

# Suicide



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**“Yet suicide is tangential to reason and consideration and is almost always an irrational choice, the seemingly best way to end the pain, the futility, the voices or the hopelessness.”**

- Kay Redfield Jamison

# Road Map

- Introduction
- History
- Myths and Truths
- Statistics
- Risk Factors
- Biology
- Treatment & Prevention

# By the end of this lecture...

- Define what is meant by suicide.
- State 2 reasons why suicidal ideation or behavior might manifest.
- State 4 myths regarding suicide.
- List 4 risk factors for suicide.
- State 5 possible questions one might ask during a lethality assessment.

# Introduction: What is a suicide?

- CDC definition:
  - “death from injury, poisoning, or suffocation where there is evidence (either explicit or implicit) that the injury was self-inflicted and that the decedent intended to kill himself/herself.”

# Some Points to Consider

- Suicide risk factors are useful in identifying at risk groups, but less so for at risk individuals.
- Can be seen as a problem solving strategy when emotional or physical pain is thought to be
  - Intolerable
  - Inescapable
  - interminable

# The Role of Suicidal Behavior

- Suicidal behavior is an extreme form of emotional avoidance
  - It may be exhibited to gain control over unwanted:
    - Feelings
    - Thoughts
    - Memories
    - Physical sensations

# History

- “Altruistic” suicide in Inuit, Norse, and Samoan cultures.
- Some Ancient Greeks believed that control over death was honorable.
  - Hannibal poisoned himself to avoid capture.
  - Socrates drank hemlock rather than deny his teachings.

# The Death of Socrates by Jacques-Louis David

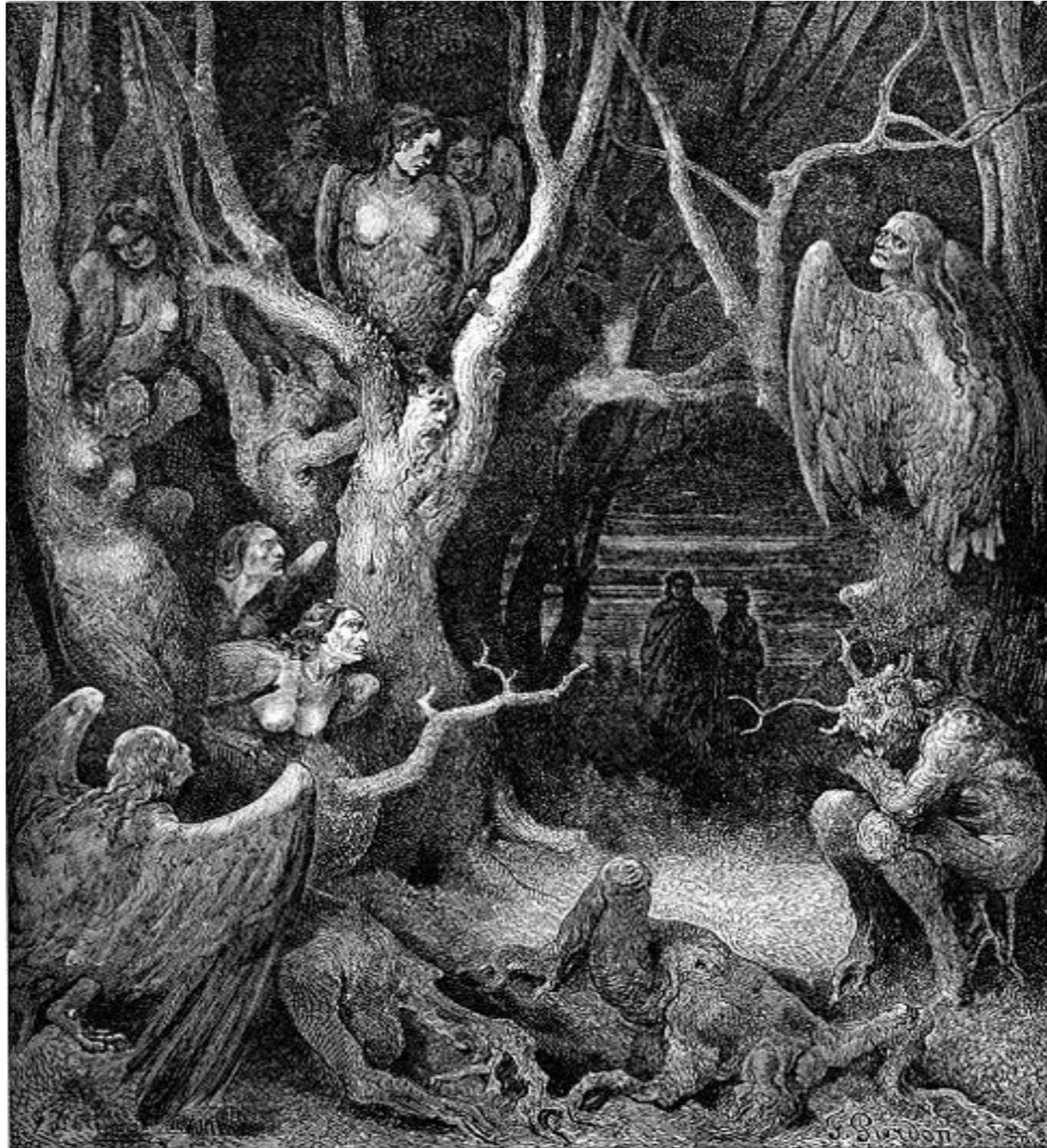


# History

- In Dante's *Inferno*, suicides are punished in the eighth circle of Hell.
- They were represented as gnarled trees constantly attacked by birds.



# Forest of Suicides



# History

- Suicides used to be buried at crossroads.
- It was believed that traffic kept “the corpses down.”
- Some religions disapprove of suicide, as seen in Dante’s example.

# Famous Suicides

- Edwin Armstrong (creator of FM radio)
- Kurt Cobain (?)
- Elliott Smith (?)
- Nick Drake
- Sylvia Plath
- Robin Williams
- Ernest Hemingway

# Myths & Truths

- **Myth: People that talk about suicide will not commit suicide.**
- Truth: 1/3 visit physicians in the week prior.

# Myths & Truths

- Myth: **Suicide happens in a single disease.**
- Truth: Suicide happens in mood disorders, schizophrenia, some personality disorders, and medical illness.
  - 90% of people who die by suicide have a treatable psychiatric condition.
  - However, most people with mental illness **do not** die by suicide.

# Myths & Truths

- Myth: **Suicide is related to the moon, weather, etc.**
- Truths
  - Most suicides occur between 7am & 4pm.
  - In hospitals, between 5am & 7am.
  - There is no correlation with holidays.
  - Suicides peak in May-June.
  - Decrease in seasonality due to modernization.

# Myths & Truths

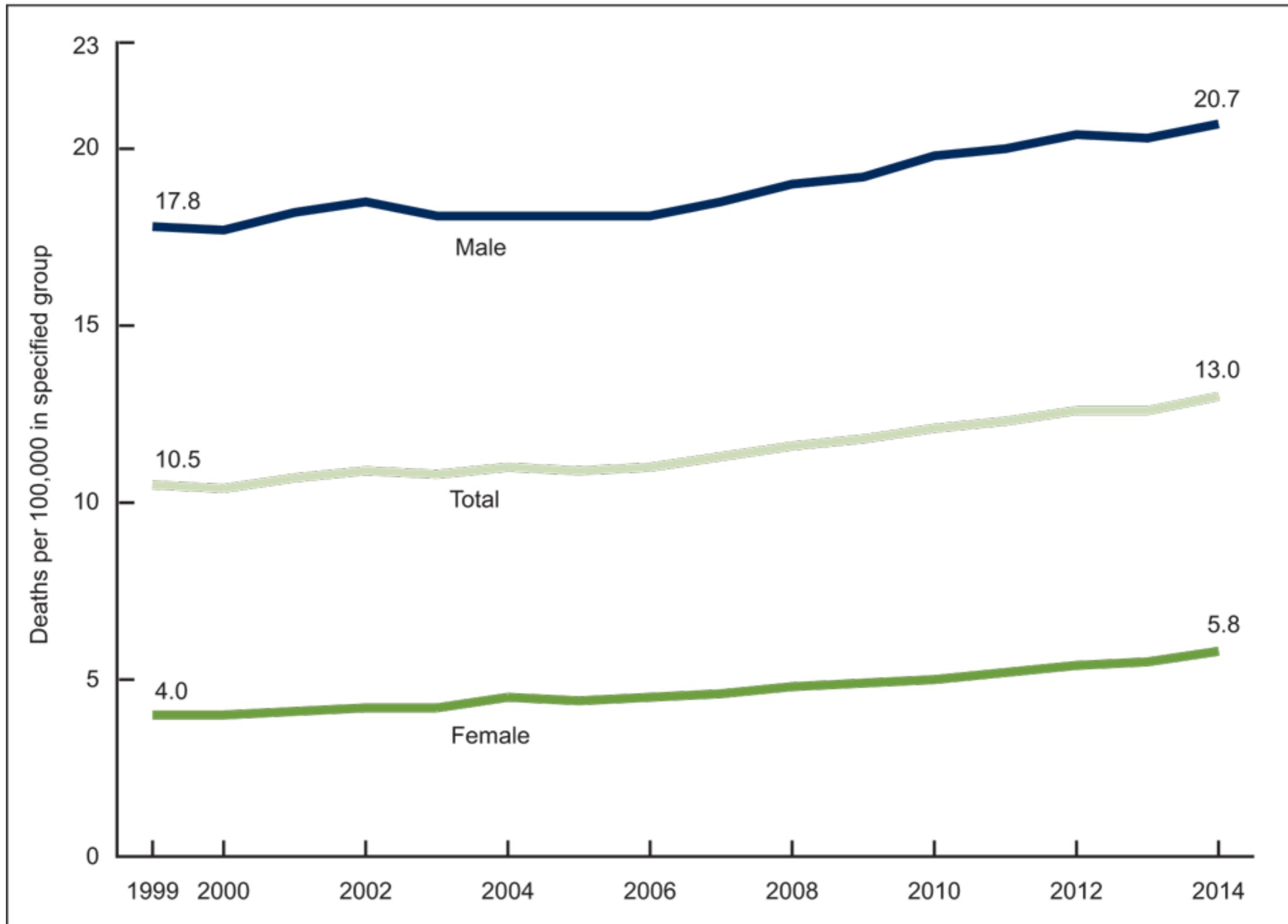
- **Myth: There are specific factors that foretell suicidal behavior in an individual and there is a correct intervention that will prevent suicide.**
- Truth: Very little research supports these beliefs.

# General Statistics

- 10<sup>th</sup> cause of death in US.
- Suicide rate has been increasing with a 24% rise from 1999-2014.
- **47,173** suicides in US per year in 2017.
- In 2017 Montana was number one for suicides per capita. NY was 50<sup>th</sup>.

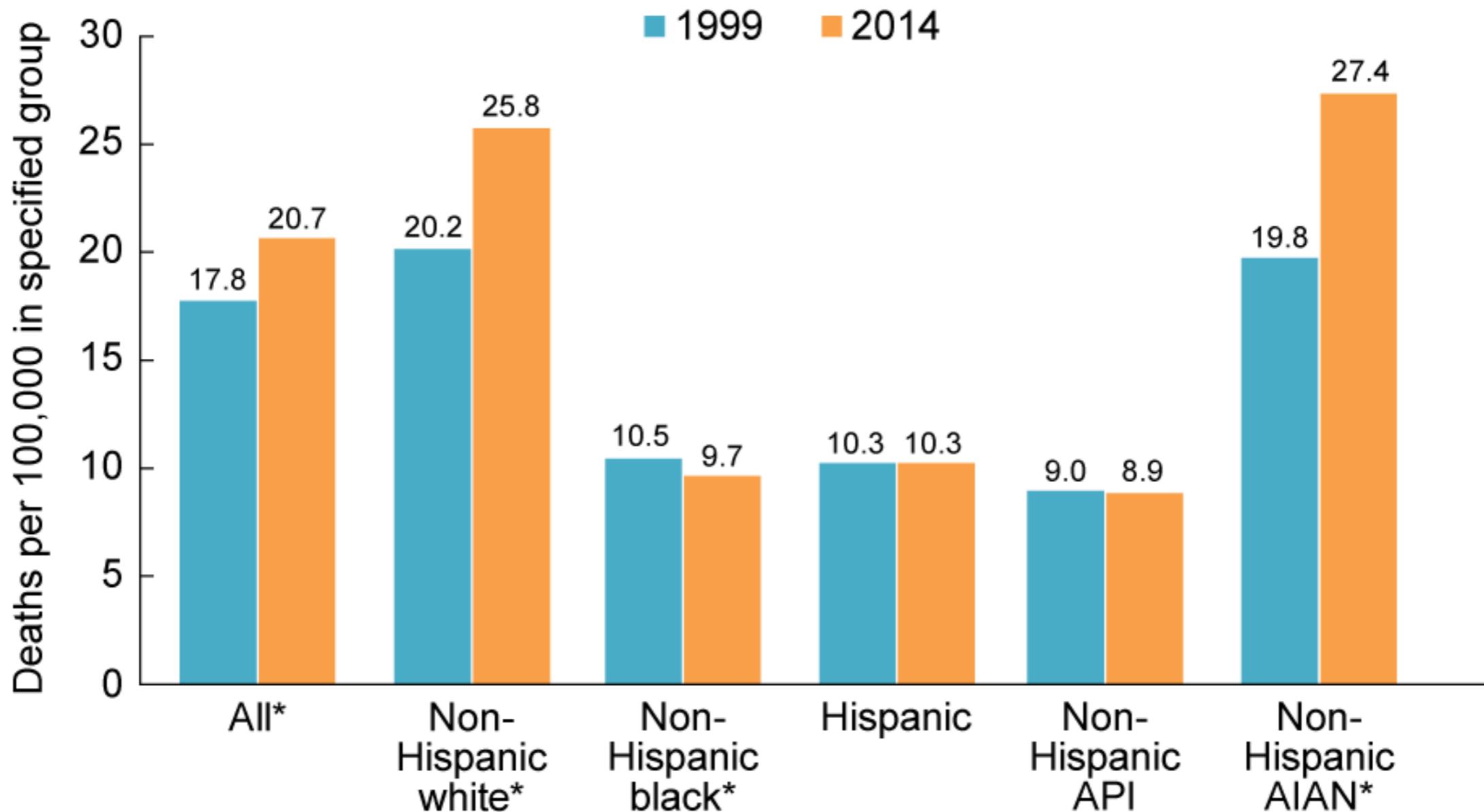
# Suicide Rate

Figure 1. Age-adjusted suicide rates, by sex: United States, 1999–2014



# Rates by Race, Male

Figure 2. Age-adjusted suicide rates for males, by race and Hispanic origin: United States, 1999 and 2014



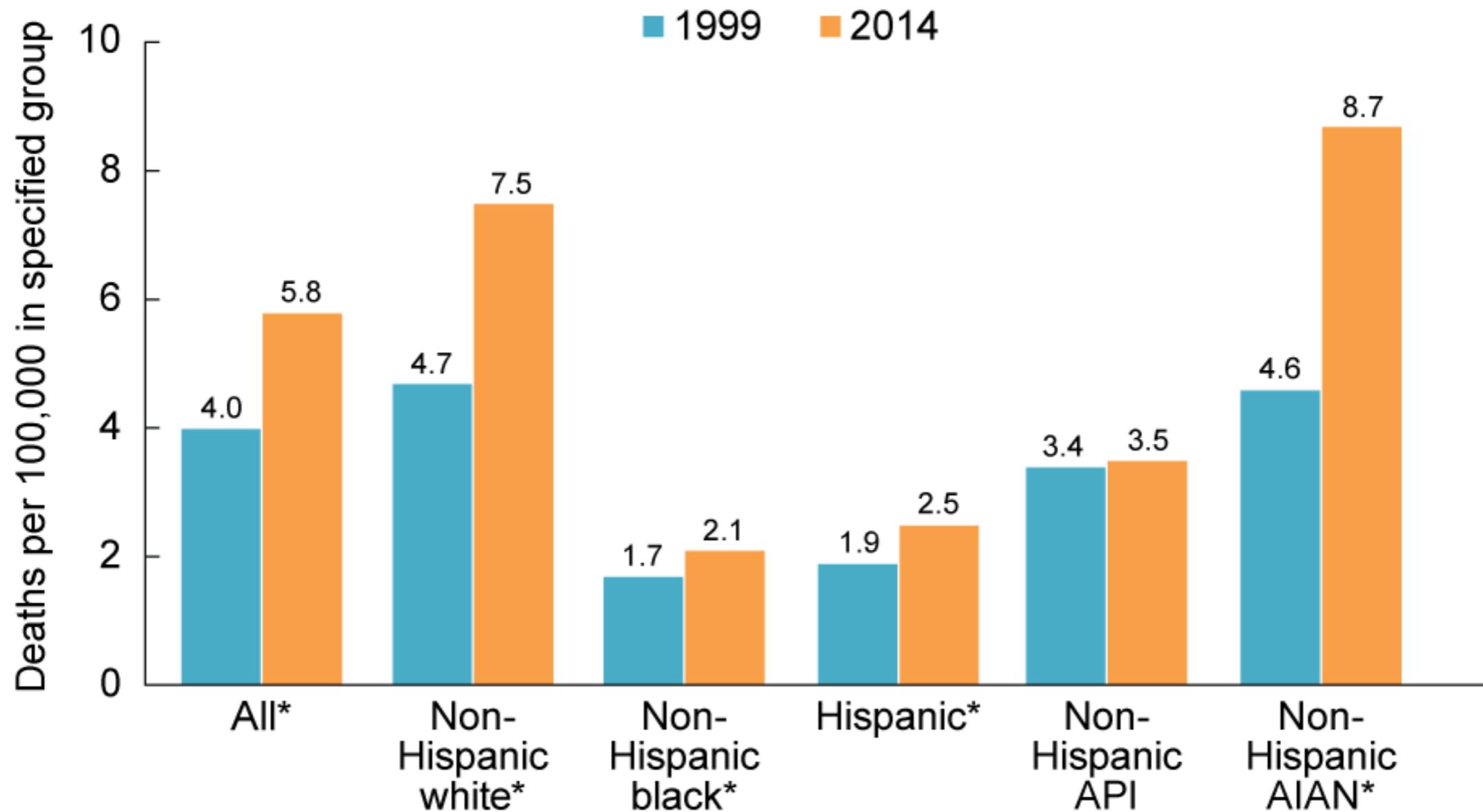
\* Difference in rates between 1999 and 2014 was significant ( $p < 0.05$ ).

NOTES: Suicide is identified with ICD-10 codes U03, X60–X84, and Y87.0. Death rates for non-Hispanic American Indian or Alaska Native (AIAN), non-Hispanic Asian or Pacific Islander (API), and Hispanic persons may be underestimated and should be interpreted with caution; see Data source and methods.

SOURCE: NCHS, National Vital Statistics System mortality data, 1999 and 2014, available from: [CDC WONDER online database](https://wonder.cdc.gov/).

# Rates by Race, Female

Figure 1. Age-adjusted suicide rates for females, by race and Hispanic origin: United States, 1999 and 2014



\* Difference in rates between 1999 and 2014 was significant ( $p < 0.05$ ).

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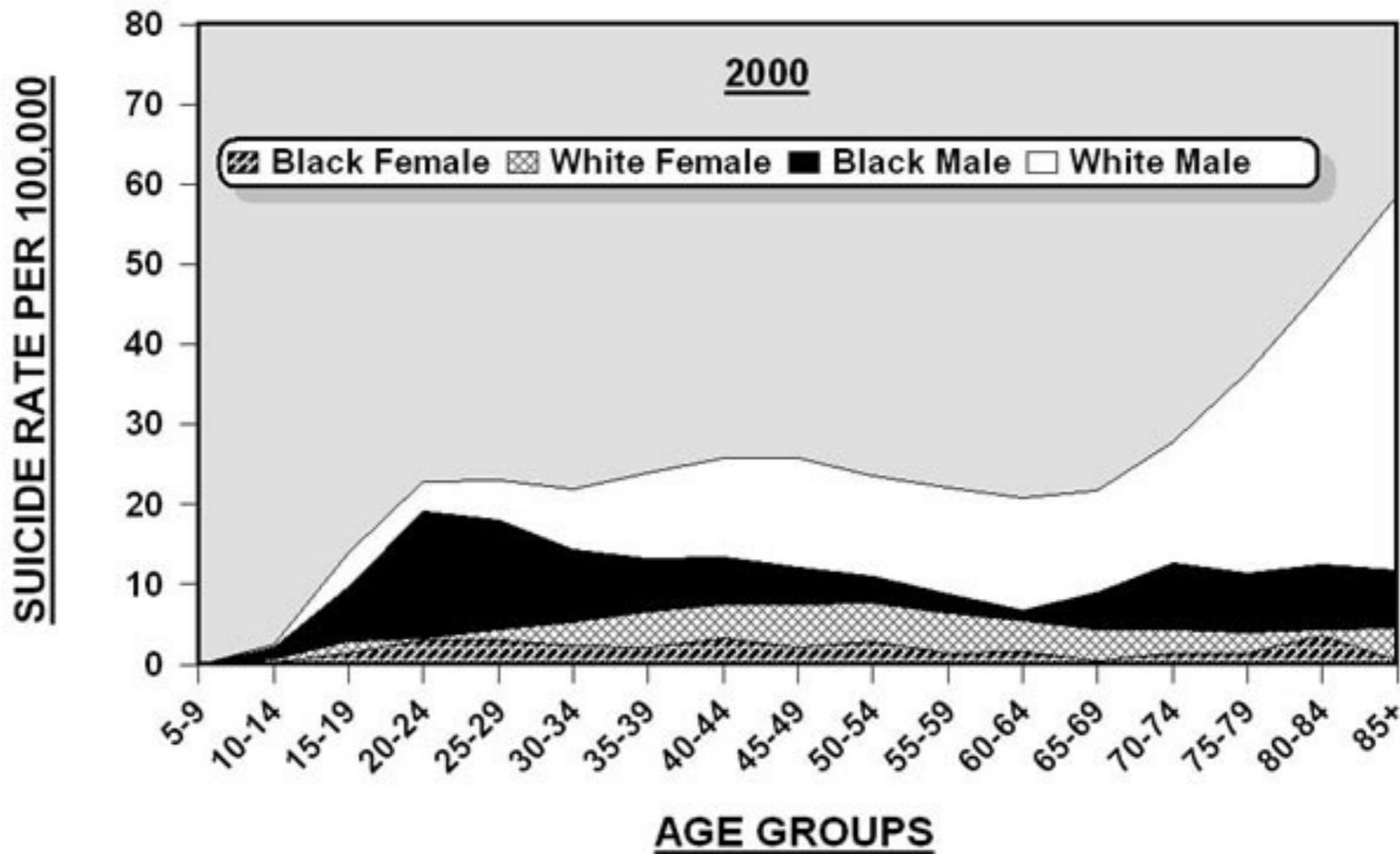
# Statistics: The Young

- 2<sup>nd</sup> cause of death for young in US 15-24 (accidents #1).
- Although based on a small number of suicides compared with other age groups (150 in 2014), the suicide rate for females aged 10–14 had the largest percent increase (200%) during the time period

# Statistics: Elderly

- Suicide rates for men rise significantly after age 65.
- Undiagnosed depression is a major cause of suicide in the elderly.
- Elderly have rates 50% higher than nation as a whole.

# Statistics: The Elderly

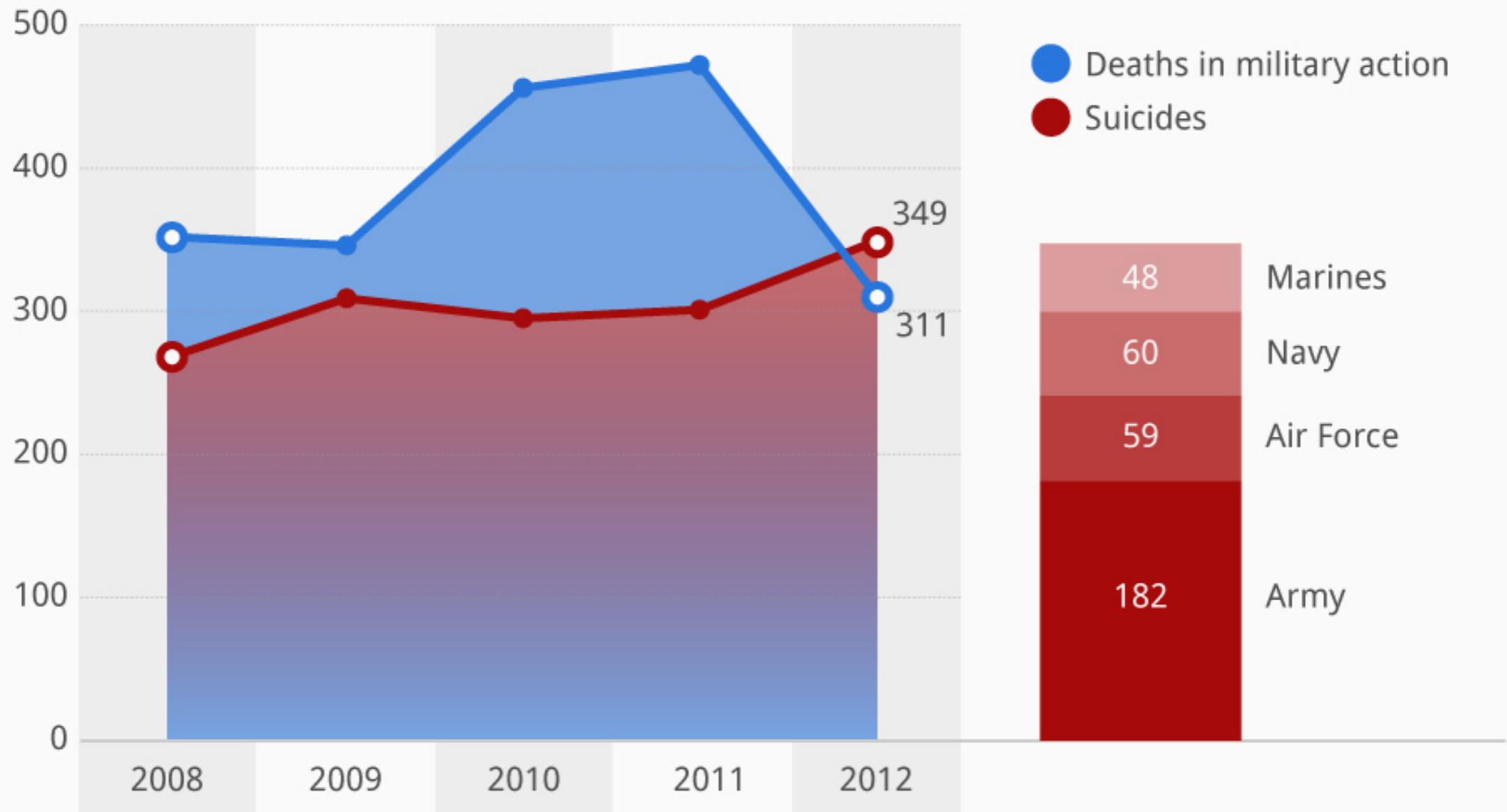


Source: National Institute of Mental Health  
Data: Centers for Disease Control And Prevention, National Center For Health Statistics

# Statistics: The Military

## U.S. Military Suicides Have Overtaken Combat Deaths

Comparison of U.S. military suicides and combat deaths (2008-2012)



@StatistaCharts Source: Department of Defense & Guardian

# Who Commits Suicide?

- Females attempt more, males complete more:
  - 4 males to every one female completion.
  - 3 female attempts for every male attempt.
- Whites have more than twice the risk of non-whites, with the exception of Native Americans who have the highest risk.

# Risk Factors

- Mental Illness, in particular:
  - Depression (60% of all completed suicides)
  - Bipolar Disorder
  - Schizophrenia
  - Borderline & Antisocial Personality disorders
  - Alcoholism ( ~7% die by suicide)
  - Drug Abuse
- **The greatest single risk factor:**  
**Previous Suicide Attempt**

# Risk Factors: Mental Illness

- Mixed States:
  - Can occur often in Bipolar depression.
  - Depressive manias or agitated depressions.
  - Can dangerously increase suicide risk by providing energy and impulsivity to negative thoughts and perceptions.

# Risk Factors

- Presence of a psychiatric disorder
- Expression of suicide or death in the context of hopelessness or negative feelings.
- Impulsive and aggressive behavior or hx
- Increased substance use
- Recent stressors
- Family crisis

Many factors contribute to suicide among those with and without known mental health conditions.



Note: Persons who died by suicide may have had multiple circumstances. Data on mental health conditions and other factors are from coroner/medical examiner and law enforcement reports. It is possible that mental health conditions or other circumstances could have been present and not diagnosed, known, or reported.

SOURCE: CDC's National Violent Death Reporting System, data from 27 states participating in 2015.

# Parasuicidal Behavior

- Cutting, Burning, Scratching
  - Usually there is not intent to kill oneself.
  - Acts are usually an expression of anger towards self or others.
  - One must examine the context within which such behavior occurs.

# Biology

- Primate experiments have shown that decreased serotonin levels result in:
  - Increased risk taking
  - Increased alcohol consumption
  - Increased aggressiveness
- Orbitalfrontal cortex is involved – role in impulsive, aggressive behavior.

# Suicide Methods

- About 50% of suicides are committed with firearms.
- Followed by suffocation/hanging, poisoning, cutting, drowning.
- Poisoning has been the method of choice for females since 2001.
- Worldwide, hanging is most common.

# Methods: Firearms

- 83% of gun-related deaths in homes with guns are suicides.
- Firearms are used more in suicides than homicides.
- Fastest growing method of suicide.

# Treatment: Lethality Evaluation

- Many things to consider
  - Ideation or attempt?
  - Circumstances?
  - Planned or impulsive? Notes? Possessions?
  - If attempt, how “serious”?
  - Guns in the home?
  - Collateral information is key!

# Treatment

- Hospitalize a suicidal patient.
  - Even if they don't agree.
  - Monitor closely.
- Start appropriate meds (SSRI, mood stab.)
- May need to use antipsychotic medications in patients with psychosis.
- Consider psychotherapy in combination with SSRIs, if not already in treatment.

# Treatment

- When starting SSRIs
  - Close follow up with patients is essential!
  - Patients may have increased suicidality.
  - Often, a patient's avolitional symptoms begin to resolve before the patient's mood symptoms and suicidal ideation.

# Prevention: False Hope?

- Contracting for Safety
  - Patients are often asked to sign a contract with the physician stating that they will not attempt suicide.
  - Numerous studies show that no-suicide contracts do not help in preventing suicides.
  - In fact, no-suicide contracts may provide physicians with a false sense of security.

# Prevention: The Media

- Coverage often sensational and minimizes role of mental illness in suicide.
- 1994, CDC published recommendations for the media:
  - Avoid repetitive or excessive reporting of suicide.
  - Avoid simplistic explanations.
  - Avoid “how-to” descriptions.
  - Avoid presenting suicide as a means to an end.

# Prevention

- For the clinician:
  - Screen for depression, mania, etc.
  - Ask about suicide.
  - Look for other self-injurious behavior (cutting).
  - Ask about drugs and alcohol.
  - Ask about stressors (family life, relationships, school, job, etc.).

# Prevention

- Nationally:
  - Minimizing firearms and/or access to firearms.
  - Instituting safety mechanisms on guns:
    - Trigger locks
    - Smart guns (wristband or fingerprint)
    - Magazine safeties
    - Chamber indicators

# Prevention

- Nationally
  - Improving access to healthcare providers.
  - Improving mental health insurance coverage.
  - Minimize the stigma of mental illness and suicide.
  - Teach society how to use communication to address stressors, rather than violence or aggression.

# Take Home Points – a.k.a. for the Test

- Women attempt more, men “succeed” more.
- The elderly and military are at high risk.
- Substance dependence increases risk.
- Previous attempt is the GREATEST risk.
- Firearms play a big role in suicide.
- Monitor patients when using SSRIs.

# Resources

- American Foundation for Suicide Prevention: <http://www.afsp.org/>
- Increase in Suicide in the United States, 1999-2014 <http://www.cdc.gov/nchs/products/databriefs/db241.htm>
- Media Guidelines: <http://reportingonsuicide.org>
- Surgeon General's 2012 Report on Suicide Prevention:  
<http://www.surgeongeneral.gov/library/reports/national-strategy-suicide-prevention/full-report.pdf>

**“If I could start again, a million miles  
away, I would keep myself, I would find a  
way.”**

*From Hurt by Nine Inch Nails*

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