



The Evolving Opioid Crisis: Overdose Trends and Variation across the States

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Background



Photo: [Alastair Rae](#)

What are opioids?

- A family of addictive drugs that act on the opioid receptors in pleasure centers of the brain

What are their effects?

- Can relieve pain and cause euphoria

Opioid crisis



2011 declaration of “epidemic”

- Increased attention since U.S. Centers for Disease Control and Prevention declared overdoses from prescription painkillers an “epidemic”

Efforts to intervene

- States and federal governments have taken steps to intervene in the crisis

But the crisis has evolved...

- Growth in deaths from prescription opioids have slowed, but deaths from heroin and synthetic opioids have increased
- Recent increases in cocaine and psychostimulant overdose deaths
- Deliberate and inadvertent mixing of opioids into cocaine and psychostimulants

Opioid-related overdose death rates data

Source

- U.S. Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System (via WONDER tool)

Opioid-related overdose death rates data

Categories of drug overdose deaths

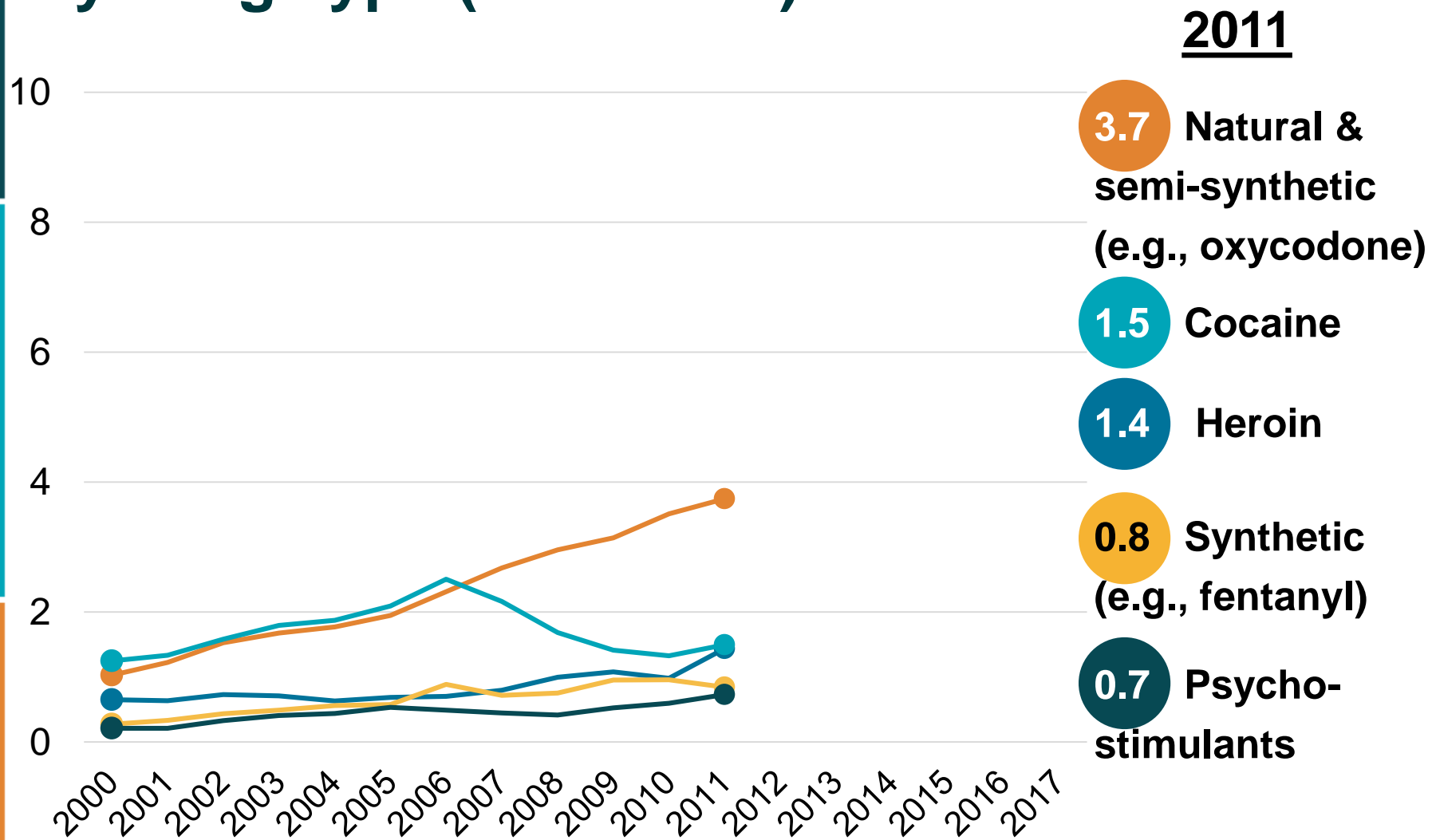
- Natural and semi-synthetic opioids (i.e., prescription opioid painkillers, such as oxycodone and hydrocodone)
- Synthetic opioids (e.g., fentanyl)
- Heroin
- Cocaine
- Psychostimulants (e.g. methamphetamine, prescription stimulants)

*Excludes some opioid types (e.g., methadone, opium, other or unspecified opioids)

U.S. Trends

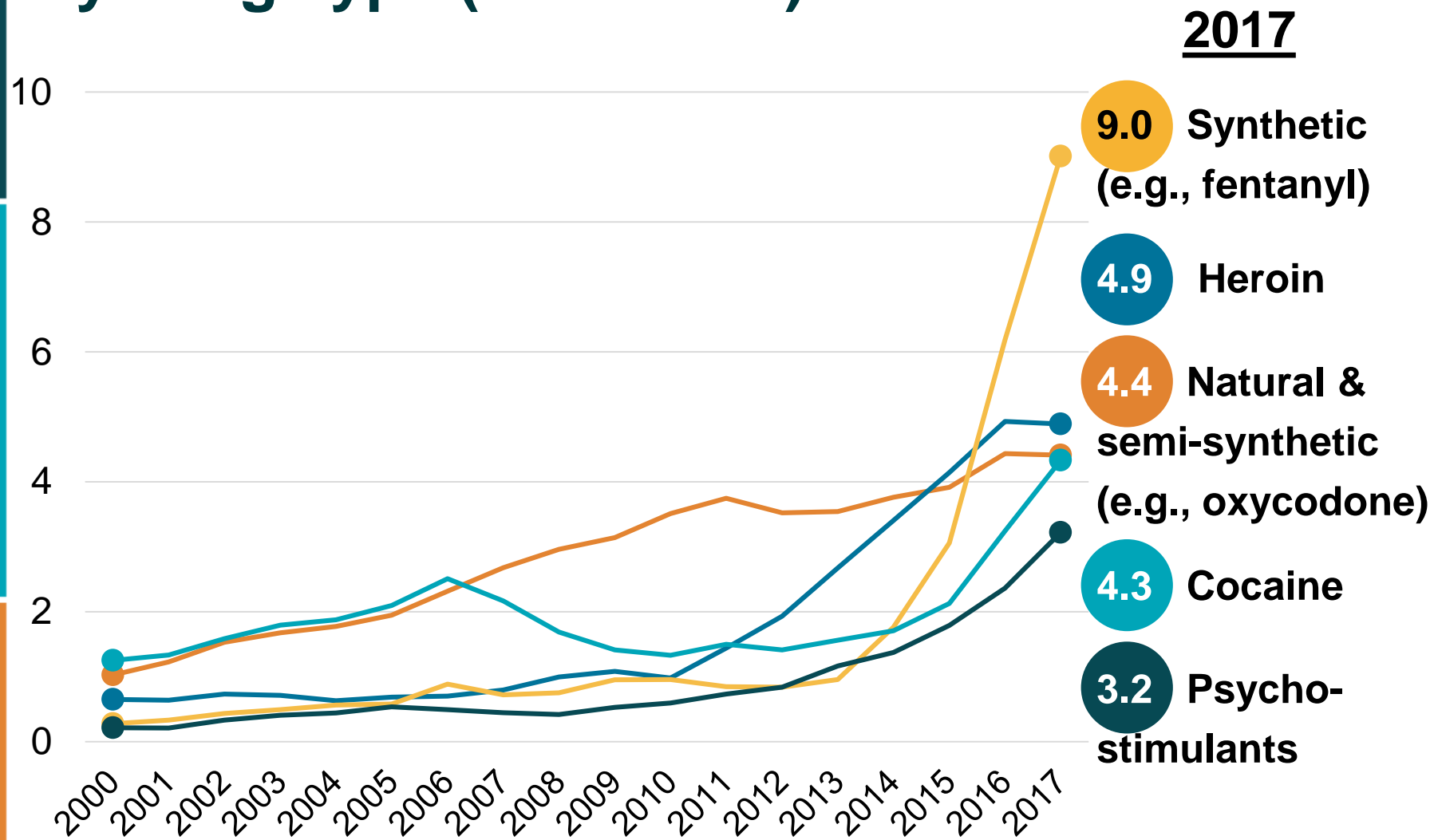
Natural and Semi-synthetic Opioid, Synthetic Opioid,
Heroin, Cocaine, and Psychostimulant Overdose Deaths

U.S. Opioid Deaths per 100,000 People, by Drug Type (2000-2011)



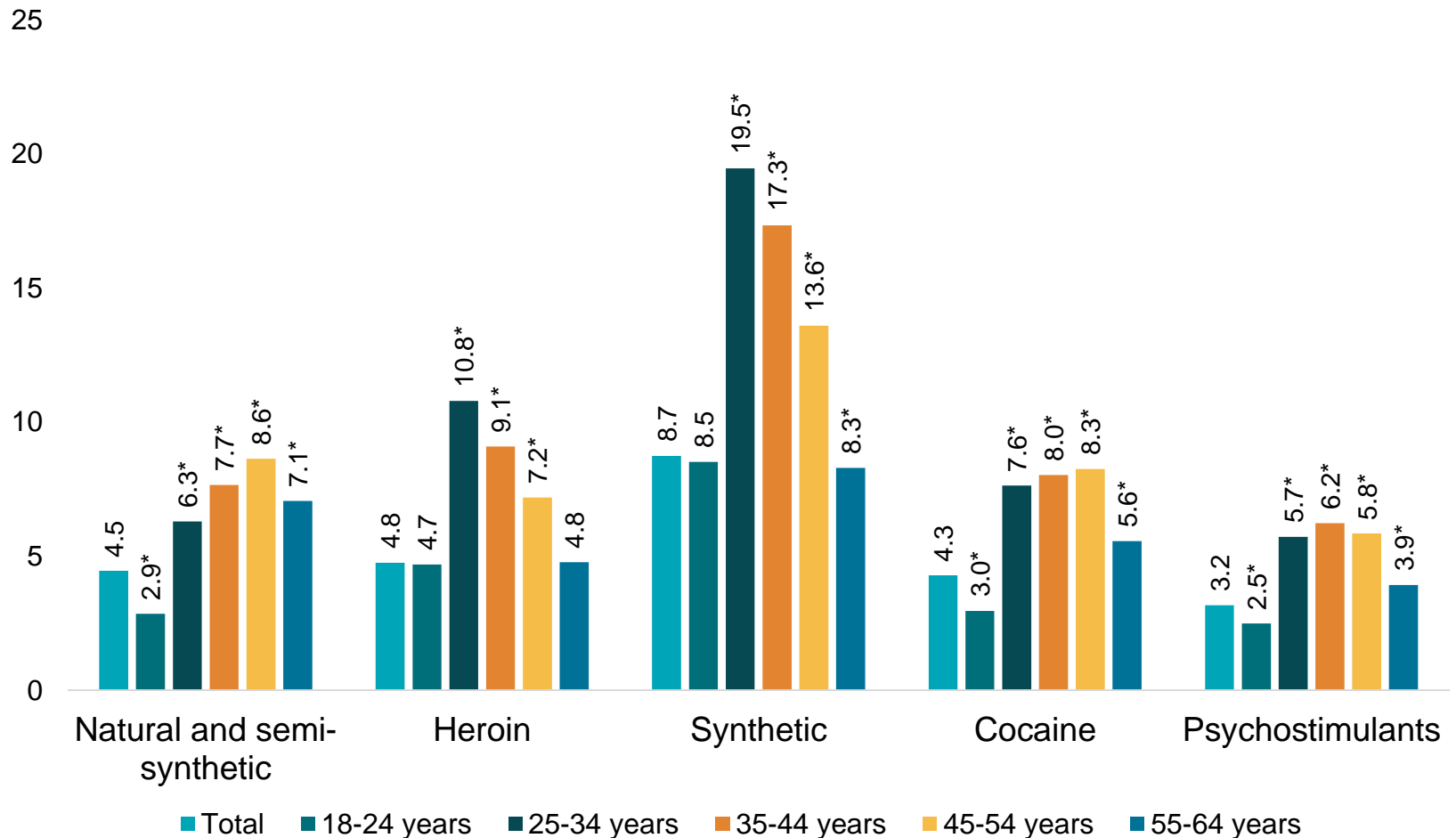
Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

U.S. Opioid Deaths per 100,000 People, by Drug Type (2000-2017)



Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

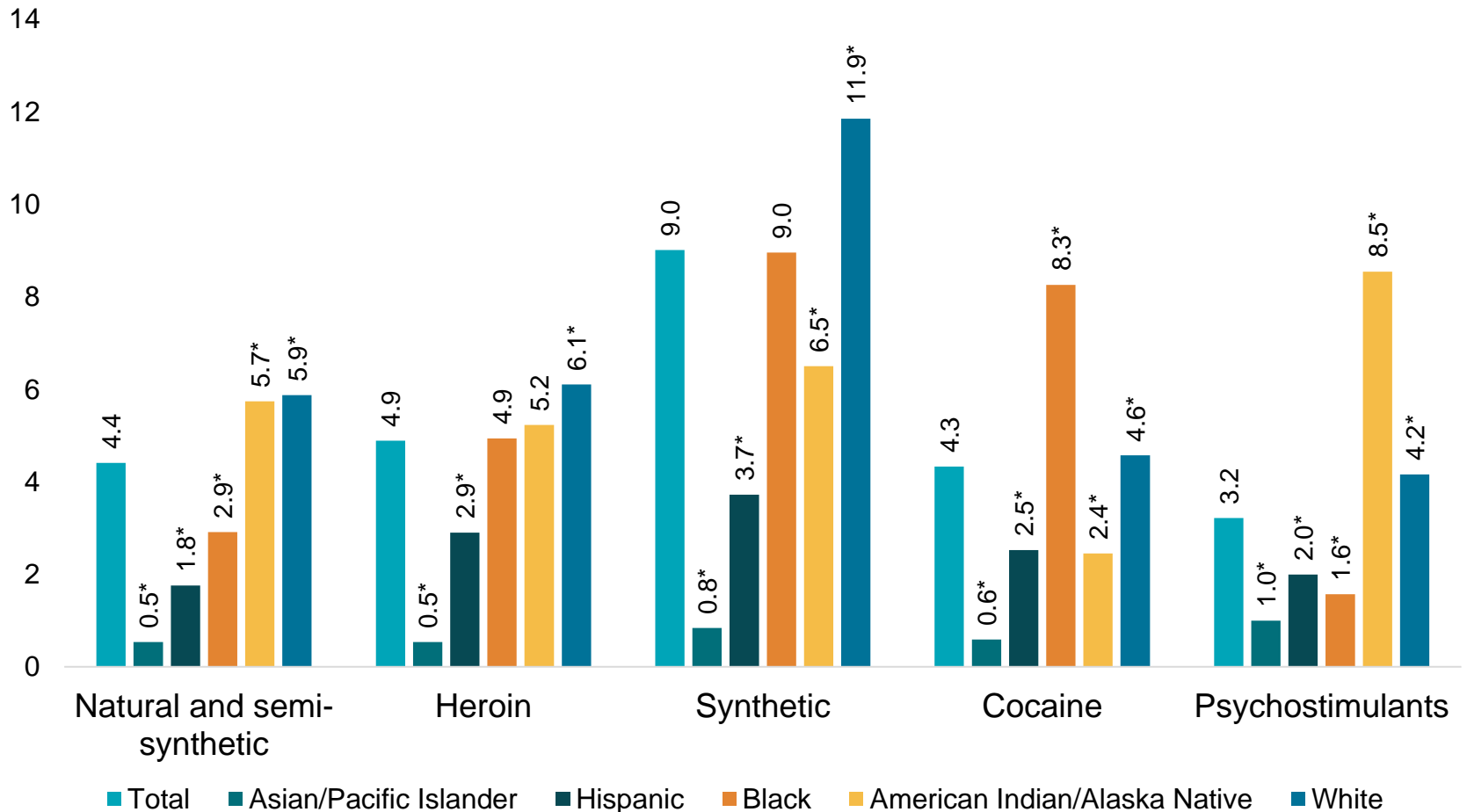
U.S. Opioid Deaths per 100,000 People, by Drug Type and Age (2017)



* Statistically different from total at 95% confidence level

Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

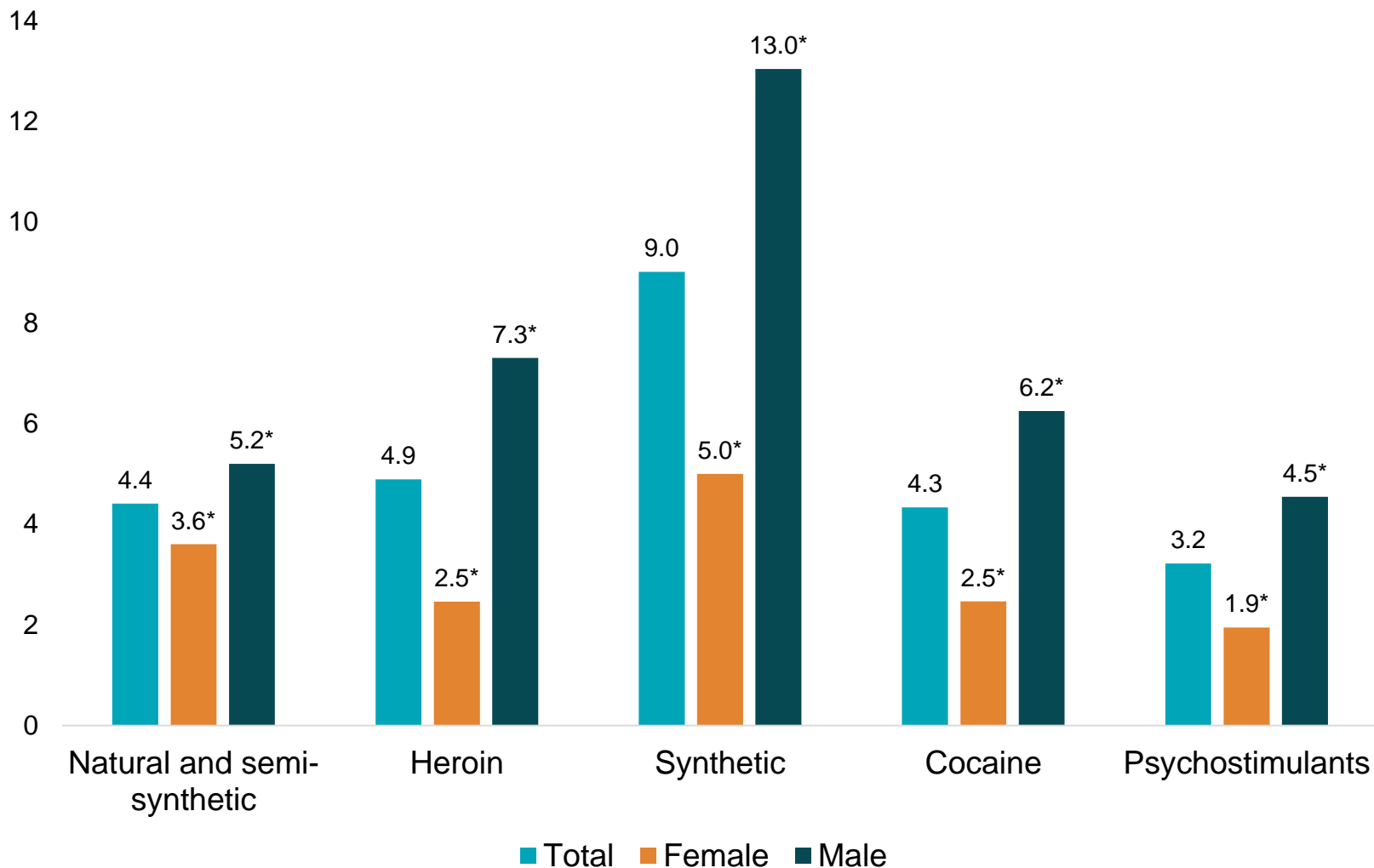
U.S. Opioid Deaths per 100,000 People, by Drug Type and Race/Ethnicity (2017)



* Statistically different from total at 95% confidence level

Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

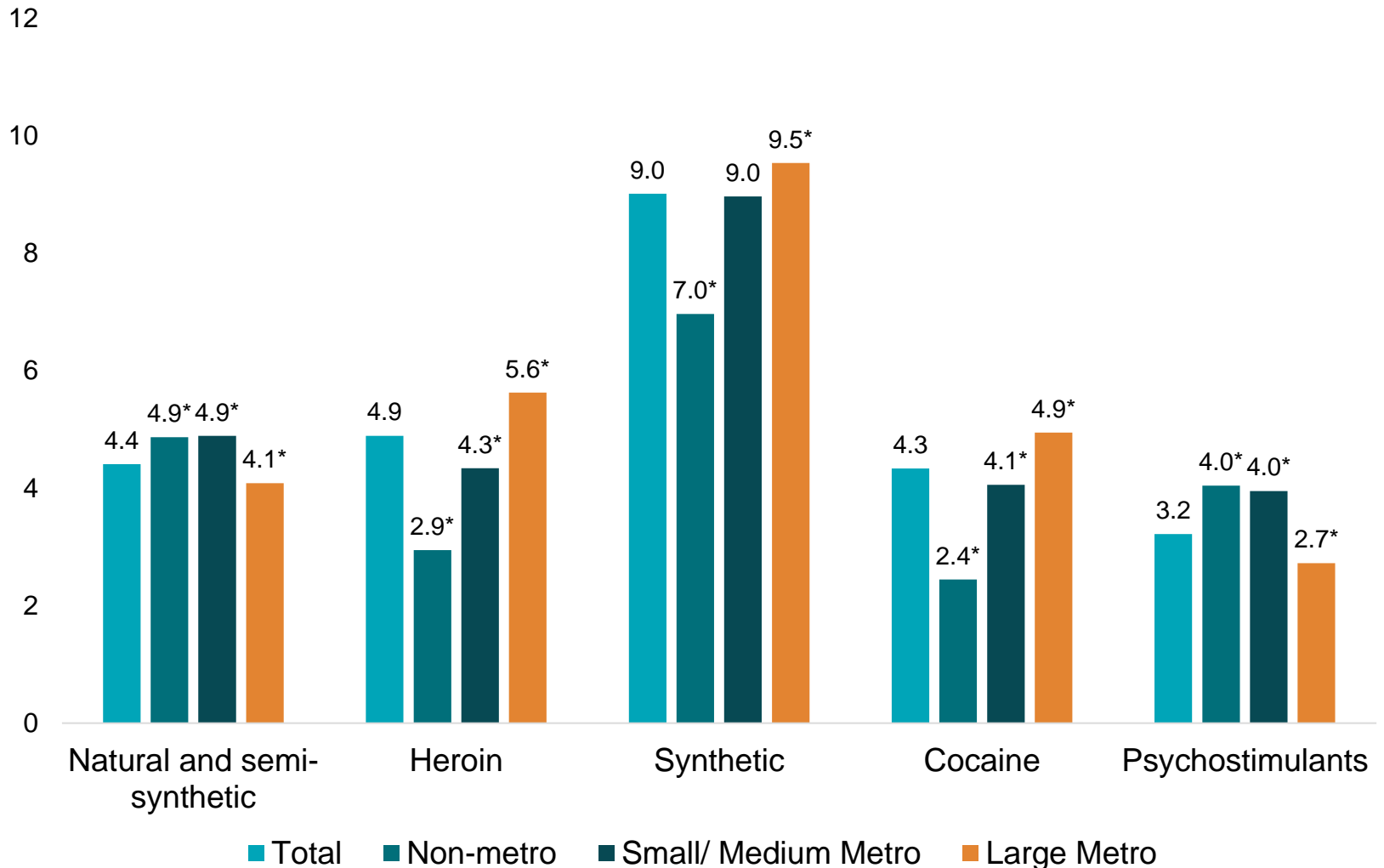
U.S. Opioid Deaths per 100,000 People, by Drug Type and Sex (2017)



* Statistically different from total at 95% confidence level

Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

U.S. Opioid Deaths per 100,000 People, by Drug Type and Metro Status (2017)



* Statistically different from total at 95% confidence level

Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

State Trends

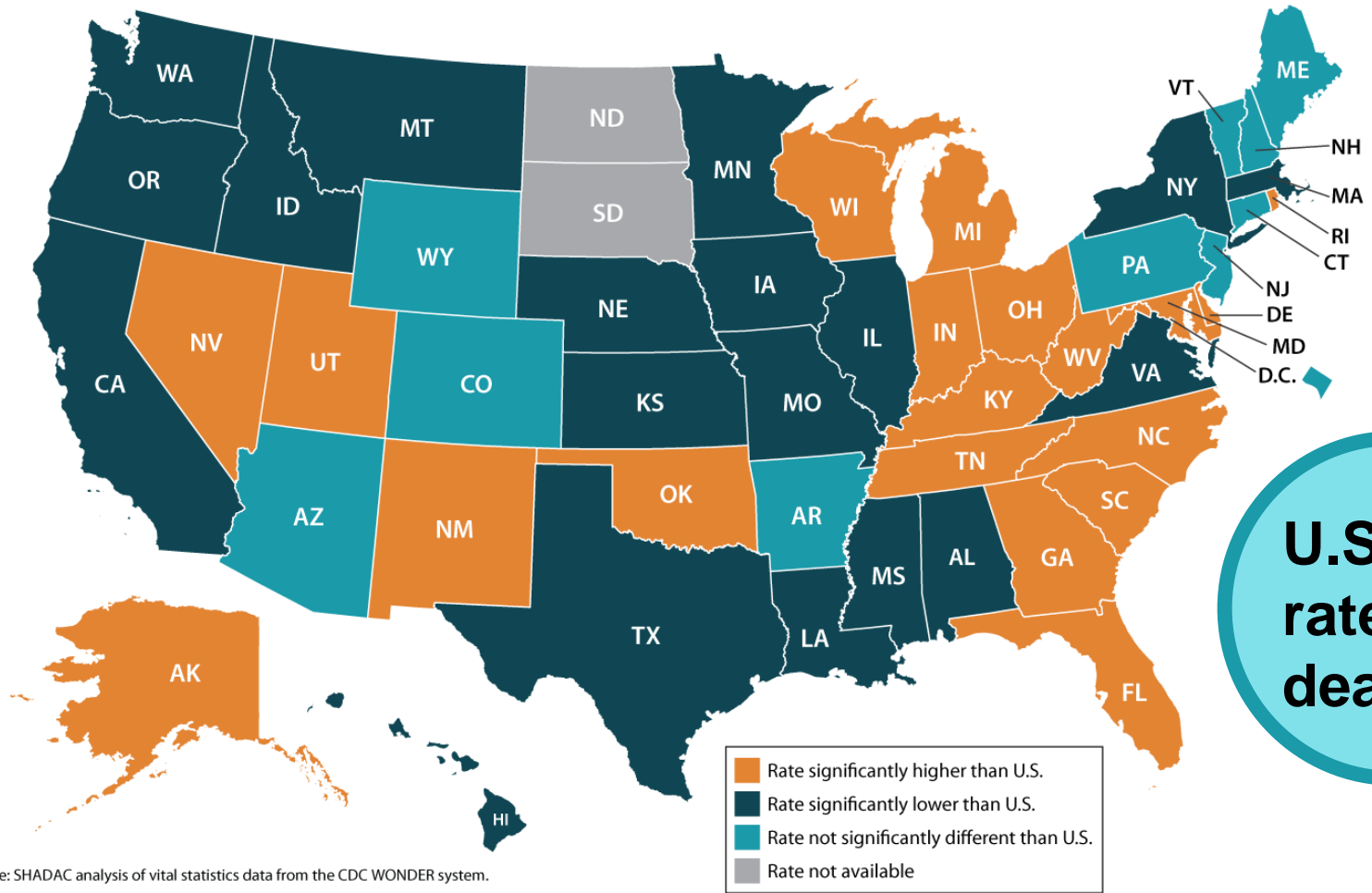
Natural and Semi-synthetic Opioid, Synthetic Opioid, Heroin, Cocaine, and Psychostimulant Overdose Deaths

State Overdose Deaths per 100,000, 2017

Natural and Semi-synthetic Opioids		Synthetic Opioids		Heroin		Cocaine		Psycho-stimulants	
TOP FIVE STATES		TOP FIVE STATES		TOP FIVE STATES		TOP FIVE STATES		TOP FIVE STATES	
1. W. Virginia	15.8	1. W. Virginia	37.4	1. Dist. of Columbia	18.0	1. Dist. of Columbia	17.6	1. W. Virginia	13.6
2. Utah	10.0	2. Ohio	32.4	2. W. Virginia	14.9	2. Ohio	14.0	2. Alaska	9.1
3. Kentucky	9.4	3. New Hampshire	30.4	3. Delaware	13.3	3. W. Virginia	11.6	3. Arizona	8.5
4. Tennessee	8.8	4. Dist. of Columbia	25.7	4. Connecticut	12.4	4. Delaware	11.6	4. Nevada	8.3
5. Maryland	8.5	5. Maryland	25.2	5. New Jersey	12.2	5. R. Island	11.2	5. New Mexico	8.2
9x	BOTTOM FIVE STATES	31x	BOTTOM FIVE STATES	20x	BOTTOM FIVE STATES	22x	BOTTOM FIVE STATES	15x	BOTTOM FIVE STATES
1. Nebraska	1.7	1. Kansas	1.2	1. Kansas	0.9	1. Arkansas	0.8	1. New Jersey	0.9
2. Texas	1.9	2. Texas	1.2	2. Mississippi	1.3	2. Kansas	0.8	2. New York	1.0
3. Montana	2.0	3. Nebraska	1.3	3. Idaho	1.5	3. Oregon	0.9	3. Massachusetts	1.0
4. Hawaii	2.1	4. Idaho	1.3	4. Oklahoma	1.6	4. California	1.0	4. Maryland	1.2
5. California	2.3	5. California	1.3	5. California	1.7	5. Oklahoma	1.1	5. Connecticut	1.2
United States	4.4	United States	9.0	United States	4.9	United States	4.3	United States	3.2

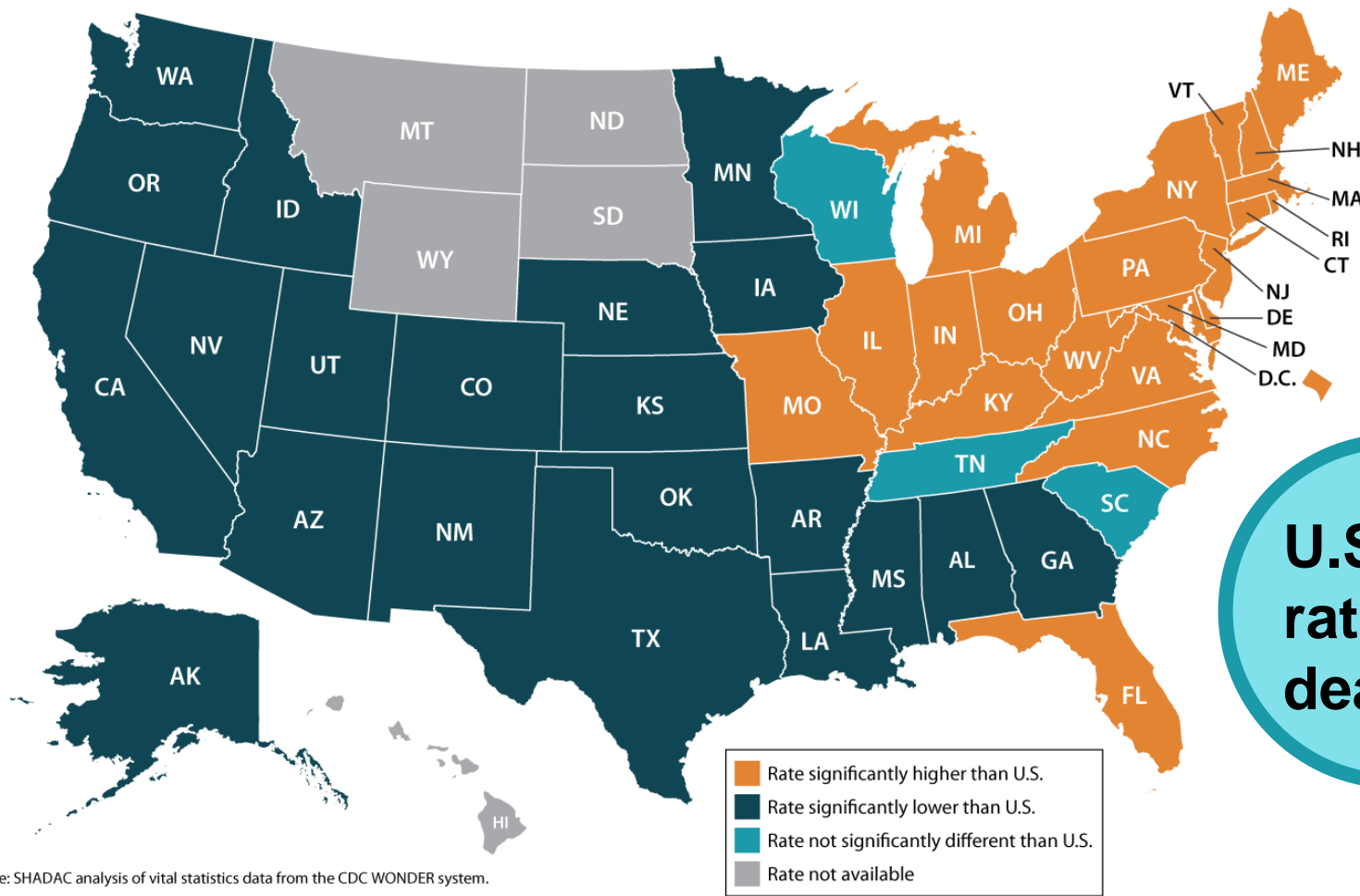
Source: SHADAC analysis of age-adjusted rates of drug poisoning deaths, National Center for Health Statistics

2017 Overdose Deaths per 100,000 People, Natural and Semi-synthetic Opioids



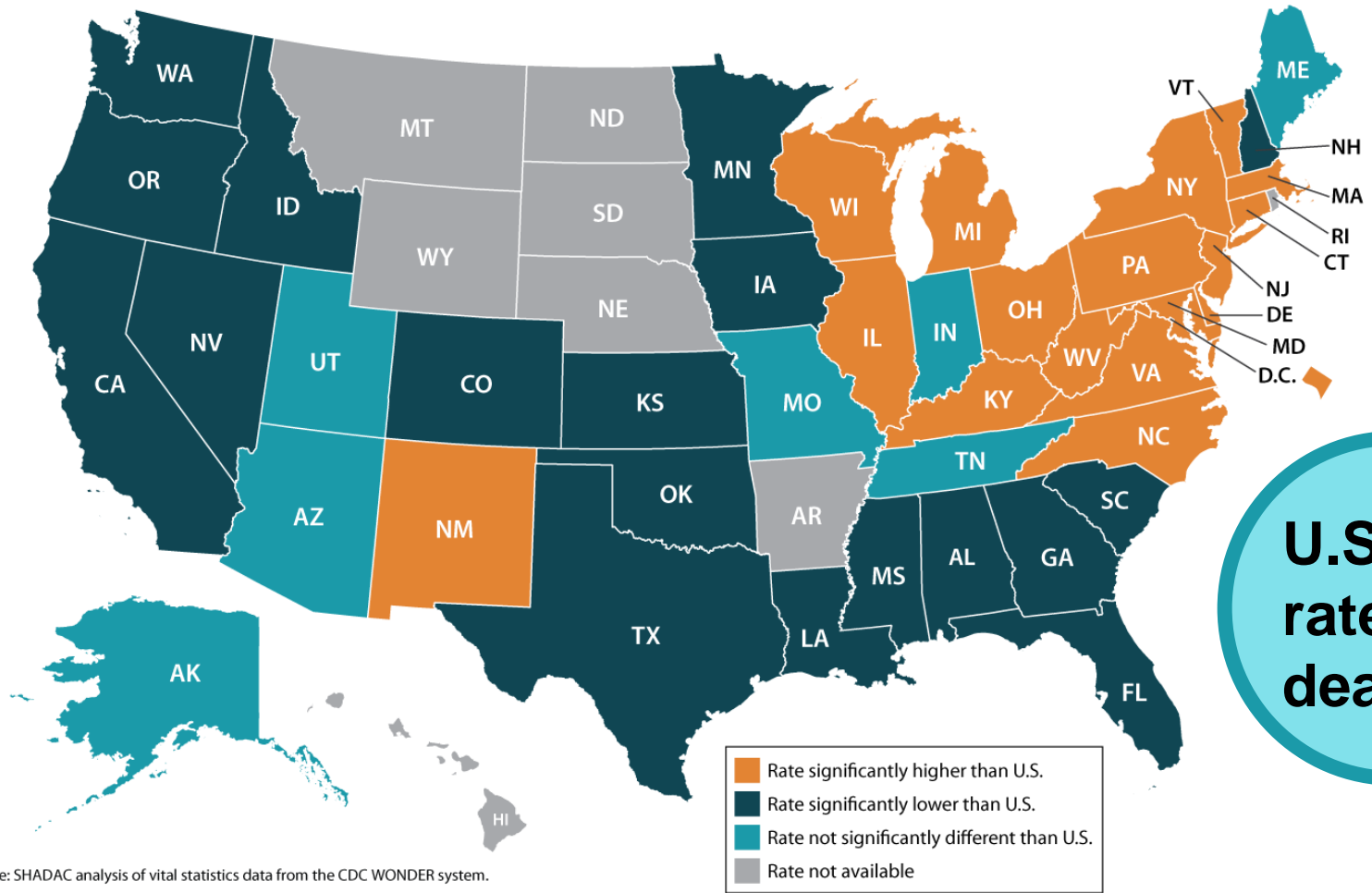
Source: SHADAC analysis of vital statistics data from the CDC WONDER system.

2017 Overdose Deaths per 100,000 People, Synthetic Opioids



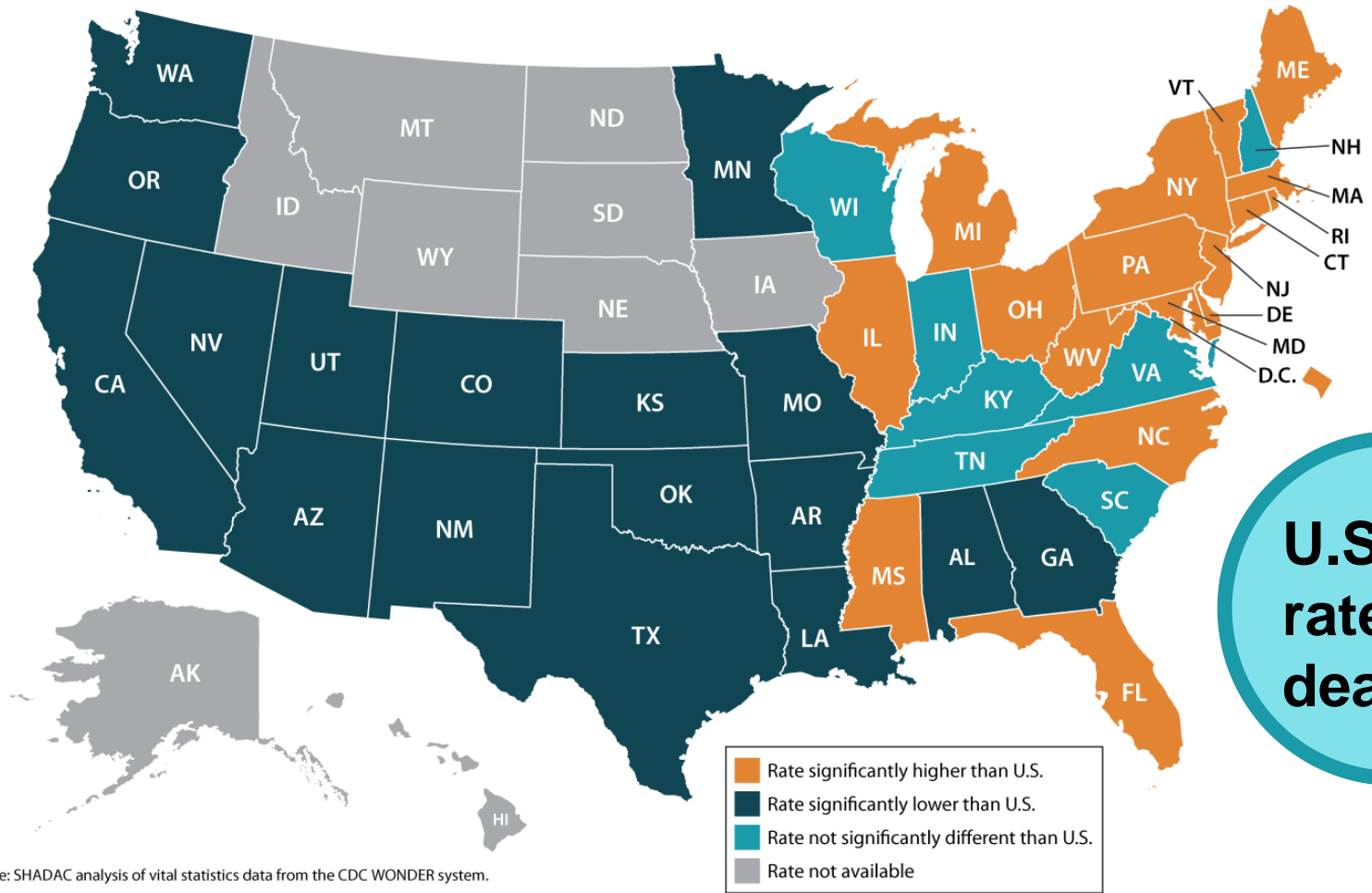
Source: SHADAC analysis of vital statistics data from the CDC WONDER system.

2017 Overdose Deaths per 100,000 People, Heroin



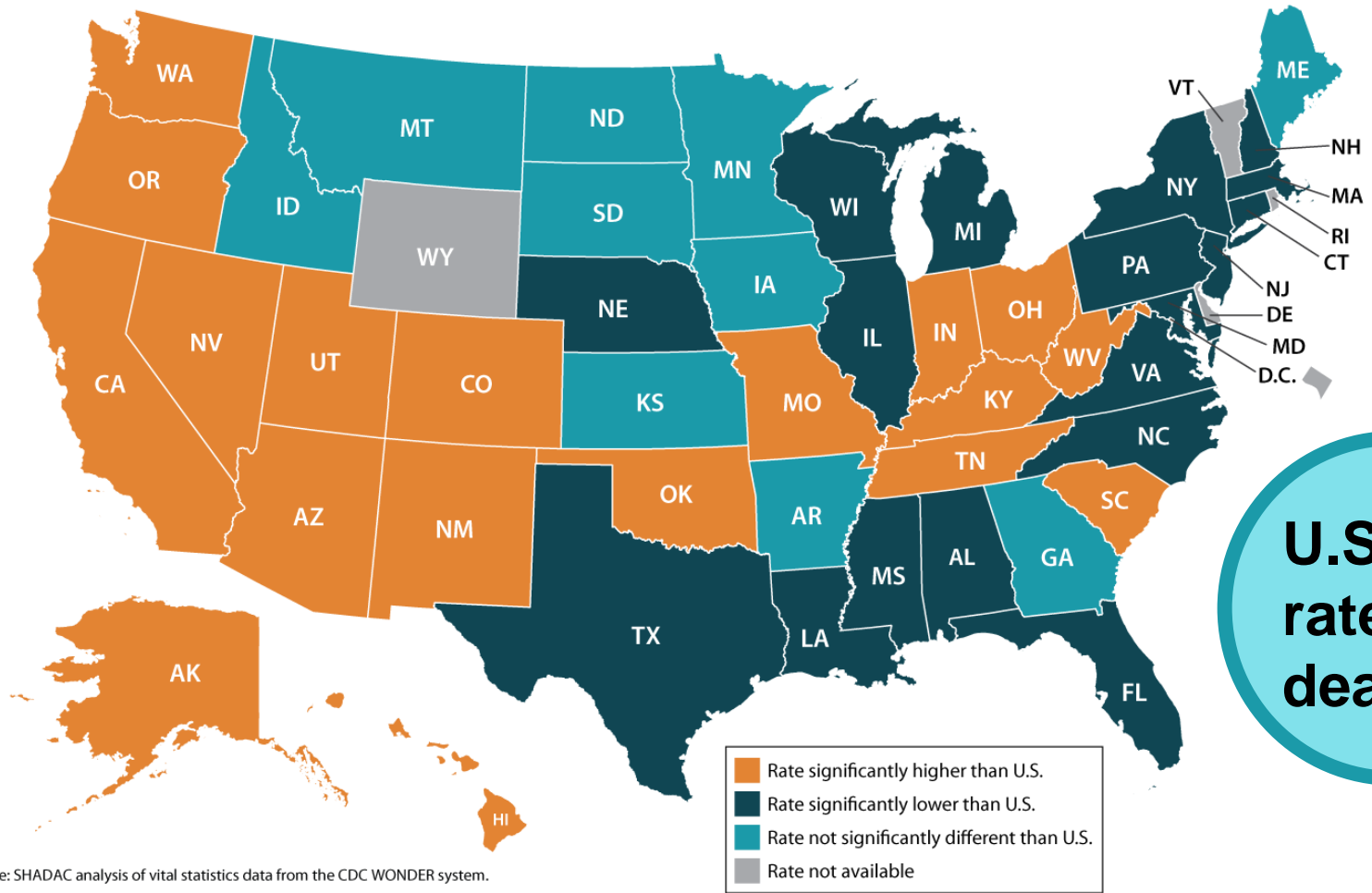
Source: SHADAC analysis of vital statistics data from the CDC WONDER system.

2017 Overdose Deaths per 100,000 People, Cocaine



Source: SHADAC analysis of vital statistics data from the CDC WONDER system.

2017 Overdose Deaths per 100,000 People, Psychostimulants



Source: SHADAC analysis of vital statistics data from the CDC WONDER system.

Discussion

- Opioid crisis evolved over time
- Prescription opioids → heroin → synthetic opioids, cocaine, psychostimulants
- Crisis not homogenous across subpopulations: age, sex, race/ethnicity, metropolitan status

Discussion

- Nearly all states affected by opioid crisis
- Scale and evolution of problem varies across states
- Understanding the drugs associated with overdose deaths and evolving nature of crisis can help states in devising effective policy interventions
- Potential unintended consequences of policy interventions

Resources

State Health Compare: custom maps and visualizations

- [Opioid-related and Other Drug Poisoning Deaths](#)
- [Sales of Opioid Painkillers](#)

SHADAC Opioid State Profiles

SHADAC State and National Opioid Briefs

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