Data and Suicide Prevention: A Statewide Update

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Overview

- Data Interpretation
  - Review of Relevant Terms
  - Key Points for Interpreting Data

- Statewide Suicide Prevention Data
  - Mortality Data
  - Hospitalization Data
  - Texas Poison Control Network Data
  - Youth Risk Behavior Survey Data
  - Behavioral Risk Factor Surveillance System Data
Review of Relevant Terms

- Mortality – Death
- Mortality rate - calculated by dividing the number of deaths in a population by the number of people in that population and multiplying by 100,000
- Morbidity - sickness, such as ideation, hospitalizations, ED visits, or attempts as it relates to suicide
- Suppression – a method of protecting the confidentiality of individuals through the masking of data, protected by law in many cases
Overview of Data Interpretation

- Higher is worse, lower is better
- Rates can be compared, numbers cannot
- Two data points do not make a trend
- Census vs. sample
- Bias and/or self selection
- Anecdotal vs. generalizable
- Weighting data
- Statistical significance
- Correlation vs. causality
Texas Suicide Mortality

**National Center for Health Statistics at the CDC**

- Data is available yearly, with a two-year delay.
- All death certificates in Texas residents where suicide is the manner of death.
- In 2019 and 2020, Texas rates remained the same at 13.4 deaths per 100,000 population.
- The 2021 rate increased to 14.2 deaths per 100,000 population.
- Looking at rates by sex, simple urbanization, and race and ethnicity.
Texas Suicide Mortality by Sex, 2000-2021

Source: CDC WONDER
Texas Suicide Mortality by Urbanization, 2000-2021

Source: CDC WONDER
Texas Suicide Mortality by Race and Ethnicity, 2000-2021

Source: CDC WONDER
Hospitalizations for Suicide Attempt

Texas Health Care Information Collection (THCIC) at the Texas Department of State Health Services (DSHS)

- Data available quarterly, nine months after the end of the quarter.
- Overall Texas rates of both inpatient hospitalizations and outpatient emergency department (ED) hospitalizations.
- ED visits that resulted in admission to the hospital not included in ED numbers.
- Suppression complicates and biases analysis by many variables.
Texas Inpatient Hospitalizations for Suicide Attempt, 2000-2021

Source: Texas Health Care Information Collection, DSHS
Texas Emergency Department Outpatient Hospitalizations for Suicide Attempt, 2016-2021

Source: Texas Health Care Information Collection, DSHS
Texas Emergency Department Outpatient Hospitalizations for Suicide Attempt by Age Group

Source: Texas Health Care Information Collection, DSHS
Suspected Suicide Attempt
Calls to Poison Control

Texas Poison Control Network (TPCN) at DSHS

- Data available in real time.
- Calls received from EMS, emergency departments, doctor’s offices, and general public.
- Calls are coded by location of call, not residence of subject, so local rates are not possible.
- Looked at calls concerning 13–to 19-year-olds and 6-to 12-year-olds by sex.
Suspected Suicide Calls to Texas Poison Control Network Concerning 6- to 12-year-olds, 2010-2022

Source: Texas Poison Control Network, DSHS
Suspected Suicide Calls to Texas Poison Control Network Concerning 13- to 19-year-olds, 2010-2022

Source: Texas Poison Control Network, DSHS
Suspected suicide calls to Texas Poison Control Network concerning 13- to 19-year-olds females by month, 2020-2023*

Source: Texas Poison Control Network, DSHS
Suicide in Texas High School Students

Youth Risk Behavior Survey (YRBS) at DSHS

- Biennial survey with data available about five months after survey administration ends.
- Random sample of classrooms in a random sample of Texas high schools.
- Monitors behaviors that increase risk for the leading causes of morbidity and mortality in adolescence and adulthood.
- Five questions concerning suicidal behavior.
- Because of sampling methodology, it cannot be broken down geographically.
High School Students Mental Health Measures, Texas and the U.S. in 2021

Source: National and Texas Youth Risk Behavior Surveys, CDC & DSHS
High School Students who Attempted Suicide in the Past 12 Months, Texas and the U.S.

Source: National and Texas Youth Risk Behavior Surveys, CDC & DSHS
Texas High School Students who Attempted Suicide in the Past 12 Months by Self-Identified Sexual Orientation

Source: Texas Youth Risk Behavior Survey, DSHS
Behavioral Risk Factor Surveillance System

Data available for combined rates 2016-2018

• Suicidal ideation data.

• Data analyzed by age and disability status.

• Relatively low prevalence did not allow for analysis by location, veteran status, gender identity, or suicide attempt.
Suicidal Ideation by Young Adult and Adult in Texas, combined 2016-2018

Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) at DSHS Combined 2016-2018 data
Suicidal Ideation by Age Group and Disability Status in Texas combined 2016-2018

Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) at DSHS Combined 2016-2018 data
Summary for Q&A

• Data interpretation is improved with a few key concepts.

• Suicide rates are rising in Texas.

• The pandemic had a detrimental effect on the mental health of some of our most vulnerable populations.
Thank You

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