



Epidemiology & Surveillance Quarterly Newsletter



Inside this issue:

Acute Hepatitis A	2
Reporting Training	2
Reporting Timeliness	3
A Peek at Pertussis	3
About Region 7	4
Public Health Information Network	5
Surveillance Data 2006	5
2005 & 2006 Comparison	6
Influenza Reporting	7

Introducing the Region 7 Epi & Surveillance Newsletter

The mission of the Region 7 Epidemiology program is to develop and enhance regional epidemiology services for the rapid detection and control of disease outbreaks or other adverse health outcomes. This includes evaluating, enhancing and when necessary creating new surveillance and investigation systems, analyzing data, preparing recommendations and working with appropriate programs to implement interventions for desired outcomes. A key component of any surveillance system is sharing the information with partners. To aid in this, Region 7 Epidemiology has developed this newsletter which will be distributed every quarter.

This report is designed to be shared with physicians, nurses, hospitals, laboratories and other health professionals responsible for reporting as well as public health professionals who participate in surveillance activities in Region 7. We anticipate the design and content to change over the next few issues as we incorporate feedback from our readers.

To submit comments, content requests or otherwise influence future issues send an email to Carol Davis at carol.davis@dshs.state.tx.us or call 254-778-6744 ext 2538.

Outbreaks & Investigations Jan - Mar 2007

Region 7 Epidemiology worked two large investigations during the first quarter of 2007:

Hemolytic Uremic Syndrome in Region 7

Two children were diagnosed with Hemolytic Uremic Syndrome (HUS) in the same county with onsets 1 month apart. Typically, Region 7 only has 1 to 3 cases reported per year for the entire region. Both children had bloody diarrhea prior to the development of HUS. One of the two children had a positive blood culture for E. coli O157:H7. The two children were not related and no direct common exposure was identified. Doctors, nurses, clinics and hospitals in the area and surrounding counties were surveyed to find out if there were other cases of HUS or of bloody diarrhea (which could be indicative of E. coli O157:H7). No additional cases were identified. Region 7 recommends stool cultures be done anytime a person is seen for bloody diarrhea of an unknown etiology. If an outbreak is suspected, call Region 7 Epidemiology at 254-778-6744.

Salmonellosis with Suspected Hamster Association

Five human cases of Salmonellosis across the U.S. were diagnosed with a strain that is genetically similar according to a Pulse Field Gel Electrophoresis (PFGE) test. Investigation by several state health departments revealed that 2 people had recent contact with hamsters originating in Region 7. None of the human cases were from Region 7. Region 7 Epidemiology and Zoonosis Control along with veterinarians from the U.S. Department of Agriculture visited the facility where the hamsters originated from. The facility was clean and the animals appeared well cared for. There was no sign of illness in staff or increased mortality in their hamsters. At this time, there does not appear to be a strong connection between this facility and the cases of Salmonellosis though the investigation is still on-going. However, it is always a good idea to remind people to wash their hands after handling any animals. Last year, in a similar investigation, Region 7 Epidemiology and Zoonosis Control were able to demonstrate that several human cases of Salmonellosis resulted from contact with frozen mice used as reptile food.

Hepatitis A—Is it acute???

OVERVIEW: Hepatitis A infection is primarily transmitted by the fecal-oral route, through either person-to-person contact or through contaminated food and water. It’s incubation period runs for about 28 days and it is shed in high concentrations in feces from 2 weeks before through 1 week after onset of clinical illness.

DIAGNOSIS: If you suspect a patient/person is infected, it is very important to conduct the correct serological testing. IgM antibody to hepatitis A is necessary. See the table below for details.

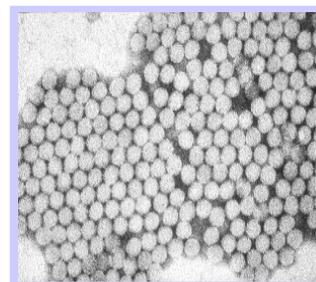


Image of the Hepatitis A virus from the Centers for Disease Control and Prevention Website.

Test	Test Abbreviation	Interpretation of Results and Comments
IgM Antibody to hepatitis A	•Anti-HAV IgM	<ul style="list-style-type: none"> • Positive result defines a recent HAV infection. • May be negative in early infection (if collected within 5 to 7 days after onset of symptoms)
	•HAV IgM Ab)	<ul style="list-style-type: none"> • Present for 3 to 6 months after onset of acute infection.
Total antibody to hepatitis A	•Anti-HAV Ab	<ul style="list-style-type: none"> • Of <i>extremely limited</i> value in the diagnosis of acute infection.
	•HAV Ab	<ul style="list-style-type: none"> • Positive result indicates past infection and immunity to HAV. • Individuals given serum immune globulin for HAV prophylaxis may test as positive for at least six months.

There were 23 cases of acute Hepatitis A in Region 7 during 2006.

NOTIFICATION OF HEALTH DEPARTMENT: If you have a positive Hepatitis A IgM result, the local health department must be notified within 24hrs. This is very important for disease tracking and prevention of possible spread to uninfected persons. When reporting an acute case of Hepatitis A, it is helpful to have the following information: patient demographics (birth date, address, phone, etc), liver function test results, reason for hepatitis testing, symptoms, and lab test dates and results. The health department’s goal is to ensure that all those who were exposed to an acute case of Hepatitis A are notified and treated in a timely manner. Previously unvaccinated persons exposed to Hepatitis A should be administered a single dose of immune globulin (IG) as soon as possible but no later than 14 days after their first exposure. IG is not shown to be effective when administered greater than 2 weeks post exposure. The health department can provide IG to large groups (i.e. daycares, etc) and to people without insurance who are determined to be at risk of exposure.

FURTHER INFORMATION IS AVAILABLE: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm>

Region 7 Epidemiology does Disease Reporting training for hospitals and clinics.

For more information call 254-778-6744 and ask for Epidemiology.

Disease Reporting Training

Are staff at your hospital or clinic interested in learning more about disease reporting in Texas? Do you have questions about what information is needed to report a case, when should you report or why certain diseases are on the notifiable conditions list?

Region 7 Epidemiology can answer these questions and more by hosting a training at your facility. The training targets those staff who are responsible for reporting such as laboratory directors, infection control practitioners and physicians but anyone with an interest in reporting in Texas is encouraged to attend.

Timeliness of Reporting

There are 76 notifiable conditions in Texas.

The list can be found at www.texasdisease.org or by calling 254-778-6744.

There are 26 notifiable conditions which are mandated to be reported within 1 working day or sooner. All of the immediately reportable or reportable within 1 working day diseases are designated as such because it is critical to minimize the time needed to assess the potential threat to public health.

- Some of these are diseases that could represent a bioterrorist attack such as Anthrax, Plague and Smallpox.
- Others often require a time dependant public health response such as Meningococcal infections, acute Hepatitis A and Pertussis.

During 2006, there were 380 confirmed or probable cases (6 different diseases) reported in the Texas National Electronic Disease Surveillance System (NEDSS) database that were reportable within 1 working day or sooner. The time to report these priority diseases ranged from 0 days to 86 days with an average of 6 days and a median of 4 days.

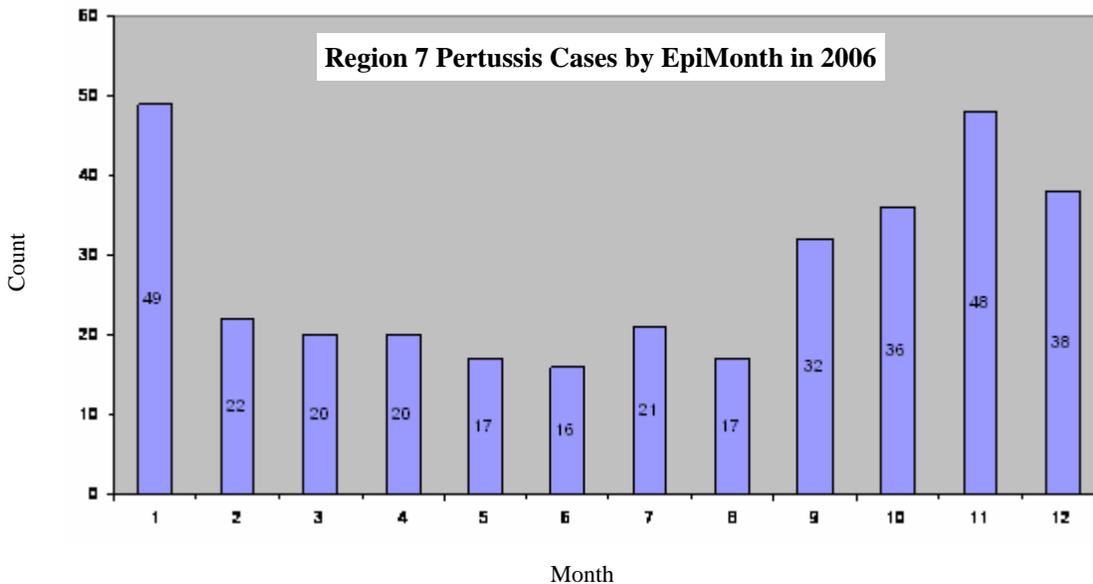
Ideally, the median time to report these cases should be 1 day.

Disease	Days from Diagnosis to Report			Total Reported Cases (cases included in analysis*)
	Range	Average	Median	
Brucellosis	0-17	9	-	2
H. influenzae type b	3	-	-	1
Acute Hepatitis A	0-86	10	5	23
Meningococcal Infection	0 -14	3	1	6
Pertussis	0 -70	5	3	336 (309)
Vibrio Infections	0-75	13	5	12 (10)

Data included confirmed and probable cases reported to the Texas Department of State Health Services in 2006. Surveillance data from 2006 is provisional only.

* Not all reportable cases of Pertussis or Vibriosis were included in the analysis because they were missing information on date of diagnosis.

A Quick Peek at Pertussis



Graph includes counts of confirmed and probable cases of Pertussis reported in 2006.

EpiMonth is based preferentially by
 1) onset date,
 2) diagnosis date,
 3) report date.

About Region 7

Health Service Region 7 is one of eight health service regions of the Department of State Health Services, the state governmental agency responsible for bringing comprehensible public health services to the citizens of Texas. Health Service Region 7 serves a 30 county area in Central Texas including Bastrop, Bell*, Blanco, Bosque, Brazos*, Burleson, Burnet, Caldwell, Coryell, Falls, Fayette, Freestone, Grimes, Hamilton, Hays*, Hill, Lampasas, Lee, Leon, Limestone, Llano, Madison, McLennan*, Milam*, Mills, Robertson, San Saba, Travis*, Williamson* and Washington counties. Counties marked with an asterisk have a local health department. Region 7 functions as the local health department for the remaining 23 counties.

The mission of Region 7 is that we commit, through personal and organizational excellence, to be an agent of change dedicated to achieving a healthier Texas.

Dr. James M. Morgan, M.D., M.P.H. is the Regional Director. John Burlinson is the Deputy Regional Director.

Our main office is located in Temple, Texas.

Check out our website at <http://www.dshs.state.tx.us/region7/default.shtm>

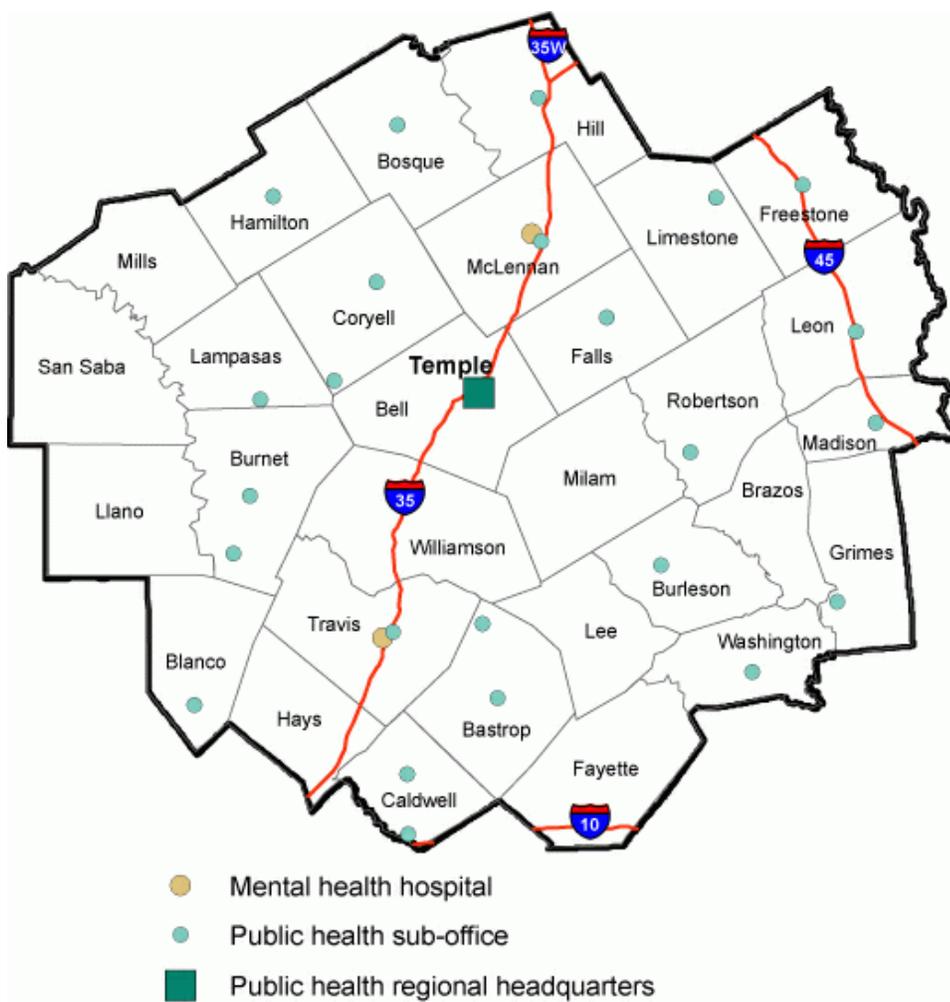
Need to report a disease?

Call
254-778-6744

Clinics or field offices can be found in

- Austin**
- Bastrop**
- Blanco**
- Brenham**
- Caldwell**
- Centerville**
- Copperas Cove**
- Elgin**
- Fairfield**
- Gatesville**
- Hamilton**
- Hearne**
- Hillsboro**
- Lampasas**
- Lockhart**
- Luling**
- Marble Falls**
- Marlin**
- Meridian**
- Mexia**
- Navasota**
- Waco**

Some of the clinics are only open on select days and times.



Public Health Information Network

The Public Health Information Network (PHIN) is an integrated communications system for sharing critical health information in Texas confidentially and securely. The PHIN is designed to rapidly push critical health alerts to specified groups via email, fax and/or phone. The PHIN also provides a secure forum for the Department of State Health Services to share key public health information with our partners.

Who should sign up?

Anyone with a public health, medical or emergency response background who is likely to be a responder to public health threats and emergencies including doctors, nurses, hospital administrators, epidemiologists, pharmacists, veterinarians, etc., as well as judges, mayors, police, fire and EMS should sign up for PHIN access.

Why should I sign up?

The PHIN gives you access to important public health information such as outbreaks in your area, new public health developments and emergent health information. Health alerts and advisories are shared with our partners in health using the PHIN. As a added benefit to signing up for the PHIN, you can access the New England Journal of Medicine through the PHIN portal.

How do I sign up?

- Go to <https://texphin.dshs.state.tx.us/>
- Click on the 'request PHIN access' link at the top of the page.
- This will pull up a page asking for your information. Fill the form out completely.
- Click on <<Submit Request>> link.
- You may be called the administrator to verify your role and to ascertain which alert group(s) you should belong to.
- Once your access has been approved, you will get an email with your username and password.
- If you have any difficulty signing up call 254-778-6744 ext 2535 and ask to speak with a PHIN administrator.

Surveillance Data for 2006

March 15 was the deadline for entering all of the 2006 disease reports and investigations into the state surveillance database referred to as the Texas National Electronic Disease Surveillance System (NEDSS). Epidemiologists at the local, regional and state level are currently reviewing the data for accuracy and completeness. Once the review period is over, official statistics for 2006 will be released.

The table on page 6 is a comparison of the 2005 data with the provisional data for 2006. This table includes reportable diseases that are tracked in the NEDSS database. Not all reportable conditions are tracked in the database. Sexually Transmitted Diseases (STDs), Human Immunodeficiency Virus (HIV), Tuberculosis (TB), arboviral illnesses and non-infectious conditions are kept in different databases. The table also indicates which diseases showed an increase in 2006. Some of the increases were the result of outbreaks, such as the increase in Cryptosporidiosis cases. Others reflect changes in reporting or surveillance practices, such as with Hepatitis not specified and chronic Hepatitis C. A more detailed explanation of the data will be released when the above mentioned review period is over.



Region 7
Epidemiology
Response Team

Notifiable Conditions	2005		2006*	
	Count	Reports per 100,000 people	Count	Reports per 100,000 people
Amebiasis	22	0.85	28	1.08
Aseptic meningitis	242	9.37	279	10.80
Bacterial meningitis, other	12	0.46	20	0.77
Botulism, infant	1	0.04	0	0.00
Brucellosis	2	0.08	2	0.08
Campylobacteriosis	109	4.22	145	5.61
Creutzfeldt-Jakob Disease	1	0.04	2	0.08
Cryptosporidiosis	38	1.47	107	4.14
Cyclosporiasis	1	0.04	1	0.04
Enterohemorrhagic E.coli O157:H7	3	0.12	9	0.35
Enterohemorrhagic E.coli, shiga + (not O157:H7)	0	0.00	5	0.19
Enterohemorrhagic E.coli, shiga + (not sero-grouped)	7	0.27	5	0.19
Group A Streptococcus, invasive	34	1.32	58	2.25
Group B Streptococcus, invasive	43	1.66	80	3.10
Haemophilus influenzae type b, invasive	0	0.00	1	0.04
Hantavirus pulmonary syndrome	1	0.04	0	0.00
Hemolytic Uremic syndrome (HUS), postdiarrheal	6	0.23	0	0.00
Hepatitis, not specified^	2	0.08	76	2.94
Hepatitis A, acute	36	1.39	23	0.89
Hepatitis B Viral Infection, Perinatal	1	0.04	0	0.00
Hepatitis B virus infection, Chronic^	213	8.25	238	9.22
Hepatitis B, acute	53	2.05	56	2.17
Hepatitis C Virus Infection, chronic or resolved	484	18.74	2005	77.63
Hepatitis C, acute	5	0.19	9	0.35
Legionellosis	3	0.12	8	0.31
Listeriosis	4	0.15	1	0.04
Lyme disease	27	1.05	5	0.19
Malaria	12	0.46	7	0.27
Mumps	4	0.15	15	0.58
Neisseria meningitidis, invasive (Meningococcal disease)	3	0.12	6	0.23
Pertussis	1017	39.38	336	13.01
Plague	0	0.00	1	0.04
Q fever	2	0.08	3	0.12
Rocky Mountain spotted fever	2	0.08	2	0.08
Salmonellosis (excludes typhoid fever)	330	12.78	367	14.21
Shigellosis	480	18.59	389	15.06
Streptococcus pneumoniae, invasive	82	3.17	132	5.11
Strep, other, invasive, beta-hem (non-A non-B)^	20	0.77	20	0.77
Toxic-shock syndrome, staphylococcal^	0	0.00	1	0.04
Typhoid fever (<i>Salmonella typhi</i>)	5	0.19	0	0.00
Vancomycin-Resistant Enterococcus (VRE)	8	0.31	5	0.19
Varicella (Chickenpox)	1548	59.94	1727	66.87
Vibrio infections	7	0.27	12	0.46
Yersiniosis	2	0.08	3	0.12
Grand Total	4872	188.64	6189	239.63

Includes confirmed and probable notifiable conditions reported to the Texas Department of State Health Services Region 7 that are tracked in the NEDSS database. Rates are using 2005 population estimates.

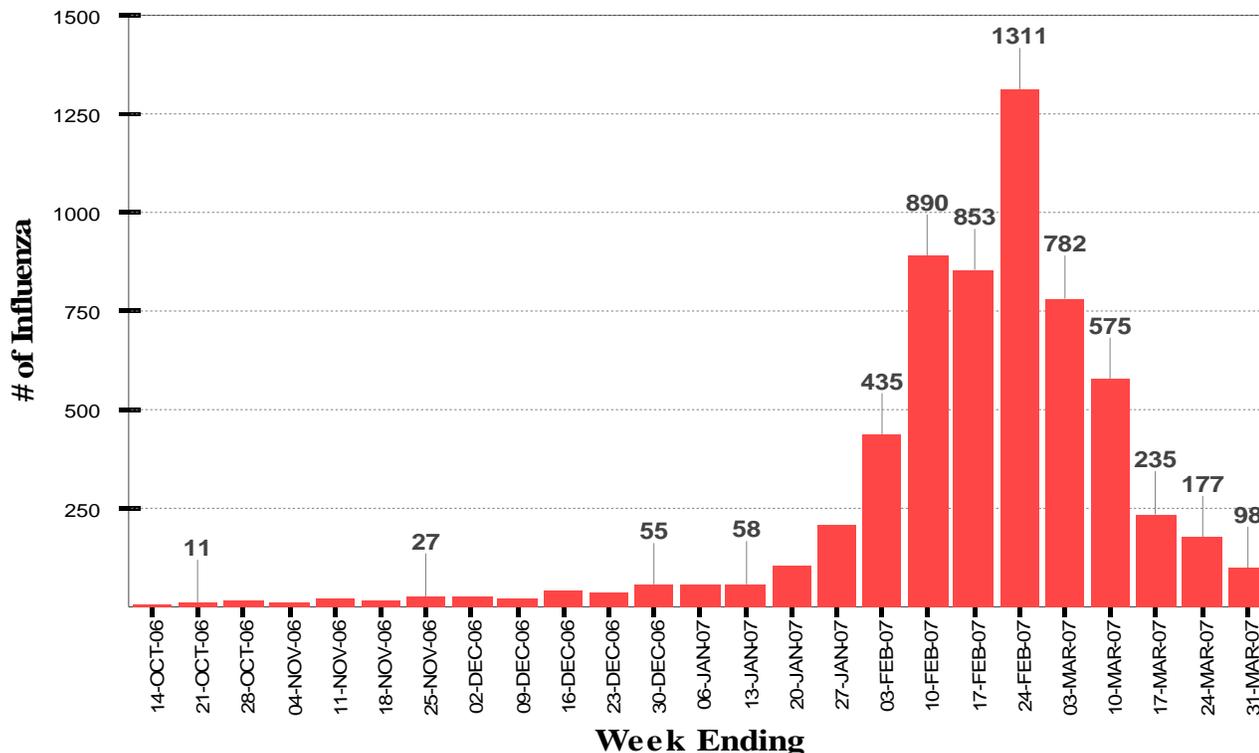
* 2006 data is provisional only ^ Disease is not currently reportable

Blue indicates the rate is statistically higher than the other year's rate

2006-2007 Flu Reporting

Influenza Reported, Health Services Region 7

By Week



During the 2006-2007 influenza reporting season, influenza or influenza-like-illness (ILI) reports were submitted to Region 7 from 75 sources. The reporting sources included hospitals, clinics, private providers, school nurses, and other public health departments. The number of reporting sources drops to only 42 when focusing solely on influenza cases. This influenza season peaked late February in Region 7. The above graph shows the distribution of influenza cases in Region 7 by week reported from 42 sources.

These reports under represent the total number of influenza cases. These numbers only reflect people who were ill enough to visit a healthcare provider and that provider reported directly or through one of the above sources to Region 7. Many doctors do not currently participate in voluntary influenza or ILI surveillance. The reported numbers are aggregate numbers and do not identify individuals. It is therefore possible for an individual to be reported multiple times. Despite these limitations, the reports are good indicators of the overall trend of influenza activity.

As part of our pandemic influenza planning, the region is strongly considering year round surveillance of influenza and ILI while we are at or above the World Health Organization Pandemic Alert Phase of 3: no or very limited human-to-human transmission (http://www.who.int/csr/disease/avian_influenza/phase/en/index.html). If you are interested in participating in this surveillance program or have additional questions about influenza reporting contact Sandi Henley RN, CIC by email at sandi.henley@dshs.state.tx.us or by phone at 254-778-6744.

**Department of State Health Services
Health Services Region 7**

Epidemiology
2408 South 37th Street
Temple, TX 76504
Phone: 254-778-6744
Fax: 254-899-0405

Newsletter Editor: Carol Davis, MSPH

Contributors: Russ Jones, MPH, Sandi Henley, RN, CIC, Lacey Sanders, Yolanda Holmes, Beverlee Nix, DVM, MPH

Questions about, comments on or ideas for this quarterly newsletter should be submitted to Carol Davis by email at carol.davis@dshs.state.tx.us or by phone at 254-778-6744