

Across the globe, an exploding senior population intensifies the need for basic and specialized dental care. A strong relationship exists between dental and general health for the elderly, yet there is not currently a recognized dental specialty in geriatrics in the United States. By 2030, it is expected that there will be nearly 71 million adults 65 years and older in the United States, making up 20% of the population (Centers for Disease Control and Prevention [CDC], 2007).

2007 Population % 65 years +	
United States	13%
Texas	10%
Bandera County	17%
Bexar County	10%
Comal County	14%
Kendall County	15%

(MapStats, 2009)

### Dental Health Challenges

Individuals facing oral health issues commonly face other medical illnesses stemming from a weakened immune system. Several dental conditions are typical of senior citizens with poor oral health. These conditions are often progressive and cumulative, further complicating care:

- Edentulousness (loss of all natural teeth)
  - Facial Pain or discomfort
  - Oral Cancer
  - Caries (tooth decay/cavities)
  - Periodontal issues
  - Denture-related conditions
  - Xerostomia (dry mouth/lowered saliva)
- (World Health Organization [WHO], 2009)

### Factors Contributing to Dental Health Challenges

Social and personal choices, medical complications, and physical limitations all contribute to dental health challenges in the lives of senior citizens. Common risk factors associated with poor dental health include chronic illness, dietary habits, level of poverty, tobacco use, medications, genetic predisposition, excessive consumption of alcohol, disability, lack of medical/dental health knowledge, and hygiene standards (WHO, 2009). The dental care of the senior population, who remain at high risk for low income and disabilities, is tremendously affected by social status. In 2008, the Census Bureau estimated that 13% of persons over 65 years lived below the poverty level in Bexar County (U.S. Census Bureau, 2008). Combined with a negative attitude toward oral health, a fear of violence from strangers, a low level of income, and a lack of social support, accessing dental care becomes a low priority in the lives of the elderly.

The greater prevalence of chronic medical conditions in seniors, such as cancer, diabetes, and osteoporosis also impacts oral health and proper oral maintenance and functionality (CDC, 2006). The medications prescribed to deal with medical conditions often become large contributors to dental health challenges. More than 400 medications prescribed for common ailments can alter the ability to taste and smell and may also increase dryness of mouth, which often compromises oral health (Braine, 2005).

This places older adults in greater peril, for they are more likely to take over-the-counter or prescription drugs (Texas Dental Association [TDA], 2008).

Undoubtedly, general and oral health are inter-related. Existing medical conditions may increase the risk of dental problems, but poor dental health often increases vulnerability to new medical issues. It has been discovered that pneumonia-causing bacteria can exist in dental plaque and that residents in nursing homes who had poor oral care had significantly higher rates of pneumonia than those who had good oral care (TDA, 2008).

Periodontal disease (chronic inflammation of the tissues supporting the teeth) is a serious complication of diabetes that is linked to poor glycemic control and glucose intolerance. Unfortunately, a study showed that in 2004 in Texas only 50% of diabetic adults had a dental exam within the past year, down from 69% in 1999. Only one state (Louisiana with 49%) had a lower percentage of dental visits reported (TDA, 2008).

Edentulousness, which affected 19% of United States seniors in 2008 (Kaiser Family Foundation, 2008), may also increase the risk for periodontitis and affect body weight, diet adequacy, and food enjoyment, due to lost chewing efficiency (CDC, 2009). Significant research has been dedicated to understanding the relationship between an individual's diet/nutrition and oral health. Essential to maintaining proper dental care is a balanced diet, which becomes difficult for older adults who have altered food choices to compensate for tooth loss or ill-fitting dentures (WHO, 2009).

Physical limitations are also a major contributing factor to dental health challenges. The lack of basic aspects of daily living among seniors, including vision, hearing, and personal hygiene, impairs the ability to access dental care and practice proper oral care. Practicing and accessing proper dental care is even more complicated for institutionalized, homebound, or disabled seniors. Many caregivers lack the necessary time and/or training to dispense

adequate oral care to seniors. Lack of equipment to treat clients in nursing facilities as well as lack of transportation in many cases does not allow for routine dentist visits (TDA, 2008).

### **Financial Burden of Dental Care**

Dental care encompasses approximately 5-10% of national public resources in industrialized countries (Braine, 2005). In 2008 alone, nearly \$102 billion was spent by Americans on dental care (CDC, 2009). Yet, a large number of the senior population does not qualify for basic health insurance, which is often tied to employment. Because many elderly operate with minimal income from employment or government aid, in many cases stemming from a loss of the benefits of employer-based dental insurance or a reduction in income, the senior population often experiences difficulty in meeting dental care expenses. The American Association of Retired Persons (AARP) estimates that about three-quarters of people 65 and older do not have dental insurance (Fleck, 2006).

For seniors with basic health coverage, including Medicare and Medicaid, little or no dental care is provided. Medicare does not cover routine dental care, it only provides for limited emergency dental service. Cleanings and basic screenings are not covered (TDA, 2008). Basic preventive procedures are, therefore, often under-utilized. Total expenses for general dental visits of persons 65 and older were \$9,153 million in 2006. The vast majority of those visits were paid out-of-pocket:

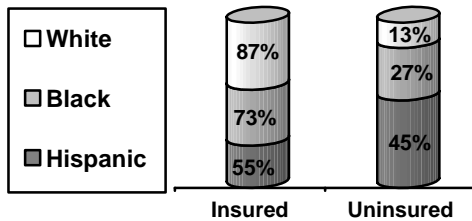
<b>Distribution of Expenses by Source of Payment: United States, 2006, General Dental Visits Only (65+)</b>	
Out-of Pocket	73%
Private Insurance	19%
Medicaid	2%
Medicare	3%
Other Insurance	4%

(Agency for Healthcare Research and Quality, 2009)

In 2008, Texas had approximately 26% uninsured residents, more than any other state (National Center for Chronic Disease Prevention and Health Promotion [NCCD], 2009). Of all Texas counties, Bexar County represented the third largest population of uninsured people, almost 350,000 residents (Shapleigh, 2008).

Minorities, more specifically Hispanics, are more disproportionately represented as uninsured, displayed by the following graph.

**Texas Population by Race: 2008**



(NCCD, 2009)

**Availability of Dental Care in Texas**

- 3 Dental schools
- 11,612 licensed dentists
- 21 Dental hygiene schools
- 9,659 licensed hygienists
- 57 community-based low-income dental clinics
- 46 counties have no dentist
- 78% of Texas residents received fluoridated water in 2008
- 111 Texas counties were designated as Dental Health Professional Shortage Areas (HPSA) in 2008. Bexar County was classified as a partial-county area, demonstrating certain portions of the county do not meet the required threshold due to shortages in dental providers.
- In 2007, there was a supply-ratio of 36.5 general dentists per 100,000 residents in metropolitan counties and a rate of 23.5 per 100,000 residents in non-metropolitan counties.

(National Center for Chronic Disease Prevention and Health Promotion [NCCD], 2008; Texas Department of State Health Services, 2008)

% of Texans Accessing Dental Care in 2008		
	Visited Dentist	Not Visiting Dentist
Texas	62.6%	37.4%
White	67.8 %	32.2 %
Black	56.4%	43.6%
Hispanic	56.2%	43.8%
65+ Years	63.8 %	36.2%

(NCCD, 2009)

- The Clinical Geriatric Dentistry Program at the Dental School University of Texas Health Science Center San Antonio (UTHSCSA) is the only program in South Texas that focuses exclusively on dental care for seniors. Begun in 1988, the program provides dental services to seniors who would otherwise not be treated because of existing medical conditions that require special handling including cardiovascular disease, respiratory disease, cancer, diabetes, Alzheimer’s, and more. Services are provided both at the Dental School and in over 150 collaborating senior care facilities (Gutierrez, 2009).
- CommuniCare Health Centers provide comprehensive low or no-cost dental services at two San Antonio locations
  - Barrio Family Health Center
  - Dr. Frank Bryant Health Center
- CentroMed provides dental services at four locations
  - CentroMed Somerset Clinic
  - CentroMed South Park Dental Clinic
  - CentroMed Southside Clinic
  - CentroMed Walzem Clinic
- San Antonio Christian Dental Clinic provides dental services at the Haven for Hope campus
- Daughters of Chaity Services provides dental services in south Bexar County at its LaMision Family Health Care center

**Recommendations**

Complications related to living longer, such as social, medical, and physical limitations, as well as increased financial burden, have resulted in the need to alter how dental care to the elderly is practiced. The Centers for Disease Control and Prevention (2009) call for increased partnership between public and private organizations and health professionals to address and remove barriers to dental care, as well as enhance community awareness of current oral health issues. The important role of encouraging and providing incentives for dentists to practice in underserved areas or service low-income individuals has been deemed a key component

in addressing oral health issues among seniors (TDA, 2008). Barriers to oral health care for the elderly are considerable. The World Health Organization's Oral Health Programme plans to develop strategies for the improved oral health of elderly people (World Health Organization, 2009).

Proper oral health is significantly related to the overall quality of life for older individuals. The ability to meet nutritional needs is severely inhibited with poor oral health (CDC, 2007). Improving access to geriatric dental care is a pressing health priority and will improve senior citizens' nutrition, general health, and overall sense of self-esteem.

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