

## **Suicide-The Latest Data**

Ladi Kukoyi MD, MS Chief of Staff, Birmingham VAMC Clinical Professor of Psychiatry UAB Jan 2019



### Acknowledgements

## My oldest daughter

• Disclaimer: I am here in a private capacity and not in my role as an employee of the Department of Veterans Affair. This talk does not necessarily represent the views of the Department of Veterans Affairs or the United States Government.

### Suicide in the Media

### Kate Spade Dead of Apparent Suicide, Fashion Designer Was ...

Kate Spade Dead of Apparent Suicide, Fashion Designer Was 55

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### Avicii Committed Suicide by Cutting

Images may be subject to copyright. Learn More

Parts Unknown' star Anthony Bourdain dies of suicide by han...

Slashed Robin More lr. tied belt wrist around with a his neck penknife Wife Had slept alone iust left in another 12-step room program PAGES 4,5,6,7 Hollywood legend Lauren Bacall dead at 89 PAGES 10-11

## 1-800-273-8255



1-800-273-8255 is a song by the rapper Logic featuring singers Alessia Cara and Khalid. The title of this song is the national suicide hotline number.

## *Vitål*signs<sup>™</sup>



45K Nearly 45,000 lives lost to suicide in 2016.

130% Suicide rates went up more than 30% in half of states since 1999.

More than half of people who died by suicide did not have a known mental health condition.



Want to learn more? Visit: www.cdc.gov/vitalsigns

### Suicide rising across the US

#### More than a mental health concern

Suicide is a leading cause of death in the US. Suicide rates increased in nearly every state from 1999 through 2016. Mental health conditions are often seen as the cause of suicide, but suicide is rarely caused by any single factor. In fact, many people who die by suicide are not known to have a diagnosed mental health condition at the time of death. Other problems often contribute to suicide, such as those related to relationships, substance use, physical health, and job, money, legal, or housing stress. Making sure government, public health, healthcare, employers, education, the media and community organizations are working together is important for preventing suicide. Public health departments can bring together these partners to focus on comprehensive state and community efforts with the greatest likelihood of preventing suicide.

#### States and communities can

- Identify and support people at risk of suicide.
- Teach coping and problem-solving skills to help people manage challenges with their relationships, jobs, health, or other concerns.
- Promote safe and supportive environments. This includes safely storing medications and firearms to reduce access among people at risk.
- Offer activities that bring people together so they feel connected and not alone.
- Connect people at risk to effective and coordinated mental and physical healthcare.
- Expand options for temporary help for those struggling to make ends meet.
- Prevent future risk of suicide among those who have lost a friend or loved one to suicide.

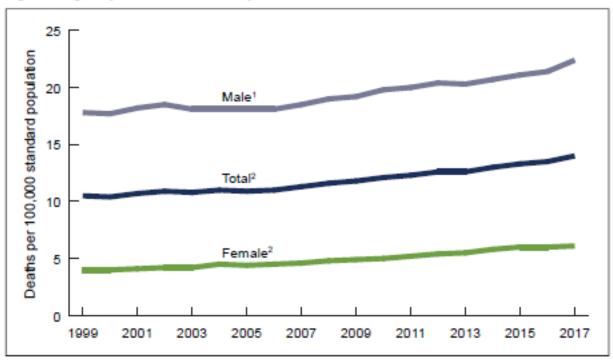


From 1999 through 2017, suicide rates increased for both males and females, with greater annual percentage increases occurring after 2006

- From 1999 through 2017, the age-adjusted suicide rate increased 33% from 10.5 per 100,000 standard population to 14.0 (Figure 1).
- The rate increased on average by about 1% per year from 1999 through 2006 and by 2% per year from 2006 through 2017.
- For males, the rate increased 26% from 17.8 in 1999 to 22.4 in 2017. The rate did not significantly change from 1999 to 2006, then increased on average by about 2% per year from 2006 through 2017.
- For females, the rate increased 53% from 4.0 in 1999 to 6.1 in 2017. The rate increased on average by 2% per year from 1999 through 2007 and by 3% per year from 2007 through 2017.

### Figure 1: Age-adjusted suicide rate by sex: 1999-2017

Figure 1. Age-adjusted suicide rates, by sex: United States, 1999-2017



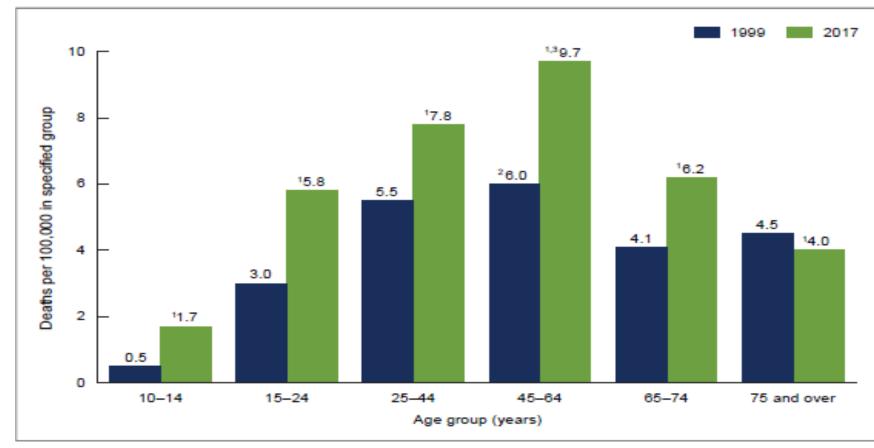
\*Stable trend from 1999 through 2006; significant increasing trend from 2006 through 2017, p < 0.001.</p>
\*Significant increasing trend from 1999 through 2017 with different rates of change over time, p < 0.001.</p>
NOTES: Suicides are identified using *International Classification of Diseases, Tenth Revision* underlying cause-of-death codes.
U03, X60–X84, and Y87.0. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population. Access data table for Figure 1 at: <a href="https://www.cdc.gov/nchs/data/databriefs/db330\_tables-508.pdf#1">https://www.cdc.gov/nchs/data/databriefs/db330\_tables-508.pdf#1</a>.
SOURCE: NCHS, National Vital Statistics System, Mortality.

## Suicide rates for females aged 10–74 were higher in 2017 than in 1999

- Suicide rates for females were highest for those aged 45–64 in both 1999 (6.0 per 100,000) and 2017 (9.7) (Figure 2).
- Suicide rates were significantly higher in 2017 compared with 1999 among females aged 10–14 (1.7 and 0.5, respectively), 15–24 (5.8 and 3.0), 25–44 (7.8 and 5.5), 45–64 (9.7 and 6.0), and 65–74 (6.2 and 4.1).
- The suicide rate in 2017 for females aged 75 and over (4.0) was significantly lower than the rate in 1999 (4.5).

# Figure 2. Suicide rates for females, by age group: United States, 1999 and 2017





"Significantly different from 1999 rate, p < 0.05.

Significantly higher than rates for all other age groups in 1999, p < 0.05.</p>

Significantly higher than rates for all other age groups in 2017, p < 0.05.</p>

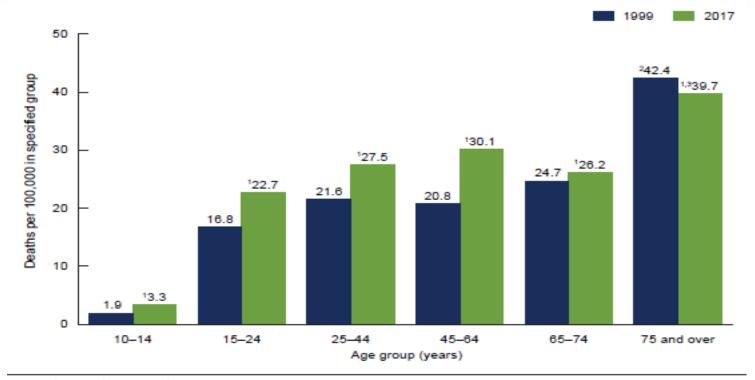
VETERNOTES: Suicides are identified using International Classification of Diseases, Tenth Revision underlying cause-of-death codes U03, X60–X84, and Y87.0. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db330\_tables-508.pd#2.

SOURCE: NCHS, National Vital Statistics System, Mortality.

# Suicide rates for males by age group, 1999 and 2017

- Suicide rates for males were highest for those aged 75 and over in both 1999 (42.4 per 100,000) and 2017 (39.7) (Figure 3).
- Suicide rates were significantly higher in 2017 compared with 1999 among males aged 10–14 (3.3 and 1.9, respectively), 15–24 (22.7 and 16.8), 25–44 (27.5 and 21.6), 45–64 (30.1 and 20.8), and 65–74 (26.2 and 24.7).
- The suicide rate in 2017 for males aged 75 and over (39.7) was significantly lower than the rate in 1999 (42.4).

## Figure 3: Suicide rates for males by age group, 1999 and 2017



Significantly different from 1999 rate, p < 0.05.

Significantly higher than rates for all other age groups in 1999, p < 0.05.

Significantly higher than rates for all other age groups in 2017, p < 0.05.</p>

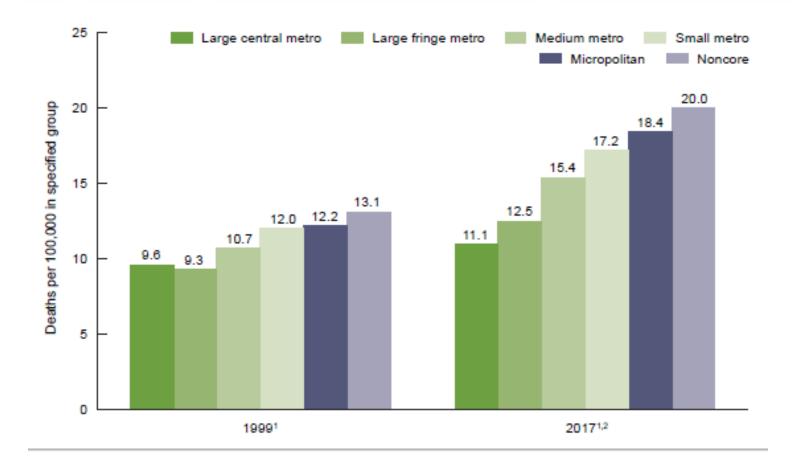
NOTES: Suicides are identified using international Classification of Diseases, Tenth Revision underlying cause-of-death codes UD3, X60–X84, and Y87.0. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db330\_tables-508.pdf#3.

SOURCE: NCHS, National Vital Statistics System, Mortality.

## The difference in age-adjusted suicide rates between the most rural and most urban counties was greater in 2017 than in 1999

- In both 1999 and 2017, the age-adjusted suicide rate increased with decreasing urbanization (Figure 4). In 1999, the age-adjusted suicide rate for the most rural (noncore) counties (13.1 per 100,000) was 1.4 times the rate for the most urban (large central metro) counties (9.6). This difference increased in 2017, with the suicide rate for the most rural counties (20.0 per 100,000) increasing to 1.8 times the rate for the most urban counties (11.1).
- The age-adjusted suicide rate for the most urban counties in 2017 (11.1 per 100,000) was 16% higher than the rate in 1999 (9.6).
- The age-adjusted suicide rate for the most rural counties in 2017 (20.0 per 100,000) was 53% higher than the rate in 1999 (13.1).

## Figure 4 : Age-adjusted suicide rates, by county urbanization level: United States, 1999 and 2017



### PROBLEM: Suicide rates increased in almost every state.

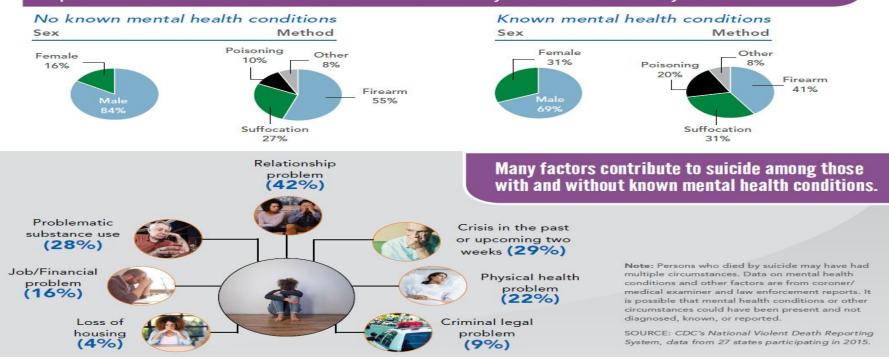
### Suicide rates rose across the US from 1999 to 2016.

|       | Increase | 38 - 58% |
|-------|----------|----------|
|       | Increase | 31 - 37% |
| 1//// | Increase | 19 - 30% |
|       | Increase | 6 - 18%  |
|       | Decrease | 1%       |



SOURCE: CDC's National Vital Statistics System; CDC Vital Signs, June 2018.

Differences exist among those with and without mental health conditions. People without known mental health conditions were more likely to be male and to die by firearm.



## Epidemiology

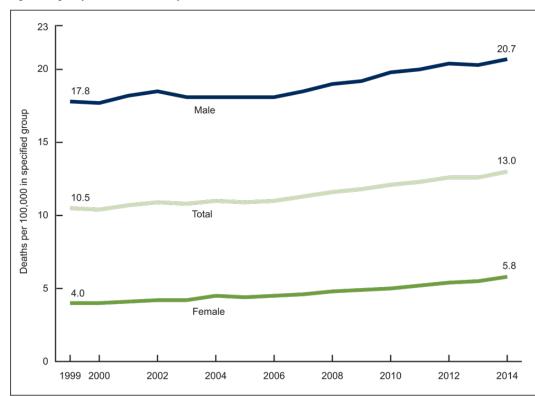
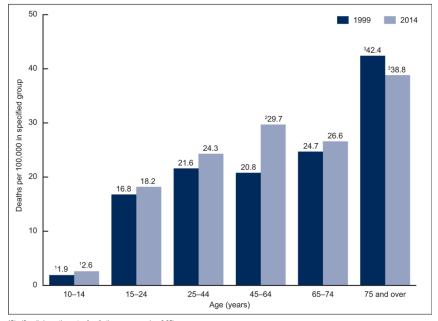


Figure 1. Age-adjusted suicide rates, by sex: United States, 1999-2014

NOTES: Suicide deaths are identified with codes U03, X60–X84, and Y87.0 from the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision. Access data for Figure 1 at: http://www.cdc.gov/nchs/data/databriefs/db241\_table.pdf#1. SOURCE: NCHS, National Vital Statistics System, Mortality.

### Rising suicide rates over time

Figure 3. Suicide rates for males, by age: United States, 1999 and 2014



<sup>1</sup>Significantly lower than rates for all other age groups (p < 0.05).

<sup>2</sup>Significantly higher than rates for all other age groups except 75 and over (p < 0.05).

<sup>3</sup>Significantly higher than rates for all other age groups (p < 0.05).

NOTES: For all age groups, the difference in rates between 1999 and 2014 is significant (p < 0.05). Suicides are identified with codes U03, X60–X84, and Y87.0 from the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision. Access data for Figure 3 at:

http://www.cdc.gov/nchs/data/databriefs/db241\_table.pdf#3. SOURCE: NCHS, National Vital Statistics System, Mortality.

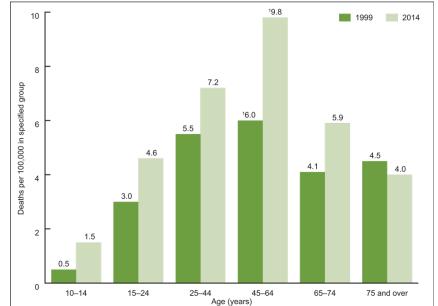


Figure 2. Suicide rates for females, by age: United States, 1999 and 2014

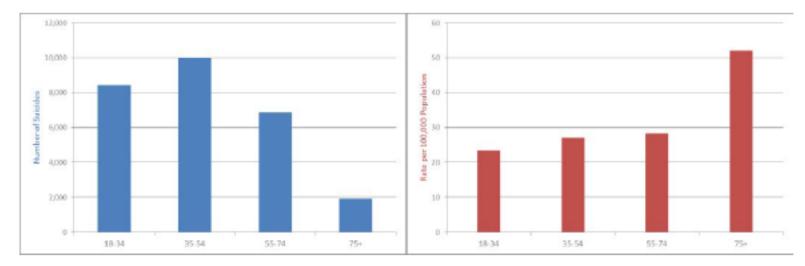
<sup>1</sup>Significantly higher than rates for all other age groups (p < 0.05).

NOTES: For all age groups, the difference in rates between 1999 and 2014 is significant (p < 0.05). Suicides are identified with codes U03, X60–X84, and Y87.0 from the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision. Access data for Figure 2 at: http://www.cda/databriefs/databrief

SOURCE: NCHS, National Vital Statistics System, Mortality.

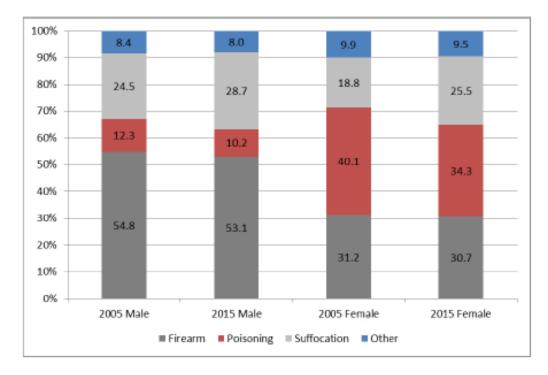
### Suicide Count and Rates by Age Group for civilians

### Figure 25. Comparison of Suicide Counts and Rates by Age Group for Non-Veteran Men, 2015



### Non-Veteran deaths by method

#### Figure 21. Non-Veteran Suicide Deaths by Method and Sex in 2005 and 2015



Main finding: From 2005 to 2015, the percentages of suicides resulting from a firearm injury and intentional poisoning decreased among U.S. adult non-Veterans, for both men and women.

## Factors indicating risk for suicide

| Warning signs      | Warning signs are those observations that signal an increase in the probability that person intends to engage in suicidal behavior in the immediate future (i.e., minutes and days). Warning signs present tangible evidence to the clinician that a person is at heightened risk for suicide in the short term; and may be experienced in the absence of risk factors. |
|--------------------|---|
| Acute Factors      | Acute (of brief duration) and stressful episodes, illnesses, or life events.<br>While not usually internally derived, these events can build upon and<br>challenge a person's coping skills   |
| Chronic Factors    | Relatively enduring or stable factors that may increase a person's<br>susceptibility to suicidal behaviors, such as genetic and neurobiological<br>factors, gender, personality, culture, socio-economic background and<br>level of isolation. Risk factors may be associated with a person<br>contemplating suicide at one point in time over the long term.           |
| Protective Factors | Capacities, qualities, environmental and personal resources that<br>increase resilience; drive an individual toward growth, stability, and/or<br>health and/or to increase coping with different life events  |



## **Risk Factors**

|      |         | Behavioral  | Biological   | Psychological   | Social  | Military-Specific   |
|------|---------|---|--|---|---|---|
| High | Acute   | Preparation &<br>Rehearsal Behaviors  | Agitation<br>Insomnia<br>Intoxication/Withdrawal<br>Pain<br>Functional limitation<br>Medication-Induced<br>New Major Illness<br>Start/Stop/Change<br>Antidepressant (~ 90<br>days) | Impulsivity<br>Self loathing<br>Perceived burdensomeness<br>Hopelessness<br>Anxiety (panic)<br>Dysphoria<br>Suicide bereavement               | Stressful Life Events:<br>Loss of status/respect/rank<br>(Public humiliation, being<br>bullied or abused, failure<br>work/task)<br>Loss of Relationship (divorce,<br>separation)<br>Loss of loved one (grief)<br>Recent change in level of care<br>(d/c from inpatient psychiatry)<br>Other events (e.g., fired,<br>arrested, evicted, assaulted) | Adverse deployment<br>experience<br>Administrative separation<br>from service/unit<br>Perceived sense of injustice or<br>betrayal (unit/command)<br>Career threatening change in<br>fitness for duty Disciplinary<br>actions (UCMJ, NJP)<br>Reduction in rank |
|      | Chronic | History of NSSDV<br>Access to firearms<br>Access to other<br>lethal means for<br>suicide (e.g.,<br>medication<br>stockpile) | Chronic pain<br>Function limitation<br>History of Traumatic Brain<br>Injury (TBI)<br>Terminal disease<br>HIV/AIDS<br>Worsening of chronic<br>illness                               | Affective disorder<br>Personality disorder<br>Schizophrenia<br>Anxiety disorder (Panic,<br>PTSD)<br>Substance use disorder<br>Eating disorder | Financial Problems<br>Unemployment,<br>Underemployment<br>Unstable housing, homeless<br>Excessive debt, poor finances<br>Legal Problems<br>DUI/DWI<br>Lawsuit<br>Criminal offence and<br>incarceration<br>Social Support<br>Poor relationships<br>Geographic isolation<br>Barriers to MH care   | Deployment to a combat<br>theater<br>Transferring duty station<br>Command/leadership stress,<br>isolation from unit   |
| Low  | -noN    | Prior suicide<br>attempts   | Gender (Male)<br>Age (<29 or >45)<br>Race (Caucasian)<br>Family history<br>Suicide/mental disorder   | Prior suicide attempt<br>Prior psychiatric<br>hospitalization for SI<br>Hx of Child maltreatment<br>Sexual Assault                            | Marital status (separate,<br>widowed)<br>Lower Education level<br>Same sex orientation (LGBT)<br>Cultural or religious beliefs  | <b>8</b>  |

## **Protective Factors**

#### Social Context Support System

- · Strong interpersonal bonds to family/unit members and community support
- Employed
- Intact marriage
- Child rearing responsibilities
- Responsibilities/duties to others
- A reasonably safe and stable environment

#### Positive Personal Traits

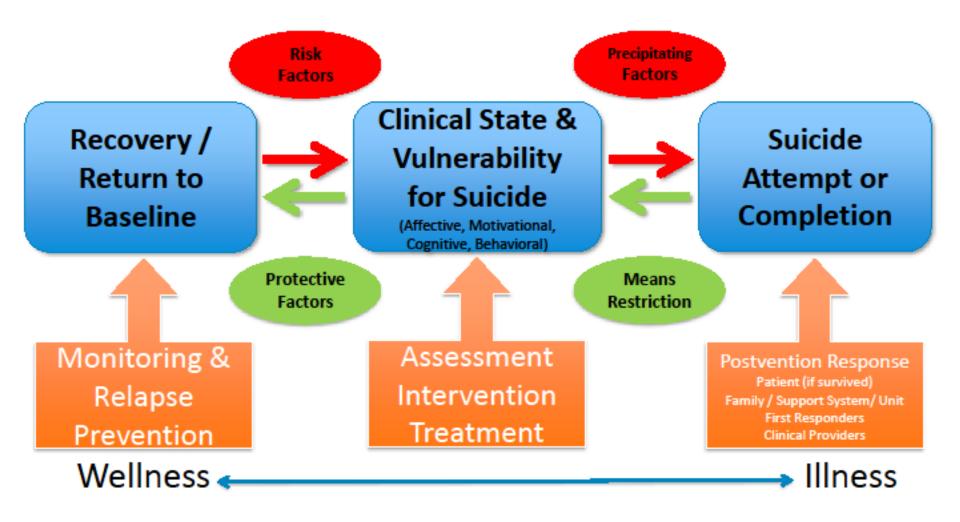
- Help seeking
- Good impulse control
- Good skills in problem solving, coping and conflict resolution
- Sense of belonging, sense of identity, and good self-esteem
- Cultural, spiritual, and religious beliefs about the meaning and value of life
- Optimistic outlook -Identification of future goals
- Constructive use of leisure time (enjoyable activities)
- Resilience

#### Access to Health care

- Support through ongoing medical and mental health care relationships
- Effective clinical care for mental, physical and substance use disorders
- Good treatment engagement and a sense of the importance of health and wellness



## **Recovery-Oriented Practice Model**



VA / DoD Clinical Practice Guideline for Suicide Prevention



## Columbia Suicide Severity Screener

COLUMBIA-SUICIDE SEVERITY RATING SCALE

Screen Version with Tokeye Points

| SUICIDE IDEATION DEFINITIONS AND PROMPTS:  |     | ist<br>nlh | • 1-5 rating f                                       |
|--|-----|------------|--|
| Ask questions that are bolded and underlined.  | YES | NO         |  |
| Ask Questions 1 and 2  |     |            | increasing s   |
| 1) Wish to be Dead:<br>Person endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and<br>not wake up.<br><i>Dave you wished you were dead or wished you could go to sleep and not wake up?</i>  |     |            | an active th<br>plan and in                          |
| 2) Succeded Thoughts:<br>General non-specific thoughts of wanting to end one's life/commit succed, "The thought about<br>killing mysel?" without general thoughts of ways to kill onesel/associated methods, intent, or<br>plan."<br>Have you actually had any thoughts of killing yourself?   |     |            | Scoring:   |
| If YES to 2, ask questions 3, 4, 5, and 6. If NO to 2, go directly to question 6.  | I   |            | O Low Risk   |
| 3) Suicidal Thoughts with Method (without Specific Plan or Intent to Act):<br>Person endorses thoughts of suicide and has thought of a least one method during the assessment<br>period. This is different than a specific plan with time, place or method details worked out. '7<br>shought about taking an overlose but I never made a specific plan as to when where or how I<br>would actually do itand I would never go through with it.''<br>Have you been thinking about how you might kill yoursail? |     |            | <ul> <li>1-2 Mild Ris</li> <li>3 Moderate</li> </ul> |
| 4) Suicidal Intent (without Specific Plan):<br>Active solidid-throughts of killing oneself and patient reports having some intent to act on such throughts, as opposed to "Triave the throughts but Triavely will not do anything about them."<br>Have you had these throughts and had some intention of actual on them?   |     |            | <ul><li>Precautions</li><li>4-5 Serious</li></ul>    |
| 5) Solicide Intent with Specific Plan:<br>Thoughts of killing oneself with details of plan fully or partially worked out and person has some<br>intent to carry it out.<br><i>Have you started to work out or worked out the details of how to kill yourself? Do you</i><br><i>intend to carry out this plan?</i>  |     |            |  |
| 6) Suicide Behavior Question<br><i>"Have you ever done anything, started to do anything, or prepared to do anything to</i><br><i>and your life?"</i><br>Examples: Colected pils, obtained a gun, gave away valuables, wrote a will or suicide note, took<br>and the dide out was held and a gun.   |     |            | Suicide Behav<br>• < 1 wk ago                        |
| out pills but didn't swallow any, held a gun but changed your mind or it was grabbed from your hand, wort to the reof but didn't jump; or actually took pills, tried to sheet yourself, out yourself, tried to hang yourself, etc.<br>If YLS, asks <i>How Jong ago did you do any of these?</i>  |     |            | <ul> <li>1wk ago</li> <li>1wk-3mos</li> </ul>        |
| • Over a year ago? - • Between three months and a year ago? - • Within the last three months?  |     |            | <ul> <li>&gt;3mos - DIS</li> </ul>                   |

or suicidal ideation, of severity (from a wish to die to nought of killing oneself with tent)

- Routine Care
- sk Routine MH Referral
- e Risk Consider Safety s and MH Consult
- Risk Emergent Action

### ior History

- ACUTE
- CONCERN
- SCRETIONARY

Posner K, Brent D, Lucas C, Gould M, Stanley B, Brown G, Zelazny J, Fisher P, Burke A, Oquendo M, & Mann J (2009)

## "No-Suicide Contracts"

- Typically entails a patient agreeing to not harm themselves
- Despite a lack of empirical support, commonly used (up to 79%) by mental health professionals
- Not recommended for multiple reasons
  - No medicolegal protection
  - Negatively influences provider behavior
  - Not patient-centered

Drew, 1999; Range et al., 2002; Rudd et al., 2006; Simon, 1999

## Safety Planning

- Brief clinical intervention
- Follows risk assessment
- Hierarchical and prioritized list of strategies
- Used preceding or during a suicidal crisis
- Involves collaboration between the client and clinician

|      | SAFE   | TY PL      | AN              |                            |
|------|--|------------|-----------------|----------------------------|
| Step | o 1: Warning signs:                              |            |                 |                            |
| 1.   | _Suicidal thoughts and feeling worthless and hop | peless     |                 | _                          |
| 2.   | Urges to drink                                   |            |                 | _                          |
| 3.   | Intense arouing with girlfriend                  |            |                 |                            |
| Step | 2: Internal coping strategies - Things I can     | do to dis  | stract myself w | vithout contacting anyone: |
| 1.   | _Play the guitar                                 |            |                 | _                          |
| 2.   | _Watch sports on television                      |            |                 |                            |
| 3.   | Work out   |            |                 |                            |
| Step | 3: Social situations and people that can he      | lp to dist | tract me:       |                            |
| 1.   | _AA Meeting                                      |            |                 |                            |
| 2.   | _Joe Smith (cousin)                              |            |                 |                            |
| 3.   | Local Coffee Shop                                |            |                 |                            |
| Step | o 4: People who I can ask for help:              |            |                 |                            |
| 1.   | Name_ <u>Mother</u>                              | Phone      | 333-8666        |                            |
| 2.   | Name_AA Sponsor_(Frank)                          | _Phone_    |                 |                            |
| Step | 5: Professionals or agencies I can contact       | during a   | crisis:         |                            |
| 1.   | Clinician Name Dr John Jones                     | Phone      | 333-7000        |                            |
|      | Clinician Pager or Emergency Contact #555.8      | 22-9999    |                 |                            |
| 2.   | Clinician Name F                                 | hone       |                 |                            |
|      | Clinician Pager or Emergency Contact #           |            |                 |                            |
| 3.   | Local Hospital EDCity Hospital Center            |            |                 |                            |
|      | Local Hospital ED Address_222 Main St            |            |                 |                            |
|      | Local Hospital ED Phone 333-9000                 |            |                 |                            |
| 4.   | Suicide Prevention Lifeline Phone: 1-800-273-T/  | ALK        |                 |                            |
| Maki | ing the environment safe:                        |            |                 |                            |
| 1.   | Keep only a small amount of pills in home        |            |                 |                            |
| 2.   | Don't keep alcohol in home                       |            |                 |                            |
| 3.   |  |            |                 |                            |

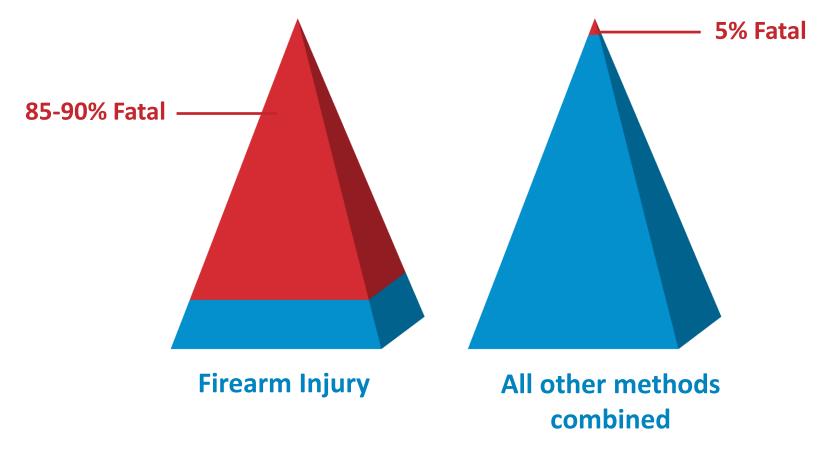
Stanley, B., & Brown, G.K. (with Karlin, B., Kemp, J.E., & VonBergen. H.A.). (2008). Safety Plan Treatment Manual to Reduce Suicide Risk: Veteran Version.

VETERANS HEALTH ADMINISTRATION

## Safety Plan Steps

- 1. Warning Signs
- 2. Internal Coping Strategies
- 3. Social Contacts and Settings for Distraction
- 4. People Who I Can Ask for Help
- 5. Professionals and Agencies to Contact for Help
- 6. Making the Environment Safe

## Lethality of Suicide Methods



CDC WISQARS: Deaths from death certificate data; nonfatal incidents estimated from national sample of hospital emergency departments

## Lethal Means Safety

- Most suicides are by firearm
- Strong evidence that building in time and space between the impulse to die and the means to die saves many lives
- Lethal Means Safety part of gatekeeper and clinician trainings
- Way forward: partner with gun advocacy groups to deliver messaging about safe storage of firearms to Veterans and their families in the community



Provide gun locks to secure firearms in the home.

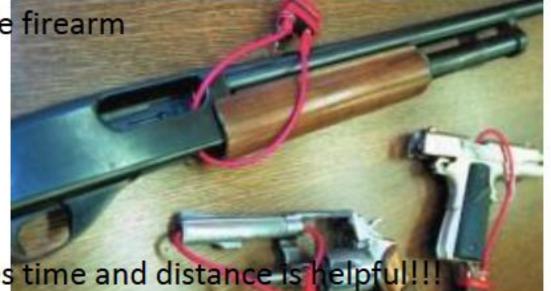
## **Firearm Safety**

- Temporary off-site storage during high risk period
- Any step(s) that increase the time and distance between a suicidal impulse and a gun will reduce suicide risk.
- A locked gun poses a lower suicide risk than an unlocked gun
- An unloaded gun poses a lower suicide risk than a loaded gun

## **Hierarchy of Safety Options**

- Temporary off-site storage
- Secure the firearms
  - In a safe and ask someone to change the combo
  - With a Gun Lock and give keys to someone or store them elsewhere (safe deposit box?)
- Temporarily disable the firearm
  - Remove firing pin
  - Disassemble
- Other options
  - Locked v Unlocked
  - Unloaded v Loaded

Anything that increases time and distance is helpful



## **Psychoeducational Points**

- Firearm ownership is twice as likely to result in Suicide than Homicide (21,334 v 10,945)
- Of the firearms Homicides, the most common victim is a member of your household.
- Suicide Attempts by firearm = 90% lethality
- It makes sense to proactively think about firearm safety... especially during periods of increased risk!

## **Firearm Safety Resources**

- For more information Means Matter website: www.meansmatter.org
- Take CALM-Online—free, online course on Counseling on Access to Lethal Means http://training.sprc.org/
- Download gun shop materials: www.nhfsc.org

## **Additional Resources**

## NIMH Webinar Series: Suicide Prevention – An Action Plan to Save Lives

- 1. Why do people become suicidal?
- 2. How can we better detect and predict suicide risk?
- 3. What interventions can prevent suicidal behavior?
- 4. <u>What are the most effective services to treat and</u> prevent suicidal behavior?
- <u>What suicide interventions outside of health care</u> <u>settings reduce risk?</u>
- 6. <u>What research infrastructure do we need to reduce</u> <u>suicidal behavior?</u>



TABLE 3. Suicide rate per 100,000 civilian, noninstitutionalized working persons aged 16–64 years, by sex, based on suicide decedents (N = 14,728) presumed in the labor force at time of death using Standard Occupational Classification (SOC) major groups — National Violent Death Reporting System, 17 states, \* 2012 and 2015

|     |  | Males     |           |         |   |            | H                              | emales        |           |        | _      |
|-----|--|-----------|-----------|---------|---|------------|--------------------------------|---------------|-----------|--------|--------|
| SOC |  |           |           | Rate of | hange                                   | - SOC      |                                |               |           | Rate o | change |
| ode | Occupational group                             | 2012      | 2015      | %       | Rank <sup>†</sup>                       | code       | Occupational group             | 2012          | 2015      | %      | Rank   |
| 47  | Construction and Extraction                    |           |           |         |   | 27         | Arts, Design, Entertainment, S | Sports, and M |           |        |        |
|     | Rate rank <sup>5</sup>                         | 1         | 1         | +22%    | 5                                       |            | Rate rank <sup>§</sup>         | 1             | 1         | +34%   | 2      |
|     | Rate per 100,000                               | 43.6      | 53.2      |         |   |            | Rate per 100,000               | 11.7          | 15.6      |        |        |
|     | 95% CI <sup>¶</sup>                            | 40.9-46.3 | 50.2-56.1 |         |   |            | 95% CI <sup>9</sup>            | 8.6-15.5      | 12.1-19.8 |        |        |
|     | Suicide decedents, no.                         | 1,009     | 1,248     |         |   |            | Suicide decedents, no.         | 47            | 67        |        |        |
|     | Population, no.                                | 2,313,934 | 2,345,952 |         |   |            | Population, no.                | 403,305       | 429,424   |        |        |
| 27  | Arts, Design, Entertainment, Sports, and Media |           |           |         |   |            | Protective Service             |               |           |        |        |
|     | Rate rank                                      | 7         | 2         | +47%    | 1                                       |            | Rate rank                      | 2             | 2         | +5%    | 9      |
|     | Rate per 100,000                               | 26.9      | 39.7      |         |   |            | Rate per 100,000               | 11.6          | 12.2      |        |        |
|     | 95% CI   | 22.1-31.8 | 33.6-45.8 |         |   |            | 95% CI                         | 7.5-17.1      | 8.1-17.7  |        |        |
|     | Suicide decedents, no.                         | 117       | 162       |         |   |            | Suicide decedents, no.         | 25            | 28        |        |        |
|     | Population, no.                                | 434,177   | 408,113   |         |   |            | Population, no.                | 215,345       | 228,862   |        |        |
| 49  | Installation, Maintenance, and                 |           | -         | _       |   | 31         | Health Care Support            | _             | _         |        | _      |
|     | Rate rank                                      | 2         | 3         | +24%    | 3                                       |            | Rate rank                      | 5             | 3         | +31%   | 3      |
|     | Rate per 100,000                               | 31.6      | 39.1      |         |   |            | Rate per 100,000               | 8.4           | 11.0      |        |        |
|     | 95% CI   | 28.7-34.4 | 35.8-42.3 |         |   |            | 95% CI                         | 6.7-10.4      | 8.9-13.0  |        |        |
|     | Suicide decedents, no.                         | 473       | 542       |         |   |            | Suicide decedents, no.         | 83            | 108       |        |        |
|     | Population, no.                                | 1,498,263 | 1,387,681 |         |   |            | Population, no.                | 993,407       | 984,369   |        |        |
| 53  | Transportation and Material Moving             |           |           |         |   | 35         | Food Preparation and Serving   |               |           |        |        |
|     | Rate rank                                      | 4         | 4         | +9%     | 8                                       |            | Rate rank                      | 11            | 4         | +54%   | 1      |
|     | Rate per 100,000                               | 28.4      | 30.9      |         |   |            | Rate per 100,000               | 6.1           | 9.4       |        |        |
|     | 95% CI   | 26.2-30.7 | 28.6-33.1 |         |   |            | 95% CI                         | 4.9-7.5       | 7.8-11.0  |        |        |
|     | Suicide decedents, no.                         | 615       | 721       |         |   |            | Suicide decedents, no.         | 94            | 139       |        |        |
|     | Population, no.                                | 2,164,530 | 2,336,133 |         |   |            | Population, no.                | 1,539,199     | 1,479,822 |        |        |
| 51  | Production                                     |           |           |         |   | 23         | Legal                          |               |           |        |        |
|     | Rate rank                                      | 3         | 5         | +7%     | 10                                      |            | Rate rank                      | 3             | 5         | -17%   | 15     |
|     | Rate per 100,000                               | 28.4      | 30.5      |         |   |            | Rate per 100,000               | 11.1          | 9.2       |        |        |
|     | 95% CI   | 26.0-30.9 | 28.1-33.0 |         |   |            | 95% CI                         | 7.5-15.9      | 5.8-13.9  |        |        |
|     | Suicide decedents, no.                         | 524       | 607       |         |   |            | Suicide decedents, no.         | 30            | 22        |        |        |
|     | Population, no.                                | 1,843,879 | 1,987,864 |         |   |            | Population, no.                | 269,243       | 238,870   |        |        |
| 33  | Protective Service                             |           |           | 29      | Health Care Practitioners and Technical |            |                                |               |           |        |        |
|     | Rate rank                                      | 6         | 6         | +4%     | 11                                      |            | Rate rank                      | 4             | 6         | -13%   | 13     |
|     | Rate per 100,000                               | 27.1      | 28.2      |         |   |            | Rate per 100,000               | 10.3          | 9.0       |        |        |
|     | 95% CI   | 23.3-30.9 | 24.2-32.1 |         |   |            | 95% CI                         | 8.9-11.8      | 7.7-10.3  |        |        |
|     | Suicide decedents, no.                         | 198       | 194       |         |   |            | Suicide decedents, no.         | 195           | 193       |        |        |
|     | Population, no.                                | 730,044   | 689,034   |         |   |            | Population, no.                | 1,890,885     | 2,140,217 |        |        |
| 37  | Building and Grounds Cleaning and Maintenance  |           |           |         | 51                                      | Production |                                | _             |           |        |        |
|     | Rate rank                                      | 5         | 7         | -2%     | 14                                      |            | Rate rank                      | 7             | 7         | +18%   | 6      |
|     | Rate per 100,000                               | 27.3      | 26.8      |         |   |            | Rate per 100,000               | 7.6           | 9.0       |        |        |
|     | 95% CI   | 24.1-30.5 | 23.6-30.0 |         |   |            | 95% CI                         | 5.8-10.0      | 7.0-11.3  |        |        |
|     | Suicide decedents, no.                         | 281       | 276       |         |   |            | Suicide decedents, no.         | 55            | 72        |        |        |
|     | Population, no.                                | 1,028,779 | 1,029,385 |         |   |            | Population, no.                | 719,183       | 800,640   |        |        |
| 29  | Health Care Practitioners and Technical        |           |           |         |   | 39         | Personal Care and Service      |               | -         |        | -      |
|     | Rate rank                                      | 14        | 8         | +23%    | 4                                       |            | Rate rank                      | 9             | 8         | +14%   | 7      |
|     | Rate per 100,000                               | 20.8      | 25.6      |         |   |            | Rate per 100,000               | 6.8           | 7.7       |        |        |
|     | 95% CI   | 17.1-24.6 | 21.5-29.8 |         |   |            | 95% CI                         | 5.5-8.4       | 6.2-9.5   |        |        |
|     | Suicide decedents, no.                         | 119       | 145       |         |   |            | Suicide decedents, no.         | 89            | 92        |        |        |
|     | Population, no.                                | 571,387   | 565,768   |         |   |            | Population, no.                | 1,308,535     | 1,187,811 |        |        |

See table footnotes on page 1258.

### References

• <u>https://afsp.org/our-work/education/healthcare-professional-burnout-depression-</u> <u>suicide-prevention/</u>



#### Summary

#### What is already known about this topic?

From 2000 to 2016, the U.S. suicide rate among working aged (16–64 years) adults increased 34% from 12.9 per 100,000 population to 17.3.

#### What is added by this report?

2012 and 2015 National Violent Death Reporting System data from 17 states indicated the major occupational group with the highest male suicide rate was Construction and Extraction (43.6 [2012] and 53.2 [2015]). The Arts, Design, Entertainment, Sports, and Media major occupation group had the highest female suicide rate in 2012 (11.7) and 2015 (15.6).

#### What are the implications for public health practice?

A comprehensive approach to suicide prevention, including workplace-based approaches, is needed. CDC's technical package of strategies to prevent suicide is a resource for communities and workplaces to identify prevention strategies with the best available evidence.