

Understanding and Preventing Suicide Deaths in California

Renay Bradley, PhD

Jonah Cox, PhD

Office of Suicide Prevention

Injury and Violence Prevention Branch

Center for Healthy Communities

California Department of Public Health (CDPH)



Need Help? Know Someone Who Does?



Office of Suicide Prevention

Contact the 988 Suicide and Crisis Lifeline:

- Call/text 988
- Use the online [988 chat](#)

Both are free and confidential. You'll be connected to a skilled, trained counselor in your area.

For more information, visit <https://988lifeline.org/>.



Injury and Violence Prevention Branch Suicide Prevention Efforts

California Violent
Death Reporting
System (CalVDRS)

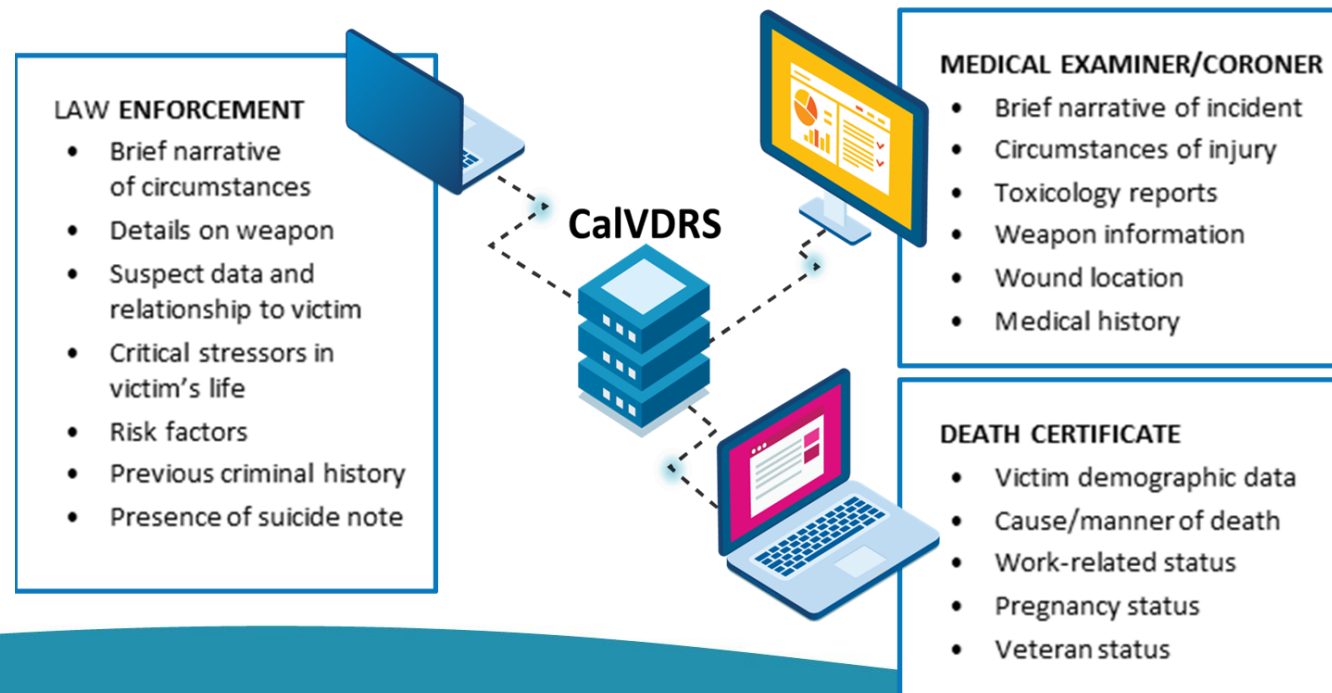
Comprehensive
Suicide Prevention
(CSP) Program

Office of Suicide
Prevention (OSP)

**Sexual
Orientation and
Gender Identity
(SOGI) Pilot
Program**

California Violent Death Reporting System (CalVDRS)

- Conducts surveillance on violent deaths (e.g., suicide, homicide) that occur in a large subset of California counties.
 - In 2021, 31 of 58 counties participated in CalVDRS



Notable Circumstances Surrounding Suicide Across the Lifespan

Under 18 years old (n=52)

- 29% had a recent or imminent crisis of any kind
- 15% had other relationship problems (with family or friends, not an intimate partner)
- 13% experienced school problems
- 13% were involved in an argument or conflict prior to their death
- 8% had a problem with their current or former intimate partner

18-24 years old (n=229)

- 31% had a recent or imminent crisis of any kind
- 22% had a problem with their current or former intimate partner
- 17% had either alcohol dependence, substance use issues, or both
- 12% were involved in an argument or conflict prior to their death
- 6% experienced job or financial problems that contributed to their death

25-64 years old (n=1,539)

- 35% had either alcohol dependence, substance use issues, or both
- 34% had a recent or imminent crisis of any kind
- 22% had a problem with their current or former intimate partner
- 12% experienced job or financial problems that contributed to their death
- 12% were involved in an argument or conflict prior to their death

65 years and older (n=539)

- 46% experienced physical health problems that contributed to their death
- 34% had a recent or imminent crisis of any kind
- 9% had either alcohol dependence, substance use issues, or both
- 8% experienced a death of a family member or friend
- 7% had a problem with their current or former intimate partner



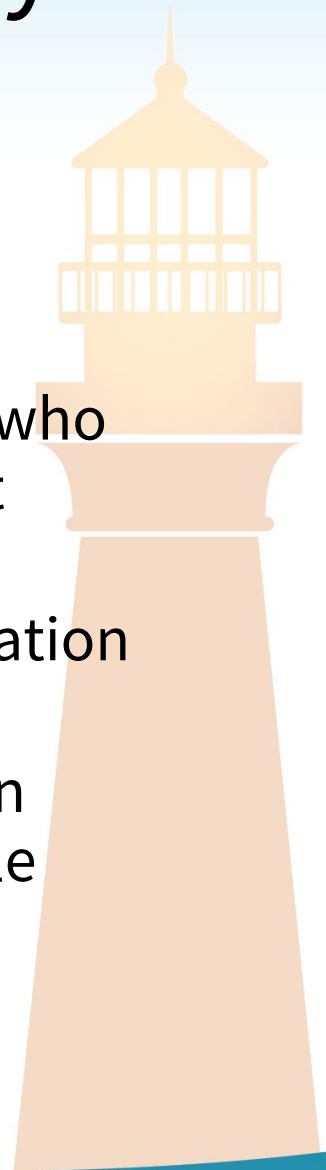
Office of Suicide Prevention

[Suicide in California, 2021](#)

Sexual Orientation and Gender Identity (SOGI) Data Collection Pilot Program

Assembly Bill 1094 established a SOGI data collection pilot program in CDPH.

- Coroners, medical examiners, and law enforcement personnel who investigate violent deaths will be trained on how best to collect information on decedent SOGI status
- Death investigators will collect SOGI data and share the information with CalVDRS
- The SOGI data can be used to guide development of data-driven violence prevention efforts to reduce the number of preventable violent deaths among the LGBTQ+ population



Social Determinants of Health

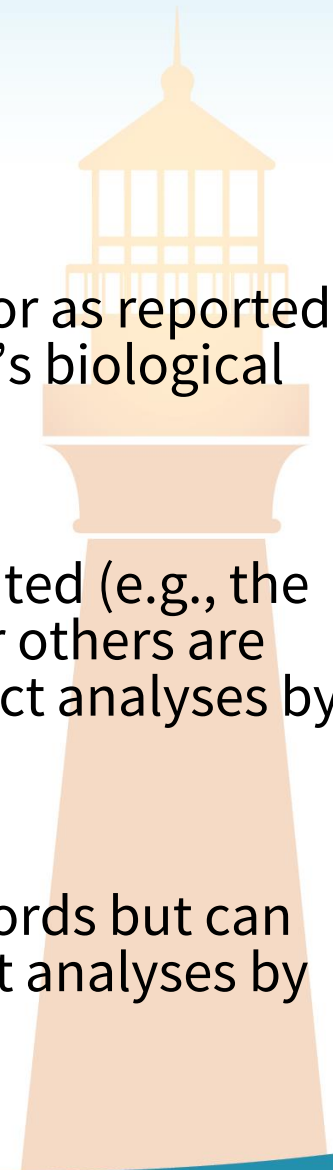
- The social determinants of health are the conditions in which we live, learn, work, and play
- These conditions include a broad range of factors, including:
 - Income
 - Early childhood development and education
 - Health insurance coverage and access to health care services
 - Safety from crime and violence
 - Culturally and linguistically appropriate services in all sectors
 - Protection against institutionalized forms of racism and discrimination

Social Determinants of Health

- When these and other Social Determinants of Health are found lacking, significant health inequities and disparities in health outcomes can occur.
- Understanding what creates or limits the opportunity for health is essential to understanding what creates disparate health outcomes and what needs to be done to prevent them.

Data Limitations

- Sex
 - Defined based on the sex that was provided on the death certificate or as reported through hospital records. This is often, but not always, the decedent's biological sex assigned at birth.
- Gender Identity
 - Data available on death certificates and hospital records is often limited (e.g., the form may only have options for male, female, or nonbinary; family or others are making designation, etc.) As such, there is inadequate data to conduct analyses by gender identity at this time
- Sexual orientation
 - Generally not documented on the death certificate or in hospital records but can be captured in CalVDRS. As such, there is inadequate data to conduct analyses by sexual orientation at this time.



Data Limitations

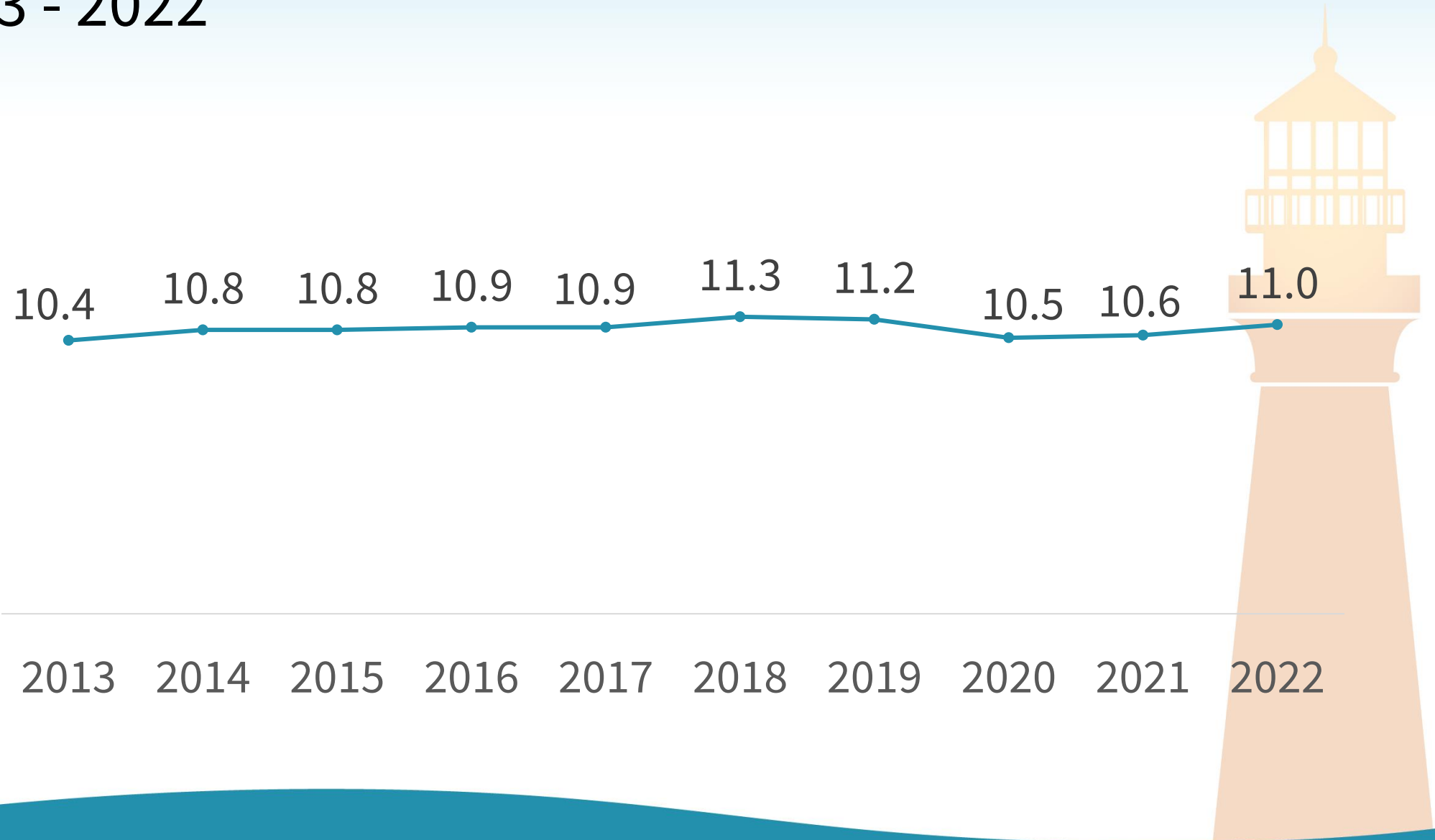
- Per Assembly Bill (AB) 1726, The Accounting of Health and Education in Asian and Pacific Islander (API) Demographics Act, CDPH is mandated to expand the number of API groups for which information is collected and reported.
- It is not possible to present accurate vital statistics data for these expanded groups in this presentation, as the data on the deaths that occurred did not consistently include information on the expanded API groups.
 - In the future, the Injury and Violence Prevention Branch will aim to report data for additional API groups as it becomes available, and in accordance with data de-identification guidelines.



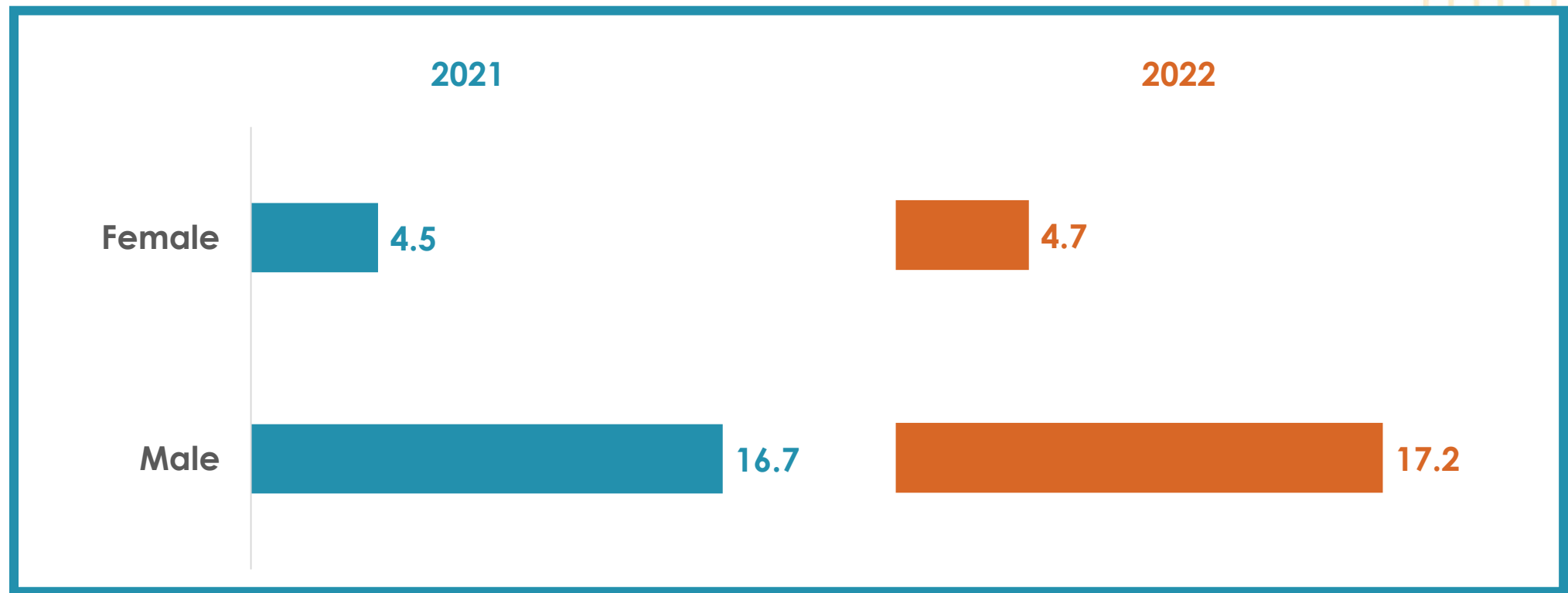
California Suicide and Self-Harm



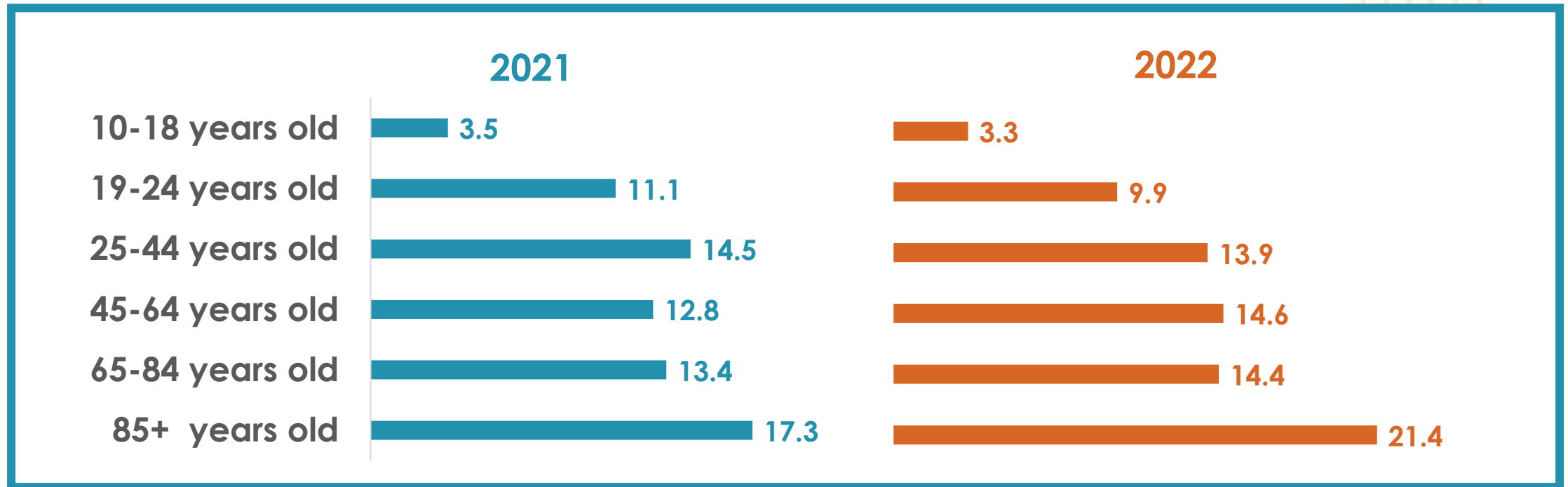
Suicide rates (per 100,000) among CA Residents, 2013 - 2022



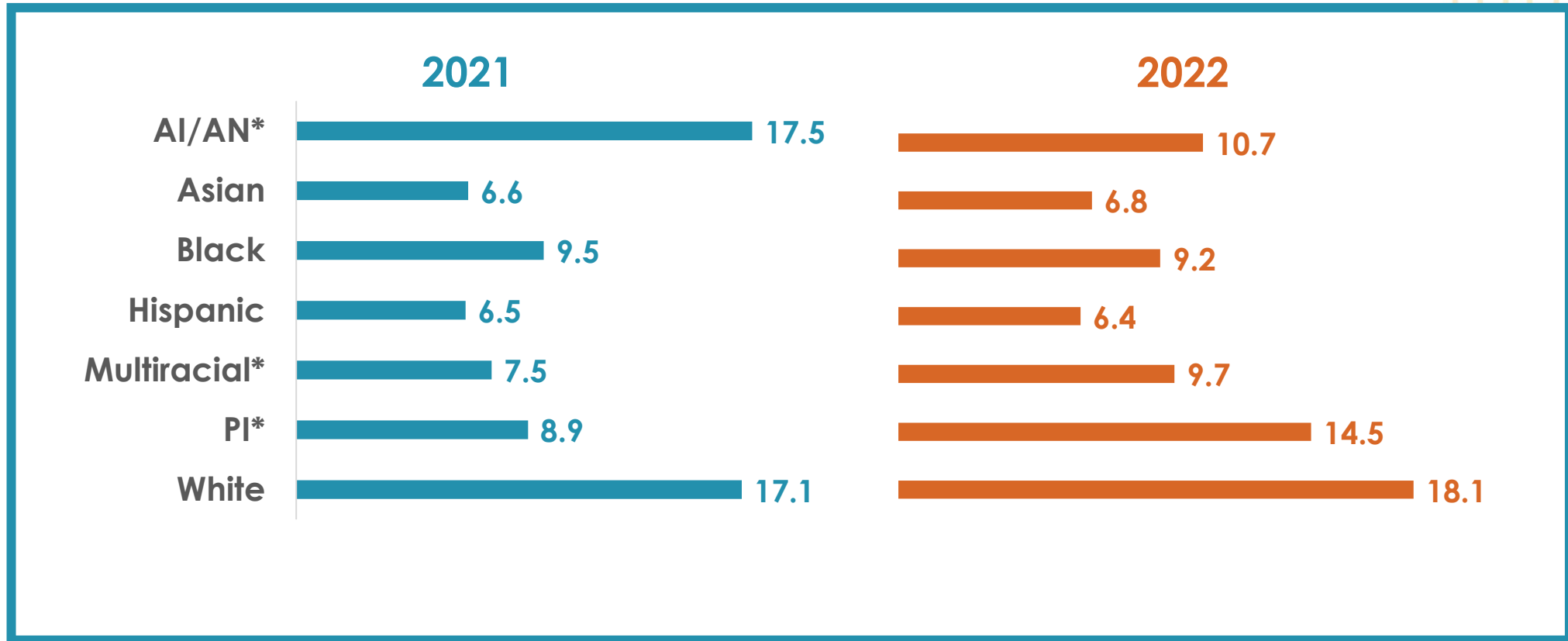
Suicide rates (per 100,000) among CA residents by Sex, 2021 - 2022



Suicide rates (per 100,000) among CA residents by age group, 2021 - 2022

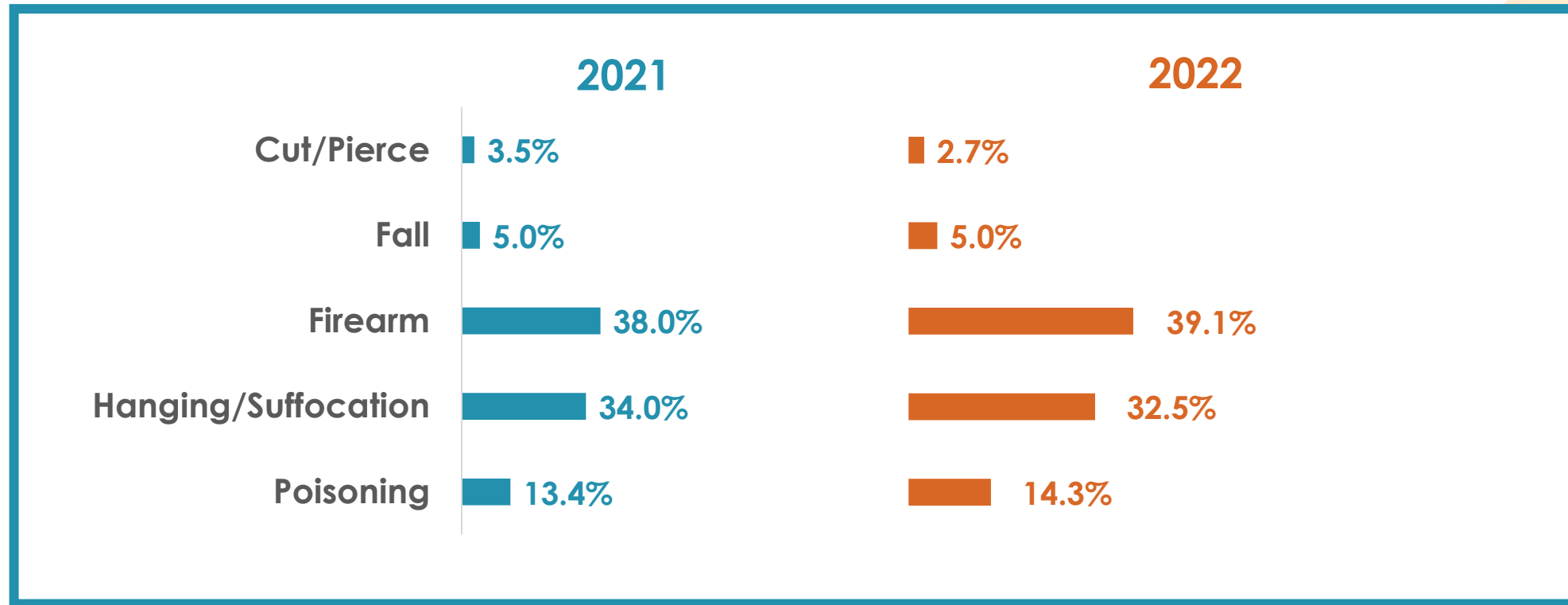


Suicide rates (per 100,000) among CA residents by Race/Ethnicity, 2021 - 2022



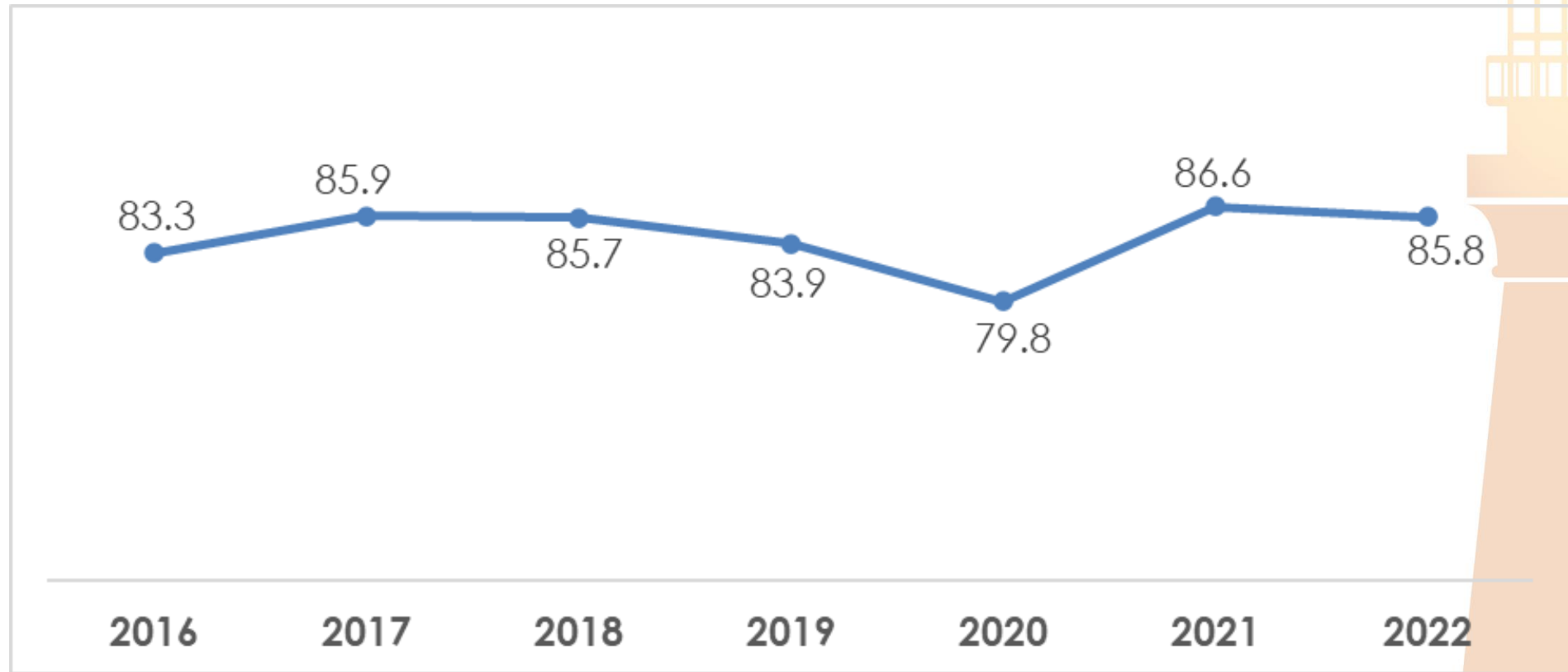
* Denotes rates that are based off fewer than 20 events and might be unreliable.

Percent of suicide deaths among CA residents by mechanism of injury, 2021 - 2022

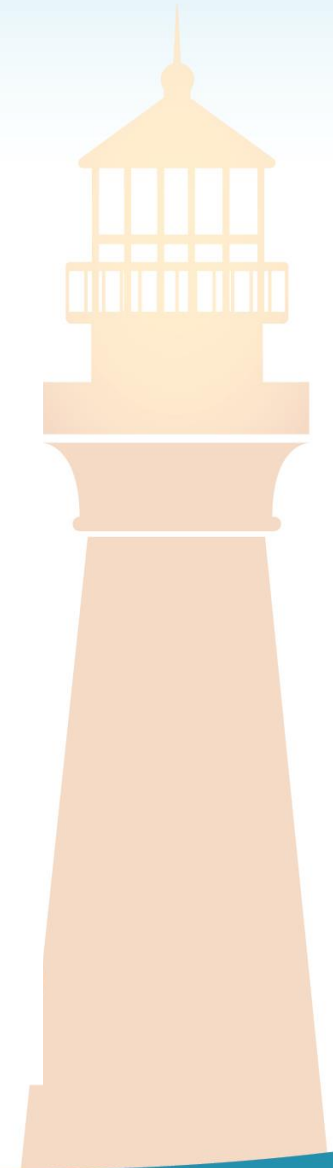
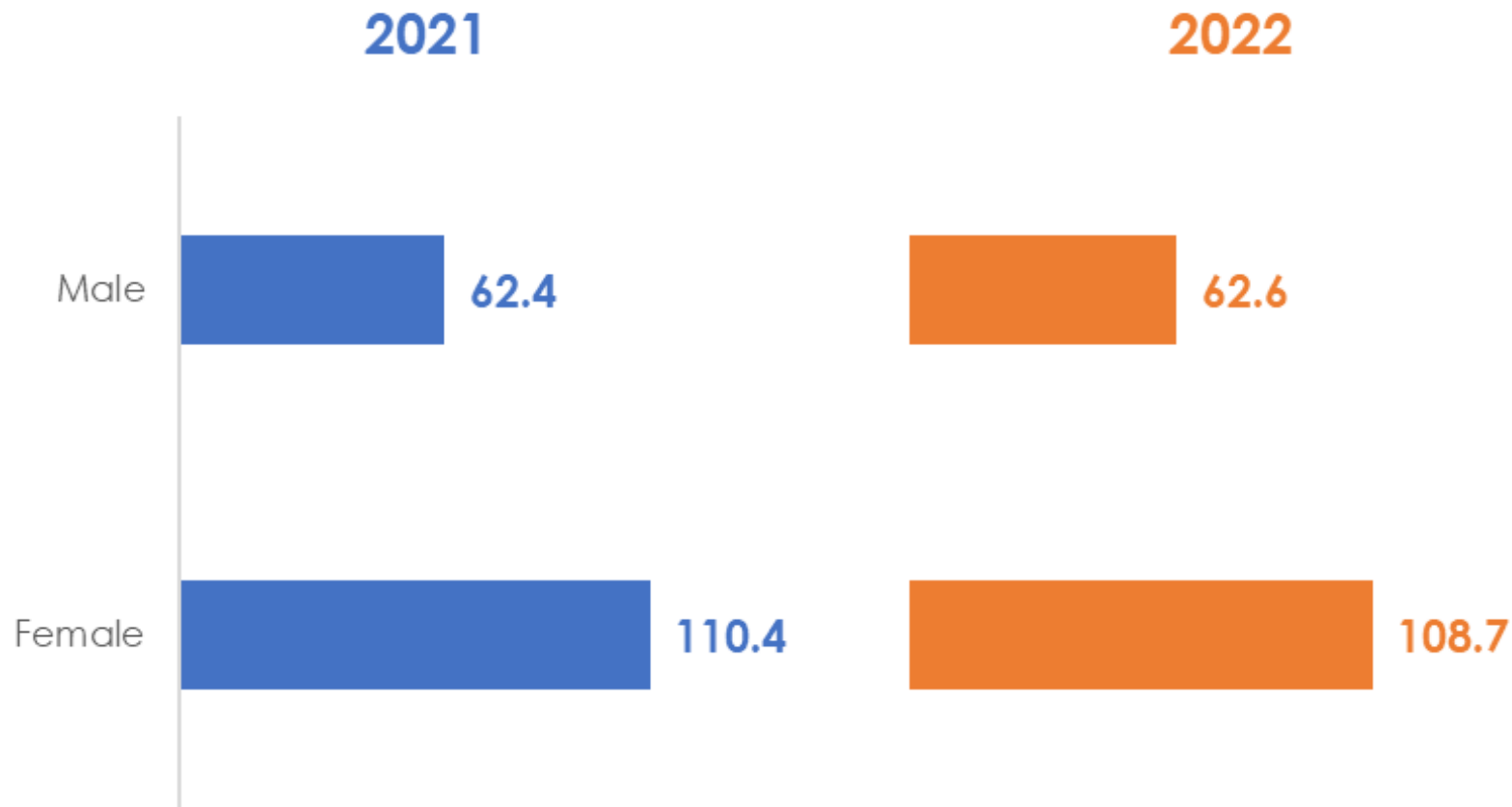


Only the most common mechanisms of suicide are shown. Therefore, total percentages for each year do not add up to 100%.

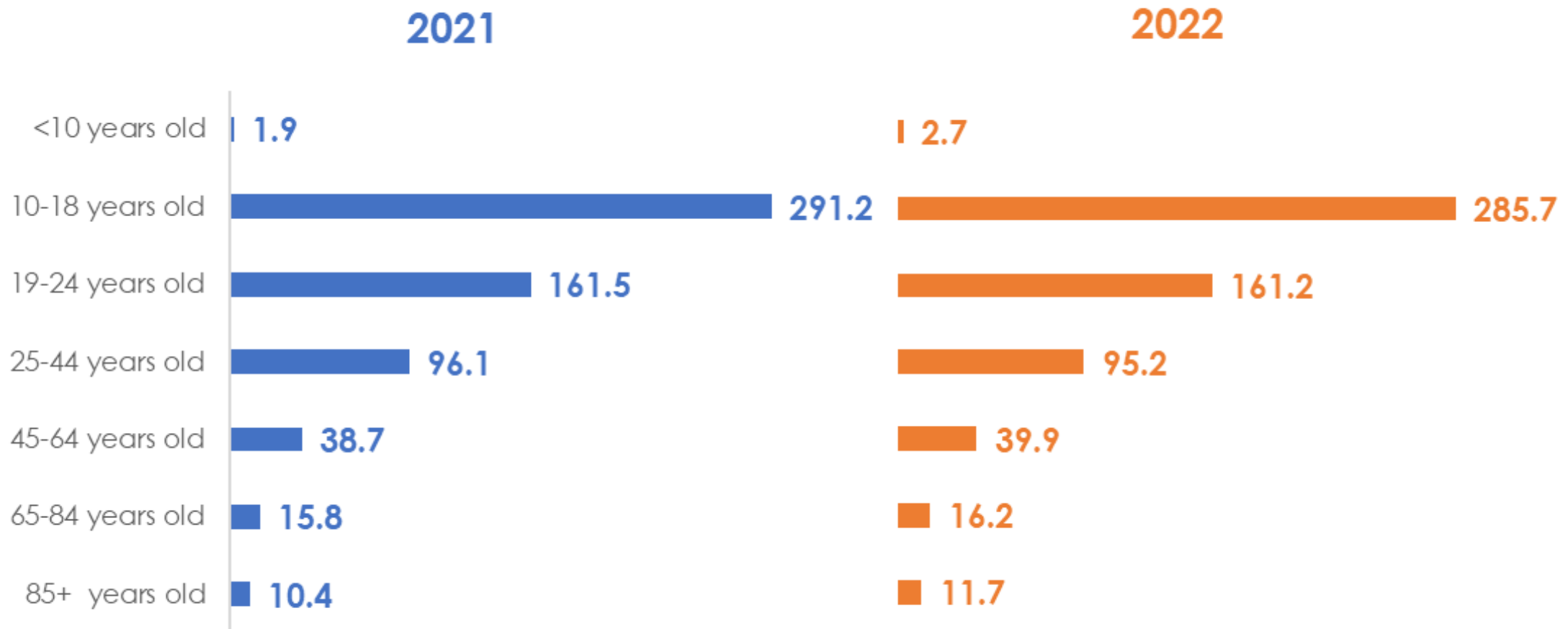
Self-harm ED visit rates (per 100,000) among CA Residents, 2016 - 2022



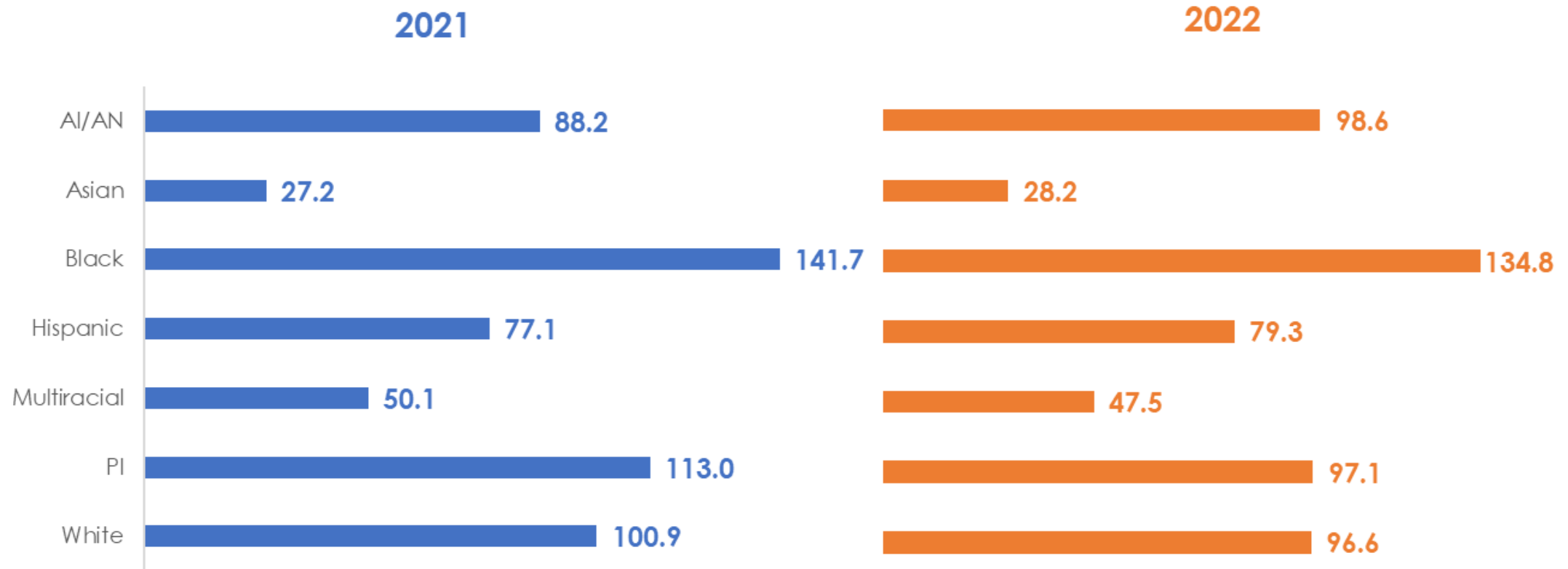
Self-harm rates (per 100,000) among CA residents by Sex, 2021 - 2022



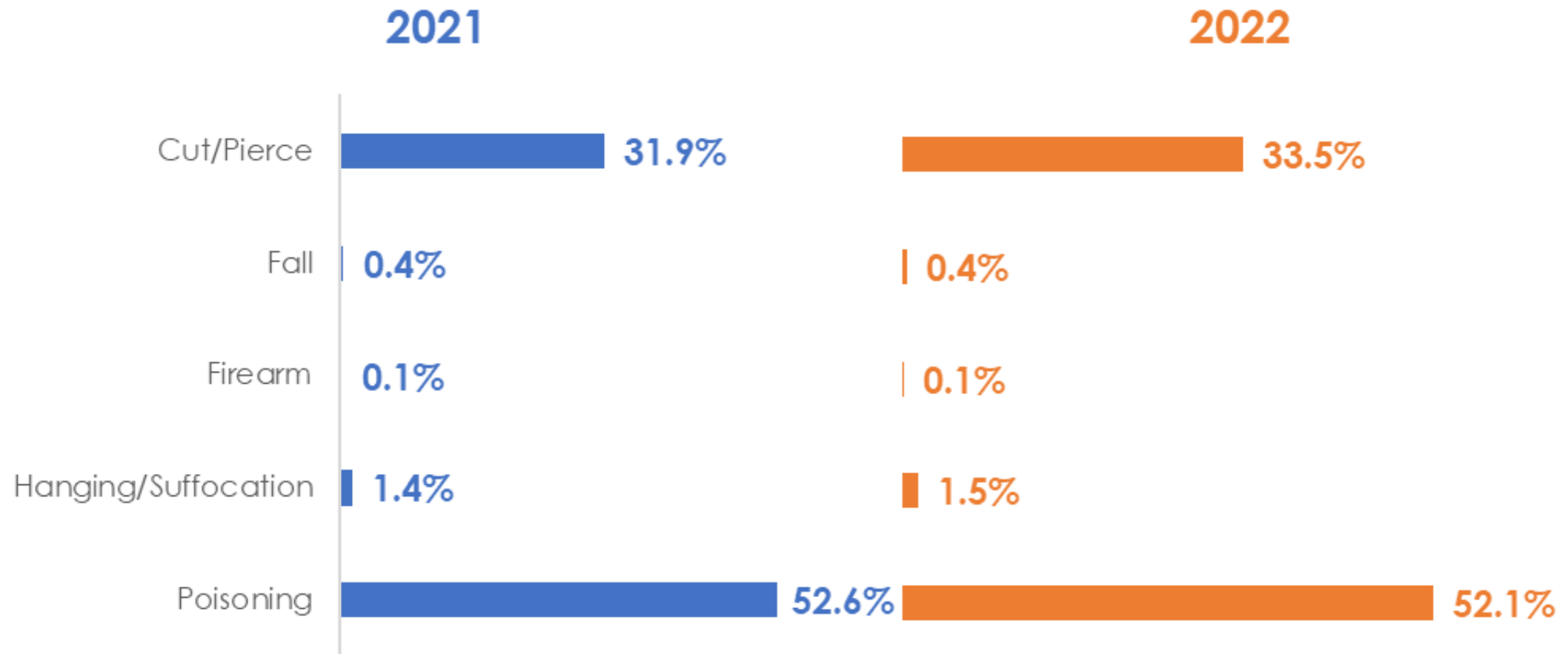
Self-harm ED visit rates (per 100,000) among CA residents by age group, 2021 - 2022



Self-harm ED visit rates (per 100,000) among CA residents by Race/Ethnicity, 2021 - 2022



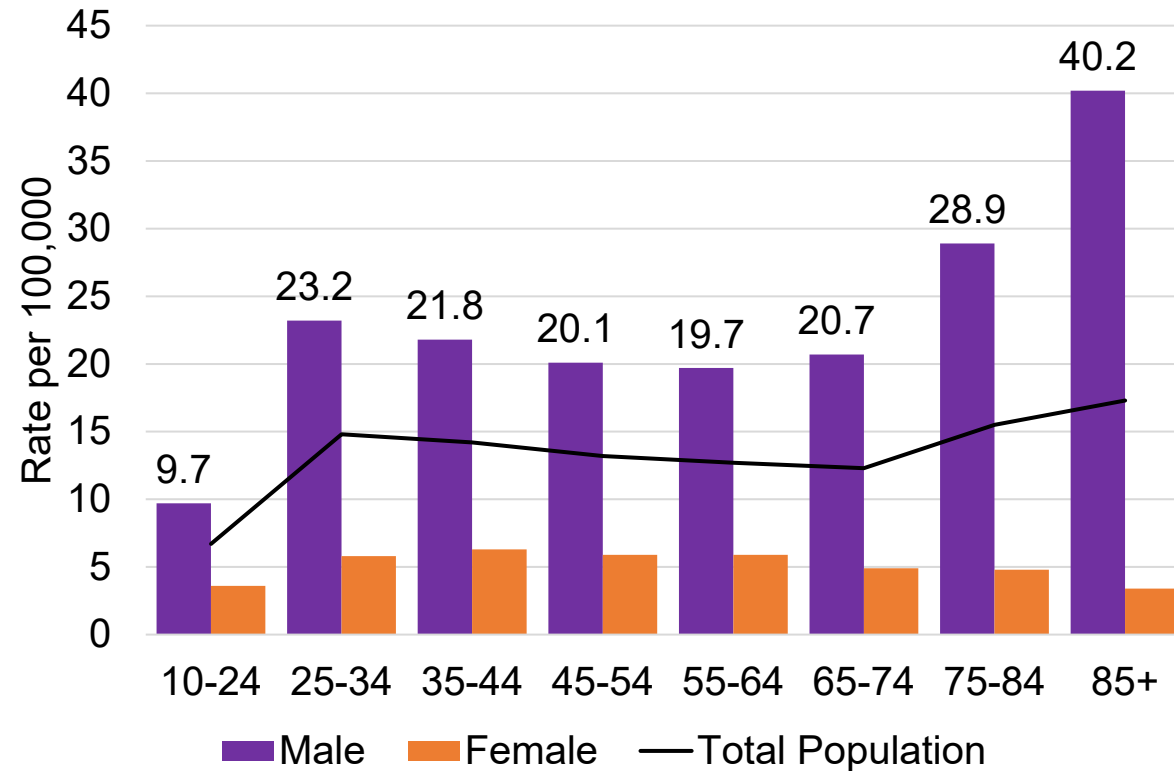
Percent of self-harm ED visits among CA residents by mechanism of injury, 2021 - 2022



Older Adult Suicide

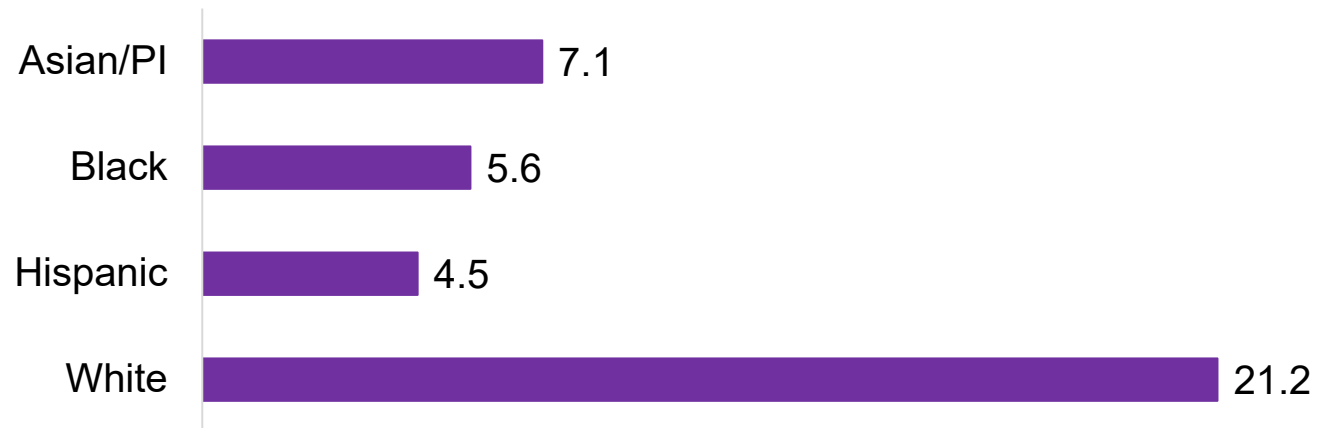


Rate of Suicide (per 100,000) by Sex and Age Group, 2021



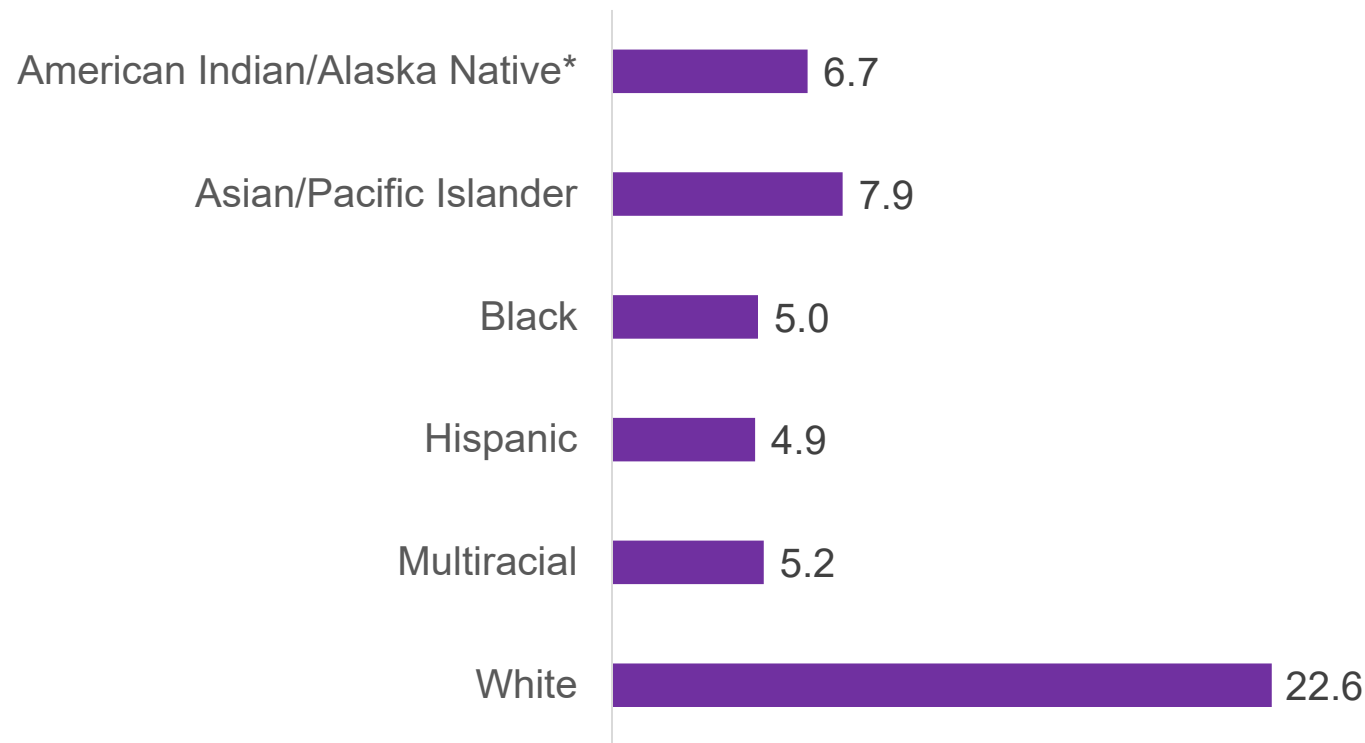
Note: Rates for ages 5-9 are not included due to a very low count.

Suicide Rates (per 100,000) for Older California Residents by Race/Ethnicity, 2021

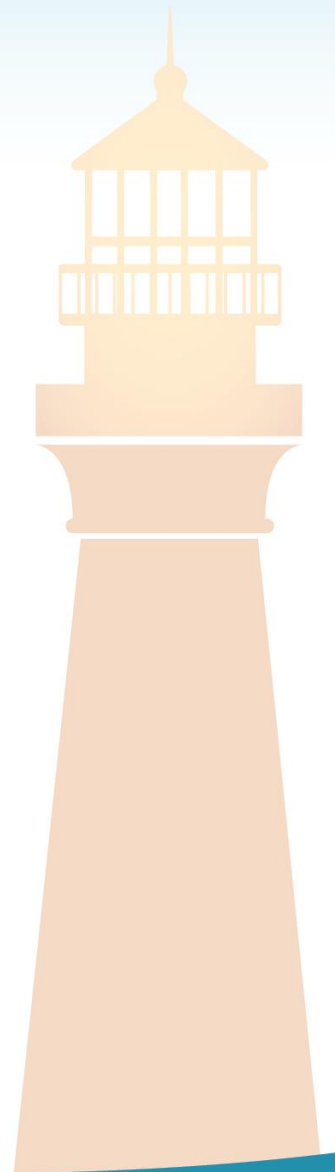


*Note: PI = Pacific Islander. Merged with Asian due to low counts even with years aggregated
Rates for Native American/Alaska Native and Multi-race not presented due to very low counts
but aggregated data for 2016-2021 showed in next slide.*

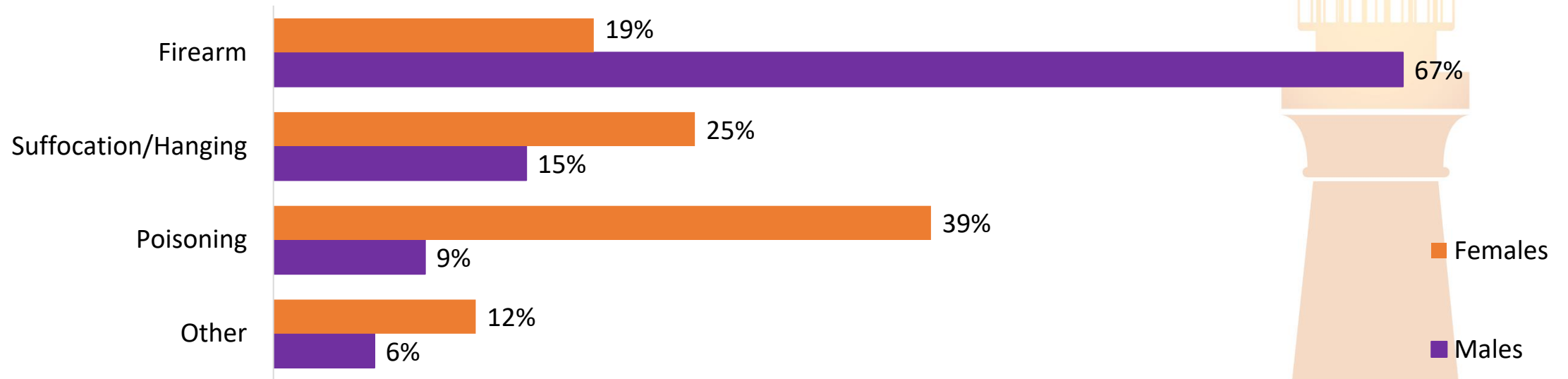
Suicide Rates (per 100,000) for Older California Residents by Race/Ethnicity, 2016-2021



** Denotes rates that are based off fewer than 20 events and might be unreliable.
Pacific Islander merged with Asian due to low counts even with years aggregated*

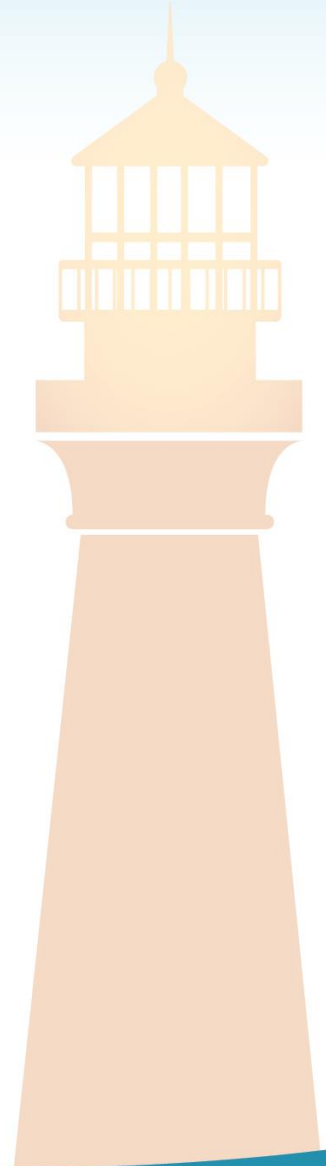


Older Adult Suicides by Sex and Method, 2021



Older Adult Suicide Circumstances, CalVDRS 2021

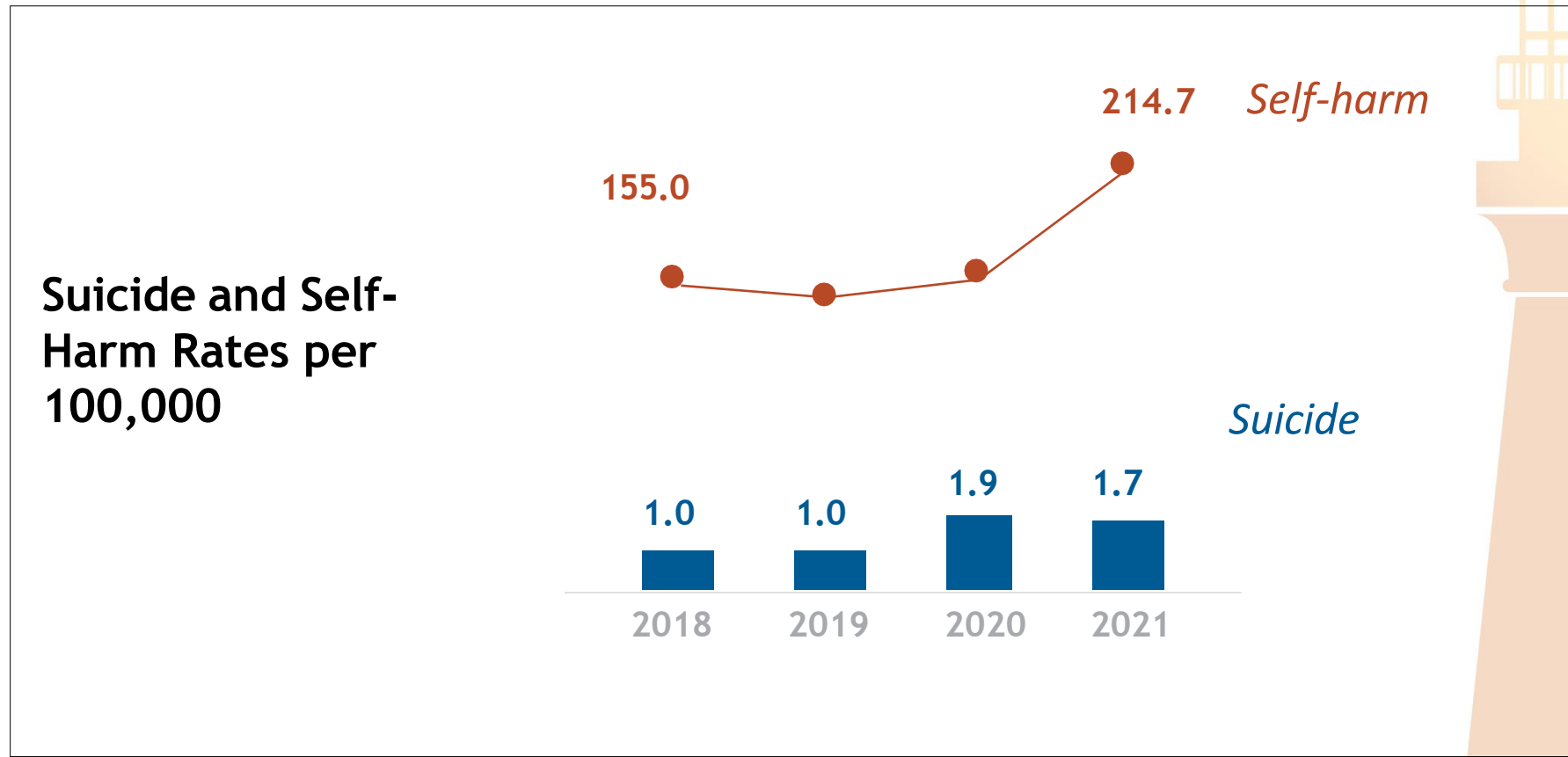
Older Adult Suicide Circumstances (in participating CalVDRS counties)	
MALES	FEMALES
50% had a contributing physical health condition	32% had a contributing physical health condition
33% had a mental health problem, the most common being depression	57% had a mental health problem, the most common being depression
15% had a history of treatment for a mental health or substance use problem	31% had a history of treatment for a mental health or substance use problem
36% had a known history of suicidal thoughts or plans	43% had a known history of suicidal thoughts or plans
9% had a known history of suicidal attempts	25% had a known history of suicidal attempts



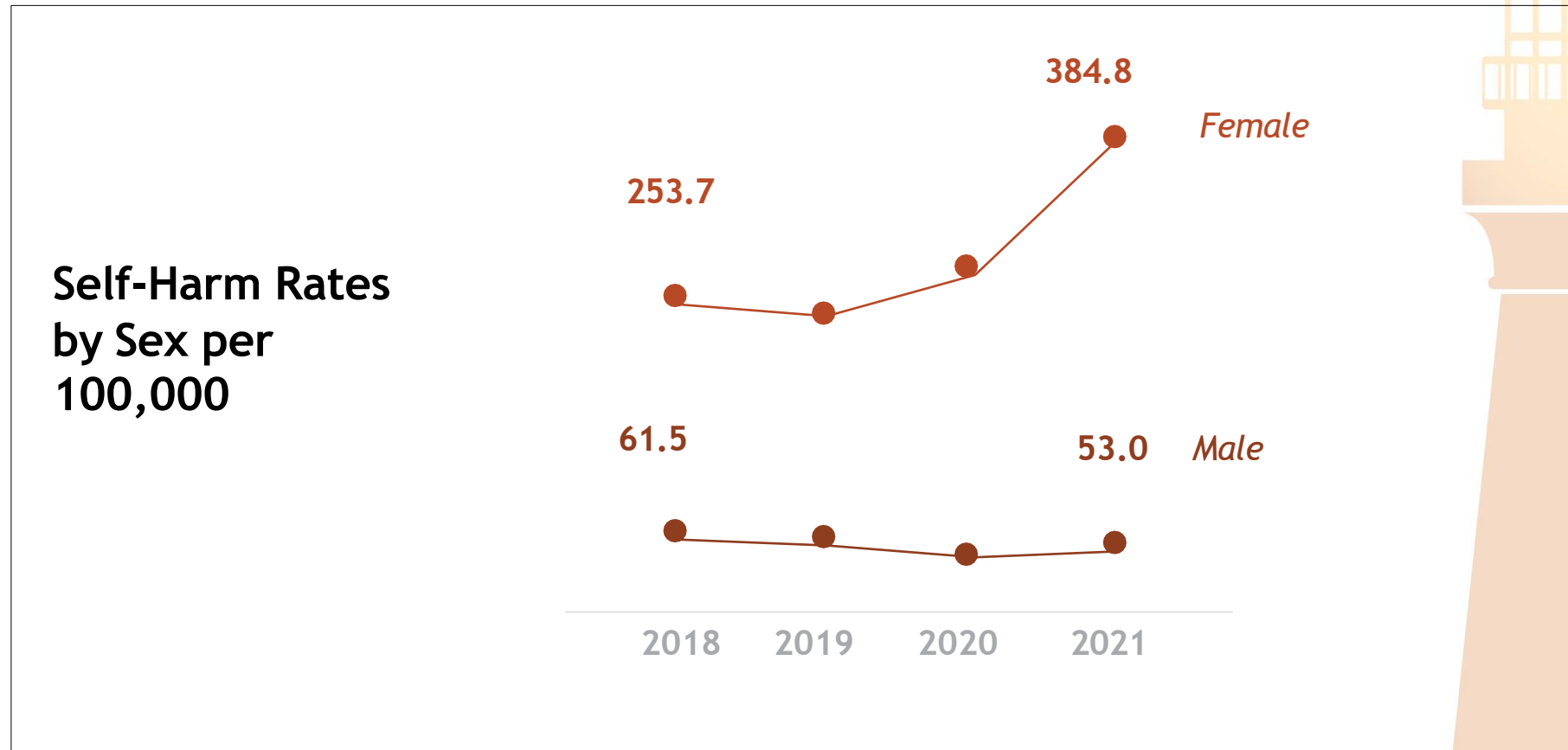
Youth Suicide



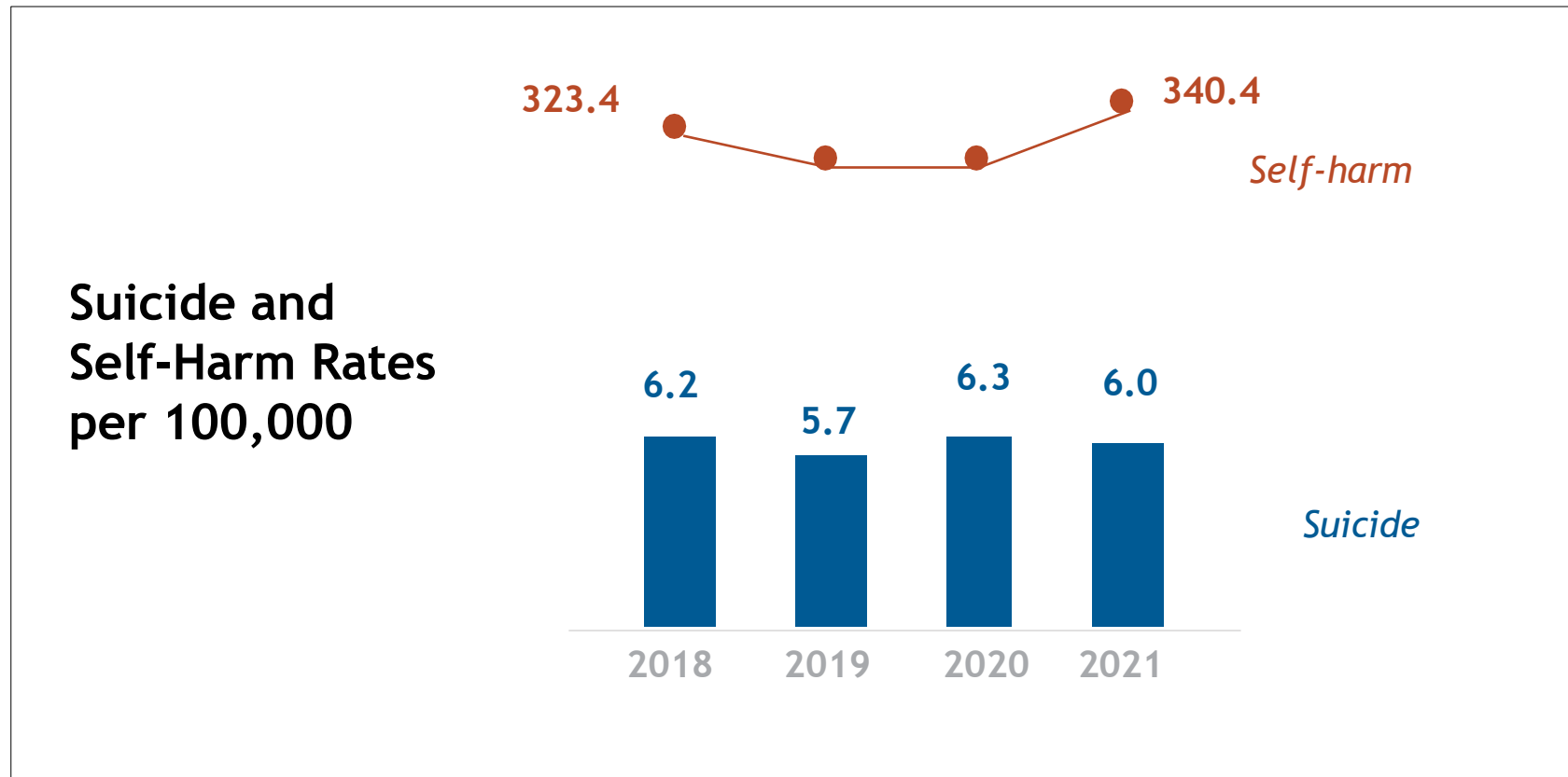
Suicide and self-harm rates of youth ages 10-14 per 100,000, 2018-2021



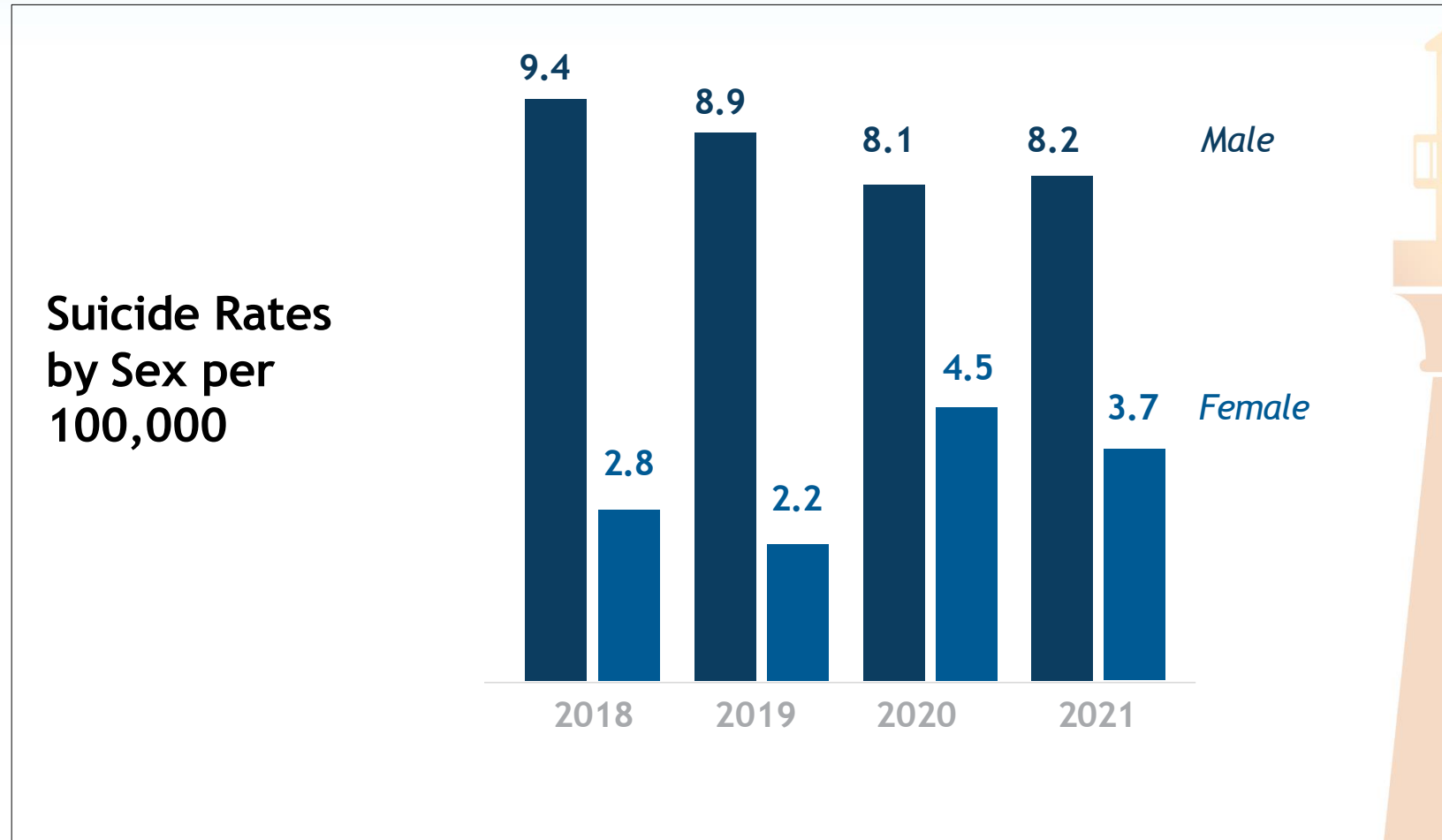
Self-Harm Rates of youth ages 10-14 by Sex per 100,000, 2018-2021



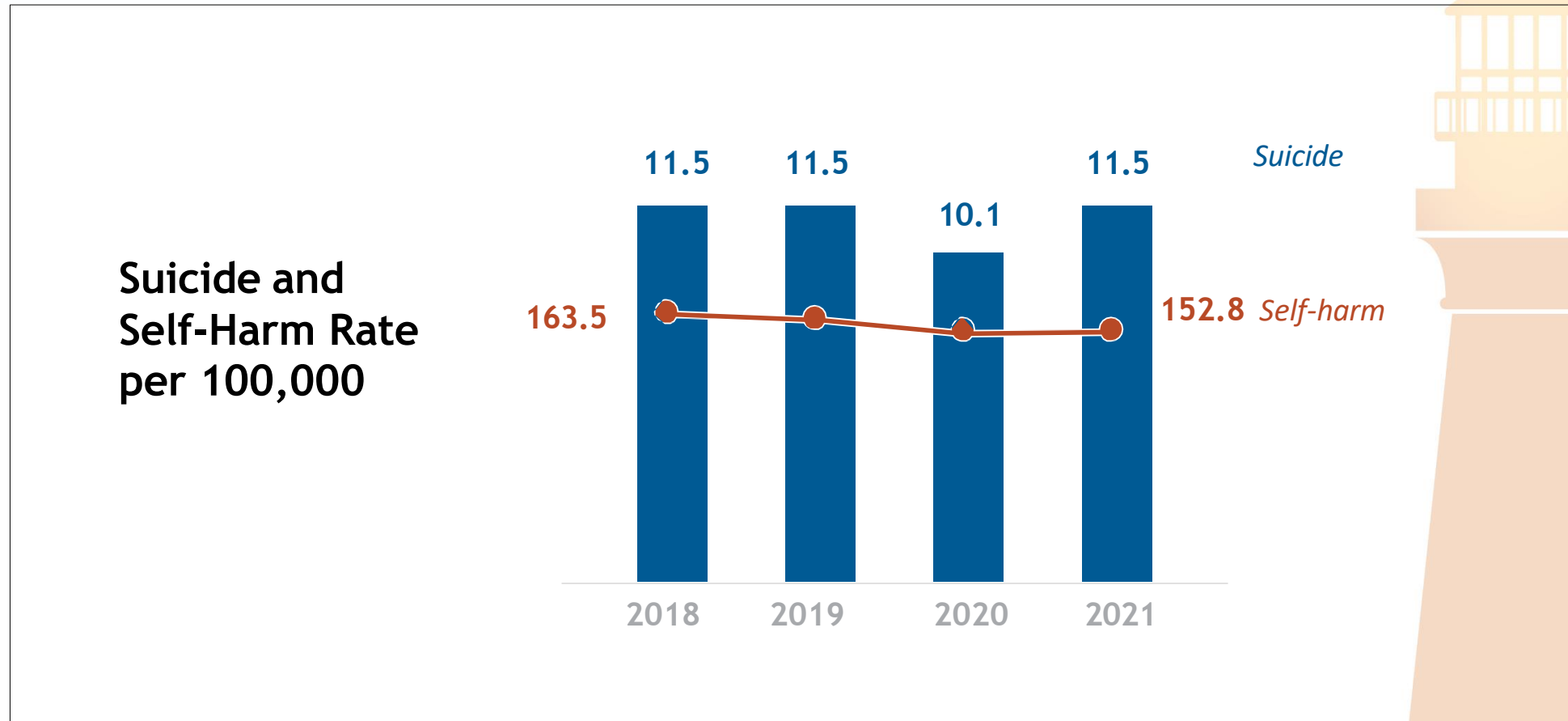
Suicide and self-harm rates of youth ages 15-19 per 100,000, 2018-2021



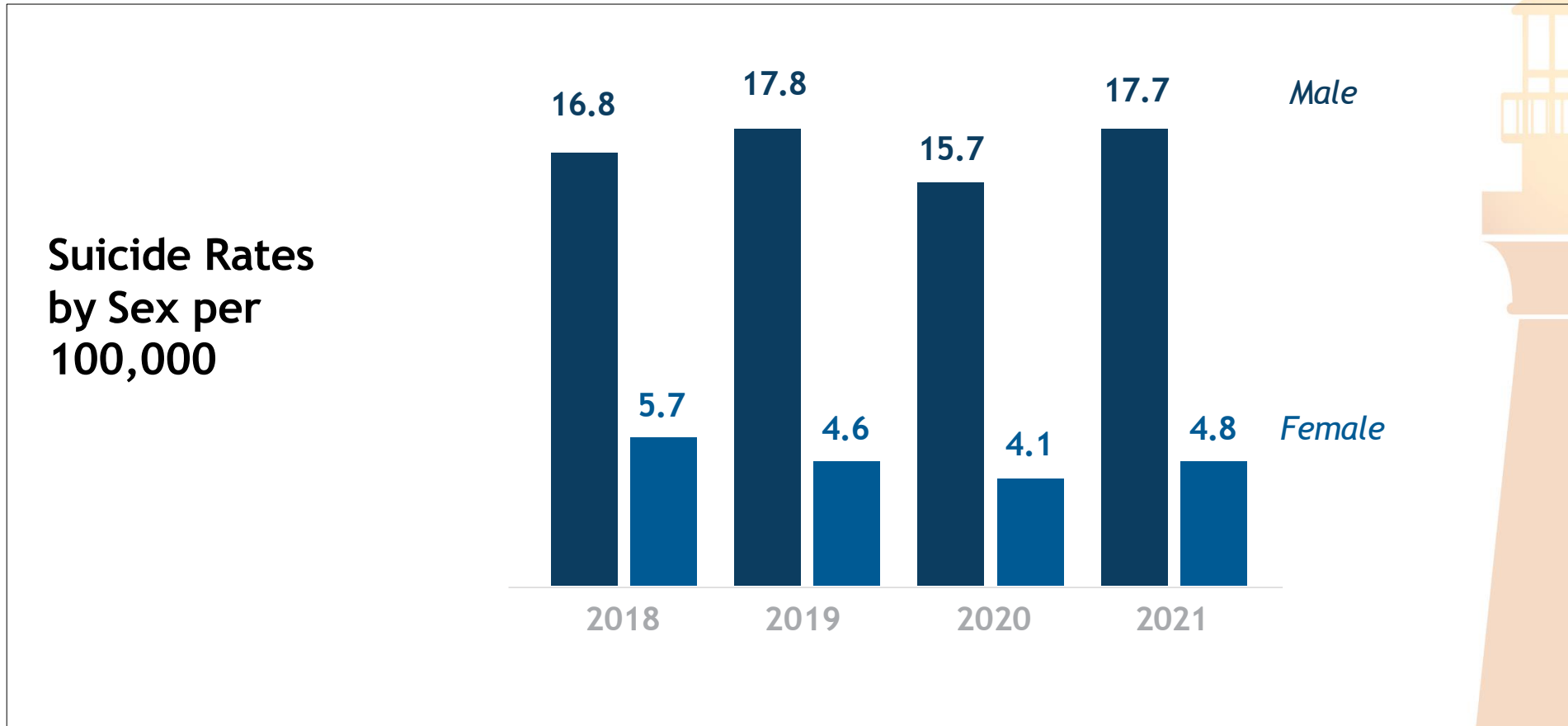
Suicide rates of youth ages 15-19 by sex per 100,000, 2018-2021



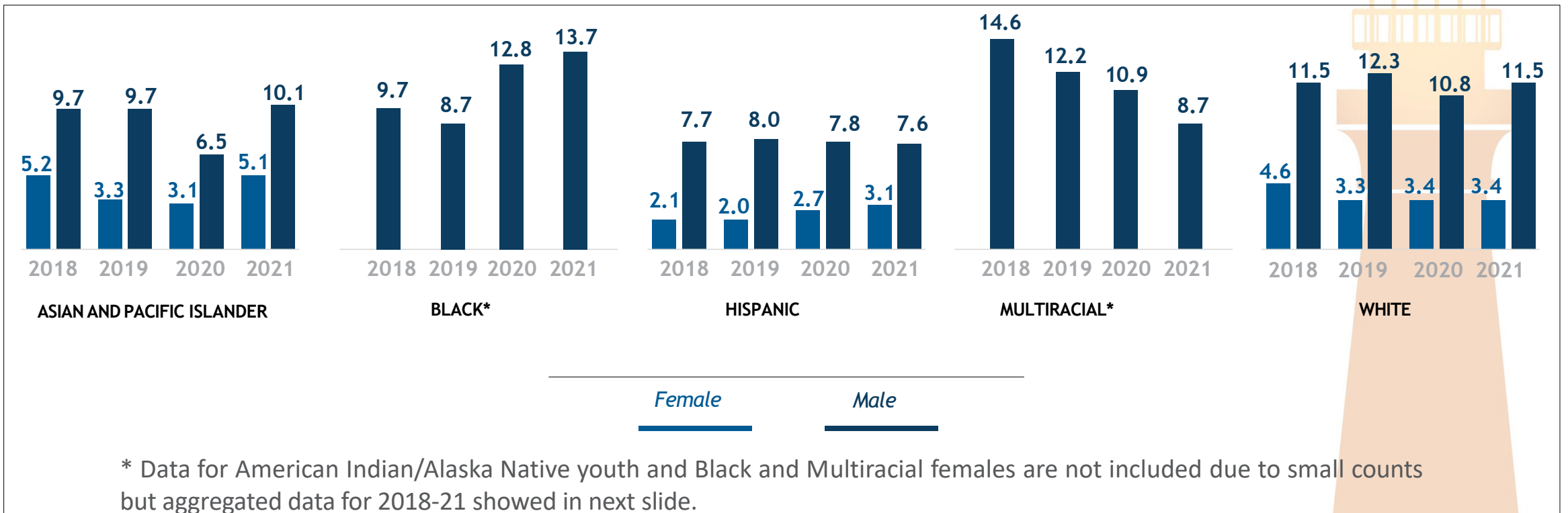
Suicide and self-harm rates of youth ages 20-24, 2018-2021



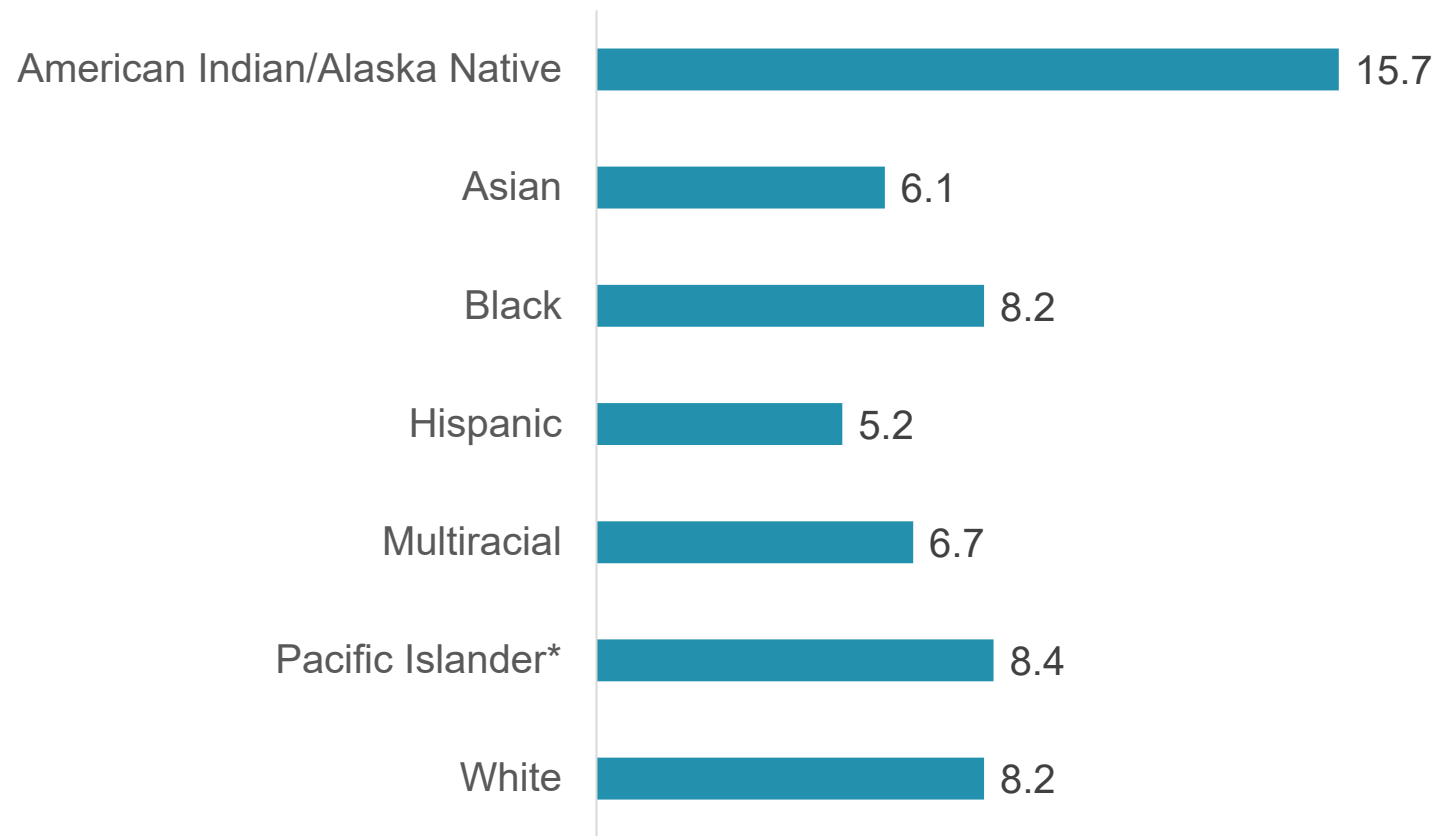
Suicide rates of youth ages 20-24 by sex, 2018-2021



Suicide rates of youth ages 10-24 by race and ethnicity, sex, and year per 100,000, 2018-2021

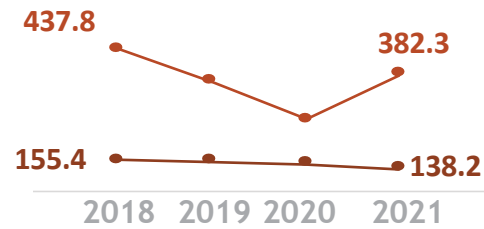


Suicide rates of youth ages 10-24 by race and ethnicity per 100,000, 2018-2021 aggregate

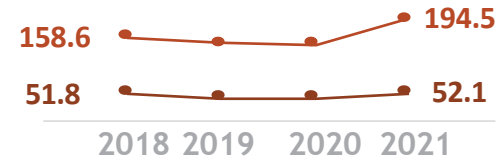


* Denotes rates that are based off fewer than 20 events and might be unreliable.

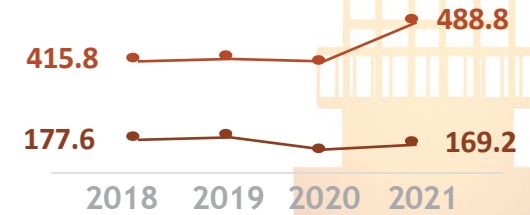
Self-harm ED visits rates of youth ages 10-24 by race and ethnicity and sex per 100,000, 2018-2021



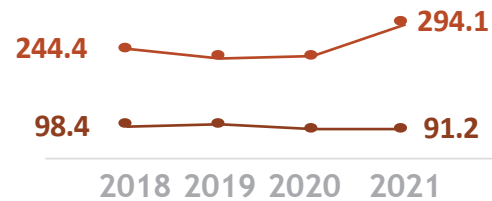
AMERICAN INDIAN OR ALASKA NATIVE



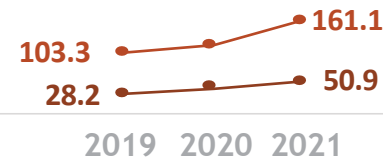
ASIAN AND PACIFIC ISLANDER



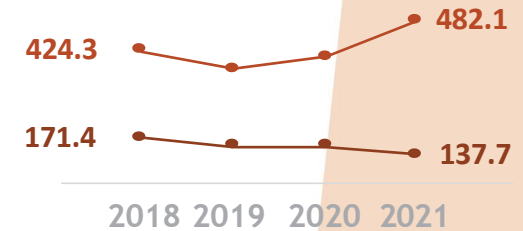
BLACK



HISPANIC



MULTIRACIAL*



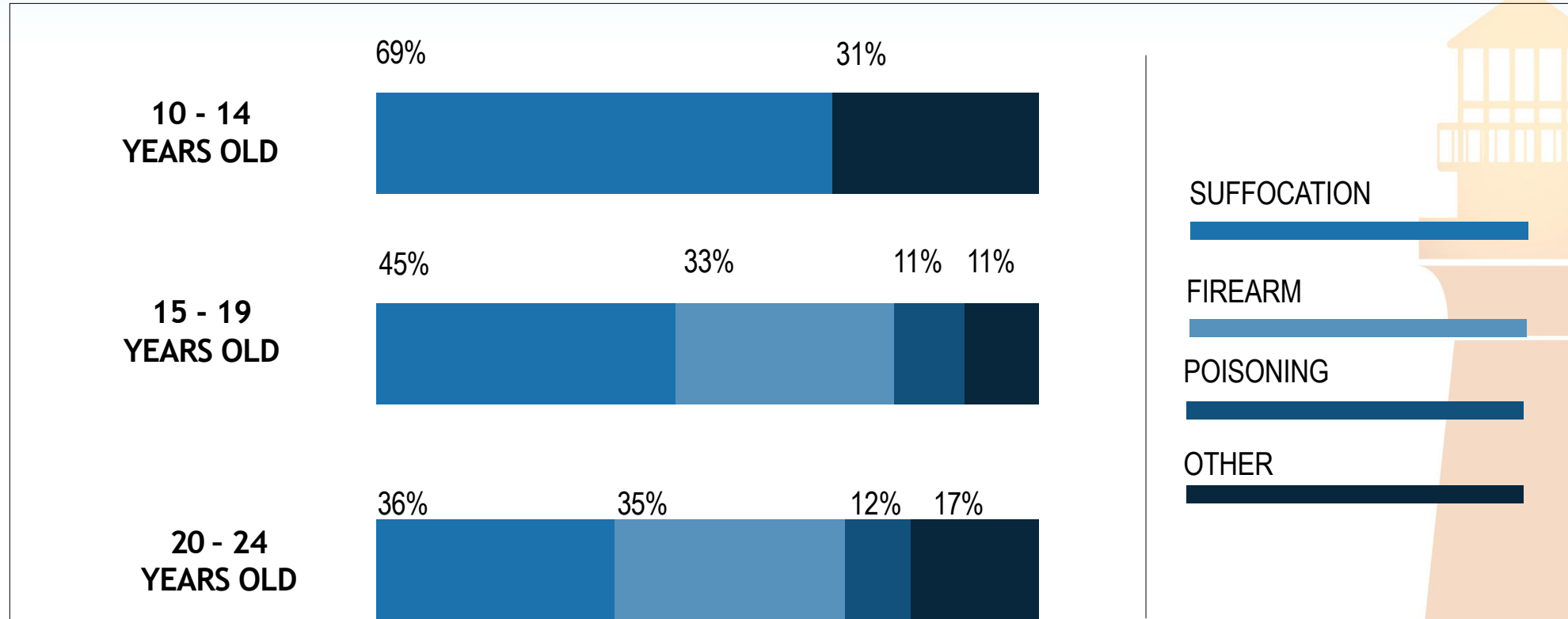
WHITE

Female

Male

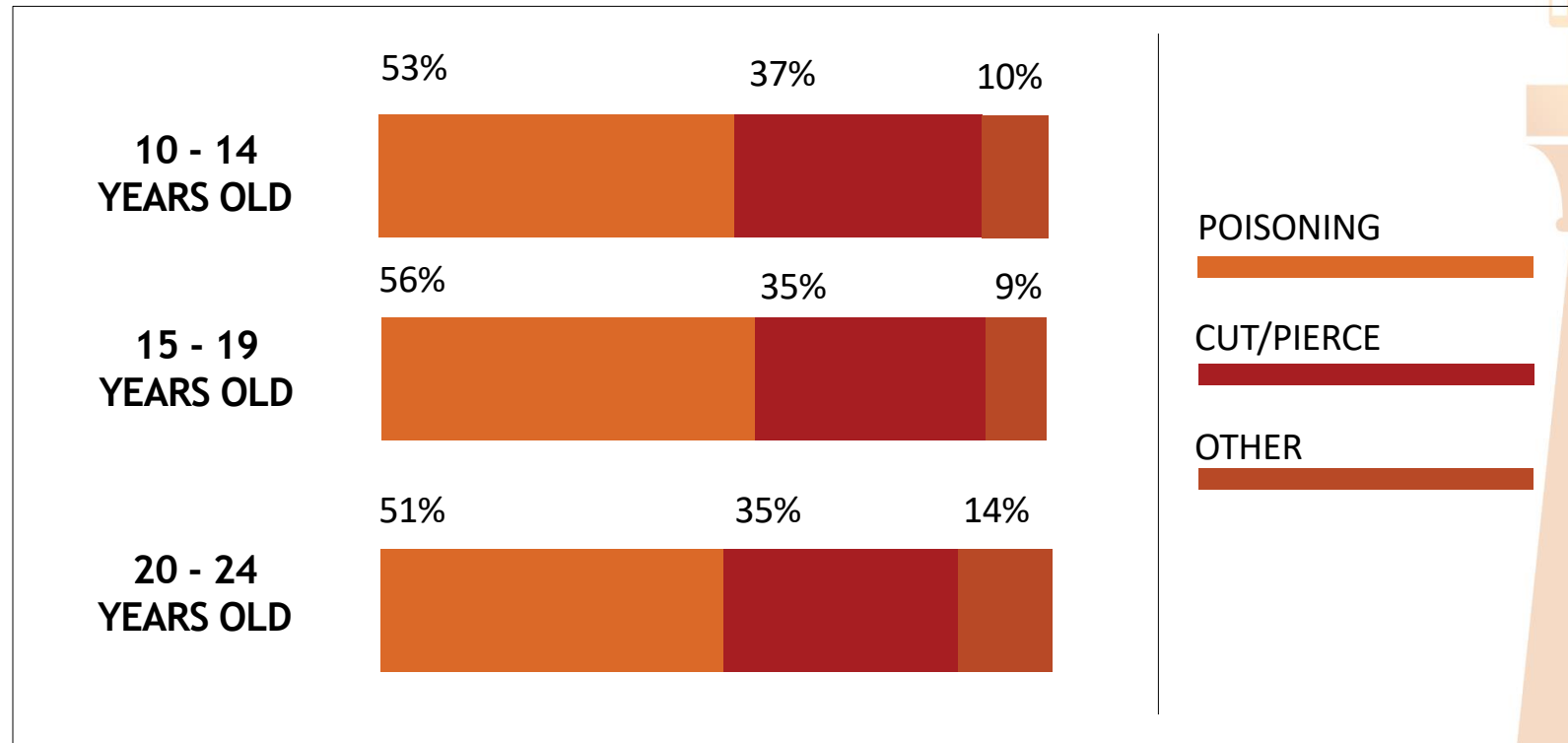
*The Multiracial category was first available in 2019. Data on individuals who identify as Multiracial are not available prior to 2019.

Percentage of suicide deaths by method, for each youth age group, 2021

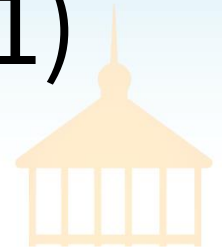


* For all age groups “other” includes death caused by cutting/ piercing. For the 10-14 age range “other” also includes injuries caused by firearm and poisoning. Due to small counts for these methods, the exact percentages cannot be shown on the figure.

Percentage of self-harm injuries treated in EDs by method for each youth age group, 2021



Differences in Circumstances of Youth Suicide by Sex (CalVDRS participating counties, 2021)

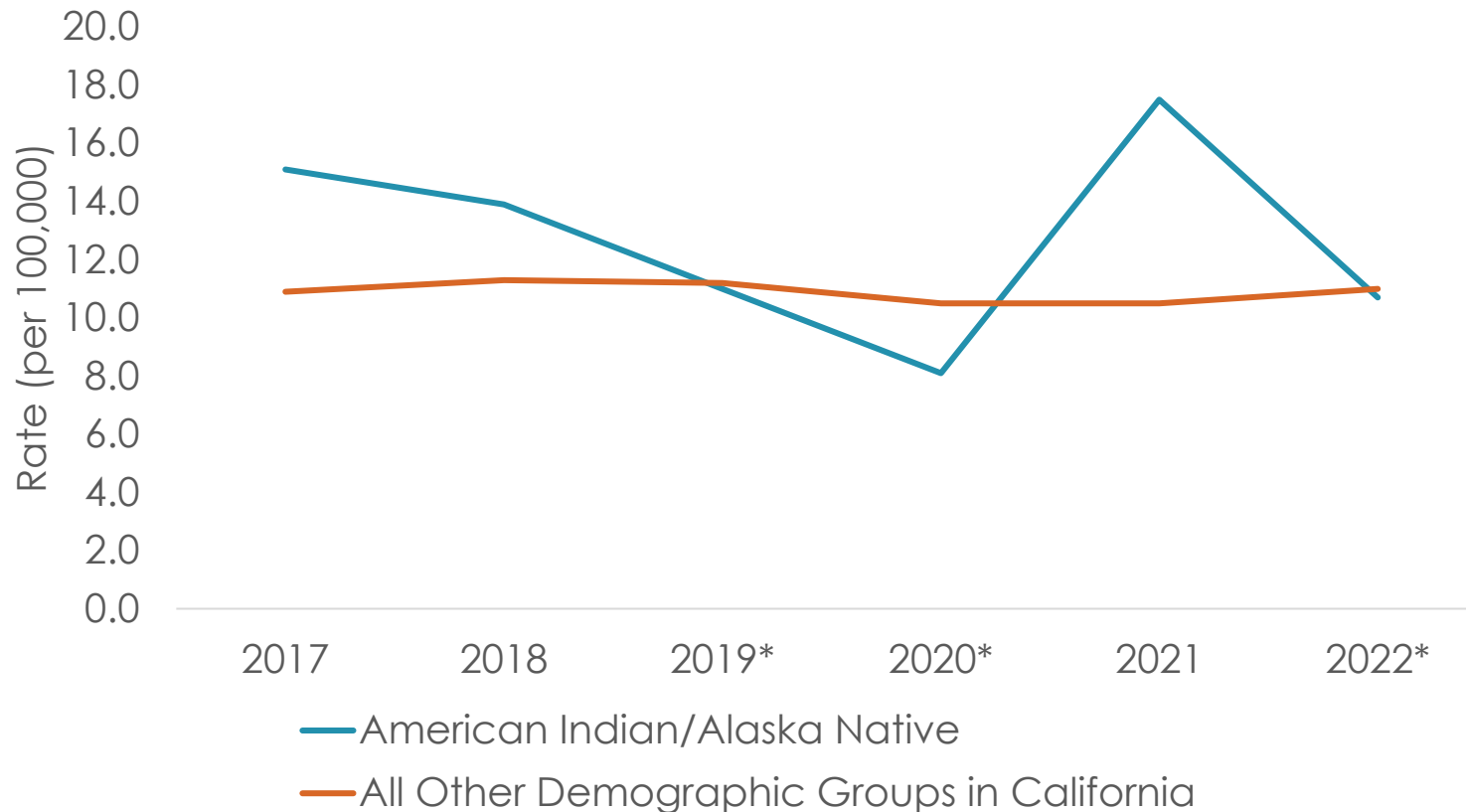


	Females	Males	All
<i>Current mental health problem, most commonly depression</i>	60%	45%	49%
<i>History of treatment for mental health or substance use problem</i>	47%	24%	30%
<i>History of suicidal thoughts or plans</i>	49%	35%	39%
<i>History of suicide attempts</i>	37%	19%	23%
<i>History of non-suicidal self-harm</i>	29%	5%	11%

American Indian/Alaska Native Suicide

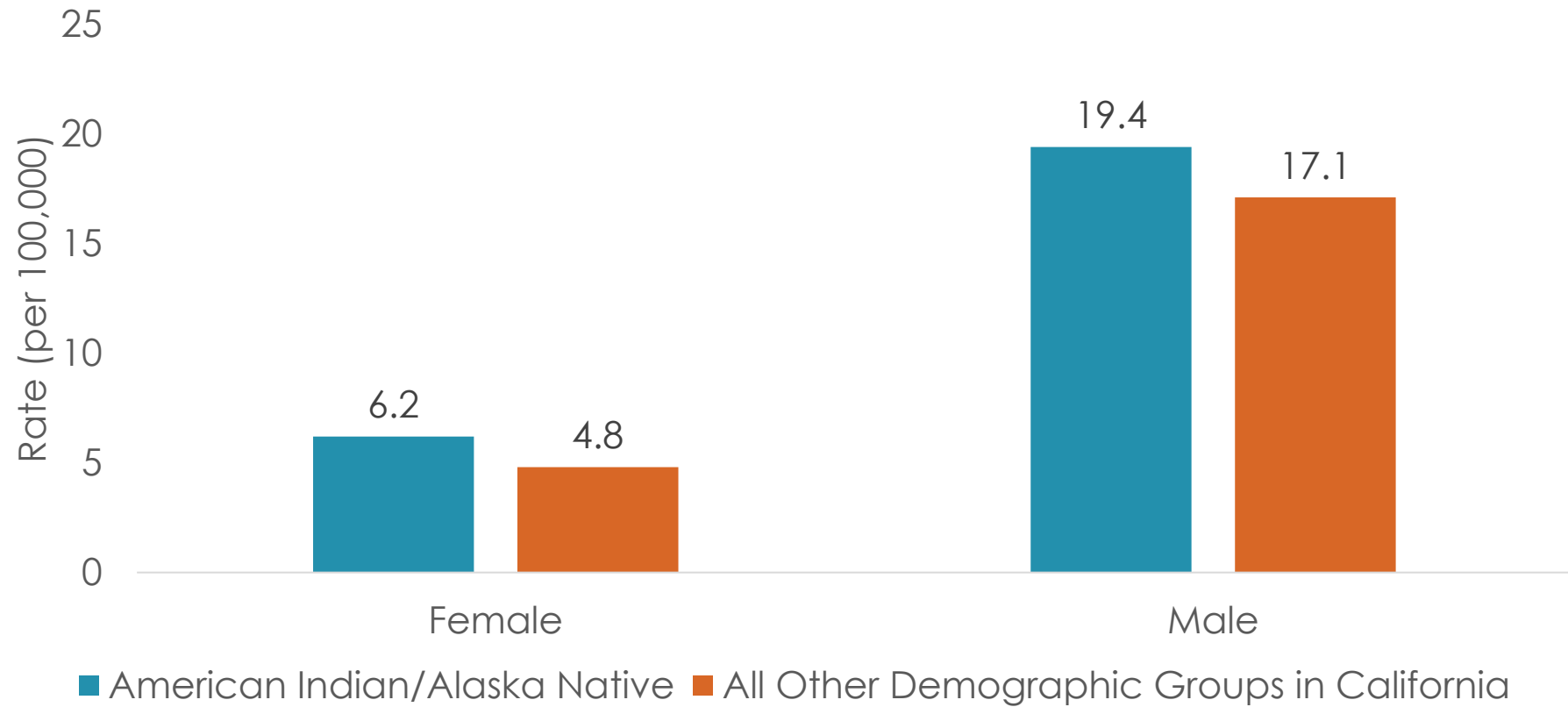


Suicide Rate by Year for American Indian/Alaskan Native and All Other Demographic Groups in California, 2022

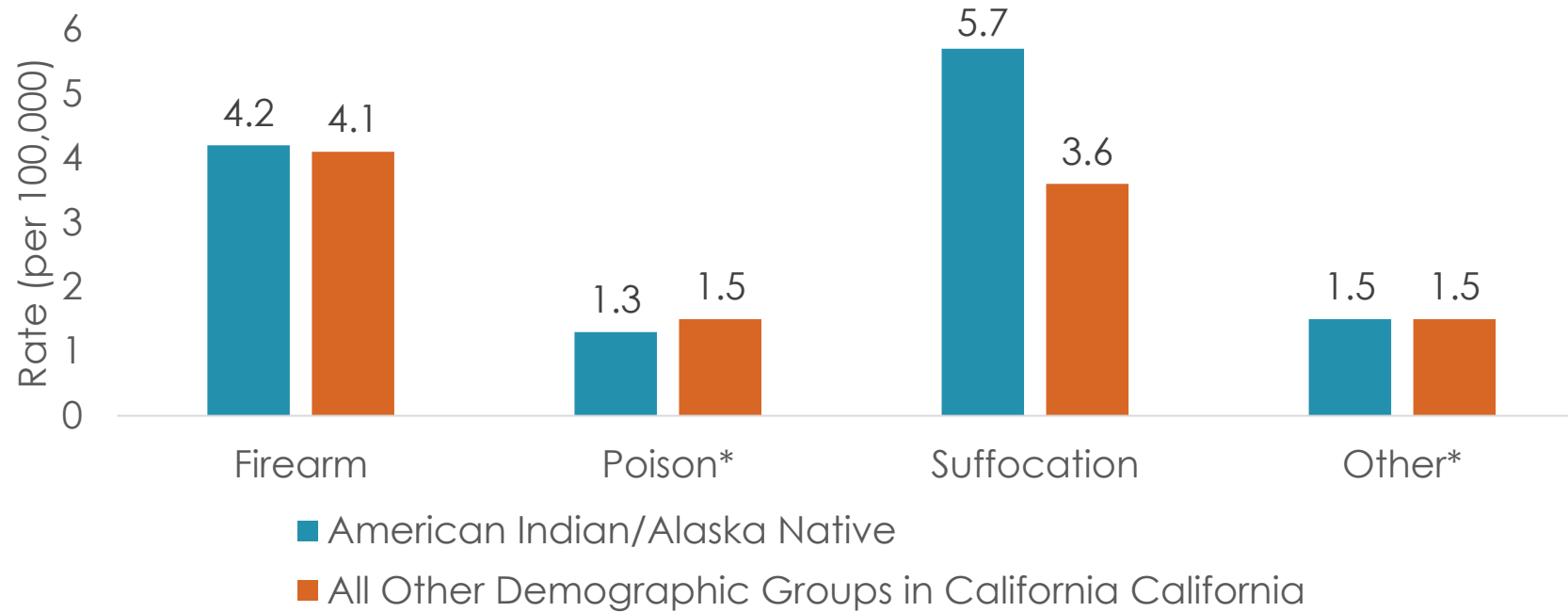


* Denote non-Hispanic American Indian/Alaska Native rates are based off counts less than 20 and could be unreliable.

Suicide Rates for American Indian Alaska Native and All Other Demographic Groups in California by Sex, 2017-2022



Method of Suicide for American Indian Alaska Native and All Other Demographic Groups in California, 2017-2022

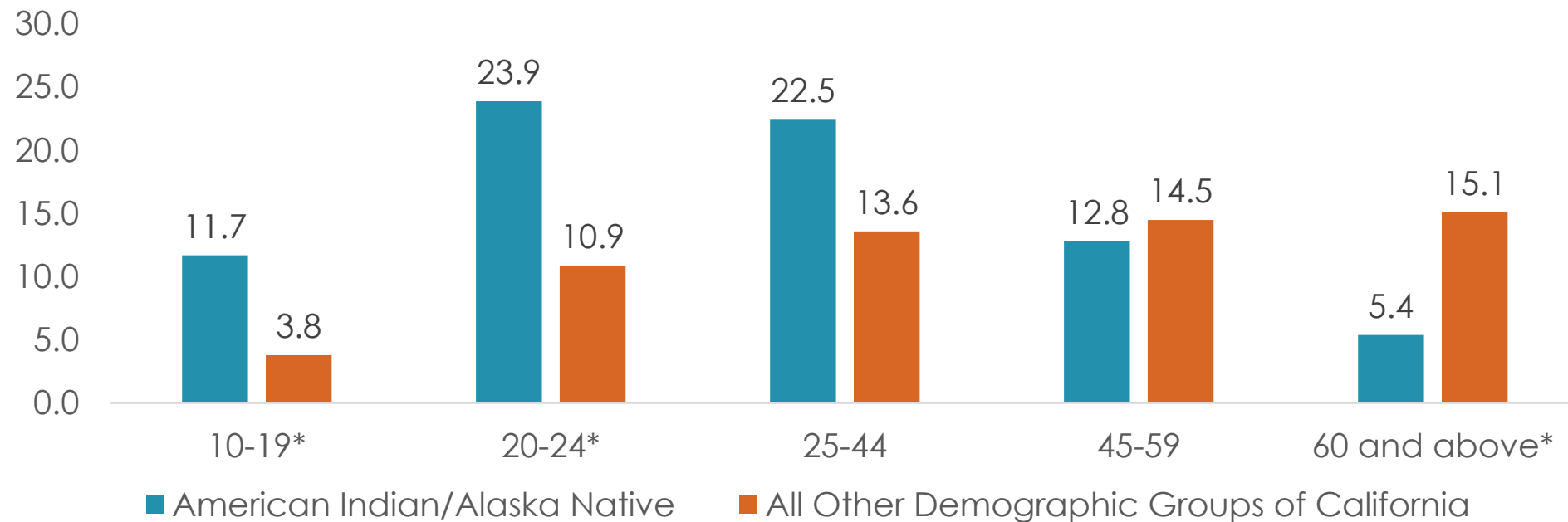


Methods with an * denote the American Indian/Alaska Native rates are based off counts less than 20 and could be unreliable.

Average Age of Decedent for American Indian Alaska Native and All of California, 2017-2019 Aggregate and 2020-2022 Aggregate

Population Group	2017-2019	2020-2022
American Indian/Alaska Native	40.1	35.0
All Other Demographic Groups of California	48.4	48.2

Suicide Rate (per 100,000) for American Indian Alaska Native and All Other Demographic Groups of California by Age for Years 2017-2022.



Age groups with * denotes rate calculated by count of 20 or below. Caution is recommended regarding the reliability of the rates.

Suicide Among Veterans

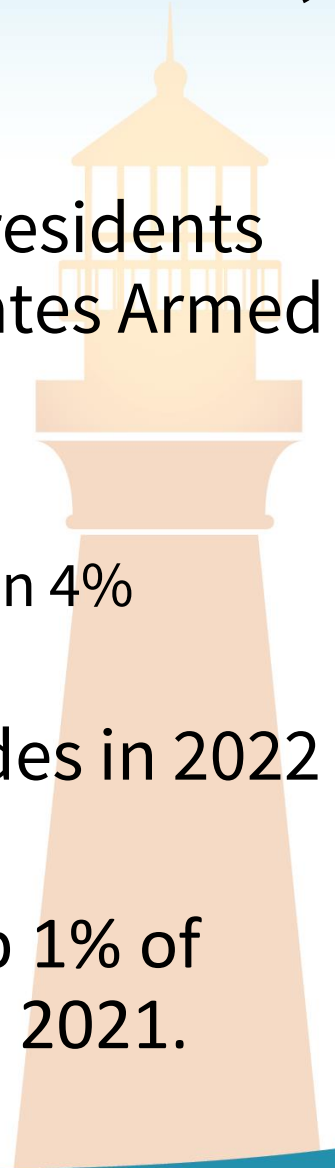


Suicide Death Among Veterans – Annual Brief

- Per Assembly Bill 242 (Chapter 222, Statutes of 2017), CDPH develops an annual injury data brief on Suicide among CA Veterans
 - Includes those who reside in CA and have served in the U.S. Armed Forces.
 - Provides numbers of statewide suicide deaths broken down by age, sex, race/ethnicity, county, and method of suicide.
 - Data compiled from limited information on death certificates.
 - Veteran status based on answer to single item on death certificate that asks whether decedent was “ever in the United States Armed Forces”. This does not distinguish between current and former service members, or those seeing active duty.
 - This definition may not align with others that include only those who have been activated for federal military service and are not serving at the time of death.
 - Rates not calculated since CDPH does not have estimates for the underlying population of Californians who have served in the U.S. Armed Forces.

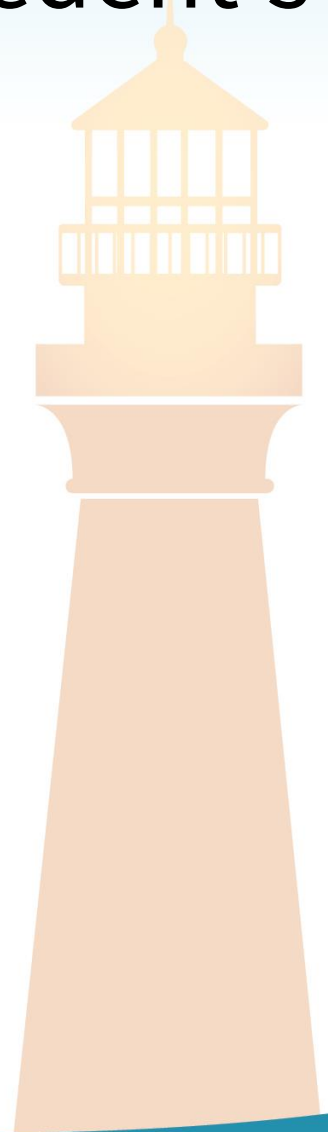
Suicide Death Among Veterans in California, 2022

- In 2022, there were 570 suicide deaths among California residents aged 18 years and older who had served in the United States Armed Forces (identified here as Veterans).
- The total number of deaths statewide decreased by 6%.
 - The number of deaths by suicide in 2022 increased by more than 4% statewide and increased by 2% among California Veterans.
- Suicide deaths among Veterans made up 14% of all suicides in 2022 (similar to 2021).
- Among both Veterans and non-Veterans, suicides made up 1% of total deaths in 2022, showing no substantial increase from 2021.

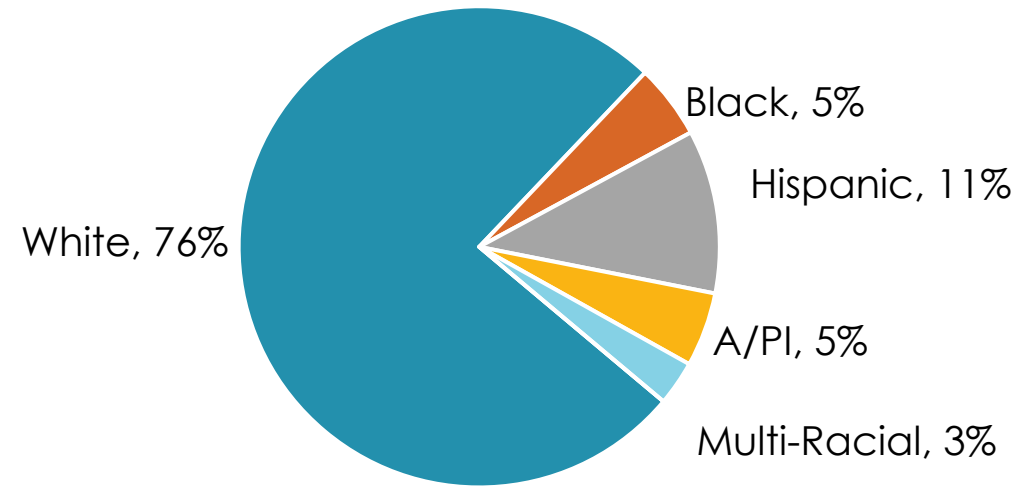
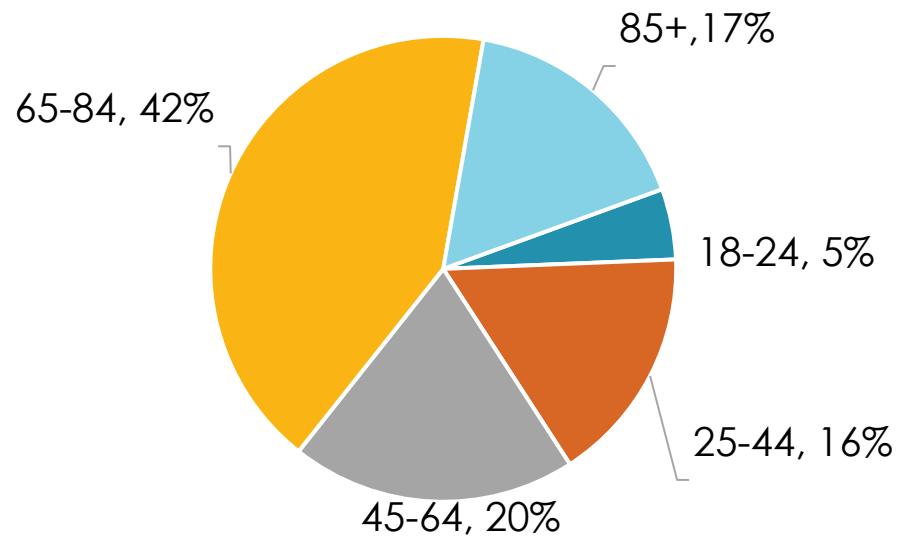


Suicide deaths and total deaths in California residents aged 18 years and older by decedent's Veteran status, 2022.

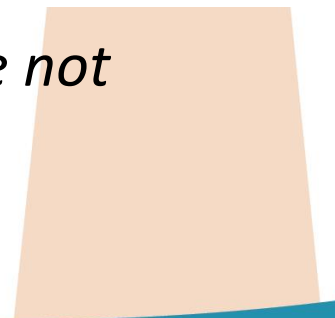
Veteran Status	Suicides	Total Deaths
Veteran	570	49,623
Non-Veteran	3,524	255,908
Unknown	66	4,322
Total	4,160	309,853



Age and Race/Ethnicity among Veteran suicide deaths, California residents aged 18 years and older, 2022 (n=570).

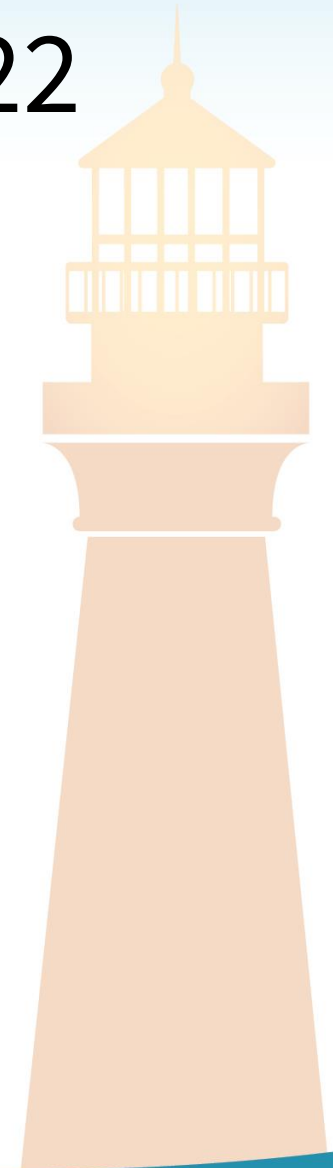


Native American/Alaska Native had no veteran suicide deaths and are not presented in the pie chart. A/PI = Asian/Pacific Islander.



Demographic characteristics among California Veteran suicide deaths, 2022

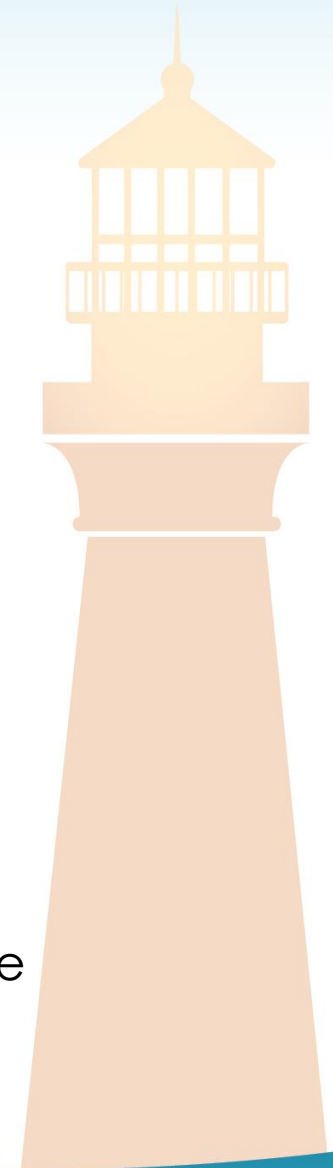
	(N)	(%)
<u>Age (years)</u>		
18 – 44	122	21%
45 – 64	113	20%
65 – 84	240	42%
85+	95	17%
<u>Sex</u>		
Female	22	4%
Male	548	96%
<u>Total</u>	570	



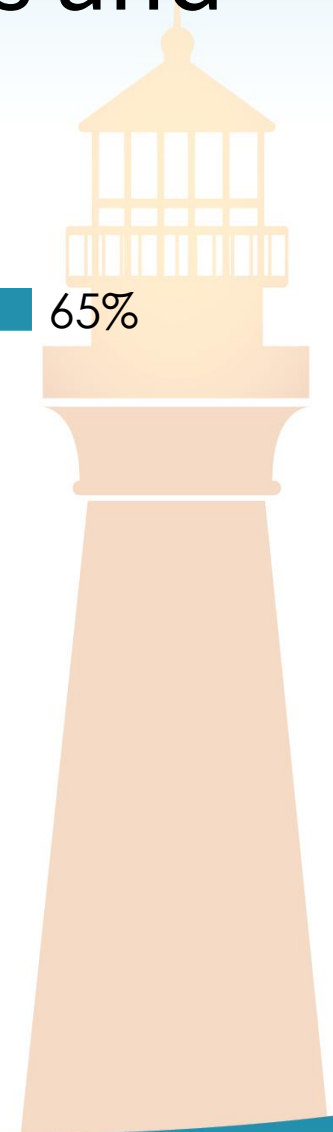
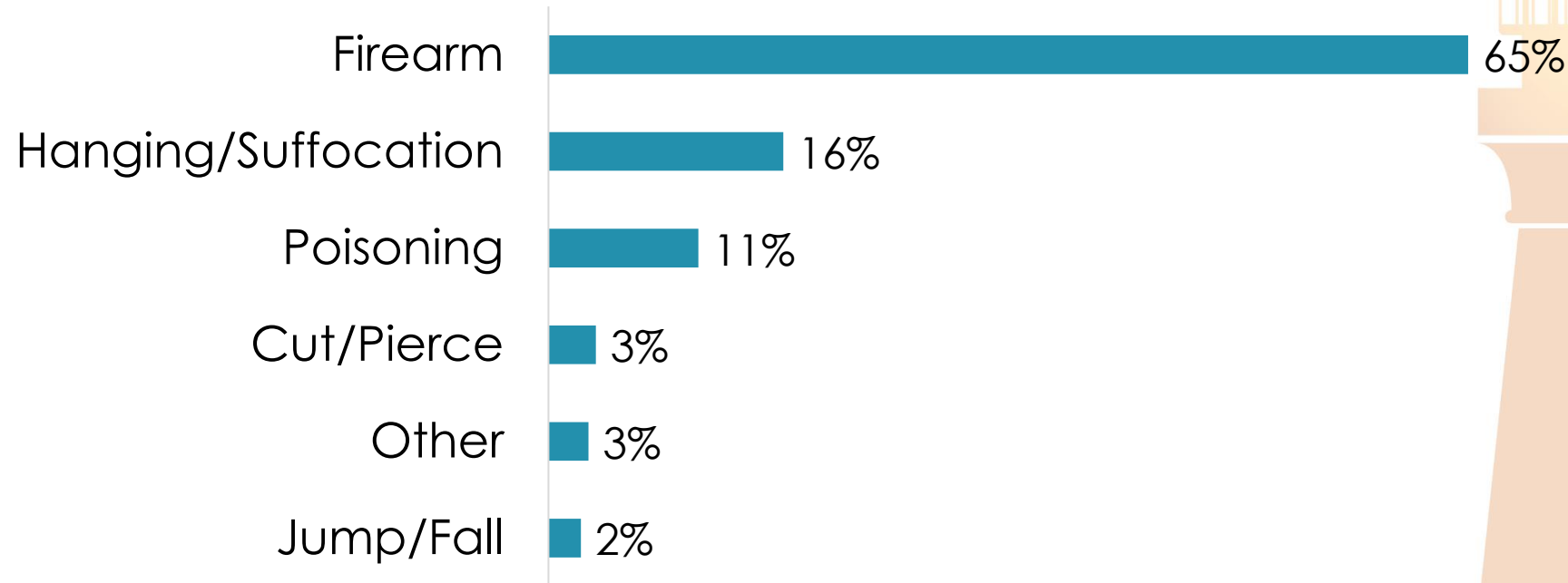
Demographic characteristics among California resident Veteran suicide deaths, 2022

	(N)	(%)
<u>Race/Ethnicity</u>		
American Indian/Alaska Native	0	
Asian/Pacific Islander	31	5%
Black	29	5%
Hispanic	62	11%
Multi-Race	15	3%
White	431	76%
Total	570	

Individual categories do not sum to total due to a small number of individuals whose race or ethnicity were unknown



Method of suicide among Veteran suicide deaths, California residents aged 18 years and older, 2022 (n=570).



Thank you! Questions?

Renay.Bradley@cdph.ca.gov

Jonah.Cox@cdph.ca.gov

<https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/SACB/Pages/SuicidePreventionProgram.aspx>

