



INTERIM REPORT

to the 85th Texas Legislature



HOUSE COMMITTEE ON
PUBLIC HEALTH



DECEMBER 2016

**HOUSE COMMITTEE ON PUBLIC HEALTH
TEXAS HOUSE OF REPRESENTATIVES
INTERIM REPORT 2016**

**A REPORT TO THE
HOUSE OF REPRESENTATIVES
85TH TEXAS LEGISLATURE**

**MYRA CROWNOVER
CHAIRMAN**

**COMMITTEE CLERK
CRAIG HOLZHEAUSER**



Committee On
Public Health

December 5, 2016

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P.O. Box 2910
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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

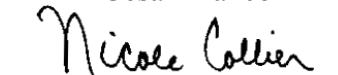
Dear Mr. Speaker and Fellow Members:

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

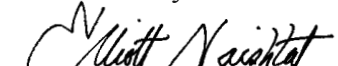
Respectfully submitted,


Myra Crownover


Cesar Blanco

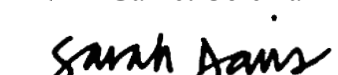

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HOUSE COMMITTEE ON PUBLIC HEALTH

INTERIM STUDY CHARGES

- 1) Study and assess the state's preparedness for public health threats and emergencies including responding to natural disasters and highly infectious diseases. Review current protocols and examine public health resources to determine if they are sufficient. Identify weaknesses within the public health response framework and make recommendations for improvements.
- 2) Study the impact of chronic disease in Texas and identify the major regional chronic health challenges. Review the types of health data collected by the state related to chronic disease and how the data is utilized to improve health care. Study state programs targeting chronic disease, including the Texas Health Improvement Network, and identify the direct and indirect costs associated with obesity, tobacco, and other related chronic health conditions including impacts to Medicaid, Employees Retirement System, Teacher Retirement System, University of Texas System, and Texas A&M University System. Identify public health interventions for chronic disease and preventative healthcare services that improve health outcomes and reduce cost.
- 3) Examine the history of telemedicine in Texas and the adequacy of the technological infrastructure for use between Texas healthcare providers. Review the benefits of using telemedicine in rural and underserved areas and current reimbursement practices. Explore opportunities to expand and improve the delivery of healthcare and identify methods to increase awareness by provider groups, including institutions of higher education, and payers of telemedicine activities being reimbursed in Texas.
- 4) Review programs focused on improving birth outcomes including evaluating the effectiveness and identifying any cost avoidance associated with them. Study barriers pregnant women face enrolling in services and receiving regular prenatal care. Identify factors, including substance abuse, associated with preterm birth and review services available for mothers postpartum.

CHARGE #1

Study and assess the state's preparedness for public health threats and emergencies including responding to natural disasters and highly infectious diseases. Review current protocols and examine public health resources to determine if they are sufficient. Identify weaknesses within the public health response framework and make recommendations for improvements.

Introduction

The Committee on Public Health met on February 10, 2016 to discuss whether Texas' public health and emergency resources were sufficient to monitor and respond to a natural or man-made event. This is a tremendous challenge as, by their nature, emergencies are unexpected and vary greatly depending on location, effected population, and necessary response. In Texas, local authorities are responsible for their areas during an incident and must ask for regional or state assistance if needed. Regional response capabilities fluctuate depending on the region's population and medical infrastructure. Texas statute does not require every local jurisdiction to have a public health entity (e.g. local health department, public health district, or local health unit) and the ones that do differ greatly in response capabilities (see Fig. 1). According to the Department of State Health Services (DSHS), of the 159 local health entities in Texas, only 61 qualify as "full service." A DSHS designation, "full service" entities operate as local health departments or public health districts and provide an array of core public health services.¹ The patchwork of departments needing outside resources makes response and preparedness very difficult to measure. While response systems for natural disasters and disease control are statutorily intermingled, both present their own set of challenges.

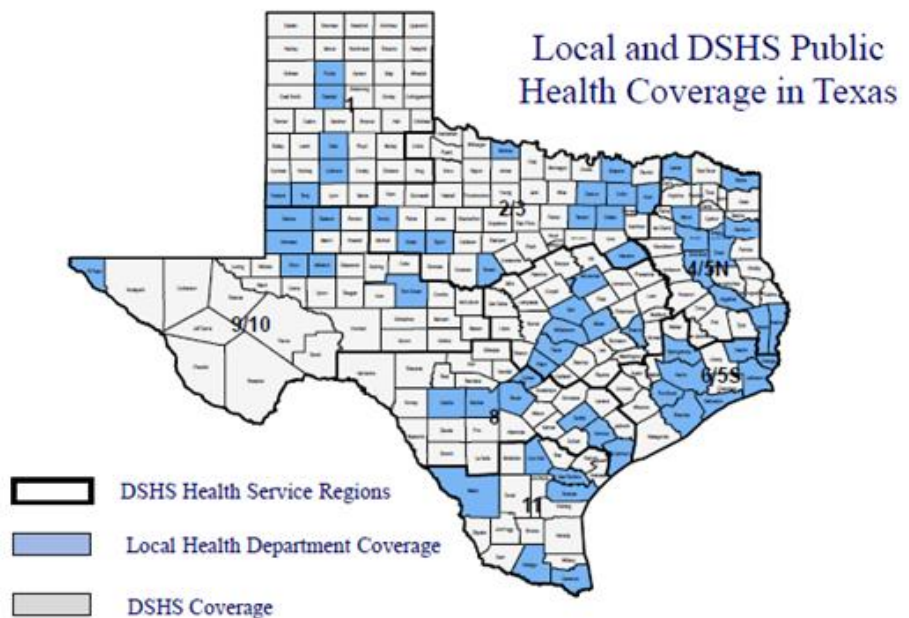


Fig. 1: Public health coverage in Texas, Dept. of State Health Services, *Public Health Awareness & Emergency Response*, (Feb. 10, 2016).

History has proven Texas is capable of effectively responding to a range of emergency events. That capability greatly depends on the annual funds appropriated by federal, state, and local governments to emergency response, but adequate infrastructure is currently in place. The demands of a natural disaster response differ from that of public health emergencies such as emerging infectious diseases, but they also build on one another. Highlighting each will help the state invest in success while identifying weaknesses that will lead to overall improvement.

¹ Dept. of State Health Services, (September 2016), *Public Health System Inventory*.

Emergency Response

Emergency response includes the actions of all public health professionals, first responders, medical personnel, and other partners who are called upon during and after an incident. Emergency response in Texas is especially complicated, to say the least. Texas is the largest state in the contiguous United States with over 268,000 square miles of land, broken into 254 counties. Across this diverse geography, Texas is subject to hurricanes, tropical storms, thunderstorms, tornadoes, flooding, extreme heat, wildfires, drought, pandemics, and emerging infectious diseases, any of which can classify for federal disaster declarations. In addition, the state must contend with and respond to man-made disasters such as chemical spills and industrial explosions, like what has occurred in Texas City and West.

To be adequately prepared, Texas takes an all-hazards approach to preparedness and response by maximizing resources and focusing on core functions needed for any type of event. According to DSHS Commissioner John Hellerstedt, this is accomplished by completing jurisdictional risk assessments for each threat and prioritizing local preparedness efforts and response resources accordingly.²

Emergency response starts at the local level in Texas. As a home rule state, local authorities (e.g. County Judge, Mayor, or an appointed local official) are in charge of response and will be the point of contact for their communities. Time is critical and immediate action and coordination of resources must be in place. Depending on the size and severity of the event, local emergency management directors can activate Emergency Operation Centers. These centers coordinate with public health and medical partners that include Local Health Departments, Emergency Medical Services agencies, Regional Advisory Councils, and hospitals, in accordance with local policies and pre-existing agreements. Each group brings manpower, information, coordination, and materials to an event. They also practice their responsibilities through planned exercises to avoid any delay of resources or information which will hamper response and slow down recovery.

If extra help is needed at the local level, regional resources are available upon request. These resources can come in several ways, depending on the county, emergency management plan, and existing infrastructure. For example, in counties without a local health department, the Health Service Region provides essential public health services (see Fig. 2). Each



Fig. 1: Dept. of State Health Services, *Health Service Regions*. <https://dshs.texas.gov/IDCU/data/annual/2000s/2014-Texas-Annual-Report.doc>.

² Hellerstedt, John M.D. (February 10, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

Health Service Region has resources it can allocate in the event of a disaster. If a county does have a localized response team and resources have been depleted, counties utilize multiagency coordination or mutual aid agreements with adjacent counties.

Regional Advisory Councils (RACs) are an important piece of emergency response. The state is broken into 22 Trauma Service Areas (TSAs) according to regional trauma assets that are coordinated by the RACs (see Fig. 3). Each RAC is tasked with developing, implementing, and monitoring regional emergency medical services and a trauma care system plan. A regional system plan includes agreements with EMS providers, hospitals, healthcare systems, and healthcare providers to assure resources are available. Seeing the need for better implementation of regional system plans during an event, RACs, in coordination with the Department of State Health Services and the Texas Department of Emergency Management, recently implemented the Texas Emergency Medical Task Force to deploy skilled professionals and assist with disaster response within their TSA or across the state, if necessary. While RACs focus on long-term planning and coordination for emergencies, the Task Force is specifically responsible for fast-acting medical response.

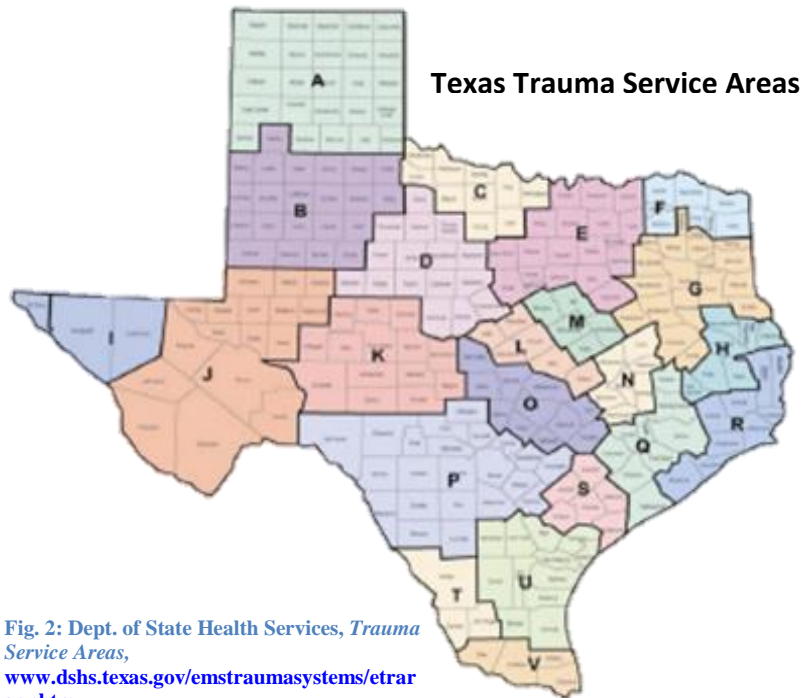


Fig. 2: Dept. of State Health Services, Trauma Service Areas, www.dshs.texas.gov/emstraumasystems/etrarac.shtm.

When an incident exhausts local and regional capabilities, the state may be called upon to provide additional resources. The state supports impacted local jurisdictions by providing information, coordination, and expertise in addition to supplemental medical, public health, and behavioral health resources. The Texas Department of Emergency Management, a division of Texas Department of Public Safety, coordinates all statewide emergency responses. The Department of State Health Services is the lead entity for planning and coordinating the public health and medical response under this emergency management system. These and other state agencies are the lifeline for a severely affected community. Response may start at the local level but through collaborations and cooperation with state and regional partners, no community is left unsupported.

Infectious Disease Response

As the current maturation of the Zika virus unfolds in Texas, it appears emerging infectious diseases are possibly the new normal. Before Zika, Texas responded to cases of West Nile virus,

H1N1, and the Ebola incident in Dallas. While many potential risks can be mitigated prior to a natural disaster through engineering measures, warnings, and disaster planning, only public health and medical infrastructure can protect the whole population during an outbreak. The committee heard testimony on how emerging infectious diseases are monitored, what disease response means, what can be improved, and about Texas' disease response infrastructure. The testimony emphasized the strengths and challenges of an effective response and helped describe preparedness in Texas for the next emerging infectious disease.

Disease identification is the first step. Once that is achieved, a plan of action can be formed for containment. Hospitals, health departments, private healthcare providers, and other public health professionals continually monitor patients for signs of contagious diseases and notify local health entities (e.g. local health departments) who send out epidemiologists and case investigators when something is detected. In fact, Texas has mandatory reporting requirements for nearly 90 conditions. Continual education on symptoms and reporting requirements for medical professionals will improve efficiency.³

Response to an infectious disease is a daily practice and public health professionals make up the bulk of our frontline defense against widespread epidemics. According to David Persse M.D. with the Houston Health Department, "The concepts and skills used daily against TB, HIV, hepatitis, syphilis, measles, pertussis, and many common diseases are the same as those needed to respond to exotics like Ebola, SARS, MERS, and now Zika."⁴ Epidemiologists and case investigators submit samples for laboratory analysis and, if confirmed, investigators start 'contact identification' through interviews. This gives investigators a picture of where the disease originated and allows them to create a network of potentially infected individuals. The list can be large but it is important to notify all potentially infected individuals for screening and testing. The number of contacts and monitoring requirements vary depending on disease, amount of time infected, and the individual infected. The list can multiply quickly if more infected individuals are found.

Once a disease is identified and authorities have safely notified the patient(s) and provided access to treatment, the task of testing and containment continues. Depending on the nature of the disease, management periods can last days or months and take a serious toll on personnel and local budgets. Ideally, the disease will be isolated, contained, and eliminated. This is a vital time for investigators to analyze the outbreak and communicate as necessary with partners among the three levels of government: local, state, and federal.⁵

Fortunately, Texas has the public health infrastructure in place to handle infected patients, respond to community needs, and prevent further outbreaks. This includes DSHS laboratories, hospitals, and epidemiologists prepared to handle patients with an array of symptoms and issues, located around the state. Another unique asset is the University of Texas Medical Branch Galveston National Laboratory's (GNL) National Bio-containment Training Center (NBTC). Completed in

³ Hellerstedt, John M.D. (February 10, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

⁴ Persse, David M.D. (February 10, 2016), Public Health Authority City of Houston, *Written Testimony presented to the House Committee on Public Health*.

⁵ Hellerstedt, John M.D. (February 10, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

2008, the Galveston National Laboratory provides the state and nation with a top-tier laboratory capable of critical services that include aerobiology, diagnostic development, imaging, insectaries services, veterinary services, preclinical studies, bio-containment training, and a virus reference collection with over 7,000 specimens. The Galveston National Laboratory has been involved in fighting Zika and scientists there are working on everything from understanding transmission and symptoms to vaccine development, according to Director Jim LeDuc. It also plays a role in bio-containment training for state public health professionals. In June 2015, UTMB Galveston was named one of nine regional treatment centers in the United States for patients with Ebola or other severe, highly infectious diseases. Always looking to grow, UTMB Galveston is currently using state and federal funds to construct a six-bed, 5,500 square-foot Bio-Containment Critical Care Unit, scheduled to be completed April 2018. While not a large number of beds, safely caring for a highly infectious disease patient takes teams of trained professionals and specialized equipment.⁶

Additionally, in the wake of the Ebola incident in Dallas, Texas Children's Hospital of Houston saw a need to create a special unit to care for children with highly contagious infectious diseases. According to Dr. Brent Kaziny with Texas Children's Hospital, "Children make up more than 20 percent of the population yet they are often under-represented when it comes to supplies and planning." Just over a year after Ebola was diagnosed in Dallas, Texas Children's Hospital opened its own Special Isolation Unit. Currently the largest pediatric unit of its kind, the unit is equipped with eight beds, a biosafety level 3 laboratory, and three autoclaves to assist with waste management.⁷

In the United States, vaccines have been successfully used to manage past outbreaks, such as polio, smallpox, and measles. Not all diseases will have a vaccination, but if one is available or developed quickly, providing large groups access is important. The Texas A&M Center for Innovation in Advanced Development and Manufacturing (CIADM) aims to provide the state and nation a medical research and pharmaceutical manufacturing facility. The program is co-funded between the state and the federal government, and was awarded \$285.6 million in 2012.⁸ Since the award, the CIADM has completed the retrofit of the National Center for Therapeutics Manufacturing (NCTM). The NCTM is now operational and is in the process of conducting federally funded work on medical countermeasures for infectious diseases. The Pandemic Influenza Vaccine Facility and the Live Virus Vaccine Facility are substantially complete, and equipment is being purchased to outfit the facilities. Once complete, the Center's ability to respond to U.S. Medical Countermeasure needs will be increased.⁹

⁶ LeDuc, Jim PhD. (February 10, 2016), The University of Texas Medical Branch, *Written Testimony presented to the House Committee on Public Health*.

⁷ Kaziny, Brent M.D. (February 10, 2016), Texas Children's Hospital, *Written Testimony presented to the House Committee on Public Health*.

⁸ Lillibridge, Scott M.D. (February 10, 2016), The Texas A&M University System, *Written Testimony presented to the House Committee on Public Health*.

⁹ Email from Jenny Jones, Associate VP for Government and Public Affairs, Texas A&M University Health Science Center, (September 21, 2016).

Communication

Communication is critical to an emergency response. High-functioning emergency responses require structured and evolving communication streams. From a County Judge creating a personal relationship with the county's National Weather Service Meteorologist for quick access to information to the Texas Department of Emergency Management's State Operations Center providing a platform for large-scale dissemination of information, effectively sharing information will be the difference between success and failure.

Communication challenges are common, according to Eric Epley with the Southwest Texas Regional Advisory Council for Trauma, and post-incident agency reviews are littered with communication shortfalls and suggested improvements. Best practices and plans are always evolving because no incident or region faces the same challenges and technology continues to advance.¹⁰ For clear communication, all entities involved should know what communication resources work best in their region. Some areas of the state lack a reliable communication infrastructure that can be further hindered during an emergency event. Responders should know how to reach the public and develop procedures to insure information is consistent across print media, email, social media, radio, and television. The same goes for communication and coordination of responders.

Personnel changes happen and local authorities must keep that in mind and regularly familiarize themselves with their counterparts. County Judge Rex Fields reiterated the importance of building strong relationships by getting to know the managers, coordinators, and vital responders through annual planning meetings. These are important opportunities to share contacts, reestablish plans of action, and know how to get and spread information quickly.¹¹

Effective communication networks are critical, but if the information is not understood, it is useless. For example, there have been problems in the past with the public and first responders knowing the difference between a tornado watch and tornado warning. Understanding the difference between a possible tornado and a confirmed tornado can mean the difference between life and death. In this case, effective communication requires education initiatives and possible changes in protocol.¹²

Disaster communication has come a long way, but communication streams are constantly evolving. The public utilizes resources like television, radio, and social media to get information during an event and new forms of media are constantly being developed. Continued training initiatives are necessary to keep up with changes in communication and incorporating all systems of communication will lead to a more prepared response.

¹⁰ Epley, Eric, (February 10, 2016), Southwest Texas Regional Advisory Council for Trauma, *Written Testimony presented to the House Committee on Public Health*.

¹¹ Fields, Rex, (February 10, 2016), Eastland County Judge, *Written Testimony presented to the House Committee on Public Health*.

¹² *Id.*

Closing

Events like the floods and thunderstorms throughout Texas in 2015 and 2016 are a reminder of the importance of emergency preparation. Emergency response starts at the local level, and local officials are the life line for an effected community, with support from regional and state partners. Emergency response in the past has proven that the state has the ability and experience to successfully respond to an array of challenges. From natural disasters to a public health crisis, emergency response preparation, training, and communication are the key to an effective response. Local and state officials should make emergency response a priority so that adequate resources are available to keep our state prepared in the future.

CHARGE #2

Study the impact of chronic disease in Texas and identify the major regional chronic health challenges. Review the types of health data collected by the state related to chronic disease and how the data is utilized to improve health care. Study state programs targeting chronic disease, including the Texas Health Improvement Network, and identify the direct and indirect costs associated with obesity, tobacco, and other related chronic health conditions including impacts to Medicaid, Employees Retirement System, Teacher Retirement System, University of Texas System, and Texas A&M University System. Identify public health interventions for chronic disease and preventative healthcare services that improve health outcomes and reduce cost.

Introduction

Health care, like taxes, is something every American personally experiences in their lives. The Committee on Public Health met on April 5, 2016 to review the impacts of chronic disease on the health of Texans and review the burdens of increasing healthcare costs in our state. Advocates and representatives from state entities contributed to a picture of the state's current situation, future challenges, and potential opportunities.

Chronic disease is the collection of long-lasting health conditions that can be controlled but not cured. Although common and costly, many chronic diseases are preventable and linked to lifestyle choices that are within an individual's power to change. Health-damaging behaviors like tobacco use, lack of physical activity, and poor eating habits are all major contributors to chronic disease, which also includes heart disease, cancer, chronic obstructive pulmonary disease, diabetes, arthritis, and other prolonged health issues.

Chronic disease severely impacts the quality of life for many Texans and it is the main healthcare cost driver. According to the Department of State Health Services (DSHS), chronic disease accounts for 75 percent of annual healthcare expenditures in Texas and incidents of chronic disease are much higher among older individuals.¹ According to testimony from the American Heart Association, three out of four Americans 65 years old or older suffer from multiple chronic conditions that increase the risk of mortality and poorer day-to-day functioning.² These facts are particularly concerning in Texas because of our aging population, our high number of uninsured citizens, and the exploding costs of care.

¹ Zumbrun, Janna, (April 5, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

² Carlo, John M.D. (April 5, 2016), American Heart Association, *Written Testimony presented to the House Committee on Public Health*.

Chronic Disease in Texas

In 2012, the top five causes of death in Texas were heart disease, cancer, chronic lower respiratory disease (COPD), accidental injuries, and stroke. Heart disease and cancer were by far the greatest killers (see Fig. 1).³ While all of these deaths cannot be directly attributed to negative health behaviors, there is firm consensus among experts that they play a large role. According to testimony from Dr. David Lakey, 36 percent of deaths caused by heart disease, 18 percent of deaths caused by cancer, and 38 percent of deaths caused by COPD between 2008 and 2010 were potentially preventable.⁴ There is great opportunity to save lives and avoid unnecessary spending by empowering individuals to take personal responsibility for their wellness on a daily basis.

DSHS reports that one in six Texans use tobacco, two in three Texans are overweight and of that one in three are obese.⁵ An average of 18 million of 27 million Texans are at an unhealthy weight that could lead to greater incidence of chronic disease. These numbers directly correlate to DSHS reports that 2.5 million Texans suffer from diabetes, another 7.1 million are pre-

diabetic, and 25 percent are impacted by hypertension.⁶ The prevalence of comorbidities, such as behavioral health conditions and other chronic diseases, makes treating patients complicated and expensive. These comorbidities often require attention from numerous specialists who must coordinate care to manage complex cases, avoid serious complications, and control costs. To curb the trend of increasing numbers of citizens with chronic disease and the associated rising costs, particular attention should be paid to the top preventable causes of death, which are the highest health care cost drivers in Texas.

Leading Causes of Death-Texas 2012

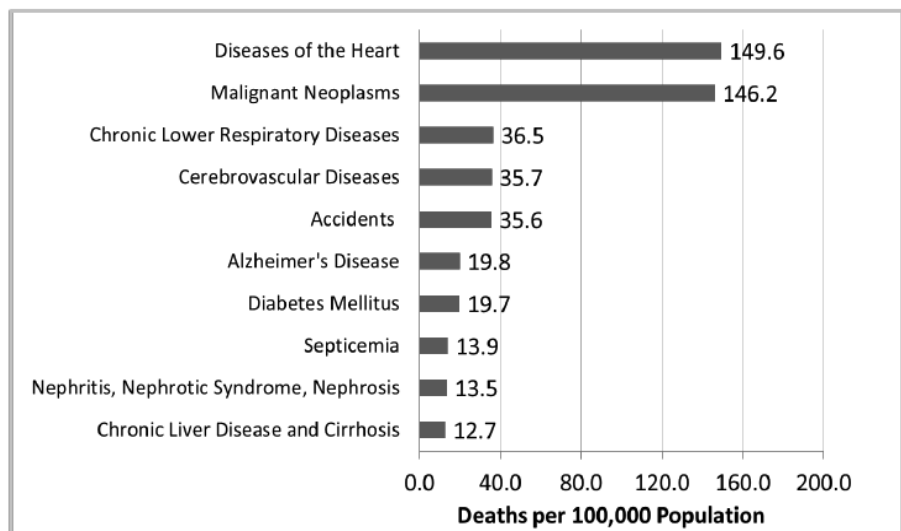


Fig. 1: Leading Causes of Death, Texas 2012, Dr. David Lakey, *Presentation to House Committee on Public Health*, (April 5, 2016).

³ Zumbrun, Janna, (April 5, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

⁴ Lakey, David M.D. (April 5, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

⁵ Zumbrun, Janna, (April 5, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

⁶ *Id.*

Impact of Chronic Disease

Annually, heart disease and cancer kill more Texans than the next eight of the top ten causes of death combined. Fortunately, average death rates for these diseases have been decreasing over the past decade. Specifically, deaths attributed to heart disease have been significantly decreasing for Black or African-American, White, and Hispanic Texans.⁷ In part, the decline can be attributed to advances in treatments and procedures, as well as outreach programs aimed at preventing the onset of heart disease. Despite these efforts, there is room for improvement; the occurrence of heart disease in Texans over 55 years of age remains unacceptably high.

Just behind heart disease, deaths attributed to cancer are significantly higher than other leading causes of death in Texas. Extensive public and private resources have been allocated towards cancer research and treatments for decades, leading to increased early detection and patient survival rates. Unfortunately, cancer is not a single disease, and many types are still as deadly as ever. According to DSHS testimony, incidence of cancer has slowly dropped over the last decade, with the overall prevalence of cancer in Texas around nine percent in 2014.⁸ The overall decline in Texas has outpaced the national average, but improvements have been slower than hoped for with the resources that have been expended. As researchers continue to make remarkable discoveries in the field and their advances allow medical professionals to better personalize targeted treatment for patients without the nagging side effects of older treatments, research will continue to play a critical role in management and cure of this destructive chronic disease.

The prevalence of diabetes across the nation and in Texas has been growing at an alarming rate over the past decade. According to DSHS's 2013 publication "The Burden of Diabetes in Texas," rates of diabetes in Texas increased by 56 percent between 2000 and 2010. The report states nearly ten percent of adult Texans reported being diagnosed with diabetes. Texans from every walk of life are affected but minority populations report the highest rates.⁹ As the largest growing population in Texas, and with demographers projecting a shift from minority to majority status within a decade, Hispanics will bear an increasing burden of diabetes in years to come.¹⁰

This increasing population will add massive amounts of stress on a currently burdened healthcare system if preventive actions are not taken. In 2010, there were approximately 596,200 hospital inpatient stays for patients with diabetes. Diabetes accounted for or was a coexisting condition for 20 percent of the total hospital stays in Texas in 2010.¹¹ These numbers are alarming because they are in large part preventable. With early and proper treatment through diet, exercise, monitoring, and medication, most diabetics can control their symptoms, avoid frequent hospitalizations, and live a normal healthy life. Unfortunately, too many Texans' symptoms are uncontrolled, and they must seek costly treatment in an emergency room setting.

⁷ Zumbun, Janna, (April 5, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

⁸ *Id.*

⁹ Dept. of State Health Services, Texas, (April 1, 2013), *The Burden of Diabetes in Texas*.

¹⁰ Lakey, David M.D. (April 5, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

¹¹ Dept. of State Health Services, Texas, (April 1, 2013), *The Burden of Diabetes in Texas*.

Causes of Chronic Disease

To this point, the information shared has been primarily focused on how chronic disease affects the health and wellness of Texans, but that is only half the conversation. There is great opportunity for positive change from understanding the causes of chronic disease. Many chronic diseases are shown to be highly preventable, especially in younger patients.

People are affected by chronic illness due to many factors outside of their control, but preventive action is key to lowering the state's overall burden. The Benjamin Franklin axiom that "an ounce of prevention is worth a pound of cure" is as true today as it was when it was first penned. While Franklin was talking about fire prevention, it rings true in the healthcare arena. Chronic disease is most associated with behavioral trends like tobacco use, lack of physical activity, lack of proper nutrition, and obesity. Each of these factors play a role, but the greatest opportunity to significantly lower rates of preventable disease comes from lowering rates of tobacco use and obesity.¹²

While there are regional and racial/ethnic disparities across the state, particularly in Northeast Texas, overall smoking rates are decreasing for Texas adults. Studies of the health consequences associated with prolonged tobacco use show the highly addictive stimulant leads to a list of negative side effects that include COPD, heart disease and stroke, and several forms of cancer. Through strong anti-smoking campaigns, youth education, taxation rates, and local smoking bans, what once was an accepted societal norm is now slowly decreasing. Time and resources should remain with successful initiatives while fostering support for programs aimed at helping current users quit. Making smoking-cessation products more accessible, with or without a prescription, could save money in averted health costs as Texans age. According to Dr. David Lakey, tobacco use is responsible for more than 430,000 deaths each year and, even though rates are decreasing, it is the largest cause of preventable morbidity and mortality in the United States. Tobacco use has killed millions of Americans and negatively affected millions more. With all that we know about the personal and societal costs of tobacco, this should be the generation to change that trend.¹³

As tobacco use encouragingly falls in Texas, the rate of obesity among Texas adults continues to climb. Particularly concerning are the stark disparities along socioeconomic, racial/ethnicity, and educational lines across the state. Officially, obesity is having a body mass index (BMI¹⁴) of 30 or more, or generally explained as being too heavy compared to a person's height so that health is affected. Obesity can be caused by poor nutrition, low exercise levels, sleeping problems, hormonal problems, eating disorders, and behavioral health problems. Obesity is not a new condition and has been linked to serious health issues like Type 2 diabetes. From 1995 to 2010, the rates of obesity in Texas adults doubled from 15.9 percent to 31.7 percent.¹⁵ Even more concerning are the social factors related to obesity. Obesity among Texas adults without a high

¹² Lakey, David M.D. (April 5, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

¹³ *Id.*

¹⁴ BMI is a person's weight in kilograms (kg) divided by their height in meters squared.

¹⁵ Health Promotions and Chronic Disease Prevention, Dept. of State Health Service, Texas, *Texas and Obesity Fact Sheet*.

school degree was 38.7 percent to 22.9 percent for those with a high school degree and 41.1 percent for those making less than \$15,000 per year compared to 26.6 percent for those making over \$50,000 per year. There were also significant disparities among racial/ethnic groups reported in Texas.¹⁶ Further, obesity is costing Texas businesses billions of dollars annually. According to the Comptroller's 2011 report, *Gaining Cost, Losing Time: The Obesity Crisis in Texas*, obesity costs Texas businesses an estimated \$9.4 billion in 2009 (see Fig. 2).¹⁷

Texas Business Costs Attributable to Obesity, 2009

Areas of Costs	Estimated Costs	Percent
Healthcare	\$4,022,324,929	42.5%
Absenteeism	1,643,955,363	17.4
Presenteeism	3,469,229,333	36.7
Disability	321,813,719	3.4
Total Costs	\$9,457,323,345	100.0%

Source: Texas Comptroller of Public Accounts.

SUSAN COMBS • *Texas Comptroller of Public Accounts*

Fig. 2: Texas Business Costs Attributable to Obesity, 2009, Texas Comptroller of Public Accounts.

Although obesity and tobacco use are not the only factors affecting rates of mortality and morbidity, they are two of the most preventable causes. In both, significant improvement can be made with lifestyle changes at the individual level. Without a personal commitment to one's health on a daily basis, no amount of support will have a lasting effect. Education of the consequences of inaction needs to be available at the community level. Many times, these negative behaviors are learned and supported by peers which makes changing habits very difficult. This is why community engagement and peer-to-peer engagement is so effective. Advocates from numerous organizations not only champion and support statewide initiatives but encourage community-specific programs, which are shown to have the greatest effect. These programs require energy, resources, and time for meaningful change to happen.

One example of a successful community-based approach is the Texas A&M Healthy South Texas Program. Healthy South Texas is a new program aimed at preventable diseases throughout a 27-county region in South Texas. By combining the clinical expertise and community-based disease prevention and management programs of the Texas A&M University Health Science Center with Texas A&M AgriLife Extension Service's unique education and outreach model, Healthy South Texas extends solutions to improve healthy behaviors and environments throughout the region. According to the Texas A&M University Health Science Center, since its launch in September 2015, more than 300,000 individuals have been impacted by the initiative's programming in health awareness, physical activity engagement, medication assistance, diabetes and asthma control, and

¹⁶ Health Promotions and Chronic Disease Prevention, Dept. of State Health Service, Texas, *Texas and Obesity Fact Sheet*

¹⁷ Texas Comptroller Susan Combs, (February 2011), *Gaining Costs, Losing Time: The Obesity Crisis in Texas*.

infectious disease prevention. This \$10 million investment from the 84th Texas Legislature has returned a projected healthcare cost savings of \$24 million in diabetes control and medication assistance alone. In addition, the positive potential economic impact for Healthy South Texas' physical activity engagement is approximately \$36 million. The tools, technologies, and strategies developed in South Texas have the potential to tackle health challenges across the state through additional Healthy Texas initiatives.¹⁸

Employee Groups

The Public Health Committee heard about the impact of chronic disease on employee groups that rely on state tax dollars for healthcare coverage like the Employees Retirement System, the Teacher Retirement System, University of Texas System and Texas A&M University System. As one would expect, health trends and chronic disease rates among these groups were very similar to what is seen statewide. Testimony showed differences in average age, dependents covered, gender make-up, and average income, which are all factors affecting the occurrence of chronic disease. How each group handles these challenges depends on their involvement with their membership and their individually contracted health plan.

Employees Retirement System

The Employees Retirement System's (ERS) Group Benefit Program (GBP) provided health coverage to more than half a million Texans in 2015. The GBP is made up of eligible employees, retirees, and dependents from state agencies and institutions of higher education (not including the University of Texas System and Texas A&M University System), the Texas County and District Retirement System, Texas Municipal Retirement System, Community Supervision and Corrections Department, and the Windham School District. ERS contracts with United Healthcare to manage its self-funded point-of-service plan, HealthSelect of Texas, which covers 86 percent of all GBP participants.¹⁹

The GBP covers an aging population. The number of members over 60 years old increased 15 percent between 2000 and 2015, while the number of members under 40 years old shrank 11 percent. The risks of chronic disease and illness increase significantly with age, and because a self-funded plan pools costs and risk among the entire group, when health costs go up for high-risk individuals, that cost is shared by all. According to ERS testimony, HealthSelect's demographic risk factor is 38 percent higher than United Healthcare's national book of business. ERS reported higher than average claims cost for common diagnoses such as diabetes, hypertension, and congestive heart failure.²⁰ Diabetes has been costly for ERS; in 2015, HealthSelect paid over \$689 million in

¹⁸ McGinnis, Kevin, (April 5, 2016), The Texas A&M University System, *Written Testimony presented to the House Committee on Public Health*,(data updated on Sept. 14, 2016).

¹⁹ Wilson, Porter, (April 5, 2016), Employees Retirement System of Texas, *Written Testimony presented to the House Committee on Public Health*.

²⁰ Wilson, Porter, (April 5, 2016), Employees Retirement System of Texas, *Written Testimony presented to the House Committee on Public Health*.

medical and drug costs for participants with diabetes. Put another way, 13 percent of HealthSelect participants with diabetes generated 30 percent of the plan's cost in fiscal year 2015.²¹

In response, HealthSelect rolled out a popular new online diabetes prevention program in April 2016 focused on weight loss and exercise called Real Appeal. More than 14,000 people enrolled in the first five months. Free to eligible HealthSelect members, it provides a personalized clinical plan and tool kit, with up to 52 weeks of online coaching and helpful tools. Best of all, HealthSelect only pays if participants attend weekly sessions and continue to lose weight. HealthSelect also provides free tobacco cessation assistance to members looking to quit. Sadly, most wellness and disease management programs have very low enrollment. Less than one percent of eligible participants enrolled in wellness programs in 2015, in part due to a state prohibition against offering certain financial incentives. Suggestions of higher premiums for eligible members who do not enroll in wellness programs or cash incentives for those who do enroll were suggested changes for the future.²²

Teacher Retirement System

The Teacher Retirement System (TRS) contracts with Aetna to administer medical benefits and Caremark pharmacy benefit manager to provide health care to participating public school district employees and dependents around the state. In fiscal year 2015, the TRS-ActiveCare preferred provider organization health plan covered approximately 428,000 Texans (not including retirees). Because retirees and their families are covered under a different health plan, TRS-ActiveCare has a much younger average age at 34.5 years old and a higher percent of women than ERS, with 64 percent female members. Interestingly, over half of members report living in rural areas, which can affect health care access.²³

Like other plans, TRS reported chronic diseases having an impact on health claims and high utilization of health benefits for commonly diagnosed conditions. Consistent with other similar plans, data on pharmacy spending for medications commonly prescribed for chronic diseases show lower than desired adherence rates. For example, adherence for heart disease medication was reported at 45 percent and 55 percent for diabetes medication. While adherence to chronic disease treatment is low for most health plans, it presents an opportunity for intervention through education initiatives. Proper use of medication is proven to lower the chances of hospitalization and in turn saves money for members.²⁴

TRS provides numerous programs focused on obesity and tobacco use prevention and assistance. A few of these programs highlighted in testimony included a disease management program, bariatric surgery, wellness efforts, and free smoking cessation counseling and medication.

²¹ Employees Retirement System of Texas, (August 31, 2016), *Offering a Type 2 Diabetes Prevention Program to State Employees*.

²² Wilson, Porter, (April 5, 2016), Employees Retirement System of Texas, *Written Testimony presented to the House Committee on Public Health*.

²³ Guthrie, Brian, (April 5, 2016), Teacher Retirement System of Texas, *Written Testimony presented to the House Committee on Public Health* (presented by Welch, Ken (April 5, 2016) Teach Retirement System of Texas).

²⁴ *Id.*

Bariatric surgery requires pre-certification and participants must complete a counseling and diet program prior to approval. Wellness programs include partnerships with gyms and pay-for-performance program providers that must meet quality benchmarks to receive payments. Disease management benefits include outreach by a registered nurse for ongoing support, individualized care plans and goals, self-monitoring equipment, and condition-specific education materials. Disease management targeted 56,581 eligible participants and engaged 95 percent in the program. The high success rate was attributed to the target group having already been diagnosed with a chronic disease and most looking for help.²⁵

Texas A&M University System

Texas A&M University System covers nearly 52,000 employees and participating dependents, including retirees. The average age is 44 years old and is 53.6 percent female. The System contracts with Blue Cross Blue Shield of Texas as the third-party administrator for the A&M Care Plan. Higher-aged members make addressing chronic conditions important to a System that reported 40 percent of its medical spend was attributed to members with at least one chronic condition. Affirming that wellness is a priority for the System, the Texas A&M University Chancellor's Wellness Initiative was launched in 2014. This program provides grants to institutions of the System to promote wellness at the grassroots level. Initiatives included health fairs and screenings, on-site wellness education, participation incentives, and fitness programs. Members are also required to have annual exams to receive a lower premium and tobacco users are charged a Tobacco Use Premium to help cover the increase in associated costs.²⁶

The Texas A&M University System is working to lower the burdens that diabetes have on A&M Care Plan participants. The System reported that a non-compliant diabetes patient can cost \$8,000 more annually than one following proper care plans. A non-compliant patient is anyone not monitoring their condition or not taking medication as prescribed. A review of employees found that over 1,600 individuals were non-compliant, but through outreach efforts, 931 previously non-compliant diabetes patients became compliant. Naturally Slim, another program focused on chronic disease, is designed to lower risk factors of metabolic syndrome, which is a cluster of conditions that increase rates of heart disease, diabetes, and stroke. The program focuses on how and when you eat, not what you eat. Of the 1,200 people who have completed the program, a total weight loss of 13,000 pounds has been reported. The program is free to employees and retirees, but currently only available for those diagnosed with metabolic syndrome or pre-metabolic syndrome. The System also provides free on-site health screenings to help members comply with annual screening requirements.²⁷

²⁵ Guthrie, Brian, (April 5, 2016), Teacher Retirement System of Texas, *Written Testimony presented to the House Committee on Public Health* (presented by Daniels, Katrina (April 5, 2016) Teach Retirement System of Texas).

²⁶ McGinnis, Kevin, (April 5, 2016), The Texas A&M University System, *Written Testimony presented to the House Committee on Public Health*.

²⁷ *Id.*

University of Texas System

The University of Texas System (UT System) has 88,000 eligible employees with an average member age of 39 years old and consisting of 56 percent women. The UT System partners with Blue Cross Blue Shield to provide third-party administration of the self-funded UT SELECT plan. Similar to other insured groups in Texas, 20 percent of the population drives 80 percent of the claims costs, according to testimony. Many of the claims were directly tied to lifestyle conditions. Diabetes, high blood pressure, high cholesterol, and other chronic diseases were attributed as cost drivers. The UT System uses claims data to target program needs and develop wellness programs.²⁸

According to the UT System, their health and wellness data was similar to what was presented by other groups. The UT System plan pays out nearly a billion dollars annually, which is a proportionate cost when compared to enrollment size of other state programs. That claims data is used to insure participants are complying with their medications and provide support to help achieve compliance as well as monitor the need for new programs or refinement of existing medical management programs. It was reported that around 50 percent of the population receives an annual exam that is covered by the program but is not mandatory. Access to wellness managers and other supportive services are available but each campus decides what programs are offered at a campus level. The UT SELECT program does include a robust system-wide wellness program called the LivingWell Program. According to testimony, most of the success of each program is dependent on the support of upper management both at the institution level as well as the immediate supervisor level. The UT System also provides the Naturally Slim program, like Texas A&M University System, on seven institutions as well as smoking cessation programs and health fairs. Effective September 2016, the UT System offers the Naturally Slim program to all institutions and currently has over 10,000 members enrolled in the first class of Fiscal Year 2017.²⁹

²⁸ Stewart, Dan, (April 5, 2016), The University of Texas System, *Oral Testimony presented to the House Committee on Public Health*.

²⁹ *Id.*

Closing

Chronic disease involves much more than diabetes, heart disease, stroke, and the other diagnosis mentioned but these are what are having the greatest effect on the state's health and wellness. The data is clear that a small portion of the population has been driving the unprecedented cost increase we have witnessed in the last few decades. Thankfully, many chronic diseases are trending down and we can thank increased awareness and healthcare achievements for these gains, but we are falling behind in many areas. Our state is one of the most obese states in the country and that will further test a currently burdened healthcare system.

It took time for the state population to feel the effects of conditions such as obesity and tobacco use and it will take time for these trends to be reversed. It is clear that there is a growing issue with chronic disease that many predict will only worsen as the baby boomer population moves into old age.

CHARGE #3

Examine the history of telemedicine in Texas and the adequacy of the technological infrastructure for use between Texas healthcare providers. Review the benefits of using telemedicine in rural and underserved areas and current reimbursement practices. Explore opportunities to expand and improve the delivery of healthcare and identify methods to increase awareness by provider groups, including institutions of higher education, and payers of telemedicine activities being reimbursed in Texas.

Introduction

On February 10, 2016, the House Committee on Public Health met to examine the history of telemedicine in Texas and its potential impact on health care. The telemedicine industry has witnessed an explosion of activity as attitudes towards this care model change. Increasingly, telemedicine is being accepted as a viable way to cut costs, increase access to care, and expand provider networks. As more supportive reimbursement structures are created and technology and infrastructure grow, the opportunities for telemedicine could be limitless.

The telemedicine conversation has always been a little confusing. Statutorily, Texas Medicaid defines three separate applications: telemedicine, telehealth, and home telemonitoring services. Frequently, telemedicine, telehealth, or virtual health are used interchangeably to define health care delivered using telecommunication, not including phone or facsimile. Officially, Texas defines **telemedicine**¹ as a healthcare service using telecommunications that is either initiated by a physician who is licensed to practice medicine in Texas, or provided by a health professional acting under physician delegation or supervision. **Telehealth**² is defined as a health service, other than telemedicine, that is delivered by a licensed or certified health professional who is acting within the scope of their license or application. **Telemonitoring**³ is the scheduled, remote monitoring of data related to a patient's health, including the transmission and review of that data. Simply put, telemedicine is delivered by, or on behalf of, a licensed physician, and telehealth is a healthcare service delivered by a healthcare professional who is not a physician.

Regardless of the terminology, fully maximizing telemedicine's proven benefits will take time. There are many challenges ahead; addressing those challenges will take education and buy-in from healthcare professionals, policy leaders, and patients. Currently, it could be argued that a simple agreement on what future telemedicine utilization should look like has yet to be fully achieved, but that is not an indictment. Instead, it is an acknowledgement of the complexity of integrating a healthcare tool to the larger healthcare market place, safely and fairly. The history of telemedicine has proven it can be successful when applied in areas of need. Its continued integration into health care, including high cost areas, will improve the quality of care while lowering the burdens of accessibility, such as cost and transportation.

¹ Find complete definition in Tex. Gov. Code § 531.001(8)

² Find complete definition in Tex. Gov. Code § 531.001(7)

³ Find complete definition in Tex. Gov. Code § 531.001(4-a)

History of Telemedicine

Telemedicine is not new to Texas. The first programs began around 1989 as a way to connect universities, particularly academic health science centers, but the technology has advanced significantly since its humble beginnings. Today, telemedicine is a considerably more viable option, with uses stretching from access to specialists, caring for an aging population, opportunities for special needs patients, and continuous monitoring for high-risk cases.⁴

In 1989, telemedicine, like the internet, was in its infancy. Used mostly on university campuses, it was accessible to only a handful of individuals.⁵ By 1994, the University of Texas Medical Branch (UTMB) embarked on what would become a successful telemedicine initiative, connecting the state's incarcerated population with health professionals using remote technology. Increased safety for providers and access for the incarcerated individuals made telemedicine perfect for treating this challenging population.⁶ Today, most states use some version to treat their own incarcerated population. According to data provided by UTMB, telemedicine conservatively saves correctional healthcare \$2.5 million per year in provider cost when compared to the secondary labor market.⁷

Telemedicine is a valuable tool, but the lack of a statewide communication infrastructure made it impractical for the general population. Seeing the importance of general connectivity, the 74th Texas Legislature created the Telecommunications Infrastructure Fund (TIF)⁸ in 1995. TIF funds came from a tax on cell phone users and grants were awarded for communication infrastructure projects throughout the state. In 2003, TIF hit its statutory cap of \$1.5 billion and was later eliminated. During that time, health care associated projects accounted for about \$110 million, or less than 10 percent of the total spent.⁹ To date, TIF was the last time the state took a substantial position on state communication infrastructure using tax revenue, although the Legislature did establish a manufacturing sales tax exemption on technology network equipment in 2013 that was intended to help bring services to underserved areas.¹⁰

While legislators made investments in state communication infrastructure, a lack of clear regulatory permission for telemedicine slowed market growth. That changed in 1997, when a pair of bills made it easier for healthcare providers to be reimbursed for telemedicine services. First, the initial Texas Medicaid benefits were established. It has been modified almost every year since, including the addition of remote monitoring benefits (home telemonitoring)¹¹ in 2011. Second, the Private Insurance Parity Law passed, making it illegal to deny a provider's claim solely because it

⁴ Belcher, Nora, (February 10, 2016), Texas e-Health Alliance, *Written Testimony presented to the House Committee on Public Health*.

⁵ *Id.*

⁶ Vo, Alexander PhD. (February 10, 2016), University of Texas Medical Branch, *Written Testimony presented to the House Committee on Public Health*.

⁷ Sheer, Lauren, (September 6, 2016), RE: Questions, *E-mail*.

⁸ Tex. H.B. 2128, 74th Leg., R.S. (1995).

⁹ Belcher, Nora, (February 10, 2016), Texas e-Health Alliance, *Written Testimony presented to the House Committee on Public Health*.

¹⁰ Tex. H.B. 1133, 83th Leg., R.S. (2013).

¹¹ Tex. H.B. 3519, 84th Leg., R.S. (2015).

was telemedicine. The passage of these two bills made it clear that the Texas Legislature expected telemedicine to be part of the state's healthcare services going forward.¹²

Texas' utilization of telemedicine has not kept pace with the state's overall healthcare sector growth. Since early adoption, market growth has been slower than many advocates had hoped, but the technologies used have grown substantially. Expensive telemedicine modules the size of refrigerators have been replaced by handheld wireless equipment. Access has also outpaced market growth. Although still hard to find in some rural areas, internet access has become a necessity for healthcare providers, and access has never been higher among the general population. The widespread use of smartphones with many of the same functions as computers is also driving adoption of many advanced technologies.

Today, advances in technology, rising healthcare costs, and a profound acceptance of technology have won telemedicine increased support. Advocates and policy makers are working on making telemedicine more available in historically successful areas and forging new roads into emerging markets. Regulatory decisions over fair reimbursements, licensure, utilization guidelines and standards, and other related aspects will determine what this tool will look like in the future. Arguably, the most powerful driver of telemedicine is consumer demand. As more of our daily lives transition to electronic services, health care will likely follow. If the internet can be utilized for banking, shopping, and communication, why not health care, too?

Telemedicine in Texas

Advances in public health services and modern pharmaceuticals have made the world a safer place and improved lives. Unfortunately, there are some issues plaguing the healthcare community that cannot be addressed through new drug treatments or medical advancements alone. These issues, including primary and specialty care shortages, transportation challenges, and the over-utilization of high-cost care have historically made access to health care more difficult, especially in underserved and rural communities. The evolution of technology and communication infrastructure has made telemedicine a valuable tool to address these types of challenges.

Access to healthcare providers is a problem that has continued to be exacerbated in Texas as population increases outpace the number of physicians in the state. According to the Texas Medical Association, there are approximately 186 physicians for every 100,000 Texas residents, compared to the national average of 236 physicians per 100,000 residents.¹³ Adding to this problem, a majority of specialty care physicians are located in or around large urban areas, leaving rural populations underserved. If used correctly, telemedicine applications could extend the reach of providers outside their offices. This would allow physicians to offer care in communities that have traditionally not been able to sustain a brick and mortar location.

¹² Belcher, Nora, (February 10, 2016), Texas e-Health Alliance, *Written Testimony presented to the House Committee on Public Health*.

¹³Dudensing, Jamie, (February 10, 2016), Texas Association of Health Plans, *Written Testimony presented to the House Committee on Public Health*.(citing Texas Medical Association).

Telemedicine is a tool that connects healthcare providers with patients in a new way, regardless of where either is located, cutting down on the burdens of patient travel and time off work. Time off work to see a provider is a precious commodity for many people, and telemedicine could improve patient attendance and satisfaction. As an example, after a successful transplant operation for a patient in Houston, his recovery required extended monitoring and check-ups from a specialty physician, not available where the patient lived in East Texas. Adding to the situation, the patient had a compromised immune system that made a hospital setting dangerous. In the past, his options would have been limited to staying in a healthcare facility in Houston, regularly commuting long hours, or not receiving follow-up care. Fortunately, due to the provider's use of telemedicine, the patient was able to return home while receiving the necessary check-ups and monitoring virtually at his local healthcare facility. This application of telemedicine averted thousands of dollars in medical bills, hours of travel, and patient stress, allowing him to recover at home with his family. Stories like this are developing all across the state and will increase as providers become more adept at using this tool in their daily practice.

Telemedicine is being used to address shortages in behavioral health services, too. Left out of the mainstream healthcare conversation for many years, addressing behavioral health service shortfalls is a top priority at the state and federal level. As policy makers and advocates search for solutions, telemedicine should play an important role. Behavioral health telemedicine programs, also known as tele-psychiatry, have proven results in real-world applications. Dr. Alexander Vo, Vice President of Telemedicine and Health Services Technology at UTMB referenced a joint program between the Texas Health and Human Services Commission (HHSC) and UTMB. This pediatric tele-psychiatry program provided behavioral health services to 20 community mental health partners across the state. One year after implementation, 530 participating families reported a 50 percent reduction in emergency department utilizations, 50 percent reported better overall functioning, and almost 90 percent said they would use tele-psychiatry in the future, if available.¹⁴

As one of the oldest and largest operational programs in the state, UTMB is driving innovation in telemedicine. Aiming to bridge the gap between physical and behavioral health, Dr. Vo introduced what he termed "community integrated care." According to Dr. Vo, up to 30 percent of behavioral health patients are first encountered in primary care settings, which often lack on-site behavioral health services. Catching these dual diagnosed patients is important because the cost of care is two to three times than that of a patient with only physical medical issues and delaying care often exacerbates the situation. Using this evidence, UTMB is pushing the co-location of behavioral health in primary care settings by virtually imbedding tele-psychiatry in participating primary clinics with positive outcomes.¹⁵

Another university with a long history of using telemedicine in innovative ways is the Texas Tech University Health Science Center (TTUHSC). Their Telemedicine Wellness, Intervention, Triage and Referral Project, also referred to as the TWITR Project, is leveraging telemedicine to provide screening, assessment, and referral services to middle and high school students who may have mental health issues or are judged to be immediate threats to do harm to themselves or others. Students are referred by trained school employees and provided school-based screenings for risk-

¹⁴ Vo, Alexander PhD. (February 10, 2016), University of Texas Medical Branch, *Written Testimony presented to the House Committee on Public Health*.

¹⁵ *Id.*

based behaviors by licensed professional counselors. Students are seen by a child psychiatrist using telemedicine as a triage step to ensure prompt initiation of care, then provided psychiatric services by TTUHSC Psychiatry over a telemedicine link. Currently active in ten West Texas independent school districts, telemedicine links remote rural schools that are without sufficient counselors, psychiatrists, and other mental health service providers with behavioral health specialists. The program also provides recognition and training services to educators and school resource officers to promote recognition of mental health issues and referral to appropriate providers. The program has demonstrated a reduction in truancy and student discipline referrals, and an increase in overall student GPA.¹⁶

As tele-psychiatry services become more available and accepted by patients and providers, utilization will increase. According to HHSC, Medicaid is seeing the majority of telemedicine activity in the behavioral health sector. From 2011 to 2015, the highest codes billed were for tele-psychiatry services.¹⁷

The application of telemedicine continues to expand, including recent legislation allowing its introduction into school settings and offices, Medicaid's inclusion of home monitoring for chronically ill patients, and the plethora of applications that will come from advances in wearable health devices. Opportunity for improvement is also seen in high cost areas of health care, like treating a fragile population in need of specialty pediatric care that only a select few Neonatal Intensive Care Units (NICU) can provide. These NICUs meet the highest possible standard of care but are only located in large urban areas of Texas. The cost and complications associated with transporting young children and the growing need for access to pediatric subspecialties only available in certain specialty units led Children's Health in Dallas to launch their TeleNICU program in 2013, the state's first dedicated neonatal telemedicine service.¹⁸

TeleNICU links the specially trained, board-certified neonatologists and medical staff at Children's Health to staff at other hospitals' NICUs. The service allows other hospitals that are not staffed or equipped to provide care for the most complex cases to offer the benefits of Children's NICU. Participating hospitals can connect with Children's using a mobile equipment cart with medical-quality video conferencing capabilities, secure data transfer, and digital diagnostic testing equipment. Children's staff can then review data and consult with local doctors about a diagnosis and treatment plan. Early treatment improves outcomes and reduces stress on family, while allowing the parents to receive family-centered care closer to home. In addition to reducing stress, TeleNICU can help reduce the costs associated with unnecessary transfers, including those for lodging and transportation, so new parents can be with their baby during treatment.¹⁹

According to data provided by Children's from a year-long demonstration project with Trinity Mother Frances Hospital in Tyler, Children's neonatologists provided 23 consultations in

¹⁶ Philips, Jr. Billy PhD. MPH. (June 16, 2016), Texas Tech University Health Science Center, *Written Testimony presented to the Senate Committee on Health and Human Services*.

¹⁷ Vanhoose, Laurie, (February 10, 2016), Health and Human Services Commission, *Written Testimony presented to the House Committee on Public Health*.

¹⁸ Hall-Barrow, Julie EdD. (February 10, 2016), Children's Health System of Texas, *Written Testimony presented to the House Committee on Public Health*.

¹⁹ *Id.*

2014. Of these, seven were retained at Trinity Mother Frances Hospital with monitoring and support from Children's and 16 were transferred for higher tertiary care. Historically, all 23 would have likely been transferred. According to Children's, averting a single transfer from Trinity Mother Frances Hospital saved the healthcare system approximately \$116,400, as well as \$15,000 in transportation costs. The seven averted transfers together saved almost \$920,000, and this is just one example. The potential cost avoidance is enormous. This model could be modified to fit a number of situations that currently call for immediate transfer for higher tertiary care, improving hospital care coordination and potentially avoiding unnecessary costs.²⁰

Telemedicine is an innovative tool and delivery model with the potential to change how we consume health care in the future. It will not fit every medical discipline but there are many areas of opportunity. The experiences of innovators like Children's Health and UTMB will shape utilization of telemedicine for years to come.

Barriers to Telemedicine

What is holding telemedicine back? Technological advancements, connectivity growth, and consumer demand are driving growth. However, without provider demand, appropriate licensure requirements, fair reimbursements, and supportive regulations, the full benefits of telemedicine will struggle to be fully realized. Fortunately, there is agreement that telemedicine has a place in health care, but it must be done safely, fairly, and with no loss of care quality.

Texas has many highly trained professionals that practice according to a set of successful principles learned during medical school and residency. It is during this time that aspiring physicians could be introduced to telemedicine. Dr. Thomas J. Kim with the Texas Medical Association highlighted the importance of early exposure in his own story. After seeing the personal benefits of telemedicine in treating incarcerated juveniles early in his career, he decided to commit his life to learning to use it successfully.²¹ Telemedicine is not suited for every medical discipline or physician, but early exposure will give providers an understanding of the technology and its innovative uses in areas of need.

Reimbursement is another important issue under consideration. After all, no one will participate in a system that does not compensate for work or meet standards of fair reimbursement. It is also important to understand that telemedicine care and conventional care are not equivalent. Telemedicine applications require unique skills to be mastered. Therefore, reimbursement should be considered independently, without discouraging the use of either. There is tremendous promise for telemedicine in the evolution of new payment models, including accountable care organizations and value-based purchasing, that allow for flexibility in established payment models outside the traditional fee-for-service structure.

²⁰ Hall-Barrow, Julie EdD. (February 10, 2016), Children's Health System of Texas, *Written Testimony presented to the House Committee on Public Health*.

²¹ Kim, Thomas J. M.D. MPH. (February 10, 2016), Texas Medical Association, *Written Testimony presented to the House Committee on Public Health*.

Closing

Telemedicine has been utilized in Texas for many years: first utilized in the incarcerated population, then encouraged in underserved settings, and now being incorporated to enhance care delivery in multiple areas. Telemedicine has the potential to be effective in a variety of settings and future legislation should be cognizant of these diverse opportunities. Future applications should be designed by healthcare professionals, not policy writers.

Very rarely is there a topic that has as much opportunity to positively affect so much of the population. Whether you call it telemedicine, telehealth, or virtual healthcare, the continued integration of telecommunication technology into health care will improve outcomes and potentially change how many access healthcare providers. Telemedicine will not replace conventional care as we know it. There will always be situations where hands-on, in-person care is needed. Telemedicine is a tool to support conventional medical care with follow-up appointments, increased provider availability, and care coordination.

CHARGE #4

Review programs focused on improving birth outcomes including evaluating the effectiveness and identifying any cost avoidance associated with them. Study barriers pregnant women face enrolling in services and receiving regular prenatal care. Identify factors, including substance abuse, associated with preterm birth and review services available for mothers postpartum.

Introduction

On May 19, 2016, the House Committee on Public Health convened to discuss improving birth outcomes for Texas families. Experts from across the state were invited to review programs focused on improving birth outcomes, identify barriers to access for services, and make recommendations that will lead to healthier pregnant women, children, and families.

Overall, Texas has made great strides in recent years regarding women’s health, but there is more work to be done. Today, approximately 53 percent of babies born annually in Texas are paid for by Medicaid dollars. According to the Texas Health and Human Services Commission (HHSC), over \$3.5 billion is spent per year for birth and delivery-related services for mothers and infants in the first year of life.¹

Texas rates of premature births and low birth weights are above the national average (see Fig. 1). Texas taxpayers spent around \$402 million on babies born prematurely or with a low birth weight in 2015. On average, Medicaid spending on babies born prematurely or with low birth weight cost over \$100,000 in the first year of life compared to an average of \$572 for babies carried full-term.²

Thankfully, infant mortality rates in Texas are just below the national average, but the United States is well behind most other industrialized countries, and there is little agreement on why. What is clear is there are severe racial/ethnic and geographic disparities in Texas (see Fig. 2).³

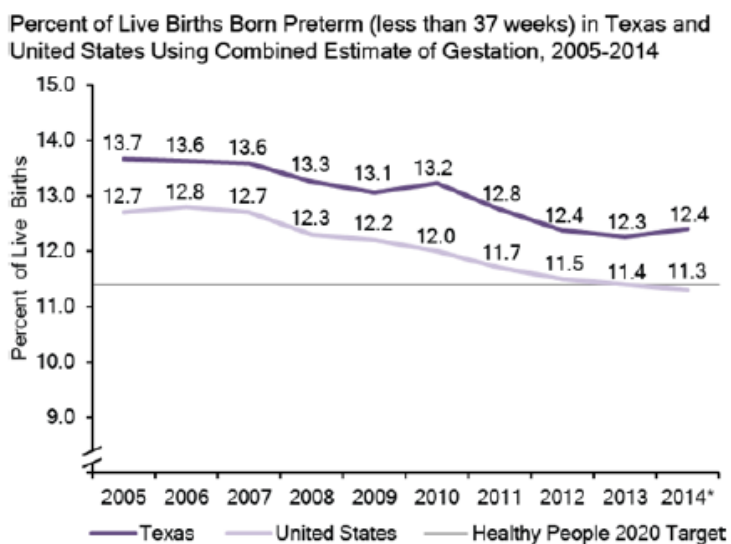


Fig. 1: Preterm Births 2005-2014, Dept. of State Health Services, Presentation to the House Comm. on Public Health: Better Birth Outcomes, (May 19, 2016)

Infant Mortality Rate in Texas by Race/Ethnicity, 2005-2013

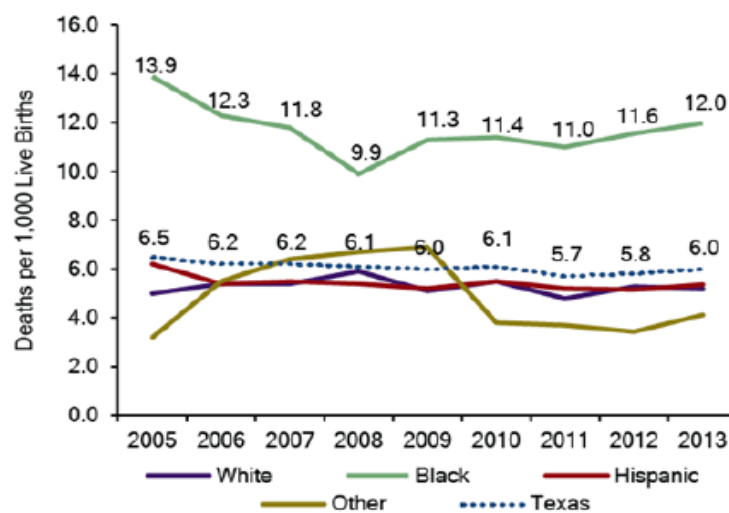


Fig. 2: Infant Mortality Rates, Dept. of State Health Services, Presentation to the House Comm. on Public Health: Better Birth Outcomes, (May 19, 2016)

¹ French, Lesley, (May 19, 2016), Health and Human Services Commission, *Written Testimony presented to the House Committee on Public Health*.

² *Id.*

³ Delgado, Evelyn, (May 19, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

Education is a powerful tool to reverse these negative trends, but testimony and research show that many women lack the necessary information on family planning, birth spacing, prenatal care, nutrition, and many other factors that can improve birth outcomes. The state has a significant financial interest in providing such education before, during, and after pregnancy to lower chances of expensive and dangerous complications.

Adding to the problem, over half of all pregnancies in the United States are unintended, according to Dr. David Lakey of the University of Texas System. In these cases, there is a much higher risk of delayed prenatal care, premature birth, and negative physical and mental health effects than with planned or properly spaced pregnancies. Increasing access to family planning services and education on contraceptives will empower women and have a positive effect on future generations of Texans.⁴

There are many challenges facing families in our great state but the advocates that participated in the hearing and countless other healthcare professionals around the state see those challenges as opportunities. There is great work being done in Texas on this issue, and the public should be educated about what is being done for the most vulnerable Texans.

⁴ Lakey, David M.D. (May 19, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

Improving the Texas Health Care Service Model

Healthy Texas Women

In July 2016, Texas Health and Human Services Commission (HHSC) launched the much-anticipated women's health program, Healthy Texas Women, after more than a year of dedicated work. Healthy Texas Women builds upon lessons learned from past programs to expand access and provide a user-friendly platform for those most in need. Simply, the goal of Healthy Texas Women is to provide coverage that allows a woman to be screened, diagnosed and treated within one program (see Fig. 3).⁵

According to HHSC Associate Commissioner Lesley French, the Healthy Texas Women division leader, past state programs were confusing and complicated to navigate. One program would provide access to screening and diagnosis, but the treatments required might be covered by a different program or not covered at all, leaving women unable to understand their options or denied the care prescribed by their physician.⁶

Covered Services
• Pelvic examinations
• Contraceptive Services
• Pap tests
• Screening for hypertension, diabetes, cholesterol
• Sexually transmitted infection (STI) services
• Sterilizations
• Breast and Cervical Cancer Screenings and Diagnostic Services
• Immunizations
• Cervical Dysplasia treatment
• Other preventative services

Fig. 3: Healthy Texas Women Covered Services, HHSC, Written presentation to House Comm. on Public Health, (May 19, 2016)

How did we get here? Coming into the 82nd Legislature, an economic slowdown meant that budget writers had far less money to work with and cuts had to be made to sustain a balanced budget. Women's health was one of many areas that suffered, with cuts to the state's family planning budget. The Legislature responded in the 83rd Legislative Session by making women's health a priority, leading to the creation of two new state programs: Health and Human Services Commission's Texas Women's Health Program and Department of State Health Services Expanded Primary Health Care Program. Their creation was a positive and productive step, but there were burdensome redundancies that were confusing to users and created shortfalls in coverage. In the 84th Legislative Session, following recommendations from the Sunset Advisory Commission, the Legislature directed HHSC and the Department of State Health Services (DSHS) to consolidate the state's women's health services and allocated the necessary resources to make the program successful. In fact, Texas has approximately doubled the women's health budget since 2012.⁷

In response, HHSC merged the Texas Women's Health Program with DSHS's Expanded Primary Healthcare program to create the Healthy Texas Women program. This new program takes

⁵ French, Lesley, (May 19, 2016), Health and Human Services Commission, *Written Testimony presented to the House Committee on Public Health*.

⁶ *Id.*

⁷ *Id.*

a centered approach to providing women's health care, aimed at alleviating the barriers faced when navigating the previous programs.⁸

Eligibility for Healthy Texas Women is similar to the Texas Women's Health Program it replaced, but expands eligibility to include women ages 15-44 years old (minors require parental consent), sterilized women, and increasing the Federal Poverty Level to 200 percent. Healthy Texas Women does not cover pregnant women, but HHSC will modify its eligibility to allow women no longer eligible for Medicaid to automatically enroll 60 days after their pregnancy. Automatic enrollment reduces the burden of re-enrollment for new mothers, increases rates of post-partum care, and results in better health outcomes for both mother and child. Increased coordination among women's health services will promote continuity of care and enable women to stay with their doctor as they transition from Medicaid for Pregnant Women to the Healthy Texas Women program.⁹

Family Planning Services

The new HHSC Family Planning Services will promote positive birth outcomes and healthy families by educating individuals on the medical benefits of things like birth spacing. Services are offered to women and men, ages 64 or younger, who are Texas residents living within 250 percent of the Federal Poverty Level and ineligible for Healthy Texas Women. It covers the same core family planning benefits package as Healthy Texas Women except it will also provide prenatal care. It does not cover pregnancies, but gives women access to vital early prenatal care while they wait to be accepted in Medicaid.¹⁰

Family Planning will not cover primary care, but instead give access to health clinics across the state that provide quality, comprehensive, low-cost, and easily accessible reproductive health care to women and men. Family planning services, including reproductive education and access to health care, must be a priority for the Legislature. Over 50 percent of births in Texas are paid for by Medicaid dollars and around 50 percent of pregnancies are unintended. Empowering individuals and families to control their reproductive plans will improve lives and save tax dollars.¹¹

⁸ French, Lesley, (May 19, 2016), Health and Human Services Commission, *Written Testimony presented to the House Committee on Public Health*.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

Healthy Mom = Healthy Baby

Providing quality health care to uninsured and underinsured pregnant women is in the best interest of all Texans. Children with a healthy start on life will rely less on public benefits and become healthier adults. Sadly, not every child can get that head start due to decisions made during pregnancy outside of their control. These situations include the use of drugs and tobacco while pregnant, both of which have well documented negative health effects and demand attention.

Tobacco Use During Pregnancy

Tobacco use continues to decline among all demographics in Texas (see Fig. 4). Educating expecting mothers of the dangers of smoking while pregnant is working thanks to aggressive anti-smoking campaigns. According to information provided by the Health and Human Services Commission, the number of live births to a mother who smoked during pregnancy has declined nearly 28 percent from 2005 to 2014.

This is encouraging data, but in Texas, there are stark regional and racial/ethnic disparities.¹²

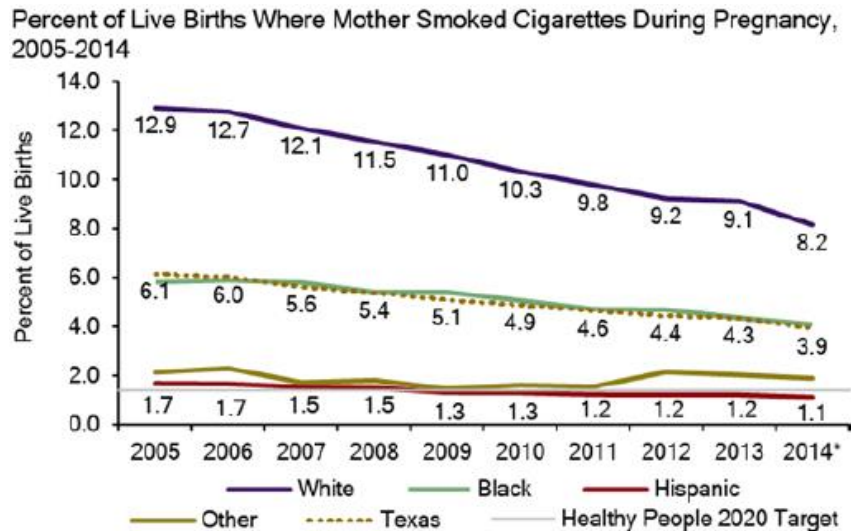


Fig. 4 - Rate of mothers smoking during pregnancy, DSHS, *Presentation to the House Comm. on Public Health: Better Birth Outcomes*, (May 19, 2016)

According to March of Dimes, Texas' border regions have the lowest rate of smoking during pregnancy, while the north and east regions have the highest.¹³ Differences among racial/ethnic groups show 1.1 percent of Hispanic women smoke while pregnant, and 8.2 percent of White women, representing the highest rates of those who smoke during pregnancy.¹⁴

Thankfully, rates of smoking while pregnant are decreasing. With continued support of educational outreach programs, smoking cessation access, and addiction counseling services that

¹² French, Lesley, (May 19, 2016), Health and Human Services Commission, *Written Testimony presented to the House Committee on Public Health*.

¹³ Guillory, Charleta M.D. (May 19, 2016), March of Dimes, *Written Testimony presented to the House Committee on Public Health*.

¹⁴ Delgado, Evelyn, (May 19, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

trend could continue. The March of Dimes' Smoking Cessation and Reduction in Pregnancy Treatment, or SCRIPT, program continues their mission of community outreach. Private programs like SCRIPT combined with state-sponsored initiatives and community smoke-free restrictions decrease the burdens tobacco has on healthcare spending.¹⁵

Neonatal Abstinence Syndrome

Heroin use, including illegally manufactured and pharmaceutical opiates, is an epidemic in our country and Texas is no exception. Large amounts of heroin and other addictive drugs are readily accessible in communities across the state. Neonatal Abstinence Syndrome (NAS) describes a group of problems that occur in a newborn who was exposed to opiates or other drugs while in the mother's womb. The most serious problems associated with NAS are premature birth, low birth weight, and breathing problems.

According to DSHS Assistant Commissioner Evelyn Delgado, heroin use among pregnant women is on the rise in Texas. Approximately one in four pregnant women receiving care in DSHS-funded abuse treatment clinics reported being dependent on heroin. Bexar, Harris, and Dallas Counties are the most affected areas of the state, with Bexar County alone accounting for 30 percent of reported NAS cases.

With this in mind, the 84th Legislature appropriated \$11.2 million to DSHS Mental Health and Substance Abuse Service Division to fund services to reduce the incidents, severity, and costs associated with NAS. Those programs include enhanced screening and outreach to women of childbearing age, increased availability of intervention and treatment services for pregnant and postpartum women, and implementing specialized local programs to reduce the severity of NAS.

Empowering Women Through Access and Education

Prenatal Care

Prenatal care is the health care received during pregnancy. Early prenatal care is in the first trimester and does the most to improve birth outcomes. Early prenatal care enables doctors to identify and manage health risk, such as hypertension, diabetes, and depression, while addressing behaviors that affect pregnancy, such as an unhealthy diet, smoking, and alcohol use. Identifying health challenges early allows time for pregnant women to safely manage risk before it has a negative effect on the life of the mother and child.¹⁶

¹⁵ Guillory, Charleta M.D. (May 19, 2016), March of Dimes, *Written Testimony presented to the House Committee on Public Health*.

¹⁶ Kohler, Adriana, (May 19, 2016), Texans Care for Children, *Written Testimony presented to the House Committee on Public Health*.

Currently, too many women are not receiving prenatal care or access care too late. According to Dr. David Lakey with the University of Texas System, in 2013, nearly 40 percent of infants were born to mothers who either received care after the first trimester or received no prenatal care at all.¹⁷ Barriers to prenatal care range from transportation challenges, time off work, appointment availability, and simply not seeking care. Among women that could not access prenatal care as soon as they wanted, the most common barriers were not having insurance, no money for prenatal visits, and not receiving a Medicaid card in time.¹⁸ These issues are being addressed by policy makers. The state's revised Family Planning program covers women through their first prenatal visit, before Medicaid coverage is received, which should mitigate access barriers.

An unfortunate barrier to prenatal care is pregnant women not seeking care until too late in their pregnancy, if at all. Pregnant women either do not understand the benefits of prenatal care, do not have the information, or are receiving bad information on the optimal time for prenatal care. Partnering with like-minded organizations, March of Dimes is supporting a program called Go Before You Show. This campaign aims to increase first trimester entry into prenatal care by educating the community and providers about the importance of prenatal care and how to access it. The campaign includes public education materials such as flyers, posters, community partnerships, public service announcements, and provider education. Another promising prenatal outreach program is Centering Pregnancy, bringing together eight to ten women with similar due dates and a health provider to share experiences and knowledge. These are just two examples of specialized programs and outreach organizations aiming to improve birth outcomes through prenatal care education.¹⁹

Long-Acting Reversible Contraception

Long-Acting Reversible Contraception (LARCs) can be either intrauterine devices (IUD) or contraceptive implants that prevent ovulation. LARCs require no user intervention, work long term, and can be reversed if the user's circumstances change. Compared to other forms of contraceptives offered, LARCs have the highest continuation and satisfaction rates and can be used by most women.²⁰

The benefits to women and their families are abundant but LARCs are being underutilized. According to testimony by Dr. David Lakey, LARC use among U.S. women between 2011 to 2013 was just over 7 percent. Several factors contribute to underutilization among patients and providers. On the provider side, only around 50 percent of OB/GYNs offer LARCs in their clinics. According to Dr. David Lakey, this is mostly due to low patient interest, reimbursement issues, and lack of provider education on LARC advancements and safety. Many providers still use outdated and

¹⁷ Lakey, David M.D. (May 19, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

¹⁸ Kohler, Adriana, (May 19, 2016), Texans Care for Children, *Written Testimony presented to the House Committee on Public Health*.

¹⁹ Guillory, Charleta M.D. (May 19, 2016), March of Dimes, *Written Testimony presented to the House Committee on Public Health*.

²⁰ Lakey, David M.D. (May 19, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

overly restrictive criteria to identify candidates for LARCs. Physician groups and continuing education initiatives are working to educate providers and LARC advocates hope to see greater utilization in future statistics.²¹

In the past, many uninsured or underinsured women were unable to consider LARCs as a contraceptive option due in part to the high upfront out-of-pocket cost (\$500-\$1000). Sadly, the women that cannot afford health insurance or LARCs are the ones that need it the most.²² Healthy Texas Women and Family Planning program now provide access to LARCs and other contraceptive options to eligible participants. According to Dr. Carl Dunn from the Texas Women's Healthcare Coalition, unplanned births cost \$1.34 billion annually and every dollar spent on contraceptive care leads to a saving of over seven dollars.²³

LARC initiatives in other states have proven to be highly successful. Most notably, a privately funded public health program in Colorado focused on reducing teen pregnancy and abortion rates by providing comprehensive contraceptive services, including LARCs, to young, low-income women. Participant data from 2009-2014 showed a birth rate decrease of 48 percent in women ages 15-19 and 19.4 percent in women ages 20-24. Repeat teen pregnancy dropped by 58 percent, and the abortion rate fell 42 percent among women ages 15-19, and 18 percent among women ages 20-24. This initiative led to an estimated \$49-\$111 million in avoided expenses for Medicaid birth-related costs alone.²⁴

LARCS are clearly a powerful tool and increased utilization has the potential to not only save millions of dollars in avoided costs but to empower women to safely take control of their reproductive life plan.

Premature/Low Weight Babies

According to Dr. David Lakey, premature birth is the number one cause of death for newborns. Prematurity is defined as a live birth prior to 37 weeks. It often leads to low birth weight, underdeveloped organs, increased morbidity and disability, learning and developmental disabilities, high mortality rate, and a significant impact on the family.²⁵

Unfortunately, experts do not fully understand the cause of prematurity but researchers are working on a molecular level to understand what causes the uterus to contract early. Until that is fully understood, the best ways to decrease the chance of prematurity are proper birth spacing and accessing care early.²⁶ Women with a prior premature birth should get early prenatal care and talk to

²¹ Lakey, David M.D. (May 19, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

²² *Id.*

²³ Dunn, Carl M.D. (May 19, 2016), Texas Women's Healthcare Coalition, *Written Testimony presented to the House Committee on Public Health*.

²⁴ Lakey, David M.D. (May 19, 2016), The University of Texas System, *Written Testimony presented to the House Committee on Public Health*.

²⁵ *Id.*

²⁶ *Id.*

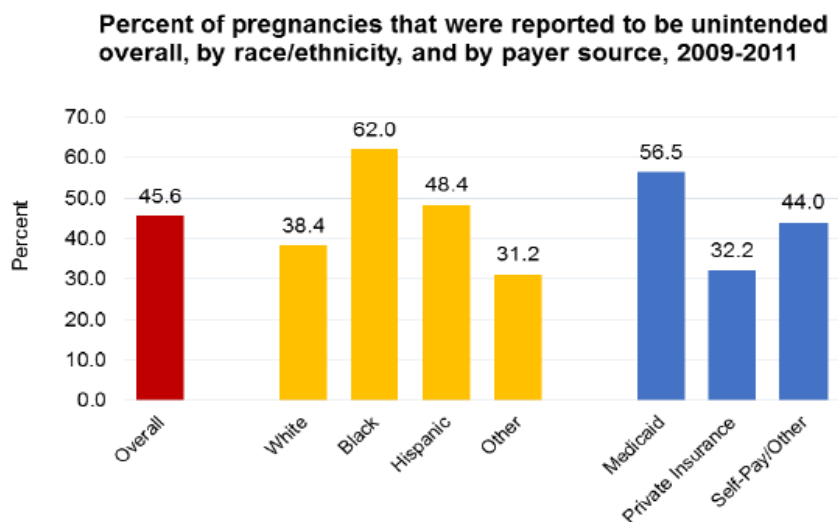
their doctors about progesterone, also known as 17-P. Starting progesterone between 16-24 weeks and continuing through 37 weeks greatly decreases the chances of having a premature baby.²⁷

The cost of prematurity is also a huge concern for families and taxpayers. According to Adriana Kohler with Texans Care for Children, about 70 percent of Medicaid costs for hospitalized newborns are related to prematurity.²⁸ The Health and Human Services Commission says the average first year of life for a premature newborn cost Medicaid over \$100,000, compared to a full-term average cost of \$572.²⁹ Clearly, decreasing prematurity rates could save millions for families and government budgets.

Unintended Pregnancy

Nearly half of all pregnancies in Texas are classified as unintended, according to data from the Department of State Health Services (see Fig. 5). Not every unintended pregnancy leads to a negative outcome, but unintended pregnancies are associated with delayed prenatal care, prematurity, and negative physical and mental health effects.³⁰ According to Dr. Carl Dunn, one study showed that 19 percent of women whose pregnancies were unplanned lacked prenatal care in the first trimester, but that number fell to 8 percent for women with planned pregnancies.³¹ Prenatal care is crucial in unintended pregnancies, especially for women with chronic health issues, drug or alcohol problems, or those living in a hazardous environments.

Fortunately, women are not alone in taking control of their reproductive plans. Programs like Healthy Texas Women,



Source: Pregnancy Risk Assessment Monitoring System, 2009-2011
Prepared by: Office of Program Decision Support, FCHS, DSHS, 2016

Fig. 5: Unintended Pregnancy Rates, DSHS, *Presentation to the House Comm. on Public Health: Better Birth Outcomes*, (May 19, 2016).

²⁷ Guillory, Charleta M.D. (May 19, 2016), March of Dimes, *Written Testimony presented to the House Committee on Public Health*.

²⁸ Kohler, Adriana, (May 19, 2016), Texans Care for Children, *Written Testimony presented to the House Committee on Public Health*.

²⁹ French, Lesley, (May 19, 2016), Health and Human Services Commission, *Written Testimony presented to the House Committee on Public Health*.

³⁰ Delgado, Evelyn, (May 19, 2016), Dept. of State Health Services, *Written Testimony presented to the House Committee on Public Health*.

³¹ Dunn, Carl M.D. (May 19, 2016), Texas Women's Healthcare Coalition, *Written Testimony presented to the House Committee on Public Health*.

Family Planning, Some Day Starts Now, Healthy Texas Babies, and the Texas Collaborative for Healthy Mothers and Babies are working to decrease the rate of unintended pregnancies. Providing women and men with life planning tools, safe access to contraceptives, and empowering women through education and community outreach will increase their odds of a healthy pregnancy.

Closing

As a priority of the Texas Legislature, women's health has seen important achievements over the last few years. The Health and Human Services Commission's new Healthy Texas Women and Family Planning programs provide easier access to an expanded number of services for eligible participants. Officially launched in July 2016, the programs build on lessons from past initiatives to provide a comprehensive and navigable platform to serve those in need. The initiative's increased services and education efforts aim to positively impact Texas women and close the gaps seen among racial/ethnic groups.

There is work to be done in areas like prematurity rates, infant mortality rates, and educating pregnant women on early prenatal care. Increasing women's health services and specialized initiatives will improve birth outcomes and help women control their health. Texas should continue working on improving birth outcomes for all women to ensure that the next generation of Texans have the best opportunity to live healthy lives.