

Suicide In Texas

In 1997 suicide was the 8th leading cause of death in Texas, claiming 2,137 lives and 49,277 years of potential life. Second only to motor vehicle crashes as the leading cause of injury death, suicide accounts for 20% of all injury deaths in Texas. Thus, 1 of every 5 injury deaths in the state is self-inflicted. This report examines the suicide patterns in the general Texas population by age, gender, and race/ethnicity using the combined data for 1995 through 1997. It describes suicide trends statewide for the past 18 years with an emphasis on two particularly vulnerable groups: adolescents and the elderly. The report concludes with information about recent national and state efforts to address suicide.

Mortality data from the Bureau of Vital Statistics, Texas Department of Health were reviewed. Those deaths with an External Cause of Death E 950-959, *International Classification of Disease, Ninth Edition* were included in the study. Race/ethnicity definitions were those used by the Bureau of Vital Statistics, Texas Department of Health. Average annual rates are presented unless otherwise stated.

General Population

Suicide rates from 1995 through 1997 varied by age (Figure 1). Suicide rates were low for persons under 15 years of age but increased for those 15 through 19 years of age. Nearly 60% of Texas suicides were committed by persons aged 25 through 54 years. Suicide rates for Texans ≥ 75 years were higher than those for any other age group.

The suicide rate for males was over four times greater than that for females (18.6/100,000 population versus 4.5/100,000 population). Whites had the highest suicide rate (15.1/100,000), followed by Other racial/ethnic groups (7.1/100,000). Rates for Hispanics and African Americans were similar (6.5/100,000 versus 6.1/100,000, respectively). White males had the highest suicide rate (24.3/100,000) and Hispanic females had the lowest rate (1.9/100,000). Overall suicide rates

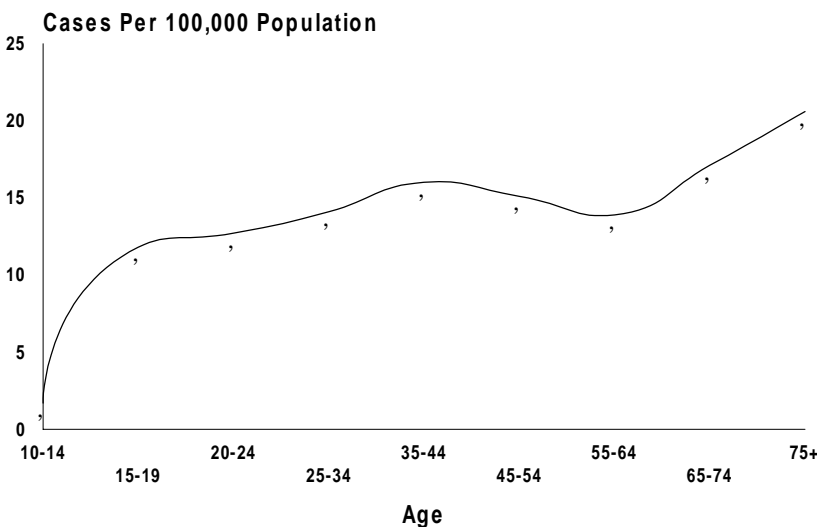
have been fairly stable since 1980 ranging from 11 to 13 deaths per 100,000 population (Figure 2).

Although the suicide rate for adolescents temporarily decreased from 1990 to 1995, the overall trend from 1980 through 1997 was that of a gradual increase (Figure 3).

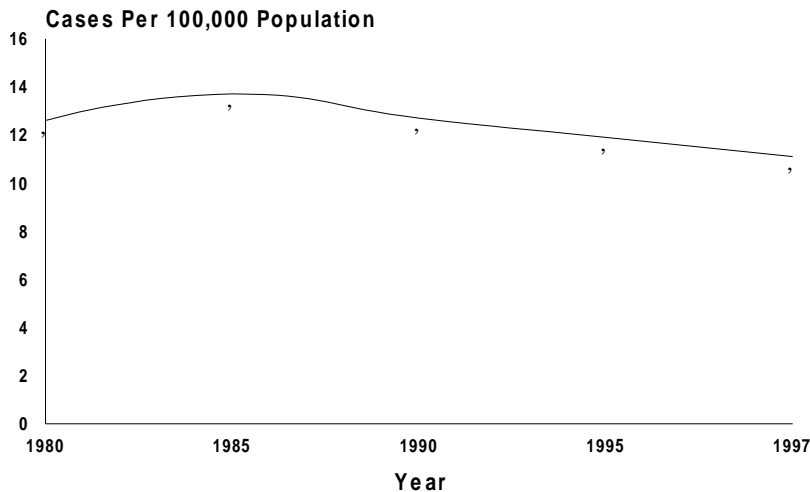
Similar to rates for adolescents, but unlike suicide rates for most other adult age groups, rates for the elderly (people aged >65 years)

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Figure 1. Suicide Rates In Texas by Age: 1995-1997



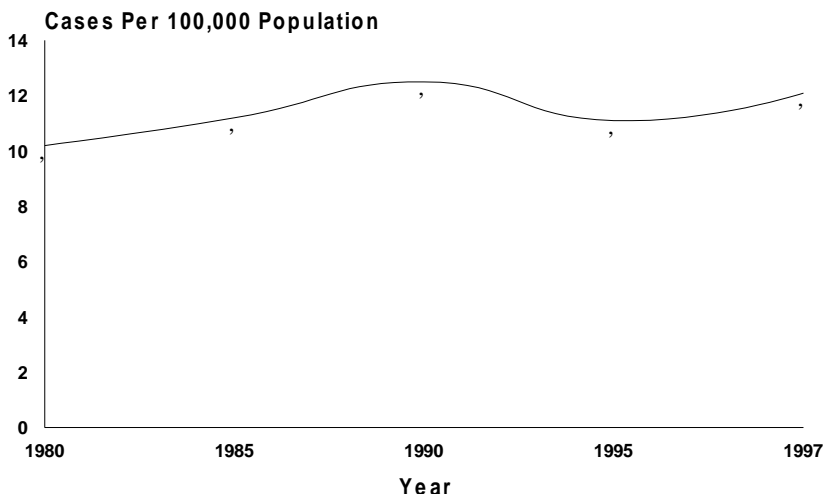
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Figure 2. Suicide Rates: Texas, 1980-1997

increased substantially during the 1980s (Figure 4). This rate peaked in 1987 (24.5/100,000), a 33% increase over the 1980 rate of 18.3 per 100,000. Since 1987 the suicide rate for the elderly has shown an almost equal decrease, steadily declining to 17.5 per 100,000 in 1997. While this recent trend is encouraging, on average about one elderly person a day still commits suicide in Texas.

Suicides Among Adolescents: 1995-1997

From 1995 through 1997, 505 adolescents (15-19 years of age) committed suicide in Texas (11.4/100,000). Eight of 100

**Figure 3. Suicide Rates for Adolescents:
Texas, 1980-1997**

suicides in Texas during this period were committed by adolescents. Suicide was the third leading cause of death in this age group and represented 14% of all deaths. On average, an adolescent commits suicide every other day. From 1995 through 1997, the suicide rate for adolescents in Texas increased 9% (from 11.1/100,000 to 12.1/100,000). In 1997 there were 184 suicides among adolescents.

Gender and racial/ethnic patterns of suicides among adolescents were similar to those of other age groups. Adolescent males were four times more likely to commit suicides than were adolescent females (18.1/100,000 versus 4.3/100,000). Whites committed 58% of the adolescent suicides; they had the highest average youth suicide rate from 1995 through 1997 (12.7/100,000), followed by Hispanics (10.9/100,000), African Americans (8.2/100,000), and Other (6.3/100,000).

The suicide rate increased in 1997, as compared with 1996, among both White and African American adolescents and slightly decreased among Hispanics and Other racial/ethnic groups. The increase in the overall rate for African Americans can be attributed, in part, to an increase in suicides among African American females (from 2 suicides in 1996 to 8 in 1997).

The most common means of suicide among adolescents are firearms, followed by hanging/strangulation, and poisoning. Of the 505 suicides committed by adolescents in this three-year period, 348 (69%) involved the use of a firearm and 111 (22%) involved hanging or strangulation.

Suicides Among the Elderly: 1995-1997

Texans aged >65 years comprise 10% of the state's population yet account for 16% of all suicides committed in Texas. Suicide patterns among the elderly are similar to those for other age groups, although the disparities among groups

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are greater. Elderly males commit suicide about 8 times more often than do elderly females (39.0/100,000 versus 4.7/100,000), and suicide rates for Whites are at least 3 times higher than those of minorities (22.5/100,000 versus 7/100,000 for African Americans and 6.7/100,000 for Hispanics). The magnitude of these disparities increases with age. Males aged >74 years commit suicide at a rate greater than 11 times that of females in the same age group (49.7/100,000 versus 4.5/100,000).

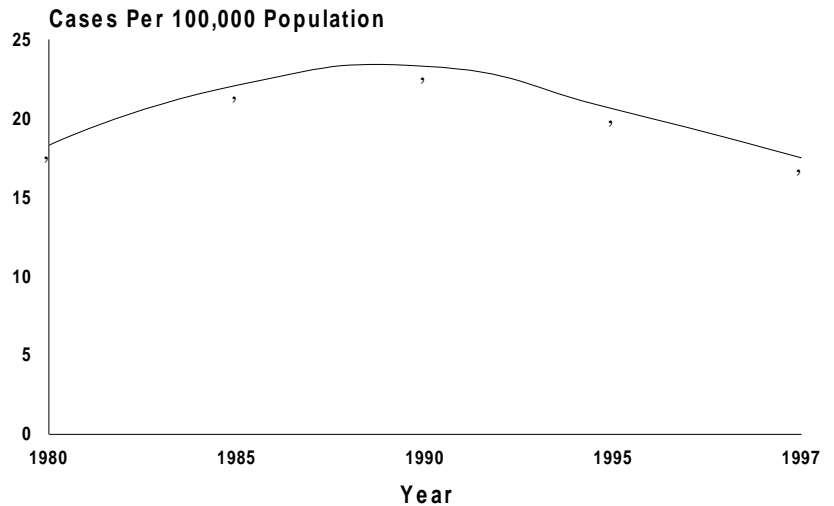
Similar to those in other age groups, the majority of suicides among the elderly are committed with firearms. Of the 1,099 suicides among people >65 years during this three year period, 83% were committed with firearms. The declining overall rate of suicide among the elderly can be attributed to a decrease in the rate of firearm suicides in this age group. From 1987 through 1997, the firearm suicide rate declined 29% (from 20.6/100,000 to 14.6/100,000) while the next most popular methods, hanging and poisoning, remained relatively stable.

National and State Prevention Efforts

Suicide is recognized nationally and locally as a public health problem. The National Suicide Conference held in Reno, Nevada, in October 1998, was sponsored by the Suicide Prevention and Advocacy Network (SPAN) and several other cosponsors, including the Centers for Disease Control and Prevention (CDC) and the US Health Resources & Services Administration. Conference participants— representing survivors, scientists, private businesses, government workers, educators, and the public—developed a national strategy for suicide prevention.

The Adolescent Health Promotion Program of the Child Health and Safety Division at the Texas Department of Health has purchased the rights to distribute the curriculum, *Mental Health CPR*, developed by Phil Caterbone, MD, and Craig Crabtree. This curriculum

Figure 4. Suicide Rates for the Elderly: Texas, 1980-1997



teaches nonsuicidal students to 1) recognize suicidal symptoms, 2) obtain a basic no-harm agreement from the suicidal person, and 3) arrange for professional help. This curriculum will be available in the fall of 1999 through a loaner program in each of the 20 Education Services Centers of the Texas Education Agency. The Surgeon General recently made 15 key recommendations that should serve as a framework for immediate action (see Page 4).

For information on adolescent health contact Florastine Mack at 512-458-7111, x 2021. Contact David Zane at 512-458-7266 for information on injury epidemiology.

Prepared by:



David F. Zane, MS, TDH Injury Epidemiology & Surveillance; John Hellsten, PhD, TDH Bureau of Epidemiology; Nan Yang, PhD, TDH Associateship for Disease Control and Prevention; Florastine Mack, BSN, MSHP, TDH Child Health and Safety Division (Adolescent Health Promotion Program)

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The Surgeon General's Call to Action: Suicide Prevention, 1999


This Surgeon General's Call to Action introduces an initial blueprint for reducing suicide and the associated toll that mental and substance abuse disorders take in the United States. The 15 key recommendations listed below are based on evidence and are given a high priority by leading experts. These first steps—categorized as **AIM: Awareness, Intervention, and Methodology**—should serve as a framework for immediate action.

Awareness: Appropriately broaden the public's awareness of suicide and its risk factors.

- Promote public awareness that suicide is a public health problem and, as such, many suicides are preventable. Use information technology appropriately to make facts about suicide and its risk factors and prevention approaches available to the public and to health care providers.
- Expand awareness of and enhance resources in communities for suicide prevention programs and mental and substance abuse disorder assessment and treatment.
- Develop and implement strategies to reduce the stigma associated with mental illness, substance abuse, and suicidal behavior and with seeking help for such problems.

Intervention: Enhance services and programs, both population-based and clinical care.

- Extend collaboration with and among public and private sectors to complete a National Strategy for Suicide Prevention.
- Improve the ability of primary care providers to recognize and treat depression, substance abuse, and other major mental illnesses associated with suicide risk. Increase the referral to specialty care when appropriate.
- Eliminate barriers in public and private insurance programs for provision of quality mental and substance abuse disorder treatments and create incentives to treat patients with coexisting mental and substance abuse disorders.
- Institute training for all health, mental health, substance abuse and human service professionals (including clergy, teachers, correctional workers, and social workers) concerning suicide risk assessment and recognition, treatment, management, and aftercare interventions.
- Develop and implement effective training programs for family members of those at risk and for natural community helpers on how to recognize, respond to, and refer people showing signs of suicide risk and associated mental and substance abuse disorders. Natural community helpers are people such as educators, coaches, hair-dressers, and faith leaders, among others.
- Develop and implement safe and effective programs in educational settings for youth that address adolescent distress, provide crisis intervention, and incorporate peer support for seeking help.

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- Enhance community-care resources by increasing the use of schools and workplaces as access and referral points for mental and physical health services and substance abuse treatment programs and provide support for persons who survive the suicide of someone close to them.
- Promote a public/private collaboration with the media to assure that entertainment and news coverage represent balanced and informed portrayals of suicide and its associated risk factors including mental illness and substance abuse disorders and approaches to prevention and treatment.

Methodology: Advance the science of suicide prevention

- Enhance research to understand risk and protective factors related to suicide, their interaction, and their effects on suicide and suicidal behaviors. Additionally, increase research on effective suicide prevention programs, clinical treatments for suicidal individuals, and culture-specific interventions.
- Develop additional scientific strategies for evaluating suicide prevention interventions and ensure that evaluation components are included in all suicide prevention programs.
- Establish mechanisms for federal, regional, and state interagency public health collaboration toward improving monitoring systems for suicide and suicidal behaviors and develop and promote standard terminology in these systems.
- Encourage the development and evaluation of new prevention technologies, including firearm safety measures, to reduce easy access to lethal means of suicide.

For more information, visit <http://www.surgeongeneral.gov/osg/calltoaction.htm>.

Dengue Confirmed in Laredo

For 20 years, most dengue virus infections in Texas residents have been acquired during travel to tropical countries. From 1995 through 1998, however, locally acquired cases were reported from Cameron and Hidalgo Counties. Dengue fever, a mosquito-borne viral illness with an incubation period of 3 to 14 days, results from infection with one of four closely related arboviruses (dengue virus serotypes 1, 2, 3, and 4). *Aedes aegypti* and *Aedes albopictus* mosquitoes, present throughout much of Texas, are dengue virus vectors.

The disease is characterized by sudden onset, high fever, severe headaches, joint and muscle pain, nausea, vomiting, and rash. The rash appears 3 to 4 days after onset of fever in about 55% of cases.

Dengue hemorrhagic fever is characterized by fever, thrombocytopenia, hemorrhage, and capillary leak syndrome (manifested as hemoconcentration, hypoalbuminemia, or pleural effusion). Dengue shock syndrome includes all of the above in addition to hypotension.

Dengue fever is easily confused with other infectious illnesses such as influenza and rash illnesses including measles, rubella, and typhus. Dengue can be treated with bed rest, fluids, and antipyretics; however, aspirin is contraindicated. Healthcare workers should consider dengue in the differential diagnosis of all patients with symptoms listed above. Viral isolation and serologic testing are available at the

New Immunization Requirements for Schools and Child-care Facilities

On April 18, 1999, the Texas Board of Health passed new immunization requirements for children and students attending Texas public and private schools, child-care facilities, and institutions of higher education. These requirements were adopted subject to the appropriation of funds by the Texas legislature. These funds have been appropriated, and the new requirements are in effect for school years 1999-2000 and 2000-2001. This information is posted on the Texas Department of Health (TDH) Immunization Division's website at <http://www.tdh.state.tx.us/immunize/summary.htm>.

A requirement for hepatitis A vaccine will go into effect August 1, 1999, and affects only children who attend school or child-care in 32 counties along the Texas-Mexico border. In these counties, children 5 years of age and older who were born on or after September 2, 1992, will be required to be vaccinated against hepatitis A. On August 1, 2000, this requirement will be expanded to include younger children. At that time, children 2 years of age or older who live in the 32 counties and who attend school or child-care will also be required to be vaccinated against hepatitis A.


Hepatitis A virus (HAV) is spread by the fecal-oral route, primarily by person-to-person contact or by consumption of contaminated food or water. Serosurveys conducted from 1989 to 1998 showed high rates of HAV antibody among children living in US/Mexico border counties. This area generally meets the Advisory Committee on Immunization Practices criteria for routine recommendation of hepatitis A vaccination.

On August 1, 2000, the existing requirement for hepatitis B vaccine will be expanded to include a cohort of adolescents. Children born on or after September 2, 1988, but before September 2, 1992, will be required to show proof of

hepatitis B vaccination by 30 days after their 12th birthday. Since the time that the initial state requirement was established for younger children, the eligibility criteria for receipt of federally funded hepatitis B vaccine through the Vaccines for Children Program were changed to include older children. This new state requirement will help assure that adolescents take advantage of this opportunity to protect themselves from hepatitis B.

Also on August 1, 2000, varicella (chickenpox) vaccine or a history of previous illness will be required for two groups of children. The first group is all children born on or after September 2, 1994, who are 12 months of age or older. A second group, children born on or after September 2, 1988, but before September 2, 1994, will be required to show proof of vaccination or history of previous chickenpox disease within 30 days after their 12th birthday. Varicella history can be documented by a written statement from a parent or guardian, physician, or a school nurse. Schools can either photocopy the statement or record the history of previous disease in their files or computers; the original statement should be returned to the parent. Serologic proof of immunity is also acceptable in lieu of vaccination.

The varicella vaccine is 70% to 90% effective against disease and 95% effective against severe disease. Varicella is a generally mild illness which has rare but severe complications. Prior to the availability of vaccine, approximately 4 million cases of chickenpox occurred annually in the United States; 150,000 to 200,000 of these patients experienced complications; 10,000 patients had complications severe enough to be hospitalized; and an average of 100 people died from varicella. Individuals who are immunocompromised are at risk for severe varicella disease. However,

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complications from chickenpox can also occur in previously healthy persons, especially in adults.

Children who are vaccinated at the earliest age at which vaccination is recommended will ALWAYS be in compliance with state immunization requirements. Please begin vaccinating your patients and notifying your students of these new requirements. Hepatitis A vaccine is available throughout the 32 affected

counties; hepatitis B and varicella vaccines are routinely available throughout the state. If you experience difficulty obtaining vaccine or have questions about the new (or old) requirements, please call your respective local or regional Immunization Program Manager or the Immunization Division in Austin at (800) 252-9152.

Prepared by Kristin Hamlett, TDH
Immunization Division.

Eastern Equine Encephalitis Confirmed in East Texas

East Texas residents are being urged to take extra precautions against mosquitoes following confirmation of several animal cases of eastern equine encephalitis (EEE) in Cherokee, Hardin, Harrison, Jasper, and Rusk Counties. This mosquito-borne viral illness attacks the central nervous system, causes inflammation of the brain, and can be fatal to animals and humans. Wild birds serve as reservoirs for the virus. Mosquitoes bite infected animals, the virus multiplies within the mosquitoes, and then the mosquitoes can transmit the virus to humans and animals.

There has been laboratory confirmation of EEE in horses in the following counties: Hardin (2 cases), Rusk (1), Harrison (1), and Cherokee (1). In Jasper County, an emu died of EEE. Additional animal cases are suspected but not confirmed. Last year Texas recorded 2 animal cases. The last human case in Texas was in 1973.

Sixty-two EEE cases in horses and emus have been reported in 24 Louisiana parishes in recent weeks. Last year Texas recorded 2 animal cases. Two human cases have been recorded in Louisiana this year.

Although human EEE cases are rare, these animal cases indicate that the virus is in the area. Therefore, the Texas Department of Health (TDH) is advising people to take extra precautions against mosquitoes. Residents should use insect repellent and wear long pants and long-sleeve garments when outdoors in mosquito-infested areas. Owners should ask a veterinarian about vaccinating their horses against the illness. There is no EEE vaccine for humans.

Symptoms of human EEE infection include fever, headache, vomiting, lethargy, neck stiffness, convulsions, and coma. Signs of the illness in horses include fever, irregular gait, wandering, circling, lack of coordination, yawning, teeth grinding, drowsiness, drooping lower lip, inability to swallow, head pressing, impaired vision, inability to stand, paralysis, and occasional convulsions.

For more information contact Jim Schuermann, TDH Zoonosis Control Division, at (512) 458-7255. East Texas residents may call TDH regional offices in Tyler, at (903) 533-5212, or Houston, at (713) 767-3300.



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Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3199
Phone: (512) 458-7677
Fax: (512) 458-7340
Email: dpn@discon.tdh.state.tx.us

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Texas Department of Health (TDH). **For viral isolation and/or PCR**, serum should be collected in a red top tube within the first 5 days of illness and refrigerated for several hours until clotted; serum should then be centrifuged, placed on dry ice and shipped overnight.

For serologic testing, serum specimens drawn in red top tubes during the acute phase of illness may be submitted at ambient temperature. During very hot weather, serum should be transported using wet ice or cold packs.

Convalescent serum specimens collected 10 to 14 days later may be required to confirm recent infection. Specimens, along with a laboratory submission form (G-1), should be mailed to TDH Laboratory, 1100 W 49th Street, Austin, TX 78756. If a G-1 is not available, the following information should be included for all specimens: name of patient; address, age and sex; disease suspected; date of onset; date of specimen collection; and name and address of physician.

For more information call (800) 252-8239.