

Gillespie County Health Assessment

A Review of Suicide in Gillespie County

Data for Planning and Policy Making

Report 2 of 3

Gillespie County Translational Advisory Board (TAB)
Gillespie County Health Board
UT School of Public Health—Community Outreach Resource Center

A REVIEW OF SUICIDE IN GILLESPIE COUNTY

Prepared for:

The Gillespie County Translational Advisory Board
and
The Gillespie County Health Board

**The Institute for Integration of Medicine & Science
Community Outreach Resource Center**

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“The true power of a nation is not defined by its accumulated wealth, its military might, its style of governing or its political superiority, but rather how well it takes care of its citizens.”

Franklin D. Roosevelt

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Introduction

Health is the result of social and physical interactions, genetics, and individual behavior choices. In order to understand if community health progress is being made, it is necessary to think of health beyond the intrapersonal level. Community health assessments serve as tools for understanding the overall health and well-being of group of people with shared characteristic. Not only do they provide us a window for seeing and understanding the magnitude and severity of community health problems, but they also allow us to understand the areas of community health that excel and the assets that they possess to measure progress over time.

This assessment effort initially began with the planning and implementation of a Community Health Survey, which was developed to seek the attitudes and opinions of local community leaders on various health-related topics. It was then broadened to include two case studies focused on suicide and teen pregnancy prevalence and incidence. This is one of three reports. This report will focus specifically on the suicide case study. To access the the Community Health Survey or the Teen Pregnancy Case Study reports, please go to www.FBGTX.org

This assessment report uses a combination of data sources. These sources are not always in agreement in data groups such as age or illnesses, nor are they always comparable in terms of time periods. Because assessment are dependent on existing data sources - which in turn may be outdated, limited, or difficult to compare - other primary data were sought during the completion of the key informant interviews.

Described in this report are:

1. The purpose, composition, and mission of the Gillespie County Translational Advisory Board (TAB);
2. The community-driven process that brought forth the CHS and suicide assessment;
3. Existing demographic and epidemiological data reflective of the County;
4. The methods utilized to conduct the assessment activities ;
5. The assessment activity findings; and
6. Recommendations based on the findings.

The assessment team recognizes the importance of confidentiality and anonymity as it pertains to participants who engage in both phases of the project. To ensure confidentiality, all data were de-identified and no names were included in this report.

Section I: Background

A. Gillespie County TAB

The Gillespie County TAB is a relatively new entity. Its infrastructure is supported with funds from a Clinical & Translational Science Grant from the National Institute of Health (NIH) and overseen by the Institute for Integration of Medicine and Science (IIMS) of the University of Texas Health Science Center at San Antonio (UTHSCSA). The mission of the IIMS is to integrate clinical and translational research and career development across all UTHSCA schools and among its diverse public and private partners in South Texas. The Community Engagement Core leaders of the IIMS have made it their mission to incorporate the principles of community-based participatory research (CBPR) in all of their outreach efforts (IIMS, 2009). The fundamental characteristics of CBPR methodology are that:

1. It is a participatory process;
2. It engages community members and researchers in a joint learning process;
3. All members are encouraged to contribute equally;
4. It involves the development of systems as well as capacity building;
5. Participants can increase control over their lives by becoming empowered; and
6. It allows for a balance between research and action.

(Minkler & Wallerstein, 2003).

The IIMS Community Engagement Core elected to tap into the community via the pre-existing relationship between the local South Central Texas Academic Health Education Center (AHEC) and the community AHEC board serving Gillespie County. The mission of the Gillespie TABs is to, "... serve as a representative body, which aims to improve community-based participatory research and educational outreach activities in partnership with UTHSCSA." In essence, the TAB serves as a bridge for developing research partnerships and translating discoveries from the clinical lab, to the bedside, to the community. The overall goal of the Gillespie County TAB is to improve the health and well-being of their communities (Leeds, 2009).

The TAB has established an organizational structure to increase its knowledge and understanding about the purpose and planning processes of a community health assessment. As part of this process, the TAB chose to work in partnership with the IIMS to conduct a community-wide health assessment to "take the temperature" of the different hot spots in its community.

During the planning phases of the assessment, Gillespie County TAB was composed of nine members with a broad range of community expertise. **Table 1** provides a description of the composition of the group as well as the community roles of each of its members.

Table 1: Names, Community Roles, and Background Information of TAB Members

Name	Community Role / Background
Richard Traugott, MD	Gillespie County TAB Chairperson; Retired Thoracic Surgeon
Kelli Olfers	Sanitarian of the Gillespie County Health Division
Tom Hutton, MD PhD	Gillespie County Health Board Chairperson; Hill Country Memorial Board of Trustees; retired neurologist
Debra Agnew	Needs Council Executive Director
Patricia Torres	Hill Country Memorial Hospital Medical Assistance Program Coordinator
John Willome	Good Samaritan Center Executive Director
Becky Walch, RN BSN	TDSHS Region 8 Health Services
Dawn Bourgeois	Hill Country Hospital Wellness Center Director
Denise Usener	Golden HUB Senior Center Director

In the fall of 2009, the TAB was introduced to a group of graduate students from the University of Texas School of Public Health. The students worked in collaboration with the TAB under the supervision of the Community Outreach Center of the University of Texas School of Public Health to implement the CHS and to conduct the suicide assessment case study.

B: Selection of Scope of Assessment

In large measure, the strength and progressive impact of the Gillespie County TAB lies in its ability to capitalize on the board’s community exposure and the socio-political influence of its members. The expanded collaborative model for health improvement that is emerging demonstrates its commitment to better identify health needs and influence a decision-making process that addresses them in a timely and cost-efficient manner.

The TAB members were given various sources of extant data to help them narrow the scope of their assessment. One of these documents was the Community Health Status Report (CHSR) for Gillespie County (CHSR) created by the Department of Health & Human Services (DHHS). According to the CHSR, the total number of deaths in Gillespie County from 1994 to 2003 was 2,708. Interestingly, among white Gillespie County residents ages 25-44, injuries comprised the highest percentage of deaths (31%) followed by cancer (24%) and suicide (15%). Cancer and heart attacks were the two leading causes of death for individuals ages 45 and older. Data for other racial/ethnic groups were not included as part of this report due to the small number of reports. The CHSR also includes mortality measure comparisons between Gillespie County, and its peer counties who share similar socio-demographic characteristics. The US rates have been included as well as the ideal target goal rates of the Healthy People 2010 initiative.

Table 2: Measures of Death for Gillespie County, Texas

Gillespie County Rate	Confidence Interval	Concern Status Indicator*	Peer County Range	Death Measures	US Rate 2003	Healthy People 2010 Target
33.0	(24.5, 43.6)	-	17.3 – 33.0	Breast Cancer (Female)	25.3	21.3
15.1	(11.4, 19.7)	+	15.9 – 29.2	Colon Cancer	19.1	13.7
129.4	(118.0, 140.8)	+	142.6 – 260.5	Coronary Heart Disease	172.0	162.0
39.6	(33.0, 46.2)	+	39.6 – 62.3	Lung Cancer	54.1	43.3
23.4	(16.8, 31.8)	+	15.9 – 41.8	Motor Vehicle Injuries	14.8	8.0
59.8	(52.1, 67.4)	-	44.9 – 72.2	Stroke	53.0	50.0
17.9	(12.4, 24.9)	-	9.8 – 17.9	Suicide	10.8	4.8
21.8	(16.4, 28.5)	+	15.6 – 29.0	Unintentional Injury	37.3	17.1

Source: Department of Health & Human Services, Community Status Indicator Report, 2008

* A "+" indicates a favorable status. A "-" indicates a status less than favorable.

The CHSR indicates that the Gillespie County mortality rates of breast cancer, stroke, and suicide are not favorable (33.0, 59.8, and 17.9 per 100,000 respectively) in comparison to its peer counties. After reviewing the CHSR, The Gillespie TAB became particularly interested in further studying the prevalence and incidence of suicide-related mortality referenced in the CHSR because its partner, the Gillespie County Health Board, had expressed interest in pursuing its own investigations regarding suicide in the County. The TAB, Health Board and the University came to an agreement that including the suicide as a special case study for the assessment would prove to be beneficial for the TAB and the Health Board because this would lay the foundation for future community-led investigations related to the topic.

After meeting for several months, the TAB decided via consensus that in addition to completing the Community Health Survey, that it would also oversee the implementation of two special case studies focused on suicide and teen pregnancy.

As mentioned earlier, the TAB and its community partner the Gillespie County Health Board, expressed a need for a more accurate and reliable understanding of the current data, resources, and crisis-related policies and procedures to prevent and respond to suicides. Concern was expressed by several TAB members present during the October 1, 2009 TAB meeting about the suicide rates for Gillespie County. TAB members expressed that they understood that currently 9-1-1 services function as the "suicide hotline" for the County. It was also rumored that the local hospital lacked enough beds for mental health observation and the County currently has few mental health providers. Members also said that they understood that the Sheriff's Department transports individuals to the Kerrville State Hospital approximately 24.5 miles away and an estimated forty minute travel time (Google Maps, 2009). It was also discussed in the meeting that it was rumored that when there are no beds available that individuals have in the past been kept for observation at the county jail (personal communication, October 1, 2009).

To better understand the status of suicide within the community the TAB needed more recent extant data on suicides comparing National, State and local trends. Currently, limited data are available from the Texas Department of State Health Services (TDSHS) through 2007. However, to determine local policies and procedures for handling crisis calls, the assessment team utilized key informant interviews with local community members knowledgeable of different aspects of suicide intervention.

Section II: Literature Review

Suicide is defined as a, “Fatal self-inflicted destructive act with explicit or inferred desire to die” (IOM 2002). Over the past 20 years, the rate of suicide in rural communities has surpassed those of urban areas (Kiankhooy, A. et al. 2009).

A. Risk Factors

There are multiple factors associated with suicidal behavior. People who suffer from mental illness are at particular risk, and account for 90% of all cases (Staats, R. and Dombeck, M., 2009.) Specific risk factors include biopsychosocial risk factors such as mental disorders, particularly mood disorders, schizophrenia, anxiety disorders and certain personality disorders (Valuck RJ, Orton HD, Libby AM., 2009) (Ortigo KM, Westen D, Bradley B., 2009); alcohol and other substance use disorders (CDC, 2009); hopelessness (Fawcett JA, et al, 2009); impulsive and/or aggressive tendencies; history of trauma or abuse; some major physical illnesses; previous suicide attempt; and family history of suicide. Those who are mentally ill, those who suffer from schizophrenia and personality disorders such as borderline personality disorder are more likely to attempt suicide (Staats, R. and Dombeck, M., 2009).

Environmental risk factors include the following: job or financial loss; relational or social loss; easy access to lethal means (Hokans K.D. and Lester D., 2009); and local clusters of suicide that have a contagious influence.

Social-cultural risk factors include a lack of social support and sense of isolation; stigma associated with help-seeking behavior; barriers to accessing health care, especially mental health and substance abuse treatment; certain cultural and religious beliefs (for instance, the belief that suicide is a noble resolution of a personal dilemma); and exposure to, including through the media, and influence of others who have died by suicide (Dervic K. et al, 2004).

B. Protective Factors

There are also protective factors which are associated with a reduction in the likelihood of suicide. These factors include: effective clinical care for mental, physical and substance use disorders; easy access to a variety of clinical interventions and support for those seeking help; restricted access to highly lethal means of suicide (firearms, medications/poisons) (Kaplan MS,

McFarland BH, Huguet N, 2009); strong connections to family and community support (Rajalin M. et al, 2009); support through ongoing medical and mental health care relationships (Pfaff J.J., Almeida OP., 2004); skills in problem solving, conflict resolution, and nonviolent handling of disputes; and cultural and religious beliefs that discourage suicide and support self preservation (Dervic K. et al, 2004).

C. National and State Suicide Prevention Efforts

Extensive research to identify risk factors for suicide has been carried out in an attempt to develop interventions and preventive measures (U.S. Department of Health and Human Services, 2000). The goal of this assessment is to provide the citizens of Gillespie County a detailed, realistic framework with which to address the issue of suicide and its prevention in their schools and communities. The goals of such a suicide prevention program would be to: 1) prevent premature deaths due to suicide across the life span; 2) reduce the rates of other suicidal behaviors; 3) reduce the harmful after-effects associated with suicidal behaviors and the traumatic; 4) impact of suicide on family, friends, and the community; and 5) promote opportunities and settings to enhance resiliency, resourcefulness, respect, and interconnectedness for individuals, families, and communities.

There are several principles of suicide prevention program effectiveness. Prevention programs should be designed to enhance protective factors. In addition, they should reverse or reduce known risk factors. Prevention programs should be considered long-term, requiring periodic interventions/adjustments to remain effective. Prevention efforts which are community and family-focused will likely have greater impact than those that focus only on the individual. Moreover, media campaigns and policy changes will further enhance the impact of suicide prevention programs in the community. Programs that empower people of all ages and remove any stigma to help-seeking behavior in all settings, including family, work, school, and community will go farther in reducing suicides in their communities. Prevention programming should be adapted to address the specific nature of the problem in the local community or population group. The higher the level of risk of the target population, the more intensive the prevention effort must be and the earlier it must begin. Prevention programs should be age-specific, developmentally appropriate, and culturally sensitive.

Programs that support and maintain protection against suicide should be ongoing. Continuing vigilance is also essential, including community-wide education in the recognition of the early warning signs of someone who may be headed down the path to suicide, coupled with strategies for timely intervention. It is also important that communities become more aware of the effects that rapidly changing demographics can produce. For instance, a recent study in children found that frequent changes in residence, as is created by our modern, rapidly mobile society, caused them increased emotional distress and increased their risk for suicidal behavior (Qin, P., Mortensen P.B., and Pedersen C.B., 2009). On the other hand, those communities which have embraced school-based suicide prevention programs over the past decade have found dramatic decreases in their youth suicide rates (Gould MS et al, 2003).

Texas has made significant progress in describing the important components of a suicide prevention programs. In 2008, the *Texas Suicide Prevention Council* presented their goals in the Texas State Suicide Prevention Plan. The public health approach employed by many agencies is readily adaptable to a variety of circumstances. They are evidence-based and have been scientifically studied and validated for effectiveness. Furthermore, they can be readily utilized at the community level and tailored for specific populations. A list of these suicide prevention programs has been included in **Appendix B**.

In 2001, the U.S. Surgeon General's office released the *National Strategy for Suicide Prevention: Goals and Objectives for Action*. This strategy called for a multidisciplinary approach for suicide education and intervention. The three main components of the Surgeon General's plan called for 1) awareness 2) intervention and 3) methodology (National Strategy for Suicide Prevention, 2001).

In response to the Surgeon General's plan, the State of Texas through legislative initiatives developed the Texas State Suicide Prevention Steering committee in 2002. This committee drafted the Texas State Plan for Suicide Prevention using the Surgeon General's recommendations. The final plan sets eleven goals. Each of these goals is supported by a series of objectives and strategies in order to meet the goals of the plan (Texas State Plan for Suicide Prevention, 2008). Awareness is achieved through education campaigns in schools, community organizations and faith based initiatives. Following these guidelines, training plans can be developed to meet the needs of the community.

The Texas Suicide Prevention Plan Steering Committee drafted a white paper on suicide prevention in Texas. The impact of suicide on the health of communities was addressed:

"It is a problem for citizens of all ages and among all groups. It is a problem for the teenager who appears successful but whose inner life is black with despair. It is a problem for the counselor whose client has committed suicide. It is a problem for family members when their grandfather shot himself to death. It is a problem for the family of the teenager who has been talking about suicide and who feels especially distant one day. It is a problem for the policeman who has shot someone and finds that the dead subject was threatening with a toy pistol. It is a problem for the school when a loved student has just hanged himself. It is problem for us all."

(Texas State Suicide Prevention Steering Committee, 2002)

D. Cost of Suicide

Nationally, suicide represents an economic loss of \$25 billion a year. This cost has been conceptualized at two different levels, direct and indirect costs. Direct costs are felt mostly by health care service organizations and local law enforcement departments that perform autopsies and investigations. Indirectly, there is an economic loss of productivity. The direct costs added to the productivity loss result in an important economic impact. The specific cost

associated with suicide in Gillespie County will be studied as a deeper layer of this analysis (CDC, 2009b).

The Suicide Prevention Resource Center estimates the average medical cost per suicide case around \$4,042 and the average work-loss cost per case at \$1,207,369 through the years 1999-2005. The emotional costs to family, friends, and the community as a whole are the hardest to measure. Reducing the number and frequency of suicides within the community improves the mental health for all those affected directly and indirectly (Texas Suicide Prevention Fact Sheet, 2006).

Section III: Methods

A. Research Questions

The following basic questions were developed between the community and academic teams and served as the foundation for the suicide case study:

1. How is suicide different in Gillespie County?
2. How do community agencies perceive local suicide and is it a problem?
3. What are the contributing factors of suicide in Gillespie County?
4. What role does each agency have in responding to suicide-related deaths or intervening to prevent suicide attempts?
5. How do the community agencies work together to respond to suicide?
6. How well prepared is Gillespie County to address suicidal symptoms and/or incidence?
7. What can community agencies do to improve their ability to address suicide risks and incidence?

B. Data Collection

The types of data initially examined were population-based social indicator data. These data allowed for an overview of the community demographic characteristics and multiple important indicators of the health status of the County. However, these data were limited. TDSHS currently reports the number of deaths caused by suicide from 1999 to 2006. However, suicide age-adjusted rates are not available for Gillespie County due to the low numbers of suicide incidence. TDSHS also publishes Emergency Services/Trauma Registry data, which are based on passive surveillance of injury data from Texas hospitals. TDSHS warns that the aggregate totals “associated with each reporting year are in terms of hospitalizations and not necessarily in terms of patients.” Furthermore it explains that hospital admissions records are generated for each hospital visit (including transfers) and that suicide includes fatal and non-fatal injuries (TDSHS, 2009). The Department of Health & Human Services (DHHS) publishes county-specific Community Health Status Indicators Report. Within the report, age-adjusted suicide rates are reported, however, they are based on data from the National Center for Health Statistics, Vital Statistics Reporting System from 2001 to 2003 (DHHS, 2008).

Key informant interviews were conducted with the sponsorship of the TAB Health Board. Members developed a list of community agencies/members that could serve as potential key informant interviews and provide important insight for better understanding suicide within the County. TAB and Health Board members accompanied the University team to conduct some of the interviews. One-on-one interviews were conducted with representatives from the following agencies:

1. Gillespie County Sheriff's Department
2. Gillespie County Emergency Medical Services
3. Fredericksburg Mental Health Center
4. Hill Country Cares

Additional interviews were conducted with 1) a retired Emergency Room clinician 2) a group of mental health professionals including a well-respected independent licensed social worker and 3) a retired psychiatric social worker.

Emails were sent (and phone calls were made) to representatives of the Justice of Peace for Precinct 1 and Precinct 2. Each Justice of the Peace serves as the coroner for his/her respective precinct. Representatives from each precinct provided the number of deaths classified as due to suicide from 2001-06.

The Sheriff's Department and the Hill Country Memorial Hospital Emergency Room Department kindly provided additional quantitative data detailing the number of suicide-related services provided. The Sheriff's Department provided data for the years 2001 through November of 2009. The Emergency Department provided the number of suicide-related admissions data from January to November of 2009.

Section IV: Findings

A. Qualitative Analysis

Who does it and why?

All key informants independently noted that suicide seemed to be high in the County and that they felt that it followed the national norms. That is, mostly committed by young males, the elderly, people with mental illness, and those who are chronically ill and in debilitating pain.

"No one really wants to commit suicide. If they threaten to commit suicide it's because they are really asking for help."

Key Informant Interviewee

All key informants noted that they believe that there are sociocultural, environmental, and mental health factors to blame. Fredericksburg and Gillespie County are close-knit

communities. A death due to suicide is felt throughout the community and causes feelings of shame and embarrassment. People are careful to not give out too much private information because mental illness and suicide is perceived as being an embarrassing and frightening situation. This in itself makes conducting mental health promotion difficult in the County. Interviewees also expressed that they believed that some people may be prone to commit suicide because they do not have strong family foundations to help them deal with negative events in their lives.

Some mentioned environmental factors like the declining economy, “When people are out of work, they feel worthless...hopeless. Not having a job can be devastating to one’s self esteem.” This coupled with the high cost of living that some noted during their interviews could potentially cause someone to feel as if there is no hope.

Finally, several key informants noted that a permissive attitude toward alcohol seemed to contribute or exacerbate the risk of suicide for individuals facing stress or mental health issues, “Sometimes people self-medicate with drugs and alcohol. They may overdose and kill themselves. They do not mean to do it, but they do. It is a cry for help.”

How do community agencies work together to respond to suicide?

The key informant interviews yielded a better understanding of the process for responding to an attempted suicide.

Gillespie County Sheriff’s Department

The Gillespie County Sheriff’s Department covers 1100 miles in the County. It serves as the dispatch center for all 9-1-1 calls. Emergency calls are manned by highly-trained telecommunications operators who are experts at speaking with people in crisis. Members of the Law Enforcement are the first to arrive on the scene. The Police Department responds to calls in the Fredericksburg city limits and the Sheriff’s Department responds to calls in and outside of the city limits. When first arriving at a scene, Law Enforcement is responsible for securing the scene.

Fredericksburg Emergency Medical Services (EMS)

The local EMS Department serves Fredericksburg and Gillespie County. There are two EMS units staffed each day ready to respond to emergencies in Fredericksburg and Gillespie County. The towns of Harper and Doss have their own volunteer fire departments. The entire EMS Department is composed of 12 paramedics. When responding to a call for attempted suicide, EMS arrives at the scene after the Police or Sheriff’s Department has secured the scene. EMS will stabilize a patient and transport them to the local hospital.

Fredericksburg Mental Health Center (FMHC)

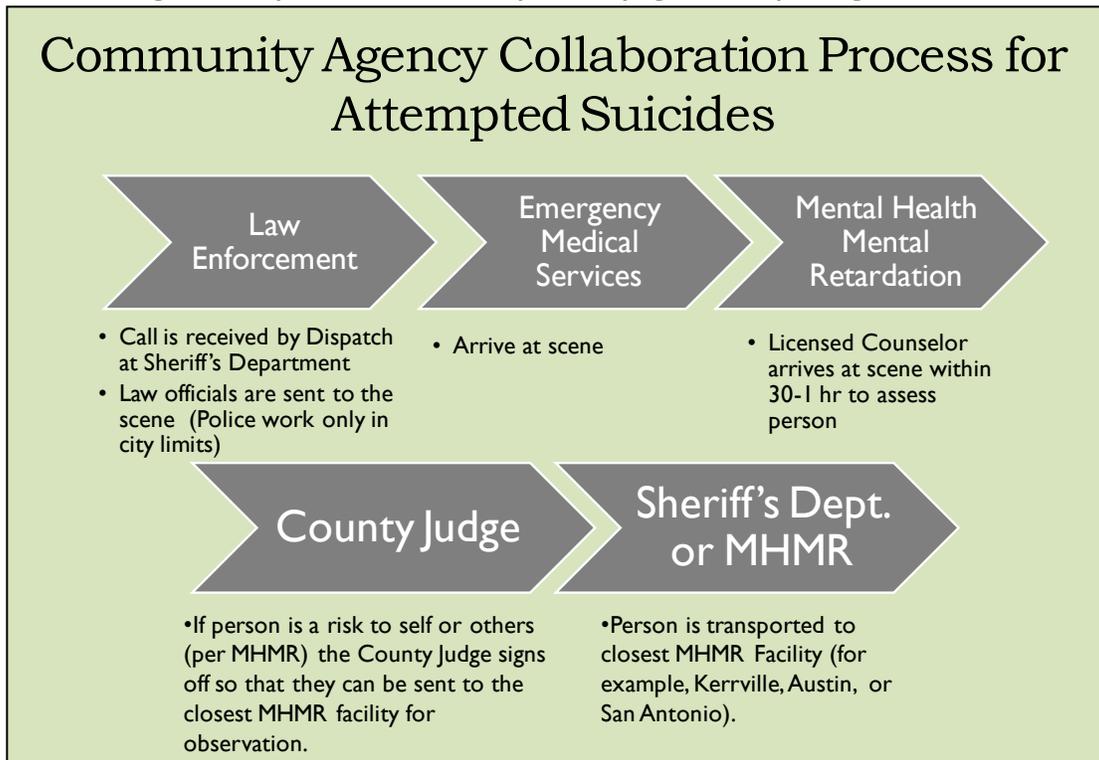
Hill Country Mental Health Mental Retardation (MHMR) provides crisis intervention services 24 hours a day, 7 days a week to 19 counties. The FMHC serves as the local MHMR agency. If a suicide attempt is made during the business hours of 8-5pm, a local licensed professional counselor from FMHC is called to the scene. After-hours a MHMR representative from the Hill Country MHMR is paged and called to the scene. These calls are oftentimes answered by professionals from Bandera, Boerne, or the next closest surrounding town. After a suicide attempt, FMHC conducts follow-up visits to ensure the mental health well-being and overall safety of Gillespie County residents.

“Some individuals attempt suicide and then deny it. It is important to follow-up with these people, because they are often the ones who will then carry out a suicide.”

Key Informant Interviewee

All of the key informants provided helpful information for better understanding the process for responding to an attempted suicide call. The information led to the creation of **Figure 3** which further details the process.

Figure 3: Response Process of Gillespie County Agencies Responding to Suicide



If attempts are made by people who are intoxicated, they are kept in the Law Enforcement

Building for “suicidal watch” until they are sober and can coherently speak to a MHMR representative. People who threaten to commit suicide are not kept at the County Jail. Rather, they are taken to Law Enforcement Building and placed in a room in the front where they remain under the supervision of a Deputy

How does suicide affect Gillespie County?

Suicide has an obvious emotional toll on families and communities. However, suicide also affects the functionality of other local community organizations. For example, the Sheriff’s Department is manned by three deputies at any given time. If an officer is called to respond to a suicide, two of the three deputies will be sent to the scene, thereby leaving only one to respond to other calls. The EMS Department reported that for most ambulance runs, patients will pay their bills only about 12% of the time. Most EMS calls require trauma response. Basic trauma response runs approximately \$750 per suicide attempt; severe trauma response that requires air evacuation can run up to \$10,000 per suicide attempt.

Community Resources

Gillespie County has a comprehensive system of care and management for suicide –related injuries. However, key informant findings present a concern that many residents are not aware of available services to early identify and possibly prevent a successful suicide attempt. Fredericksburg lacks a full-time psychiatrist or psychologist to provide treatment and long term care. Key informants reported wait times of over a month to see a mental health professional. Many reported that community members go to their primary care physicians to seek treatment for their mental health problems. Informants also noted that local family practice doctors were reluctant to prescribe medications for mental health issues due to both discomfort with the variety of medications and the dosages required. At-risk individuals are referred to Kerrville or to San Antonio for treatment. Mental health specialists interviewed expressed that most chronically-depressed patients are under the care of general practitioners and are under-medicated. They expressed that these patients need a combination of drugs. General practitioners may feel that mental health is out of their scope and are attempting to play it safe. Other community assets in place include the Kerrville State Hospital. The Kerrville State Hospital is one of ten mental health facilities operated by the Texas DSHS system. Eighteen of 202 beds were once dedicated for crisis stabilization. Now all 202 beds in the facility are dedicated to patient forensic observation (University of Texas Health Sciences Center at San Antonio Libraries, 2008). Individuals will only be admitted to the Kerrville State Hospital if they have bi-polar disorder, schizophrenia, or chronic depression.

Suicide crisis telephone numbers are overseen by the Kerrville State Hospital. Other national hotlines and crisis services are available such as the National Hopeline Network (1-800-SUICIDE) which provides 24-hour service to its callers. The National Hopeline Network immediately connects callers to the closest suicide crisis center (Kristen Brooks Hope Center, 2009). Another

national resource is the National Suicide Prevention Lifeline (1-800-273-TALK). This hotline is available twenty-four hours a day and connects callers to the closest possible provider of mental health and suicide prevention services (National Suicide Prevention Lifeline, 2009).

B. Quantitative Analysis

Suicide was listed among several health-related areas as possible health concerns on the 2009 CHS. However, it did not rank as one of the greatest community concerns. Other mental health-related concerns such as substance abuse, mental health services, physical violence/abuse, and support for families in crisis did rank highly as community health concerns (See Table 7 of Report 1: Community Health Survey).

The following charts and graphs, represent an in-depth analysis of various sources of secondary and primary data pertaining to suicide demographics, injury methods, causal factors, hospital emergency room admissions and inpatient discharges. These data provide information that illustrate the extent of the growth trend for suicide deaths and attempts over time.

Currently the Texas Department of State Health Services (TDSHS) provides extant data for the number of deaths attributed to suicide through 2006. **Table 16** details the number of suicides these data.

Table 16: Suicide Deaths in Gillespie County, 2003-06

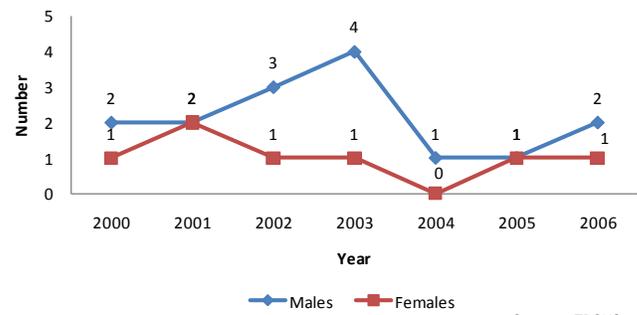
Year	Total Number of Deaths	Total Number of Suicides	Total % of Deaths from Suicide
2003	280	5	1.8
2004	279	1	0.4
2005	328	2	0.6
2006	270	3	1.1
Total	1,157	11	0.9

Source: TDSHS 2003-06

According to the information contained in **Table 16**, a total of 11 suicides have occurred in the County from 2003-2006. All of these reported deaths occurred via the use of firearms. In addition, all of these deaths occurred among whites and 72.7% (N=8) occurred among males. The 11 suicide deaths in Gillespie County comprise 0.95% of all deaths. Although this is less than one percent of all deaths, we feel that health concern still needs to be further addressed.

Figure 3a provides the number of reported suicides by the sex of the victim. According to the information in the graph, from 2000 through 2006, males were most likely to commit suicide.

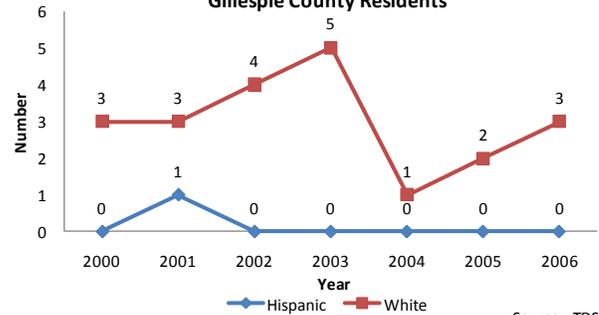
Figure 3a: Reported Suicides by Sex in Gillespie County



Source: TDSHS

Figure 3b provides the race/ethnicity of Gillespie County suicide victims for the years 2000-06 per TDSHS. According to the information in the graph, all but one victim was non-Hispanic white.

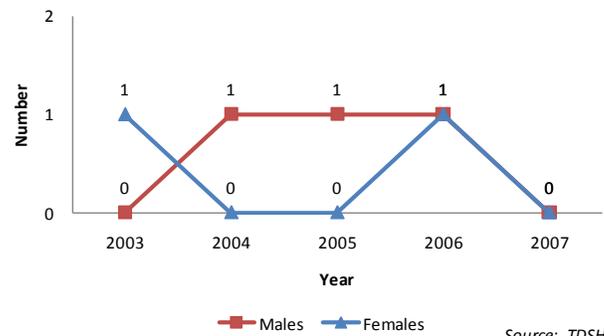
Figure 3b: Reported Suicides by Race/Ethnicity of Gillespie County Residents



Source: TDSHS

TDSHS also provides some data for the number of self-inflicted injuries caused by suicide for the years 2003-07. **Figure 3c** summarizes these data by sex. According to the table in the graph, three of the attempts were among females, versus two among males.

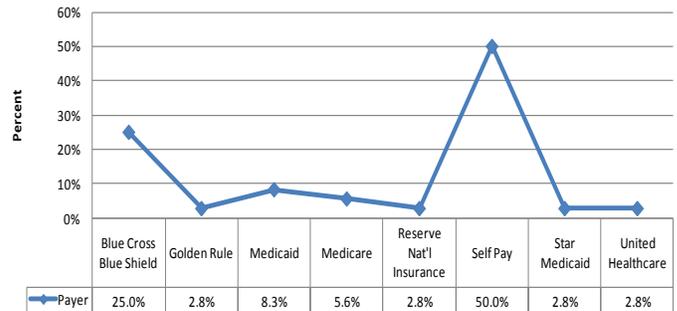
Figure 3c: Self-Induced Injuries by Sex in Gillespie County



Source: TDSHS

The sources of payment for attempted suicide Emergency Room (ER) patients as reported by the Hill Country Memorial Hospital during 2009 are included in **Figure 3a**. Self pay patients accounted for half of all attempted suicide admissions. The average length of stay was one day for patients ranging in age from 11 to 74 years. The maximum hospital stay was 7 days.

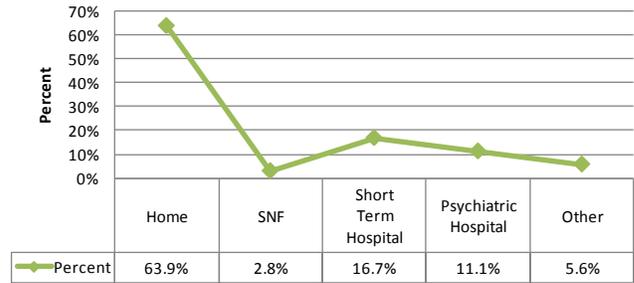
Figure 3a: Source of Payment for Hill Country Memorial Hospital Attempted-Suicide Emergency Room Patients 2009



Source: Hill Country Memorial Hospital 11/2009

Figure 3b shows the discharge disposition of Hill Country Memorial Hospital attempted suicide Emergency Room patients during 2009. Over 60 % of those patients were discharged to a home address. Approximately 30% of those ER patients were discharged to a hospital setting for either acute medical or psychiatric inpatient care and observation.

Figure 3b: Discharge Disposition of Hill Country Memorial Hospital Attempted-Suicide Emergency Room Patients 2009



Source: Hill Country Memorial Hospital 11/2009

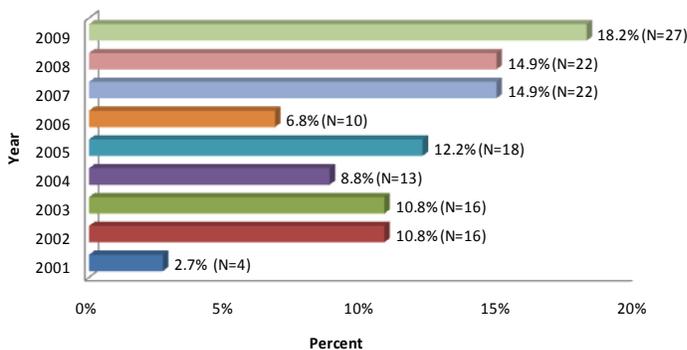
Table 21: Description of Attempted Suicides in Gillespie County

Variable	Number	Percent
Race/Ethnicity	147*	100.0%
Hispanic	12	8.2%
White	135	91.8%
Sex	147*	100.0%
Female	83	56.5%
Male	64	43.5%
Method	143*	100.0%
Alcohol	2	1.4%
Bleach	1	0.7%
Car	2	1.4%
Drugs	7	4.9%
Firearms	17	11.9%
Hanging	11	7.7%
Jumping	1	0.7%
Knives	32	22.4%
Pills	70	49.0%

Source: Gillespie County Sheriff's Department *Total does not include missing data

Table 21 is a breakdown of suicide attempts by race and ethnicity, sex and method as reported by the Gillespie County Sheriff's Department for the years 2001-2009. Approximately 92% of the suicide attempts were made by Whites. This statistic reflects the majority racial demographic of non-Hispanic whites residing in the County. Approximately 57% of those attempts were made by females and the use of knives and pills represent a combined method of choice at slightly over 70%.

Figure 3: Suicide Intents in Gillespie County 2001-09



Source: Gillespie Sheriff's Department 11/2009

Figure 3c illustrates a progressive and steady increase in the number of attempted or intended suicides in the County from 2001-2009.

Table 22 shows the various transport decisions made by the Gillespie County Sheriff's Department for persons who made a suicide attempt during the period of 2001-2009. The vast majority, over 65%, of those persons were transported to the Hill Country Memorial Hospital ER. Approximately 14% of those persons determined to be suicidal were transported to the Law Enforcement Building for further observation and protective custody. The number of law enforcement officers responding to a suicide call ranged from 1 to 13. The higher number of officers present during a suicide attempt was likely associated with the presence of a weapon and/or other severe circumstances where others were endangered. The average number of officers who responded to an attempted suicide is 3.

Table 22: Supervised Transport by Sheriff's Dept. of Individuals Who Attempted Suicide in Gillespie County 2001-09

Site	Number	%
Home	8	5.8%
Jail	1	0.7%
Law Enforcement Bldg.	19	13.8%
Emergency Room	90	65.2%
Austin	8	5.8%
Kerrville	12	8.7%
Total	138*	100.0%

Source: Gillespie County Sheriff's Department
 *Total does not include missing data

Table 23: Seasonality of Attempted Suicides in Gillespie County 2005-09

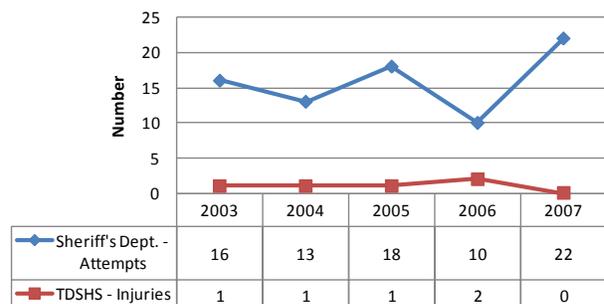
Month	2005	2006	2007	2008	2009
Jan	17%	30%	0%	9%	11%
Feb	22%	10%	5%	5%	4%
Mar	0%	20%	9%	0%	19%
Apr	11%	0%	0%	18%	11%
May	17%	0%	5%	9%	26%
Jun	0%	10%	18%	5%	7%
July	6%	10%	9%	9%	4%
Aug	6%	0%	23%	5%	0%
Sept	6%	0%	9%	0%	7%
Oct	0%	0%	14%	9%	7%
Nov	11%	10%	5%	14%	4%
Dec	6%	10%	5%	18%	

Source: Gillespie Sheriff's Department 11/2009

Table 23 shows the seasonal record of attempted suicides in Gillespie County during years 2005-2009. Although most of the attempts occurred during the first six months of the years, there does not appear to be a distinct pattern for seasonality. This contradicts what some key interviewees expressed in that they felt that there was increase in suicide attempts during the holidays.

Figure 3d summarizes the number of suicide attempts and related injuries in Gillespie County per the Sheriff's Department and TDSHS for the period 2003-2007. The number of suicide attempts doubled (10 to 22) between 2006 and 2007. It is important to note that not all suicide attempts may necessarily result in an injury.

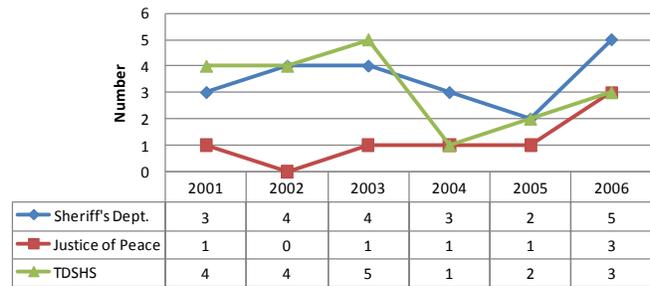
Figure 3d: Reported Suicide Attempts and Injuries by Agency in Gillespie County 2003-07



Source: Gillespie Sheriff's Department and TDSHS

The number of deaths caused by suicide per the Sheriff's Department, Justices of Peace Precincts 1 and 2, and TDSHS from 2001-06 are summarized in **Figure 3e**. Although the actual recorded suicide-related deaths remained relatively small during the reporting period, note that there is an inconsistency between the three agencies.

Figure 3e: Reported Suicides by Agency in Gillespie County 2001-06



Source: Gillespie Sheriff's Department, Justice of Peace Precincts 1 & 2, TDSHS

Section V: Discussion

As seen in the results of the Community Health Survey (CHS), suicide was listed as one of the possible health-related concerns for the County. However, it did not rank as one of the greatest community concern. Respondents ranked substance abuse, mental health services, physical violence/abuse, support for families in crisis and health care as the top five areas of highest concern. These five areas are consistent with field notes recorded during key informant interviews. Also, the results of the CHS indicated that community leaders felt that community resources targeting suicide prevention are mostly only partially supported (46%).

Key informant interviews led to the identification of four main themes:

Figure 3: Themes from Key Informant Interviews with Representatives of Gillespie County Community Who Respond to Suicide

1. The number of suicides is perceived to be high.
2. There is a lack of preventative community mental health services in Gillespie County.
3. After a suicide is attempted, the county is very capable to respond quickly and competently to crisis care. However, long term support and follow up is not available or under resourced.
4. Suicide is very costly to the community, both in the burden placed on local law enforcement and social service agencies, and on the community members who deeply feel the impact of each suicide.

Gillespie County has a comprehensive system of care and management for suicide –related injuries. However, key informant findings present concerns that many residents are not aware of available services to early identify and possibly prevent suicide.

As seen in **Figure 3a**, the sources of payment for suicide-related hospital admissions are mostly self-pay. One should stop to wonder, how this not only financially impacts the hospital, but the community as a whole. Patients who require hospital admission for attempting suicide obviously need some sort of mental health intervention. One can assume that those who are

“self-pay” are more likely to not have access to mental health services because they are uninsured. Related to this, it was discovered in the findings that approximately 64% of patients admitted to the ER for suicide are then sent home with no follow-up care. Is this because 1) they do not have a health insurance or 2) they do not have health insurance that covers mental health treatment? What are the ramifications of sending individuals who have attempted suicide home and not providing them follow-up care?

Table 21 summarized attempted suicides. It was seen that the majority of attempts were made by non-Hispanic whites. Females were more likely to attempt suicide; however, males were more likely to actually follow through with the suicide attempt. The methods of choice were pills, knives, and firearms. As a preventative measure, investigations could be conducted to find out who in the community has access to knives and firearms. In addition, analysis of the types of pills used could be done. Are individuals attempting suicide with over-the-counter or prescription pills?

The US Department of Health & Human Services has designated Gillespie County as a Health Professional Shortage Area (HPSA) for mental health. It also estimates that between a ratio of 1:6500 to 1:10000 psychiatrist population is needed to meet the needs of a community (2010). Currently there is not a full-time psychiatrist in Gillespie County to strengthen the existing system of therapeutic treatment for people with severe mental illness who may be contemplating suicide.

The community should also keep in mind that it is necessary to address the needs of those with less severe mental health problems. There are “natural” leaders within the community who have the knowledge, expertise, and most importantly are committed to preventing suicide in the community. These leaders include people from the clergy, school districts, youth-serving organizations in addition to the many existing mental health professionals in town such as the social workers and licensed counselors.

One can see that responding to suicides causes strain on available resources, particularly on the Sheriff’s Department. The majority of the transports made by the Sheriff’s Department were to the local hospital. However, 15% of the transports were made to out-of-town facilities. All of these transports may have not been reported. During the key informant interview conducted with the Sheriff’s Department, the interview team was told that there was a particular incident in which a person had to be taken to Corsicana, Texas because the Kerrville State Hospital did not have space for this person.

Based on the comparative review and analysis of the following data, it can be concluded that there is a basis for concern regarding the steady annual rise in the number of suicide attempts and successful suicide occurrences over the decade. Although the actual numbers for both attempts and deaths are relatively small in relation to the population size of Gillespie County, the data provide significant documentation to support community efforts to reduce suicide-related incidence.

Finally, as the graphs indicated, there appears to be an inconsistency in the reported number of

suicides. The number of deaths caused by suicide is inconsistently reported by the Gillespie County Sheriff's department, the Gillespie County Justices of the Peace Precincts 1 & 2 (coroner) and TDSHS. This is something that should be addressed. Doing so may allow the community to better allocate its current resources to address the problem with a community-based approach. The inconsistent data could be attributed to lag time in the various data management and reporting stages and other factors that should be further explored.

Section VI: Recommendations

The following is a list of the recommendations made to the TAB and the Health Board so that they and the community of Gillespie County are better able to respond to suicide.

"The County is ready to respond after the fact. I don't know if they're ready to respond to the symptoms."

Key Informant Interviewee

1. Local and regional suicide-related agencies who work to prevent or respond to service should work cooperatively to improve the accuracy, consistency and reliability of systems used to track and report suicide attempts and deaths.
2. Improve interagency communication, coordination and collaboration for established procedures for responding to suicide-related crisis calls and the application of appropriate interventions of a suicide episode.
3. To reduce the number of reoccurring suicide attempts, follow-up protocols should be better established between all agencies that respond to suicide.
4. Think about the benefits of recruiting a full-time psychiatrist for those suffering from severe mental illness. Or to meet the needs of people with symptoms or less severe forms of mental illness, think of ways to better utilize the talents of current "natural" mental health leaders such as people from the clergy, school districts, youth-service organizations, and existing mental health professionals such as social workers and licensed counselors.
5. The TAB and the Health Board should work in partnership with the Hill Country Community MHMR in order to obtain information about the 1) crisis hotline calls and 2) admissions to the Crisis Stabilization Unit.
6. It is recommended collaborations be built with other partner organizations, who can initiate a health promotion campaign to improve community-wide awareness of the full continuum of care service system for suicide-related risk and behaviors.

Section VII: Limitations

The main limitations encountered during the course of this case study were related to the availability of certain types of data. State and local data sources are scarce, inconsistent, and/or not up to date. Additional data from other local resources would have allowed for a more in-depth look at suicide in the County. For example, the number of suicide-crisis calls, the number of admissions to the Kerrville State Hospital, and additional historical and demographic data reflective of ER hospital admissions would have been useful.

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Appendix B: Suicide and Prevention Programs

National Suicide Prevention Programs

1. American Indian Life Skills Development/Zuni Life Skills Development
2. CARE (Care, Assess, Respond, Empower)
3. CAST (Coping and Support Training)
4. Columbia University TeenScreen
5. Lifelines
6. Emergency Room Intervention for Adolescent Females
7. ER Means Restriction Education for Parents
8. Reduced Analgesic Packaging
9. PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial)
10. SOS Signs of Suicide
11. United States Air Force Suicide Prevention Program

Treatment Programs

1. Cognitive Behavioral Therapy for Adolescent Depression
2. Dialectical Behavior Therapy
3. Psychotherapy in the Home
4. Multisystemic Therapy With Psychiatric Supports (MST-Psychiatric)