

# Suicidal thoughts and behavior among adults by sex, race/ethnicity, age group, and state – United States, 2008-2009

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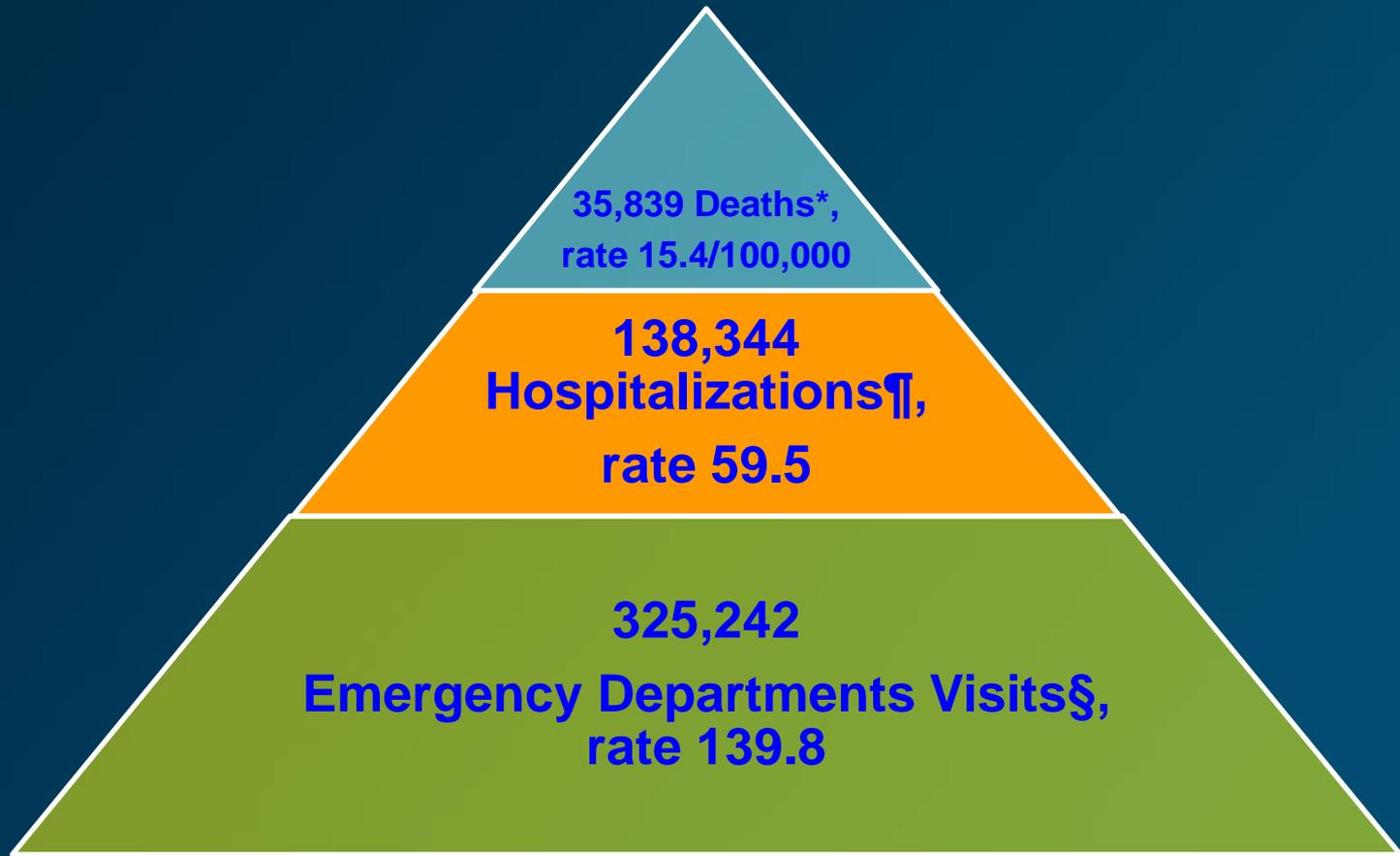
"The findings and conclusions in this presentation have not been formally disseminated by the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry nor the Substance Abuse and Mental Health Services Administration and should not be construed to represent any agency determination or policy."

# Introduction

# Background

- Suicidal thoughts and behavior are important public health concerns in the United States
- In 2009
  - 36,909 suicides
  - 633,000 hospital emergency departments visits for non-fatal self-inflicted injuries

# Public Health Burden of suicidal behavior among adults aged $\geq 18$ years -- United States, 2009



\***Source:** CDC's National Vital Statistics System,

†**Source:** Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project - Nationwide Inpatient Sample (HCUP-NIS)

‡**Source:** CDC's National Electronic Injury Surveillance System-All Injury Program

# Background

- State data on suicide-related issues are needed to help establish and evaluate programs
- Public health surveillance with timely and useful information allows organizations to take appropriate prevention and control actions

# Objectives

- To estimate the prevalence of suicidal thoughts, plan, and attempt by age, sex, race/ethnicity, and state among adults

# Methods

# National Survey on Drug Use and Health (NSDUH)

- Sample Design
  - Annual household survey of civilian, non-institutionalized population (CNP) aged 12 or older
  - Administered in-person
  - Provides national, state, and sub-state representative estimates of substance abuse and mental health issues

# National Survey on Drug Use and Health (NSDUH)

- Sample Design
  - Civilian non-institutionalized population:
    - Includes: Households, college dorms, homeless in shelters, civilians on military bases, migratory workers' camps, halfway houses
    - Excludes: Active-duty military, long-term hospital residents, nursing homes, prison populations, homeless not in shelters

# NSDUH administered

- Time period
  - 1 January 2008 - 31 December 2009
- Sample size
  - 92,264 persons responded

# Suicidal thought and behavior items in NSDUH

- Asked only of adults aged 18 years and older
- “During the past 12 months did you seriously think about trying to kill yourself?”
- “If yes, during the past 12 months did you make any plans to kill yourself”
- “During the past 12 months did you try to kill yourself?”

# Results

# Prevalence of suicidal thoughts and behavior among adults by sex and age group -- United States, 2008-2009

	Ideation			Plan			Attempt		
	# in 1,000s	%	95% CI	# in 1,000s	%	95% CI	# in 1,000s	%	95% CI
<b>Total U.S.</b>	8,359	3.7	(3.5-3.9)	2,263	1.0	(0.9-1.1)	1,058	0.5	(0.4-0.5)
<b>Sex</b>									
<b>Male</b>	3,789	3.5	(3.2-3.8)	1,045	1.0	(0.8-1.1)	442	0.4	(0.3-0.5)
<b>Female</b>	4,571	3.9	(3.7-4.2)	1,218	1.0	(0.9-1.2)	616	0.5	(0.4-0.6)
<b>Age</b>									
<b>18-29 years</b>	2,865	5.7	(5.4-6.0)	821	1.6	(1.5-1.8)	477	1.0	(0.8-1.1)
<b>30+ years</b>	5,494	3.1	(2.9-3.4)	1,442	0.8	(0.7-0.9)	581	0.3	(0.3-0.4)

Source: SAMHSA NSDUH

# Prevalence of suicidal thoughts and behavior among adults by race/ethnicity -- United States, 2008-2009

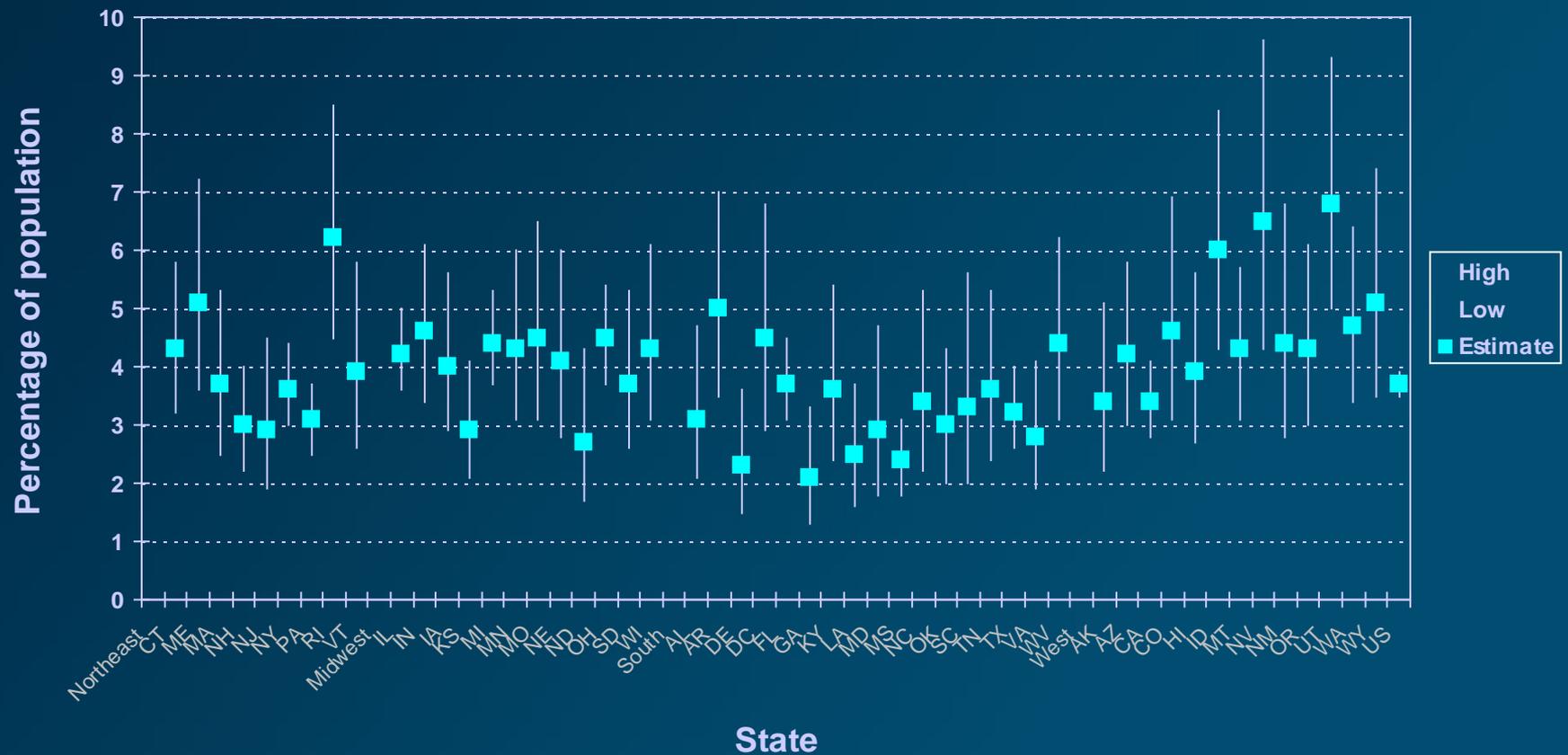
	Ideation			Plan			Attempt		
	# in 1,000s	%	95% CI	# in 1,000s	%	95% CI	# in 1,000s	%	95% CI
<b>Total U.S.</b>	8,359	3.7	(3.5-3.9)	2,263	1.0	(0.9-1.1)	1,058	0.5	(0.4-0.5)
<b>Race/ethnicity</b>									
<b>White, non-Hispanic</b>	6,044	3.9	(3.7-4.1)	1,616	1.0	(0.9-1.2)	663	0.4	(0.4-0.5)
<b>Black, non-Hispanic</b>	911	3.5	(3.1-4.0)	262	1.0	(0.8-1.3)	182	0.7	(0.5-0.9)
<b>Hispanic</b>	933	3.0	(2.6-3.6)	267	0.9	(0.6-1.2)	144	0.5	(0.3-0.6)
<b>Asian, non-Hispanic</b>	208	2.1	(1.6-2.8)	37	0.4	(0.2-0.6)	23	0.2	(0.1-0.6)

# Prevalence of suicidal thoughts and behavior among adults by region -- United States, 2008-2009

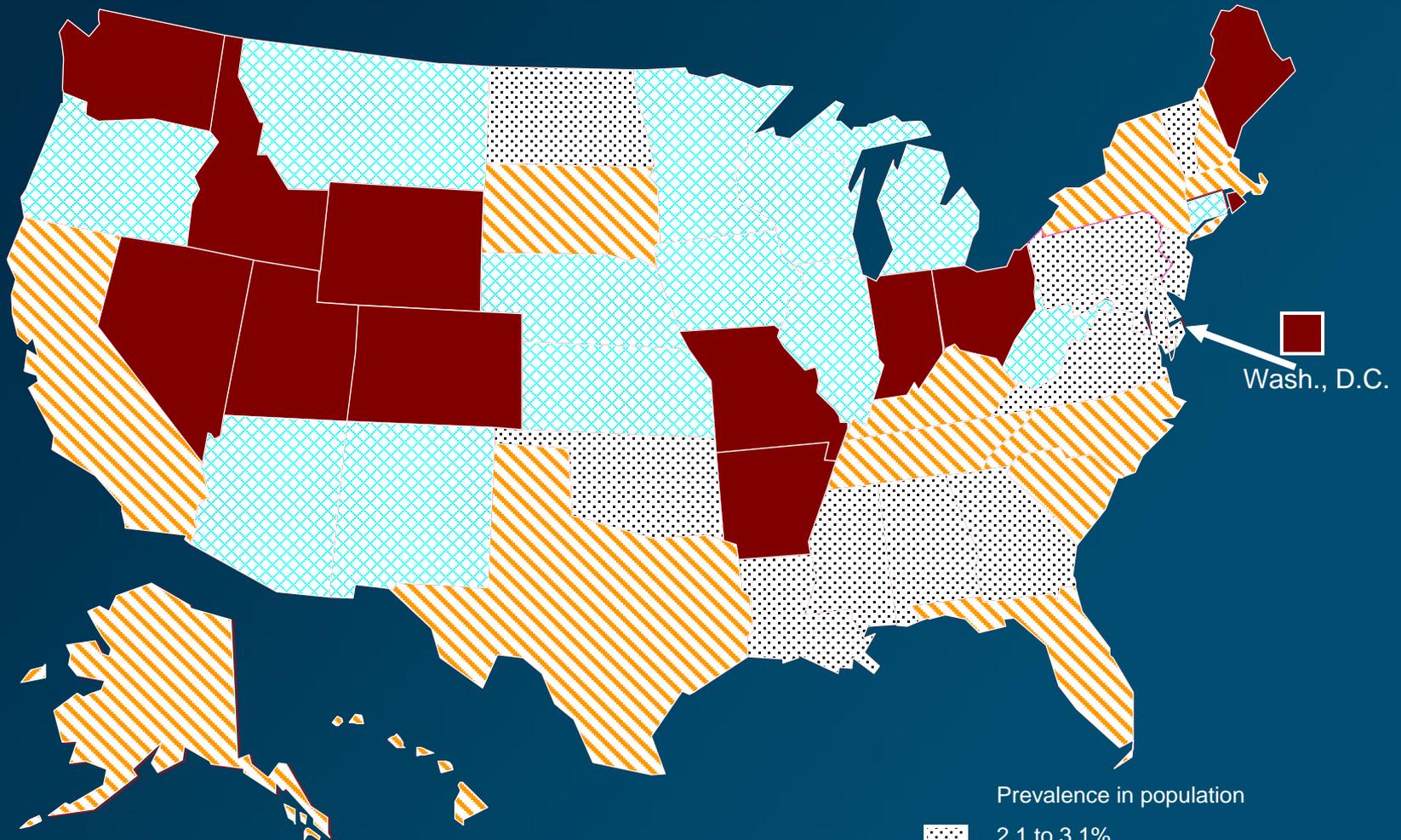
	Ideation			Plan			Attempt		
	# in 1,000s	%	95% CI	# in 1,000s	%	95% CI	# in 1,000s	%	95% CI
<b>Total U.S.</b>	8,359	3.7	(3.5-3.9)	2,263	1.0	(0.9-1.1)	1,058	0.5	(0.4-0.5)
<b>Geographic region</b>									
<b>Northeast Region</b>	1,469	3.5	(3.1-3.9)	358	0.9	(0.7-1.1)	182	0.4	(0.3-0.6)
<b>Midwest Region</b>	2,122	4.3	(4.0-4.7)	598	1.2	(1.0-1.4)	271	0.5	(0.4-0.7)
<b>South Region</b>	2,647	3.2	(2.9-3.5)	734	0.9	(0.8-1.1)	353	0.4	(0.3-0.5)
<b>West Region</b>	2,122	4.1	(3.7-4.5)	572	1.1	(0.9-1.3)	252	0.5	(0.4-0.6)

Source: SAMHSA NSDUH

# Prevalence of suicidal thoughts among adults in the past year by state – NSDUH, U.S., 2008-2009



# Prevalence of suicidal thoughts among adults by state -- United States, 2008-2009 (U.S. avg 3.7%)



Source: Substance abuse and Mental Health Services Administration NSDUH

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# Prevalence of suicidal thoughts and behavior among adults -- United States, 2008-2009

- Prevalence estimates of suicidal thoughts and behavior varied by socio-demographic factors, region and state.
- The prevalence of serious suicidal thoughts, suicide planning, and suicide attempts was significantly higher among young adults aged 18-29 years than adults aged 30 years and older.
- The prevalence of serious suicidal thoughts and suicide attempts was significantly higher among females than males but there was no difference for suicide planning.

# Prevalence of suicide thoughts among adults -- United States, 2008-2009

- In 2008-2009, an estimated 8.3 million (annual average) adult persons in the U.S. reported serious thoughts of suicide in the past year (3.7 percent of the population about 1 in 27 adults).
- The prevalence of reporting serious thoughts of suicide ranged from 2.1 percent (1 in 48) in Georgia to 6.8 percent (1 in 15) in Utah

# Prevalence of suicide plans among adults -- United States, 2008-2009

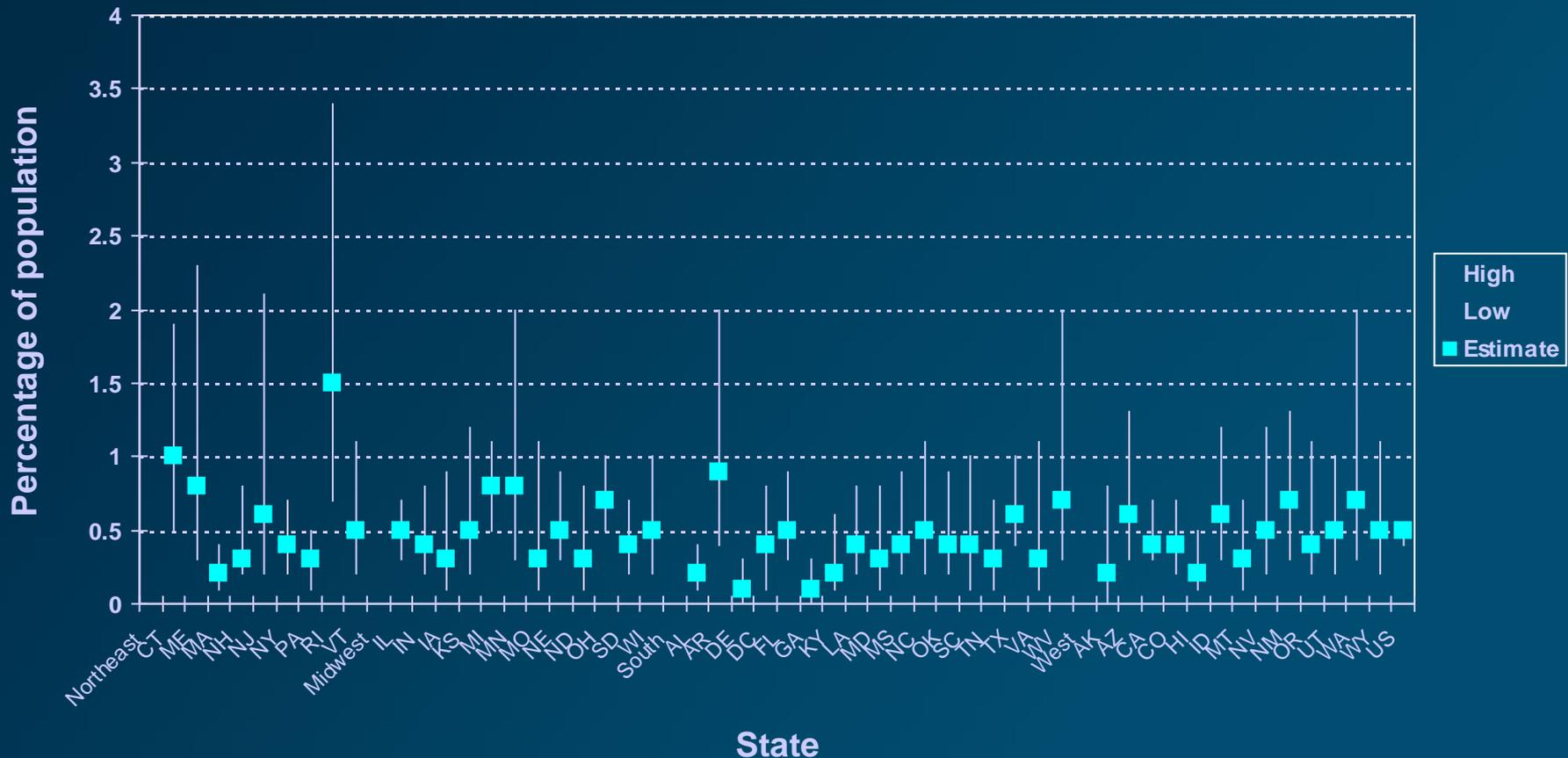
- More than 2.2 million (annual average) adult persons in the U.S. reported suicide plans in the past year (1.0 percent [1 in 100] of the population).
- The prevalence of reports of suicide planning ranged from 0.1 percent (1 in 1000) in Georgia to 2.8 percent (1 in 36) in Rhode Island.



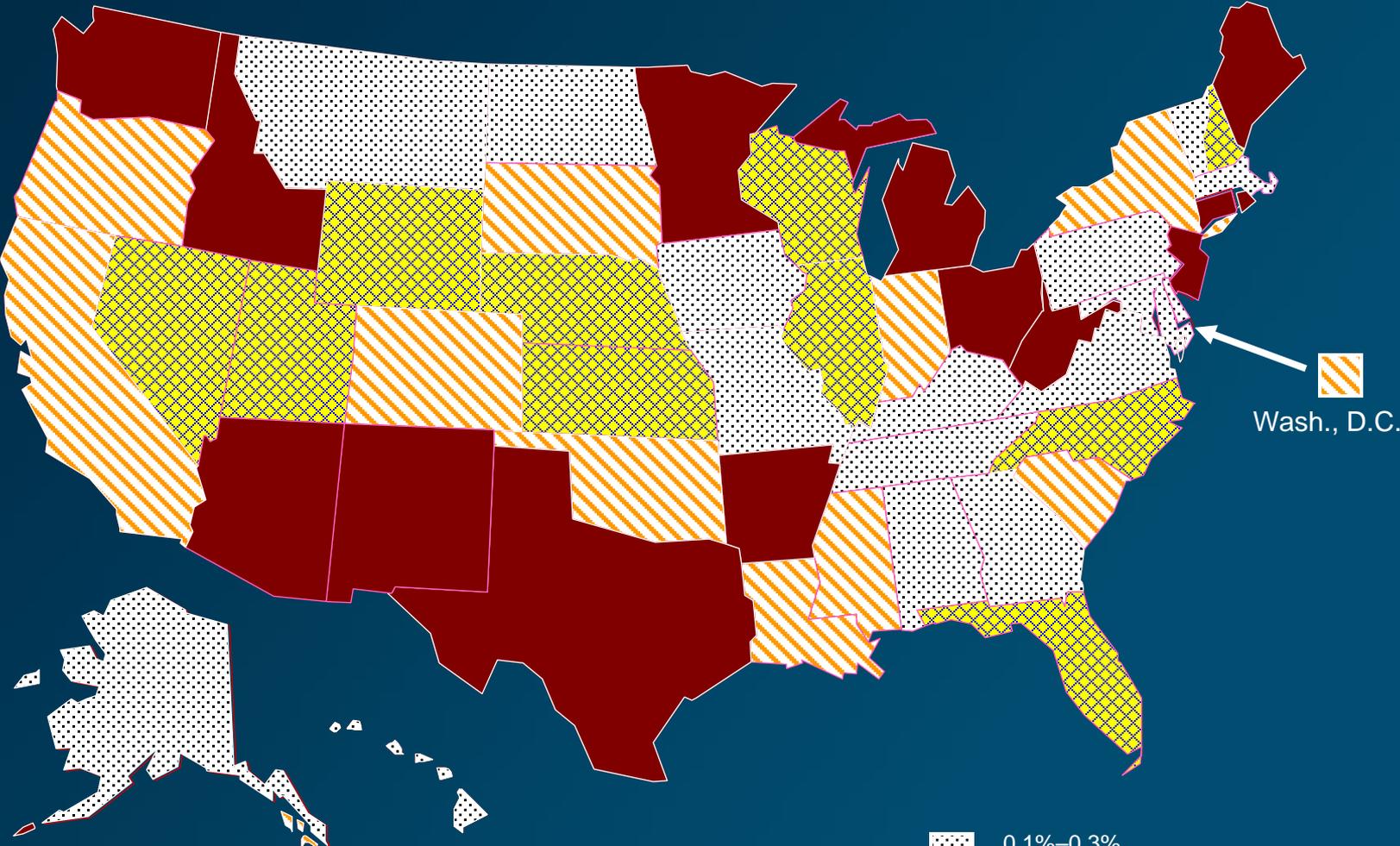
# Prevalence of suicide attempts among adults -- United States, 2008-2009

- More than 1.0 million (annual average) adult persons in the U.S. reported making a suicide attempt in the past year (0.5 percent [1 in 200] of the population)
- The prevalence of reports of suicide attempts ranged from 0.1 percent (1 in 1000) in Delaware and Georgia to 1.5 percent (1 in 67) in Rhode Island

# Prevalence of suicide attempts among adults in the past year by state – NSDUH, U.S., 2008-2009



# Prevalence of suicidal attempts among adults aged ≥18 years, by state — United States, 2008–2009



\*U.S. average: 0.5%.

Source: Natl Survey on Drug Use and Health

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# Conclusions

# Conclusions

- The findings in this report indicate that substantial variations exist at the regional and state level in the prevalence of having serious thoughts of suicide, having made plans to attempt suicide, and having attempted suicide in the past year among adults
- These differences exist when examined for overall prevalence, by age and by sex.
- These findings emphasize the importance of surveillance to collect locally relevant data on which to base prevention and control activities.

# Study limitations

- Data based on self-report
- Representative only of civilian, non-institutionalized population aged 18 years or older
- Low precision of some estimates at the state-level

# Recommendations

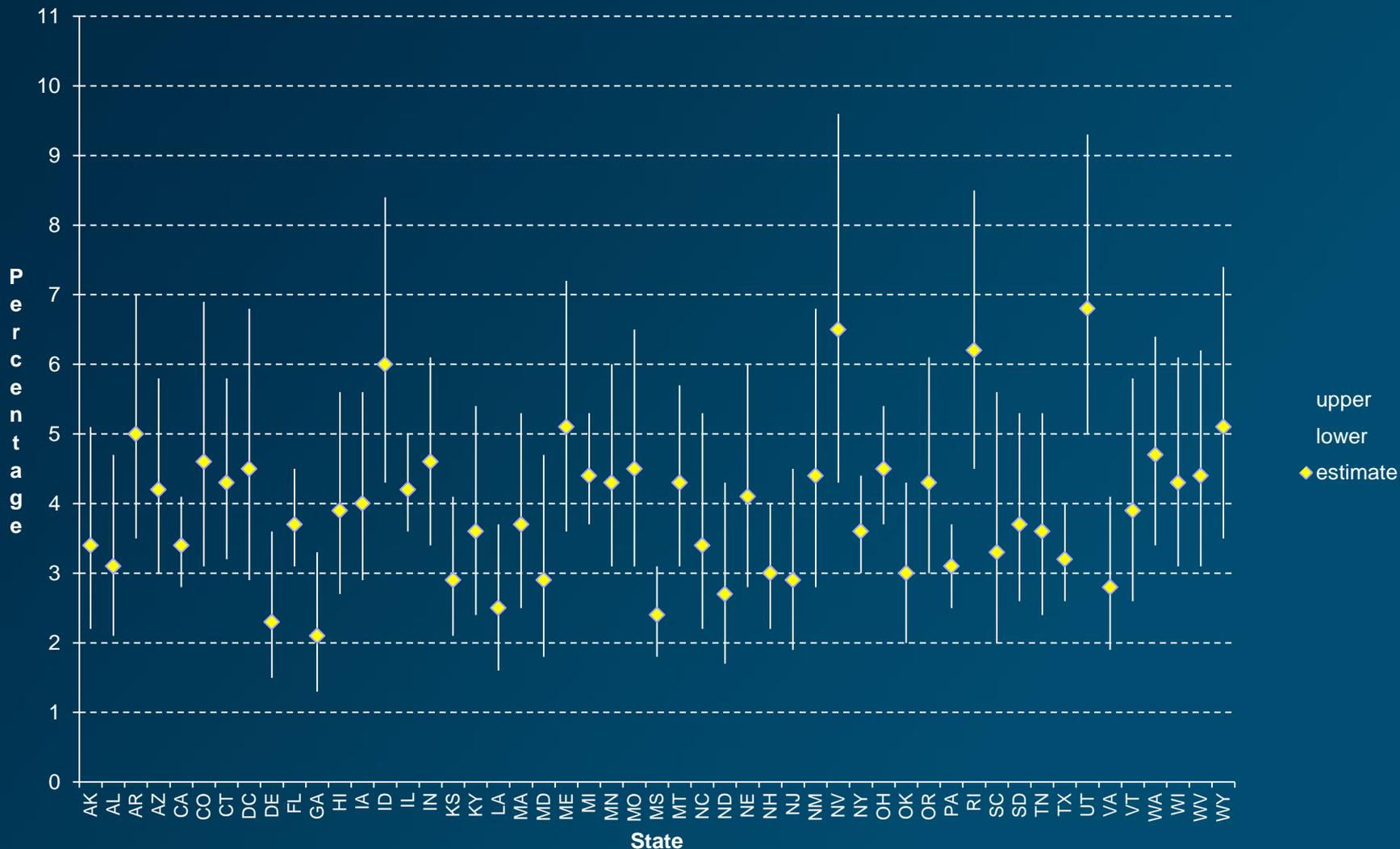
- These results can be used by state health departments and federal agencies to measure progress toward achieving national and state health objectives
- Continued surveillance is needed monitor suicidal thoughts and non-fatal suicidal behavior to design, implement, and evaluate public health policies and programs
- Possible strategies to implement could include a range of strategies such as universal strategies such as means restriction to indicated programs such as cognitive-behavioral therapy for selected populations.

# Acknowledgements

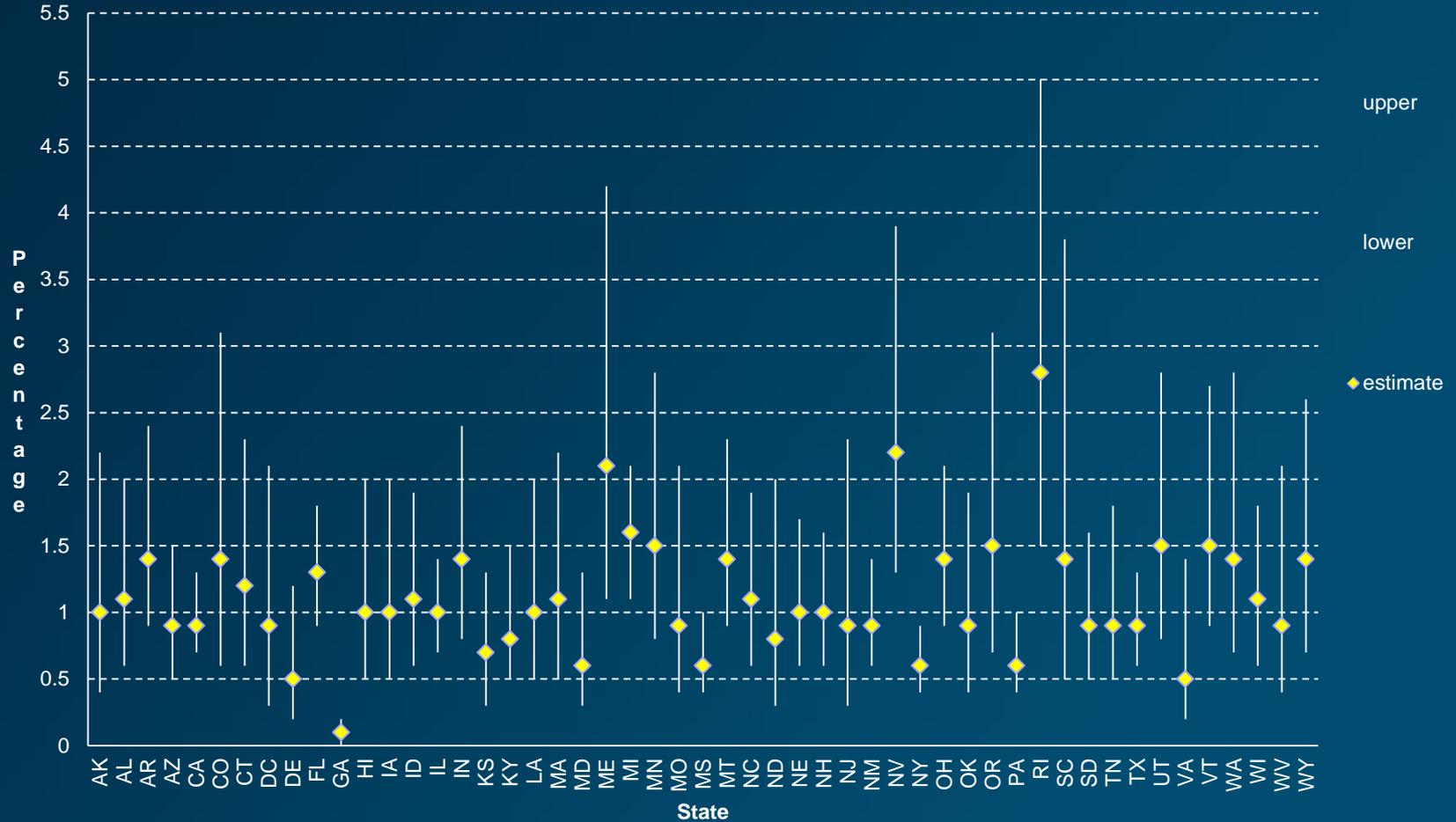
- We thank the team from SAMHSA, CDC and RTI who contributed to the planning and implementation of the study. We also thank the respondents for their time and willingness to participate in this study.

# Extra slides

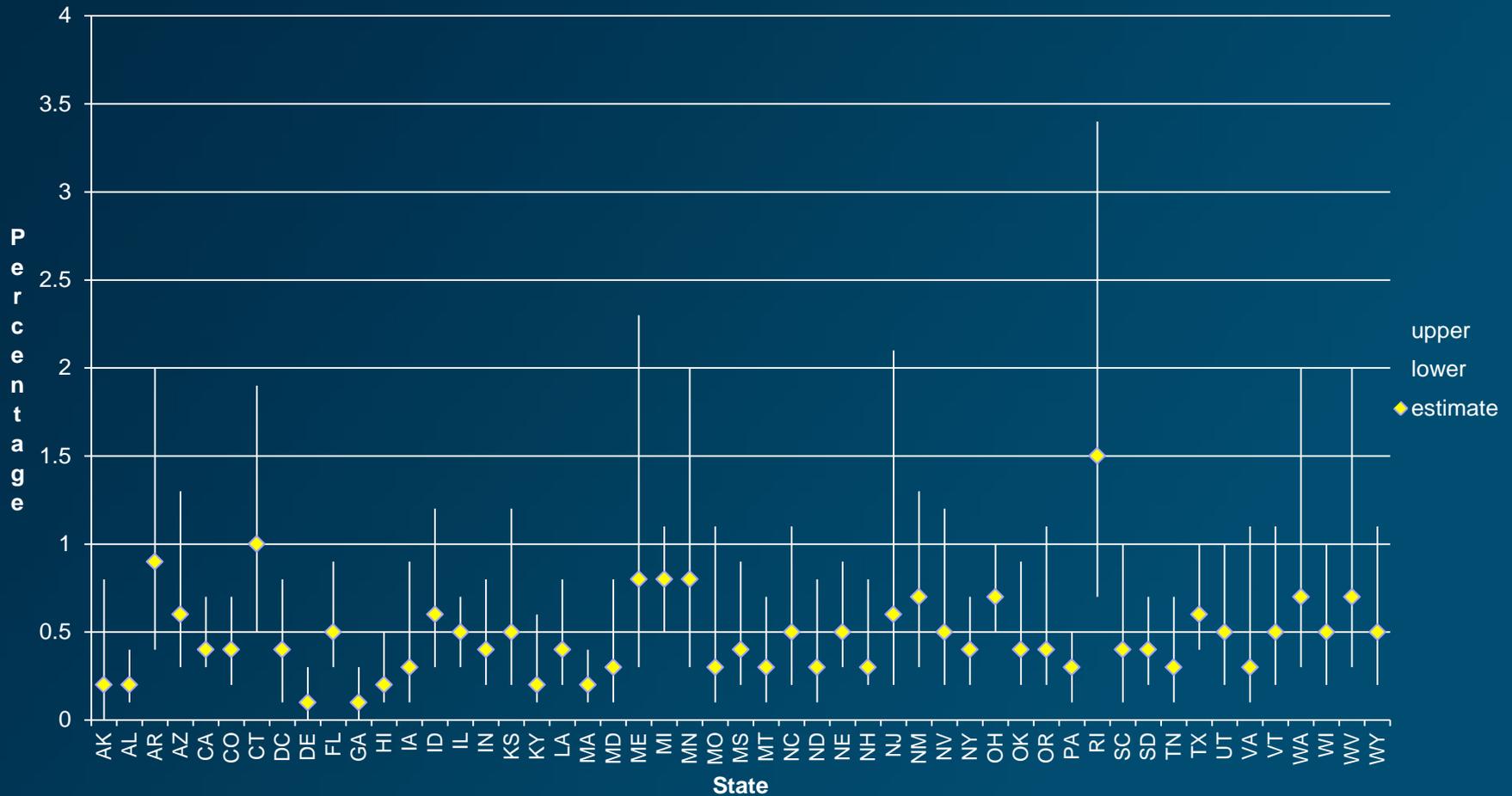
# Average annual prevalence of suicidal ideation among adults by state -- NSDUH, U.S., 2008-2009



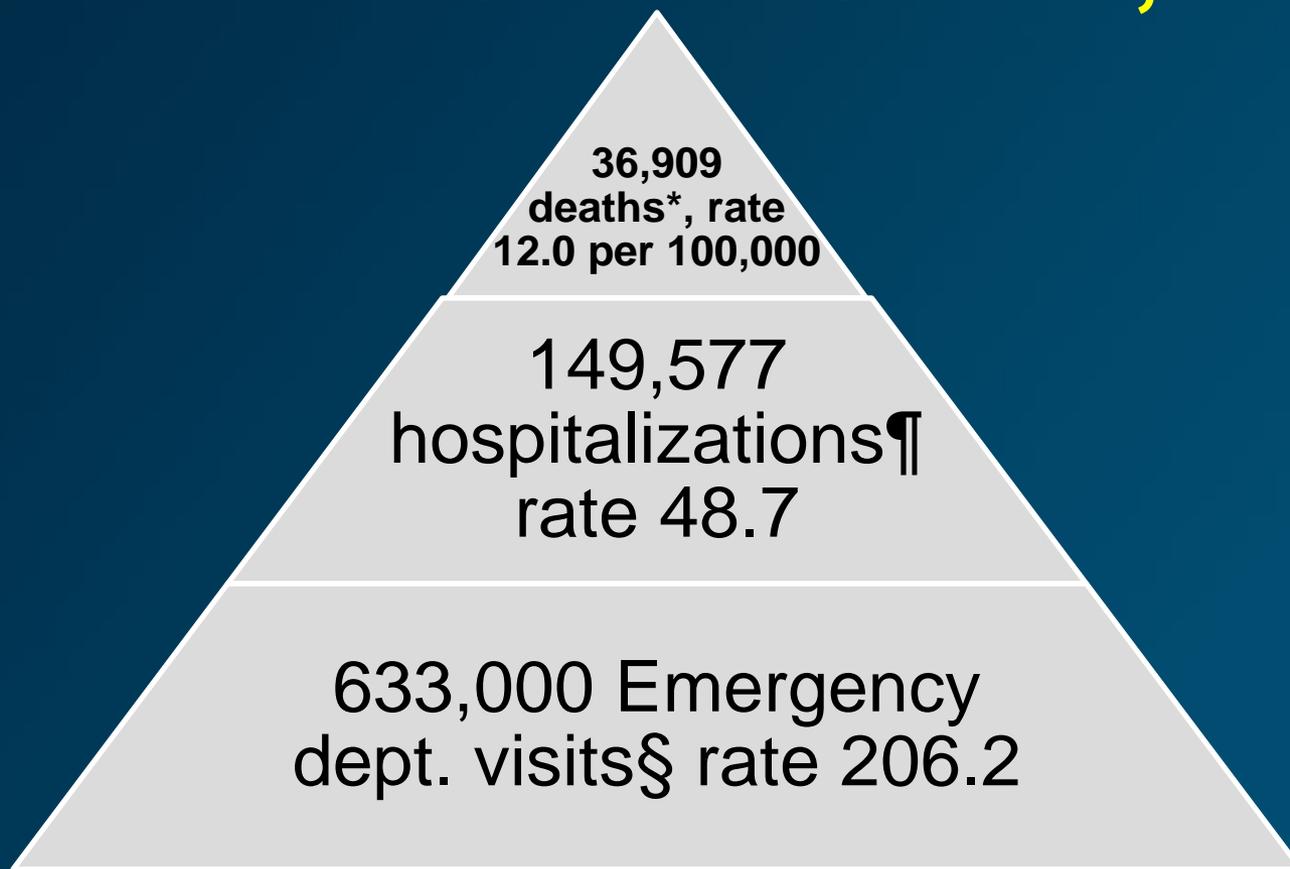
# Average annual prevalence of suicidal plans among adults by state -- NSDUH, U.S., 2008-2009



# Average annual prevalence of suicidal attempts among adults by state -- NSDUH, U.S., 2008-2009



# Public Health Burden of suicidal behavior -- United States, 2009

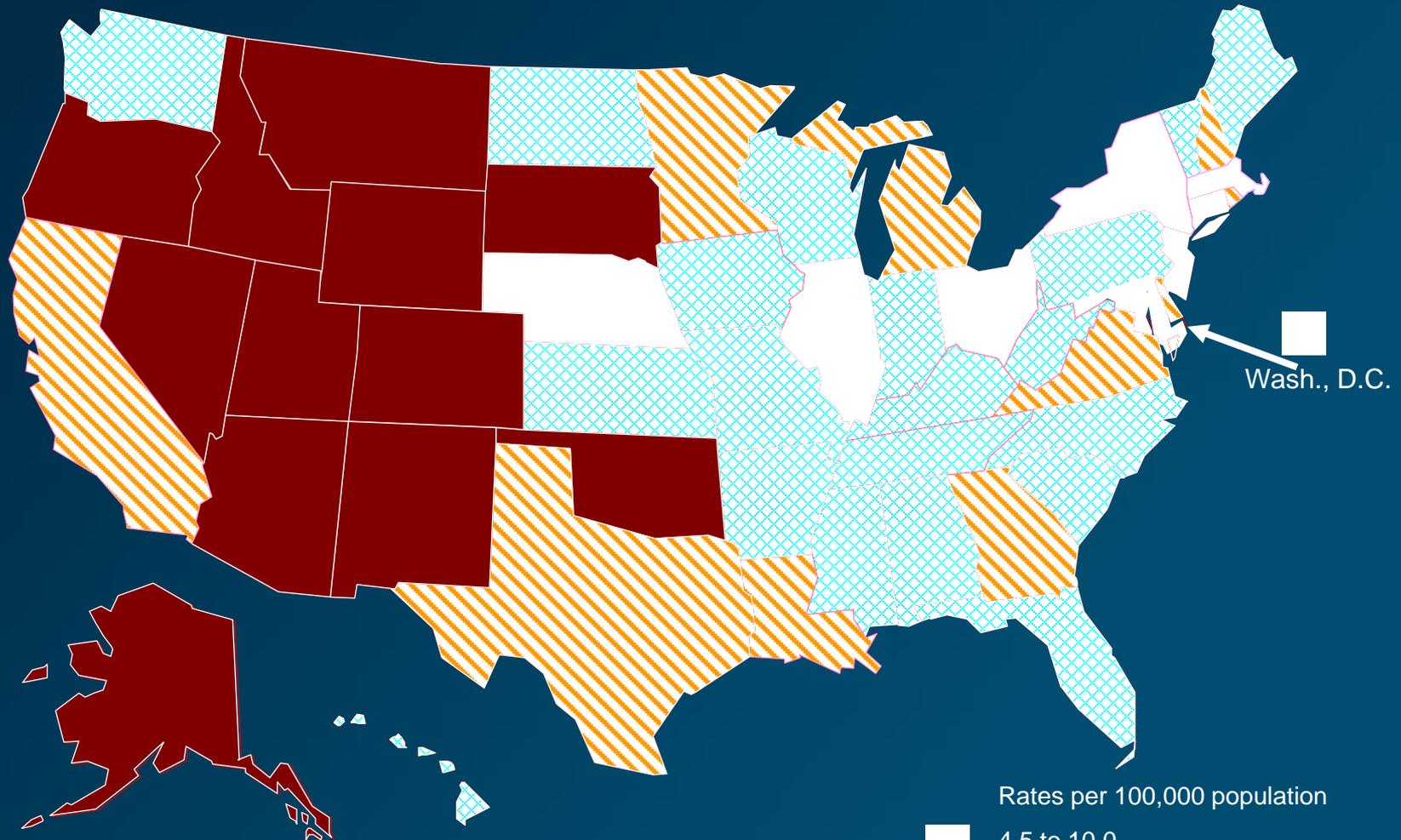


\*Source: CDC's National Vital Statistics System, 2009

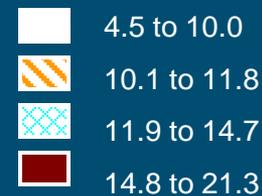
¶Source: Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project - Nationwide Inpatient Sample (HCUP-NIS), 2009

§ Source: CDC's National Hospital Ambulatory Medical Care System, 2009

# Age-adjusted suicide rates among all persons by state -- United States, 2009 (U.S. avg 11.8)



Rates per 100,000 population



Source: Centers for Disease Control and Prevention (CDC) vital statistics

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