

## Injury

The Texas Department of State Health Services offers an opportunity to practice injury epidemiology and make a significant contribution in a large and diverse state that offers a wealth of practical experience and a chance to work with and learn from several seasoned epidemiologists.

### **Texas**

The estimated population of Texas in 2004 was 22,490,022, (an estimated increase of 7.9% since the 2000 census). It ranks second among all states in population size, behind only California. The median age (years) is 32.3 - three years lower than the U.S. and the average family size is 3.28, higher than the U.S. average of 3.14.

When we say that everything in Texas is bigger, we aren't kidding. Texas encompasses 261,797 square miles and is the second largest state in the U.S. (Alaska is the largest). Texas has an unrivaled 254 counties with Harris (Houston) 3,644,285 (2004) the largest in population and Brewster county (Southwestern border with Mexico) the largest in size - 6,193 sq mi. Approximately 55% of the counties are rural; 24% are frontier, and 21% are urban. In addition, Texas maintains 1,037 independent school districts. The majority of the population (86%) lives in metropolitan statistical areas defined as having at least one city with 50,000 or more inhabitants. The five largest ancestry groups in Texas are Mexican - 24.3%, African-American - 11.5%, German - 9.9%, English - 7.2%, and Irish 7.2%. More than one-third of Texas residents are of Hispanic origin and may be of any racial group.

#### **Potential Projects**

With limited resources and a small staff, the Department of State Health Services Environmental & Injury Epidemiology and Toxicology Branch (EIET) has concentrated on a small variety of injury related areas: motor vehicle collisions, traumatic brain and spinal cord injuries, drowning, suicide and child fatality review. The CDC/CSTE Fellow would have the chance to lead a project in an area of their choosing in injury epidemiology.

Potential projects would provide opportunities for establishing a surveillance system, collaborating with state and community partners, strategic planning, implementing programs and policies, evaluation and research, and securing funding.

Datasets available for analysis include vital statistics birth and death files, Trauma Registry Hospital and EMS files, hospital discharge data, Child Death Registry (from child fatality review teams), Texas Poison Center Network data, etc.

#### **Injury Falls**

More than 1,000 Texans died and more than 20,000 others were hospitalized from fall-related injuries in 2004, about two-thirds of these among people at least 75 years of age. With demographics suggesting an increasing proportion of older people, epidemiology has an important role to play in the future health and safety of the Texas population.

This is a complete start-up project and is suited for individuals who enjoy initiating and creating programs. EIET has no previous activities in this area so the Fellow would be expected to identify needs and resources, establish collaborations, and lead efforts to determine and implement a plan of action.

#### Suicide Surveillance

While more than 2,000 people die from suicide annually in Texas, it is more difficult to find a reliable estimate of the number of non-fatal suicide attempts. Without a state population based system, available information provides only a fragmented estimate.

DSHS is currently involved in a project exploring the utility of hospital discharge data in providing a reliable and valid estimate of adolescent suicide attempts. This work needs to be expanded to other datasets and populations.

The Fellow would be expected to apply epidemiologic principles to help establish a suicide surveillance system in Texas. Taking a lead role, the Fellow would work with already identified agency resources and an active community based suicide prevention group in implementing a clear plan of action.

#### Injury Prevention Strategic Plan

EIET is partnering with the Governor's Emergency and Trauma Advisory Council (GETAC) Injury Prevention Committee to create a state injury prevention plan. The philosophical groundwork has been laid, but there is still much work to do in applying epidemiologic principles to the actual development of a targeted and realistic injury prevention plan. This would be a great opportunity for someone interested in applied epidemiology and working with a variety of stakeholder groups.

#### **Assignment Location: Austin, TX**

Primary Mentor: John Hellsten, Ph.D., MA, M.Ed.  
Epidemiologist, Epidemiology and Disease Surveillance Unit,  
Texas Department of State Health Services

Advanced Degree: Ph.D, University of California Irvine (1995)  
M.A., University of California, Irvine (1993)  
M.Ed. University of Texas (1988)

Secondary Mentor: Lucina Suarez, Ph.D  
Director, Epidemiology and Disease Surveillance Unit, Texas  
Department of State Health Services

Advanced Degree: Ph.D, University of Texas-Houston (1998)  
M.S., University of Pittsburgh (1975)