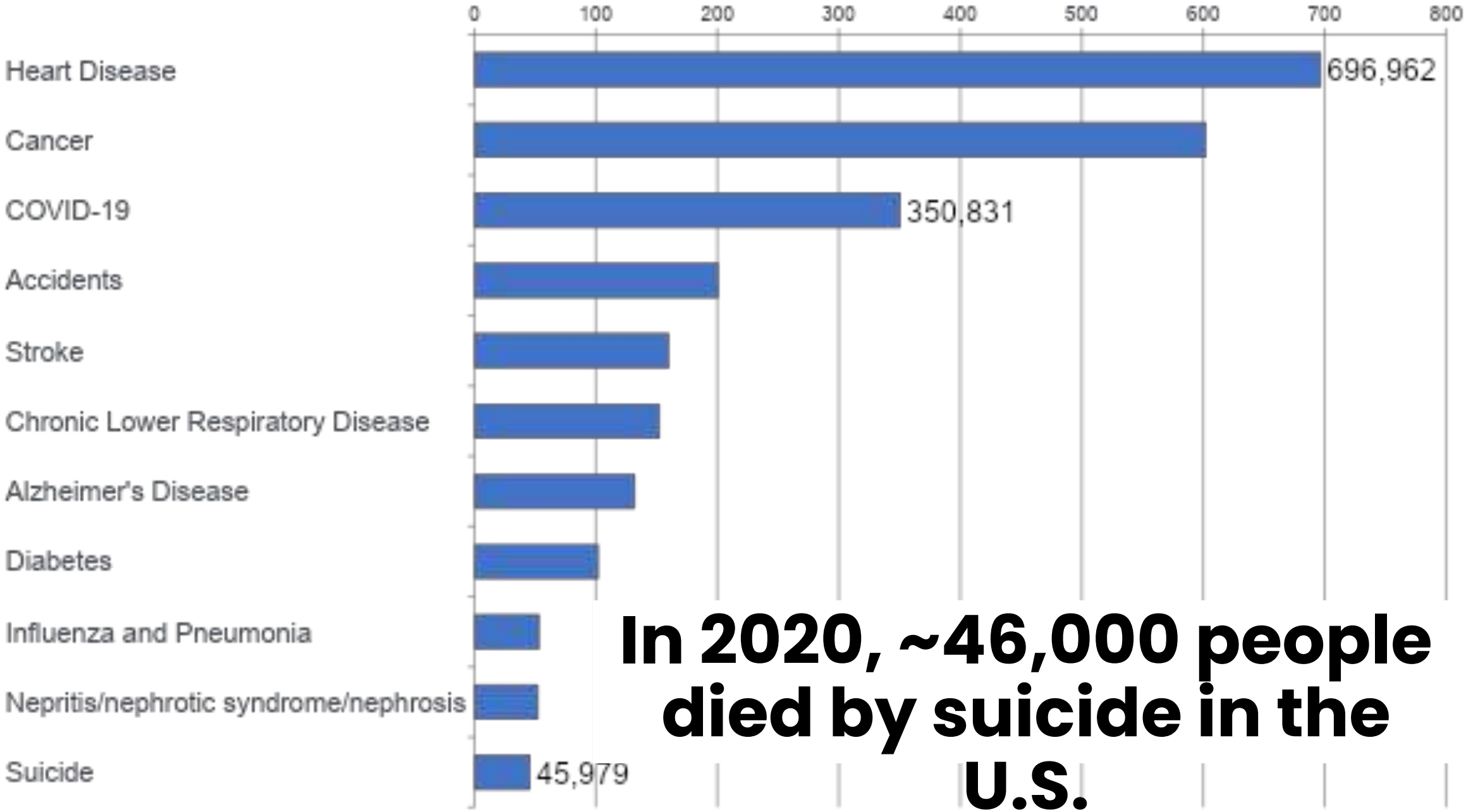
Suicide in Lesbian, Gay & Bisexual Adults:

Epidemiologic Trends & Strategies for Prevention

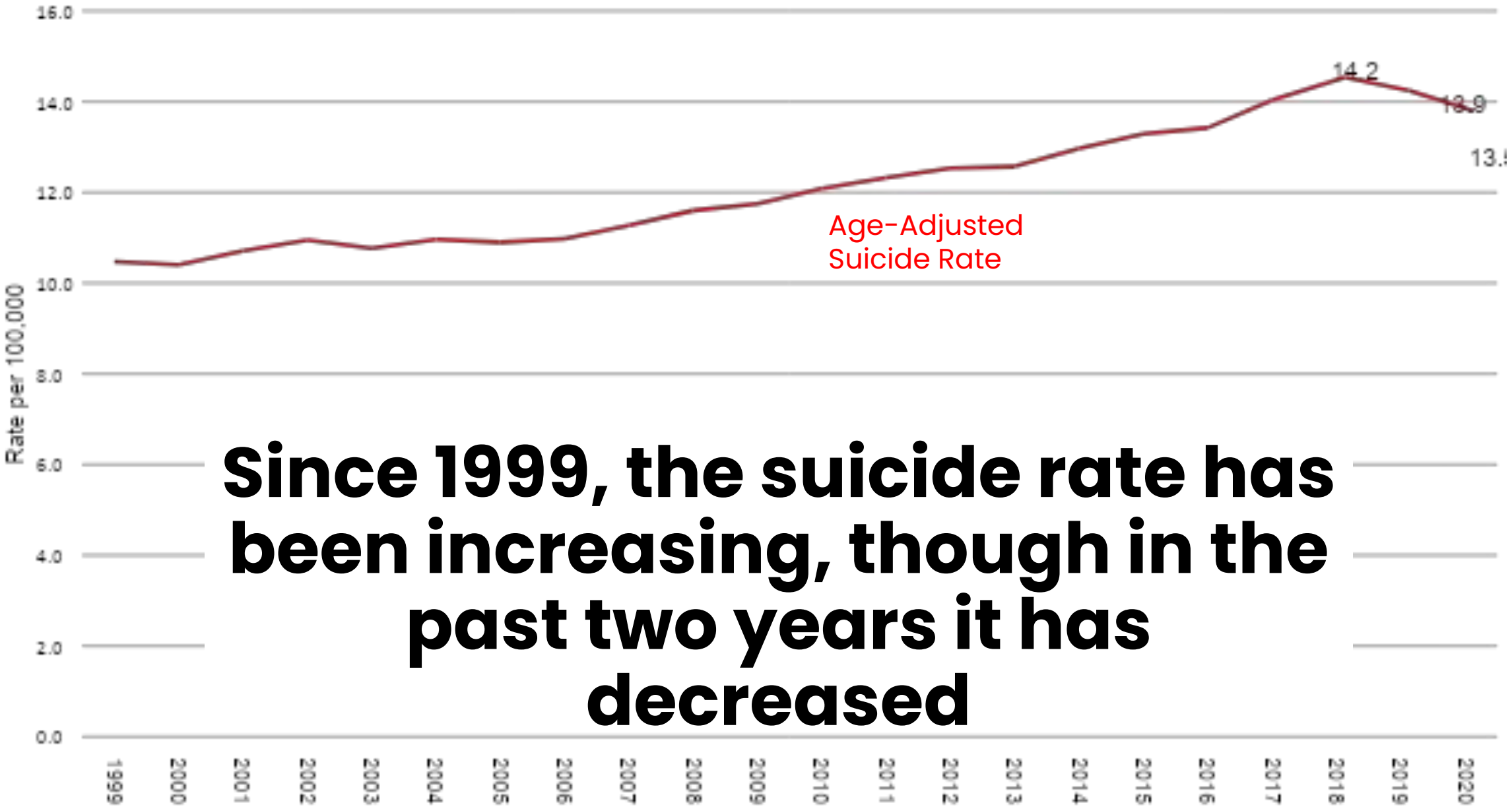
Rajeev Ramchand, Ph.D.

June 13, 2023



In 2020, ~46,000 people died by suicide in the U.S.

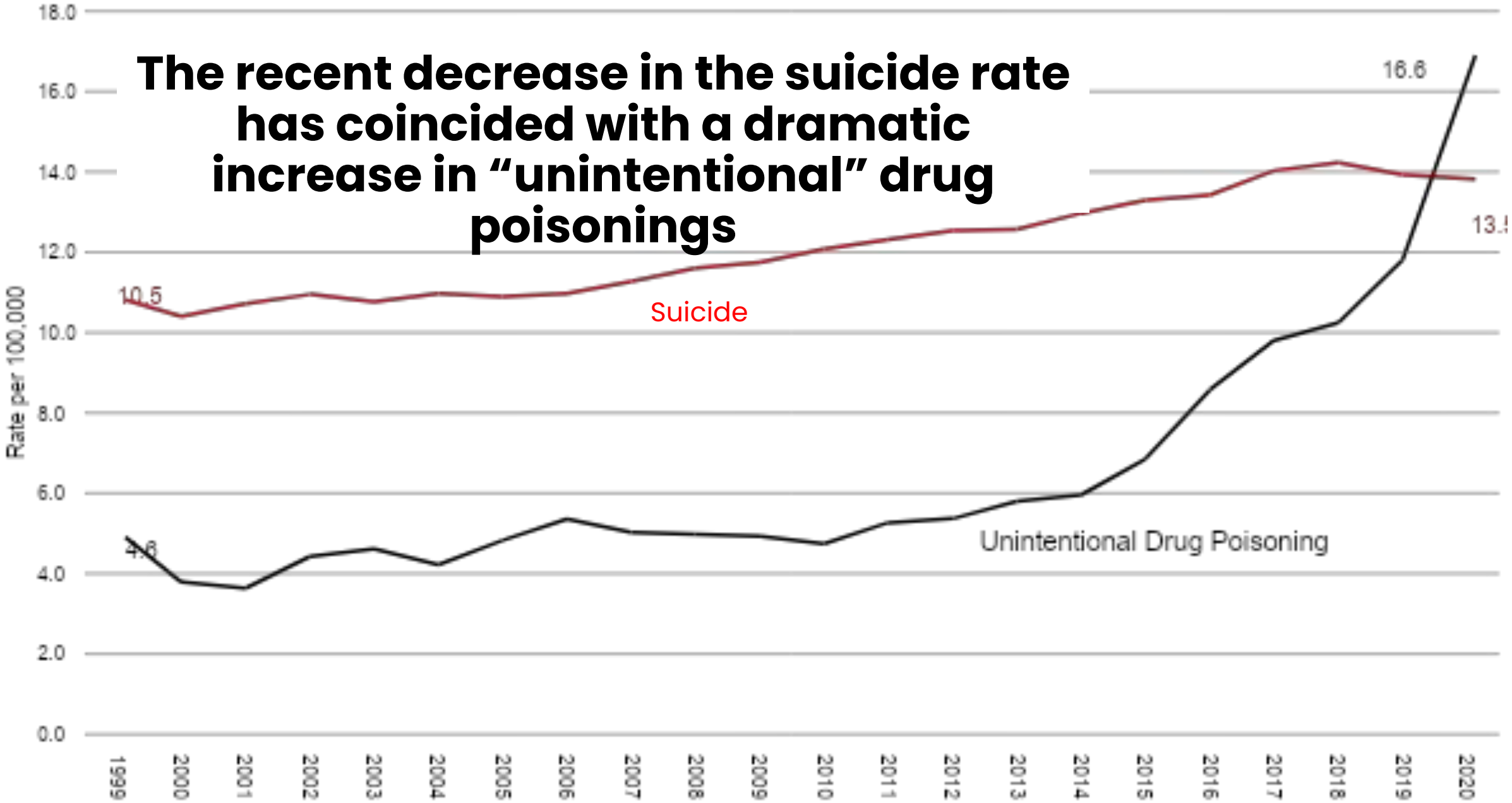
Data from National Vital Statistics System



Since 1999, the suicide rate has been increasing, though in the past two years it has decreased

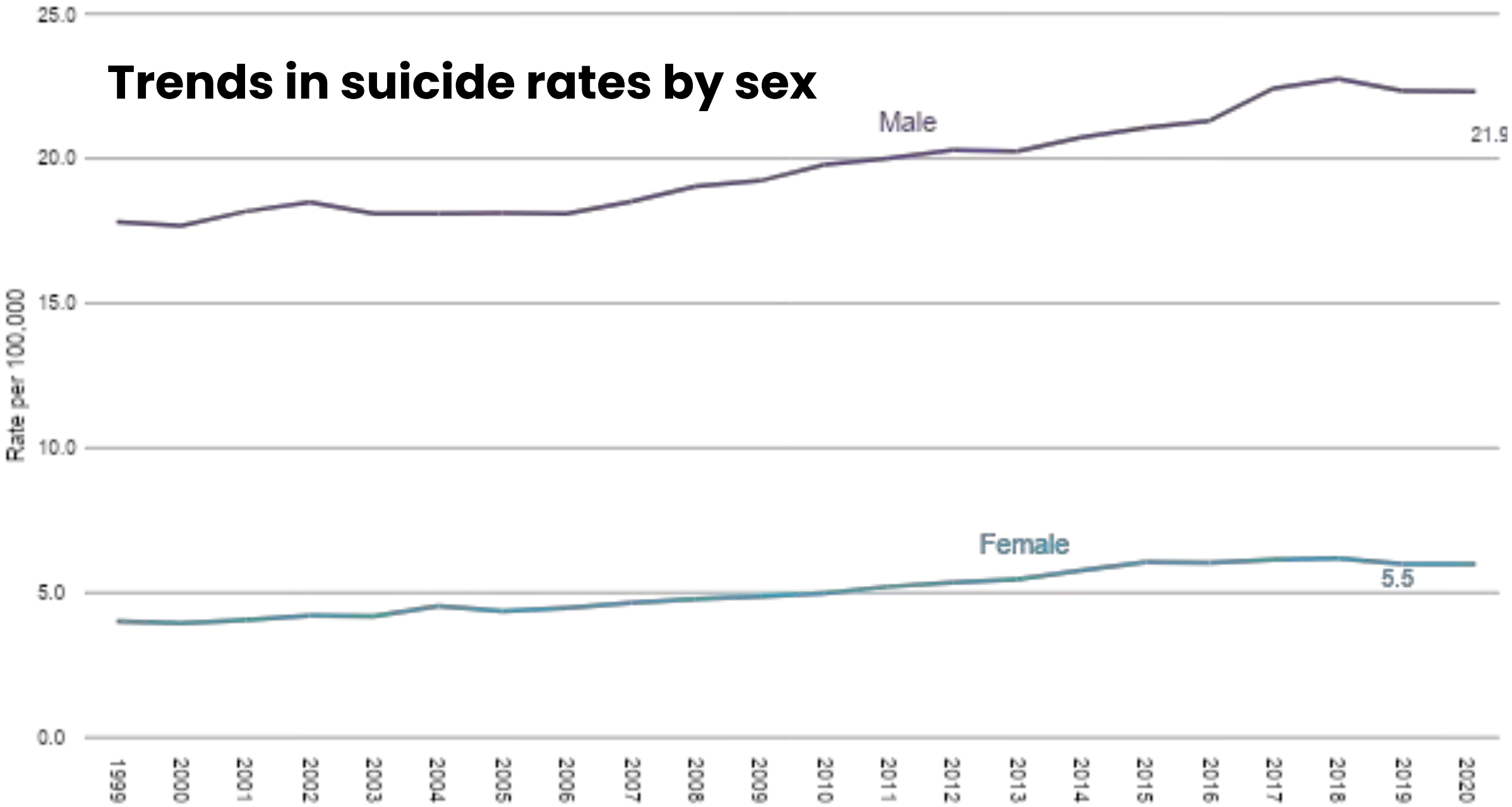
Data from National Vital Statistics System

The recent decrease in the suicide rate has coincided with a dramatic increase in “unintentional” drug poisonings



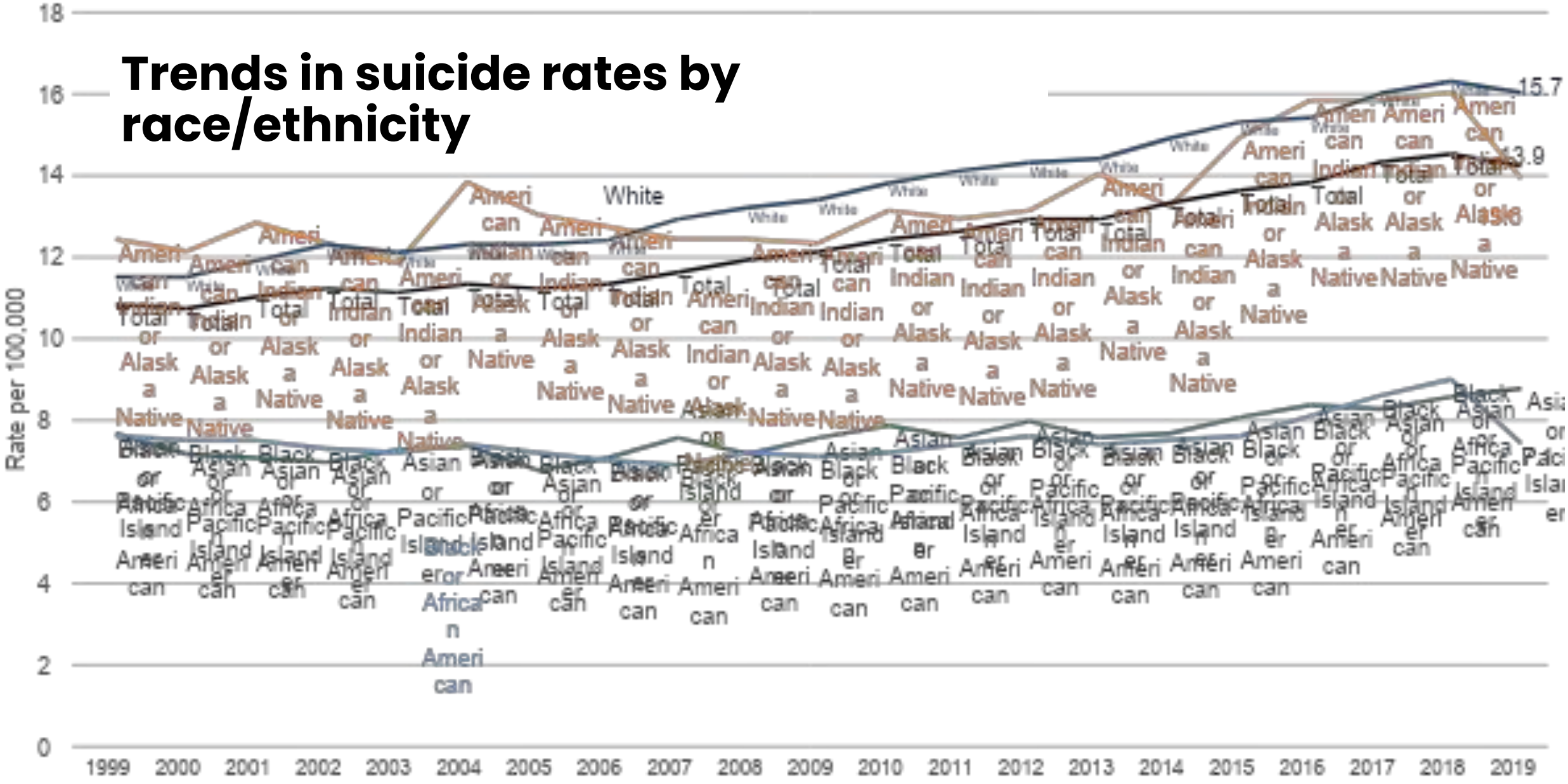
Data from National Vital Statistics System

Trends in suicide rates by sex



Data from National Vital Statistics System

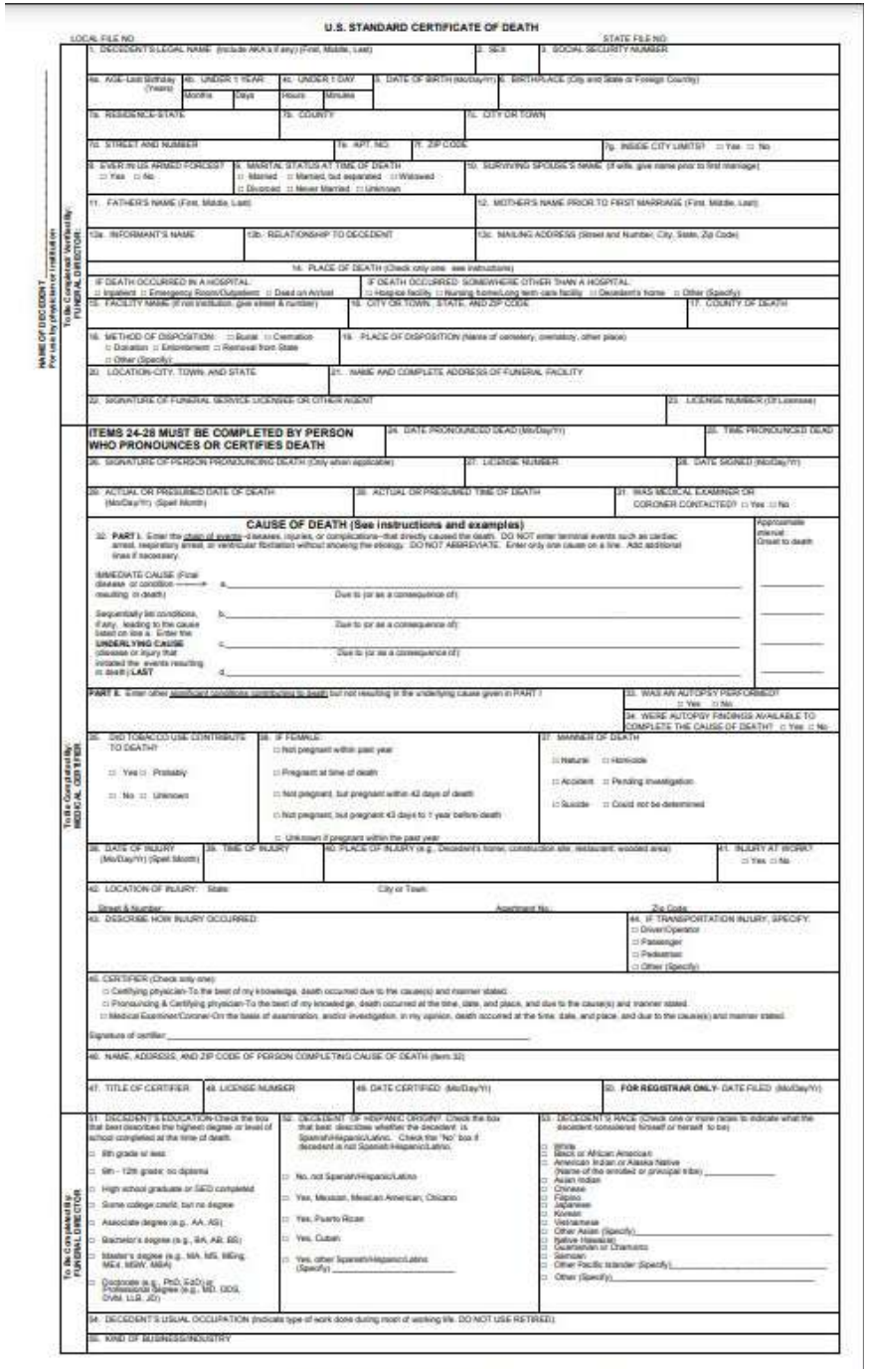
Trends in suicide rates by race/ethnicity



Data from National Vital Statistics System

Trends in suicide rates by sexual orientation

Trends in suicide rates by gender identity



U.S. STANDARD CERTIFICATE OF DEATH

LOCAL FILE NO. STATE FILE NO.

NAME OF DECEDENT
For use by physician or institution
To Be Completed Verified by FUNERAL DIRECTOR:

1. DECEDENT'S LEGAL NAME (Include AKA's if any) (First, Middle, Last) | 2. SEX | 3. SOCIAL SECURITY NUMBER

4a. AGE-Last Birthday (Years) | 4b. UNDER 1 YEAR: Months, Days | 4c. UNDER 1 DAY: Hours, Minutes | 5. DATE OF BIRTH (Mo/Day/Yr) | 6. BIRTHPLACE (City and State or Foreign Country)

7a. RESIDENCE-STATE | 7b. COUNTY | 7c. CITY OR TOWN

8. STREET AND NUMBER | 9. APT. NO. | 10. ZIP CODE | 11. INSIDE CITY LIMITS? ☐ Yes ☐ No

12. EVER IN US ARMED FORCES? ☐ Yes ☐ No | 13. MARITAL STATUS AT TIME OF DEATH: ☐ Married ☐ Married, but separated ☐ Widowed ☐ Divorced ☐ Never Married ☐ Unknown | 14. SURVIVING SPOUSE'S NAME (If wife, give name prior to first marriage)

15. FATHER'S NAME (First, Middle, Last) | 16. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last)

17a. INFORMANT'S NAME | 17b. RELATIONSHIP TO DECEDENT | 17c. MAILING ADDRESS (Street and Number, City, State, Zip Code)

18. PLACE OF DEATH (Check only one; see instructions)

IF DEATH OCCURRED IN A HOSPITAL: ☐ Inpatient ☐ Emergency Room/Outpatient ☐ Dead on Arrival | IF DEATH OCCURRED SOMEWHERE OTHER THAN A HOSPITAL: ☐ Hospice facility ☐ Nursing home/Long term care facility ☐ Decedent's home ☐ Other (Specify)

19. FACILITY NAME (If not institution, give street & number) | 20. CITY OR TOWN, STATE, AND ZIP CODE | 21. COUNTY OF DEATH

22. METHOD OF DISPOSITION: ☐ Burial ☐ Cremation ☐ Donation ☐ Entombment ☐ Removal from State ☐ Other (Specify): | 23. PLACE OF DISPOSITION (Name of cemetery, crematory, other place)

24. LOCATION-CITY, TOWN, AND STATE | 25. NAME AND COMPLETE ADDRESS OF FUNERAL FACILITY

26. SIGNATURE OF FUNERAL SERVICE LICENSEE OR OTHER AGENT | 27. LICENSE NUMBER (If Licensee)

To Be Completed by MEDICAL CERTIFIER

ITEMS 24-28 MUST BE COMPLETED BY PERSON WHO PRONOUNCES OR CERTIFIES DEATH

28. DATE PRONOUNCED DEAD (Mo/Day/Yr) | 29. TIME PRONOUNCED DEAD

30. SIGNATURE OF PERSON PRONOUNCING DEATH (Only when applicable) | 31. LICENSE NUMBER | 32. DATE SIGNED (Mo/Day/Yr)

33. ACTUAL OR PRESUMED DATE OF DEATH (Mo/Day/Yr) (Spell Month) | 34. ACTUAL OR PRESUMED TIME OF DEATH | 35. WAS MEDICAL EXAMINER OR CORONER CONTACTED? ☐ Yes ☐ No

CAUSE OF DEATH (See instructions and examples)

36. PART I. Enter the chain of events--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.

Approximate interval: Onset to death

IMMEDIATE CAUSE (Final disease or condition resulting in death) a. ____ Due to (or as a consequence of):

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST b. ____ Due to (or as a consequence of):

c. ____ Due to (or as a consequence of):

d. ____

PART II. Enter other significant conditions contributing to death but not resulting in the underlying cause given in PART I

37. WAS AN AUTOPSY PERFORMED? ☐ Yes ☐ No

38. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? ☐ Yes ☐ No

39. DID TOBACCO USE CONTRIBUTE TO DEATH? ☐ Yes ☐ Probably ☐ No ☐ Unknown

40. IF FEMALE: ☐ Not pregnant within past year ☐ Pregnant at time of death ☐ Not pregnant, but pregnant within 42 days of death ☐ Not pregnant, but pregnant 43 days to 1 year before death ☐ Unknown if pregnant within the past year

41. MANNER OF DEATH ☐ Natural ☐ Homicide ☐ Accident ☐ Pending Investigation ☐ Suicide ☐ Could not be determined

42. DATE OF INJURY (Mo/Day/Yr) (Spell Month) | 43. TIME OF INJURY | 44. PLACE OF INJURY (e.g., Decedent's home; construction site; restaurant; wooded area) | 45. INJURY AT WORK? ☐ Yes ☐ No

46. LOCATION OF INJURY: State | City or Town | Street & Number | Apartment No. | Zip Code

47. DESCRIBE HOW INJURY OCCURRED

48. IF TRANSPORTATION INJURY, SPECIFY: ☐ Driver/Operator ☐ Passenger ☐ Pedestrian ☐ Other (Specify)

49. CERTIFIER (Check only one):
☐ Certifying physician-To the best of my knowledge, death occurred due to the cause(s) and manner stated.
☐ Pronouncing & Certifying physician-To the best of my knowledge, death occurred at the time, date, and place, and due to the cause(s) and manner stated.
☐ Medical Examiner/Coroner-On the basis of examination, and/or investigation, in my opinion, death occurred at the time, date, and place, and due to the cause(s) and manner stated.

Signature of certifier: ____

50. NAME, ADDRESS, AND ZIP CODE OF PERSON COMPLETING CAUSE OF DEATH (Item 32)

51. TITLE OF CERTIFIER | 52. LICENSE NUMBER | 53. DATE CERTIFIED (Mo/Day/Yr) | 54. FOR REGISTRAR ONLY- DATE FILED (Mo/Day/Yr)

To Be Completed by FUNERAL DIRECTOR

55. DECEDENT'S EDUCATION-Check the box that best describes the highest degree or level of school completed at the time of death.
☐ 8th grade or less
☐ 9th - 12th grade; no diploma
☐ High school graduate or GED completed
☐ Some college credit, but no degree
☐ Associate degree (e.g., AA, AS)
☐ Bachelor's degree (e.g., BA, AB, BS)
☐ Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)
☐ Doctorate (e.g., PhD, EdD) or Professional Degree (e.g., MD, DDS, DVM, LLB, JD)

56. DECEDENT OF HISPANIC ORIGIN? Check the box that best describes whether the decedent is Spanish/Hispanic/Latino. Check the "No" box if decedent is not Spanish/Hispanic/Latino.
☐ No, not Spanish/Hispanic/Latino
☐ Yes, Mexican, Mexican American, Chicano
☐ Yes, Puerto Rican
☐ Yes, Cuban
☐ Yes, other Spanish/Hispanic/Latino (Specify): ____

57. DECEDENT'S RACE (Check one or more races to indicate what the decedent considered himself or herself to be)
☐ White
☐ Black or African American
☐ American Indian or Alaska Native (Name of the enrolled or principal tribe): ____
☐ Asian Indian
☐ Chinese
☐ Filipino
☐ Japanese
☐ Korean
☐ Vietnamese
☐ Other Asian (Specify): ____
☐ Native Hawaiian
☐ Guamanian or Chamorro
☐ Samoan
☐ Other Pacific Islander (Specify): ____
☐ Other (Specify): ____

58. DECEDENT'S USUAL OCCUPATION (Indicate type of work done during most of working life. DO NOT USE RETIRED)

59. KIND OF BUSINESS/INDUSTRY

In most death investigation jurisdictions across the United States, sexual orientation and gender identity are not included in death certificates

Exceptions include:
Los Angeles County (2019)
California pilot (2021; AB1094)

Researchers have used novel techniques to examine suicide mortality risk among LGBTQ+ populations

Linked Survey Data

- **Sample:** Nationally representative sample of adults who reported at least one same-sex sexual partner between 1988 and 2002
- No evidence of differing rate among MSM and MSWO
- WSW had higher suicide rate than WSMO

Diagnostic Codes

- **Sample:** VA patients with one of four ICD-9 codes (Gender Identity Disorder (x2), transsexualism; and transvestic fetishism) between 2000 and 2009
- **Suicide rate:** 82 per 100,000

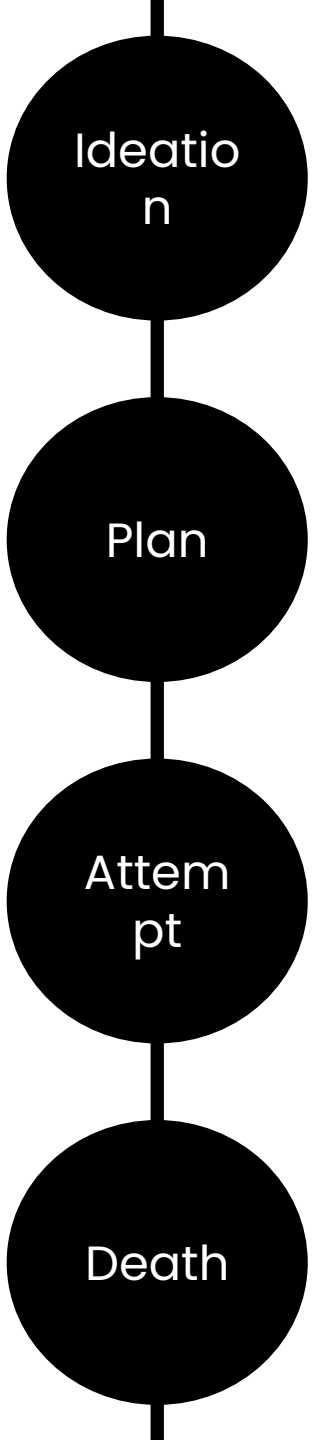
Blosnich et al., 2014

Natural Language Processing

- **Sample:** VA patients with documentation of sexual orientation in clinical notes from 1999-2017
- **Suicide rate:** 82.5 per 100,000 (v. 37.7 per 100,000)

Lynch et al., 2014

Other constructs are important markers of distress and suicidal behaviors



Having serious thoughts about ending one’s life by suicide

Having made a plan to end one’s own life

Having tried to end one’s own life

Died by suicide
(self-inflicted injury with intent to die)

National Survey on Drug Use and Health

Annual survey representative of the civilian, non-institutionalized U.S. population

~57,000 respondents annually

Since 2015, asks questions of those 18 and older about sexual orientation:

Which one of the following do you consider yourself to be?

- *Heterosexual, that is, straight,*
- *Lesbian or gay*
- *Bisexual*
- *Don't know.*

Asks those 18 and older about suicide ideation, plans and attempts

- **Ideation:** *At any time in the past 12 months, that is from [DATEFILL] up to and including today, did you seriously think about trying to kill yourself?*
- **Plans:** *During the past 12 months, did you make any plans to kill yourself?*
- **Attempts:** *During the past 12 months, did you try to kill yourself?*

NSDUH Sample Characteristics: Current Study

Total Sample Size: 191,954 (2015-2019, pooled)

Identify as LGB: 14,693

Male

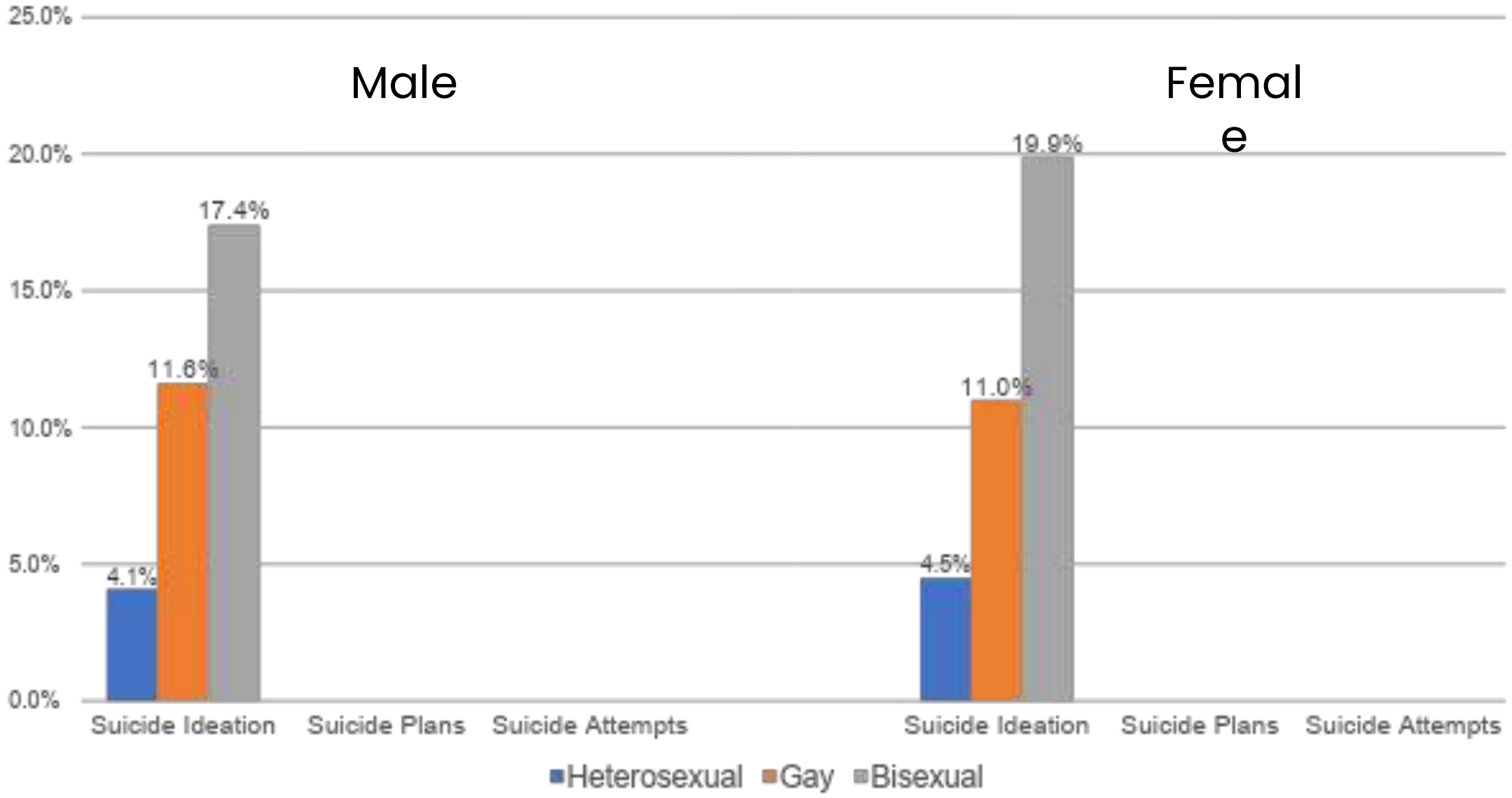
	Heterosexual	Gay	Bisexual
18-25	93.4%	2.9%	3.7%
26-34	94.4%	3.1%	2.5%
35-64	96.5%	2.2%	1.4%

	Heterosexual	Gay	Bisexual
White, NH	95.6%	2.4%	2.0%
Black, NH	95.8%	2.5%	1.7%
Other, NH	95.4%	2.3%	2.3%
Hispanic	94.8%	2.8%	2.3%

Female

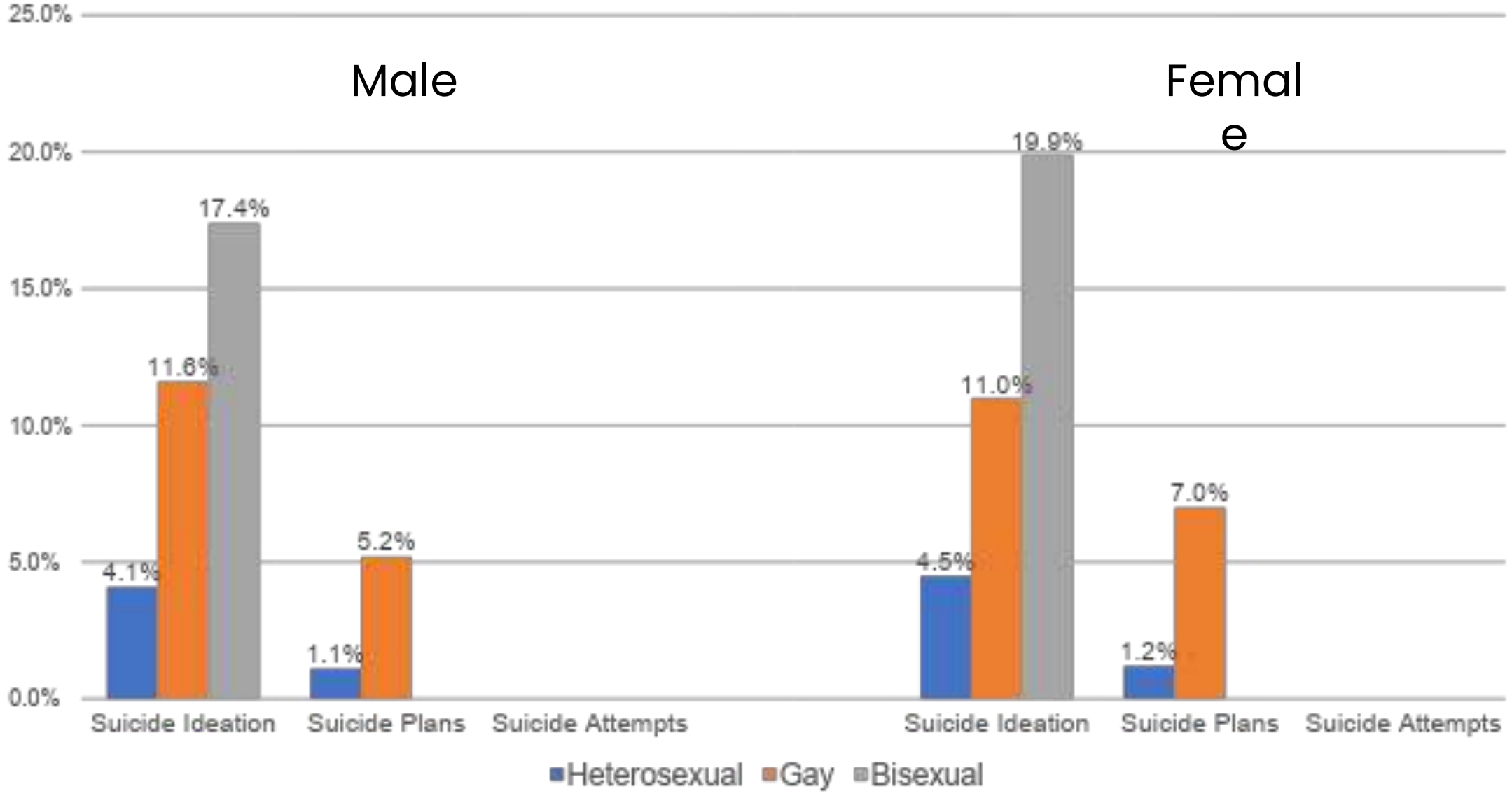
	Heterosexual	Lesbian	Bisexual
18-25	84.3%	2.6%	13.1%
26-34	89.6%	2.3%	8.1%
35-64	96.1%	1.5%	2.4%

	Heterosexual	Lesbian	Bisexual
White, NH	92.8%	1.9%	5.3%
Black, NH	92.0%	2.4%	5.6%
Other, NH	93.0%	1.4%	5.7%
Hispanic	93.2%	1.7%	5.1%



Estimates provided are adjusted marginal means (average prevalence estimates after adjustment for sociodemographic covariates)

For suicide plans, Gay/Lesbian also includes those who identify as bisexual



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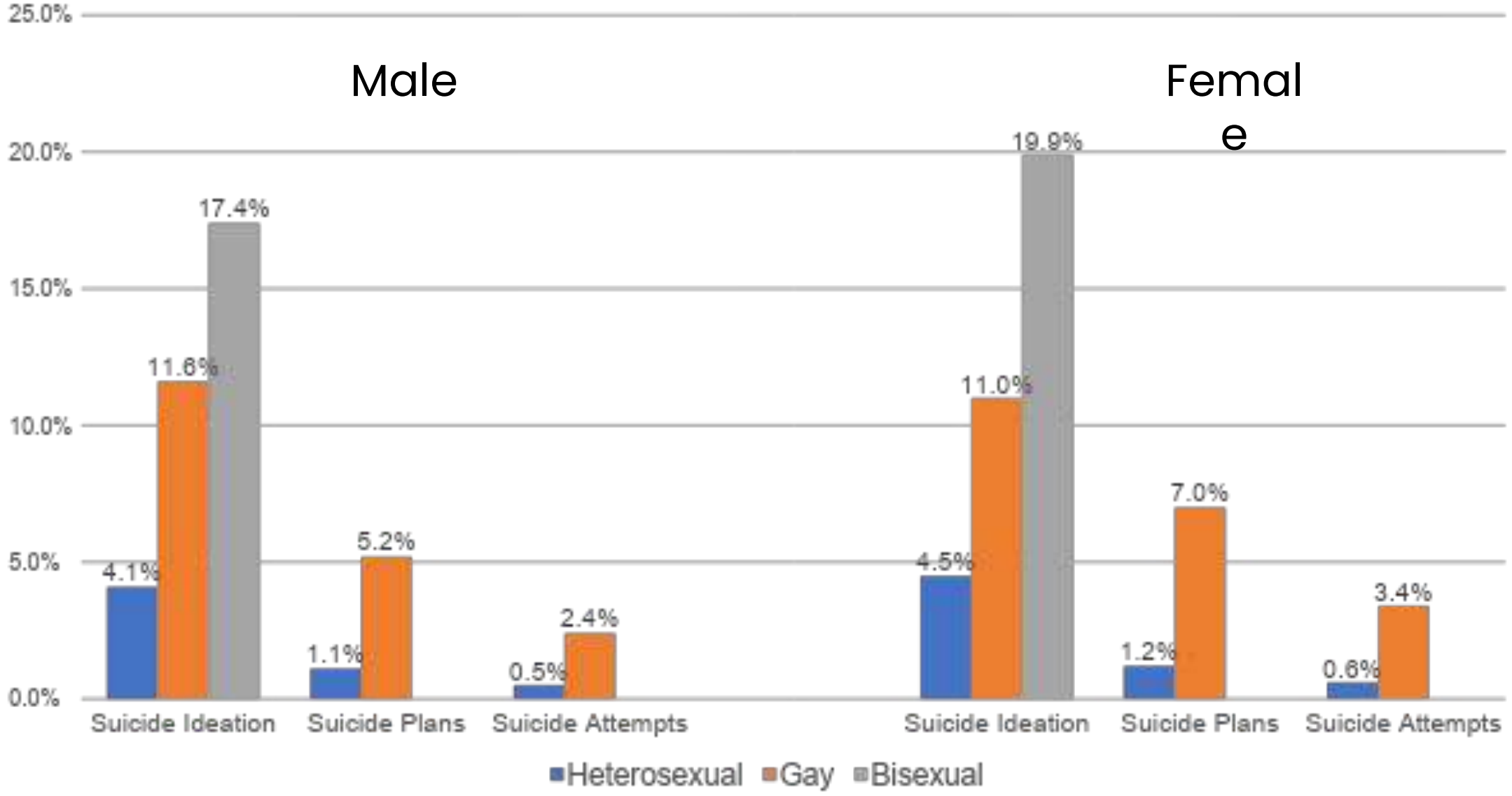

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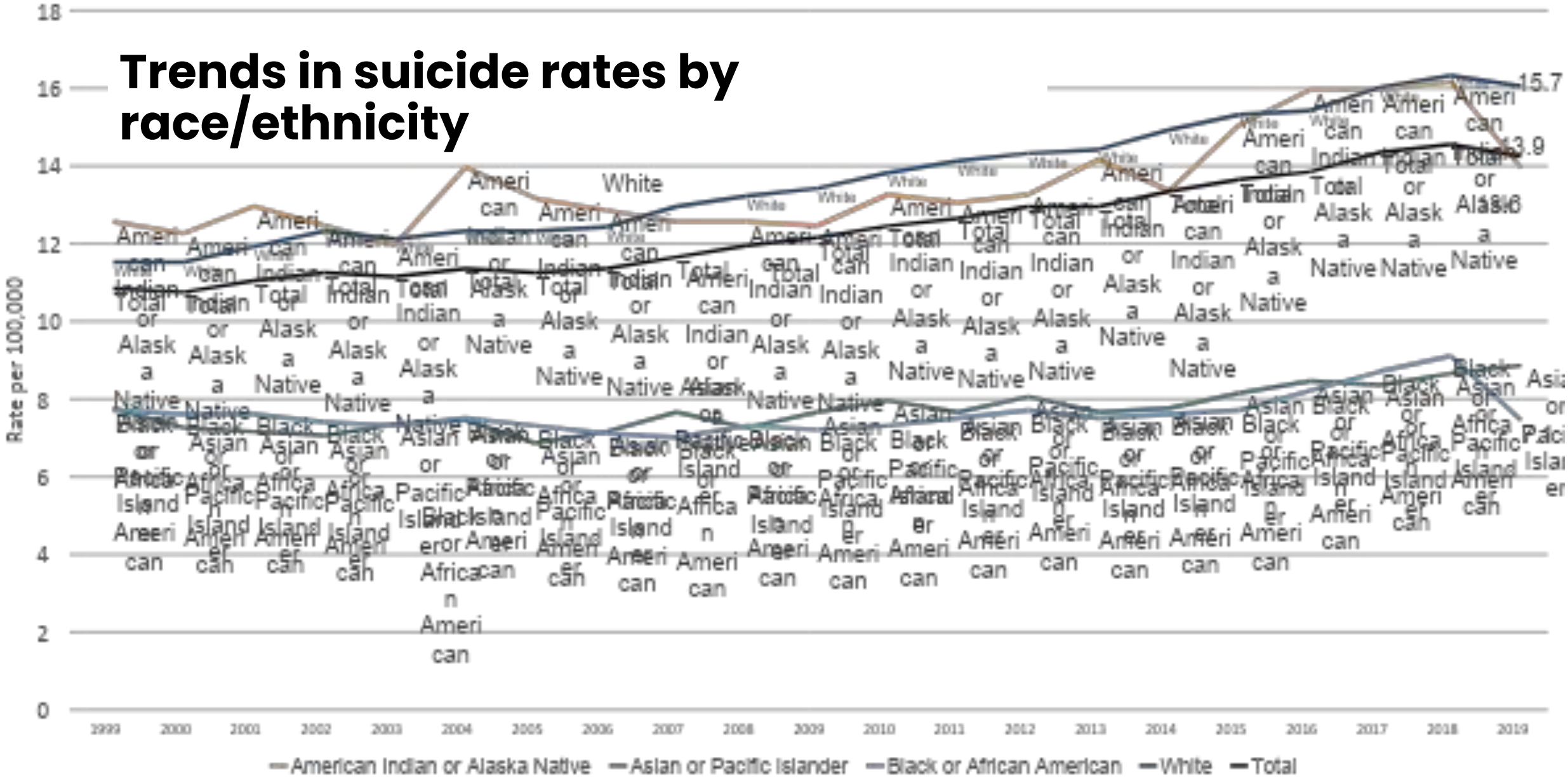
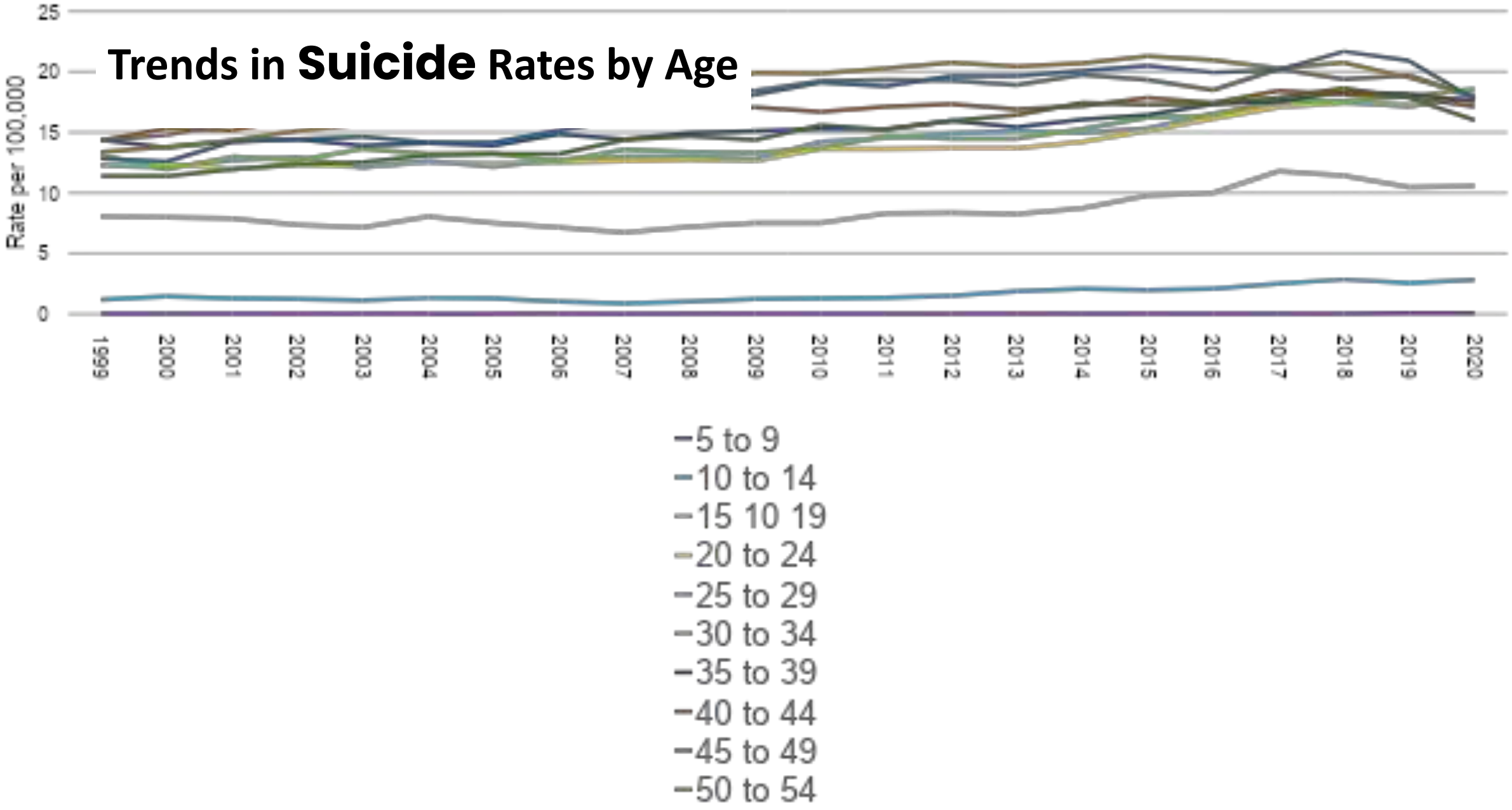
Trends in suicide rates by race/ethnicity



Data from National Vital Statistics System

Trends in **Suicide** Rates by Age



?

Is prevalence of suicide thoughts, plans and attempts different between…

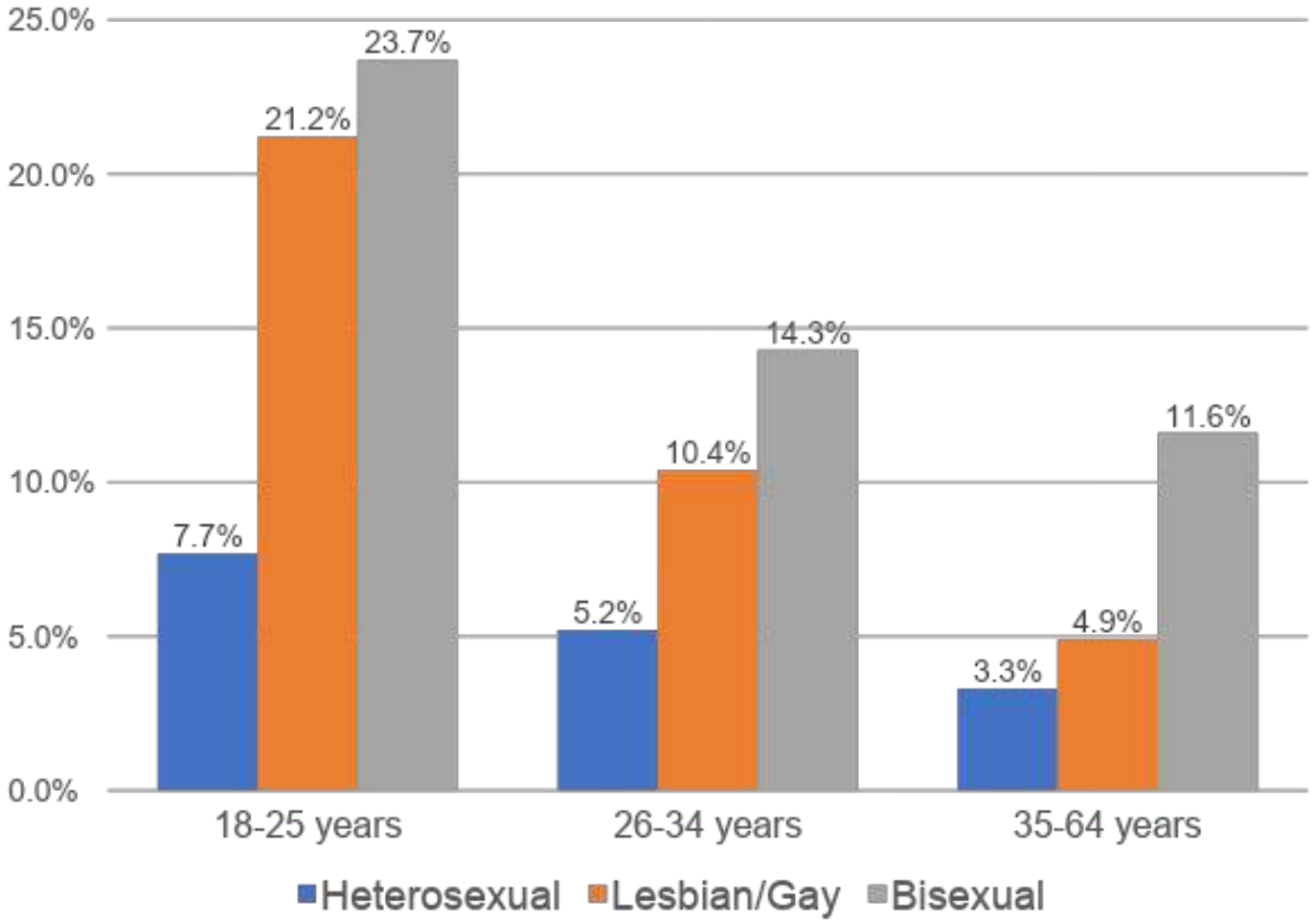
1. Lesbian/gay/bisexual adults across age groups?

2. Lesbian/gay/bisexual adults across race/ethnicity groups?

3. Age groups among lesbian/gay/bisexual adults?

4. Race/ethnicity groups among lesbian/gay/bisexual adults?

Past Year Suicide Thoughts, Females



Across all age groups, bisexual women have higher rates of suicidal thoughts than heterosexual women

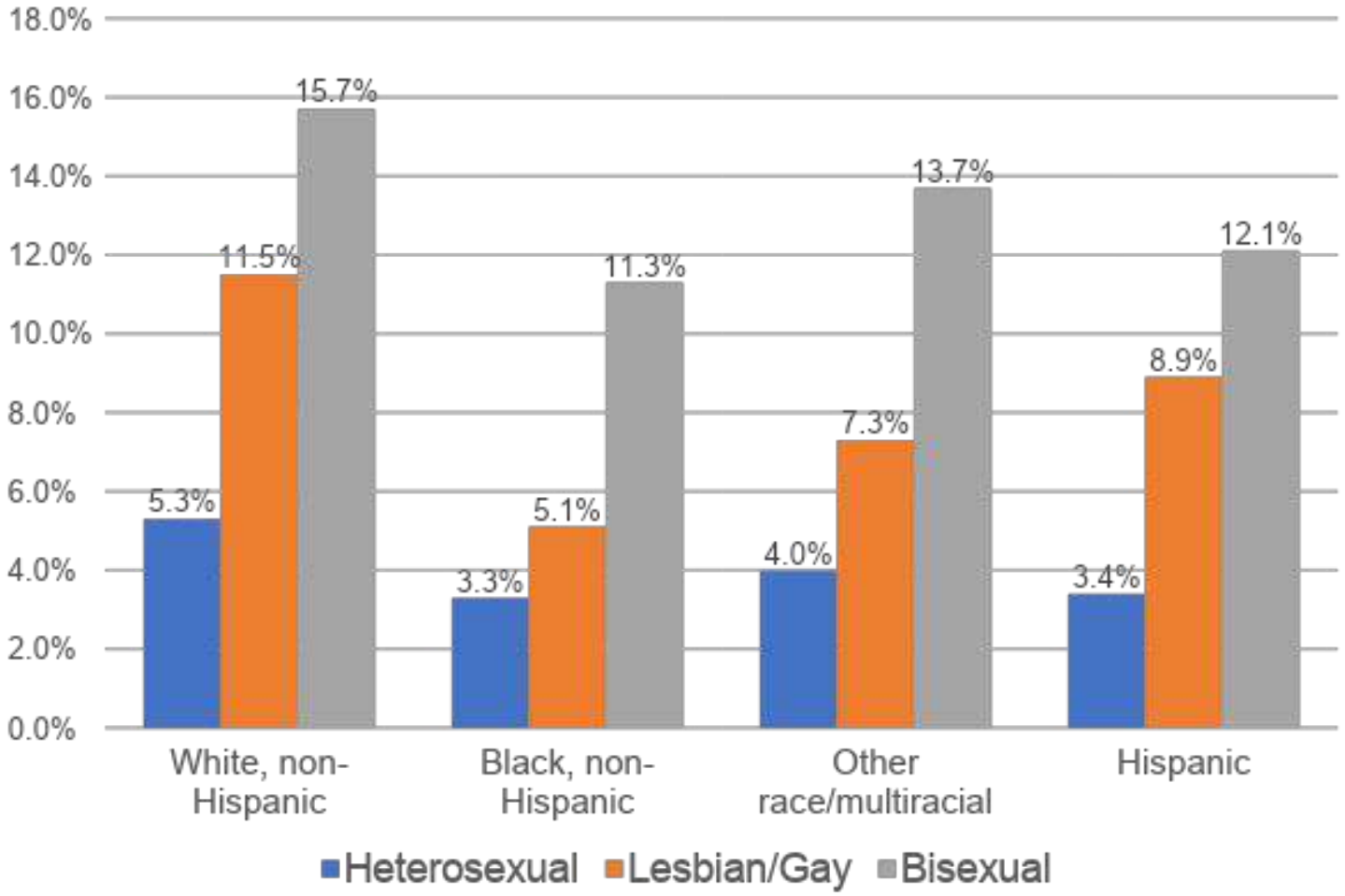
In the younger two age groups, gay/lesbian women have higher rates of suicidal thoughts than heterosexual women

In the older age groups, bisexual women have higher rates of suicidal thoughts than gay/lesbian women

In all sexual identity groups, younger women have highest rates of suicidal thoughts

Estimates provided are adjusted marginal means (average prevalence estimates after adjustment for sociodemographic covariates)

Past Year Suicide Thoughts, Females



Across all age groups, bisexual women have higher rates of suicidal thoughts than heterosexual women

Among White and Hispanic adults, gay/lesbian women have higher rates of suicidal thoughts than heterosexual women

Among White and Black adults, bisexual women have higher rates of suicidal thoughts than gay/lesbian women

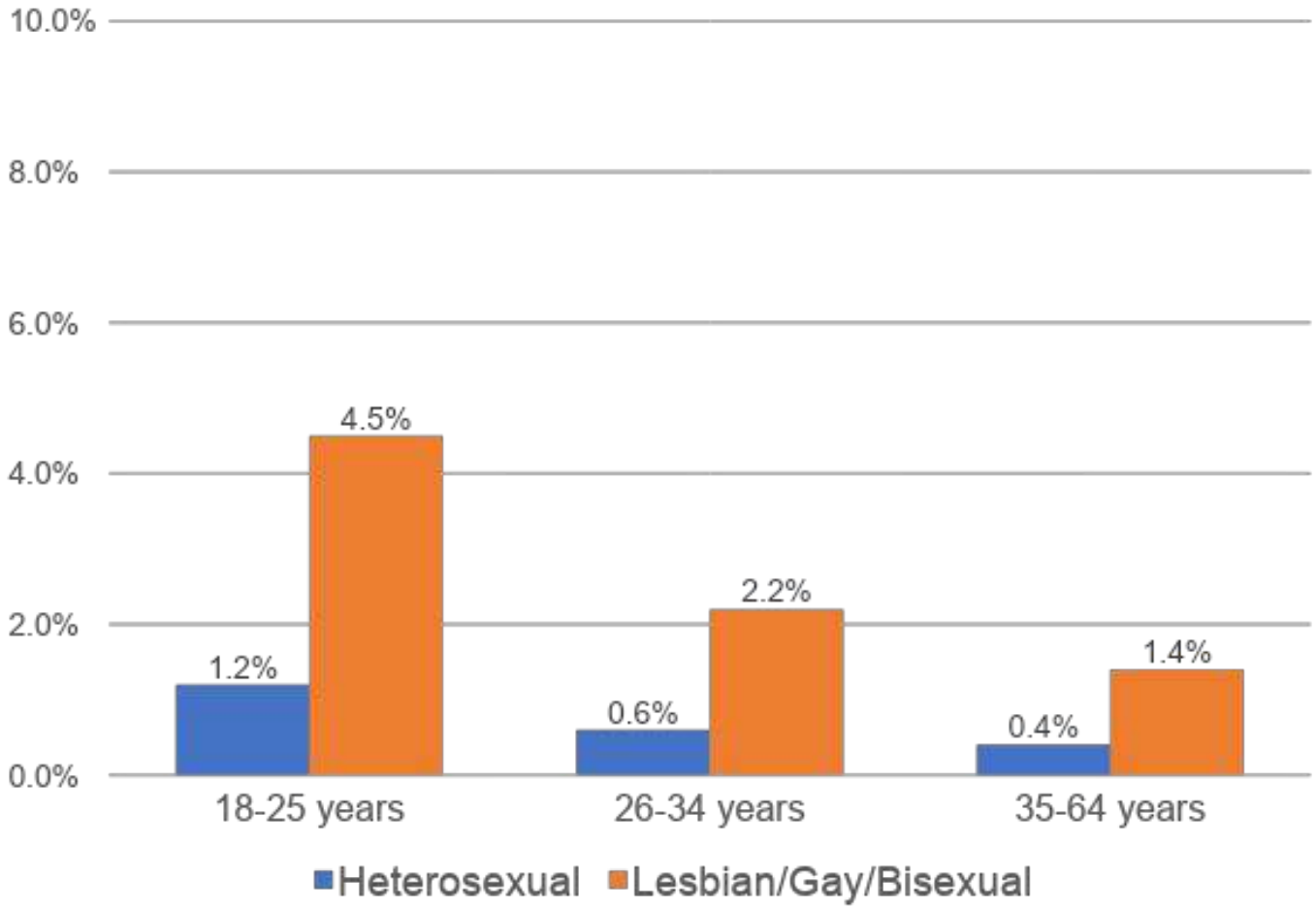
Among lesbian/gay, and bisexual women, Black women have lower rates of suicidal thoughts

Estimates provided are adjusted marginal means (average prevalence estimates after adjustment for sociodemographic covariates)

Past Year Suicide Attempts, Females

Across all age groups, lesbian/gay/bisexual women have higher rates of past suicide attempts

In both sexual identity groups, younger women have highest rates of suicidal thoughts

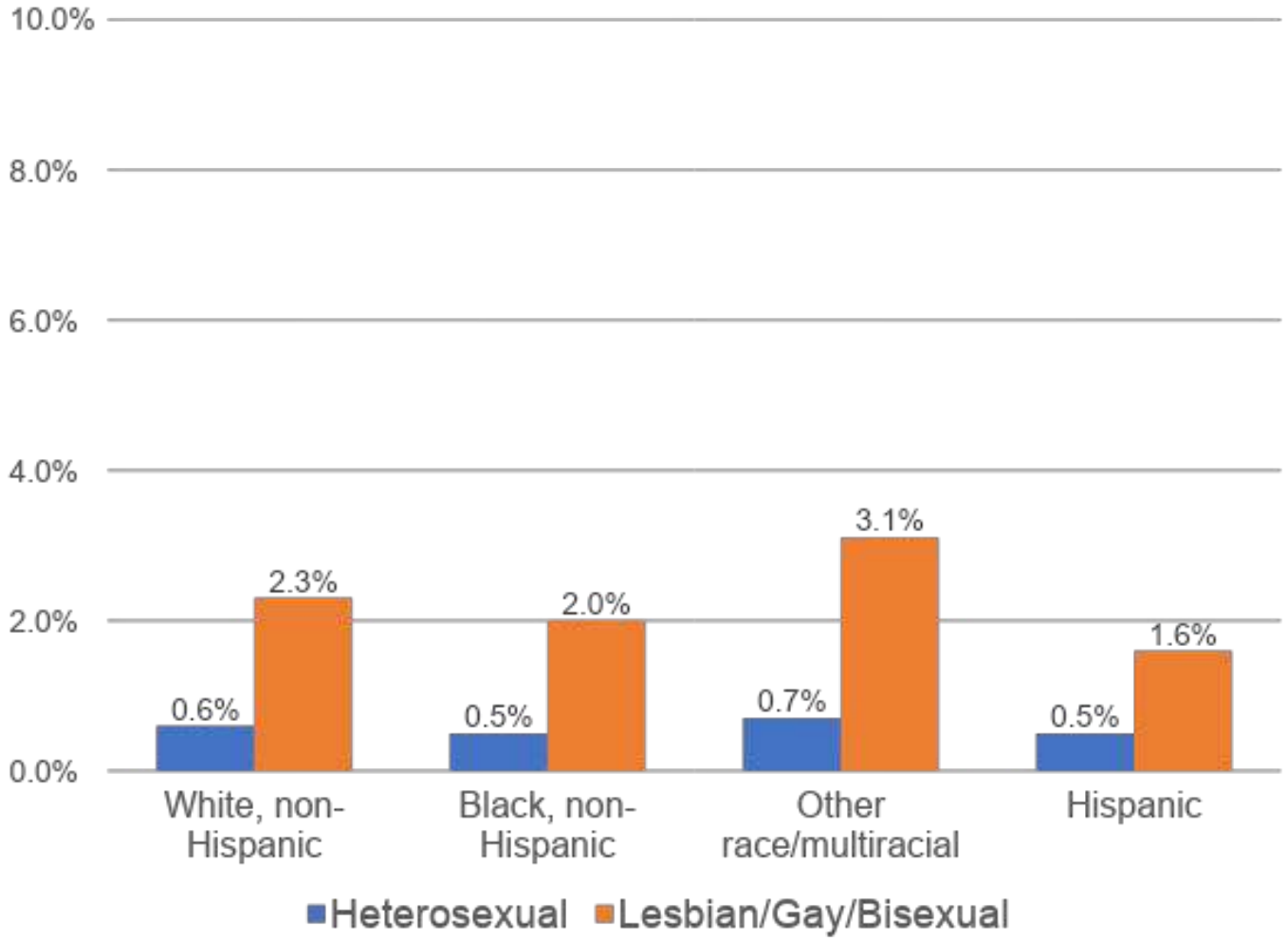


Estimates provided are adjusted marginal means (average prevalence estimates after adjustment for sociodemographic covariates)

Past Year Suicide Attempts, Females

Across all race/ethnicity groups, lesbian/gay/bisexual women have higher rates of past suicide attempts

There are no differences by race/ethnicity in rates of past year suicide attempts among heterosexual or gay/lesbian/bisexual women



Estimates provided are adjusted marginal means (average prevalence estimates after adjustment for sociodemographic covariates)

Results for men: Summary

Bisexual men have higher rates of suicidal thoughts than heterosexual men across all age and race/ethnicity groups

Gay men have higher rates of suicidal thoughts than heterosexual men across all age groups and all race/ethnicity groups EXCEPT mixed race

No differences in suicidal thoughts between bisexual and gay men

Suicidal thoughts are generally higher among younger gay and bisexual men and White gay and bisexual men

Gay men have higher rates of suicide attempts in all age groups EXCEPT 26-34 and in all race/ethnicity groups EXCEPT mixed race

Suicide attempts are higher among younger gay/bisexual men

Key Implications

Mostly consistent results of elevated suicidal behaviors among LGB adults

Minority Stress theory

Stigma, prejudice, and discrimination experienced by LGB individuals may exacerbate the risk for mental health problems, thereby increasing suicide risk

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Different associations between race/ethnicity and suicide outcomes among sexual minority adults relative to heterosexual adults

Intersectional theory
Discrimination may manifest in complex ways for those with multiple marginalized identities

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Intersectional theory
Discrimination may manifest in complex ways for those with multiple marginalized identities

In some instances, elevated rates of suicide thoughts among adults who identify as bisexual

Cultural invisibility of bisexual people may result in unique stressors and a lack of bisexual-specific resources
Biphobia:
negative stereotypes about bisexual people

Strategies for Prevention

Nine Broad Categories of Suicide Prevention

Training on coping skills and self-referral

Screening programs

Mental health interventions

Marketing campaigns

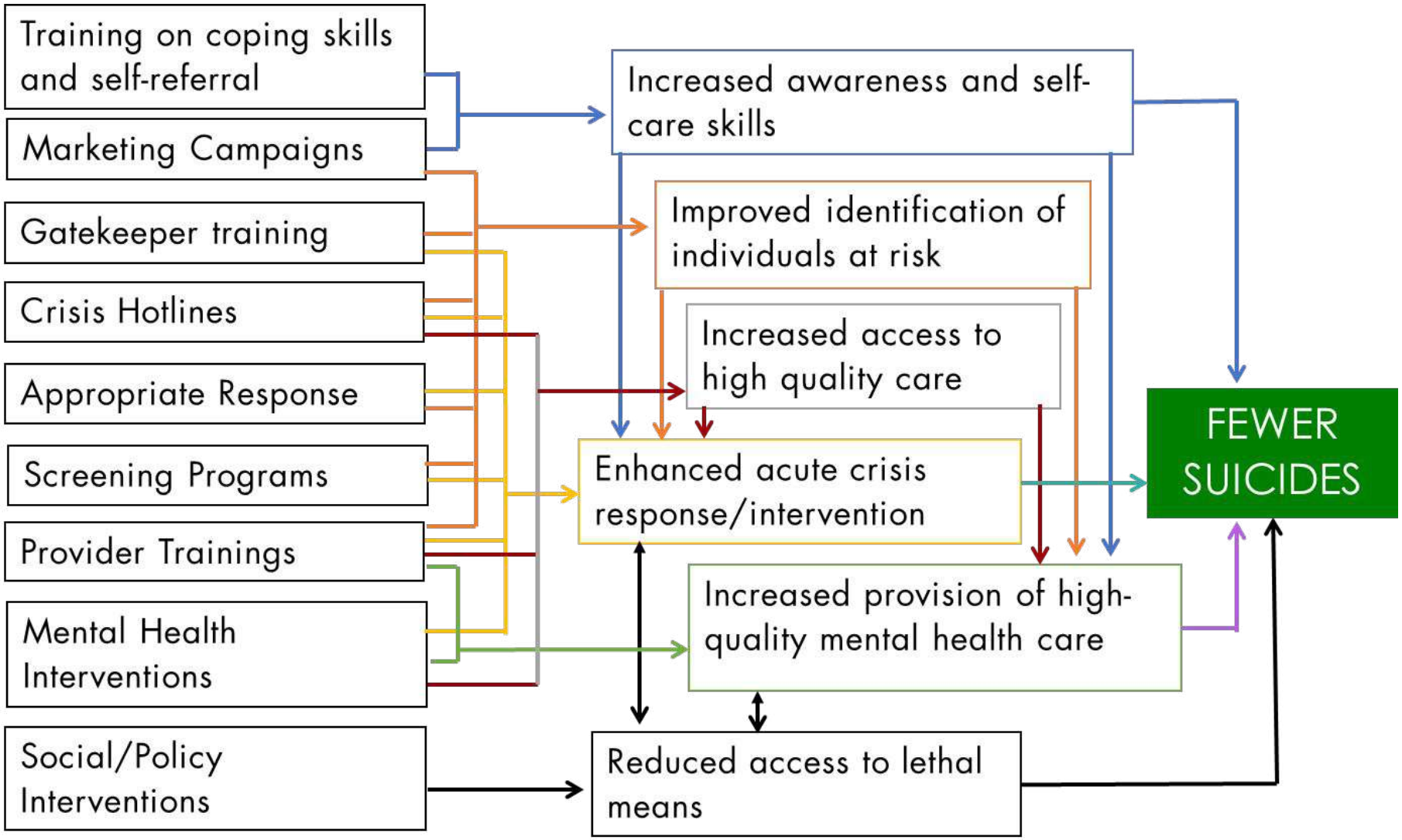
Crisis hotlines

Social/policy interventions

Gatekeeper training

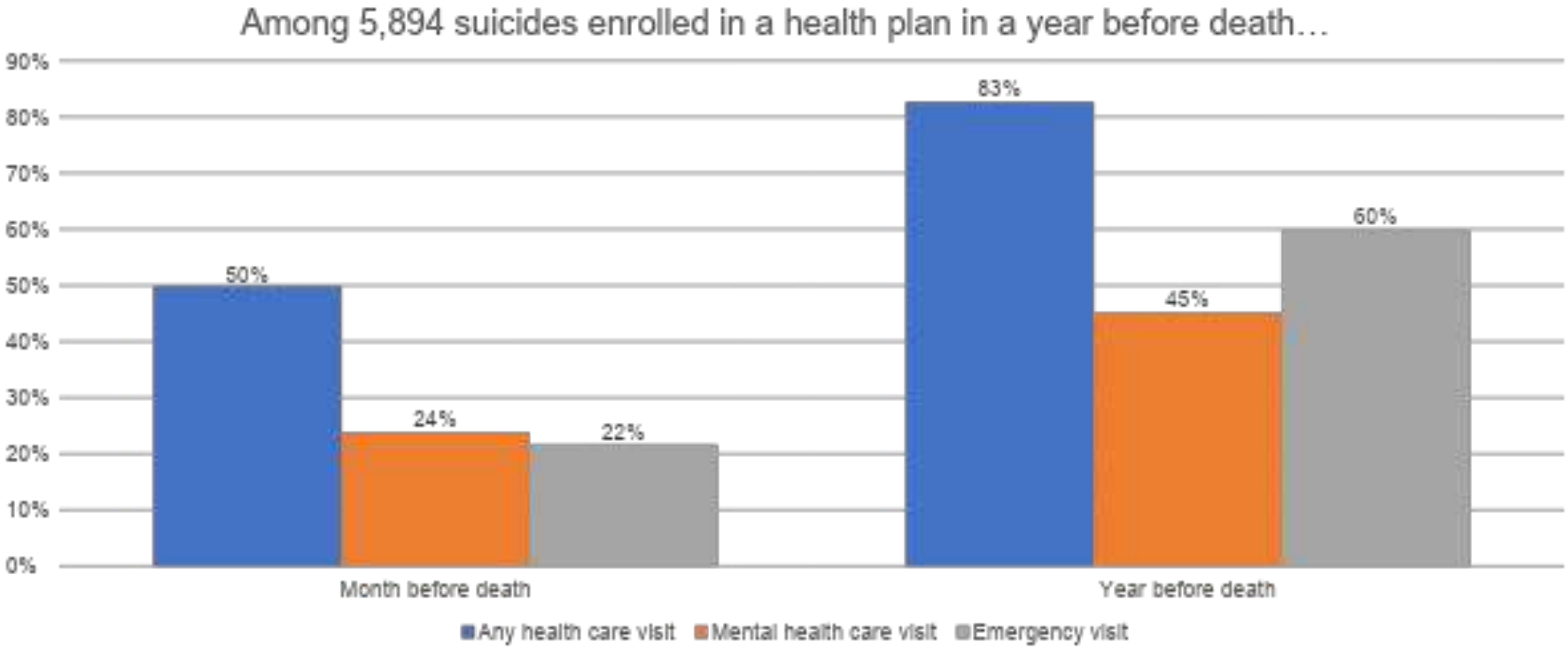
Provider training

Appropriate response



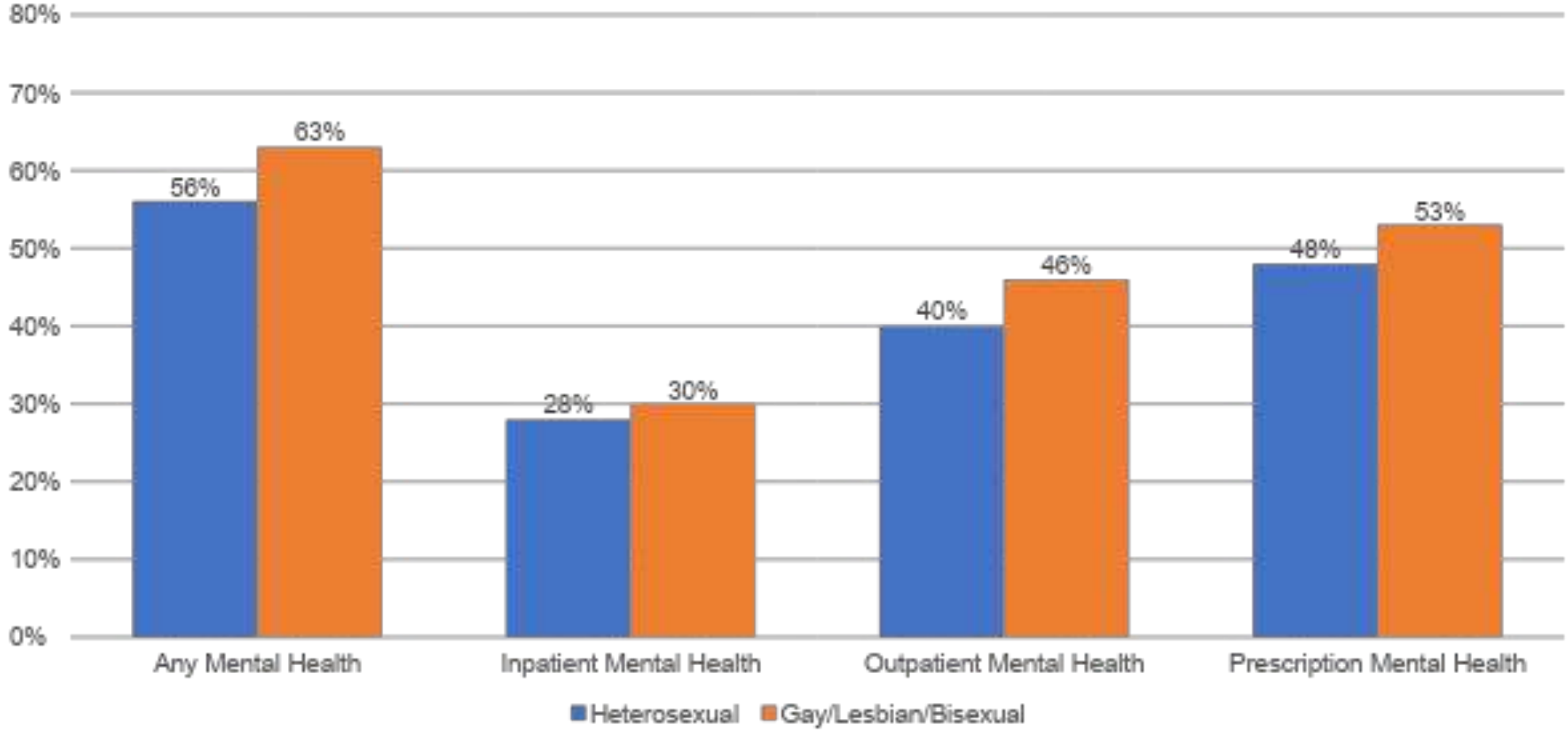
From: Acosta J, Ramchand R, Jaycox L, Becker A, Eberhart N. 2012. *Interventions to Prevent Suicide: A Literature Review to Guide Evaluation of California's Mental Health Prevention and Early Intervention Initiative* (TR-1317). Santa Monica, CA: RAND.

Health care settings provide opportunities to identify and mitigate suicide risk



From: Ahmedani, B. K., Simon, G. E., Stewart, C., Beck, A., Waitzfelder, B. E., Rossom, R., . . . Solberg, L. I. (2014). Health care contacts in the year before suicide death. *J Gen Intern Med, 29*(6), 870-877.

Past Year Receipt of Mental Health Services Among Those Who Reported Attempting Suicide



From: Ramchand et al. (2022). Mental Health Service Use Among Lesbian, Gay, and Bisexual Adults Who Report Having Made a Suicide Attempt. Psychiatric Services, forthcoming.

Evidence-Supported Mental Health Strategies

Screening for suicide risk

Cognitive behavioral therapy

Dialectical behavioral therapy

Safety Planning

Caring contacts

Screening for suicide risk

- There is no evidence for iatrogenic risk of asking people questions about suicide (i.e., worry about "putting ideas into their heads.")
- Screening positive for suicide risk helps identify persons at risk for future suicide or other serious mental health concerns
- Screening can be done by non-mental health clinicians

asQ
Ask Suicide-Screening Questions

- ASQ is a validated suicide screening tool with versions for youth and adults in various clinical settings (outpatient, clinics, emergency departments, etc.
- More information at: https://www.nimh.nih.gov/research/research-conducted-at-nimh/asq-toolkit-materials

Cognitive behavioral therapy

Dialectical behavioral therapy

What is Cognitive Behavioral Therapy (CBT)?

- One of the best tested, proven therapies for anxiety and depression (and other problems including suicidal thoughts and behaviors)
- Generally short-term (e.g., 8-16 weekly sessions)
- Collaborative
- Symptom-focused
- Therapist usually acts like a coach, assigns homework
- Therapist needs training to deliver CBT
- Face-to-face (but not e-health) CBT effective in reducing suicidal thoughts and behaviors

Leavey, K., & Hawkins, R. (2017). Is cognitive behavioural therapy effective in reducing suicidal ideation and behaviour when delivered face-to-face or via e-health? A systematic review and meta-analysis. *Cognitive behaviour therapy*, *46*(5), 353-374.

What is Dialectical Behavioral Therapy (DBT)?

- Originally designed to treat chronic suicidal thoughts and borderline personality disorder, but tailored for many other conditions
- Effective for reducing suicidal behavior
- Targets emotion regulation, interpersonal effectiveness, distress tolerance
- Integrates CBT and mindfulness/acceptance-based skills
- Typically, one year of weekly treatment
- Key components:
  - Group therapy
  - Individual therapy
  - Phone coaching

DeCou, C. R., Comtois, K. A., & Landes, S. J. (2019). Dialectical behavior therapy is effective for the treatment of suicidal behavior: A meta-analysis. *Behavior therapy*, *50*(1), 60-72.

Safety Planning is an evidence-based approach in which clinicians work with clients to identify strategies to cope with suicidal thoughts and reduce the risk of suicide.

Six components of safety planning

1. Recognizing individual warning signs
2. Identifying and employing internal coping strategies
3. Using social supports as distractions
4. Contacting trusted family or friends to help
5. Contacting specific mental health services
6. Reducing access to/use of lethal means

From: Stanley, B., & Brown, G. K. (2012). Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive Behavioural Practice*, *19*(2), 256–264.

Safety Planning "differs significantly from the widely considered ineffective 'no-suicide contract.'" Ferguson et al., 2021.

Safety Planning: The evidence

Across 26 studies, evidence supported improvements in:

- Suicidality (ideation, behavior, death)
- Depression, hopelessness
- Hospitalization, treatment engagement

From: Ferguson, M et al. (2021). The Effectiveness of the Safety Planning Intervention for Adults Experiencing Suicide-Related Distress: A Systematic Review," Archives of Suicide Research, 1–24

Caring contacts

- Asynchronous, nonintrusive, low cost
- Targets patients recently discharged from psychiatric crisis care settings
- Send personalized text-based messages expressing interest and concern for the patient's wellbeing without any demand for a response
- Can be sent via text message or snail mail (e.g., postcards)
- Approximately 8 contacts over one year
- A review of 13 RCTs suggested an overall protective effect for suicide attempts one-year post-randomization


In
conclusion...

Suicide is preventable

LGB adults face increased suicide risk, but risk varies

Health care professionals can help prevent suicide

Evidence-supported strategies exist, and new evidence is emerging

Rajeev Ramchand
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