
4. Study the overlays among housing instability, homelessness, and mental illness. Review the availability of supportive housing opportunities for individuals with mental illness. Consider options to address housing stability and homelessness among people with mental illness. (Joint charge with the House Committee on Urban Affairs)
5. Review opportunities to improve population health and healthcare delivery in rural and urban medically underserved areas. Identify potential opportunities to improve access to care, including the role of telemedicine. In the review, identify the challenges facing rural hospitals and the impact of rural hospital closures.
6. Analyze the prevalence of children involved with Child Protective Services (CPS) who have a mental illness and/or a substance use disorder. In addition, analyze the prevalence of children involved with CPS due to their guardian's substance abuse or because of an untreated mental illness. Identify methods to strengthen CPS processes and services, including efforts for family preservation; increasing the number of appropriate placements designed for children with high needs; and ensuring Texas Medicaid is providing access to appropriate and effective behavioral health services. (Joint charge with the House Committee on Human Services)
7. Evaluate the process of organ and bone marrow donations. Consider opportunities to improve organ and bone marrow donation awareness in order to increase the number of willing donors.
8. Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 85th Legislature. In conducting this oversight, the Committee will also specifically closely monitor the implementation of H.B. 10 (85R), H.B. 13 (85R), and S.B. 292 (85R).[2]

An additional joint charge was assigned to the House Public Health and House Public Education Committees by Speaker Straus on June 1, 2018 in response to the tragic shooting at Santa Fe High School, in Santa Fe, Texas which occurred on May 18, 2018. The charge language reads as follows:

> Consider testimony provided at the May 17 House Public Health Committee hearing regarding improving mental health services for children. Identify specific strategies that would enhance overall school safety. Study ways to help parents, youth, and primary care providers support school personnel in their efforts to identify and intervene early when

mental health problems arise. In addition to school-based trauma-informed programs and those that treat early psychosis, consider the benefits of universal screening tools and expanding the Child Psychiatry Access Program (CPAP). Make recommendations to enhance collaboration among the Health and Human Services Commission, the Texas Education Agency, local mental health authorities, and education service centers.[3] (Joint charge with the House Committee on Public Education)

The Committee has completed its hearings and has issued the following final report including findings and recommendations.

The recommendations included in this report are not necessarily reflective of each member's views but are based on information presented throughout the interim hearing process for consideration to address public health issues across the state.

The hearings held by the Committee were comprehensive specific to each of the charges. The topics addressed are not reflective of the breadth of the Committee's jurisdiction and the legislation and discussions regarding public health during the 86th Legislative Session are not limited to the topics discussed in this report.

The Committee wishes to express appreciation to the state agencies, local government entities, organizations, and concerned citizens who testified at the public hearings.

INTERIM STUDY HEARINGS

The interim charges assigned to the House Committee on Public Health cover an array of topics which were discussed at length in seven public hearings. Each hearing contained both invited and public testimony. The invited testimony included medical professionals, including those with specialties in mental health, medical research professionals, state agencies, community organizations and advocates, and providers of care.

Public Hearing 1 related to Interim Charge 2 and Charge 7:

Interim Charge 2 – Study treatment of traumatic brain injury, Alzheimer's, and dementia, and recommend opportunities for advancing treatment and cures.

Interim Charge 7 – Evaluate the process of organ and bone marrow donations. Consider opportunities to improve organ and bone marrow donation awareness in order to increase the number of willing donors.

Public Hearing 2 related to Interim Charge 3 – Study and make recommendations to improve services available for identifying and treating children with mental illness, including the application of trauma- and grief-informed practices. Identify strategies to assist in understanding the impact and recognizing the signs of trauma in children and providing school-based or community-based mental health services to children who need them. Analyze the role of the Texas Education Agency and of the regional Education Service Centers regarding mental health. In addition, review programs that treat early psychosis among youth and young adults.

Public Hearing 3 related to the additional Charge given by the Speaker, a joint committee hearing held with the House Committee on Public Education – Consider testimony provided at the May 17 House Public Health Committee hearing regarding improving mental health services for children. Identify specific strategies that would enhance overall school safety. Study ways to help parents, youth, and primary care providers support school personnel in their efforts to identify and intervene early when mental health problems arise. In addition to school-based trauma-informed programs and those that treat early psychosis, consider the benefits of universal screening tools and expanding the Child Psychiatry Access Program (CPAP). Make recommendations to enhance collaboration among the Health and Human Services Commission, the Texas Education Agency, local mental health authorities, and education service centers.

Public Hearing 4 related to Interim Charge 5 – Review opportunities to improve population health and healthcare delivery in rural and urban medically underserved areas. Identify potential opportunities to improve access to care, including the role of telemedicine. In the review, identify the challenges facing rural hospitals and the impact of rural hospital closures.

Public Hearing 5 related to Interim Charge 6, a joint committee hearing held with the House Committee on Human Services – Analyze the prevalence of children involved with Child Protective Services (CPS) who have a mental illness and/or a substance use disorder. In

addition, analyze the prevalence of children involved with CPS due to their guardian's substance abuse or because of an untreated mental illness. Identify methods to strengthen CPS processes and services, including efforts for family preservation; increasing the number of appropriate placements designed for children with high needs; and ensuring Texas Medicaid is providing access to appropriate and effective behavioral health services.

Public Hearing 6 related to Interim Charge 4, a joint committee hearing held with the House Committee on Urban Affairs – Study the overlays among housing instability, homelessness, and mental illness. Review the availability of supportive housing opportunities for individuals with mental illness. Consider options to address housing stability and homelessness among people with mental illness.

Public Hearing 7 related to Interim Charge 1 and Charge 8:

Interim Charge 1 – Review state programs that provide women's health services and recommend solutions to increase access to effective and timely care. During the review, identify services provided in each program, the number of providers and clients participating in the programs, and the enrollment and transition process between programs. Monitor the work of the Maternal Mortality and Morbidity Task Force and recommend solutions to reduce maternal deaths and morbidity. In addition, review the correlation between pre-term and low birth weight births and the use of alcohol and tobacco. Consider options to increase treatment options and deter usage of these substances.

Interim Charge 8 – Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 85th Legislature. In conducting this oversight, the Committee will also specifically closely monitor the implementation of H.B. 10 (85R), H.B. 13 (85R), and S.B. 292 (85R).

CHARGE 1 – WOMEN'S HEALTH SERVICES AND THE TEXAS MATERNAL MORTALITY AND MORBIDITY TASK FORCE

The hearing related to women's health services and the Texas Maternal Mortality and Morbidity Task Force was held on September 13, 2018 at 9:00am in Austin, Texas in the Capitol Extension, Room E2.012.

*Charge 1 – **Review state programs that provide women's health services and recommend solutions to increase access to effective and timely care. During the review, identify services provided in each program, the number of providers and clients participating in the programs, and the enrollment and transition process between programs. Monitor the work of the Maternal Mortality and Morbidity Task Force and recommend solutions to reduce maternal deaths and morbidity. In addition, review the correlation between pre-term and low birth weight births and the use of alcohol and tobacco. Consider options to increase treatment options and deter usage of these substances.***

The following organizations/individuals were invited to testify:

Lesley French, JD, Texas Health and Human Services Commission; Developmental and Independence Services
John Hellerstedt, MD, Texas Department of State Health Services
Lisa Hollier, MD, Texas Department of State Health Services; Texas Maternal Mortality and Morbidity Task Force
Adriana Kohler, Texans Care for Children
Pamela McPeters, TexProtects

The following organizations/individuals provided public testimony:

Patrick Bresette, Children's Defense Fund-Texas
Molly Clayton, Texas Campaign to Prevent Teen Pregnancy
Krista Del Gallo, Texas Council on Family Violence
Evelyn Delgado, Healthy Futures of Texas
Sheryl Draker, Self
Jaime Estrada, Texas Doctors for Social Responsibility
Charlie Gagen, American Cancer Society Cancer Action Network
Kimberly Griffin, Nurse-Family Partnership
Rodolfo Morales Urby, Texas Doctors for Social Responsibility
Alissa Sughrue, National Alliance on Mental Illness of Texas

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Background

During the Texas Sunset Advisory Commission (Sunset) review of the state's health agencies in 2014, Sunset recommended consolidating the state's women's health programs to improve efficiency and effectiveness for clients and providers. As a result, the 84th Legislature directed the Texas Health and Human Services System consolidate the state's women's health services and appropriated an additional $50 million for the new programs. The Health and Human Services Commission (HHSC) subsequently developed a transition plan to redesign the Family Planning Program (FPP), and to consolidate the HHSC Texas Women's Health Program (TWHP) with the Department of State Health Services' Expanded Primary Health Care Program (EPHC) to create Healthy Texas Women (HTW).[4]

Senate Bill 495 (83R) created the Texas Maternal Mortality and Morbidity Task Force (Task Force) in 2013. The Task Force, embedded at DSHS, was created to study maternal mortality and morbidity rates in Texas, and identify trends in maternal mortality and ways to reduce preventable maternal deaths and complications.[5]

Statistics/Trend Data

Texas Statistics:

- Texas has the fourth highest birth rate in the United States;[6]
- Medicaid pays for more than half of the births in Texas;[7]
- Approximately 1.5 million, or one in five, Texas women of reproductive age are without health insurance;[8]
- Of the approximately 400,000 pregnant women in Texas in 2016, 34.6 percent of women reported their pregnancy was unintended, and they did not enter early prenatal care;[9]
- In 2016, 65.1 percent of Texas mothers entered prenatal care within the first trimester;[10]
- Texas has seen an increase in pre-pregnancy obesity, maternal diabetes, and maternal hypertension over the past decade;[11]
- One in ten Texas babies is born premature;[12]
- One in twelve Texas babies is born with low birth weight;[13] and
- Texas is tied with New Mexico for the fourth highest teen birth rate, and has the highest repeat teen birth rate in the United States; approximately three percent of Texas teens give birth each year.[14]

Trend data provided by DSHS and the Maternal Mortality and Morbidity Task Force regarding maternal mortality and morbidity in Texas:

- Black women bear the greatest risk for maternal death regardless of socioeconomic status, marriage, status, education level, or possession of private insurance;[15]
- Black women are at a higher risk of severe maternal morbidity (SMM) involving obstetric hemorrhage;[16]

- Hemorrhage and cardiac events are the two most common causes of death while pregnant or within seven days postpartum;[17]
- Obstetric hemorrhage is the leading cause of SMM;[18]
- The majority of maternal deaths occur more than 60 days postpartum;[19]
- In 2012 to 2015, drug overdose was the leading cause of maternal death from delivery to 365 days postpartum;[20]
- 68.5 percent of maternal deaths in 2012 were to women enrolled in the Medicaid program at the time of delivery;[21] and
- Almost 80 percent of pregnancy-related deaths were potentially preventable.[22]

Texas Women's Health Programs

Women's health initiative programs in Texas are primarily provided by the Health and Human Services Commission (HHSC) and the Department of State Health Services (DSHS). Programs include:

Healthy Texas Women

The Healthy Texas Women (HTW) program provides family planning services and women's healthcare services that contribute to preconception care and better birth outcomes to low-income women/families. HTW has been fully operational for just over one year. In Fiscal Year 2017, HTW served 132,464 clients and currently has over 220,000 women enrolled to receive services. Services are provided through 39 contracted providers with a total of 201 clinic sites across the state and 5,342 fee-for-service providers.

HTW developed and implemented an auto-enrollment feature for eligible women transitioning from Texas Medicaid for Pregnant Women to HTW. Pregnant women receive Medicaid coverage until approximately 60 days postpartum; the auto-enrollment feature ensures that eligible women transition into HTW coverage smoothly when their Medicaid coverage expires to provide a continuity of care for the woman and child. Since the auto-enrollment feature was implemented, approximately 3,500 women a month have been enrolled in HTW from Medicaid. The HTW benefit is one year long with the ability to re-enroll at the end of each year.[23]

HTW increased access for women by expanding eligibility to 15-44 year olds, sterilized women, and women up to 200 percent of the federal poverty level (FPL). TWHP clients were automatically enrolled into the new HTW program at its launch.[24]

Family Planning Program

The redesigned Family Planning Program (FPP) provides family planning services to women and men. Covered services for women are similar to HTW, with the addition of limited prenatal benefits. To be eligible for the redesigned FPP, women and men must be 64 years of age or younger, a Texas resident, and have a household income at or below 250 percent FPL.[25]

FPP contracts with entities including family planning clinics, local health departments, federally qualified health centers (FQHCs), hospital districts, community-based organizations, and

university-based systems to provide direct clinical services to eligible clients. FPP had 53 contracted providers over 258 clinic sites, and served 97,653 women and men during FY 2017.[26]

Better Birth Outcomes

HHSC facilitates the Better Birth Outcomes (BBO) initiatives which seek to meet a woman's healthcare needs and positively impact her ability to have a healthy pregnancy and baby. BBO initiatives focus on the life course perspective, and providing services and care to families before, during, and after pregnancy. Texas currently has over 30 BBO initiatives being implemented across the state and each BBO, in addition to education and outreach, includes the provision of screening, diagnosis, and treatment services.

One specific BBO initiative is the Healthy Families pilot program which is a collaboration between HHSC, DSHS, and UTHealth East Texas in the Tyler area. Healthy Families is currently in year two of the pilot which targets the heightened risk factors for maternal mortality and morbidity in African American women. The program works with the community by interviewing patients, families, and doctors to determine where gaps or missteps in services occurred in specific cases and how those gaps can be closed.

Breast and Cervical Cancer Services

The Breast and Cervical Cancer Services (BCCS) program funds clinic sites across the state to provide quality, low-cost, and accessible breast and cervical cancer screening and diagnostic services to women. In FY 2017, BCCS contracted with 38 entities for a total of 230 clinic sites, and served 32,092 women. If a positive diagnosis is made, BCCS handles the Medicaid case management to enroll eligible women into the Medicaid treatment program.

BCCS contractors are the point of access for the Medicaid for Breast and Cervical Cancer (MBCC) program regardless of how the client was diagnosed with cancer.[27]

Nurse-Family Partnership

The Nurse-Family Partnership (NFP) is a home-visiting program targeting low-income, first-time mothers that provides services from the first trimester through the child's second birthday. According to the Texas Department of Family and Protective Services (DFPS) data, 87.5 percent of all NFP clients showed a decrease in marijuana or alcohol use from the time of intake to the end of pregnancy and 100 percent of babies born to NFP clients were up-to-date with their vaccinations at age 1. Other research showed that moms who participated in NFP had 35 percent fewer cases of pregnancy induced hypertension and 18 percent fewer pre-term births compared to similar low-income mothers nationally. Long-term national results for NFP cases up to 18 years after a child's birth show an 89 percent increase in maternal employment, a 68 percent increase in father involvement, and a 48 percent decrease in child maltreatment.[28]

Level of Care Designations for Neonatal and Maternal Care

The passage of House Bill 15 (83R) added hospital level of care designations for neonatal and maternal care. HHSC currently has 131 neonatal levels of care hospitals participating and just launched the maternal levels of care designation for hospitals that want to participate. These levels of care designations are the first step to ensuring moms and babies are receiving appropriate care while in the hospital.[29]

TexasAIM

DSHS is working with the Alliance for Innovation on Maternal Health (AIM) and the Texas Hospital Association (THA) on developing the TexasAIM initiative. The primary goal of TexasAIM is to help hospitals and clinics execute the maternal safety projects required by Senate Bill 17 (85(1)).

DSHS is collaborating with the Texas Medical Association (TMA) and THA as a part of TexasAIM to adopt maternal clinical care protocols or "maternal safety bundles" for the care of women in an inpatient setting during delivery. TexasAIM maternal safety bundles are a collection of best-practices for improving maternal care. The state has implemented an Obstetric Hemorrhage Bundle and is rolling out an Obstetric Care for Women with Opioid Use Disorder Bundle pilot in certain areas and hospitals. The next bundle to be introduced will be the Severe Hypertension in Pregnancy Bundle.

DSHS currently has 189 participating birthing hospitals, which account for over 80 percent of deliveries in the state. Participation in the implementation of the maternal safety bundles is voluntary on the part of the hospital, and the medical staff can decide whether or not to use the bundles. Health outcome measures and clinical data regarding the success of the bundles are expected to be available within the next two to three years.[30]

Texas Maternal Mortality and Morbidity Task Force

A report published in Obstetrics and Gynecology Journal in 2016 entitled *Recent Increases in the U.S. Maternal Mortality Rate,* stated that during 2012, Texas experienced an anomalous spike in the reported number of maternal deaths,[31] with 147 obstetric-related deaths.[32] The reported maternal mortality rate in 2012 was approximately 38 maternal deaths per 100,000 deaths; the rate after DSHS performed their enhanced review was approximately 14 per 100,000.

Following the release of the 2016 report regarding the high rate of maternal deaths in 2012, DSHS staff developed an enhanced case review method using both data matching and record review to verify pregnancy or delivery in reported maternal deaths within one year of delivery.[33]

The accurate calculated maternal mortality rate by DSHS of 14.6 percent, recognizing that not every state calculates maternal mortality using the same methodology, places Texas near the average maternal mortality rate for the United States.[34]

Specifically, the Task Force identified 89 cases of maternal deaths in 2012 that reportedly occurred during pregnancy or within 365 days postpartum. Each case underwent a multi-disciplinary review to determine the causes and contributing factors to death, pregnancy-relatedness, and preventability. Of the 89 cases identified by the Task Force, 34 were determined to be pregnancy-related. The anomalous spike was determined by DSHS to be erroneous due to an error in the medical certification process in Texas where the medical examiner recorded a woman as pregnant on her death certificate when, in fact, she was not.

The Task Force identified 178 factors that contributed to the 34 cases identified as pregnancy-related deaths in 2012, with an average of just over five contributing factors per case. The large

number of contributing factors were divided up into four primary groups: individual and family factors; provider factors; facility factors; and system and community factors.[35]

Substance Use

Due to substance use disorders being a growing public health concern, HHSC and DSHS have also taken steps to ensure women have access to intervention and treatment services before, during, and after pregnancy. In May 2017, HHSC was awarded $27.4 million to combat opioid disorders through the Texas Targeted Opioid Response (TTOR) grant provided by the Substance Abuse and Mental Health Services Administration (SAMSHA).These initiatives include:

- Pregnant Postpartum Intervention (PPI) programs provide community-based, gender-specific outreach and intervention services for pregnant women and parenting individuals living with, or at risk for developing, a substance use disorder.
- HHSC expanded the Medicaid substance use screening benefit in July 2016 to include screening, brief intervention, and referral to treatment.
- The Mommies Program, an integrated and collaborative model of care, has shown to reduce expensive newborn hospital stays and supports family preservation through addressing the issue of substance use in the NICU setting. Historically, once a mother with a substance use disorder delivered her baby, she was not able to stay with her baby because of potential substance use criminal charges. Through the Mommies program, the mom receives the necessary substance use treatment services while being able to stay and bond with her child. Early program results indicate a 33 percent reduction in the child's length of stay in the NICU. The program began as a pilot program in San Antonio and has now been expanded.
- The Office of Disability Prevention for Children (ODPC) is an education and outreach based program that works to prevent developmental disabilities or minimize the losses developmental disabilities cause in infants and young children. ODPC is the successor of the former Texas Office for the Prevention of Developmental Disabilities (TOPDD). ODPC has five general areas of focus, one being prevention of disabilities caused by prenatal alcohol or substance exposure as exposure can cause birth defects and premature intellectual and developmental disabilities (IDD).[36]

Challenges

- A complex set of factors is associated with maternal death, underscoring the continued need for detailed review of maternal deaths.
- Lack of education on the importance of good health and prenatal care.

Recommendations

- Promote implementation of maternal safety initiatives statewide by encouraging hospital participation in new TexasAIM maternal safety bundles. Consider including stipends for hospitals that may need additional resources to implement AIM, for a culture of safety and high reliability through application of best practices in birthing facilities.
- Promote care coordination and management for pregnant women and postpartum women through education, screening and appropriate referrals for maternal risk conditions, targeting high-risk populations, and championing integrated care models for services.
- Promote the use of risk assessment tools for identification of maternal risk factors during routine prenatal care.
- Promote awareness campaigns to enhance provider and community understanding about maternal risk factors, particularly for the highest at-risk population, and related preventative measures to promote healthy behaviors and prenatal care, and to emphasize the dangers of abusing opioids and other substances including alcohol and illicit drugs while pregnant and in caretaking of a child.
- Enhance outreach to eligible new mothers regarding their auto-enrollment in HTW once maternal Medicaid coverage expires; women are currently notified of enrollment through a letter sent through the US Postal Service.
- Consider establishing auto-enrollment for eligible young women aging out of Children's Medicaid and Children's Health Insurance Program into Healthy Texas Women.
- Continue to support tobacco prevention and cessation programs to reduce tobacco-related healthcare costs.
- Support strategies to improve the maternal death review process.
- For accuracy in correct cause of death declarations, require training programs for anyone who has the authority to issue a death certificate's cause of death but is not a medical professional to ensure the person knows what the symptoms and conditions are in an overdose fatality and determination of pregnancy.

CHARGE 2 – TRAUMATIC BRAIN INJURY, ALZHEIMER'S, AND DEMENTIA

The hearing related to treatment of traumatic brain injury, and Alzheimer's disease and dementia, and exploring opportunities for advancements in treatments and cures was held on April 19, 2018 at 10:00am in Austin, Texas in the Capitol Extension, Room E2.012.

Charge 2 – Study treatment of traumatic brain injury, Alzheimer's, and dementia, and recommend opportunities for advancing treatment and cures.

The following organizations/individuals were invited to testify:

Hunt Batjer, MD, UT Southwestern Medical Center; Texas Institute for Brain Injury and Repair
John Bertelson, MD, Seton Brain & Spine Institute
Jane Boutte, Texas Health and Human Services Commission; Texas Brain Injury Advisory Council
Marc Diamond, MD, UT Southwestern Medical Center; Center for Alzheimer's and Neurodegenerative Diseases
Rustin Dudley, Legislative Budget Board
Lesley French, JD, Texas Health and Human Services Commission; Developmental and Independence Services
Manda Hall, MD, Texas Department of State Health Services; Community Health Improvement Division
Debbie Hanna, University of Texas System; Texas Council on Alzheimer's Disease and Related Disorders
Jamey Harrison, EdD, University Interscholastic League
Michelle Neumann, Texas Assisted Living Association
Marcia Ory, PhD, MPH, Texas A&M University Health Science Center
Melissa Sanchez, Alzheimer's Association
Trevor Simmons, Legislative Budget Board
Spanky Stephens, Texas State Athletic Trainers Association
Leanne Young, PhD, UT Dallas; Brain Performance Institute

The following organizations/individuals provided public testimony:

Jenny Denk, Brookdale Hospice
Randy Spence, Texas Association for Behavior Analysis Public Policy Group

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Alzheimer's Disease and Dementia

Background

"Alzheimer's is the most under-recognized threat to public health in the 21st century" according to Dr. David Satcher, former U.S. Surgeon General and CDC Director.[37] Over five million Americans and 400,000 Texans are currently affected by Alzheimer's disease and the medical costs to Texas associated with the disease is approximately $20 billion per year,[38] $232 billion per year nationwide. A primary cost driver is lost wages due to a caregiver's time away from work.[39] The incidence of the disease is expected to triple over the next 30 years as the population ages.[40]

Statistics

United States Statistics:

- Alzheimer's disease is the sixth leading cause of death in the United States;[41]
- Every 65 seconds someone in the United States develops Alzheimer's disease;[42]
- An estimated 5.7 million Americans are living with Alzheimer's disease;[43]
- Approximately 200,000 Americans have early-onset Alzheimer's disease, meaning the patient is under the age of 65;[44]
- One in five women 45 years of age or older will develop Alzheimer's disease;[45]
- Alzheimer's disease deaths in the United States increased 123 percent between 2000 and 2015, while heart disease, stroke, and prostate cancer deaths decreased over the same time period;[46]
- By the year 2050, someone in the United States will develop Alzheimer's disease every 33 seconds,[47] equating to approximately 11-16 million people being affected;[48]
- Nearly half of people with Alzheimer's disease nationally are not diagnosed, and of those diagnosed, only 45 percent of the patients or their caregivers are actually aware of the diagnosis;[49]
- The United States has approximately half of the number of geriatricians needed to, not only, care for patients with Alzheimer's disease, but the entire aging population;[50] and
- Four percent of social workers have a formal certification in geriatric social work.[51]

Texas Statistics:

- Texas ranks fourth in the country for number of people living with Alzheimer's disease;[52]
- By the year 2025, Texas is predicted to be number three in the country, with almost 500,000 people living with Alzheimer's disease;[53]
- Texas is number two in the United States in number of unpaid Alzheimer's caregivers with 1.4 million;[54]
- In Texas, over 300,000 people are living with dementia;[55]
- 44 percent of people living in assisted care facilities in Texas have dementia;[56] and
- Of the 254 counties in Texas, less than 25 percent have a single practicing neurologist.[57]

State Funding

Article II:

- Texas Health and Human Services Commission – Appropriations for the Medicaid and CHIP programs may be used to serve clients who have Alzheimer's or dementia, but cannot be isolated. Such services include but are not limited to trainings at nursing facilities for staff geared to improve care for individuals with Alzheimer's or dementia and programs at nursing facilities to improve the quality of life of individuals with a diagnosis of Alzheimer's disease or dementia.
- Texas Department of State Health Services – Alzheimer's Disease Program funds appropriated were $160,000 in general revenue for the 2018-19 biennium; program entails increasing awareness of Alzheimer's disease through education, referrals, promoting education on dementia-friendly communities, supporting the Texas Council on Alzheimer's Disease and Related Disorders, and collaborating in statewide strategic planning.

Article III – Health Related Higher Education Institutions:

- UT Austin / UT System Administration, Darryl K Royal Texas Alzheimer's Initiative, Texas Alzheimer's Research and Care Consortium (TARCC), funds appropriated were $6.4 million in general revenue funds for the 2018-19 biennium.
    - Total funds distributed to the TARCC institutions from 2005 through 2017 equals $35 million in general revenue funds.
- UT Health Science Center at San Antonio - Barshop Institute for Longevity and Aging Studies - Alzheimer's Research, funds appropriated were $8.8 million in general revenue funds for the 2018-19 biennium.
- University of North Texas Health Science Center Alzheimer's Diagnostic and Treatment Center, funds appropriated were $1,121,016 in general revenue funds for the 2018-19 biennium.[58]

Brief Explanation of Alzheimer's Disease and Dementia

Alzheimer's disease occurs because of the accumulation of a protein called tau in the brain. Tau is naturally occurring and as one ages, the protein accumulates. Alzheimer's symptoms arise when tau forms aggregates in brain cells, referred to as tau pathology, and causes neurodegeneration. Tau pathology can be developed through an abnormal tau accumulation, environmental effects such as head trauma, and mutations in the tau protein gene that guarantee contraction of the disease.

Dementia is an "umbrella" term that encompasses Alzheimer's disease.[59] Alzheimer's is the cause of the symptoms of dementia in a person. Alzheimer's is separate from other dementias because the disease presents differently, has different symptoms, and can cause its own challenges. A primary difference between Alzheimer's and other dementias is people with Alzheimer's do not recognize or understand they have a problem which can make following a treatment plan or the advice of a clinician difficult.[60]

Research Developments

Dr. Diamond at UT Southwestern Medical Center (UTSW) developed the idea that tau protein aggregates form in one region of the brain and move from cell to cell like a virus, offering an explanation for why dementias progress through the brain and why so many different types of dementia exist. His idea presents a new way of thinking about attacking the tau protein by targeting the tau as it moves between brain cells, not just from inside the cell.

Dr. Diamond co-developed a therapeutic vaccine for Alzheimer's and Progressive Supranuclear Palsy, now in Phase II clinical trials. The vaccine uses the immune system to attack tau aggregates as they move between the brain cells. Another new type of genetic therapy being tested is called an "antisense oligonucleotide" which has allowed doctors to apparently halt otherwise fatal neurodegeneration in children. This type of therapy is now being tested for Alzheimer's and related neurodegenerative diseases.

Dr. Diamond built a multidisciplinary team at the UTSW Center for Alzheimer's and Neurodegenerative Diseases (Center) with the goals of finding a treatment for Alzheimer's disease and related dementias, and developing diagnostic tests that could predict the disease in healthy people. The Center conducts studies, performs research, and provides treatments based on the knowledge that once a patient shows symptoms, much damage to the brain has already occurred.

The Center has three components, the clinic, basic research, and translational science. The Clinic sees patients with cognition and memory issues, and offers the best available care and access to the latest clinical trials.

Detecting problems pre-symptomatically before cognitive problems arise is essential. Due to a dedicated drug discovery effort on campus in collaboration with the pharmaceutical industry and biotechnology companies, the Center completed a massive screening of compounds to find those that bind with the tau protein. Using the data collected, the Center has begun developing the equivalent of a flu shot for Alzheimer's disease designed to trigger and immune attack on the pathological forms of tau, while sparing the normal forms. Dr. Diamond is optimistic that the vaccine will move to the clinical trial stage within the next 18 months.[61]

The Center for Brain Health at the UT Dallas Brain Performance Institute's work on Alzheimer's disease focuses on prevention. Dr. Young testified that providing research and educational materials to the public regarding the importance of maintaining a healthy brain is a best practice in combatting the Alzheimer's epidemic. The Center for Brain Health is educating the public about brain health much like the public health campaigns that began in the 60s regarding the importance of heart health and heart disease prevention. Dr. Young explained that Alzheimer's can be addressed to a large degree, through prevention measures including public health campaigns highlighting the importance of heart health, exercise, a balanced diet, and not smoking.

Additional studies at the Center for Brain Health show that through cognitive training, between two and three decades worth of cerebral blood flow can be restored to the frontal lobes of the brain. Also, training can restore brain efficiency to a level where an elderly person could be able to do the same cognitive tasks the person could do when they were younger, and just as quickly.[62]

Care Providers

Statistics Regarding Caregivers:

- Every year in the United States, 16 million family members and other unpaid caregivers provide 18 billion hours of care to their loved ones, valued at $232 billion;[63]
- 40 percent of caregivers of patients with Alzheimer's disease have depression;[64]
- Three in ten Alzheimer's disease caregivers cannot regularly afford their own meals;[65] and
- 25 percent of caregivers are caught in the middle of caring for their children and their elderly parents.[66]

Dr. Bertelson, a clinician and faculty member at both Texas Tech University and University of Texas Austin Schools of Medicine, emphasized the importance of understanding how Alzheimer's disease is different from many other chronic diseases. Differences include:

- In contrast to many other diseases, people with Alzheimer's usually do not realize they have a problem and deny symptoms, making it difficult for caregivers to keep their loved one safe.
- Alzheimer's disease has a disproportionally large impact on the life and health of caregivers. Compared to caregivers of other diseases, caregivers of patients with Alzheimer's are more likely to cut back on work, leave the workforce all together, lose benefits, and become sick themselves. Alzheimer's disease caregivers also have higher rates of depression, greater out-of-pocket healthcare costs, and higher mortality rates.
- Access to professional caregivers and providers specializing in Alzheimer's disease is more limited than in most other medical fields. Dr. Bertelson discussed that in the Austin area, two neurologists specialize in dementia, resulting in a wait list for months for new patient appointments. The access issue is only exacerbated in rural communities that have even less resources. Dr. Bertelson also informed that geriatric psychiatrists in Texas are equally busy and many memory care facilities exist, but residents must be able to spend $6,000 or more per month for a room.[67]

The Center for Population Health and Aging at Texas A&M University Health Science Center focuses efforts on services and programs for caregivers. Dr. Ory reported that caregivers often face their own health challenges as a result of the time and effort required to provide care for a person or loved one suffering from Alzheimer's disease or another form of dementia. She elaborates the negative impacts on caregivers include: physical impacts - sleep disturbance and decreased immune system functioning; emotional impacts – anxiety, stress, and depressive symptoms; social impacts – social isolation, strain on social support network, and limited opportunity to pursue activities; and financial impacts – out-of-pocket medical costs, costs for assistance care, and the inability to maintain stable employment. In recognition of the difficulties associated with being a caregiver for a loved one with Alzheimer's or another form of dementia, the Center for Population Health developed an evidence-based solution prototype of a system used to address the immediate need for public information and resources regarding caregiving, provide resources to help family caregivers, and mobilize the broader community around the caregiving effort, called Texas Cares.

Texas Cares is comprised of three initiatives:

- Texas Talks Alzheimer's is an online resource including a series of videos, story driven education pieces, and links to community resources all aimed at providing meaningful education to caregivers.
- GamePlan4Health provides online personalized feedback to increase caregiver skills and has the option for a caregiver to pair with a dementia specialist to discuss and ask questions about more challenging issues.
- Dementia Friendly Texas involves relevant members of the community, including service providers, nursing and assisted living homes, local leaders, etc., to work together to determine how to address caregiving in the community.[68]

Organizations and State Programs

Alzheimer's Association

The Alzheimer's Association (Association) is the nation's leading voluntary health organization in Alzheimer's disease care, support, and research. The Texas branch has served the state for 30 years and operates sixteen regional offices serving every county in the state via outreach and education services.

The resources provided by the Association include, care planning, safety services, early-stage engagement programs, community and professional education programs, and a 24/7 helpline available in over 200 languages. The Association also offers support group programs for early-onset patients and their families but recognizes a service gap exists for early-onset patients and the need for more resources for this sub-population.

Currently, the Association is working with the CDC to redefine Alzheimer's disease as a public health crisis. A series of road maps called *The Healthy Brain Initiative: The Public Health Road Map* promote cognitive health as a vital, integral component of public health.

The Association explained data collection as an essential public health tool for insight into the prevalence of the disease, health risk factors, preventative health behaviors, and the burden of particular diseases and conditions. The Behavioral Risk Factor Surveillance System (BRFSS), established in 1984, is a proven data collection tool currently used in every state in the country. The BRFSS is a phone survey conducted annually by state health departments. The Alzheimer's Association has historically funded half or all of the costs to run the two Alzheimer's and dementia related modules in the Texas BRFSS with grant money from the CDC because the full costs are not typically covered by DSHS.

According to the Association, best practices regarding the treatment of Alzheimer's disease focus on ensuring the patient, caregiver, and treating physician are each aware of the diagnosis and have the ability to dedicate time to develop a long-term care plan with the patient and caregiver. The Centers for Medicare Services (CMS) implemented a new Cognitive Impairment Care Planning billing code effective in January of 2018. Under the new code, Medicare covers planning services

for individuals with cognitive impairments, including Alzheimer's, and makes long-term care planning a billable service for the physician. The new billing code was implemented in Medicare to allow physicians time to educate and develop a long-term care plans with patients and caregivers within the confines of a normal office visit.[69]

Texas Department of State Health Services

The Texas Department of State Health Services (DSHS) oversees initiatives regarding Alzheimer's disease through three primary programs: the Alzheimer's Disease Program, the Texas Council on Alzheimer's Disease and Related Disorders, and the Texas Alzheimer's Disease Partnership.

- The Alzheimer's Disease Program was established to increase awareness of Alzheimer's disease, address both the burden of living with the disease and providing care to someone living with the disease, and support the Texas Council on Alzheimer's Disease and Related Disorders and the Texas Alzheimer's Disease Partnership.
- The Texas Alzheimer's Disease Partnership (Partnership) is a volunteer network committed to creating and maintaining a state plan for the prevention and treatment of Alzheimer's. Texas was one of the first states to create such a partnership and develop a state plan. The Partnership authored and implemented the 2010-2015 Texas State Alzheimer's Plan which provides an overview of the state of Alzheimer's in Texas and recommends strategies on how to address key areas of concern surrounding the disease, including science, prevention, brain health, disease management, caregiving, and infrastructure. The Plan expired in 2015 and a new plan has not been developed, however, Dr. Hall informed the Committee that DSHS will be reaching out to the Partnership and the Council to begin developing a new State Plan with the goal of having a draft completed by the first of 2019.[70]
- The Texas Council of Alzheimer's Disease and Related Disorders established by House Bill 1066 (70R) was created to: advise the department and recommend needed action for the benefit of persons with Alzheimer's disease and related disorders and for their caregivers; coordinate public and private family support networking systems for primary family caregivers; disseminate information on services and related activities for persons with Alzheimer's disease and related disorders to the medical and healthcare community, the academic community, primary family caregivers, advocacy associations, and the public; coordinate a volunteer assistance program primarily for in-home and respite care services; encourage research to benefit persons with Alzheimer's disease and related disorders; recommend to DSHS disbursement of grants and funds available for the Council; and facilitate coordination of state agency services and activities relating to persons with Alzheimer's disease and related disorders. The Council releases a biennial report by September 1 every even-numbered year.[71]

Texas Alzheimer’s Research and Care Consortium

The Texas Alzheimer’s Research and Care Consortium (TARCC) was established by the Texas Council on Alzheimer’s Disease and Related Disorders in 1999 to create a collaborative Alzheimer’s research effort between medical schools in the state. TARCC currently includes nine Texas medical schools - eight public and one private school. TARCC members established a comprehensive research cohort of well characterized subjects to address better diagnosis, treatment, and ultimately prevention of Alzheimer’s disease.

Ms. Hanna discussed the inaugural TARCC Investigator Grant Program in 2014 was initiated to provide direct financial support to Texas researchers who perform novel research and discovery of developing therapies for Alzheimer's disease.[72] In 2017, TARCC made the decision to alter the Grant Program to focus on specific, peer-reviewed Alzheimer's proposals. TARCC has approximately $6.4 million to award in research grants for the 2018-19 biennium, which is estimated to be able to fund between five and ten proposals.[73]

Texas Assisted Living Association

The Texas Assisted Living Association (TALA) estimates that by 2050, as many as 16 million Americans could be affected by Alzheimer’s disease. As those numbers continue to climb, Ms. Neumann representing TALA emphasized that organizations and service providers like TALA must continue to raise awareness and increase support for research surrounding the disease. TALA members offer a diverse array of living arrangements that offer a continuum of care for dementia patients including independent living, assisted living, memory care, skilled nursing, and hospice.

One way TALA is committed to raising awareness for dementia is through the Virtual Dementia Tour (Tour). The Tour is given by TALA free-of-charge and allows participants to feel impaired. The Tour simulates how a person living with dementia performs in an everyday environment. Tour participants wear glasses that impair vision, a headset that causes difficulty in hearing and projects random noises that emulate auditory hallucinations, gloves that interfere with tactile perception, and shoe inserts that affect balance and simulate peripheral neuropathy. The participants are then asked to perform several tasks in a controlled environment; most people are unable to complete all of the tasks and many do not complete any tasks at all. After the simulation is complete, the participant takes part in a debriefing where they are asked questions about their experience. The goal is to provide a deeper connection to people living with dementia and increase awareness and understanding of the cognitive decline process.

TALA is also using the research garnered from the Tour to improve designs in long-term care facilities. TALA has learned that lighting, color, transitional spaces, flooring, and even handrail design can play a role in how residents interact with their environment.[74]

Challenges Related to Alzheimer's and Dementia

- Growing number of people affected by Alzheimer's disease and dementia.
- Cost for continued research.
- Cost of care.

- Negative impacts on caregivers of patients with Alzheimer's and dementia.
- Access to caregivers and providers specializing in Alzheimer's and dementia.
- Lack of medical professionals specializing in Alzheimer's and dementia.
- Services gap for early onset patients.

Traumatic Brain Injury

Background

Traumatic brain injury (TBI) is a form of acquired brain injury caused by an external force that disrupts the normal function of the brain - meaning an injury that occurred after birth, is not related to congenital or degenerative disease, and can cause temporary or permanent impairments that result in physical, emotional and/or intellectual disabilities.[75]

Statistics

- According to CDC data, each year in the United States over 2.5 million individuals sustain a TBI;[76]
- Each year in the United States, more people are diagnosed with an acquired brain injury than the number of people diagnosed with Alzheimer's disease, breast cancer, HIV/AIDS, prostate cancer, lung cancer, and amyotrophic lateral sclerosis (ALS) combined;[77]
- 12 percent of the population is estimated to sustain a TBI;[78]
- Age populations that are most likely to visit the emergency room due to a sustained TBI include:
    - Children ages 0-4;
    - Adolescents ages 15-19;
    - Elderly adults ages 75 and up (this group represents the highest rates of TBI-related hospitalizations and deaths among all age groups);[79]
- Men are nearly three times more likely to sustain a TBI than women;[80]
- An estimated 10-20 percent of armed forces veterans have sustained a TBI;[81]
- The prevalence of TBI in domestic violence survivors is over 35 percent;[82]
- The prevalence of TBI in the homeless population is between 30-40 percent;[83] and
- The estimated prevalence of TBI in imprisoned populations is 60.3 percent.[84]

State Funding

Article II:
Texas Health and Human Services Commission:

- Comprehensive Rehabilitation Services Program funds appropriated were $47.6 million in general revenue funds ($47.8 million all funds) for the 2018-19 biennium. The program is expected to serve an average of 506 clients per month.

- Office of Acquired Brain Injury funds appropriated were $500,000 in general revenue for the 2018-19 biennium.
- Veterans Recovery Pilot Program was established to provide diagnostic services, hyperbaric oxygen treatment, and support services to eligible veterans with post-traumatic stress disorder or TBI. The Pilot is funded by gifts, grants, and donations. Enacting legislation provides that HHSC may not operate the program with insufficient funding for program administration and HHSC has indicated that $1 million in donations would be needed before the program can be fully implemented. As of April 12, 2018, the account balance totaled $1,204.

Texas Department of State Health Services:

- Office of Injury Prevention which maintains the five EMS Trauma registries, funds appropriated were $225,000 in general revenue ($1.124 million all-funds) for the 2018-19 biennium.

Texas Department of Family and Protective Services:

- The Safe Baby Campaigns is a section of the Prevention and Early Intervention Program (PEI) which funds projects designed to monitor and prevent the incidence of babies suffering from injuries related to abusive head trauma. The Campaign has established a five-year, $5.8 million contract for UT Health Northeast to partner with the UT System, Baylor College of Medicine, and other hospitals for research, direct service delivery, and evaluation from FY 2016-2020. The partnership goal is to provide prevention services to over 3,000 families over the five-year period. Safe Baby Campaigns funds appropriated were $1.8 million in general revenue for the 2018-19 biennium.

Article III:
Health Related Higher Education Institutions:

- UT Southwestern Medical Center Texas Institute for Brain Injury and Repair funds appropriated were $6,840,000 in general revenue funds for the 2018-19 biennium.[85]

Research

Prevention, Recognition, and Intervention
According to testimony provided by Dr. Batjer of UT Southwestern Medical Center (UTSW), concussions do not occur more frequently now, but concussions are now diagnosed more conservatively. A person used to have to actually lose consciousness to be considered "concussed;" science has now proven that is not always the case.[86]

Best practices regarding the prevention and treatment of TBI in sports, presented by Dr. Batjer, must take into account the immediate impact that National Football League (NFL) implemented policies have on school-age and pee wee football. In the article, *National Football League Head, Neck and Spine Committee's Concussion Diagnosis and Management Protocol: 2017-18 season,*

published in the British Journal of Sports Medicine, the Head, Neck, and Spine Committee (of which Dr. Batjer is a member) discusses diagnosing a concussion or head injury during play or practice. The NFL has high resolution cameras focused on the face of each player so that when a player gets hit the cameras can recognize signs that the player sustained a concussion. Technology like this is not possible in high school; however, high school teams have athletic trainers who know their players and their typical behaviors. Therefore the trainers should be able to notice the signs of a concussion and perform an exam for a student athlete exhibiting behavioral concerns. Dr. Batjer also expressed the need for a procedure for parents, in the event a potential concern is identified with their child, to ensure the student athlete is examined.[87]

Dr. Batjer informed that ten percent of injuries do not become symptomatic on the day of impact; therefore, continued care and monitoring is critically important for student athletes suspected of having sustained a concussion. Once a diagnosis is made, the proven protocol for a student athlete to regain full cognitive stimulation is the multi-step process of "Return-to-Learn" and "Return-to-Play." This approach works better than the traditional treatment of isolating the student athlete with no stimulation because the shift from the active lifestyle of a student athlete to no stimulation at all is too dramatic and can cause further damage to the individual.

Beginning in August of 2019, University Interscholastic League (UIL) is requiring all football coaches in grades 7-12 to obtain certification in the best practices of teaching tackling using the “hawk tackling” method.

ConTex Statewide Concussion Registry

The Texas Institute for Brain Injury and Repair (TIBIR) at UTSW explores the full spectrum of brain injuries from stroke to spinal cord injuries, with a primary focus on traumatic brain injury. TIBIR’s leading efforts are in preclinical and clinical research targeting treatment for brain injuries and the development of the ConTex Statewide Concussion Registry (ConTex).[88]

ConTex is a regional and statewide concussion research initiative that was established by TIBIR and developed in collaboration with UIL. ConTex is one of the first statewide concussion registries in the United States. The project documents and tracks the incidence of concussions, examines injury characteristics, and identifies risk factors among school-aged athletes.[89]

ConTex began in North Texas and has grown to include 2,555 reports of known or suspected concussion incidents from 75 school districts in Texas. TIBIR has 325 more districts indicating a willingness to participate in ConTex.

The third generation of the program, ConTex 3, will continue to educate school districts on the importance of concussion research and of implementing concussion protocols in their schools. The program will utilize a new phone app for athletic trainers to use for quick and easy input of the concussion data into the Registry when a student is injured. Dr. Batjer and his team, in conjunction with UIL are advocating to make the registry mandatory for high schools.[90]

Recent Legislation Specific to School Athletics

House Bill 2038 (82R), known as Natasha's Law, granted authority to local school boards to designate a concussion oversight team comprised of licensed healthcare professionals to develop a Return-to-Play protocol for student athletes who are suspected of having sustained a concussion.[91] Mr. Stephens, Executive Director of the Texas State Athletic Trainers Association, testified that the original thought process regarding athletic concussions was an athlete with a fracture or dislocated shoulder would have to sit out of practice and competition longer than an athlete who had sustained a concussion.

Natasha's Law was the impetus for changing that mindset and causing athletes, trainers, coaches, and parents to understand the gravity of concussion events. Natasha's Law empowered school trainers and coaches with the legal ability to respond to a suspected concussion using a predetermined protocol for pulling the athlete out of competition and performing an assessment. The bill was also a catalyst for the alliance formed between the UIL, the Athletic Trainers, and UTSW that has helped spread concussion awareness to spheres even outside of public education and school athletics.[92]

Dr. Harrison emphasized that Natasha's Law gave the force of law to enhancing a school's approach to head injuries as opposed to the UIL simply enforcing a rule. This has been crucial to the education and development of concussion protocols in schools throughout the state. The UIL sanctioned Cheerleading as a state championship sport in 2013, ensuring the concussion safety standards are now in place for cheerleaders.

Dr. Harrison, Deputy Director of UIL, highlighted that the UIL has had a medical advisory committee in place since 2001, and that every recommendation to come out of the committee has been adopted by the UIL rulemaking council. One specific rule adopted by the council states that all schools must adopt the Return-to-Play concussion management protocol developed and recommended by the Brain Injury Association of America and the American Academy of Neurology in 2003. The council then adapted the rule to include the recommendations from the National Federation of High School Associations Sports Medical Advisory Committee in 2005. [93]

Treatment and Recovery

The Center for Brain Health at the Brain Performance Institute at UT Dallas focuses on the neuroplastic properties of the brain; these properties allow one's brain to make improvements and be made healthier even after experiencing a TBI or other forms of brain damage. The research by the Center for Brain Health aims to empower people to understand, protect, heal, and enhance his/her brain.

Dr. Young explained that brains are at peak health when a person is 35-40 years old; after that all brains naturally decline.

Studies conducted by the Center for Brain Health on the effects of cognitive training on the adult brain have found that months and even years after a person has suffered a TBI, people who are still symptomatic can recover in terms of cognitive development, depression, and stress.

The Center for Brain Health has conducted studies on adolescents who have experienced a TBI and found that the timing of an injury is very important in understanding how a child can recover and when in the child's lifetime those symptoms are at risk for showing up again. The studies concluded that oftentimes, after recovering from an acute TBI that occurred at a young age, a child becomes symptomatic again during middle school years, when such symptoms of TBI can be overlooked and written off as typical teenage behavior, causing the brain damage to go untreated. For this reason, brain protection, cognitive training, and ongoing assessments are imperative to maintaining brain health after a child sustains a TBI.

Cognitive training programs developed by the Center for Brain Health are administered to the veteran community and current members of the military via virtual reality simulations.[94]

Texas Health and Human Services Commission

Programs offered by the Texas Health and Human Services Commission (HHSC) regarding traumatic brain injury include:

- The Office of Acquired Brain Injury is Texas' resource for providing education, awareness, prevention, and service referral information regarding brain injury for survivors, families and caregivers, brain injury service providers, military service members and veterans, and state, federal, local, and private agencies.
- Texas Brain Injury Advisory Council established in 1997, was created to address strategic planning, policy, rules, and services to prevent brain injury and provide rehabilitation and long-term services and supports for people who have survived brain injuries to improve their quality of life and ability to function independently in the home and community. The Council files an annual report with the Executive Commissioner and releases a biennial report by December 1 of each even-numbered year.[95] Regarding recovery from TBI in general the Texas Brain Injury Advisory Council recommends two levels of care: post acute brain injury rehabilitation, and long-term care services and supports. Post acute brain injury rehabilitation involves transitional inpatient residential rehabilitation and intensive day neuro rehabilitation.[96]
- Comprehensive Rehabilitative Services serve eligible patients who have TBI and/or traumatic spinal cord injury with the goal of helping patients achieve a greater level of independence.
- Medicaid and CHIP services programs address brain injuries by providing health benefits, long-term care services, information and referral, prevention services, and provider education.[97]

Challenges Related to TBI

- A child's nervous system is not fully myelinated (their nerves are not yet fully insulated) until adulthood, and therefore, if a child sustains a concussion that is not diagnosed or

properly treated and then sustains another injury before the child is fully healed, the outcome can be fatal.
- Parent pushback for taking their children out of competition.
- Lack of education and knowledge regarding ill effects.

Recommendations

Alzheimer's Disease and Dementia:
- Encourage more medical professionals, including nurses, doctors, and social workers, to specialize in neurology, behavioral neurology, or dementia.
- Encourage more medical professionals to specialize in geriatrics.
- Require the inclusion of dementia symptoms in primary care education of medical professions.
- Continue to investigate and implement telemedicine services to provide access to care for the elderly and Alzheimer’s populations living in rural or medically underserved areas.
- Encourage DSHS to send "Dear Colleague" letters to physicians, nurse practitioners, and physician assistants about the importance of early detection and disclosure of an Alzheimer’s diagnosis.
- Review benefits of a new Medicaid billing code in Texas modeled after the new CMS Cognitive Impairment Care Planning billing code.
- Incorporate brain health messaging into existing public health campaigns, for example the anti-tobacco, obesity, and diabetes campaigns, to reach large, at risk populations.
- Consider funding the two optional Alzheimer's disease and dementia modules of the Behavioral Risk Factor Surveillance System (BRFSS) to provide more state-specific data regarding Alzheimer's and dementia.
- Consider expanding successful programs like GamePlan4Care and Texas Talks to increase caregiver capacity.
- Encourage the Texas Alzheimer's Disease Partnership to develop the new Alzheimer's Disease State Plan after the first State Plan expired in 2015.

Traumatic Brain Injury:
- Continue to fund the Comprehensive Rehabilitation Services program.
- Require “Return to Learn” and “Return to Play” protocol statewide.
- Encourage participation in the ConTex Statewide Concussion Registry by all school districts.
- Promote campaigns to educate the public about prevention and recognition of concussions and traumatic brain injury.

CHARGE 3 – SERVICES FOR CHILDREN WITH MENTAL ILLNESS

The hearing related to mental health, trauma and grief, and early psychosis among youth and young adults was held on May 17, 2018 at 10:00am in Austin, Texas in the Capitol Extension, Room E2.012.

*Charge 3 – **Study and make recommendations to improve services available for identifying and treating children with mental illness, including the application of trauma- and grief-informed practices. Identify strategies to assist in understanding the impact and recognizing the signs of trauma in children and providing school-based or community-based mental health services to children who need them. Analyze the role of the Texas Education Agency and of the regional Education Service Centers regarding mental health. In addition, review programs that treat early psychosis among youth and young adults.***

The following organizations/individuals were invited to testify:

Christine Bryan, Clarity Child Guidance Center
John Burruss, MD, Metrocare Services
Wesley Cunningham, Marble Falls Independent School District
Ginger Gates, Region 4 Education Service Center
Shannon Guillot-Wright, MA, PhD Candidate, University of Texas Medical Branch
Colleen Horton, Hogg Foundation for Mental Health
Trina Ita, Texas Health and Human Services Commission
Lee Johnson, Texas Council of Community Centers
Julie Kaplow, PhD, ABPP, Texas Children's Hospital; Trauma and Grief Center
Kelly Kravitz, Texas Education Agency
Elizabeth Minne, PhD, Austin Independent School District
Andrea Richardson, Bluebonnet Trails Community Services
Tracy Spinner, MEd, Austin Independent School District
Jeff Temple, PhD, University of Texas Medical Branch
Pam Wells, Region 4 Education Service Center

The following organizations/individuals provided public testimony:

Kristen Bell, Texas Lawyers for Children
Anais Beira Miracle, The Children's Shelter
Tania Cordobes, Children's Advocacy Center of Collin County
Will Francis, National Association of Social Workers
Greg Hansch, National Alliance of Mental Illness Texas
Diana Kenny, Texas Association of School Psychologists
Marjan Linnell, Texas Pediatric Society and Texas Medical Association
Josette Saxton, Texans Care for Children
Tiffany Williams, Coalition of Texans with Disabilities
Columba Wilson, Self

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Background

Mental health incidents continue to affect lives. During the 84th Legislative interim, Speaker Straus appointed the House Select Committee on Mental Health (Select Committee) to study mental health in Texas, including children's mental health. Specifically, the Select Committee heard detailed testimony regarding the prevalence of children with mental health disorders in the criminal justice system, integrating mental healthcare into the schools and school districts, and clinical care for children suffering from mental illness. Recently passed legislation has been impactful and has allowed for an increase in the availability of mental health services; however, additional attention is necessary to further address the issue.

Hurricane Harvey and the rebuilding efforts that are ongoing after the storm heightened the state's awareness of the prevalence of mental illness and trauma in children, especially in the aftermath of disaster. Further attention regarding treatment of trauma and grief and recognizing signs of trauma in children, specifically in a school setting, were identified as a result.

Statistics

- One in five children ages 13-18 have a serious mental illness;[98]
- Suicide is the third-leading cause of death for 10-24 year olds;[99]
- Approximately 37 percent of students age 14 or older living with a mental health condition will drop out of school;[100]
- 46 percent of adolescents experience some form of mental health disorder, with 21 percent being categorized as severe;[101]
- Half of all adult mental health disorders begin during adolescence;[102]
- Ten percent of children experience some impairment in daily functioning at home, in school, or in the community due to mental health issues;[103] and
- 70 percent of youth in the juvenile justice system suffer from mental health disorders;
    - 27 percent of these youth experience disorders so severe that their ability to function is significantly impaired.[104]

Services and Programs

Texas Health and Human Services Commission

Statewide Behavioral Health Coordinating Council

The Statewide Behavioral Health Coordinating Council (Council) was created at the Texas Health and Human Services Commission (HHSC) at the direction of the 84th Texas Legislature to develop a five-year Texas Statewide Behavioral Health Strategic Plan (Strategic Plan) for fiscal years 2017-2021. The Strategic Plan was completed in May 2016 and addresses implementing several short-term, and low-to-no-cost opportunities to improve mental health access to care in the state.

The Texas Education Agency (TEA) is a participant on the Council and contributed to the Strategic Plan specific to school-aged children and mental health policy proposals. The Strategic Plan identified the following behavioral health service gaps for the children of Texas:

- Access to appropriate behavioral health services;
- Address the behavioral health needs of public school students;
- Access to timely treatment services;
- Implementation of evidence-based practices;
- Use of peer services;
- Behavioral health services for individuals with intellectual and developmental disabilities;
- Prevention and early intervention services; and
- Shared and usable data.

Via the efforts of the Council, HHSC and TEA coordinate on the following initiatives:

- Unified Services for All Children (USAC) – An interagency workgroup with the goal of developing a system that helps school-age children achieve mental/behavioral wellness. USAC has engaged each ESC, each LMHA, each intellectual and developmental disability authority, juvenile probation officers, parents, and other stakeholders on local teams to build capacity for local action planning across provider systems;
- Disaster Relief – TEA collaborated with HHSC to include Hurricane Harvey impacted ESCs in the Federal Emergency Management Agency (FEMA) Crisis Counseling Program grant; and
- Youth Mental Health First Aid – TEA collaborates with ESCs and school districts to promote Youth Mental Health First Aid training for educators throughout the school year.

HHSC oversees and implements the following programs:

- Texas System of Care Approach - A federally funded cooperative agreement from the Substance Abuse and Mental Health Services Administration (SAMHSA) between HHSC, the Department of State Health Services, the Department of Family and Protective Services, TEA, the Texas Department of Criminal Justice, and the Texas Juvenile Justice Division which states that any agency that is a part of the local system of care may refer a child to the pertinent LMHA for a mental health screening. Following the screening, any child who meets the criteria for intensive mental health services is eligible for wraparound services;
- Texas Child and Adolescent Needs and Strengths (CANS) Assessment - A comprehensive psychosocial, trauma, and suicide assessment used to determine needs, strengths, and necessary level of care;
- Trauma Informed Care Framework - Guides principles, day-to-day operations, and relationships by creating a culture that recognizes, understands, prevents, responds, and is sensitive to the impact of trauma on individuals, families, and the workforce. Trauma Informed Care creates a safe environment for individuals impacted by trauma through

rebuilding a sense of control, awareness, and empowerment that can foster recovery and resilience;
- Coordinated Specialty Care for Early Onset Psychosis - A recovery program that provides behavioral health services and support to individuals experiencing early onset psychosis. The Coordinated Specialty Care Team includes a psychiatrist, a team leader, peer specialists, a licensed therapist, a case manager, and a supported employment/education specialist. Metrocare was the first pilot site and ten sites now operate around the state; and
- Mental Health First Aid (MHFA) - HHSC is statutorily required to provide grants to LMHAs to train and certify MHFA instructors who provide MHFA to public school and university/college educators and employees at no cost to the school.[105]

Local Mental Health Authorities

State community mental health services are provided by 39 Local Mental Health Authorities (LMHAs) which are statutorily required to provide community based services to Texans with intellectual and developmental disabilities, mental illness, and substance use disorders. They serve adult and youth populations through services including a 24/7 crisis hotline, mobile crisis outreach teams, crisis transitional services, jail diversion planning, medication-related services, skills training including psychosocial rehabilitation, case management, cognitive behavioral therapy, supported employment, supported housing, and benefits assistance. Certain LMHAs also provide crisis stabilization units, extended observation for 24 to 48 hours, crisis residential services, crisis respite services, crisis step-down/local hospital services, outpatient competency restoration programs, community hospitals, substance use disorder services, homeless services, and peer support services.

LMHAs across the state participate in the following children and youth specific initiatives:
- Youth Empowerment Services (YES) Waiver provide wraparound support for youth experiencing significant emotional functioning challenges;
- Early childhood intervention (ECI) programs;
- Substance use prevention and treatment;
- Coordinated Specialty Care for First Episode Psychosis (FEP); and
- Mental Health First Aid (MHFA), an eight hour, train-the-trainer course that teaches the average person how to help someone experiencing a mental health issue. Since 2014, 875 instructors, 24,736 public school employees, 503 university employees, and more than 18,000 others have been trained in MHFA.[106]

Bluebonnet Trails Community Services - A Collaborative Example of an LMHA and an Independent School District to Provide Integrated Healthcare

Bluebonnet Trails Community Services (Bluebonnet Trails) is the local mental health authority (LMHA) serving eight counties in central Texas. Bluebonnet Trails co-locates mental health and substance use services with the Marble Falls Independent School District (ISD).

Bluebonnet Trails has a memorandum of understanding between Marble Falls ISD for the purpose of delivering integrated healthcare to Marble Falls ISD. Bluebonnet Trails accomplishes this by implementing operations, education, and trainings through established single contact points at the schools in Marble Falls ISD. Bluebonnet Trails also established a drug abuse counseling program for students and parents on the physical property of the Marble Falls ISD. The program provides mental health and substance use screening and counseling through licensed professionals at the LMHA for students and families, as well as immediate crisis counseling for students and community members. Parents and the community at-large are educated through public forums and school events, and daily mental health services are provided to students attending Marble Falls ISD alternative school programs.

Results following the first full year of implementation include:

- A seven percent reduction in days of missed school;
- Increased staff education including mental health first aid and social emotional learning trainings;
- 1,956 students and adults served through same day access to care;
- 100 students and adults assisted in the drug education and counseling services located on Marble Falls ISD property; and
- The dropout rate has dropped from two to one percent.[107]

Austin Independent School District

Austin Independent School District (AISD) hosts 41 School Mental Health Centers (SMHCs) within the district to serve students, families, and employees. Each SMHC includes a campus referral team, office space, access to students, and a behavioral health specialist to coordinate campus operations. Seton Healthcare Family established the original SMHC model in 2012 with Seton school nurses serving as referral coordinators. Seton also managed the 1115 Waiver Project that funded the expansion of 14 SMHCs. The SMHCs implement an Ecological Model of Care which addresses the needs of the whole child by focusing on the interconnections between the child, family, school, and the community.

The VIDA Clinic is a contracted vendor for AISD that receives Victims of Crime Act (VOCA) grant funding from the Office of the Governor to provide mental health services to AISD through the operation of three high school clinics and 22 elementary clinics. The VIDA Clinic has submitted a renewal proposal for the continuation of existing SMHCs and the expansion to an additional 33 elementary and middle schools. According to the VOCA Report from January to March of 2018, the VIDA Clinic has performed 584 referrals/intakes, two crisis interventions, 322 individual counseling sessions, and 673 other therapy types for a total of 997 services provided.

Additionally, Integral Care, the Austin area LMHA, is contracted by Seton using 1115 Waiver dollars to provide program management and supervision to SMHC therapists and measure progress of clinic operations.

AISD and the VIDA Clinic reported the following positive outcomes of SMHCs:

- Early identification of mental health issues and expedited treatment;
- Increased access to professional mental health services in convenient locations;
- Better school functioning and increased attendance;
- Increased communication and connection between schools and families;
- Participant schools experience enhanced education and support around behavioral health needs;
- Decreased stigma surrounding mental health;
- Statistically significant academic performance improvements on the STARR and EOC exams;
- Significantly fewer substance use issues in the schools;
- Fewer school expulsions and suspensions; and
- Improved emotional functioning among the students, for example lower aggression levels.[108]

Region 4 Education Service Center

Regional Education Service Centers (ESCs) were established by the Texas Legislature in 1967 to assist school districts in improving student performance, in operating more efficiently and economically, and in implementing other initiatives. Twenty ESCs serve distinct regions of the state and certain ESCs provide leadership regarding specific statewide initiatives. Region 4 is the statewide lead for the Texas Behavior Support Network (TBSN) which addresses the behavioral health of students.

TBSN is composed of one representative from each of the 20 ESCs with the goal of building capacity in Texas schools for the provision of Positive Behavior Interventions and Supports (PBIS) to all Texas students. PBIS is a framework for assisting school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum that enhances academic and social behavior outcomes for students.

PBIS has three tiers:

- Tier 1 is primary prevention to build protective factors in all students to support long-term capacity for emotional well-being, social relationships, and achievement in children. These are universal practices taught to all students that promote a school environment in which all students feel supported, safe, valued, and respected.
- Tier 2 is targeted prevention and intervention to address specific problems for groups of at-risk students. For example, counselors may hold small group sessions for students experiencing grief, or a school psychologist might consult with a teacher to implement a classroom intervention.
- Tier 3 is individual intervention provided to individual students experiencing significant mental health or ongoing behavioral needs. This might include direct

counseling/intervention with the student, consultation with the student's family and teachers, or coordination with community providers to encourage ongoing support.

Under the model, all students and staff receive the primary prevention level of support. Data from Region 4 shows that around 80 percent of students will require only this level of support to be successful. Approximately 15 percent of students require targeted intervention, and five percent of students require individualized intervention. Since Region 4 began gathering data on PBIS implementation in schools eight years ago, the number of schools to implement PBIS has increased from 78 to over 900. During the 2014-15 school year alone, 328 new schools began implementing PBIS.

Region 4 also provides evidence-based trainings to school districts and charter schools on prevention practices that promote social-emotional development and interventions that address problems at early onset and treatments for severe or chronic treatments.[109]

The American Counseling Association recommends a student/staff ratio of 1,000 to one for Licensed Specialist in School Psychologists (LSSPs), 400 to 1 for social workers, and 250 to 1 for counselors. Texas schools currently have 1,849 LSSPs for a ratio of 2,890 to 1, 708 social workers for a ratio of 7,548 to 1, and 12,112 Counselors for a ratio of 441 to 1.[110]

Supporting Children with Intellectual and Developmental Disabilities With Mental Health Disorders or Who Have Experienced Trauma

Children with an intellectual or developmental disability (IDD) are two to four times more likely to have a mental health disorder. However, many IDD systems of care focus on managing behaviors without considering potential underlying mental health disorders or the impact of trauma as the cause of the behaviors. Failing to consider underlying mental health disorders or trauma results in children with IDD being put on a behavior management plan as opposed to a treatment plan when they present mental health disorder symptoms. Barriers associated with assessing and treating children with IDD who experience mental health conditions, include communication differences, the time required to perform the assessment, a lack of mental health providers who also understand the IDD population, and a lack of consideration of people with IDD when developing state mental health policies.

The Road to Recovery Training Toolkit (Road to Recovery) was developed by the Hogg Foundation for Mental Health in conjunction with the National Child Traumatic Stress Network in 2016. Mental health and IDD experts from both organizations contributed to the development of the two-day online train-the-trainer resource, and Hogg offers the Road to Recovery free of charge on their website.

Road to Recovery includes six modules:

- Setting the Stage;
- Development, IDD, and Trauma;
- Traumatic Stress Responses in Children with IDD;
- Child and Family Well-Being and Resilience;

- IDD Trauma-Informed Services and Treatment; and
- Provider Self-Care.

The Road to Recovery also includes a facilitator's guide, videos, a participant manual, case vignettes, an interactive board game and activities, a slide kit, and other supplemental materials.[111]

Trauma and Grief

Trauma is defined as "an exceptional experience in which powerful and dangerous events overwhelm the person's capacity to cope," states Dr. Kaplow, the Director of the Trauma and Grief Center (TAG) at Texas Children's Hospital in Houston. The two types of trauma are acute and chronic. Acute trauma results from a singular event such as a car accident, hurricane, bereavement, or a school shooting; chronic trauma is ongoing and includes events like domestic violence, child abuse/neglect, poverty, or community violence. Certain traumas can cluster together, forming what is known as "risk factor caravans." For example, sexual abuse most likely means physical abuse has also occurred, so the two traumas combine to form a risk factor caravan.

Exposure to trauma as a child can impede normal development and increase the likelihood that a child experiences adverse psychological and behavioral consequences, including school-related problems. Studies show that untreated trauma is associated with problematic long term outcomes including depression, anxiety, substance use, PTSD, suicide risk, school drop-out, and violent behavior. Symptoms of traumatic stress often resemble the symptoms of other disorders such as anxiety, attention deficit hyperactivity disorder, depression, conduct issues, and physical illness. The ability to recognize symptoms of traumatic stress separately and accurately is important to treating the issue at hand.

Dr. Kaplow says bereavement, or the death of a loved one, is the most commonly reported type of trauma in clinic-referred youth. Bereavement is also the most distressing form of trauma among adults and youth in the general population, and the strongest predictor of poor school outcomes above and beyond any other form of trauma.[112]

Testimony provided by the Hogg Foundation for Mental Health explained that when an individual experiences trauma, or when something triggers a past trauma, the portions of the brain that respond are the reptilian portion (the primitive and survival response system) and the limbic portion (which controls emotional responses). The rational part of the brain is typically not engaged, and therefore, reasoning or bargaining with an individual who has just experienced some form of trauma is generally not effective.[113]

The Trauma and Grief Center

The Trauma and Grief Center (TAG) at Texas Children's Hospital develops, implements, evaluates, and disseminates evidence-based treatments for traumatized and/or grieving youth. Dr. Kaplow leads her team in providing assessment and treatment to children between the ages of seven and 17 who have experienced trauma or loss, and conducts research to identify risk and protective factors that can be used to build better and more effective trauma intervention strategies.

TAG implements practices throughout the state using a learning collaborative model; TAG holds a three day training regarding implementation of the model and the participants then apply the model in their respective communities or schools.[114]

University of Texas Medical Branch

Dr. Temple of the University of Texas Medical Branch (UTMB), advises trauma experienced by children is also referred to as adverse childhood experiences (ACEs). ACEs include physical, emotional, psychological, and social traumatic events. Children who experience ACEs are at a higher risk for mental and physical health conditions, including anxiety, depression, substance abuse, and heart disease later in life. However, positive experiences early in life are proven to decrease the negative effects of ACEs.[115]

Early Psychosis Intervention

Psychosis is defined by Dr. Wells, with the Region 4 Education Service Center, as fixed false beliefs, including hallucinations or delusions. Early psychosis, or first episode psychosis, refers to the first time an individual experiences psychosis. Psychosis is treatable, but if left untreated, psychosis can cause damage to the brain.[116]

Dr. Burress of Metrocare Services, located in Dallas, explains that a greater emphasis has been placed on early psychosis intervention (EPI) programs over the past two decades. EPI programs focus on early symptom detection and comprehensive, phase-specific treatment during the initial phases of psychosis.[117] The American Journal of Psychiatry study, *Effectiveness of Early Psychosis Intervention: Comparison of Service Users and Nonusers in Population-Based Health Administrative Data,* is a comprehensive review of outcomes for people who used EPI services and those who did not. The study found that EPI service users had four times lower rates of mortality compared to non-users and had better outcomes across several indicators. Users have rapid access to psychiatric services and lower numbers of the emergency room visits compared to non-users.[118]

Dr. Burress expressed the importance of early intervention in treating first episode psychosis because of a window of time when brain damage can be limited or even halted. Treatment for early psychosis is based on the understanding that psychosis is a symptom of another mental illness and not an isolated disease.

Metrocare Services provides early psychosis intervention services in Dallas. Dr. Burress informed that Metrocare operates at continuous capacity despite little to no marketing or outreach. He emphasized the vast need in the community and the missed the opportunities to serve many patients due to the capacity issues.

The Metrocare evidence-based EPI program has proven results. Patients who complete the program have a four times greater employment rate. The program operates primarily on referrals from other clinical service sites and costs approximately $11,000 per year per person.[119]

Clarity Child Guidance Center - A Center for Children's Treatment Services

Clarity Child Guidance Center (Clarity) is Texas' only non-profit inpatient and outpatient mental health organization serving only children. Clarity serves Bexar County and the surrounding areas. Clarity also acts as the state hospital for children under the age of 12, and as an overflow hospital for the San Antonio State Hospital for adolescents.

In conducting operation overviews, a recurring issue found in post-release data is that once released, Clarity patients struggle to obtain follow-up appointments in the community due to the amount of need from the outside community and a lack of outpatient providers. Clarity also determined that families and caregivers typically do not know or understand what is needed to help the loved one. To address these issues, Clarity developed the First Step Program to offer certain patients referred to Clarity a one time appointment with a licensed psychologist or supervised psychology fellow for a psychological screening assessment. The appointment allows for the family to express their perspectives and gives the patient a professional diagnostic recommendation for next steps.

The First Step Program was implemented in September 2017 and averages 12 appointments per week. Since implementation, First Step has reduced needless referrals and appointments by 40 percent, and Clarity has been able to increase mental health literacy and confidence of impacted families specifically regarding treatment and referral options. Additionally, Clarity has witnessed improved community provider collaboration, a decreased number of inaccurate referrals, and increased efficiency for Clarity intake staff by reducing the need to make assessments over the phone.[120]

Hurricane Harvey Task Force on School Mental Health Supports

The Hurricane Harvey Task Force on School Mental Health Supports (Task Force) was created at the request of Governor Greg Abbott as an on-going effort to mobilize a mental health response in Texas schools impacted by Hurricane Harvey. The purpose of the Task Force is to identify needs and spur federal, state, and local coordination to link schools with mental and behavioral health resources. Short-term goals include matching needs with the appropriate resources, and long-term goals include strengthening the mental and behavioral health infrastructure in Texas schools.[121]

TEA is leading the Task Force in collaboration with the Texas Higher Education Coordinating Board (THECB), HHSC, and the Meadows Mental Health Policy Institute (MMHPI).[122] The Task Force was comprised of over 50 members as of May 2018, including members from four state agencies, four universities, eleven nonprofits, four ESC regions (Regions 2, 3, 4, and 5), and one federal partner. TEA aligned the work of the task force to address a number of gaps, goals, and objectives outlined in the HHSC Statewide Behavioral Health Plan.[123]

The four ESC regions form an ESC Mental Health Response Group which was specifically created to support the efforts of the Task Force. The ESC Response Group is working directly with TEA to implement the Crisis Counseling Assistance and Training Program (CCP). CCP is a short-term disaster relief grant awarded by FEMA after a presidential disaster declaration that provides

funding to support community-based outreach, counseling, and other mental health services to survivors of natural and manmade disasters.[124]

The Task Force had accomplished the following deliverables as of May 2018:

- Developing a comprehensive TEA Hurricane Harvey Mental Health Resources for Schools website;
- Working with HHSC to include ESC Regions 2, 3, 4, and 5 in the FEMA funded CCP;
- Facilitating local education agency, LMHA, and ESC collaboration to address student and staff mental health needs in impacted communities;
- Implementing post-Harvey surveys regarding school mental health challenges and needs, and directing follow-up engagement with survey-identified high need local education agencies;
- Collaborating with university and federal disaster experts to identify best practice assessment strategies and screening tools to address post-disaster mental health needs;
- Collaborating with the FEMA Joint Field Office and the U.S. Department of Health and Human Services Recovery Support Function to promote school superintendent peer-to-peer recovery groups in impacted ESC regions;
- Linking school districts with philanthropy and private resources to fill service gaps;
- Coordinating with the University of Texas Medical Branch to expand mental health and clinical services through telemedicine to school districts in rural and underserved communities; and
- Through the Texas Higher Education Coordinating Board, linking university interns in high-need communities with local schools to support mental health service delivery.[125]

LMHAs directly impacted by Hurricane Harvey participated in the Immediate Services Program, which is a short-term mental health crisis interventions administered to LMHAs and ESCs impacted by the storm. LMHAs not directly impacted, organized available resources and personnel to go to the impacted areas to help with mental health crisis intervention.[126]

Dr. Kaplow and her TAG Team provided supports and services to children and schools in the impacted areas. Her team used screening tools to conduct situation analysis/needs assessments then provided ongoing in-house assessment and intervention, deployed trauma-informed clinicians through mobile units and outpatient clinics, and provided free transportation and parking to people from impacted areas. TAG also provided training to community practitioners and school personnel to enable them to provide specific trauma and bereavement informed risk screenings and assessments. TAG concluded that the youth most affected by Harvey had prior trauma or loss that was exacerbated by the hurricane.

Dr. Kaplow testified that some ongoing needs for the hurricane impacted areas include:

- Increasing access to evidence-based trauma and bereavement-informed intervention;

- Building trauma and bereavement-informed systems including, conducting hospital-wide trainings on how to recognize and address trauma and grief, and conducting school-wide trainings regarding trauma and bereavement-informed best practices; and
- Performing more research to provide a blueprint for which treatments work for children under specific circumstances.[127]

Challenges

- Trauma can be difficult to recognize and accurately diagnose as signs of traumatic stress can resemble other disorders including anxiety, ADHD, depression, conduct problems, and physical issues.
- Growing waitlists in community service providers, especially in emergency situations.
- Lack of access to community providers when a child is discharged from a hospital.
- Lack of trauma and grief trainings for community and school-based clinicians.
- Mental health professional workforce shortages.
- Lack of research regarding mental health treatments for children in emergency situations.
- Ensuring state agencies responsible for student mental healthcare are knowledgeable and collaborating to provide the most effective and proven services in the most effective manner.

Recommendations

- Require points of contact, who are trained in mental health, to be placed in each Education Service Center to work with all school districts in the specified region.
- Increase the learning opportunities regarding mental health to teachers, counselors, nurses, and administrators in proven programs, such as Mental Health First Aid, trauma-informed curricula, and social-emotional learning.
- Require Health classes be held in elementary, middle, and high school; ensure curricula is comprehensive and age appropriate.
- Require a list of local, evidence-based mental health programs be provided to TEA for distribution to all school districts.
- Study the need for universal mental health screening for students entering K-12.
- Require creation of a sub-committee of the Health and Human Services Commission based State Behavioral Health Coordinating Council to review and oversee coordination of all federal and state funding addressing mental and behavioral health of school-age children.
- Require TEA to explore opportunities for mental health promotion, resiliency building, self-regulation, and competency skills in the Texas Essential Knowledge and Skills.
- Review benefits of expanding first episode psychosis programs.
- Encourage campus-based best practice integrated care programs having on-site mental and behavioral wellness therapy and treatment for students and families.

- Ensure trauma informed care training specific to children with IDD is available to independent school districts around the state through each ESC.
- Require HHSC to study the development of standards of care for mental health services for individuals with IDD.
- Promote continued efforts in building mental health and integrated healthcare programs in communities, including through collaborations between LMHAs and school districts and through innovative programs by school districts.

CHARGE 4 – THE OVERLAYS AMONG HOUSING INSTABILITY, HOMELESSNESS, AND MENTAL ILLNESS

The hearing regarding the overlays among housing instability, homelessness, and mental illness was held on September 12, 2018 at 1:00pm in Austin, Texas in the Capitol Extension, Room E1.030.

*Charge 4 – **Study the overlays among housing instability, homelessness, and mental illness. Review the availability of supportive housing opportunities for individuals with mental illness. Consider options to address housing stability and homelessness among people with mental illness. (Joint charge with the House Committee on Urban Affairs)***

The following organizations/individuals were invited to testify:

Brooke Boston, Texas Department of Housing and Community Affairs
Stephen Glazier, MBA, FACHE, UTHealth Houston; Harris County Psychiatric Center
Greg Hansch, LMSW, National Alliance of Mental Illness Texas
Trina Ita, Texas Health and Human Services Commission
Jair Soares, MD, PhD, UTHealth Houston; Harris County Psychiatric Center
Kenny Wilson, Haven for Hope

The following organizations/individuals provided public testimony:

Carl Hunter, Recovery People
Tanya Lavelle, Hogg Foundation for Mental Health
Talbot Presley, Self
Eric Samuels, Texas Homeless Network

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Background

The United States Department of Housing and Urban Development (HUD) identified 25,152 individuals as homeless in the 2018 Texas homeless population survey, the Point-In-Time Count.[128] Approximately one in five of the identified homeless population in Texas suffers from a severe mental illness. The homeless population in Texas is largely comprised of veterans, youth, victims of domestic violence, and individuals suffering from a mental illness or substance use disorder.[129]

The Texas Department of Housing and Community Affairs (TDHCA) is the state agency responsible for affordable housing, community and energy assistance programs, and regulation of the state's manufactured housing industry. TDHCA currently administers $2 billion through for-profit, non-profit, and local government partnerships to deliver local housing and community-based services to Texans in need. All programs administered by TDHCA are not designed

specifically to serve the homeless population suffering from mental health disorders; however, the agency has housing programs in place that can serve this specific population.[130]

Statistics

Texas Statistics:

- 17 percent of the homeless population in Texas is considered chronically homeless;[131]
- 13 percent of the homeless population in Texas are fleeing domestic violence;[132]
- 16.4 percent of all reported homeless Texans in the 2018 HUD Point-In-Time Count self-reported they suffer from severe mental illness and 11.4 percent report they have a substance use disorder;[133]
- In 2016, 3.6 percent of Medicaid STAR PLUS clients with a behavioral health diagnosis identified as being housing unstable;[134]
- 12 percent of the homeless population in Texas are veterans;[135]
    - The most common barrier to homeless veterans receiving services was a mental health diagnosis other than PTSD;[136] and
- Results from a 2016 TDHCA and Texas Interagency Council for the Homeless study, called Youth Count Texas, revealed that of the 758 youth who were counted as homeless, 40 percent of them self-identified as having a mental illness.[137]

Housing Initiatives

The Statewide Behavioral Health Coordinating Council (Council) - established at the Texas Health and Human Services Commission (HHSC) to study behavioral healthcare for persons suffering from a mental health and/or substance use disorder in Texas and make recommendations on how to improve access to care - specifically identified housing for the homeless population as a service gap in the Texas Statewide Behavioral Health Strategic Plan (Strategic Plan). Goals presented by the Strategic Plan regarding housing include improving program and service coordination and delivery, and financial long-term planning. TDHCA is working closely with the Council to educate Council staff on the issue of housing and best practices regarding implementing programs to address the supportive housing gap in the state, particularly for individuals suffering from a mental health and substance use condition.[138]

Permanent supportive housing programs are used by the state, local providers, and non-profit agencies to combat the cycle of homelessness. Programs provide homeless people who are also suffering from a mental illness or substance use disorder with stable and affordable housing and access to treatment and services. Supportive housing is proven to lower costs according to study results presented by Mr. Hansch with the National Alliance on Mental Illness (NAMI), who attests that programs save $22,000 per person per year in Medicaid costs,[139] and reduce the cycle of homelessness in communities around the country, as well as in Texas. Mr. Wilson with Haven for Hope further advises that supportive housing helps prevent the onset of new illness, improves access to high-quality, coordinated behavioral healthcare, and promotes a healthy lifestyle for those enrolled in the program. Components of successful permanent supportive housing programs

include, leases without limits on length of stay, site-based supportive services providing treatment 24 hours a day/seven days a week, and affordability of housing and provided support services.[140]

Due to the large number of subpopulations within the homeless population of Texas, state agency programs, including those administered by HHSC, TDHCA, and other programs implemented by local providers and non-profit organizations, must cater to the separate needs of each subpopulation served.[141]

State supported housing programs include:

Healthy Community Collaborative Grant Program

The Healthy Community Collaborative Grant Program (HCC), administered by HHSC, was established by Senate Bill 58 (83R) to serve persons experiencing homelessness and mental illness in urban areas. HCC was initially appropriated $25 million in general revenue to fund grants to be awarded to the five most populous urban cities in the state. Four of the most populous cities in the state - Austin, Dallas, Ft. Worth, and San Antonio - currently operate a HCC program. An additional $25 million in funding was appropriated to HCC during the 84th Regular Legislative Session, and Senate Bill 1849 (85R) expanded HCC to providers in rural areas serving two or more counties that have a population of 100,000 or less.

During FY 2017 HCC programs had 19,704 individuals enrolled, coordinated 21,632 assessments across provider sites, and had 461 individuals placed in permanent or affordable housing.

Projects to Assist in Transition for Homelessness

Projects to Assist in Transition for Homelessness (PATH) is a federal grant of approximately $4.5 million from the Substance Abuse and Mental Health Services Administration (SAMHSA) and administered by HHSC, which funds outreach services to engage homeless individuals who are not receiving mainstream mental health services and enrolls them into services at their local mental health authority (LMHA). PATH is operated by 14 LMHA providers and two non-profit organizations across the state.

During FY 2017, 15,115 homeless individuals were contacted through PATH outreach and 6,894 of those homeless individuals enrolled in PATH services. Of those enrollees, 55.3 percent were chronically homeless and 52.8 percent had a co-occurring disorder of mental illness and a substance use disorder. Fifteen percent were placed in supportive housing.

Supportive Housing Rental Program

Rental assistance is available through HHSC via the Supportive Housing Rental Program (SHR). SHR was appropriated $11.6 million for the 2018-19 biennium to be used for short-term (up to six months) or long-term (up to one year) rental assistance based on the need of the individual as assessed by the LMHA. Twenty providers across the state participate in SHR. LMHA staff also engage participants in on-going services with the goal of securing permanent housing and some level of financial stability for the participant at the conclusion of their rental assistance stay. To be eligible to receive SHR funds, an individual must be homeless, or be considered at imminent risk of becoming homeless, and be diagnosed with a mental illness. SHR outcomes include decreased jail time and reduced recidivism rates both in jails and in hospital emergency rooms.[142]

Section 811 Project Rental Assistance

The Section 811 Program through HUD provides project-based rental assistance for extremely low-income people with disabilities. This program is made possible through partnerships with TDHCA, HHSC, DFPS, and participating multi-family properties. Eligible persons include people with disabilities who are exiting institutions and are eligible for Medicaid waiver services; people who receive behavioral health services through LMHAs; and youth/young adults with disabilities who are exiting foster care. The Section 811 Program is currently a pilot operating in eight metropolitan areas in the state. TDHCA distributes $24 million from the federal government for the Section 811 Program.[143] The program is available in Austin, Brownsville, Corpus Christi, Dallas/Fort Worth, El Paso, Houston, McAllen, and San Antonio metropolitan areas.[144]

The program allows for people with disabilities to live independently while continuing to receive the services they need and ensures that participants pay no more than 30 percent of their income to rent and utilities.[145] Individuals with disabilities who are deemed eligible are referred to the program by qualified service providers or coordinators who work directly with the individuals in need of permanent supportive housing.[146] Section 811 has served approximately 80 individuals and their families as of September 2018. Providers in the participating areas, in addition to providing services to individuals in the program, also maintain relationships with participating property managers so that if an individual is having any difficulty, the property manager reaches out to the provider to help mitigate the situation without resulting in an eviction. [147]

Project Access Program

The Project Access Program utilizes Section 8 Housing Choice Vouchers administered by TDHCA to assist low-income persons with disabilities in transitioning from institutions into the community by providing access to affordable housing.

Since 2017, ten to fifteen of the 140 available vouchers have been designated to a pilot program developed by HHSC and TDHCA targeting low-income individuals with disabilities who are transitioning from state supported psychiatric hospitals back into the community.

Emergency Solutions Grants Program

The Emergency Solutions Grants Program (ESG) is a federal grant from HUD for approximately $8-9 million per year awarded by TDHCA to private non-profits, cities, or counties to provide services for people at risk of homelessness and to aide those individuals in finding permanent and stable housing. ESG funds can also be used to provide mental health services to a local homeless population if other mental health resources are not available. In 2017, TDHCA served approximately 29 million people using ESG grants.

Homeless Housing and Services Program

The Homeless Housing and Services Program (HHSP) is the only state funded program at TDHCA that specifically serves the homeless population. HHSP is appropriated $4.9 million annually to be divided among the eight largest cities in the state, Arlington, Austin, Corpus Christi, Dallas, El Paso, Fort Worth, Houston, and San Antonio. The funds are flexible and can be used for projects ranging from the construction of shelter facilities, structure rehabilitation, procurement of housing, to the provision of direct services or case management. HHSP served 12,461 people, or just over 8,500 households, during FY 2015.

Community Services Block Grant Program
Federal funds from the Community Services Block Grant Program are distributed throughout the state via a network of Community Action Agencies to address specific poverty related issues in their local area. Funds are not given to directly combat homelessness, however the Community Action Agency can use funds to address certain gaps in services, like for substance use disorders, which could in turn help combat homelessness in the area.[148]

Services Providers

UTHealth Harris County Psychiatric Center

The UTHealth Harris County Psychiatric Center (HCPC) is the largest provider of inpatient psychiatric care in Houston, providing services to approximately 9,000 patients each year;[149] approximately 30% of those patients are homeless.[150] HCPC also delivers outpatient services through their Outpatient ECT Clinic and, in partnership with the Harris Center, operates a forensic competency restoration unit for those incarcerated by the Harris County Sheriff's Office, the Harris County Jail, and other jails in the area.[151]

As a part of the Legislature's $300 million expansion and repair plan for the state's hospital system approved during 85th Legislative Session, HCPC was appropriated $6 million for the expansion of the campus to include the 264 bed UTHealth Continuum of Care Campus for Behavioral Health.

The new facility will break ground in 2019 and is being designed to have "flexible" beds, meaning the beds can be used for patients with different need levels or types of care. Flexibility allows for a mix of acute and subacute beds that can accommodate both adults and children.

Mr. Glazier estimates that the patients treated in the new facility will reach maximum benefit after approximately 60 days of inpatient care. This extended stay in the hospital will allow treating physicians to get a more comprehensive understanding of each patient's issues to ensure the patient is receiving appropriate care. Longer stays also allow the patient to ease into their aftercare plan and better prepare to re-enter the community while he or she remains in the hospital.

The new facility and flexible bed model is based on a six bed pilot project HCPC has been implementing. Results from the long-term stay unit pilot are already showing that pilot participants are 300 percent less likely to readmit than patients who only completed the short-term inpatient stay at HCPC.

HCPC was recently awarded a five year federal SAMHSA grant to provide intensive outpatient care services to the local homeless population that is also suffering from mental illness, further contributing to the continuum of care being built at HCPC.[152]

Additionally, Dr. Soares discussed the importance of linking the treatment programs provided at HCPC with supportive housing opportunities once the patient is discharged. A portion of the aftercare preparation services that will be provided to patients in the new long-term care facility at HCPC will be dedicated to linking the patient with supportive housing if necessary.[153]

Haven for Hope

Haven for Hope, a 22 acre campus in San Antonio, provides a range of services to the homeless population in the city by leveraging public funding through private partnerships. The Haven for Hope model brings multiple service providers together on one campus to increase accessibility of resources for those experiencing homelessness. The campus is also home to 63 nonprofit agency partners and utilizes services of 77 community referral partners. Haven for Hope serves approximately 1,700 people per day, including 200 children with a parent or parents, and provides shelter to around 700 people per day at their low barrier campus, the Courtyard.

Services provided at Haven for Hope follow a "one stop" design that includes:

- Short-term residential housing on-campus;
- Substance abuse and mental health treatment;
- Employment services;
- Life-skills training;
- Legal services;
- Childcare;
- Healthcare; and
- Animal kennels.

Permanent supportive housing for people who are leaving the Haven for Hope campus and reintegrating into the community is one specific service coordinated by Haven for Hope is. Over 90 percent of the people enrolled in permanent supportive housing via the Haven program have retained housing for at least 12 months.

Despite proven success, capacity restricts how many people and families actually obtain permanent supportive housing. For example, Mr. Wilson, CEO of Haven for Hope, informed of a seven to eight year waitlist in San Antonio for a HUD housing voucher, and the waitlist continues to grow because turnover in the units is so low and not enough units exist to fill the need. The waitlist in turn, forces people to stay at Haven longer than necessary because they cannot find stable housing outside of the campus.[154]

Challenges

- Access to mental health continuum of care services for the homeless population.
- Lack of capacity in permanent supportive housing programs.
- TDHCA currently administers no programs or grants of its own specifically targeting the homeless veteran population. Other agencies and initiatives are in place targeting them; however, TDHCA is not involved which may present challenges.

Recommendations

- Study the benefits of expanding permanent supportive housing site-based units and consider increasing funding.
- Encourage local homeless service and housing initiatives following other best practices, like Haven for Hope.
- Create a committee to include TDHCA and HHSC to oversee and coordinate state programs to ensure the greatest efficiency and effectiveness of the funds and programs, and require state agencies providing services to the homeless to report on programs and participate on the committee.
- Consider integrating continuum of care campuses, like the one being constructed at UTHealth Harris County Psychiatric Center, into other psychiatric hospitals.
- Consider increasing rental and utility assistance for clients of local mental health authorities.

CHARGE 5 – POPULATION HEALTH AND HEALTHCARE DELIVERY IN RURAL AND URBAN MEDICALLY UNDERSERVED AREAS, TELEMEDICINE, AND RURAL HOSPITAL CHALLENGES AND CLOSURES

The hearing regarding population health and healthcare delivery in rural and urban medically underserved areas, telemedicine, and rural hospital challenges and closures was held on June 28, 2018 at 1:00pm in Austin, Texas in the Capitol Extension, Room E1.030.

Charge 5 – Review opportunities to improve population health and healthcare delivery in rural and urban medically underserved areas. Identify potential opportunities to improve access to care, including the role of telemedicine. In the review, identify the challenges facing rural hospitals and the impact of rural hospital closures.

The following organizations/individuals were invited to testify:

Stephen Carlton, Texas Medical Board
Fred Cerise, MD, MPH, Parkland Health and Hospital System
Janis Crawley, Bowie Economic Development Corporation
Nancy Dickey, MD, Texas A&M University Health Science Center
Scott Freshour, Texas Medical Board
John Hawkins, Texas Hospital Association
John Hellerstedt, MD, Texas Department of State Health Services
John Henderson, Texas Organization of Rural and Community Hospitals
Dan Hunter, Texas Department of Agriculture
David Lakey, MD, University of Texas System
Don McBeath, Texas Organization of Rural and Community Hospitals
Brian McCall, PhD, Texas State University System
Billy Philips, PhD, MPH, Texas Tech University Health Science Center
Mari Robinson, University of Texas Medical Branch
Stephanie Stephens, Texas Health and Human Services Commission

The following organizations/individuals provided public testimony:

Tucker Anderson, Code 3 Emergency Partners, LLC
Erin Biscone, APRN Alliance
John Parks, Avera eCARE
Tamara Pickens, Children's Health
Kelly Rhone, Avera eCARE
Ahia Shabaaz, Texas Silver-Haired Legislature

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Background

Texas is vast in diversity in both geography and in population. Citizens live in rural areas and in densely populated suburban and urban areas. All need access to healthcare.

Urban medically underserved areas experience limited access to healthcare for individuals who are uninsured or on Medicaid. Rural areas experience limited access to healthcare due to travel distance and provider shortages.

Texas has 172 rural counties,[155] providing a home to approximately 15 percent of the population of the state,[156] and 375 designated Health Professional Shortage Areas (HPSAs) located throughout rural and urban Texas.[157] Maintaining access to healthcare services is critical to those who live in rural and medically underserved areas.[158]

Texas Statistics

Rural and Medically Underserved Areas Healthcare Statistics:

- 80 percent of Texas counties are medically underserved;[159]
- Texas ranks 47th in the country for number of primary care physicians; [160]
- 80 Texas counties have five or fewer physicians; 35 counties do not have a physician;[161]
- Texas has 120 trauma-designated rural facilities, including 59 Critical Access Hospitals (CAH);[162]
- Texas has 766 EMS Agencies statewide - 256 are in rural counties;[163]
- Texas has 4,824 ambulances statewide - 900 serve rural counties;[164] and
- Texas has 65,870 EMS personnel statewide - 10,622 (20 percent) serve rural counties.[165]

Telemedicine Statistics:

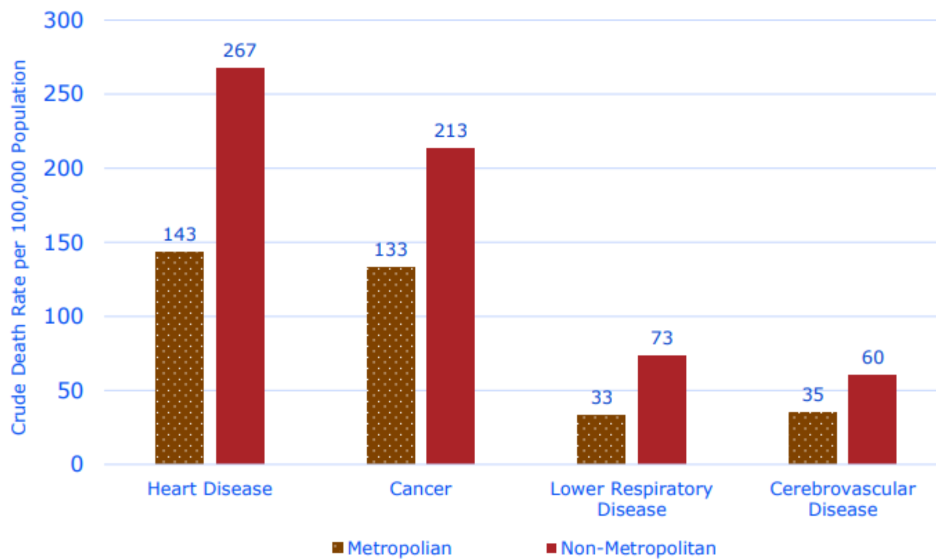
- Texas Medicaid telemedicine and telehealth visits increased over 20 percent between FY 2016 and 2017;[166]
- 68 percent of Medicaid telemedicine patients live in urban/suburban areas; 31 percent live in rural areas;[167]
- 80 percent of Medicaid telemedicine providers practice in urban/suburban areas;[168] and
- Behavioral health services are the most utilized telemedicine services under Medicaid.[169]

Rural Hospital Statistics:

- 63 Texas counties do not have a hospital;[170]
- Texas currently has 162 rural hospitals;[171]
- Texas has 10 stroke-designated rural hospitals, including four CAHs;[172]
- 18 Texas rural hospitals have closed in the last five and a half years;[173] and
- The average rural hospital employs 173 people with an annual budget of $22,527,000.[174]

Rural and Urban Medically Underserved Healthcare Trends

- Primary care physicians are the greatest need in rural and urban medically underserved areas in Texas;[175]
- Heart disease, cancer, lower respiratory disease, and cardiovascular disease are the leading causes of death in rural and urban areas; incidents of those deaths are higher in rural areas, potentially due to higher tobacco usage in rural areas, as shown in the graph below;[176]

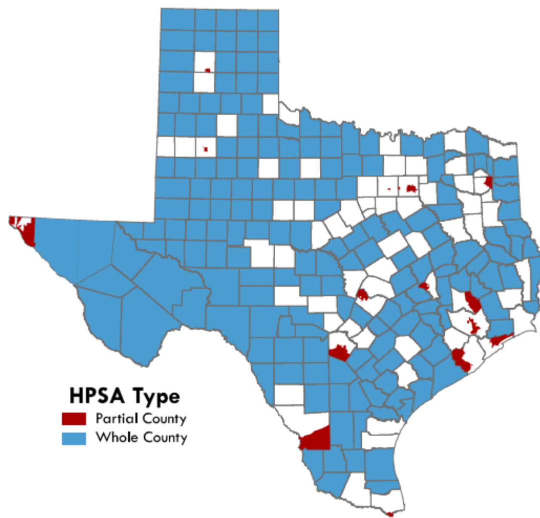


- Communicable diseases, such as chicken pox, are more prevalent in rural areas than in urban areas; [177]
- Rural areas experience higher rates of sexually transmitted diseases and health impacts of preventable chronic disease like diabetes compared to urban areas;[178] and
- Costs of chronic health conditions in rural Texas are approximately $1.7 to $2.1 billion in excess healthcare spending and approximately $2.9 to $3.5 billion in lost productivity.[179]

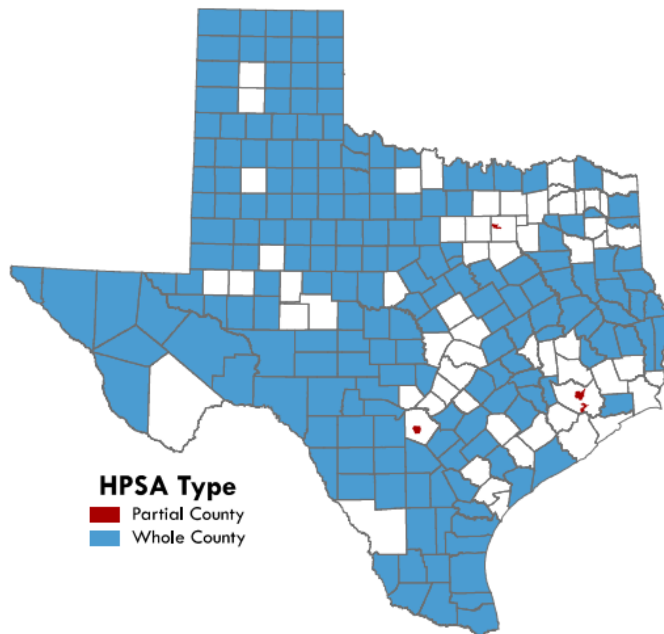
Texas Department of State Health Services

Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration (HRSA) and are defined as areas with identified lack of providers, typically based on a ratio of providers to populations. HPSAs types of designation statuses are: geographic area, population or demographic attributes, or facility/institution type. HPSAs can cover entire counties or portions of counties, and encompass primary care, dental health, and mental health provider types.

Primary Care
Health Professional Shortage Areas



Mental Health
Professional Shortage Areas



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Healthcare services are directly provided by Local Health Departments or Department of State Health Services (DSHS) Public Health Regional Offices. Health and Safety Code Sec. 121.031 allows the governing body of a municipality or the commissioners court of a county to establish a local health department to perform all public health functions that the municipality or county that establishes the local health department may perform; nineteen Local Health Departments operate in Texas. DSHS Public Health Regional Offices provide public health functions to municipalities and counties of the state which do not have a Local Health Department.

Local Public Health Departments provide infectious disease control and immunizations, public health emergency preparedness, primary care, food safety and environmental health, and preventive health and education services. DSHS public health regional offices provide infectious disease control and immunizations, zoonosis control, epidemiology and disease surveillance, public health emergency response, and retail food safety and environmental health services.

DSHS staff has visited each public health regional office and local health department in the state.

DSHS public health rural health initiatives include education and outreach to migrant workers, and human sex trafficking awareness and education in the Panhandle and South Plains. Infectious disease activities include the Vector Surveillance Project related to mosquito control in the Rio Grande Valley, and the Oral Rabies Vaccination Program. Community health improvement activities include Operation Lone Star, East Texas Medical Outreach, the Community and Clinical Health Bridge Program, Texas Healthy Communities, collective impact programs to help build hospital capacity, and tobacco prevention and control coalitions. Additionally, DSHS contracts for the EMS/Trauma services in rural areas.

Dr. Hellerstedt emphasized access to care is a primary challenge for rural citizens receiving healthcare. Specifically, travel distance, counties with few to no physicians and a limited number of emergency healthcare providers, the state's large and diverse population, declining access to healthcare in rural/frontier areas, and the growing aging population contribute to the access to care issue.[181] Also, some funding for EMS/Trauma services is currently available through the Driver Responsibility Program; however, funds are not exclusively appropriated to trauma and EMS services. A stable funding mechanism is needed to ensure the trauma and EMS system in Texas is able to continue to operate effectively.[182]

Conrad 30 Visa Waiver Program

The Conrad 30 Visa Waiver Program is used to incentivize medical professionals to practice in designated rural and urban underserved areas. Conrad 30 is a federal program that allows states to sponsor international medical school graduates to practice in medically underserved areas provided certain conditions are met. Conditions include securing employment prior to receiving the waiver and agreeing to serve in a federally designated healthcare shortage area for three years. As a part of the application process, participating physicians are required to become licensed physicians in Texas and be regulated by the Texas Medical Board. DSHS has 30 waivers to award to 30 foreign physicians yearly.[183]

An Urban Medically Underserved Area Hospital

Access to healthcare can be just as challenging for low-income individuals living in urban medically underserved areas as it can be for individuals living in expansive rural areas.

Dallas County is a Medically Underserved Area and a Health Provider Shortage Area. Parkland Health and Hospital System (Parkland) is the safety net hospital for Dallas County where approximately 75 percent of the patient population is uninsured or on Medicaid. Total outpatient volumes are expected to increase by nine percent, or 1.2 million new visits, over the next five years. Dr. Cerise explains Parkland must take appropriate steps to address a growing demand with the limited resources the hospital has available.

Dallas County Demographics:

- Estimated total population in 2016 was 2.6 million;
- 21 percent of the total population is uninsured;
- Two-thirds of workers earn a median wage less than $50,000;
- 30 percent of children under 18 live below the federal poverty level;
- 75 percent of deaths are caused by chronic disease;
- Inpatient discharges are expected to increase 9.7 percent over the next five years to approximately 292,904 discharges in 2020;
- Total outpatient visits will increase nine percent, to 1.2 million new visits over the next five years; and
- Emergency department volume is expected to grow 5.7 percent by 2020.

Parkland has embraced innovative approaches to population health management by utilizing alternative delivery systems for care and using predictive analytics to be more precise, better manage complex care needs, and address the social determinants of health.

Examples of health management initiatives at Parkland include:

- E-Consult services which allow Parkland contracted primary care providers to email consult questions to a Parkland medical specialist, and if appropriate that specialist can answer the question electronically and potentially avoid a clinic visit all together. The program has improved the timeliness of expert specialist advice responses, reduced waiting times for face-to-face appointments, and improved quality of face-to-face visits. Current E-Consult service lines include dermatology, GI/liver, urology, diabetes, hematology, and ID/HIV. Cardiology, endocrinology, and pulmonology service lines should be implemented soon.
- The RIGHT Care program (Rapid Integrated Group Healthcare Team Care) is a behavioral health collaboration that was launched on January 1, 2018 between Parkland, the Meadows Mental Health Policy Institute, the Dallas Police Department, and Dallas Fire-Rescue. The program places one police officer, one paramedic, and one social worker (a Parkland employee) in one emergency response vehicle to respond to 911 calls and resolve mental

health crises in the field when possible, or ensure the individual is taken to an appropriate treatment provider to divert them from busy emergency rooms and jails. In the first 120 days of the program, the emergency response teams had 674 total interactions with 558 unique individuals, 22 of those interactions resulted in an arrest; 121 interactions involved follow up with a patient who was recently released from the hospital; and 278 individuals were linked to mental healthcare.

- The DFW FaithHealth Collaborative is a partnership between Parkland and Dallas County Faith Communities to build and strengthen health ministries within faith communities, allow for health ministries to become avenues to disseminate information on prevention and access to healthcare resources, and train faith community volunteers within congregations to assist patients when they are discharged from inpatient settings or with patients who have chronic health conditions. The goals of the Collaborative include to reduce use of emergency departments for non-emergent care and reduce hospital readmission rates. Parkland has partnered with 65 congregations and has trained over 140 Faith Community Caregivers through the program. Parkland began a pilot program connecting Parkland's primary care clinics with local congregations in May of 2018 to continue growing the program.
- The Pediatric Asthma Program uses predictive analytics to determine which patients are at the highest risk for an exacerbation. By using data from the health plan, the hospital can determine if the patient is filling the asthma rescue drug more than the maintenance medications, what the air quality is like in the patients neighborhood, the patients' socioeconomic status, and other factors that contribute to asthma attacks. The hospital can then send that information to the primary care clinic. The program sustained a 40-50 percent drop in total asthma costs for the hospital, or approximately $18 million in savings between June of 2014 and February 2018. Parkland has also seen a 21-26 percent drop in asthma emergency department visits over the same time.
- Accountable Care Communities is a program in which Parkland partners with Dallas community stakeholders to address health-related social needs through enhanced clinical-community linkages. This program was made possible by a $4.5 million five-year grant from the Centers of Medicare Services (CMS). The Parkland Center for Clinical Innovation serves as the bridge organization for the Dallas Accountable Care Community Network, and they designed and implemented an information exchange portal for systematic screening, navigation, and referral for health-related social needs among Medicare and Medicaid beneficiaries in the Dallas area.[184]

Texas Rural Hospitals

Texas' rural hospitals are the safety net of emergency and other care for rural Texas, rural hospitals also treat urban residents who are traveling through or staying in rural areas of the state. Data provided to the Committee by the Texas Organization of Rural Community Hospitals (TORCH) highlighted this phenomenon at the Van Horn hospital, located approximately 120 miles east of El

Paso. During a one year period, one third of the patients treated at the Van Horn rural hospital emergency room were from out-of-town and 13 percent of patients were from out-of-state.

Over the past five years, more rural hospitals have closed in Texas than any other state in the United States; Texas had 18 close and at number two, Tennessee had eight. Rural hospital closures, while devastating to the local healthcare workforce and network adequacy, also creates ripple effects in the community. When a rural hospital closes, the pharmacy will typically not be far behind, then a grocery store, and so on creating larger economic and workforce issues for the town.

Rural hospitals close for a number of reasons, but virtually every hospital closure occurs when the facility's revenues do not match the operating costs. Community demographics can also be a factor. Rural communities are generally more economically disadvantaged than urban communities and the population is trending older. Rural hospitals see a higher rate of uninsured, Medicaid, and Medicare patients than urban hospitals. Additionally, operating efficiency is a challenge because operating costs in a rural hospital are inherently higher due to low patient volumes, recruitment difficulties, and a general lack of an economy of scale in high volume purchasing and procurement. Also reporting and administrative burdens are growing and disproportionately affect rural hospitals that do not have as many administrative employees or the money to automate their systems.[185]

Mr. McBeath emphasizes, without a clear path to increase income, a reduction of expense is currently the only option for rural hospitals to continue operations; however, reductions in expenses are difficult because of base line requirements associated with operating a hospital designated by the federal government.

Federally defined minimum requirements for operating a hospital include:

- Must offer services, facilities, and beds for use for more than 24 hours for two or more unrelated individuals requiring diagnosis, treatment for care or illness, injury, deformity, abnormality, or pregnancy;
- Regularly maintain clinical laboratory services, diagnostic x-ray services, and treatment facilities including surgery or obstetrical care;
- Have sufficient medical staffing to address patient needs and emergency situations on a 24/7 basis; and
- Maintain electronic records systems if participating in Medicare and Medicaid.

Testimony provided by Mr. McBeath described a "step-down" rural hospital option to provide communities with a scaled down and less expensive hospital care facility should their full-scale hospital no longer be able to operate. While converting a failing hospital into a clinic is an option, maintaining hospital status provides for a higher payment structure under Medicare, Medicaid, and private insurance.

He discussed continuation as a hospital, but with more limited services, would allow for more core services including emergency care to continue in rural communities. Allowing a rural hospital to cease inpatient services which are costly to maintain, but remain classified as a hospital and

continue to be paid at hospital level rates for remaining services such as outpatient and emergency care will provide more financial viability.

Legislation is pending in Congress that would create variations of a step-down facility. If the federal legislation passes, Mr. McBeath encourages Texas to replicate the "step-down" hospital model to assure the new hospital type is recognized at the state level.[186]

Mr. Henderson, CEO of the TORCH, testified that Medicaid underpayment is the largest contributor to rural hospital revenues not able to meet operating costs. He states that since 1994, HHSC has included budget riders in the budget directing the agency to pay rural hospitals at cost, but when the state switched to managed care, HHSC did not include the rural hospital payment provisions to the managed care organizations (MCOs) in the MCO contracts. Therefore, rural hospitals are being treated like any other hospital by the MCOs - the hospital payment rates are purely negotiated. The negotiations typically start at the Medicaid fee schedule rate, but on average, rural hospital costs are above that rate. The shortfall generated for rural hospitals across the state due to the low negotiated rates is estimated to be $60 to $65 million per year. TORCH initially raised these concerns with HHSC in 2016; however rural hospital contracts with MCOs still do not address payment provisions for rural hospital payments.[187]

Programs and Efforts Addressing Access to Care

Texas Health and Human Services Commission

Among the various rural and medically underserved area health programs provided by the Texas Health and Human Services Commission (HHSC), telemedicine was emphasized in addressing healthcare in medically underserved areas. Medicaid acute care benefits provide coverage for both telemedicine and telehealth services; Medicaid Managed Care Organizations (MCOs) contract requirements include provisions that promote telemedicine and telehealth by requiring those claims to be processed in the same way a claim for an in-person service would be processed.

The difference between telemedicine and telehealth is determined by the provider type. Telemedicine eligible provider types include, physicians or providers under a physician's delegation or supervision. Telehealth eligible providers include, licensed professional counselors, licensed marriage and family counselors, licensed clinical social workers, psychologists, registered nurses, midwives, and dieticians. Reimbursement is also different for telemedicine and telehealth. Telemedicine services can charge at the physician site and the patient site; telehealth services can only charge at the provider site.

The telemedicine Medicaid benefit covers medical evaluation and management, and psychotherapy services, including:

- Psychiatric evaluations, medication management, and psychotherapy;
- Acute care disease management, such as for allergies, sinus infections, and skin conditions;
- Follow up care for a condition that has already been diagnosed, such as diabetes; and
- Consultations with specialists for patients receiving emergency or inpatient care.

Changes and additions made to the telemedicine Medicaid benefit as a result of legislation passed in the 85th Regular Legislative Session include:

- Senate Bill 1107 – Removes patient site presenter requirements as a condition of reimbursement (with an exception for school-based telemedicine services); removes requirements for an initial in-person, face-to-face visit between the physician and the patient prior to the telemedicine service being provided as a condition of reimbursement; and allows a valid prescription to be generated from a telemedicine service. HHSC is currently updating the telemedicine Medicaid benefit to include these changes.
- Senate Bill 922 – Adds occupational therapists and speech-language pathologists as distant site providers eligible for reimbursement for telehealth services delivered to children in school-based settings.

Funding is also provided through Delivery System Reform Incentive Payment (DSRIP) projects for telemedicine services. During the first six years of the 1115 Waiver, approximately 80 DSRIP projects focused on telemedicine received approximately $450,000. Specifically in rural areas, providers received funds to address challenges including hiring primary care and specialty care physicians, opening clinics or expanding clinic hours, training and deploying community health workers, and implementing telemedicine networks, mobile crisis teams, or mobile health units.[188]

Texas Medical Board - Telemedicine in Texas

Chapter 111 of the Texas Occupations Code authorizes the Texas Medical Board (TMB) to promulgate telemedicine rules. Additionally, TMB rules allow for new technology to be incorporated into the rules without the need for statutory revision, allowing for TMB to adapt quickly to advances in telemedicine technology.[189]

Statutory changes made by SB 1107 (85R) require the basic criteria that must be met for telemedicine appointments are, a physician treating a Texas citizen must have a Texas Medical License for enforcement purposes,[190] the standard of care must be the same as it would be in an in-person setting, and a practitioner/patient relationship must be established through either a preexisting relationship, a call coverage agreement, or via another valid telemedicine delivery method. The key requirement for telemedicine delivery methods is that a practitioner must have access to "clinically relevant," or any objective data that can be used to make a diagnosis, and be able to utilize this information during the patient encounter.[191]

Limitations and exceptions to telemedicine include, chronic pain management and the prescribing or providing of abortives is not allowed via telemedicine.[192]

The appeal of telemedicine, especially in Texas, centers around three things, increased access to healthcare, cost savings, and patient satisfaction. Telemedicine is a time and distance saver which increases access to care because while it saves the patient travel time, reduces patient lost productivity time, and provides a greater convenience and accessibility, telemedicine also gives patients who would otherwise not seek care at all, a convenient way to obtain some level of healthcare.[193]

Texas Tech University Health Science Center

To address student enrollment and medical professional workforce shortages in the state, Texas Tech University Health Science Center (TTUHSC) has integrated the following programs into the course of study and provider system of care in the Lubbock area:

- Frontiers in Telemedicine - To enable their medical students to achieve competency in telemedicine related clinical procedures, technology, and business, TTUHSC pioneered the Frontiers in Telemedicine Lab and Certificate Course. The TTUHSC 2018 Strategic Plan included a strategic objective to ensure every graduate from the school learns to use telehealth technologies to enable them to be pioneers of innovations to improve the health and care of Texans using smart technologies.
- Project ECHO - TTUHSC has also built an extensive telemedicine network to serve west Texas that links civilians and correctional managed healthcare facilities with telemedicine capability by leveraging resources available at the Area Health Education Centers (AHEC) throughout the region. TTUHSC is a certified ECHO site through Project ECHO (Extension for Community Healthcare Outcomes).[194]
    - Project ECHO is a collaborative model of medical education and care management that empowers clinicians everywhere to provide better care to more people which launched in 2003 at the University of New Mexico and has since been implemented across the country. The ECHO Model uses tele-monitoring technology to, leverage scarce resources, share best practices to reduce disparities, apply case-based learning to master complex issues, and evaluate and monitor outcomes.[195] TTUHSC currently uses two ECHO connections, in cardiology and end of life care.[196]

Telemedicine, Wellness, Intervention, Triage, and Referral Program

The Telemedicine, Wellness, Intervention, Triage, and Referral (TWITR) program was developed at TTUHSC as a telemedicine-based, rural schools mental health screening model. The program is also a mental health screening and secondary prevention program designed to work in school districts that have counselor position vacancies and limited community mental health resources. Dr. Phillips described that TWITR currently operates in 10 school districts in Lubbock, Texas and the surrounding area with a total school enrollment of approximately 42,000 per year. The technology provides school-based mental health screening, assessment, and referral services using telemedicine. The program does not provide clinical treatment for the students. After a screening, assessment, and if needed, a referral, program staff coordinate a hand off for the student to the provider or system of care for which they received a referral.

Since implementation approximately 1,640 school staff have been trained in the model; approximately 41,000 students have been impacted by the program; 414 student referrals have been made; 215 students have been triaged by telemedicine; 44 students have been recommended for in-school supervision; and 25 students have been recommended to be removed from school. TWITR districts have seen a 17 percent reduction in truancy, a 25 percent reduction in student discipline referrals, and a 3.6 percent increase in student GPA.

TWITR was created at the direction of Governor Rick Perry in 2013 and funded annually by the Office of the Governor, Criminal Justice Juvenile Prevention Division.[197]

University of Texas Health Institutions

UT Collaboration for Population Health Innovation and Improvement Initiative

The University of Texas Collaboration for Population Health Innovation and Improvement Initiative (Initiative) brought all eight UTHealth Institutions together to define the catchment areas for each institution and require each institution to develop its own population health strategic plan. Using data from a national survey conducted by the Robert Wood Johnson Foundation in conjunction with the University of Wisconsin to establish county health rankings, the Initiative determined that counties in east Texas and the Rio Grande Valley ranked the highest in health risk factors and the lowest in health outcomes in Texas.[198]

Dr. Lakey discussed due to the fact that northeast Texas stands out against the rest of Texas in terms of health risk factors, UTHealth Northeast published *The Health Status of Northeast Texas* in 2016, which took a deep dive into the status of the population of 35 northeast Texas Counties and determined that the mortality rate in northeast Texas is 19 percent higher than the rest of the state. A previous study also shows that the percentage of adults who report daily cigarette smoking is almost double in northeast Texas than in the rest of the state at 23.4 percent versus 14.5 percent. Tobacco use is proven to increase the risk of heart disease, lung cancer, and chronic obstructive pulmonary diseases.

In an effort to combat the health risk factors in Northeast Texas, UTHealth Science Center Tyler developed numerous initiatives to increase access to healthcare in the surrounding rural communities. The initiatives include a Mobile Asthma Clinic to provide access to mobile care services for children with asthma in school settings; collaborating with local academic dental hygiene programs to refer chronic disease patients and children for preventative dental services; pairing UTHealth Science Center registered nurses with low-income, first-time mothers to improve prenatal care and child development; collaborating with the Episcopal Health Foundation so local citizens have a better understanding of the available services; partnering with the University of Texas Southwestern Moncrief Cancer Institution to extend mobile cancer screening into rural areas using CPRIT funding; and building a new School of Community and Rural Health.

UT Rio Grande Valley (UTRGV) has implemented initiatives to combat the high rates of rural health risk factors in the Rio Grand Valley. The initiatives include the UTRGV School of Medicine increasing their number of medical residency slots from 138 in 2017 to 166 in 2018; establishing the South Texas Diabetes and Obesity Institute in 2014 to advance research on diabetes, obesity, and related disorders; creating the Center for Colonia Integrated Care Program: Valley Interprofessional Development and Services to build a sustainable model of healthcare delivery to the most vulnerable members of the Valley community; and developing three new Area Health Education Centers (AHECs) in South Texas to help increase access to primary care, enhance education and training networks within communities, and teach students about the social determinants of health and health disparities.[199]

University of Texas Medical Branch

The University of Texas Medical Branch in Galveston developed the Virtual Health Network to create a statewide network of care for patients via telemedicine. Ms. Robinson testified that historically, to perform telemedicine, physicians set aside large blocks of time and were required to set up appointments at certain locations. This was difficult and burdensome for physicians and was a primary reason many did not partake in telemedicine. The Virtual Health Network combats this issue by: building a centralized connected video platform for all eight UT medical schools with the potential of branching that network out to all clinical partners who want to participate; building a scheduling and documentation platform to allow for the sharing of documents and the integration of the physicians schedule onto one uniform scheduling platform; and expanding telemedicine access through collaborative initiatives where UTMB staff provides the technology and training so that contracted providers can provide care through telemedicine. Once complete, UTMB will make the network available to all partnered clinics free of charge. A full roll-out of the Virtual Health Network is expected by the beginning of 2020.[200]

Texas A&M University Health Science Center Rural and Community Health Institute

The Texas A&M Rural and Community Health Institute (Institute) works to identify problems faced by rural communities, address areas that need further examination, and consider potential steps that a community or region can take to address issues regarding rural health. Due to the recent closure of many rural hospitals in the state, the Institute has focused research efforts on rural hospitals.

Primary issues identified regarding rural hospitals include:

- Mergers and consolidations via purchase or transfer management to larger systems, causing the rural hospital to lose its voice and not meet the larger profit margin often demanded by a large system;
- New programs and funding aimed at increasing access to care and improving health outcomes in rural areas, could result in even fewer rural hospital visits as the population gets healthier;
- Healthcare technology can also be burdensome to rural hospitals that have a small administrative staff; and
- Identifying and retaining workforce is an ongoing challenge.

To help ease the administrative burden, the Institute sells certain administrative services to groups of rural hospitals. For example, in the program, a statistician at the Institute is provided data collected by a rural hospital and the Institute statistician performs the number crunching for the hospital. This ensures that reports filed by the rural hospital are completed in a timely manner and are accurate to enable the hospital to continue meeting federal and state reporting requirements without spending valuable hospital administrative time. When the hospitals group together and contribute, the Institute is able to charge an affordable fee.

The Institute is also developing tools which allow rural hospitals to better track performance. Dr. Dickey testified that oftentimes a rural hospital does not understand the gravity of the situation

until the hospital is on the brink of closure. If performance metric tools were catered to rural hospitals, issues could be identified at an earlier stage with the hope of turning the issue around before the hospital reaches the point of closure.

Additionally, the Institute is developing and endorses tools that can be used by a rural hospital to transition to a "step-down" type hospital facility. This allows the facility to continue to provide healthcare without the requirements of a fully functioning hospital.[201]

Sam Houston State University

To address the healthcare workforce shortage, Sam Houston State University (SHSU) is proposing a new College of Osteopathic Medicine Medical School in Conroe, Texas. According to testimony provided by Chancellor McCall of the Texas State University System, over 60 percent of Doctors of Osteopathic Medicine (DOs) practice primary care, and approximately 50 percent of DOs practice in rural and underserved areas. For this reason, the SHSU College of Osteopathic Medicine would be entirely geared towards creating primary care doctors to practice in medically underserved areas.

Chancellor McCall testified that Texas has more capacity for DOs, even with the added DO students from the SHSU school as only 12 percent of total medical students in Texas are DOs. The school plans to expand Graduate Medical Education (GME) by 172-235 new residency slots dedicated to rural hospitals at no cost to the state. The new slots will bring in an estimated $68 million in reimbursement dollars to participating rural hospitals in East Texas. SHSU already has 73 slots identified to take residents once the school is open. The school will not require formula funding from the state, instead will be an entirely self-funded private school that is associated with the public university, Sam Houston State.[202]

Texas Department of Agriculture, State Office of Rural Health

The State Office of Rural Health (SORH) at the Texas Department of Agriculture (TDA) serves as a coordinating, facilitating, and grant issuing agency for federal and state programs related to healthcare in rural areas of Texas.

The SORH Grant Program was created by the federal government in 1991 to assist states in strengthening rural healthcare delivery systems by maintaining a focal point for rural health within each state. From the federal SORH grant program, Texas created the Center for Rural Health Initiatives (CHRI) housed at the Texas Department of Health in 1989 to improve the availability and quality of healthcare in rural communities. In 2001, House Bill 7 (77R) created the Texas Office of Rural Community Affairs (ORCA) to develop rural policy and administer programs supporting rural healthcare. HB 7 also moved CHRI under the jurisdiction of ORCA and CHRI became the Texas State Office of Rural Health. In 2009, ORCA merged into the Texas Department of Rural Affairs (TDRA) via HB 1819 (81R). In 2011, TDRA merged into the Texas Department of Agriculture (TDA) where SORH is now housed.[203]

The SORH grant program requires a 3-to-1 match from the state. The program's federal dollars exclusively cover administration costs associated with creating and operating SORH and the state

matching dollars are utilized to identify and address issues that affect rural hospitals and healthcare providers. SORH employs four full time employees to cover the entire state.

SORH provides services, programs, and grants for rural health in the amount of approximately $4.5 million per year. The Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services and the State of Texas provide funding for SORH. State funding to the SORH has been reduced by approximately 40 percent since 2015.

SORH administers the following programs to develop and sustain healthcare facilities in rural communities:

- The Rural Health Facility Capital Improvement Program provides competitive grants to hospitals in rural counties to make capital improvements to existing health facilities, construct new facilities, or purchase capital equipment. This grant is funded through the Tobacco Endowment and provides up to $75,000 per award with a 25 percent participant matching requirement;
- The Small Rural Hospital Improvement Program Grant provides funding to all small rural hospitals to help them cover costs related to implementing prospective payment systems, and pay for the costs related to delivery system changes such as value-based purchasing, accountable care organizations, and payment bundling. This is a non-competitive program that provides approximately $8,000-$10,000 to eligible facilities; and
- The Medicare Rural Hospital Flexibility Program encourages the development of cooperative systems of care in rural areas by combining resources from Critical Access Hospitals – 25 or less beds – (CAHs), EMS providers, clinics, and health practitioners to increase efficiencies and quality of care. All funding goes towards two projects: the Quality Improvement Project, administered by the Texas Hospital Association Foundation, which provides assistance to all Texas CAHs; and the Financial Operational Improvement Project, administered by TORCH, which identifies ten low-performing CAHs in the state annually and works to address their similar issues.[204]

Challenges

- Statewide access to care.
- Lack of healthcare providers.
- Lack of public health emergency preparedness.
- Limited staff available for disaster response, post-disaster recovery.
- High incidence of injuries in dangerous jobs performed in rural communities.
- Stability of funding for trauma and EMS care in rural areas.
- Rural hospital closures.
- Telemedicine billing and payment structure barriers as well as lack of broadband access for telehealth in many rural areas.
- Aging population.

Recommendations

- Continue promoting access to health services through remote treatment options, including telemedicine.
- Study broadband access in rural areas and create a plan to ensure rural facilities can transition to e-health records and use technology for other administrative matters and to increase the availability of telemedicine services.
- Promote joint disaster training with the local health departments especially in rural areas.
- Encourage communities to study, identify, and address their primary public health concerns.
- Continue to utilize, and encourage community health workers to address chronic disease, education, and referrals – these workers are especially effective because of their ability to form personal contacts with the people in their area.
- Require HHSC to study and provide a full report and recommendations in relation to the rider information referenced in the hearings related to Medicaid reimbursement payments to rural hospitals regarding actual costs.
- Address telemedicine barriers specific to rural hospitals including, allowing telemedicine to supplement Level 4 trauma centers (which is most rural hospitals) which by law are required to have a physician that can respond in person within 30 minutes.
- Consider alternative hospital models in rural healthcare including, a free-standing emergency center or scaled down hospitals, with a requirement of maintaining a continuum of care, in rural communities.
- Should Congress pass legislation creating "step-down" rural healthcare facilities as an option for a community that has a rural hospital that can no longer afford to operate, Texas should enact mirror legislation to ensure that the new step-down facility type is recognized under Medicaid and state licensing and regulations.
- Develop and support tools that help rural hospitals to track their performance, and easily transition into a step-down hospital type facility, then provide education to rural hospital stakeholders and administrators throughout the state regarding each set of tools.
- As DSRIP funds ($3.1 billion per year) have the potential to be phased out, the state must consider programs that are successful because of those funds and figure out how to incorporate those programs into Medicaid Managed Care in Texas.
- Address tobacco as a primary driver of health risks in a statewide ordinance.

CHARGE 6 – THE PREVALENCE OF CHILDREN INVOLVED WITH THE CHILD PROTECTIVE SERVICES SYSTEM WHO HAVE A MENTAL ILLNESS AND/OR A SUBSTANCE USE DISORDER OR DUE TO THEIR GUARDIAN'S SUBSTANCE ABUSE OR AN UNTREATED MENTAL ILLNESS

The hearing related to children and families involved with Child Protective Services (CPS) who a have mental illness and/or a substance use disorder was held on August 9, 2018 at 9:00am in Austin, Texas in the Capitol Extension, Room E1.030.

Charge 6 – ***Analyze the prevalence of children involved with Child Protective Services (CPS) who have a mental illness and/or a substance use disorder. In addition, analyze the prevalence of children involved with CPS due to their guardian's substance abuse or because of an untreated mental illness. Identify methods to strengthen CPS processes and services, including efforts for family preservation; increasing the number of appropriate placements designed for children with high needs; and ensuring Texas Medicaid is providing access to appropriate and effective behavioral health services. (Joint charge with the House Committee on Human Services)***

The following organizations/individuals were invited to testify:

Kristene Blackstone, Texas Department of Family and Protective Services
Christine Bryan, Clarity Child Guidance Center
Pamela McPeters, TexProtects Champions for Safe Children
Kate Murphy, Texans Care for Children
Stephanie Muth, Texas Health and Human Services Commission
Katie Olse, Texas Alliance of Child and Family Services
Hank Whitman, Texas Department of Family and Protective Services

The following individuals provided public testimony:

Anais Biera Miracle, The Children's Shelter
Stacey Burns, Nexus Recovery Center
Kirk Coverstone, Texas Psychological Association
Tabitha Ferguson, Self
Will Francis, National Association of Social Workers - Texas Chapter
Christina Green, Children's Advocacy Centers of Texas, Inc.
Michelle Hansford, Santa Maria Hostel; DFPS Parent Collaboration Group
Cecilia Hellrung, Self
Sheila Hemphill, Texas Right to Know
Patricia Hogue, Texas Lawyers for Children
Brandy Howard, Disability Rights Texas
Jason Howell, Recovery People
Bill Lund, CK Family Services
Joyce Mauk, Texas Medical Association and Texas Pediatric Society

Traci McMurtry, Santa Maria Hostel
Melinda Picott, Self
Judy Powell, Parent Guidance Center
LaQuan Rogers, Motivated Fitness - Get Fit Wit M3
Lee Spiller, Citizens Commission on Human Rights
Alissa Sughrue, National Alliance on Mental Health Texas
Columba Wilson, Self

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Background

The prevalence of mental illness and substance abuse in children involved in state conservatorship is higher than for children outside of the system, and mental illness and substance abuse are primary risk factors for child removals and for foster child fatalities.[205] Recognizing that all children in foster care have experienced trauma and behavioral issues may be a result of that trauma is important.[206]

The STAR Health Program, administered by the Texas Health and Human Services Commission (HHSC), began in 2008 and is a statewide managed care delivery model administered to meet the healthcare needs of children in foster care. Children currently in the care of the Department of Family and Protective Services (DFPS) and former foster care children under the age of 21 are eligible for enrollment in STAR Health. Additionally, youth who sign extended foster care agreements are eligible from ages 18-22.[207]

Statistics

Texas CPS Statistics:

- 50-70 percent of removals by CPS include substance abuse as a reason for removal. In 2017 removals with substance abuse as a factor accounted for 13,512 of 19,760 total removals;[208]
- In FY 2017, 52 percent of child fatalities caused by abuse or neglect involved a parent or caregiver actively using a substance and/or under the influence of one or more substances that affected their ability to care for the child;[209]
- Nearly 23 percent of fatalities caused by abuse or neglect involved a parent or caregiver with mental illness;[210]
- Active or domestic violence concerns were identified in 17 percent of child fatalities caused by abuse or neglect, and 40 percent of these fatalities included a family history of domestic violence;[211]
- More children have entered the foster care system than exited every year since 2016;[212]
- The U.S. Department of Health and Human Services found in 2016 that more than 63 percent of children removed in Texas was due to parental alcohol or drug use; [213]

- Over the past decade Texas has seen a 28 percent increase in removals due to parental substance use;[214]
- Approximately 13 percent of all referrals to community-based substance use treatment providers come from DFPS;[215] and
- Between 2010 and 2015, approximately 33 percent of children who exited foster care returned home to their parents, during the same time frame only 21.9 percent of children who were removed due to substance use issues returned home to their parents.[216]

HHSC provided the following statistics regarding the Medicaid STAR Health program:
- In 2017, 53 percent of children in STAR Health had a diagnosis of mental illness or substance use disorder; and
- In 2017, 68 percent of all STAR Health expenditures ($174 million) were for children with mental illness or a substance use disorder.[217]

Child Protective Services

The Texas Department of Family and Protective Services (DFPS) works with communities to promote safe and healthy families and protect children and vulnerable adults from abuse, neglect, and exploitation. The Child Protective Services (CPS) program is one of the five programs operated by DFPS.

Commissioner Blackstone explained Senate Bill 11 (85R) implemented many efforts to improve rates of family preservation in Texas. Specifically, the bill created a Family Based Safety Services (FBSS) pilot program that shifts FBSS functions to a local child welfare organization with the goal of preventing child abuse and neglect. Currently, the pilot site in El Paso, Texas is using a performance-based contracted provider to implement evidence-based or promising practices in case management services to reduce recidivism and the number of child removals. The contracted organization, Pathways Youth and Family Services, has served the community through coordination with the local outreach, screening, assessment, and referral center (OSAR), the local mental health authority (LMHA), and local treatment providers. The organization is also working to establish a telemedicine program to serve families living in local rural areas.

Another requirement of SB 11 was Community Based Care (CBC) expansion. DFPS is using performance-based contracts to implement a blended rate for placements. The added flexibility afforded by the blended rate eliminates service level issues by incentivizing service providers to place children in less restrictive environments. The CBC contracts also carry a “No Reject, No Eject” clause, meaning providers must build capacity to serve every child in need in their service area.

For high needs children, DFPS has signed three contracts for the Therapeutic Foster Care Program to provide intensive training on a basic level of treatment for foster parents who provide care for high needs children. This program works to keep a child in a family setting early on, so that his/her needs do not escalate as they age, and keeps the child from living in more restrictive settings.[218]

Testimony provided by the Texas Alliance of Child and Family Services emphasized that increasing capacity within the system does not necessarily mean the right kind of placements for high needs children are created.[219]

In addition to providing services directly, DFPS is the third highest referral source to community-based substance use treatment, behind probation officers and self-referral. Parents referred to treatment by DFPS are considered a "priority population" by the state and therefore, should receive services within 72 hours of being referred. However, access to treatment is limited and often times parents sit on waitlists for an average of 15 days before they receive treatment.

State funding to DFPS to operate services and programs specific to substance abuse equals $8.5 million. DFPS uses $5.28 million of the agency's annual state appropriations for drug testing. Commissioner Blackstone highlighted the importance of drug testing as another tool that can be used to determine a child's safety and whether or not they should be removed from the home. Although DFPS involved individuals primarily receive treatment services from HHSC providers, DFPS also receives approximately $3 million annually for the 2018-19 biennium to pay for services on an "as needed" basis. For example, if a parent involved with DFPS is on a waitlist for services, DFPS is able to provide counseling or treatment services.[220]

Texas Health and Human Services Commission - Medicaid STAR Health Program

STAR Health provides Medicaid benefits tailored to the needs of foster children in state conservatorship. During FY 2017, the average monthly enrollment for STAR Health was 32,091 children. The program model includes immediate eligibility for children upon entering state conservatorship, special screening and needs assessments, service coordination and management teams, the Electronic Health Passport, increased focus on behavioral health services, a statewide network of providers, and value-added and case-by-case services that support foster placements.

Implementing STAR Health during the statewide transition to managed care included deploying the Electronic Health Passport, which though not a full electronic health record, does show all billings, including pharmaceutical billings. Using the Electronic Health Passport, physicians, caseworkers, and CASA volunteers have access to healthcare information for a CPS child as he or she moves around the state from placement to placement. The Passport also provides two years of medical history for the child if the child was on Medicaid or CHIP prior to entering conservatorship. The transition to managed care allowed STAR Health to be implemented as a statewide network as opposed to being separated into regional service delivery areas. This provides for better continuity of care as foster children oftentimes move between regions of the state for placements.

STAR Health also includes an increased focus on behavioral health services. Added benefits include:

- Mental health screenings for service coordination and management each time a child enters conservatorship or changes placements;
- Psychiatric diagnostic evaluations;
- Individual, family, and group counseling for mental health and substance use disorders;

- Psychotropic medication and management;
- Inpatient psychiatric care;
- Targeted case management and rehabilitation;
- Substance use screening, brief intervention, and referral options;
- Assessments by substance use disorder providers;
- Medication assisted treatment;
- Outpatient or residential detoxification; and
- Residential treatment.

HHSC oversight of behavioral health programs includes a Psychotropic Medication Utilization Review to determine the percentage of children in Texas foster care receiving psychotropic medications by category. The review found that since 2004, a 51 percent decrease in CPS children on psychotropic medication for 60 days or more. HHSC has also implemented a Crisis Stabilization and Psychiatric Hospital Diversion program to decrease unnecessary active psychiatric hospitalizations and improve placement stability. Two-hundred youth have been successfully diverted from psychiatric services as a result of the program.[221]

Services and Programs

Other substance use programs that exist in Texas for CPS involved children and families include:

- Family Drug Courts: In Bexar County, the Family Drug Court has had proven success delivering services to families in need and preventing recidivism. Additionally, in Travis County the Family Drug Court has shifted to a family preservation mindset.[222]
- Inpatient Drug Treatment: Women and Children's Programs, operate in ten facilities across Texas. These programs allow children to remain with their mothers, when safe to do so, while the mother receives inpatient substance abuse services.[223]
- The Sobriety Treatment and Recovery Teams program (START) reduces the recurrence of child abuse and neglect, improves substance use disorder treatment rates, and builds protective parenting skills by pairing a CPS family with a mentor who is at least three years sober and has previous involvement with CPS.[224]
- The Family First Act, passed by Congress in 2018, provides federal funding opportunities for substance use prevention in the community.[225]
- Outreach, Screening, Assessment, and Referral Centers (OSARs) often serve as the entry point into substance use treatment and recovery. Texas has 14 OSARs that are co-located with local mental health authorities across the 11 Health and Human Service regions in the state.[226]

An Example of the Need to Expand Capacity

Clarity Child Guidance Center is Texas' only non-profit inpatient and outpatient mental health organization serving only children. Through their work, Clarity provides a unique example of the CPS placement capacity issues in the state.

Eighty percent of the children served at Clarity are state supported and at any given time, 10-15 percent of the children being treated at Clarity are STAR Health kids. However, once treatment is complete and a foster child is medically cleared for discharge, Ms. Bryan informed that many remain at Clarity because another appropriate placement option is not available. This is of detriment to the child because the child must continue to live in a hospital setting after becoming healthy. Furthermore, due to the nature of Clarity's mental health operations and security, the medically cleared children still must follow the hospital's regular programming routine and restrictions and oftentimes this leads to the deterioration and ultimately the readmission of the child. Child welfare advocates attest that temporary placement in a hospital may cause children to slip behind their peers developmentally and socially, and that extended hospital stays can give artificial negative signals to other placements that become available and limit where the child can be placed.

Since 2016, 28 percent of the STAR Health kids who were hospitalized at Clarity were held beyond medical necessity. The STAR Health program covers temporary placement for 15 days; since 2016, Clarity has provided beds for a total of 1,631 placement days, including 798 unpaid days resulting in over $700,000 in lost revenues. Within the same time frame, STAR Health placement days prevented 326 children in crisis from being admitted to Clarity.

Clarity has reason to believe that similar situations are occurring in other hospital treatment centers throughout the state and recommends that the state continue efforts to increase access to timely and early mental health interventions and reduce the need for CPS children needing inpatient beds.[227]

Challenges

- Foster care and other service capacity is not keeping up with increased child removals.
- Access to substance use services, in both availability/location of services and waiting lists/insurance coverage.
- Parent-specific barriers include employment challenges and child-care availability/frequency.
- Not enough placement options for children being discharged from the hospital.

Recommendations

- Consider expansion of county-led initiatives like Family Drug Courts.
- Review creating a family counseling program for families who have successfully completed Family Drug Treatment Courts (FDTC) programs focused on maintaining sobriety, rebuilding the family unit, and other family therapy services.
- Encourage implementing more targeted DFPS recruiting efforts because for every 100 families that come to information sessions regarding becoming a foster parent, only a few actually become foster parents.
- Consider increasing funding to expand the Crisis Response and Psychiatric Hospital Diversion Programs administered by HHSC.
- Review resources for therapeutic foster care services for youth in foster care with severe mental, emotional, or behavioral health needs.
- Consider establishing specialized caseworker units focused on families where substance abuse is present.
- Enhance data reporting for parental substance use disorders in the CPS data management system.
- Leverage the opportunities for funds from the federal Family First Prevention Services Act.
- Encourage HHSC to continue to review and improve programs for network adequacy.
- Evaluate the need for additional investment in Family Based Safety Services to address the underlying causes of substance use disorders.
- Ensure that efforts are continued in the recruitment of homes for children in CPS conservatorship and that the right type of placements are being made for high-needs children; ensure the requirements of SB 11 (85R) regarding family based safety services are being implemented.

CHARGE 7 – ORGAN AND BONE MARROW DONATIONS

The hearing related to organ and bone marrow donation was held on April 19, 2018 at 10:00am in Austin, Texas in the Capitol Extension, Room E2.012.

*Charge 7 – **Evaluate the process of organ and bone marrow donations. Consider opportunities to improve organ and bone marrow donation awareness in order to increase the number of willing donors.***

The following organizations/individuals were invited to testify:

Brad Adams, Southwest Transplant Alliance
Tracy Giacoma, RN, MSN, MBA, FACHE, Methodist Dallas
Sheri Gipson, Department of Public Safety, Driver's License Division
Kristin Lester, Organ Recipient
Susan Rossmann, MD, PhD, Gulf Coast Regional Blood Center
Elizabeth Shpall, MD, University of Texas MD Anderson Cancer Center

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Organ Donation

Background

Organ donation is performed using living donors and deceased donors. Living donors volunteer an organ to the recipient. Donors in Texas can also indicate willingness to be an organ donor upon death by registering as an organ donor in the Donate Life Texas (DLT) Registry. Registering as an organ donor enables organs, if viable, to be donated upon death.

Statistics

Texas Statistics:

- Over 5,000 organs were recovered for a transplant in 2017 - almost 1,000 more per year than five years ago;[228]
- The Donate Life Texas Registry celebrated ten-million donor registrations in 2017, making DLT the fastest growing donor registry in the country;[229]
- As of June 2018, 8.2 million people were registered donors through DPS with a total of 10.4 million Texans registered, equaling just over 50 percent of the adult population in Texas; [230]
- Approximately 3,000 new Texans register every day totaling one million new donors every year; [231]
- 83 percent of Texas donor registrations are made through the DPS office; [232]
- 56 percent of registered Texans are female; [233]

- 31 percent of Texas license or ID customers check "Yes" to be a donor, the national average is 42 percent; [234]
- DLT is currently the second largest registry in the country behind California; [235]
- Over 400 Texans died in 2017 waiting for a transplant; [236]
- In 2017, Texas had 941 organ donors - approximately a 47 percent increase over the past five years;
  - Of the 941 donors, 386 were registered donors; [237]
- Of the families in Texas that were approached about donation for a patient who was not registered, around 70 percent give consent to donate the patients' organs;[238] and
- Per DLT testimony, 13 unidentified Texas donors obtained authorization through a hospital administrator or through the person charged with the disposition of the decedent's body over the past 5 years.[239]

National Statistics:

- Only one to two percent of people die in such a way that maintains viable organs for organ donation;[240]
- National Donate Life data show that 90 percent of the country supports organ donation; [241]
- According to a Mayo Clinic study, 84 percent of the United States population would consider donating an organ to a friend or family member and 49 percent would consider donating to a stranger;[242]
- A National Kidney Foundation survey found that one in four Americans would consider live kidney donation if they knew someone in need; [243]
- 115,000 people in the United States are currently waiting for a lifesaving organ transplant;
  - More than 10,000 of those in need of a transplant live in Texas;[244] and
- 22 people in the U.S. die everyday waiting for a transplant.[245]

Donate Life Texas

Donate Life Texas, Inc. (DLT) is the 501(c)3 nonprofit organization designated by the Texas Department of Public Safety (DPS) to maintain and administer the statewide organ donor registry known as the Glenda Dawson Donate Life Texas Registry (Registry). DLT is governed by a Board of Directors including the CEOs of Texas's three federally-designated organ procurement organizations (OPOs) as the voting members, and is part of the Donate Life America registry network.

The Registry was established by the 79th Texas Legislature in 2005. In 2011, DPS was given the authority to designate DLT to maintain and administer the registry. The Registry allows Texans the opportunity to record legal consent for organ, eye, and tissue donation. DPS partners with the Texas Department of Motor Vehicles (DMV) to allow individuals to join the Registry when applying for or renewing a driver's license, identification card, or vehicle registration. This partnership has been a huge part of the success of the Registry.[246]

DPS customers have the opportunity to donate when applying for a driver's license in person, or online during the renewal/change of address transaction. Specifically, question number four will ask if the customer would like to be an organ donor (checking "yes" on this box registers a customer to be an organ donor across the board, as an organ, eye, and tissue donor), and question number five will ask if the customer would like to make a charitable donation.

After a customer checks "Yes" to being a donor and that answer is confirmed by the customer service representative, the information is entered into the system and transmitted to the Donate Life registry each night. When the customer receives his/her hard copy driver's license or identification card, a red heart will be on the card to identify the person as an organ donor.[247]

Information regarding becoming an organ donor and making a donation to DLT is displayed in all DPS offices and customer service representatives are trained on how to answer questions about organ donation and the Donate Life program.

In 2015, the Texas Legislature gave DLT the ability to securely add people to the Registry through DLT's new phone application, the Scan App. The app simply scans the barcode on a person's ID or license to add them to the registry. 1,800 people have registered as organ donors through the Scan App thus far. Additionally, Donate Life America partnered with Apple in 2016 and now iPhone owners can sign up to be an organ donor on the MedID tab of the Health App on every iPhone. Siri will also direct anyone who asks if Siri is an organ donor, to the health app and explain how to become an organ donor.[248]

DLT Funding

DLT is funded solely on donations and all funds received are used to maintain and administer the Registry and to support public education regarding the lifesaving importance of organ, eye, and tissue donation.

Some of the programs funded by donations include:

- Driver education materials for students;
- The Unite4Life Awareness Program which gives individuals and groups the opportunity to host their own registration campaigns;
- The Texas Association of Student Councils Partnership chose DLT for their statewide service project for the 2016-17 school year resulting in more than 1,300 new additions to the registry; and
- Targeted community education campaigns.

DPS is statutorily authorized to keep a percentage of the amounts collected for donation program administration; they have historically opted to forgo withholding those administrative fees.[249] DLT collected $450,362 in 2017 and has collected $280,628 as of April 6, 2018.[250]

Living Donation

Organs available for living donation - donor is still living - are:

- Kidney – Donate whole or part of the kidney, and is the most common organ transplant and the most needed;
- Liver – Donate a lobe or a portion of one's liver, donors can also participate in a domino transplant where a liver is removed from one transplant candidate and given to another and the first candidate receives a new liver from a deceased donor. An important item to understand about liver donation is that although a liver may not be working for one person, it can still work for another;
- Lung – Donate a lobe of one's lung;
- Intestine – Donate a portion of the intestine;
- Pancreas – Donate a portion of the pancreas;
- Heart – Requires a domino procedure; and
- Uterus – Whole organ donations are in the clinical trial phase.

Types of living donors include: blood relatives, unrelated living donors who are emotionally close to the recipient including a spouse; non-directed donors who are not related to or known by the recipient; and paired donors who are living donors who are medically able to donate but are not compatible with their intended recipient, therefore two or more recipient/donor pairs trade donors and each recipient then receives a compatible organ.

The benefits of living donation include:

- Better outcomes - living donor kidneys function better and typically 8-12 years longer than a kidney from a deceased donor; the number goes up to 10-15 years longer if one receives a living donor kidney before going on dialysis;
- Lower costs - Medicare spends an average of $17,000 a year on a patient after a kidney transplant is performed compared to $70,000 per year for a patient on dialysis and United Healthcare reports that the cost of a kidney transplant is $150,000 while a year of dialysis costs $260,000; and
- Living donation can be a rewarding experience for the donor.[251]

Disincentives to living donation, that may be impacting the number of living donors, include:

- Medicaid does not cover living donor transplantation;
- Blue Cross Blue Shield has products that do not cover living donation;
- Post donation, insurance companies often deny or increase premiums for life, disability, and long-term care insurance; and
- Donors average $4,400 in out of pocket expenses for uncovered items like ground transportation, healthcare, child care, meals, medications, lodging, air transportation, and lost wages.[252]

Ways to combat the disincentives of being a donor include:

- Finding a Live Donor Champion, this could be a friend, family, community member, or stranger trained to advocate on behalf of the transplant candidate;
- The use of social media or a website to share the story of the patient or raise funds;
- The National Kidney Foundation Program called Big Ask Big Give;
- United Network for Organ Sharing (UNOS) patient resources;
- The Living Kidney Donors Network Religious and Fraternal Education Initiative which educates members about the need for living kidney donors;
- The American Society of Transplant Services resources; and
- Initiatives to reduce financial disincentives including: the National Living Donor Assistance Center; the U.S. Department of Health and Human Services will provide up to $3.5 million yearly for donor travel expenses through August 2019; the American Transplant Foundation; Cigna and United have provided a travel benefit for donors of all types; 19 states have enacted tax deductions or credits to living donors; Donor Leave Laws allow federal employees to receive 30 additional days paid leave for organ donation and seven additional days for bone marrow donation; and the Living Donor Protection Act is currently pending in Congress clarifies that any living organ donors may use time granted through the Family and Medical Leave Act to recover from donation.[253]

Organ Procurement Organizations

Organ Procurement Organizations (OPOs), by federal law, are the only organizations allowed to recover organs from deceased donors for transplantation. OPOs access the DLT Registry when a person dies to confirm registration status of the deceased. Texas has three OPOs that operate in exclusive service areas which, when combined, service the entire state. The three OPOs operating in Texas are, Southwest Transplant Alliance, Life Gift, and Texas Organ Sharing Alliance. In the United States, 58 designated OPOs operate across the country, all are regulated by the Organ Procurement and Transplantation Network of the United States Health and Human Services' Health Resources and Services Administration. OPOs are certified and accredited through the Centers for Medicare and Medicaid Services (CMS), UNOS, and the Association for Organ Procurement Organizations (AOPO). Each of these organizations require regular inspections of operations and management.

OPOs are federally designated 501(c)3 nonprofit organizations that operate on a fee-for-service model. OPOs charge transplant centers for the costs associated with the procurement of organs including expenses related to donor management, the surgical recovery, clinical testing, placement, and transport of donor organs.[254]

The Organ Donation Process

When an individual is declared brain dead, CMS requires hospitals to contact their designated OPO. OPO personnel then go to the hospital, visit with the nurses and physician staff about the patient and check the registry to confirm the patient's donor status; if the OPO employee

determines the patient lives in another state they can consult with the relevant sister organization to check the patient's donor status. If the patient is not registered, the OPO employee can then approach the family about the possibility of organ donation. If the patient is a registered donor, or if the family agrees, the clinical staff then manage and maintain the organs of the donor while the organ viability assessment is performed and the organs are allocated. This process can take anywhere from 24 to 72 hours.

Allocation of organs is regulated nationally; every viable organ is match-run through the transplant waiting list. A determination on where each organ goes is made based on a number of factors including blood type, and proximity. After the organs are allocated to recipients the physicians harvest the organs. Organ harvests are completed first, followed by tissue and cornea harvests because tissue and cornea do not need to be maintained by mechanical support, therefore the harvest is less time sensitive. After being harvested, tissue and corneas are sent to a tissue or eye bank.[255]

Challenges Related to Organ Donation

- Shortage of living donors and donors on the Registry.
- Studies show that approximately 25 percent of the population is willing to donate, but all are not registered.
- A lack of public awareness that donors are needed.
- Myths related to living donors including a risk of death, a need for lifelong medications, and lifelong dietary restrictions are prevalent across the country.
- In Texas, drivers are only up for renewal of their drivers license every six years, which is a large gap of time where citizens do not receive information on becoming an organ donor.

Bone Marrow Donation

Background

Allogeneic Bone Marrow Transplantation – a recipient receives stem cells from a genetically similar, but not identical, donor – is the treatment of choice for many high-risk patients who have diseases not curable by other methods. The most common diseases that require bone marrow transplants include, Acute Leukemia, Follicular Lymphomas, Aplastic Anemia, and several genetic and immunologic diseases. Approximately 10,000 bone marrow transplants are performed per year in the United States and per MD Anderson expert testimony, an estimated 10 percent of patients with one of the diseases listed above could benefit from a transplant.[256]

Statistics

- According to the National Marrow Donor Program, 28 million bone marrow donors are registered throughout the world; [257] and
- A patient of Caucasian or of European descent, has a 75-80 percent chance of finding a perfect donor. [258]

The Bone Marrow Donation Process

Bone marrow can be obtained from a donor through three different methods. The first, and original way, is to take the donor into the operating room, put him/her under general anesthesia, and aspirate one and a half liters of bone marrow from the hips of the patient. The bone marrow can then be frozen or taken directly to the recipient to be hung up and infused.

The second method involves giving the donor a number of shots for a range of one to five days. The shot mixture breaks the bond of the stem cells in the marrow, and moves the stem cells into the peripheral blood, or circulating blood, where the stem cells can be drawn through a standard blood draw. Similarly, the donor blood can then be frozen or directly infused into the recipient. Two-thirds of bone marrow transplants are now performed by peripheral blood transplant and through this method, the patient typically recovers seven days faster in terms of their white blood cell count.

The third method is a cord blood transplant which is performed if a bone marrow or peripheral blood donor cannot be found. The cord blood transplant is performed once a baby is delivered and separated from the placenta, the placenta is then drained and the cord blood is frozen for storage. One placenta yields enough blood to do one small transplant (on average 75ml), but most adult transplants require two cord blood units.

The preferred donor type is a matching family member. Only 25 percent of patients who need a transplant have a matching family member. Therefore, doctors are increasingly turning to the donor registry for transplants. The most notable registry is the National Marrow Donor Program which is an international registry that includes 28 million registered donors. A perfect match found within the registry yields results almost as good as a family member donor. If a perfect match cannot be found, the doctor turns to a cord blood bank or uses a family member that is a half match. Donors can be up to 60 years old on the registry or up to 75 years old if a family member of the patient; younger donors are preferred.

The MD Anderson Cord Blood Bank is the only public cord blood bank in Texas. MD Anderson collects voluntary donations from mothers at participating hospitals to create an inventory that is available to transplant facilities worldwide for patients in need of a stem cell transplant. Their first unit was collected in April, 2005. Since then, MD Anderson has collected 81,920 units, they have 30,294 units stored, have transplanted 1,873 units, and have 15,723 units available for research. The MD Anderson bank also includes 74.7 percent of minority donor units. The MD Anderson Cord Blood Bank participating hospitals include, the Woman's Hospital of Texas, Baylor College of Medicine Ben Taub General, Memorial Hermann Southwest, St. Joseph's Hospital, Memorial Hermann, and St. John's in Detroit.

The MD Anderson Cord Blood Bank is restricted in that it only collects from donors in Houston and the surrounding areas. Testimony from Dr. Shpall revealed that funding is the primary hindrance for expansion. MD Anderson staffs each delivery room for the placenta draining procedure which would be costly to do around the state.[259]

Challenges Related to Bone Marrow Donation

- Donor shortages, including a shortage of minority donors.
- Texas state employees are allowed paid leave for organ donation, however, peripheral blood stem cell donation is not covered.

Recommendations

- Consider funding organ donation education initiatives for drivers at DPS offices.
- Add the donor registration question to hunting and fishing license applications and renewals.
- Add the donor registration question to concealed handgun license applications and renewals.
- Add the donor registration question to boating license applications and renewals.

CHARGE 8 – OVERSIGHT JURISDICTION OF THE COMMITTEE

The hearing regarding agencies, committees, and relevant legislation passed during the 85th Legislative Session under the jurisdiction of the House Committee on Public Health was held on September 13, 2018 at 9:00am in Austin, Texas in the Capitol Extension, Room E2.012.

Charge 8 – Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 85th Legislature. In conducting this oversight, the Committee will also specifically closely monitor the implementation of H.B. 10 (85R), H.B. 13 (85R), and S.B. 292 (85R).

The following organizations/individuals were invited to testify:

Gina Carter, Texas Health and Human Services Commission
Sonja Gaines, Texas Health and Human Services Commission

The following section of the is produced in large part from the oral and written testimony of the individuals identified above.

Background

The Committee has jurisdiction over matters pertaining to public health in Texas, including: the supervision and control of the practice of medicine; mental health prevention and treatment, and the development of mental health programs; and oversight of state agencies working in public health fields.

The Committee was specifically charged to oversee the implementation of key pieces of public health legislation passed during the 85th Legislative Session, including House Bill 10, House Bill 13, House Bill 337, and Senate Bill 292.

House Bill 10 (85R) - Mental Health Parity

House Bill 10 ensures mental health parity in Texas, meaning health insurance plans cannot disproportionately impose treatment limitations on mental health and substance use disorder treatment. The bill states that if an existing health insurance plan offers mental health coverage, that plan must provide coverage for mental health conditions and substance use disorders under the same terms and conditions applicable to the plan's medical and surgical benefits coverage.[260] Self-funded ERISA insurance plans are regulated by the federal government, therefore HB 10 does not included ERISA plans.

HB 10 specifically directed the Texas Health and Human Services Commission (HHSC) to create an ombudsman for behavioral health access to care, establish a mental health condition and substance use disorder parity workgroup, and conduct a study and prepare a report comparing data

between benefits for medical or surgical expenses and mental health condition and substance use disorders provided by Medicaid managed care organizations.

The HB 10 parity workgroup, comprised of 19 members, was established in October, 2017. Thus far the workgroup has accomplished the following:

- Developed the vision, mission, and purpose statement;
- Convened a subcommittee structure to fulfill the HB 10 directives;
- Completed their legislative report regarding the findings and recommendations of the workgroup; and
- Continues to coordinate with HHSC and the Texas Department of Insurance (TDI) via, a memorandum of understanding for the behavioral health ombudsman, working to launch a webpage for the behavioral health ombudsman, reviewing the complaints process and tracking improvements, data collection, and partaking in stakeholder identification and outreach.

Next steps for the workgroup include completing the parity strategic plan, which is expected to be completed ahead of schedule on September 1, 2019, and will include recommendations and a roadmap for mental health condition and substance use disorder parity in Texas.

TDI was specifically directed to conduct a study and prepare a report on benefits for medical or surgical expenses and for mental health conditions and substance use disorders using data collected from commercial insurers. TDI has also completed their data call report that highlights areas that need improvement and is working with HHSC on the parity webpage.[261]

Statewide Mental Health Grant Programs

House Bill 13 (85R)

House Bill 13 created a statewide community mental health grant program to fund community collaborative projects specifically addressing local gaps in behavioral health services for individuals with a mental illness. The grant program was appropriated $30 million for the 2018-19 biennium. Half of the money was awarded to local mental health authorities (LMHAs) and local behavioral health authorities (LBHAs) through a Needs Capacity Assessment (NCA), and half of the money was awarded to nonprofit and governmental entities through a Request for Application (RFA). The $30 million was also divided so that half of the money was awarded to community collaboratives that include a county with a population of 250,000 or more, and half of the money was awarded to community collaboratives in counties with a population of less than 250,000.

HHSC was delayed in releasing the NCA and RFA due to the impact of Hurricane Harvey. HHSC also experienced delays in executing the HB 13 contracts due to an audit of the HHSC procurement division. Despite these delays, 25 LMHA and LBHAs have been identified as apparent awardees, including in 16 rural service areas, and 31 nonprofit organizations and governmental entities have been identified as apparent awardees, including seven in rural service areas. The HB 13 grant programs are expected to begin in the first quarter of FY 2019.

Senate Bill 292 (85R)
Senate Bill 292 created a statewide mental health grant program for justice-involved individuals. The grant program was created to reduce recidivism rates, arrests, and incarceration among individuals with mental illness, and reduce the wait time for forensic commitments. The program was appropriated $37.5 million for the 2018-19 biennium. During the first year of the biennium, funds were dedicated to urban community collaboratives operating in counties with a population of 250,000 or more. During the second year of the biennium, rural county collaboratives were able to apply and receive funds. SB 292 required that grantees include collaboratives comprised of a county, the LMHA operating in the county, and each hospital district located in the county, in addition to any other entities as decided by the collaborative.

HHSC was also delayed in releasing the application for SB 292 due to Hurricane Harvey and the audit of the HHSC procurement division issues discussed above. Despite the delay, 14 urban LMHAs and LBHAs were identified as apparent awardees for FY 2018-19, and ten rural LMHAs were identified as apparent awardees for FY 2019.

Grant awardees for both mental health grant programs are required to provide HHSC with the following updates upon contract execution:

- Expenditure reports regarding grantee funds spent on grant activities to be reimbursed by state funds, and matching funds spent on grant activities; and
- Performance reports noting progress on identified milestones, project goals and outcomes, the number of individuals served, successes and challenges related to project implementation, and the value of the collaborative in implementing the project.

Early successes of each mental health grant program include that all funds appropriated to each program are accounted for. HHSC actually had more HB 13 RFA applicants than they had money to award.

HHSC testified to the overwhelming response they had to each program and how the grant dollars will be dispersed to programs operating in almost every region of the state.

One ongoing challenge HHSC is working to address is how to demonstrate the progress of the almost 80 separate programs that are being created from both of the grant programs. The grant programs were designed to be open ended so each community has the ability to create a program to fit local needs. As each program is different HHSC must develop a way to report progress and the success of the grant programs overall. Commissioner Gaines informed the committee that HHSC will obtain clinical data regarding jail and ER diversion and reduced recidivism to report after the second year of the contracts are executed.[262]

House Bill 337 (85R): Medicaid Benefits for Persons Who Are Incarcerated

House Bill 337 requires the suspension and reinstatement of Medicaid benefits for individuals incarcerated in a county jail if the county sheriff chooses to notify HHSC of the confinement. Before implementation of HB 337, individuals who were on Medicaid and were incarcerated in a county jail did not have a direct path to reinstating their Medicaid benefits once released.

Implementation of HB 337 is broken into two phases:

- Phase I provides county sheriffs access to the state's eligibility system to determine if an individual is on Medicaid; creates a mechanism for county sheriffs to report confinement and release; establishes a centralized location for county sheriffs to access the information necessary to participate in the program; enacts automation changes to allow state staff to suspend and reinstate Medicaid benefits; and develops an outreach campaign webinar.
- Phase II will continue to work on an automated solution to suspend and reinstate Medicaid benefits, including utilizing Appriss, a commercial data analytics system that tracks incarceration, justice, and risk intelligence data for counties who have the infrastructure to support such data collection.

Preliminary implementation discussions facilitated by HHSC have begun in the following confirmed HB 337 pilot sites, The Harris Center, My Health My Resources Tarrant County, Texas Panhandle Centers, and the Center for Life Resources. County participation (Phase I) is expected to go live on December 1, 2018.

One challenge that has been identified is that not all county jails use the same intake process. For example, some county jails do not identify if individuals receive Medicaid benefits as part of the intake process. Therefore, giving counties access to the state eligibility system and automating the reporting process are critical pieces of the process to ensure implementing HB 337 does not create an undue burden on county jails and sheriffs.[263]

ADDITIONAL CHARGE ASSIGNED – CHILDREN'S MENTAL HEALTH AND SCHOOL SAFETY

A joint hearing with the House Committee on Public Education regarding the added charge given by the Speaker of the House following the tragic events of the Santa Fe school shooting discussing school safety and children's mental health was held on June 28, 2018 at 9:00am in Austin, Texas in the Capitol Extension, Room E1.030.

Additional Charge Assigned – Consider testimony provided at the May 17 House Public Health Committee hearing regarding improving mental health services for children. Identify specific strategies that would enhance overall school safety. Study ways to help parents, youth, and primary care providers support school personnel in their efforts to identify and intervene early when mental health problems arise. In addition to school-based trauma-informed programs and those that treat early psychosis, consider the benefits of universal screening tools and expanding the Child Psychiatry Access Program (CPAP). Make recommendations to enhance collaboration among the Health and Human Services Commission, the Texas Education Agency, local mental health authorities, and education service centers.

The following organizations/individuals were invited to testify:

Lisa Descant, Communities in Schools of Texas
Cindi Doyle, Texas Counseling Association
Sonja Gaines, Texas Health and Human Services Commission
Lara Hulin, National Association of Social Workers
Lee Johnson, Texas Council of Community Centers
Andy Keller, PhD, Meadows Mental Health Policy Institute
Kelly Kravitz, Texas Education Agency
Billy Phillips, MPH, PhD, Texas Tech University Health Science Center
Brook Roberts, Texas Association of School Psychologists
Madhukar Trivedi, MD, UT Southwestern Medical Center
Pam Wells, EdD, Region 4 Education Service Center
Elias Zambrano, Texas Counseling Association and Texas School Counseling Association

The following organizations/individuals provided public testimony:

Monica Ayres, Citizens Commission on Human Rights Texas
Kathleen Brown, Texas Music Therapists; Southwestern Music Therapy Association
Adrian Gaspar, Disability Rights Texas
Pedro Gonzalez, Start School Later
Annalee Gulley, Mental Health America of Greater Houston
Kisaundra Harris, Self
Amy Hedtke, Self
Sheila Hemphill, Texas Right to Know
Colleen Horton, Hogg Foundation for Mental Health

David Ilouz, Self
Joyce Mauk, Texas Pediatric Society and Texas Medical Association
Shane Mcnamee, Mdlogix
Zoe Nanson, Self
Yen Rabe, Start School Later
Roy Rios, Texas Council of Family Violence
Josette Saxton, Texans Care for Children
Lee Spiller, Citizens Commission on Human Rights
Jacob Tate, Self
Paige Williams, Texas Classroom Teachers Association
Tiffany Williams, Coalition of Texans with Disabilities
Columba Wilson, Self
Virginia Young, Self
Coral Zayas, Self

The following section of this report is produced in large part from the oral and written testimony of the individuals identified above.

Background

The school shooting that occurred at Santa Fe High School in Santa Fe, Texas on May 18, 2018 prompted the Speaker to jointly charge the Public Health and Public Education Committees to study school safety and items related to children's mental health that were discussed at the May 17, 2018 Public Health Committee hearing. Ten people, eight students and two teachers, were tragically killed in the shooting.

Because the Public Health Committee had already held a hearing discussing children's mental health, some of the testimony in this section of the report is repetitive from Charge 3. Certain sections in this section of the report will indicate if a topic is discussed further in Charge 3.

Statistics

- Almost two million children in Texas have mild mental health needs and half of all mental health conditions manifest by the age of 14;[264]
- By young adulthood, 75 percent of cases of mental illness have presented;[265]
- 900 new youth each year develop a psychotic disorder;[266]
- Youth and young adults with untreated psychosis are 15 times more likely to commit homicide and are 24 times more likely to commit suicide;[267]
- A 2017 University of Texas System Office of Health Affairs study, *Suicide in Texas,*[268] reported that suicide, often tied to depression, is the second leading cause of death in ages 15 to 34 in Texas;[269]
- Suicide rates increased in nearly every state, including Texas, between 1999 and 2014;[270] and

- Of the students who present with a mental illness before the age of 18, only 20 percent will receive the necessary care and treatment to combat their mental illness and 80 percent of those children will receive services in their school.[271]

School Support Personnel

School based mental health providers are often the first line of defense for a child beginning to show the signs of, or suffering from, a mental illness. School based mental health provider types include, licensed professional counselors (LPC), licensed clinical social workers (LCSW), licensed specialists in school psychology (LSSP), and school counselors.[272]

School Counselors
School counselors are the mental health professionals that are the most prevalent on school campuses, and are therefore oftentimes the first professional a student experiencing a mental health crisis encounters. School psychologists and social workers may be assigned to a campus but often, move around frequently and do not stay on one campus for very long due to a lack of funding.[273] School counselors are uniquely positioned, however, because they provide more than mental health services. School counselors provide classroom guidance, individual planning, responsive services, and a support system in addition to mental health guidance when necessary, therefore less stigma is associated with a student going to see a school counselor than an LPC, LSSP, or LCSW. Additionally, school counselors oftentimes develop relationships with the students so they feel comfortable going to see them.

A relatively new risk and obstacle for youth to overcome discussed by the school counselors is the use of social media and cyberbullying. Testimony was provided that school officials, be that a counselor, teacher, mental health provider, principal, etc., should encourage students to report cyber bullying by implementing, for example a see something, say something model. The school teachers, counselors, and administrators should also support and share information with students regarding proper conduct online, and emphasize the importance of being able to disconnect from the devices and the internet and use their voice.[274] Another aspect of combatting online bullying, and bullying in general, is teaching social emotional learning and kindness in the classroom in order to build resilience in students at an age where a significant spike is seen in the prevalence of mental illness.[275]

School Psychologists
School psychologists, though not codified in the Education Code, apply expertise in mental health and social emotional learning to help students succeed academically, socially, behaviorally, and emotionally. School psychologists often spend most of their time serving special education students. On average, a school psychologist spends 20 hours on one special education evaluation for a student with a disability. Given a 36 week school year, if all 2,000 school psychologists in the state dedicated all efforts to special education evaluations, 144,000 evaluations (30 percent of the special education population in Texas) would be completed each year. These numbers not only emphasize the shortage of school psychologists but also shows that their time is not spent on addressing the mental health needs of the students.[276]

School Social Workers

School social workers provide counseling and social-emotional supports to students. However, social workers also specialize in family and community systems, and therefore, have the ability to meet the student wherever the issue may be, including the student's home if needed. School social workers are the only school-based providers who have the ability to meet with students and families in their home.[277]

The national ratio recommendations for school psychologists is 1 to 1,000 students, the school counselor ratio is 1 to 250 students, and the school social worker ratio is 1 to 400 students. Texas schools currently have 1,849 LSSPs for a ratio of 1 to 2,890, 708 social workers for a ratio of 1 to 7,548, and 12,112 counselors for a ratio of 1 to 441. In 2016-17 1,900 school psychologists were employed by Texas school districts and the Texas State Board of Examiners of Psychologists records indicate nearly 3,500 licensed school psychologists in the state, highlighting a gap between the number of people licensed in the profession and the number of licensed professionals actually practicing in schools.[278]

Statewide Services

Texas Health and Human Services Commission

The Texas Health and Human Services Commission (HHSC) is the lead for the Statewide Behavioral Health Coordinating Council (Council) which developed the Statewide Behavioral Health Strategic Plan (Plan). Gaps in services identified by the Plan specific to children and mental health include:

- Access to Appropriate Behavioral Health Services;
- Behavioral Health Needs of Public School Students;
- Access to Timely Treatment Services;
- Implementation of Evidence-Based Practices;
- Use of Peer Services;
- Behavioral Health Services for Individuals with Intellectual Disabilities;
- Prevention and Early Intervention Services; and
- Shared and Usable Data.

HHSC has jurisdiction over the 39 Local Mental Health Authorities in the state. LMHAs provide crisis services, mobile crisis outreach teams, a 24/7 helpline, and outpatient treatment services.

Other children's mental health services and initiatives at HHSC include:

- Trauma-informed care and practices;
- Transition age youth level of care;
- Coordinated Specialty Care;
- Statewide Behavioral Health Coordinating Council Activities;
- Mental Health First Aid; and
- Texas System of Care Initiative.[279]

In response to the tragic shooting in Santa Fe, the LMHAs have pushed to increase mental health literacy across Texas by emphasizing the importance of Mental Health First Aid (MHFA). A full discussion of MHFA can be found in the Charge 3 discussion. As of June 28, 2018, 225 mental health trainings were scheduled to occur during the summer of 2018 alone, and Mr. Johnson of the Texas Council of Community Centers anticipated that interest would continue to grow. The Texas Council of Community Centers, which represents the 39 LMHAs in Texas, also worked with TEA to provide MHFA contact information on the TEA website and at offices in each school district.[280]

The Governor's School and Firearm Safety Action Plan made recommendations that would impact services provided by HHSC. Those recommendations include:

- Collaboration between HHSC and TEA should increase to enhance school safety and ensure additional behavioral health services are available to students on campus;
- Increase MHFA training;
- Collaborate with the Department of Public Safety to ensure staff are trained in mental health; and
- Expand the Texas Critical Incident Stress Management Network.[281]

The Unified Services for All Children (USAC) Interagency Committee, led by TEA, has been working to increase collaboration with HHSC regarding mental health for students and made the following best practice recommendations in response to Governor Abbott's plan:

- Strategic planning between HHSC and TEA to integrate school mental health best practices and education priorities in school environments statewide;
- Conducting needs assessments in school districts to identify mental health needs experienced by the school community and resources requested by that community;
- Developing in-school or after school programs conducted by LMHAs to focus on child wellness and resilience; and
- Integrating Community Resource Coordination Groups in the collaboration to address the mental health needs of students.[282]

Region 4 Education Service Center

The Region 4 Education Service Center (ESC) is the lead for the Texas Behavior Network which is a statewide initiative to address the mental health needs of Texas students. Region 4 focuses on mental and behavioral health, restorative practices, and equity through implementing the Positive Behavior Interventions and Supports (PBIS) framework. PBIS is a framework used to assist school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum of care system that enhances academic and social behavior outcomes for all students. A full discussion of the work being done by Region 4 can be found in the Charge 3 discussion.

A primary component of the work being done by Region 4 is training. Region 4 provides evidence-based trainings that teach school staff to implement PBIS interventions ranging from prevention practices that promote healthy social emotional development, to interventions that address problems at early onset and treatments for severe or chronic issues.

In response to the tragic shooting in Santa Fe, Region 4 worked closely with the local LMHA to be more effective in their response. Region 4 staff assisted when the LMHA temporarily expanded the capacity of its call center, and Dr. Wells personally facilitated communications between the LMHA and the school.[283] Additionally, Region 4 received a Victims of Crime Act (VOCA) grant in Governor Abbott's School Safety Plan to provide immediate assistance to Santa Fe ISD and the surrounding region through the hiring of four mental health counselors. According to the plan, this project could serve as a pilot for future mental health resources located at ESCs.[284]

Examples of Programs

Telemedicine, Wellness, Intervention, Triage, and Referral Program

The Telemedicine, Wellness, Intervention, Triage, and Referral (TWITR) Program is a telemedicine-based mental health screening program for rural school districts. A full discussion of the program can be found in the rural health Charge 5 discussion. The program is an established best practice for promoting school safety and is currently being expanded further into the Panhandle due to grant funding received through the Community Mental Health Grant Program available through the passage of House Bill 13 (85R).[285] TWITR expansion, as a best practice, was also a recommendation in Governor Abbott's School and Firearm Safety Action Plan developed after the tragic shooting in Santa Fe.[286] Dr. Billy Phillips, who oversees the program at TTUHSC, supports the expansion of TWITR, but with the caveat that TTUHSC will not run the program statewide. TTUHSC will commit to training other health science centers and community providers in the model for implementation through different hubs around the state.[287]

Communities in Schools of Texas

Communities in Schools of Texas (CIS) is comprised of 28 affiliates across the state who partner with more than 900 Texas schools. CIS is the nation's leading dropout prevention program for at risk students. The model focuses on academic, behavior, and attendance outcomes. CIS is administered by TEA and is funded by the state, and local public and private fundraising efforts. Each individual CIS affiliate is a 501(c)(3) non-profit that leverages public dollars with private dollars to operate in their community. The cost to the state for one student to receive case management services through CIS is $218 per year.

The CIS model includes the provision of mental health services on campus to prevent emerging issues from manifesting into serious concerns and behavioral health interventions to students experiencing mental health challenges. CIS services are provided on campus, free of charge. CIS utilizes an integrated referral process that invites school, community, and family members to identify students who have experienced traumatic events or concerning behaviors, a CIS mental health specialist then assesses the student's needs and develops an appropriate service delivery plan. The flow of communication and referrals made between CIS providers and community providers is fostered by the CIS infrastructure being embedded in the community and in the schools. CIS staff members work in conjunction with the other providers on campus and are able to take on the mental health campus-based provider role to allow, for example, a school counselor more time to work with students on scheduling and long-term planning.[288]

Child Psychiatry Access Programs

The Child Psychiatry Access Program (CPAP) is a low-cost, successful best practice for school-based mental health services. CPAP is a statewide system of regional children's behavioral health consultation and referral hubs. Each hub is located at an academic medical center and serves the primary care doctors of children at risk for developing a severe psychiatric disorder. For $2 a year per child, one hub can support the primary care needs of 900,000 children and youth.

Dr. Keller of the Meadows Mental Health Policy Institute (MMHPI) emphasized intervening at an early age is key because symptoms are less severe, more treatable, and more readily kept from escalating to more dangerous conditions that increase risk.[289]

School based mental health providers and the Texas Medical Association expressed the importance of expanding the CPAP program in Texas. Specifically, Ms. Hulin, the representative from the National Association of Social Workers, expressed a need to include school nurses in the program to ensure as many children can be served as possible.[290] [291]

Coordinated Specialty Care

Coordinated Specialty Care is a recovery-oriented program which provides behavioral health services and supports to individuals experiencing early onset psychosis using a team-based approach. Coordinated Specialty Care teams start assertive and intensive treatment for individuals as soon after an initial psychotic episode as possible. Through treatment, each individual receives an average of five hours of service per month, with the average length of stay not exceeding 30 months.[292]

Texas currently has 12 Coordinated Specialty Care teams located at ten community centers across the state. Care provided by the team takes on average two years, the expected caseload for each team is 30, and most participants are over the age of 18, being served as adults.[293]

A full discussion of Metrocare Services, the first Coordinated Specialty Care program in Texas, can be found in the Charge 3 discussion.

Texas Model for Comprehensive School Counseling Programs

The Texas Counseling Association discussed the Texas Model for Comprehensive School Counseling Programs (Model) is recommended as a best practice by the Texas Counseling Association. The Model is intended to provide a framework for the development, evaluation, and maintenance of a comprehensive school counseling program based on a team approach that is grounded in the expertise of school counselors, school psychologists, and school social workers.[294] The Model can be used as a resource to develop effective and high quality comprehensive school counseling programs that align with Texas statutes and rules governing the work of school counselors. The Model also outlines a process for tailoring school counseling programs to meet the varying needs of students across an array of school districts through implementation of the four components of school counseling programs Guidance Curriculum, Responsive Services, Individual Planning, and System Support. With this resource, a school counselor will learn to use

campus-specific data to identify the unique needs of a campus and design a comprehensive school counseling program to meet those needs.

Recognizing the important roles of the entire educational community, the Model provides examples of how parents, teachers, administrators, principals, and school counselors can best contribute to implementation of each of the four components of comprehensive school counseling programs. The Model also provides a developmental framework for a school counseling program curriculum that includes activities at each grade level to enhance students educational, career, personal, and social development.[295]

Youth Aware of Mental Health Program

The Youth Aware of Mental Health (YAM) Program is a prevention program utilized in Dallas schools in partnership with UT Southwestern. YAM was created by researchers and experts from the National Centre for Suicide Research and Prevention of Mental Ill-Health, Karolinska Institute in Stockholm, Sweden. The program was tested across 12 European countries to evaluate effectiveness and is now utilized as a best practice. Mental Health in Mind International disseminates YAM worldwide by training and certifying YAM Trainers. UT Southwestern is one of five sites in the United States certified to train additional instructors.

Via YAM trained instructors, YAM directly provides students with the tools to identify a need and to request help for themselves or others suffering from mental health concerns. Program delivery and curriculum is as follows:

- Five-hour universal evidence-based course to be completed over three to five weeks in the classroom, each session involves 10 to 30 students;
- The program is interactive while promoting increased knowledge and discussion about mental health in adolescents;
- Program content is designed for the development of problem-solving skills and emotional intelligence by using lecture and role-play formats;
- Focuses on six main themes – What is Mental Health, Self-help Advice, Stress and Crisis, Depression and Suicidal Thoughts, Helping a Friend in Need, and Who Can I Ask For Advice;
- Delivered by instructors who are external to the classroom; and
- To be certified, one must complete a four-and-a-half day YAM Instructor Course.[296]

Meadows Mental Health Policy Institute's Harris County Mental Health Services for Children, Youth, and Families: 2017 Assessment

Dr. Keller described that mild to moderate mental illness is not a risk factor for violence, other factors such as substance use or criminogenic risk, drive violent behavior. However, severe mental illness can be a low risk factor for violence. Specific subsets of children who are at a higher risk for violence include those who have the fewest economic and family resources, and those with psychotic disorders.

With that understanding, the Meadows Mental Health Policy Institute's Harris County Mental Health Services for Children, Youth, and Families: 2017 Assessment (Assessment) describes a best practice mental health system for children. The Assessment outlines three primary components: helping local schools identify needs and link to help, early and quickly when necessary; helping pediatric primary care providers find and treat mental illness early when the illness is mild to moderate; and making intensive treatment available to children and youth with the most severe needs - full PTSD, complex depression/bipolar disorder, obsessive compulsive disorder, and psychosis.

- Helping Local Schools Get Expert Evaluation: All schools need someone to coordinate identification and linkage (this could be a counselor, school-based clinic, CIS) so that when a severe need arises, schools can get an expert evaluation quickly. Telemedicine offers infrastructure to fill in gaps in schools that do not have access to mental health experts on-site.
- Leveraging Pediatric Primary Care Providers: 75 percent of children with mental health issues receive care in a primary care setting, and with the right early support, most children will never need a specialist. Research shows that primary care providers can treat behavioral health issues as they would treat any other health issue - treating mild and moderate cases and detecting the more complex or severe cases for specialists. However, barriers to receive behavioral health treatment in a primary care setting include, limited time during a visit, minimal training or a lack of knowledge of behavioral health disorders, and limited capacity to refer children in need to specialists.
- Making Intensive Treatment Available: Approximately 20,000 children and youth each year need intensive treatment because of a severe behavioral dysfunction, however, the current capacity is only adequate for at most one in twenty of those children to receive services. Approximately 900 youth experience psychosis for the first time each year and the cost of adequate treatment (two years of treatment) for those 900 is around $30 million.[297]

Challenges

- Increase of cyberbullying.
- Lack of access to mental healthcare for students.
- Workforce shortages in school mental health professionals.

Recommendations

- See recommendations for Charge 3 in this report.
- Promote school safety by increasing programs to assess and address mental health concerns of students.
- Require HHSC review the various mental health programs available to assess students, including Mental Health First Aid, the YAM program, TWITR, CPAP, and te Trauma and Grief Center and provide information regarding best practices on the HHSC and TEA websites. Consider implementing pilots of the various programs available.
- Consider providing funding to increase the number of school counselors and school social workers to align with the national recommended ratios.
- Enforce implementation of Senate Bill 490 (85R) which requires TEA to collect data from all schools on the number of school counselors on each campus and require sharing the data with HHSC.
- Require each school district to consider implementing a system of anonymous reporting for any issues, including cyberbullying or concerns being raised on social media.
- For the purpose of intervening early, consider creating a user-friendly referral process so that everyone - teacher, friend, bus driver, etc. - knows and understands how to refer a student in need.
- Encourage student led, school-wide mental health awareness groups.
- Encourage collaboration with the Department of Public safety to include mental health in school safety training.
- Evaluate whether to incorporate social-emotional learning into the Texas Essential Knowledge and Skills.
- Consider implementing the CIS model through CIS affiliates in more schools across the state.
- Consider following the U.S. Preventive Services Task Force and the American Academy of Pediatrics recommendation of screening in clinical settings for major depressive disorder in youth ages 12 and above.
- Encourage HHSC collaboration with TEA, local mental and behavioral health authorities, and ESCs to create a trauma-informed culture across systems, agencies, and communities.
- Encourage partnerships with Texas schools and colleges to develop crisis teams consisting of staff, students, and mental health professionals trained in mental health first-aid and crisis response.
- Consider expanding prevention services to include substance abuse prevention and violence prevention programs in schools and homes.
- Consider developing and enhancing mental health frameworks to ensure resources are deployed more quickly for the next emergency.

ADDITIONAL HEARING - HURRICANE HARVEY RELIEF EFFORTS

A joint hearing with the House Committee on Human Services regarding Hurricane Harvey relief efforts was held on November 1, 2017 at 10:00am, in Austin, Texas in the Capitol Extension room E1.030.

The two Committees met to hear testimony in review of the state's response to Hurricane Harvey in regards to public health and human services efforts including preparatory and recovery efforts.

The following individuals were invited to testify:

Giuseppe Colasurdo, UTHealth Houston
Jamie Dudensing, Texas Association of Health Plans
John Hawkins, Texas Hospital Association
John Hellerstedt, Texas Department of State Health Services
Isabel Menendez, Texas Medical Association, Self
Derrick Neal, Victoria and DeWitt County Health Departments and Texas Association of City and County Health Officials
Ben Raimer, University of Texas Medical Branch
Charles Smith, Texas Health and Human Services Commission
Kevin Warren, Texas Health Care Association
Hank Whitman, Texas Department of Family and Protective Services
Stephan Williams, Houston Health Department, Texas Association of City and County Health Officials

Hurricane Harvey made landfall in Texas on August 26, 2017. The storm hovered over Southeast Texas for four days dropping record amounts of rain, with some areas receiving as much as 60 inches. Hurricane Harvey was not only the deadliest hurricane to hit Texas since 1919, the storm also forced the evacuation of over 30,000 Texans.

The two Committees heard testimony from the Texas Health and Human Services Commission (HHSC), the Department of Family and Protective Services (DFPS), and local health departments regarding the relief efforts of the state.[298]

ENDNOTES

[1] Texas House Rules. 85th Legislature. 2017. https://house.texas.gov/_media/pdf/hrrules.pdf.
[2] 85th Legislature Interim Committee Charges. Texas House of Representatives. October 2017. https://house.texas.gov/_media/pdf/interim-charges-85th.pdf.
[3] Straus, Representative Joe. Speaker Straus Issues New Committee Charges Related to School Safety. Press Release. June 1, 2018. https://house.texas.gov/news/member/press-releases/?id=6533.
[4] Texas Health and Human Services Commission. Texas Women's Health Programs Report Fiscal Year 2017. May 2018. https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2018/womens-health-program-savings-performance-report-may-2018.pdf.
[5] Texas Department of State Health Services. Maternal Mortality and Morbidity Task Force. Website. https://www.dshs.texas.gov/mch/maternal_mortality_and_morbidity.shtm.
[6] French, Lesley. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. September 13, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.
[7] French, L. Id.
[8] Kohler, Adriana, JD. Texans Care for Children. Oral and Written Testimony. Public Hearing. September 13, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.
[9] French, L. Id.
[10] French, L. Id.
[11] French, L. Id.
[12] Kohler, A. Id.
[13] Kohler, A. Id.
[14] Kohler, A. Id.
[15] Hollier, Lisa, MD. Texas Department of State Health Services. Oral and Written Testimony. Public Hearing. September 13, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.
[16] Hollier, L. Id.
[17] Hellerstedt, John, MD. Texas Department of State Health Services. Oral and Written Testimony. Public Hearing. September 13, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.
[18] Hellerstedt, J. Id.
[19] Hellerstedt, J. Id.
[20] Hellerstedt, J. Id.
[21] Hollier, L. Id.
[22] Hollier, L. Id.
[23] French, L. Id.
[24] Texas Women's Health Programs Report Fiscal Year 2017. Id.
[25] Texas Women's Health Programs Report Fiscal Year 2017. Id.
[26] French, L. Id.
[27] French, L. Id.
[28] McPeters, Pamela. TexProtects. Oral and Written Testimony. Public Hearing. September 13, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.

[29] French, L. Id.
[30] Hellerstedt, J. Id.
[31] MacDorman, M, PhD; Declercq, E, PhD; Cabral, H, PhD; and Morton, C, PhD. *Recent Increases in the U.S. Maternal Mortality Rate Disentangling Trends from Measurement Issues.* Journal of Obstetrics and Gyenecology. Volume 128, NO. 3. September 2016.
[32] Baeva, S; Saxton, DL; Ruggiero, K; Kormondy, ML; Hollier, LM; Hellerstedt, J; Hall, M; Archer, NP. Identifying Maternal Deaths in Texas Using an Enhanced Method, 2012. Obstet Gynecol 2018; Volume 131; Issue 5; Pages 7969-769.
[33] Identifying Maternal Deaths in Texas Using an Enhanced Method. Id.
[34] Hellerstedt, J. Id.
[35] Hollier, L. Id.
[36] French, L. Id.
[37] Sanchez, Melissa. Alzheimer's Association. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[38] Diamond, Dr. Mark. University of Texas Southwestern Medical Center. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[39] Bertelson, Dr. John. Seton Brain and Spine Institute. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[40] Diamond, M. Id.
[41] Bertelson, J. Id.
[42] Sanchez, M. Id.
[43] Sanchez, M. Id.
[44] Sanchez, M. Id.
[45] Bertelson, J. Id.
[46] Sanchez, M. Id.
[47] Sanchez, M. Id.
[48] Neumann, Michelle. Texas Assisted Living Association. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[49] Sanchez, M. Id.
[50] Bertelson, J. Id.
[51] Bertelson, J. Id.
[52] Bertelson, J. Id.
[53] Bertelson, J. Id.
[54] Bertelson, J. Id.
[55] Ory, Dr. Marcia. Texas A&M University Health Science Center. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[56] Neumann, M. Id.
[57] Bertelson, J. Id.
[58] Dudley, Rustin and Simmons Trevor. Legislative Budget Board. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health.

https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[59] Diamond, M. Id.
[60] Bertelson, J. Id.
[61] Diamond, M. Id.
[62] Young, Dr. Leanne. University of Texas at Dallas. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[63] Bertelson, J. Id.
[64] Bertelson, M. Id.
[65] Bertelson, M. Id.
[66] Bertelson, M. Id.
[67] Bertelson, J. Id.
[68] Ory, M. Id.
[69] Sanchez, M. Id.
[70] Hall, Dr. Manda. Texas Department of State Health Services. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[71] Dudley, R. and Simmons, T. Id.
[72] Hanna, Debbie. Texas Alzheimer's Research and Care Consortium. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[73] Diamond, M. Id.
[74] Neumann, M. Id.
[75] French, L. Id.
[76] French, L. Id.
[77] French, L. Id.
[78] French, L. Id.
[79] French, L. Id.
[80] French, L. Id.
[81] French, L. Id.
[82] French, L. Id.
[83] French, L. Id.
[84] French, L. Id.
[85] Dudley, R. and Simmons, T. Id.
[86] Batjer, H. Id.
[87] Ellenbogen, RG; Batjer, H; Cardenas, J; et al. National Football League Head, Neck and Spine Committee. National Football League Head, Neck and Spine Committee's Concussion Diagnosis and Management Protocol: 2017-18 season. *British Journal of Sports Medicine.* March 16, 2018.
[88] Batjer, H. Id.
[89] Texas Institute for Brain Injury and Repair. Peter O'Donnell Jr. Brain Institute at UT Southwestern Medical Center. Website.
[90] Batjer, H. Id.
[91] House Bill 2038. Passed in the 82nd Regular Session of the Texas Legislature. June 17, 2011. State Representative Four Price. Texas House of Representatives.
[92] Stephens, Spanky. Texas State Athletic Trainers Association. Oral Testimony. Public Hearing. April 19, 2018. Texas House of Representatives House Committee on Public Health. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.

[93] Harrison, Dr. Jamey. University Interscholastic League. Oral Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[94] Young, L. Id.
[95] French, L. Id.
[96] Boutte, Jane. Texas Health and Human Services Commission. Texas Brain Injury Advisory Council. Oral and Written Testimony. Public Hearing. April 19, 2018. Texas House of Representatives Committee on Public Health. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[97] French, L. Id.
[98] Wells, Dr. Pam and Gates, Dr. Ginger. Region 4 Education Service Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[99] Wells, P. and Gates, G. Id.
[100] Wells, P. and Gates, G. Id.
[101] Temple, Dr. Jeff, and Guillot-Wright, Shannon. University of Texas Medical Branch. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[102] Temple, J. and Guillot-Wright, S. Id.
[103] Cunningham, Dr. Wesley and Richardson, Andrea. Bluebonnet Trails Community Services. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[104] Cunningham, W. and Richardson, A. Id.
[105] Ita, Trina. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[106] Johnson, Lee. Texas Council of Community Centers. Oral Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[107] Cunningham, W. and Richardson, A. Id.
[108] Spinner, Dr. Tracy and Minne, Dr. Elizabeth. Austin Independent School District. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[109] Wells, P. and Gates, G. Id.
[110] Wells, P. and Gates, G. Id.
[111] Horton, Colleen. Hogg Foundation for Mental Health. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[112] Kaplow, Dr. Julie. Texas Children's Hospital. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018.
[113] Horton, C. Id.
[114] Kaplow, J. Id.
[115] Temple, J. and Guillot-Wright, S. Id.
[116] Wells, P. and Gates, G. Id.

[117] Burress, Dr. John. Metrocare Services. Oral Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[118] Anderson, KK, Norman, R, MacDougall, A, et al. Effectiveness of Early Psychosis Intervention: Comparison of Service Users and Nonusers in Population-Based Health Administrative Data. *American Journal of Psychiatry*. May 2018.
[119] Burress, J. Id.
[120] Bryan, Chris. Clarity Child Guidance Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[121] Kravitz, Kelly. Texas Education Agency. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. May 17, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018051710001/C4102018051710001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[122] Wells, P. and Gates, G. Id.
[123] Kravitz, K. Id.
[124] Wells, P. and Gates, G. Id.
[125] Kravitz, K. Id.
[126] Johnson, L. Id.
[127] Kaplow, J.
[128] Ita, Trina. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 12, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091213001/C4102018091213001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15512.
[129] Boston, Brooke. Texas Department of Housing and Community Affairs. Oral Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 12, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15512.
[130] Texas Department of Housing and Community Affairs. Website. https://www.tdhca.state.tx.us/au.htm.
[131] Hansch, Greg. NAMI Texas. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 12, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091213001/C4102018091213001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15512.
[132] Hansch, G. Id.
[133] Ita, T. Id.
[134] Ita, T. Id.
[135] Hansch, G. Id.
[136] Boston, B. Id.
[137] Boston, B. Id.
[138] Ita, T. Id.
[139] Hansch, G. Id.
[140] Wilson, Kenneth. Haven for Hope. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 12, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091213001/C4102018091213001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15512.
[141] Boston, B. Id.
[142] Ita, T. Id.
[143] Boston, B. Id.
[144] Texas Department of Housing and Community Affairs. Website. Section 911 Project Rental Assistance Program. https://www.tdhca.state.tx.us/section-811-pra/.
[145] Boston, B. Id.

[146] Ita, T. Id.
[147] Boston, B. Id.
[148] Boston, B. Id.
[149] UTHealth Harris County Psychiatric Center. Website. https://hcpc.uth.edu/pages/index.htm.
[150] Soares, Jair MD, PhD. UTHealth Harris County Psychiatric Center. Oral Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 12, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15512.
[151] UTHealth Harris County Psychiatric Center. Website. Id.
[152] Glazier, Steve. UTHealth Harris County Psychiatric Center. Oral Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 12, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15512.
[153] Soares, J. Id.
[154] Wilson, K. Id.
[155] Hunter, Dan. Texas Department of Agriculture, State Office of Rural Health. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[156] Philips, Dr. Billy. Texas Tech University Health Science Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[157] Hellerstedt, Dr. John. Texas Department of State Health Services. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[158] Philips, B. Id.
[159] McCall, Dr. Brian. Texas State University System. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[160] McCall, B. Id.
[161] McCall, B. Id.
[162] Hellerstedt, J. Id.
[163] Hellerstedt, J. Id.
[164] Hellerstedt, J. Id.
[165] Hellerstedt, J. Id.
[166] Stephens, Stephanie. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[167] Stephens, S. Id.
[168] Stephens, S. Id.
[169] Stephens, S. Id.
[170] Hunter, D. Id.
[171] Henderson, John. Texas Organization of Rural and Community Hospitals. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[172] Hellerstedt, J. Id.
[173] Henderson, J. Id.
[174] Henderson, J. Id.

[175] McCall, B. Id.
[176] Hellerstedt, J. Id.
[177] Hellerstedt, J. Id.
[178] Hellerstedt, J. Id.
[179] Philips, B. Id.
[180] Hellerstedt, J. Id.
[181] Hellerstedt, J. Id.
[182] Hawkins, John. Texas Hospital Association. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[183] Hellerstedt, J. Id.
[184] Cerise, Fred. Parkland Health and Hospital System. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[185] Henderson, J. Id.
[186] McBeath, Don. Texas Organization of Rural and Community Hospitals. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[187] Henderson, J. Id.
[188] Stephens, S. Id.
[189] Carlton, Stephen. Texas Medical Board. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[190] Freshour, Scott. Texas Medical Board. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[191] Philips, B. Id.
[192] Carlton, S. Id.
[193] Philips, B. Id.
[194] Philips, B. Id.
[195] Project ECHO. University of New Mexico School of Medicine. *About ECHO.* https://echo.unm.edu/about-echo/.
[196] Philips, B. Id.
[197] Philips, B. Id.
[198] County Health Rankings and Roadmaps. Robert Wood Johnson Foundation. http://www.countyhealthrankings.org/app/texas/2018/overview.
[199] Lakey, Dr. David. University of Texas System. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[200] Robinson, Mari. University of Texas Medical Branch. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.
[201] Dickey, Dr. Nancy. Texas A&M University Health Science Center Rural and Community Health Institute. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. June 28, 2018.

https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062813001/C4102018062813001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15232.

[202] McCall, B. Id.

[203] Hunter, D. Id.

[204] Hunter, D. Id.

[205] Whitman, Hank. Texas Department of Family and Protective Services. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2019. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[206] Olse, Katie. Texas Alliance of Child and Family Services. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2019. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[207] Muth, Stephanie. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[208] Whitman, H. Id.

[209] Whitman, H. Id.

[210] Whitman, H. Id.

[211] Whitman, H. Id.

[212] Olse, K. Id.

[213] McPeters, Pamela. TexProtects. Olse, Katie. Texas Alliance of Child and Family Services. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2019. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[214] McPeters, P. Id.

[215] Murphy, Kate. Texans Care for Children. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2019. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[216] Murphy, K. Id.

[217] Muth, S. Id.

[218] Blackstone, Kristene. Texas Department of Family and Protective Services. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2019. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[219] Olse, K. Id.

[220] Blackstone, K. Id.

[221] Muth, S. Id.

[222] Blackstone, K. Id.

[223] McPeters, P. Id.

[224] McPeters, P. Id.

[225] McPeters, P. Id.

[226] Murphy, K. Id.

[227] Bryan, Chris. Clarity Child Guidance Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. August 9, 2019. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018080909001/C4102018080909001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15328.

[228] Adams, Brad. Donate Life Texas. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. April 19, 2018.

https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[229] Adams, B. Id.
[230] Adams, B. Id.
[231] Adams, B. Id.
[232] Adams, B. Id.
[233] Adams, B. Id.
[234] Adams, B. Id.
[235] Adams, B. Id.
[236] Adams, B. Id.
[237] Adams, B. Id.
[238] Adams, B. Id.
[239] Adams, B. Id.
[240] Adams, B. Id.
[241] Adams, B. Id.
[242] Giacoma, Tracy. Methodist Dallas Medical Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. April 19, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[243] Giacoma, T. Id.
[244] Adams, B. Id.
[245] Adams, B. Id.
[246] Adams, B. Id.
[247] Gipson, Shari. Texas Department of Public Safety. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. April 19, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[248] Adams, B. Id.
[249] Adams, B. Id.
[250] Gipson, S. Id.
[251] Giacoma, T. Id.
[252] Adams, B. Id.
[253] Giacoma, T. Id.
[254] Adams, B. Id.
[255] Adams, B. Id.
[256] Shpall, Dr. Elizabeth. University of Texas MD Anderson Cancer Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. April 19, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018041910001/C4102018041910001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15079.
[257] Shpall, E. Id.
[258] Shpall, E. Id.
[259] Shpall, E. Id.
[260] House Bill 10. State Representative Four Price. 85th Regular Session of the Texas Legislature.
[261] Gaines, Sonja. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 13, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.
[262] Gaines, S. Id.
[263] Carter, Gina. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committee on Public Health. September 13, 2018.

https://capitol.texas.gov/tlodocs/85R/handouts/C4102018091309001/C4102018091309001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15523.

[264] Keller, Dr. Andy. Meadows Mental Health Policy Institute. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[265] Keller, A. Id.

[266] Keller, A. Id.

[267] Keller, A. Id.

[268] University of Texas Office of Health Affairs. *Suicide in Texas - A population health data brief from the University of Texas System Office of Health Affairs. June 2017.* https://www.utsystem.edu/sites/default/files/news/assets/Suicide%20in%20Texas.pdf.

[269] Trivedi, Dr. Madhukar. The University of Texas Southwestern Medical Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[270] Trivedi, M. Id.

[271] Roberts, Brook. Texas Tech University College of Education. Oral Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[272] Doyle, Cyndi. Pecan Branch Counseling. Oral Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[273] Zambrano, Dr. Elias. The University of Texas at San Antonio. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[274] Doyle, C. Id.

[275] Trivedi, M. Id.

[276] Roberts, B. Id.

[277] Hulin, Lara. Houston Independent School District. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[278] Roberts, B. Id.

[279] Gaines, Sonja. Texas Health and Human Services Commission. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[280] Johnson, Lee. Texas Council of Community Centers. Oral Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[281] Office of the Governor. *School and Firearm Safety Action Plan.* Governor Greg Abbott. May 30, 2018. https://gov.texas.gov/uploads/files/press/School_Safety_Action_Plan_05302018.pdf.

[282] Gaines, S. Id.

[283] Wells, Dr. Pam. Region 4 Education Service Center. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[284] Abbott, G. Id.

[285] Philips, Dr. Billy. Texas Tech Health Science Center, Telemedicine, Wellness, Intervention, Triage, and Referral Program. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[286] Abbott, G. Id.

[287] Philips, B. Id.

[288] Descant, Lisa. Communities in Schools of Texas. Oral and Written Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. https://capitol.texas.gov/tlodocs/85R/handouts/C4102018062809001/C4102018062809001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[289] Keller, A. Id.

[290] Hulin, L. Id.

[291] Mauk, J. Texas Medical Association. Oral Testimony. Public Hearing. Texas House of Representatives Committees on Public Health and Public Education Joint Hearing. June, 28, 2018. http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=15227.

[292] Keller, A. Id.

[293] Gaines, S. Id.

[294] Doyle, C. Id.

[295] Texas Counseling Association. *The Texas Model for Comprehensive School Counseling Programs*. 5th Edition. 2018.

[296] Trivedi, M. Id.

[297] Keller, A. Id.

[298] House Public Health and Human Services Joint Public Hearing. November 1, 2017. https://capitol.texas.gov/tlodocs/85R/handouts/C4102017110110001/C4102017110110001.pdf, http://tlchouse.granicus.com/MediaPlayer.php?view_id=40&clip_id=14619.