

**REPORT ON THE FEASIBILITY AND READINESS TO  
IMPLEMENT PROFESSIONAL DENTAL EDUCATION  
PROGRAMS IN LAREDO, TEXAS**

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## ***EXECUTIVE SUMMARY***

This study was undertaken to determine the feasibility and readiness of implementing additional professional dental education programs in Laredo, Texas. The primary objectives were (1) to conduct a dental treatment needs/access to dental care assessment in Laredo and the surrounding areas, and (2) to evaluate the community infrastructure including the financial resources to support the Border Regional Academic Health Center - Dentistry.

Using the framework established by the Association of State and Territorial Dental Directors' *Seven-Step Model* of assessing oral health needs, primary and secondary data sources were used. Primary data sources included 1,106 oral health screenings conducted between August 2005 and August 2006, and telephone and email surveys of local agencies regarding dental needs and data availability. Secondary data sources for oral health status included clinical data abstraction from 428 dental records from the Gateway Community Health Center and Laredo Health Department dental clinics; Texas Health and Human Services' Medicaid-paid claims data SFY 2005 for select oral-health related diagnoses, inpatient and outpatient procedures; and the Texas Department of State Health Services' hospital discharge data files (CY 2004), birth certificates, Title V Maternal and Child Database, Texas Cancer Registry, and Children with Special Health Care Needs Management Information System. Demographic and workforce/access data sources included the Texas Department of Insurance; the Texas State Board of Dental Examiners; and the United States Departments of Commerce, Labor, and Health and Human Services.

Tremendous oral health care needs exist in Laredo and remain unmet due to inadequate access to dental care. This finding is not unexpected given that over 30 percent of the residents of Laredo live in poverty including almost 40 percent of the children less than 18 years old and that Webb County has been designated as a dental health professional shortage area with an insufficient number of dentists/dental hygienists. Individual graduate program directors can assess the compatibility of identified patient treatment needs with the educational training requirements of their residents. The majority of care needed was due to the two most common dental diseases, namely dental caries and periodontal disease.

Dental caries is experienced by half the nation's population by early adolescence. Unfortunately, in Laredo this 50 percent prevalence is seen in children by the age of six years old. Twelve

percent of preschoolers in Laredo had a particularly destructive form of caries, early childhood caries, at double the rate seen nationwide and most likely accounts for the over 1,800 Medicaid-funded root canal procedures done during SFY 2005 in children between the ages of 1 to 5. Although pit and fissure caries is preventable with the use of dental sealants, only 14.4 percent of children 6-11 years old and 13.5 percent of 12-14 years old had sealants, well below the *Healthy People 2010* target of 50 percent. Untreated dental caries was seen in 41 percent of those individuals screened: 37 percent in children under the age of 12 years old and almost 55 percent of adults. This rate of untreated dental caries is two to three times greater than the 15 percent *Healthy People 2010* target. Periodontal disease (gingivitis and periodontitis) was seen in children as young as 6 years old and in more than half of the adults with 61.3 percent of adults 36-64 years old being affected. For almost 20 percent of those requiring dental care, the need was urgent/emergency; in adults 36 to 64 years old, this urgency rate almost doubled, i.e., 37.1 percent needed urgent care.

The senior population ( $\geq 65$  years old) in Laredo had fewer individuals completely edentulous: only 12.4 percent of seniors were missing all of their teeth, about half of the national average. Likewise, cleft palate/lip and oral cancer are less prevalent in Webb County than Texas overall. Hospitalizations due to conditions affecting the oral cavity normally account for only a small fraction of overall hospitalizations. This trend was seen for Webb County residents, where less than 0.4 percent of individuals hospitalized (54 of 14,017, see Table 11) presented with oral health related diagnoses. The role oral infections may play in those individuals diagnosed with complications due to organ transplants is unknown.

Barely a third (32.6 percent) of the individuals screened had visited a dentist in the previous twelve months. Children less than 18 years old had relatively higher attendance rates than adults. This difference reflects access to care provided to children through Medicaid. Over 66 percent of children screened participated in WIC/Head Start or the free/reduced lunch programs (proxies of Medicaid insurance). In 2005, 49.1 percent of children enrolled in Medicaid received dental services; over 25,000 Medicaid enrolled children/adolescents did not access dental care despite this potentially available resource. Targeted recruiting in this population will be required.

Major access-to-care barriers exist for Laredo's adult population. Neither Medicaid nor Medicare offer routine dental care to adults in Texas and dental insurance was reported by only 14 percent of the adults screened. Twenty-three percent of adults between 36-64 years old reported having

dental insurance, most likely employer-sponsored insurance which agrees with the estimated projections for employer-sponsored dental insurance (i.e., 23 percent) that was performed. A majority of adults in Laredo must cover dental treatment costs out-of-pocket. With the average per person cost of dental care in Texas being \$523/year and monthly incomes as low as \$824/month, dental care can well be seen as a luxury that can not be afforded and may encourage people to seek care in Mexico. The level of dental care provided in Mexico is unknown. Funding of dental care for the adult population will persist as being problematic.

Other than financial barriers to dental care exist. This includes transportation, fear of deportation among the 20.8 percent of Laredo residents who are not citizens, ability to navigate the dental delivery system, health literacy of the prospective patients, and cultural competency in the dental residents, students, and faculty. Promotores are an important resource in developing oral health awareness and will play a vital role first in providing oral health education as training modules are developed, and later to advocate for dental services and assist individuals access care.

The physical plant additions to accommodate the expanded dental education programs are underway. Renovations at the Gateway CHC, increasing the number of dental operatories have been accomplished; expansion at the Laredo Health Department will begin in 2007. This expansion is contingent upon the Texas Legislature's additional biennial funding for the University of Texas Health Science Center's expanded dental education programs.

There are limitations in this study. Diagnostic and treatment data were primarily from public funding sources and the oral health screenings were accomplished on a convenience sample of individuals able to avail themselves of the events. Although not a statistician's "representative sample," it probably reflects individuals who will be recruited as prospective patients for the training programs. Texas does not maintain a current detailed oral health surveillance system, so comparisons were made primarily with available data on the national level.

This report provides a better understanding of the environment for the establishment of dental professional education in Laredo. It identifies a high degree of individual and community needs which can only be seen to increase with projected population growth in the region. It underscores a need for dental health disparities research, ongoing

surveillance of oral health needs and resources, bringing the best science to oral health policy and assurance of dental services where otherwise not available.