NO DISCLOSURES
LEARNING OBJECTIVES

• Define criteria for suicide determination
• Discuss common suicide modalities
• Identify risk factors for suicide
SUICIDE - DEFINITION

• Intentional self-destruction

• Requires demonstration of
  • Self-inflicted injury
  • Intent to take one’s life at the time of injury
SUICIDE - DEFINITION
CDC DIVISION OF VIOLENCE PREVENTION (2011)

• Self-directed violence
  • Suicidal/Non-suicidal (intent)
  • Death caused by self-directed injurious behavior with any intent to die as a result of the behavior = Suicide

(intent to die vs. intent to harm)
SUICIDE- EPIDEMIOLOGY

- 10th leading “cause” of death in the United States (incidence 13.9/100000-2016)
- 2nd leading COD ages 10-34
- 4th leading COD ages 35-54
- 8th leading COD ages 55-64
- ~45,000 suicide deaths in 2016
Suicide Deaths by Method, 2016

- Firearm: 51.0%
- Suffocation: 25.9%
- Poisoning: 14.9%
- Other: 8.2%
Percent change in annual suicide rate by state, from 1999-2001 to 2014-2016
(Centers for Disease Control and Prevention)

* Per 100,000 population, age-adjusted to the 2000 U.S. standard population.
20th Century US Homicide and Suicide Rates per 100,000 population

SUICIDE- EPIDEMIOLOGY

• Males predominate (3.5:1 ratio M to F)
• Highest rates among whites (blacks lowest except for teens)
• Highest incidence in middle age
• Firearms most common method in USA (~51%)
SUICIDE- EPIDEMIOLOGY

• Rising incidence (25%) prompted CDC alert in June 2018

• Economic burden estimated at $70 billion/yr

• ~7% of the US population known someone who died by suicide in the last 12 months
Suicide Rate
2000–2006, United States
Age-adjusted Death Rates per 100,000 Population

Note: Reports for All Ages include those of unknown age.

Data courtesy of CDC
2008-2014, United States
Death Rates per 100,000 Population
Firearm, Suicide, All Races, All Ethnicities, Both Sexes, All Ages
Annualized Crude Rate for United States: 6.40

Reports for All Ages include those of unknown age.
* Rates based on 20 or fewer deaths may be unstable. States with these rates are cross-hatched in the map (see legend above). Such rates have an asterisk.

Produced by: the Statistics, Programming & Economics Branch, National Center for Injury Prevention & Control, CDC
Data Sources: NCES National Vital Statistics System for numbers of deaths; US Census Bureau for population estimates.
2008-2014, United States
Death Rates per 100,000 Population
Non-Firearm, Suicide, All Races, All Ethnicities, Both Sexes, All Ages
Annualized Crude Rate for United States: 6.23

Reports for All Ages include those of unknown age.
* Rates based on 20 or fewer deaths may be unstable. States with these rates are cross-hatched in the map (see legend above). Such rates have an asterisk.

Produced by: the Statistics, Programming & Economics Branch, National Center for Injury Prevention & Control, CDC
Data Sources: NCES National Vital Statistics System for numbers of deaths; US Census Bureau for population estimates.
Suicide Rates and Gun Ownership

Suicide Rates—Increasing rates from lighter to darker

Quintiles of Firearm Ownership 1996-2010

- Quintile
  - Bottom 20%
  - 20%-40%
  - 40%-60%
  - 60%-80%
  - Top 20%
SUICIDE- DETERMINATION

• Suicide note (15-30% of cases)

• History
  • Depression
  • Previous attempts
  • Recent verbal indications
  • Substance abuse/ stressors
  • Isolation/poor access to mental health services
SUICIDE- DETERMINATION

• Scene Investigation
  • Feasibility of self-destruction
  • Access to decedent
  • Reconstructions may be necessary
    • Jump vs fall from height
    • Intentional motor vehicle crash
    • Long arms in firearm suicide
SUICIDE- DETERMINATION

• Examination
  • Certain methods favor suicide (plastic bag asphyxiation)
  • Location of injury may favor suicide (intra-oral GSW)
  • Evidence of unsuccessful attempts- recent or remote ("hesitation marks" or scars at wrists)
SUICIDE- DETERMINATION

• Examination
  • Movement of clothing to access injury site
  • Removal of personal effects prior to injury
SUICIDE - METHODS

- Firearms
- Hanging/Suffocation
- Poisoning/Overdose
- Cutting/Stabbing
- Water and Fire
- Other
DO NOT CALL THE 911 RESCUE
CALL JIMMY TO
REMOVER TANK AND BAG.
HELIUM CANNOT BE DETECTED
AND IT WILL SHOW HEART ATTACK
AS CAUSE OF DEATH AT
LEAST YOU CAN RECEVIE LIFE
INSURANCE.
SUICIDE- MISCELLANEOUS

• Suicide by Cop
• Suicide and Russian Roulette
• Homicide-Suicide
“SUICIDE BY COP”

• Decedent gives indication of intent to die

• Decedent’s action are a provocation to law enforcement

• Law enforcement fatal actions are a response to perceived threat to their safety or the safety of others
“SUICIDE BY COP”

• Injury is not truly self-inflicted
• Can injury inflicted by another be considered suicidal?
  • Suicide involving a train/motor vehicle
• Competing volitional acts
RUSSIAN ROULETTE

• Potentially lethal game of chance
• Participants place live round in revolver and spin it prior to discharge
• Debate over suicide or accident certification
RUSSIAN ROULETTE
ACCIDENT

Probability of survival outweighs that of death
Frequency of associated intoxication
(no issue with self-destructive act but concern with demonstrable intent)
RUSSIAN ROULETTE
SUICIDE

- Inherently dangerous behavior
- High risk of death
- “subintent” to self-harm

THIS IS RECOMMENDED CERTIFICATION OF THE NATIONAL ASSOCIATION OF MEDICAL EXAMINERS
HOMICIDE-SUICIDE

• Suicide of the perpetrator following commission of homicide
• Timing between events
• Subtypes
SUICIDE- FAMILY CONFLICTS

- Frequent source of conflict
- Answer questions courteously, calmly and consistently
- Be available
- Consultation- internal and external
Suicide determinations

- A. May include actions with violence intentionally directed to others
- B. Require evidence of intent to harm oneself
- C. Are generally accidental in nature
- D. Cannot be made in the absence of a note
- E. Cannot be made in individuals under the age of 18
The most common method of suicide in the United States is

- A. Firearms
- B. Suffocation/Asphyxiation
- C. Poisoning
- D. Self immolation
- E. Drowning
POST TEST QUESTIONS

Risk factors for suicide include all of the following EXCEPT

- A. Female gender
- B. White race
- C. History of alcohol/substance abuse
- D. History of mental illness, including depression
- E. Access to mental health treatment
The incidence of suicide

- A. Has remained unchanged for the last 10 years
- B. Is nearly identical in all countries
- C. Has risen in the last 20 years but is not above historical levels
- D. Is highest in southern United States
- E. Is uniform across the United States
POST TEST QUESTIONS

• The National Association of Medical Examiners recommends that “Russian Roulette” deaths
• A Are certified as suicide for manner of death
• B Be limited to only male deaths for classification purposes
• C Involve only the use of automatic weapons
• D Are a variant of autoerotic activity
• E. Involve only cases where the decedent has used intoxicants