

## Texas Department of State Health Services Childhood Lead Poisoning Prevention Program

### More Lead in Consumer Products

#### Now it's Baby Bibs

A happy, drooling baby chewing on a cheerful bib – it happens every day. But what if the bib is vinyl – and manufactured with lead?

WMAQ TV Chicago reports that last fall an Illinois grandmother remembered having seen a report on lead in vinyl lunchboxes. That got her to thinking, and she ended up doing a home lead test kit on her grandson's vinyl bibs.

"I discovered the bibs had lead in them," she said. "Of all things."

The grandmother sent a bib to the non-profit Center for Environmental Health (CEH) in Oakland, CA, which began an investigation and eventually took legal action.

The bibs, sold by Wal-Mart, were initially recalled only in Illinois. Later, on May 2 according to the Associated Press, the recall went nationwide.

#### Why the FDA is Involved:

In July 2006, the FDA issued a letter to manufacturers and vendors of vinyl lunchboxes. The FDA statement on lead in vinyl lunchboxes could be interpreted to apply to bibs as well, and explains why the agency fits into the bigger picture of lead in this type of product: "According to the CSPC data, a small amount of the lead present in the interior linings of lunchboxes is transferable by a swipe test. This implies a small amount of lead may be reasonably expected to transfer to food that contacts the interior lining and could be deemed to be an unsafe food additive within the meaning of section 409 of the FD&C Act, and therefore adulterated within the meaning of section 402(a)(2)(C) of the statute. Therefore the lunchboxes containing the lead compounds may be subject to enforcement action."

#### Read the FDA letter here:

<http://www.cfsan.fda.gov/~dms/pbltr2.html>

#### Read more here from the CEH:

<http://www.cehca.org/news.htm>

#### Read the CPSC statement on bibs:

<http://www.cpsc.gov/CPSCPUB/PREREL/prhtml07/07175.html>

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## Inside!

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Texas CLPPP Staff

When you have questions about:	Ask for:
Program Management and Administration	Program Coordinator
Data management and services	Data Supervisor
(Will call YOU if reporting forms are incomplete.)	Data Entry Coordinator
Lead poisoning in persons over age 14	Adult Lead Coordinator
Following up a specific child's case	Follow-up Coordinator
Data analysis at state and local levels	Epidemiologist
Setting up an environmental investigation	Environmental Specialist
Publications, forms, and web site	Outreach Coordinator
Medical Consultation	Nurse



Call today -  
we're here to help!

1-800-588-1248

## Identifying High-risk Geographical Areas and Populations

A Screening Advisory Group is charged with providing assistance to Texas CLPPP in defining a screening plan that identifies Texas children at risk for elevated blood lead levels. The Screening Advisory Group has reviewed blood lead report data to try to identify high-risk areas or populations where testing should be required. A *high-risk* area is one recognized as having a high number of children with elevated blood lead levels, a high percentage of children identified as living in poverty, or a high percentage of pre-1950 housing.

Options for identifying high-risk areas include focusing on zip codes or on U.S. Census Bureau census tracts. Each method of identification is problematic:

### If identified by Zip code:

- Demographic data exist only for census tracts, not for zip codes.
- Census tracts cross zip codes. Multiple census tracts (or parts of tracts)

may lie within a single zip code. If analysis is done by zip code, we might overlook children who live in a high-risk census tract.

### If identified by census tract:

- A provider may not have a way to easily identify a high-risk census tract based on a child's street/zip code address.

Since a child's zip code is readily available and recognizable by health-care providers, one recommendation is that a high-risk zip code be defined as any zip code which contains one, or more, high-risk census tracts. This would help to insure that all children living in a high-risk census tract are recognized and tested.

We would like to hear from physicians on the topic of identifying high risk areas and populations. Submit your comments to:

[feedback-CLPPP@dshs.state.tx.us](mailto:feedback-CLPPP@dshs.state.tx.us)

## On the Horizon:

### Blood Lead Screening for Texas Children – a Revised Plan

The TX CLPPP Screening Advisory Group is reviewing current screening guidelines. Expect revisions by September 2007 with a focus on high-risk areas and populations.

### Provider's Guide - Overdue Update

TX CLPPP is revising *Get The Lead Out - Detection and Management of Childhood Lead Poisoning Guidelines for Physicians and Health Care Providers (1996)*. We anticipate release in fall 2007 with current CDC and DSHS recommendations and contact information.

### New Environmental Investigation Protocol

A new Environmental Investigation (EI) Protocol, effective June 2007, will provide you better and more timely feedback. Under the new protocol, you will submit EI requests directly to the TX CLPPP Environmental Specialist, who will track the status of your request, verify that it meets criteria for an investigation, and assure that you and the child's parents are notified of findings.

## Just How Much is 10 Micrograms Per Deciliter?

**If you want to visualize how much lead it takes to reach the CDC “blood lead level of concern,” try this simple experiment:**

- Measure out a deciliter of water – not quite half a cup (.42). This can represent blood.
- To represent lead, use a packet of low-calorie sweetener – that’s 1 gram.
- Empty out the sweetener packet onto a flat surface and carefully divide into one million piles of one microgram each (one million micrograms in a gram).
- Add ten piles (ten micrograms) into that deciliter of water.

**This gives you an idea of how LITTLE lead in a child’s blood can introduce the possibility of permanent developmental and neurological damage.**

## Letter to Physicians from a DSHS Case Manager

May 18, 2007

Dear Physicians,

My name is Marla Phillips and I have been doing case management for DSHS for over 10 years now. I find it very rewarding and I love my job! We are always open for new referrals by Medicaid providers.

As a case manager, I can do a number of things to help the child or family. We can make needed referrals to medical services, address family issues, school/education issues, help with financial issues, help with housing, and obtain needed supplies and equipment for children who have special healthcare needs.

We make an individual service plan especially to fit each child's specific needs. I really enjoy doing home visits and meeting with the families.

Again, we want the providers to know that we welcome any new referrals and will do all we can to help the clients and their families.

Thank you,

Marla Phillips, LBSW  
Medical Social Worker

**NOTE: A child with a blood lead level of 10 or above qualifies for case management. Providers may call the Texas Health Steps Special Services Unit call center at 1-877-847-8377 for referral to a case manager.**

## Review of TX CLPPP Forms

### **Pb-100: Lead Assessment Interview Tool**

Use to interview the parent/guardian of a child with a confirmed elevated blood lead level to determine possible source(s) of exposure.

### **Pb-101: Request for Environmental Investigation**

Use to request an environmental investigation on the home of a child whose BLL meets certain criteria.

### **Pb-102: Provider Questionnaire, Follow-up of Elevated Blood Lead Level**

Return to TX CLPPP to document follow-up activities for a child with an EBLL.

### **Pb-104: Provider Checklist**

Use as a guide to educational topics to discuss with parents.

### **Pb-109: Physician reference on follow-up Testing and Case Management**

Refer to the summary of recommended follow-up schedules for obtaining a confirmatory test, for scheduling long-term follow-up testing, and providing case management activities.

### **Pb-110: Parent Questionnaire**

May use at the 6, 15, and 18 month and 3, 4, and 5 year checkups. A “yes” or “I don’t know” answer to any question on the questionnaire indicates that a blood lead test should be performed.

### **Forms are available at:**

<http://www.dshs.state.tx.us/lead/providers.shtm#forms>

## Testing Distribution and Elevation Rates Among Texas Children, 2005

Though childhood lead poisoning is completely preventable, it persists as a significant environmental health problem for the children of Texas. Despite substantial progress toward the elimination of elevated blood lead levels (EBLLs), incidence of exposure to this toxic metal continues for Texas children.

The primary goal of lead poisoning screening and testing is to identify symptomatic or asymptomatic children and to intervene as quickly as possible to reduce their blood lead levels. Medicaid (Texas Health Steps) requires blood lead testing for children at both 12 and 24 months of age.

### The Texas Child Lead Registry

In June 2003, it became required that all blood lead tests be reported to the Department of State Health Services Texas Child Lead Registry, which is maintained by TX CLPPP. TX CLPPP uses test result information to guide educational program development, identify areas of high risk for lead exposure, and target primary prevention actions.

### 2005 Data

A review of 2005 data reveals that 269,007 children in Texas received

a blood lead test. **Figure 1** illustrates the number of children tested, by age in years. Of those children, 3,563 were elevated (blood lead level at or above 10mcg d/L).

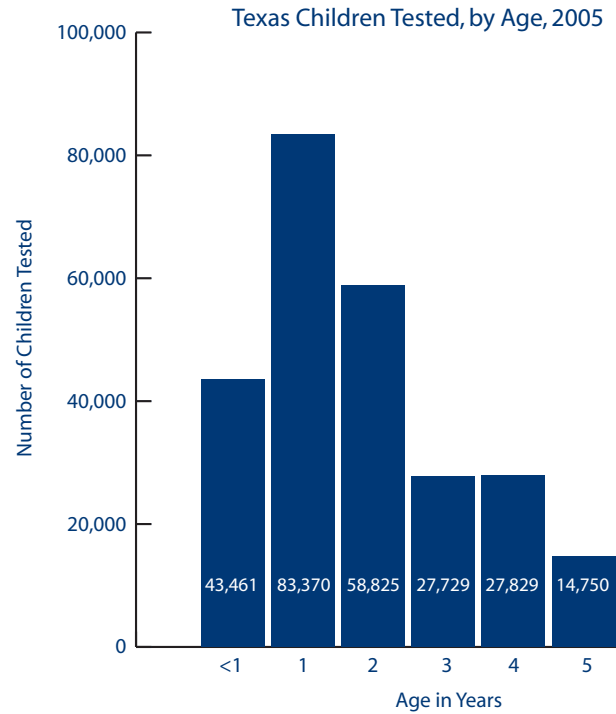
**Figure 2** illustrates the percentage of children tested who were elevated, by age in years. In the first bar, we see that among the 43,461 tested children under age one, 0.71% had an elevated blood lead level. By comparing Figure 1 and Figure 2, we see that even though only half as many 3-year-old children as 2 year olds were tested, the rate of elevation among the 3 year olds was the highest within any age group.

In **Figure 3**, we take a closer look at the distribution of testing for children based on months of age up to 36 months. The highest numbers tested are at 12 and 24 months. However, as **Figure 4** illustrates, the highest rates of EBLL were found in children at 19 and 22 months.

### 2005 and 2006 Data Review

During summer 2007, TX CLPPP will post online a complete review of data received in 2005. In fall 2007, an annual review of 2006 data will be posted. TX CLPPP will continue to collect, evaluate and analyze data to meet changing circumstances in Texas.

**Figure 1**



**Figure 2**

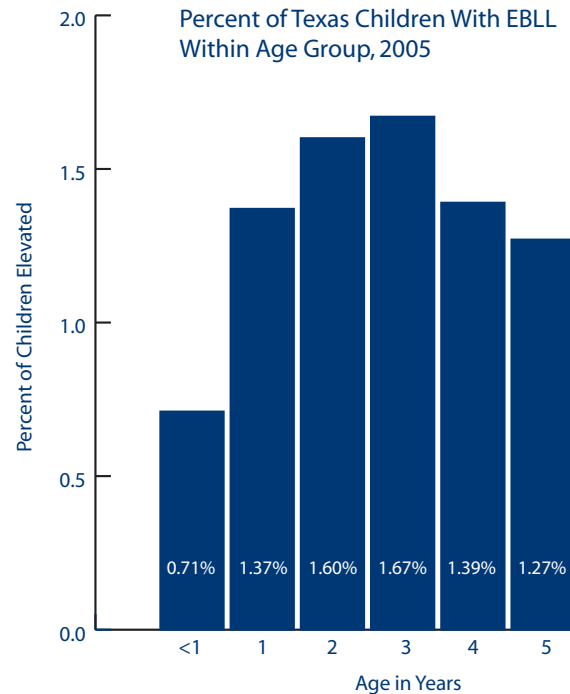


Figure 3

Number of Texas Children Tested by Age, 2005

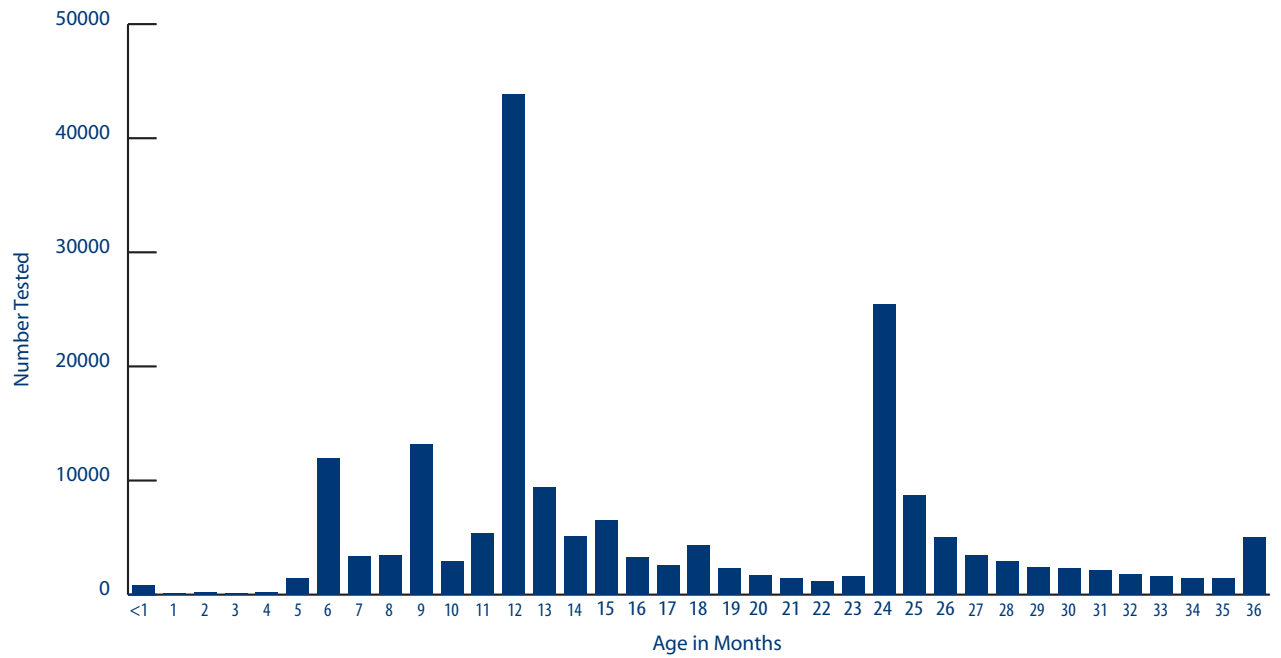
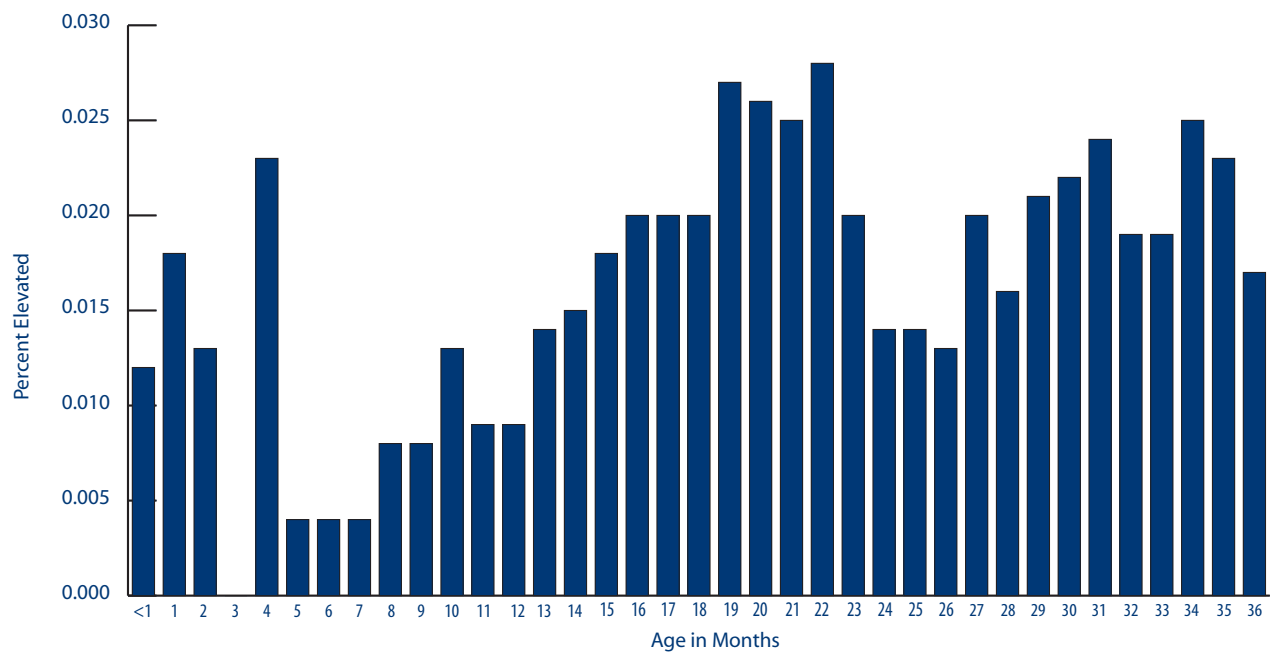


Figure 4

Percent of Texas Children Elevated Within Age Group, 2005



## Reporting Childhood Blood Lead Tests—How Are We Doing? Part 2: Reporting Race and Ethnicity

Last month TX CLPPP News discussed the ramifications of missing address information on blood lead test reports. This month we address missing race and ethnicity data.

Accurate and complete reporting of patient demographic information is a vital part of our ongoing effort to address disparities in the occurrence and treatment of childhood lead poisoning. Today, we continue our series of articles exploring issues in reporting patient information, specifically with regards to reporting race and ethnicity.

Many people are unaware that there is even a difference between race and ethnicity.

- Race can be described as the group or groups the patient identifies with as having similar physical characteristics or similar social and geographic origins. Examples of this would be Native American, Asian, Black, White, Hispanic or Unknown.
- Ethnicity refers to a patient's background, heritage, culture, ancestry and sometimes country of origin. For our purposes ethnicity can be reported as Hispanic, Non-Hispanic, Other or Unknown.

Health care providers may note that there is sometimes a discrepancy between self-reported and observed race and ethnicity. Self-reported is generally preferred to observed, but either method is preferable to leaving race and ethnicity information blank on the report.

Obtaining this demographic information is crucial to the documentation of health disparities among various ethnic and racial groups. Collecting both race and ethnicity data is especially important since disparities are sometimes discovered by analyzing both race and ethnic-

ity in instances where studying race alone reveals no disparities. In 2006 our program received approximately 344,504 reports of which 33% had no ethnicity information. With more complete demographic information we can move from documenting these differences to identifying underlying reasons for the disparities. Doing so will help guide intervening actions taken to treat and prevent incidences of blood lead poisoning.

Health care providers may be reluctant to risk alienating patients by collecting potentially sensitive information, but recording this data is essential to our goal of eliminating childhood lead poisoning in Texas.

The image shows a portion of a blood lead test report form. A blue circle highlights the 'Race' and 'Ethnicity' sections. The 'Race' section includes checkboxes for White, Black, Asian or Pacific Islander, and Multi-Racial. The 'Ethnicity' section includes checkboxes for Hispanic, Non-Hispanic, and Unknown. Below these are sections for 'Blood Lead Level Information', 'Attending Physician Information', and 'For TX CLPPP Use Only'.

### LEARN MORE...

#### Understanding Barriers that Prevent the Accurate Collection of Race and Ethnicity Data

In 1988, the state of Rhode Island assembled a policy guide for the collection of race and ethnicity data. In Fall 2004, a study was undertaken to determine challenges that resulted in high rates of missing race and ethnicity data from lead test reports (65% and 40% respectively).

Three groups of people were surveyed: laboratory professionals, parents with children younger than age 12, and parents without children younger than age 12. The objectives of the survey were to identify barriers that prevent laboratory professionals from asking race and ethnicity questions and to assess how comfortable people are about reporting race and ethnicity for themselves and their children. The study is online at:

<http://www.health.state.ri.us/lead/family/Race-Ethnicity.pdf>

Another excellent resource is the 2006 article “Obtaining Data on Patient Race, Ethnicity, and Primary Language in Health Care Organizations: Current Challenges and Proposed Solutions” by Romana Hasnain-Wynia and David W. Baker, Feinberg School of Medicine of Northwestern University, Chicago, IL.

<http://www.blackwell-synergy.com/doi/abs/10.1111/j.1475-6773.2006.00552.x>

## False Elevated Capillary Blood Lead Level Results

From time to time, the TX CLPPP receives unusually high BLL results on children’s capillary blood tests – we’ve seen as high as 300 mcg/dL. In most cases, these tests are confirmed under 10 mcg/dL with a subsequent venous draw.

How can we avoid unnecessary stress on families and medical services caused by the emergency of a false elevated 70+ mcg/dL blood lead result?

### The Importance of a Soap and Water Wash

A capillary blood lead draw is subject to a false elevated result if there is lead contamination on the skin during collection. Lead contamination on the hands is a known route of lead ingestion among children – but it can also contaminate their lead test results.

It is preferable that the initial lead test be a venous draw, but we recognize that that is not always possible. If a capillary draw is the only option, a thorough soap and water wash of the child’s collection site (hands or feet) is necessary. Some PCPs use D-lead®, or Shepherds® (or similar soaps) to remove heavy metal contamination of the skin. **Wiping the collection site with an alcohol prep is not sufficient to remove lead contamination.**

Any capillary BLL over or equal to 20 mcg/dL requires a prompt venous

blood lead re-test for confirmation. Table 1 (below) from form Pb-109 illustrates timeframes for follow-up testing based on the result of the first test. For capillary BLLs > 40 mcg/dL the confirmation should be done within 48 hours and for a BLL over 60 mcg/dL within 24 hours.

A capillary or venous BLL over 70 mcg/dL should be considered a medical emergency. The PCP may observe the child for symptoms of acute abdominal pain, vomiting, constipation, personality changes and irritability. These symptoms are seldom caused by confirmed BLLs lower than 40 mcg/dL (see page 43, Medical History, *Managing Elevated Blood Lead Levels Among Young Children*, CDC, March 2003).

### Practical Considerations

If the high capillary BLL is received just before PCP office closing time, especial-

ly before a weekend or holiday, the PCP has the option to order a venous blood lead draw of the child at a local hospital or laboratory with evening or weekend hours.

Under no circumstance should a PCP begin chelation therapy (oral, intravenous or any other route) on a capillary BLL result before consulting a medical expert. Contact TX CLPPP (1-800-588-1248) or your local Poison Control Center.

TX CLPPP maintains a list of experts in the medical management of lead poisoning treatment, pediatric hematologists, poison control centers and children’s hospitals experienced in the management of high BLLs. Consultations may be via phone or e-mail, or the PCP may prefer to send the child for consultation/evaluation to one of the recommended expert sites.

### Remember:

Texas Health Steps requires that a lab or provider send the initial blood draw on a Medicaid child (at the 12 month visit) to the DSHS lab for analysis. Follow-up or samples for venous confirmation may be sent to approved private laboratories.

A BLL 10 mcg/dL or over qualifies for Texas Health Steps Case Management assistance. (Certain criteria must be met for an environmental investigation.)

If you are unable to locate a child for a confirmatory venous BLL, phone the Texas Health Steps Call Center Special Services Unit at 1-877-847-8377.

**Table 1, form Pb-109:**

### Recommended Schedule for Obtaining a Confirmatory Venous Sample

Screening test results (µg/dL):	Perform a venous confirmation test within:
10-19	5 weeks
20-39	1 week - 4 weeks*
40-59	48 hours
60-69	24 hours
70 and up	Immediately as an emergency lab test

\*The higher the Blood Lead Level (BLL) on the screening test, the more urgent the need for confirmatory testing.



<http://www.dshs.state.tx.us/lead>

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## PERIODICALS



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### Local Health Department CLPPP Programs

<b>Austin/Travis County</b>	211 Comal Street	Austin, TX 78702	<b>512-972-6652</b>
<b>City of Dallas</b>	4500 Spring Avenue	Dallas, TX 75210	<b>214-670-7663</b>
<b>City of Houston</b>	8000 N. Stadium Dr., 6th Floor	Houston, TX 77054	<b>713-794-9349</b>
<b>El Paso City/County</b>	5115 El Paso Drive	El Paso, TX 79905	<b>915-771-5805</b>
<b>Harris County</b>	2223 West Loop South	Houston, TX 77027	<b>713-439-6126</b>
<b>San Angelo/Tom Green Cty.</b>	2 City Hall Plaza	San Angelo, TX 76903	<b>325-657-4214</b>
<b>San Antonio Metro</b>	911 Castrovilla Rd.	San Antonio, TX 78237	<b>210-434-0077</b>



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