Trends, Causes, and Consequences of Youth Suicidal Behavior
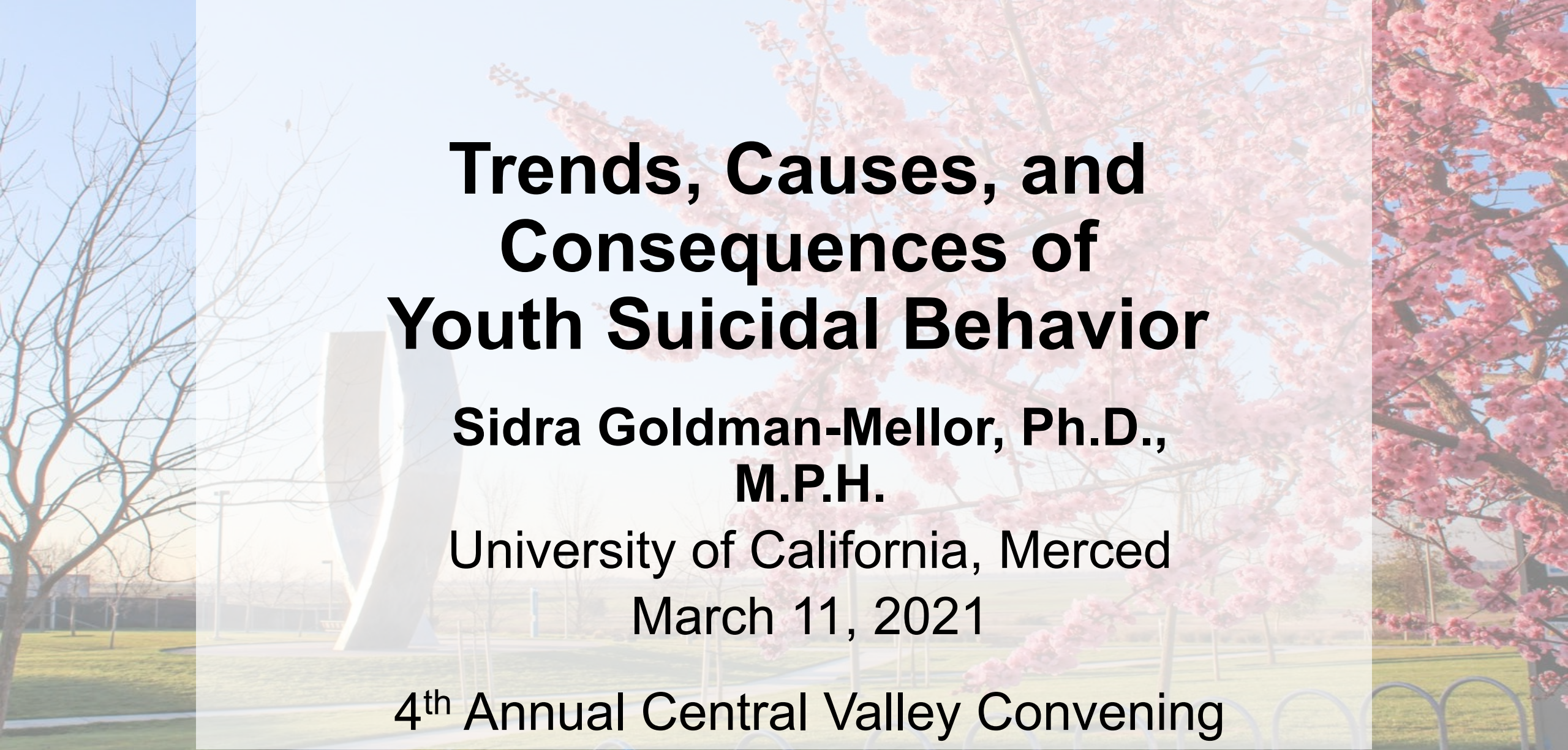
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CALIFORNIA SCHOOL-BASED HEALTH ALLIANCE — Putting Health Care Where Kids Are

Trends, Causes, and Consequences of Youth Suicidal Behavior

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4th Annual Central Valley Convening

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Overview

- Key definitions
- General patterns and recent trends
- Causes of youth suicidal behavior
- In their own words
- In the aftermath of youth suicidal behavior

A Bit About Me

- Professor of Public Health at University of California, Merced (since 2014)

- Psychiatric epidemiologist by training

- Research focuses on life-course determinants and consequences of suicidal behavior, including in youths

- PhD and MPH from University of California, Berkeley

Key Definitions

- **Suicide:** Death caused by injuring oneself with the intent to die.

- **Suicide attempt:** When someone harms themselves with the intent to end their life, but do not die as a result of their actions.

- **Non-suicidal self-injury:** Deliberate, self-inflicted destruction of body tissue without suicidal intent and for purposes not socially sanctioned (e.g., cutting, burning, biting and scratching skin).

  Deliberate self-harm

- **Suicidal ideation:** Passive thoughts about wanting to be dead or active thoughts about killing oneself, *not* accompanied by preparatory behavior.

  Non-fatal suicidal behavior

Terms *not* used: "commit suicide," "successful suicide," "completed suicide." Now considered insensitive & to perpetuate stigma. For more information, see:
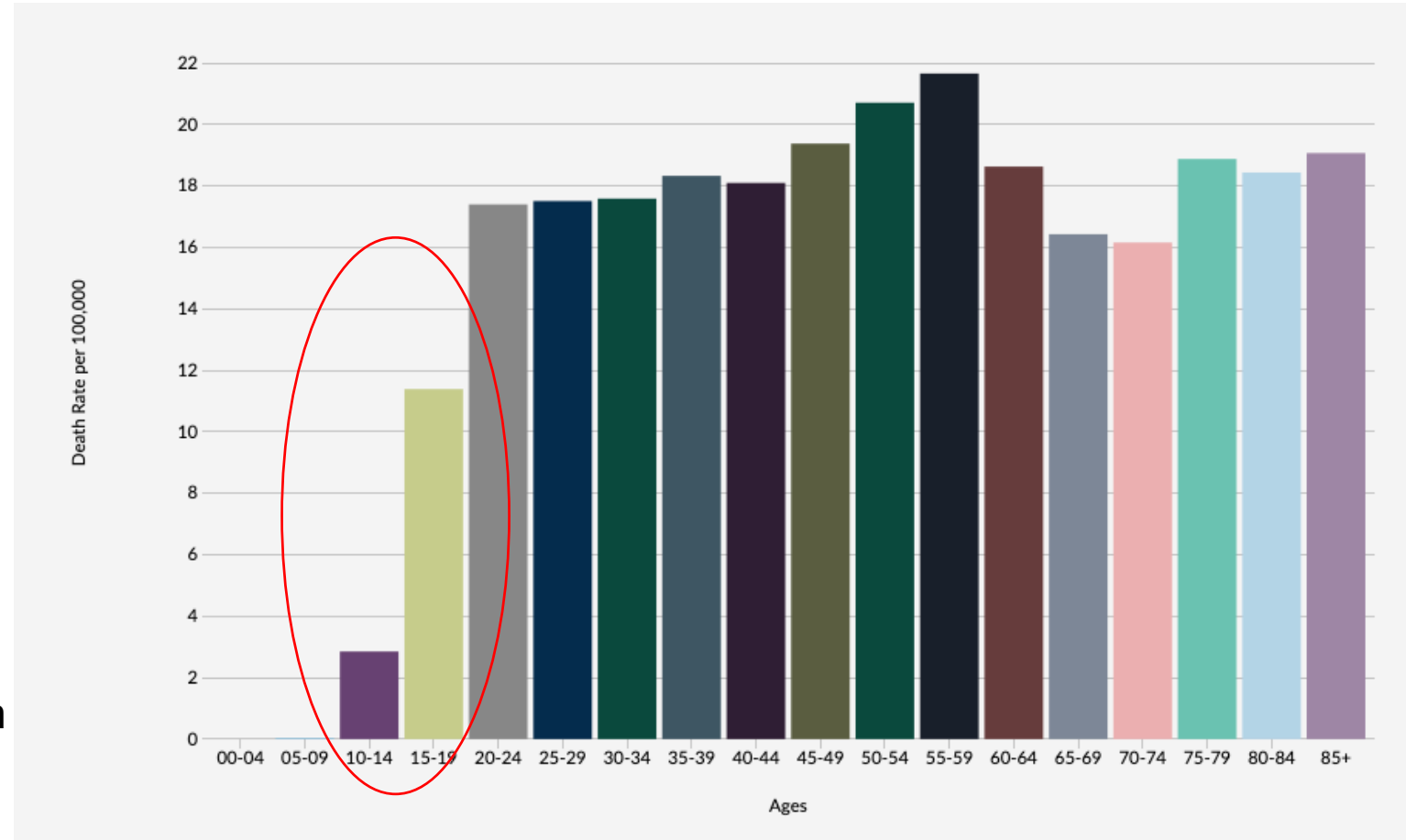https://www.suicideinfo.ca/resource/suicideandlanguage/

Rates of Youth Suicidal Behavior

Death by suicide, 2018:

Ages 10-14:
2.9 deaths per 100,000

Ages 15-19:
11.4 deaths per 100,000

2nd leading cause of death in both groups

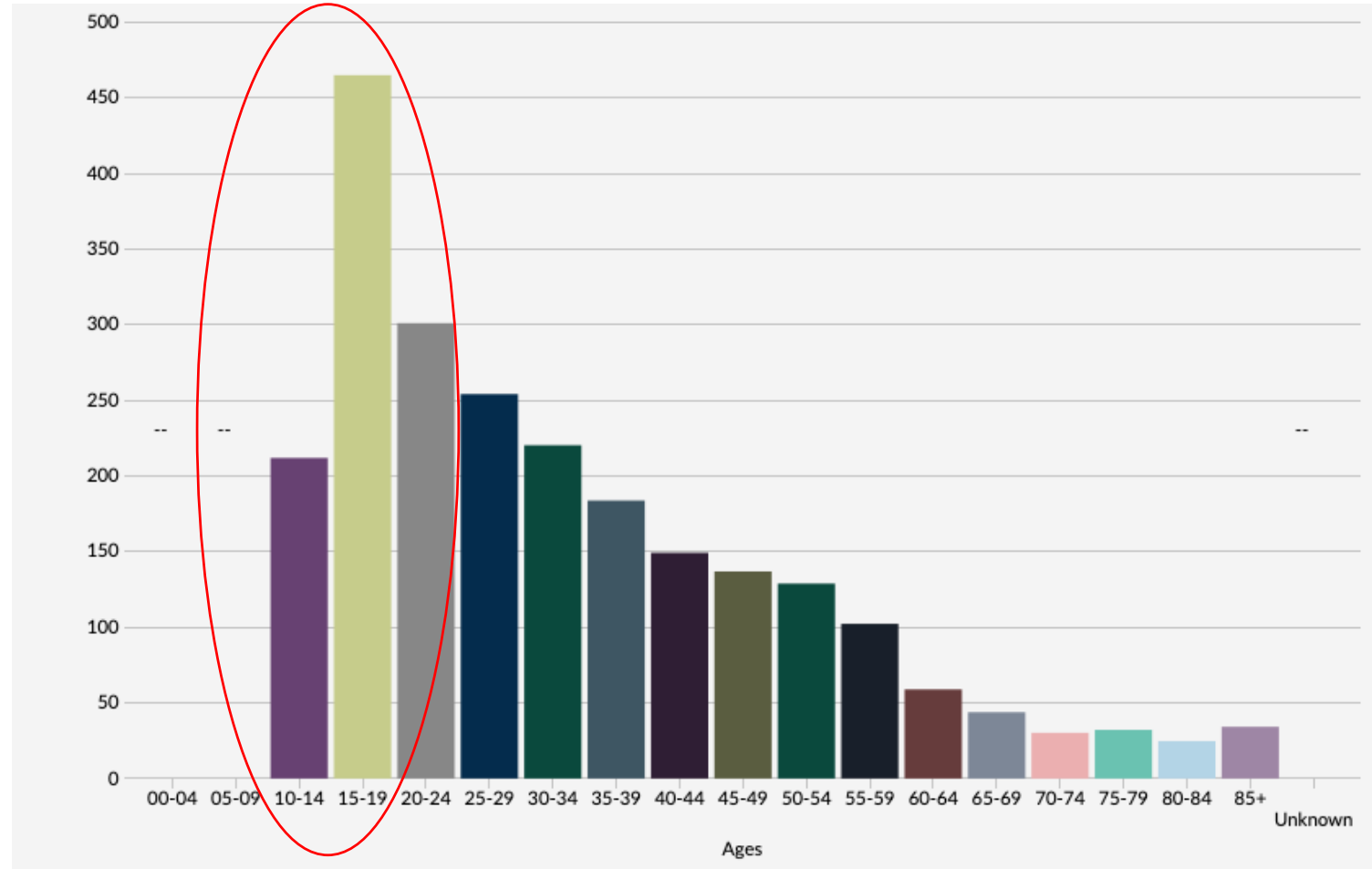Source: CDC WISQARS Fatal Injury Data, 2018.

Rates of Youth Suicidal Behavior

Emergency department visits for deliberate self-harm, 2018:

Ages 10-14:
212 visits per 100,000

Ages 15-19:
465 visits per 100,000

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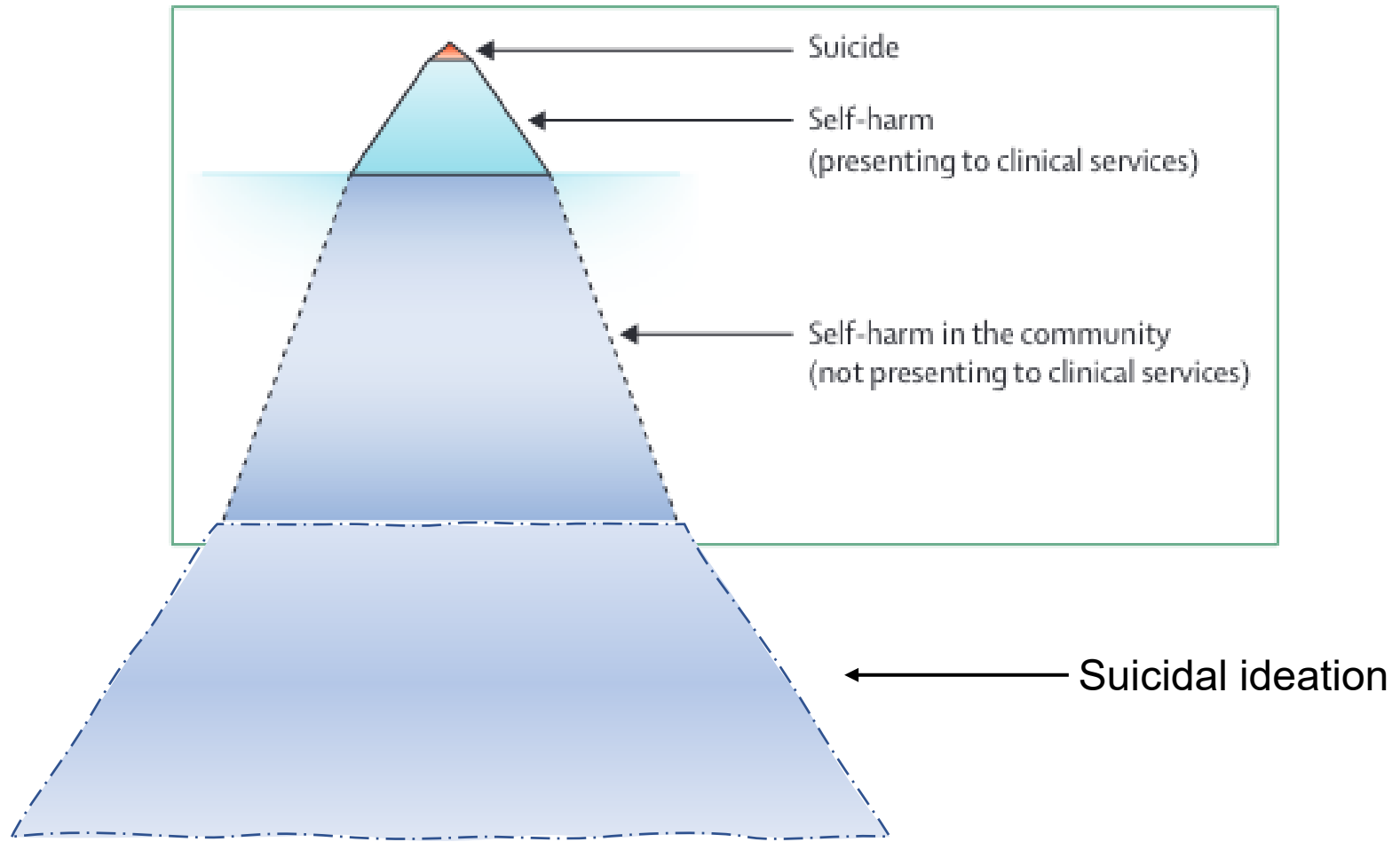Source: CDC WISQARS Non-Fatal Injury Data, 2018.

Rates of Youth Suicidal Behavior

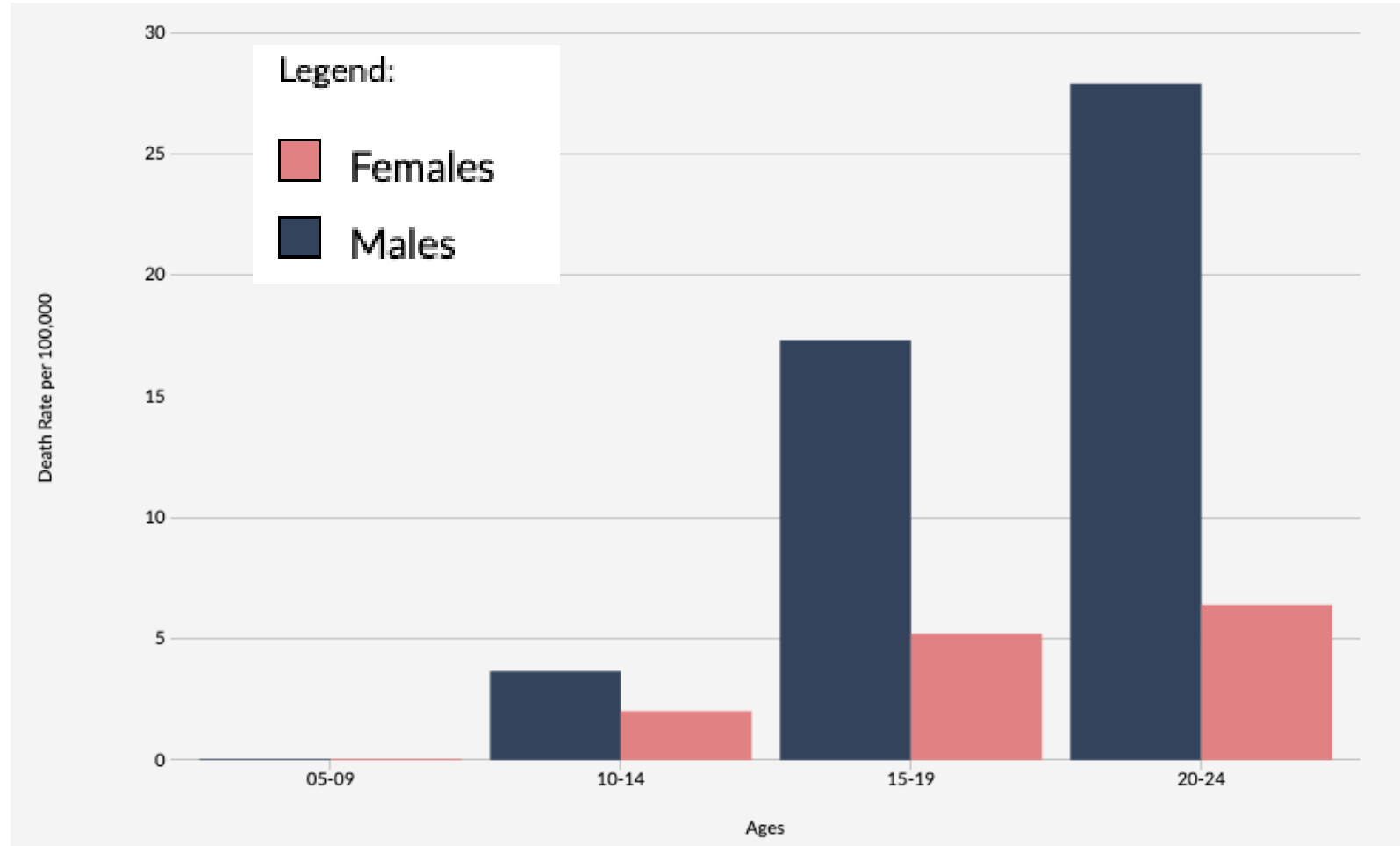National survey of high school students, 2019:

- **18.8%** had seriously considered attempting suicide (ideation)
- **15.7%** had made plan about how they would attempt suicide
- **8.9%** had attempted suicide ≥1 time
- **2.5%** had made an attempt requiring medical treatment

Relative Frequency of Suicidal Behaviors

Suicide

Self-harm
(presenting to clinical services)

Self-harm in the community
(not presenting to clinical services)

Suicidal ideation

Source: Hawton et al., 2012.

Patterns by Gender: Suicide Deaths

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Patterns by Gender: Emergency Department Self-Harm Visits

Legend:
- Females
- Males

Ages: 05-09, 10-14, 15-19, 20-24

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Source: CDC WISQARS Non-Fatal Injury Data, 2018.
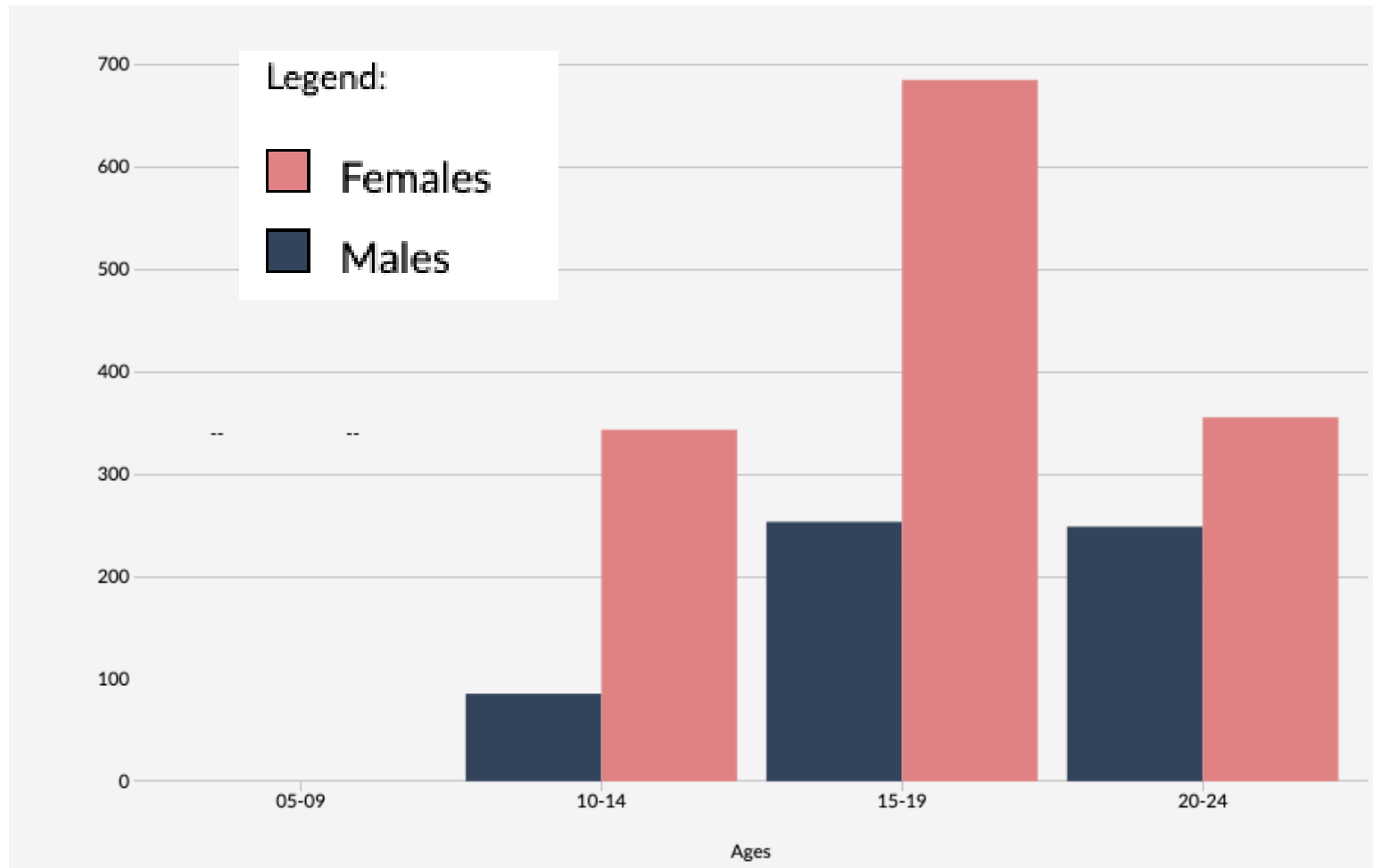
Patterns by Race/Ethnicity: Suicide Deaths

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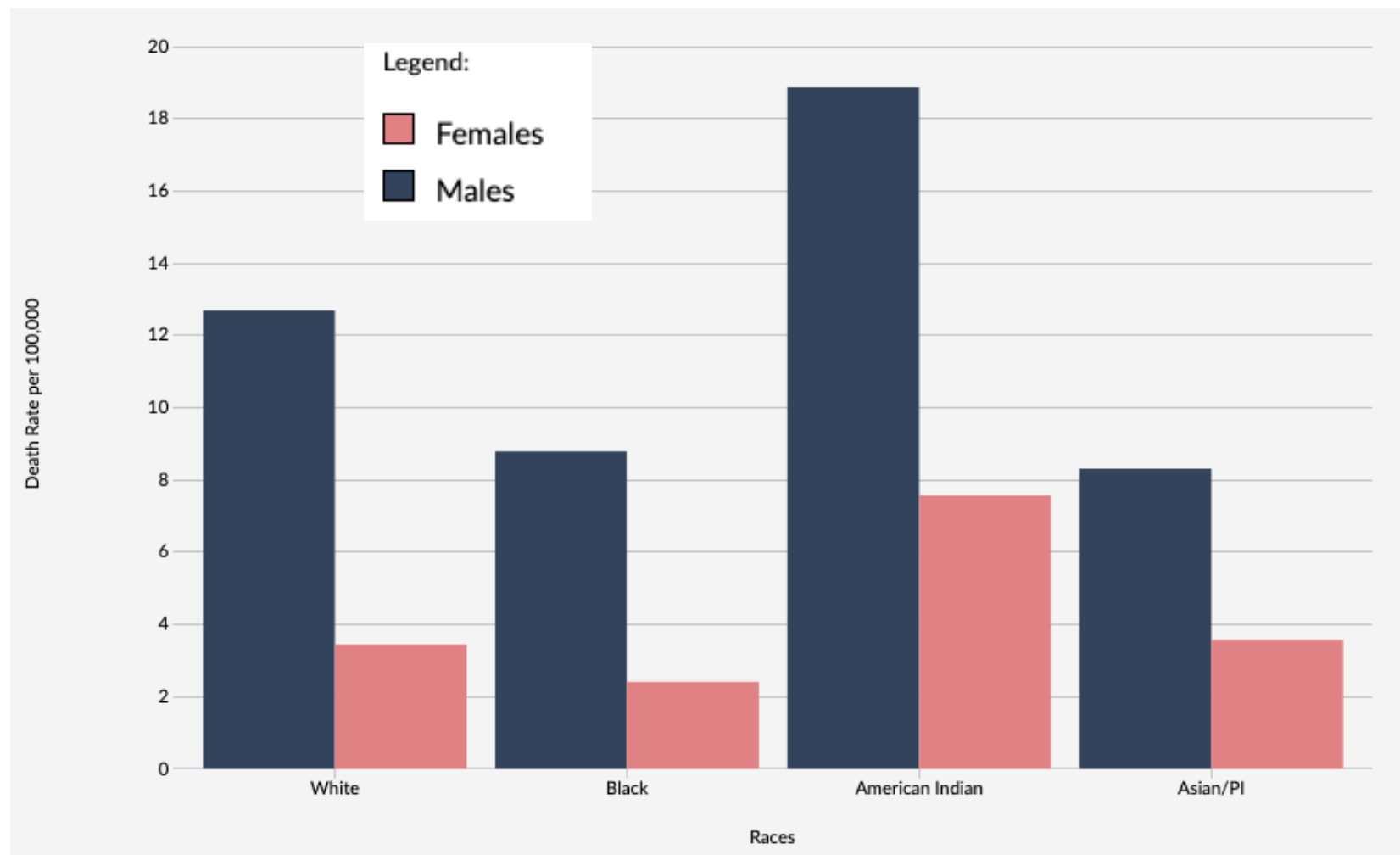
Patterns by Race/Ethnicity: Ideation, Attempts
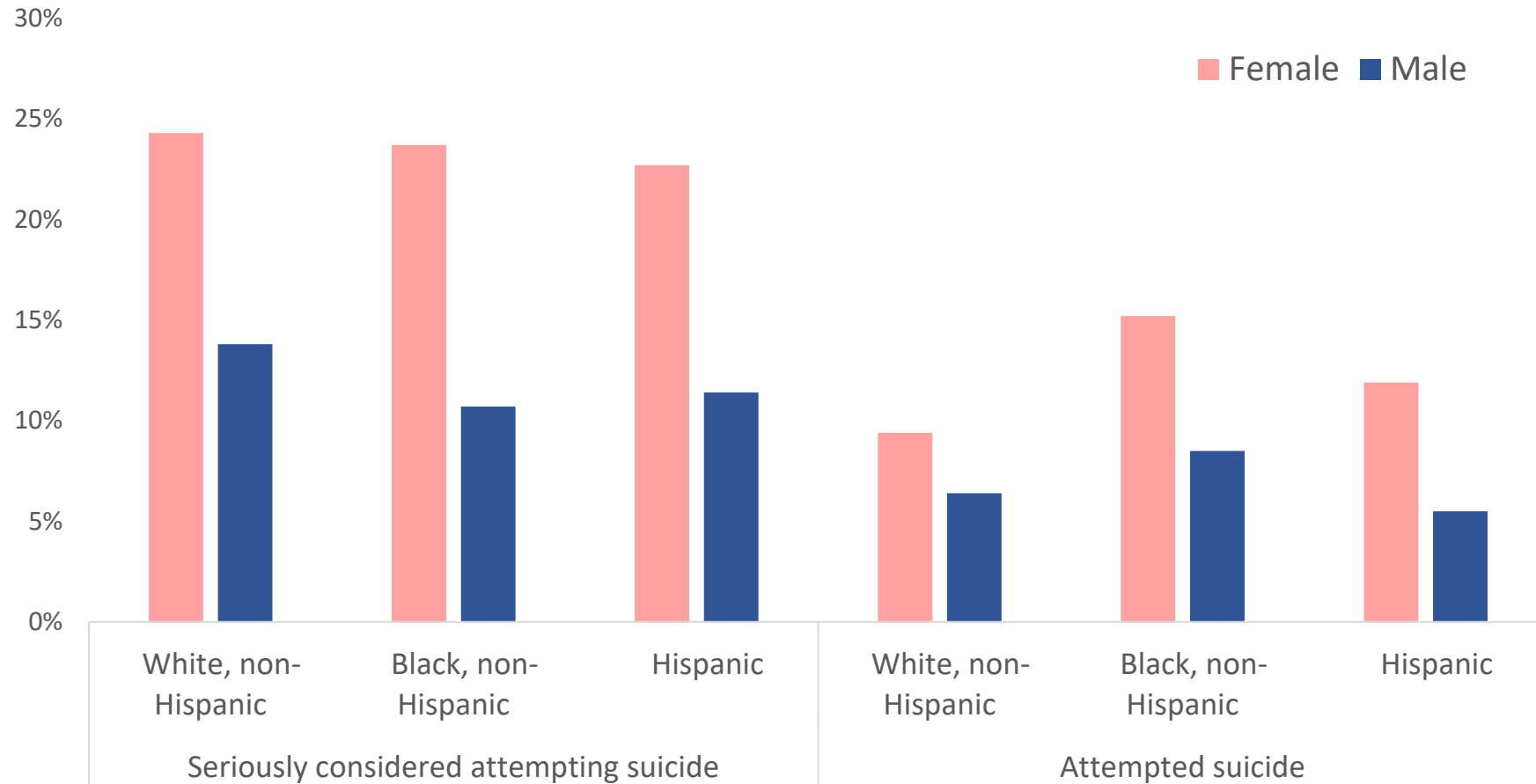
Recent Trends: Suicide Deaths

Source: CDC WISQARS Fatal Injury Data, 2018.
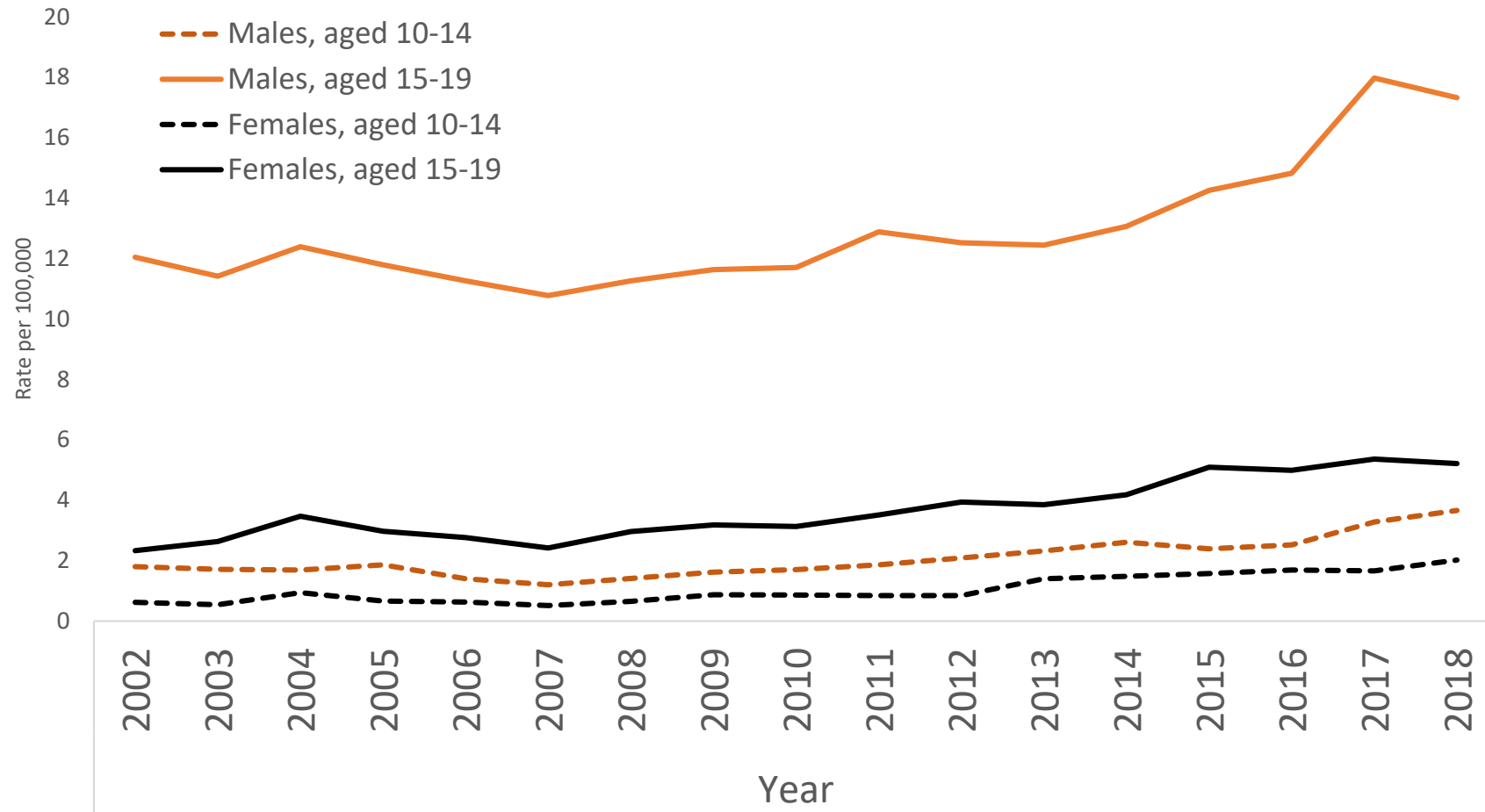
Recent Trends: Emergency Department Self-Harm Visits
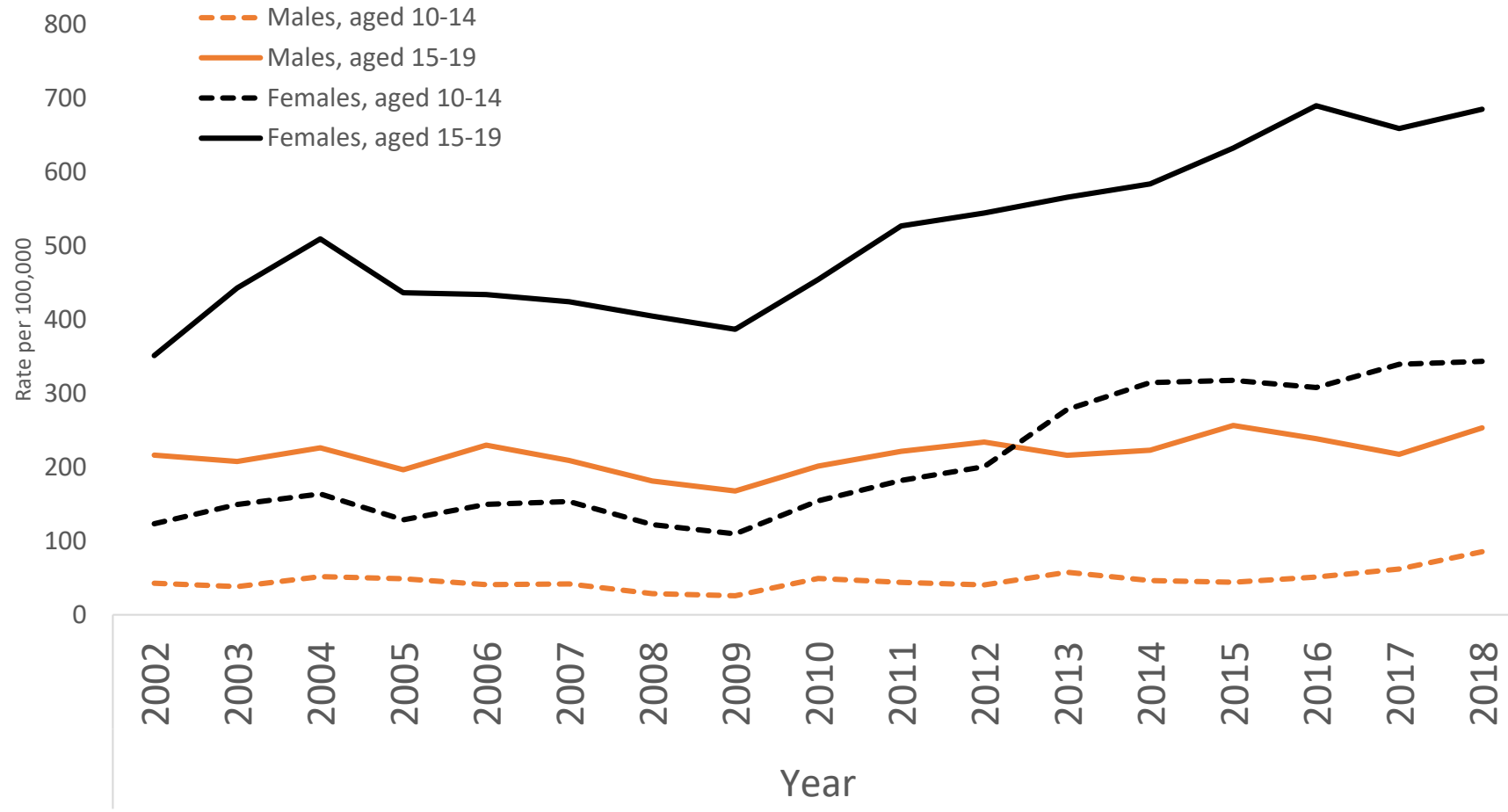
What Explains these Increases?

- No one really knows
- Increase in non-fatal suicidal behavior could be (partly) due to rise in presentation and diagnosis rather than true increase in incidence
  - More people self-reporting problems may partly reflect greater willingness to share suicidal thoughts, due to better mental health literacy.
- But much of the increase is real
- Great Recession may partly explain it
- Scientists still working on this

Suicidal Behavior in California/San Joaquin Valley

Self-harm emergency department visit rates, 2010-2015, ages 10-19, by SJV county
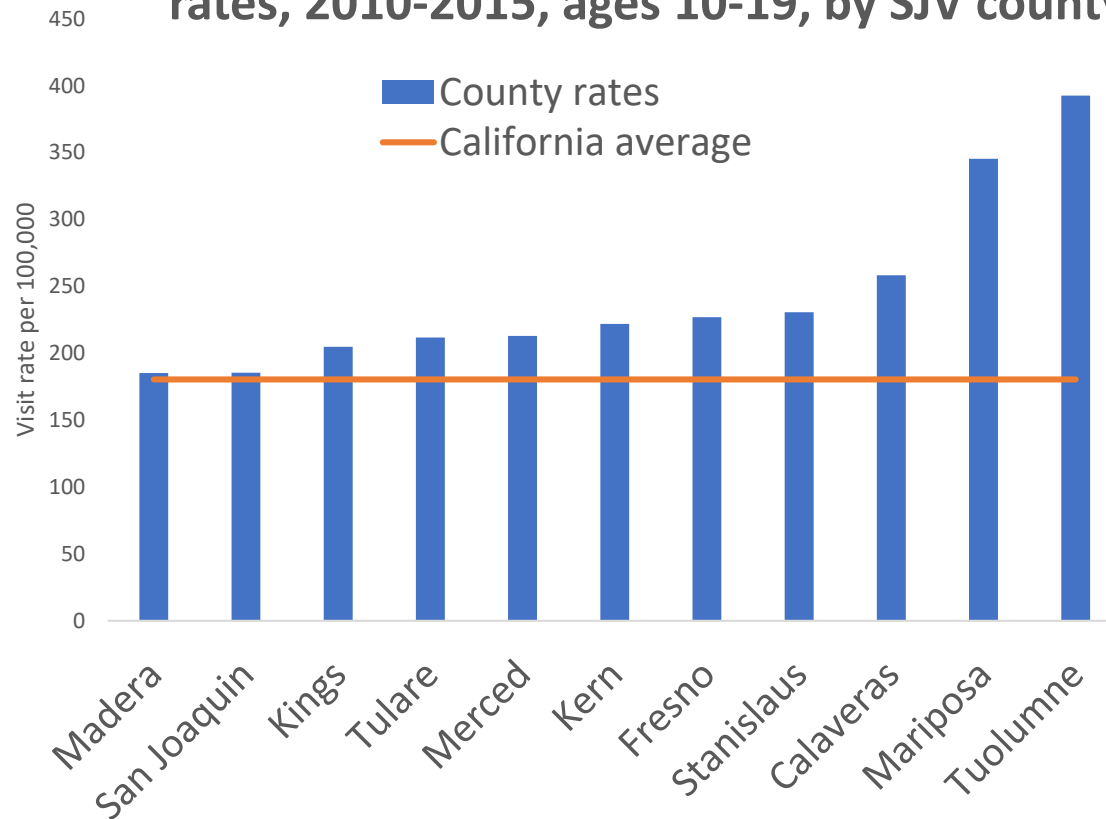
2008–2010, Age-Adjusted Suicide Rates by Region

Suicide "Clusters"

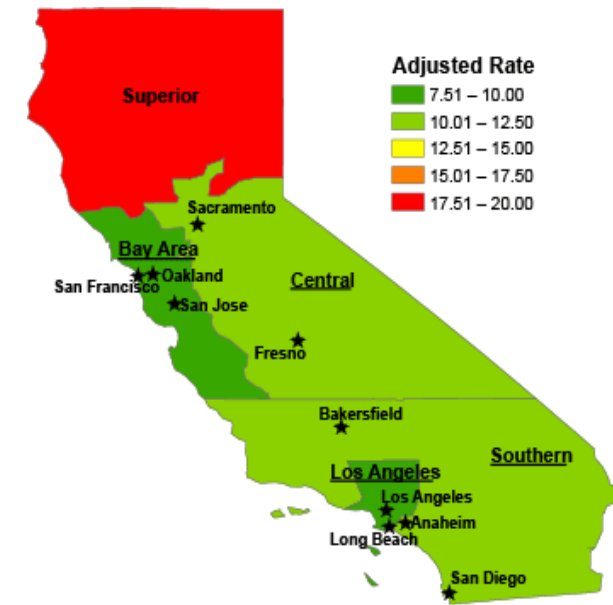- A situation in which more suicides than expected occur in terms of time, place, or both.
    - Can also happen with non-fatal suicidal behavior.
- Somewhat controversial, and hard to define.
    - Common: "point clusters" (e.g., 3 deaths), occurring close together in time <u>and</u> space.
    - With info about suicidal behavior increasingly spreading via the Internet and social media, incidence of geographically spread mass ("temporal") clusters may be increasing.

- ~1-5% of youth suicides occur as part of a cluster.

Point cluster (spatiotemporal cluster)

Mass cluster (temporal cluster)

Figure 1 from Hawton et al., 2020.
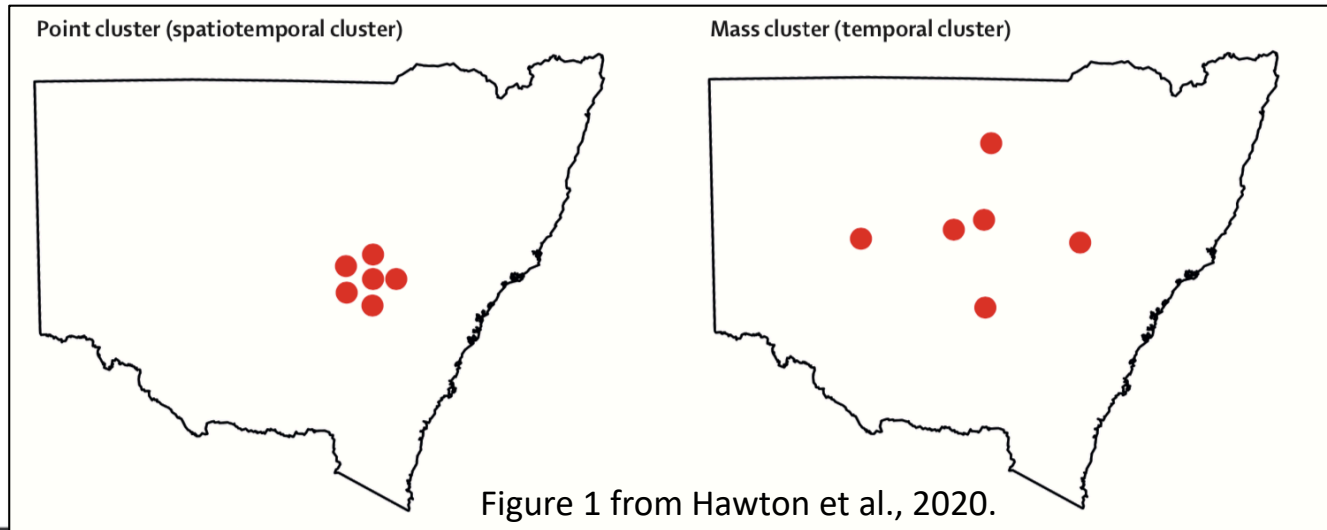
Suicide "Clusters"

- Risk factors:
  - Geographic remoteness
  - Economic deprivation
  - Indigenous status
  - Institutional settings (e.g., schools)
  - Prominent, explicit, detailed media stories after a first suicide death, with glorification of the decedent

But keep in mind:

- In most respects, youths who die by suicide as part of a cluster tend to be similar to youths who die by suicide *not* in a cluster

Causes of Suicidal Behavior

Complex and not fully understood; results from many interacting factors
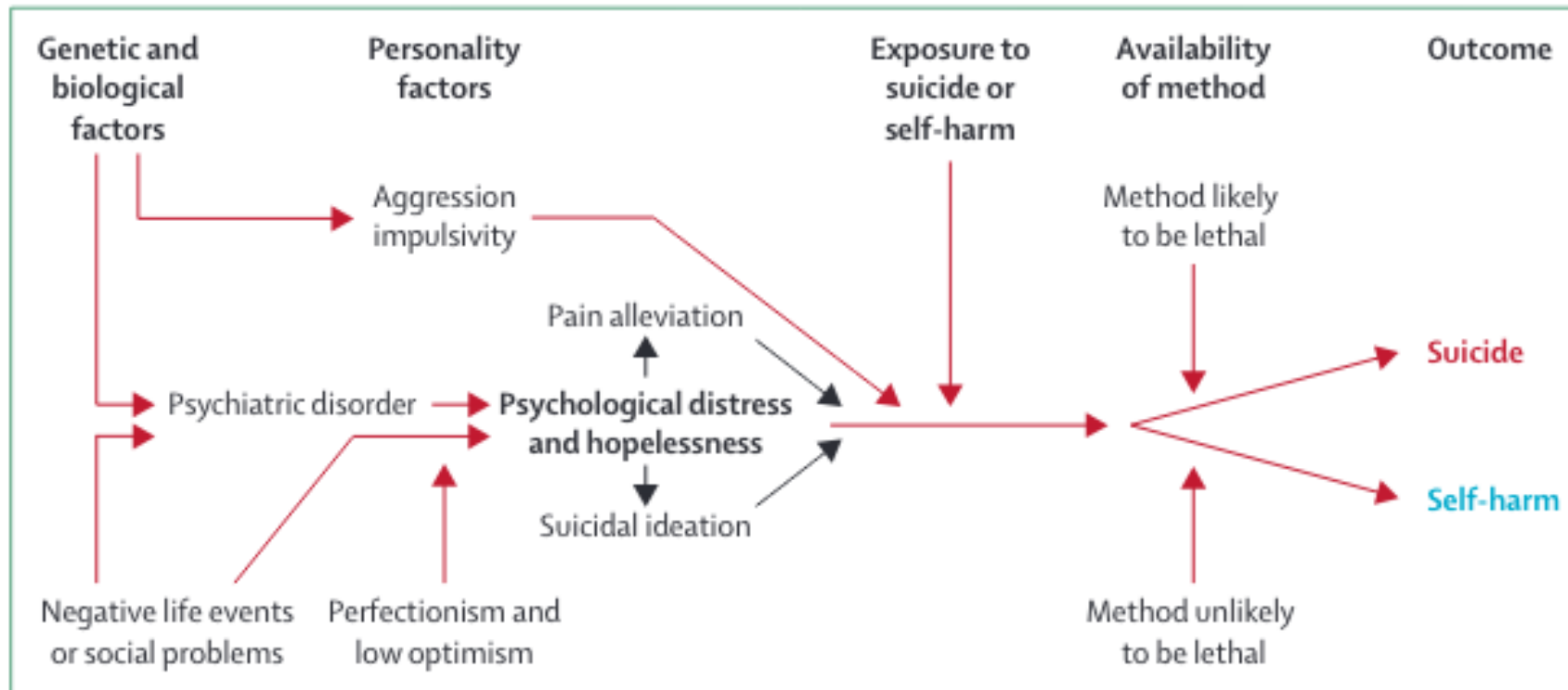
Figure 2: Key risk factors for adolescent self-harm and suicide

Source: Hawton et al., 2012.

Risk Factors for Suicidal Behavior

Sociodemographic and educational factors

- ❖ Gender
- ❖ Low socioeconomic status
- ❖ LGBTQ sexual orientation
- ❖ Restricted educational achievement

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Risk Factors for Suicidal Behavior

Negative life events and family/school adversity
- ❖ Parental separation/divorce
- ❖ Parental death
- ❖ Adverse childhood experiences
- ❖ History of physical or sexual abuse
- ❖ Parental mental disorder
- ❖ Family history of suicidal behavior
- ❖ Family discord
- ❖ Bullying
- ❖ Interpersonal difficulties

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Risk Factors for Suicidal Behavior

Psychiatric and psychological factors

❖ Mental disorder
  ❖ especially depression, anxiety, ADHD
❖ Drug and alcohol misuse
❖ Impulsivity, aggression
❖ Low self-esteem
❖ Poor social problem solving
❖ Perfectionism
❖ Hopelessness

Source: Hawton et al., 2012.

Risk Factors for Suicidal Behavior

Context/environment

❖ High unemployment

❖ Stigmatizing policies (e.g., implementation of permissive same-sex marriage policies → reduced suicide attempts)

❖ Media portrayals of suicide (e.g., "13 Reasons Why" television show)

❖ Rural residence

❖ Access to lethal means

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Sources: Catalano et al., 2012; Raifman et al., 2017; Niederkrotenthaler et al., 2019; Fontanella et al., 2015.

Reducing Access to Lethal Means Saves Lives

Means restriction
Highly lethal, commonly used suicide method is made less accessible or less lethal

Substitution
Attempter substitutes another method; on average, substituted methods are less lethal

Delay
Attempt is temporarily or permanently delayed

Fewer attempts prove fatal

Suicidal crisis passes for many
- The acute period in which someone will attempt is often short. Delays can save some, but not all, lives
- 89%–95% of attempters do not go on to die by suicide

Suicide rate drops
Drop in overall suicide rate is driven by decline in rate of suicide by the restricted method

Source: Barber & Miller, 2014.

Reducing Access to Lethal Means Saves Lives

- ~Half of all adolescent suicide deaths involve firearms

- Higher levels of firearm ownership → higher teen firearm suicide rates
  - Association is stronger than among adults!

- Policies mandating locks and safe storage are associated with reduced teen suicide rates

- But more progress needed:
  - 1 in 3 homes with kids contain firearms; in half of these homes, firearms are not locked up
  - 40% of teens in homes with firearms report easy access to the guns

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Source: Kivisto et al., 2020; Azrael et al., 2018; Simonetti et al., 2015.

In Their Own Words

- "Everything piled up, and it was just like, 'I'm done. Can't do this anymore'…it just seemed like anxiety and depression was never gonna go away, and I couldn't do anything about it."

- "My mom read my journal, and it felt like she stole [my life] from me."

- "(From being bullied) I felt really hated and I guess it brought down my self-esteem. It made me feel what's wrong with me. Then also that in combination with I'm not as popular…I felt really like a loser."

- "[My suicidal desire] intensified after [my classmate] committed suicide because everyone was so upset and everyone was saying, how could he have done this to himself. How could he have felt so alone and … how come he wasn't able to tell anybody…I realized that made me feel even more alone cuz nobody understood how [my classmate] felt, which meant that nobody understood how I felt."

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In Their Own Words

- "I think that most of the people I know would be better off not knowing me. I feel like their lives would just be much easier…I am not able to do it, like be the best kid I can be for my parents. To be even a good friend for my friends. Be a good family member or role model for my family or my cousins or whatever."

- "I just grew so weak in a way 'cause then wanted to be disconnected from everything. I guess I felt like I didn't belong and an outcast and was really alone. I just can't run away 'cause where am I gonna run away to?"

- "I didn't have the little things to live for. It was all falling apart, family life and school life. There wasn't any good. I couldn't see the light at the end of the tunnel. It just seemed like darkness. I couldn't imagine myself being anywhere else. When I thought about my future, there was just blackness. I wasn't dead, but I wasn't alive. I wasn't doing anything important like I used to think about…Just being someone, doing something important."

Internet Use and Suicidal Behavior

- Existing evidence: relationship between Internet use and self-harm/suicidal behavior is mixed
  - Potential for harm
  - But also potential for fostering sense of community, offering isolated young people supportive contacts

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Social Media Use and Suicidal Behavior

- Hard/unclear how to assess "social media use"

- Existing evidence: Weak association between social media → suicidal behavior, and that relationship might be explained by other factors (e.g., cyberbullying, psychiatric disorder)

  - Could be explained by "reverse causality"
  - Social media use can also be a positive influence for some
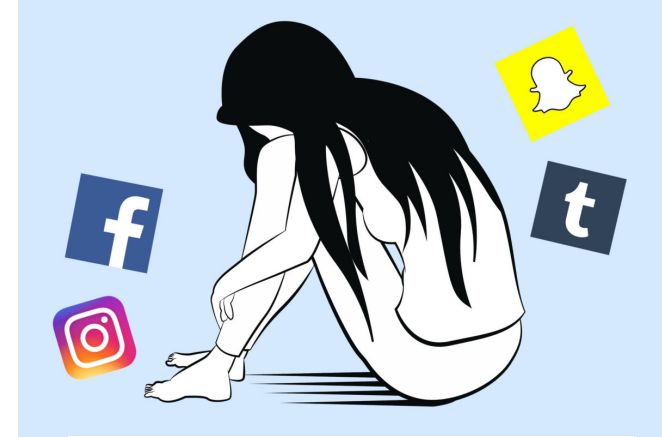
In the Aftermath of Suicidal Behavior

The good news:
- The vast majority of youths who engage in suicidal behavior *do not* go on to die by suicide
- For some, it is an impulsive act with few long-term consequences

The not-so-great news:
- Many youths who engage in suicidal behavior (especially suicide attempts) suffer long-term psychiatric problems, health problems, family violence, and legal problems

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In the Aftermath of Suicidal Behavior

In research using California data on teens who were treated in the Emergency Department for self-harm:

We tracked ~5,900 teens over 5 years

- 19% made another self-harm Emergency Department visit
- 10% within 1 year)
- They had elevated rates of healthcare utilization and costs
- <1% died ($^1/_3$ by suicide)

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In the Aftermath of Suicidal Behavior

- Longitudinal study of adolescents in North Carolina found that suicidal thoughts and behaviors were associated with:
  - Higher levels of adulthood anxiety and suicidality
  - Poor adulthood financial/educational functioning
  - Poor adulthood health
  - More risky/illegal activity
- Youths with ideation not doing much better than those who attempted

FIGURE 1 Associations of childhood suicidal thoughts and behavior (STB) groups with adult functional scales for health, risky behavior, financial/educational, and social functioning. *Note:* Suicide behavior groups were compared to no childhood suicide behavior group. $*p < .05$; $**p < .01$.

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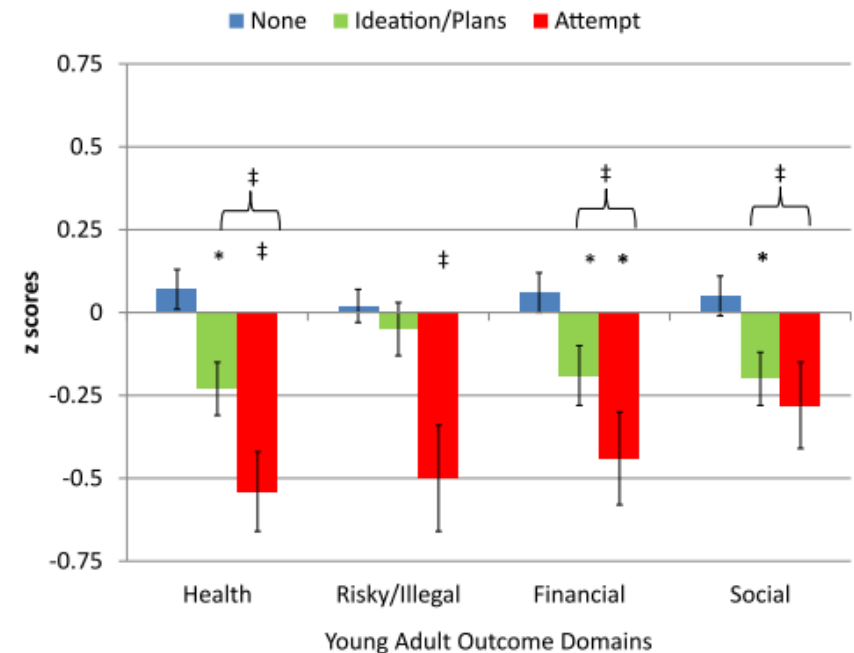
Summary

- Youth suicidal behavior is increasing – and we don't know why

- Suicide deaths are just the tip of the iceberg of this public health crisis

- Key differences in overall incidence by age, gender, race/ethnicity, socioeconomic disadvantage

Suicidal Behavior *is* Preventable

- The rest of today's event will be focused on evidence-based approaches to suicide prevention

- Thank you for your time, attention, and efforts around suicide prevention!

Thank you! Questions?

Contact information:

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Resources

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