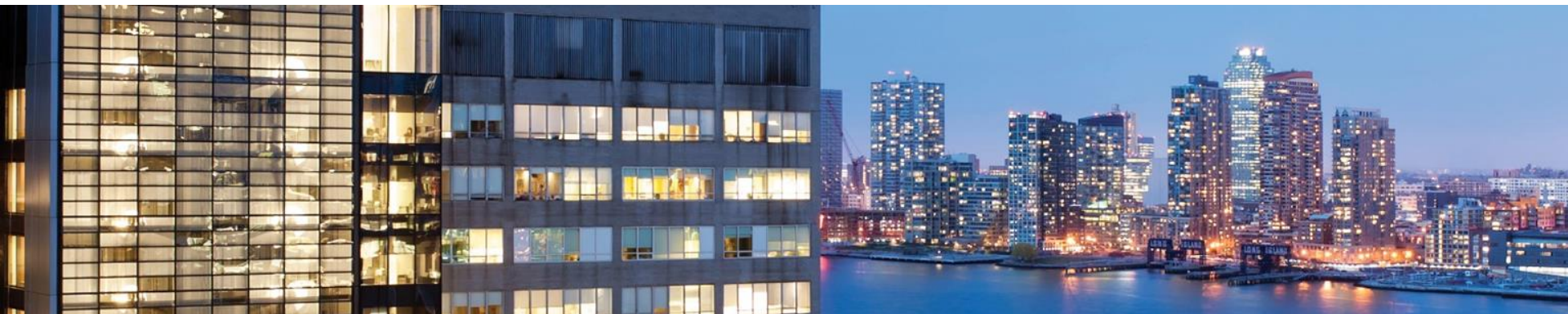


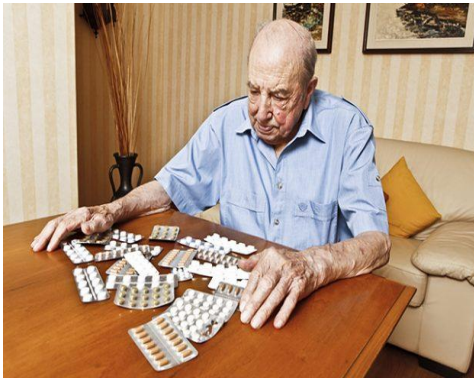
Prevalence of Substance Use and Substance Use Disorder among Middle-aged and Older Adults with Multiple Chronic Conditions in the United States



Substance Use and Substance Use Disorder



- Substance Use Disorder: When recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment.



- Prescription Misuse: Is the use of prescription medication in a way that is not intended by the prescribing doctor.

Substance Use and Older Adults



- Baby Boomers have shifting attitudes towards alcohol and drug use.
- This cohort is much larger and more likely to use drugs than older generations.
- Due to these changes, the population of adults ≥ 50 years old that use drugs is expected to double in the next decade.

Multiple Chronic Conditions

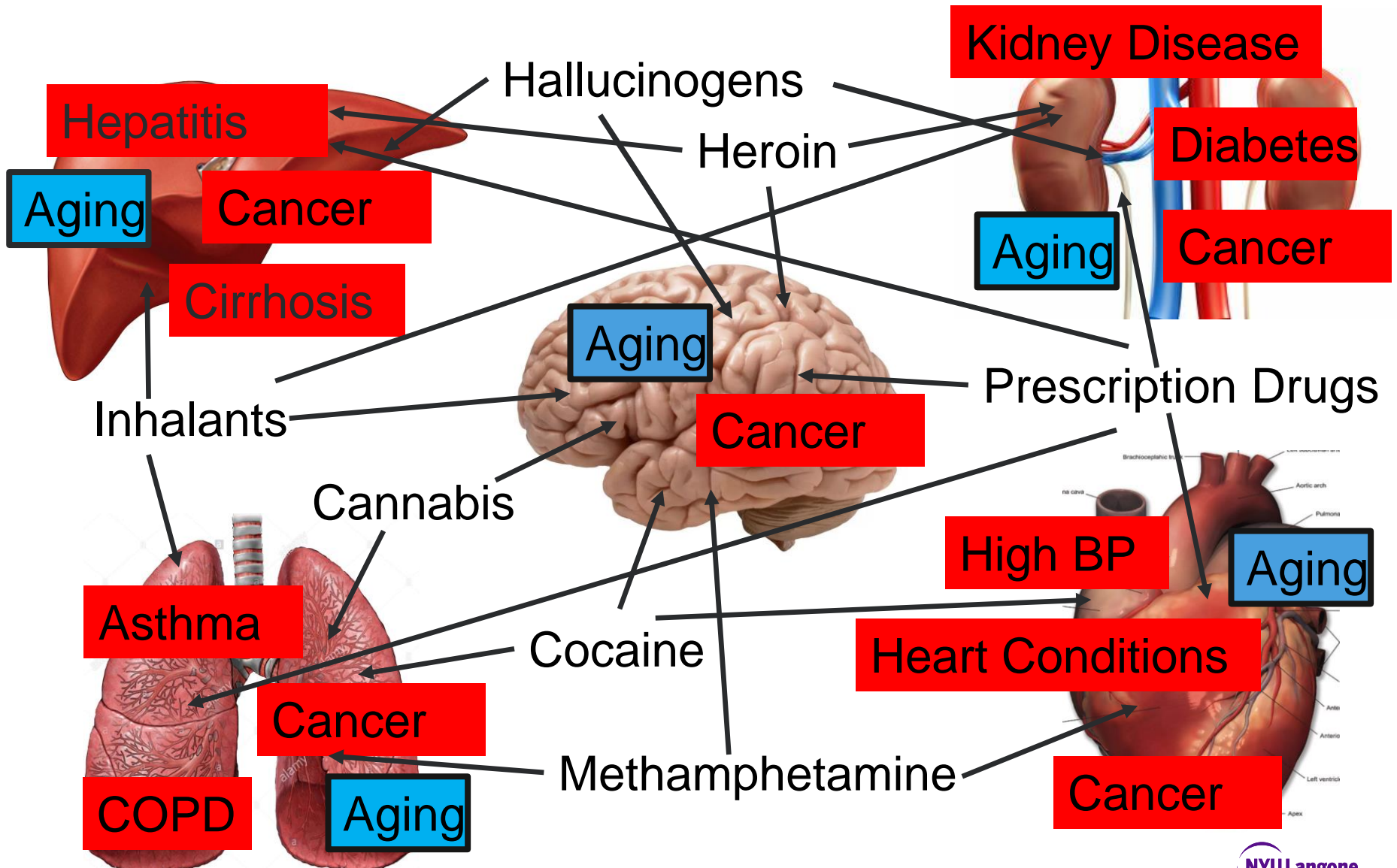
- As we age, we are more likely to develop chronic conditions, often more than one.
- Suffering from multiple chronic conditions is called **Multimorbidity**. It is estimated that 1 out of 4 Americans suffer from multimorbidity and 3 out of 4 Americans ≥ 65 years old suffer from multimorbidity.
- Multimorbid patients require coordinated, complex care and have worse prognoses.



Multiple Chronic Conditions

Time	Medications	Non-pharmacologic Therapy	All Day	Periodic
7 AM	Ipratropium MDI Alendronate 70mg weekly	Check feet Sit upright 30 min. Check blood sugar	Joint protection Energy conservation	Pneumonia vaccine, Yearly influenza vaccine
8 AM	Eat Breakfast HCTZ 12.5 mg Lisinopril 40mg Glyburide 10 mg ECASA 81 mg Metformin 850mg Naproxen 250mg Omeprazole 20mg Calcium + Vit D 500mg	2.4gm Na, 90mm K, Adequate Mg, ↓ cholesterol & saturated fat, medical nutrition therapy for diabetes, DASH	Exercise (non-weight bearing if severe foot disease, weight bearing for osteoporosis) Muscle strengthening exercises, Aerobic Exercise ROM exercises	All provider visits: Evaluate Self-monitoring blood glucose, foot exam and BP Quarterly HbA1c, biannual LFTs Yearly creatinine, electrolytes, microalbuminuria, cholesterol <u>Referrals:</u> Pulmonary rehabilitation
12 PM	Eat Lunch Ipratropium MDI Calcium+ Vit D 500 mg	Diet as above	Avoid environmental exposures that might exacerbate COPD Wear appropriate footwear	Physical Therapy DEXA scan every 2 years Yearly eye exam
5 PM	Eat Dinner	Diet as above	Albuterol MDI prn	Medical nutrition therapy
7 PM	Ipratropium MDI Metformin 850mg Naproxen 250mg Calcium 500mg Lovastatin 40mg		Limit Alcohol Maintain normal body weight	<u>Patient Education:</u> High-risk foot conditions, foot care, foot wear Osteoarthritis COPD medication and delivery system training Diabetes Mellitus
11 PM	Ipratropium MDI	<i>Boyd et al. JAMA 2005;294:716-724</i>		

Intersection of Drugs and Multimorbidity



Multiple Chronic Conditions

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Study Focus

1. To estimate the national prevalence of substance use and substance use disorder in adults ≥ 50 years old who have 0, 1 or ≥ 2 chronic conditions.
2. To determine the demographics of substance-using adults ≥ 50 years old who suffer from ≥ 2 chronic conditions.

Methods

- **Study Population:**

- Data were utilized from the 2015-2016, National Survey on Drug Use and Health (NSDUH), an annual cross-sectional survey of non-institutionalized individuals in the 50 US states and the District of Columbia administered by the Substance Abuse and Mental Health Services Administration (SAMHSA).

Methods

- **Measures:**

- Participants were assessed for:

- past-year use of and meeting criteria of substance use disorder for cannabis, cocaine, methamphetamine, heroin, inhalants, hallucinogens, and nonmedical use of prescription medications (opioids, tranquilizers, stimulants, and sedatives).
- 10 self-reported lifetime, chronic medical conditions, including: asthma, bronchitis, cirrhosis, diabetes, heart conditions, hepatitis, high blood pressure, cancer, kidney disease and HIV/AIDS.

Methods

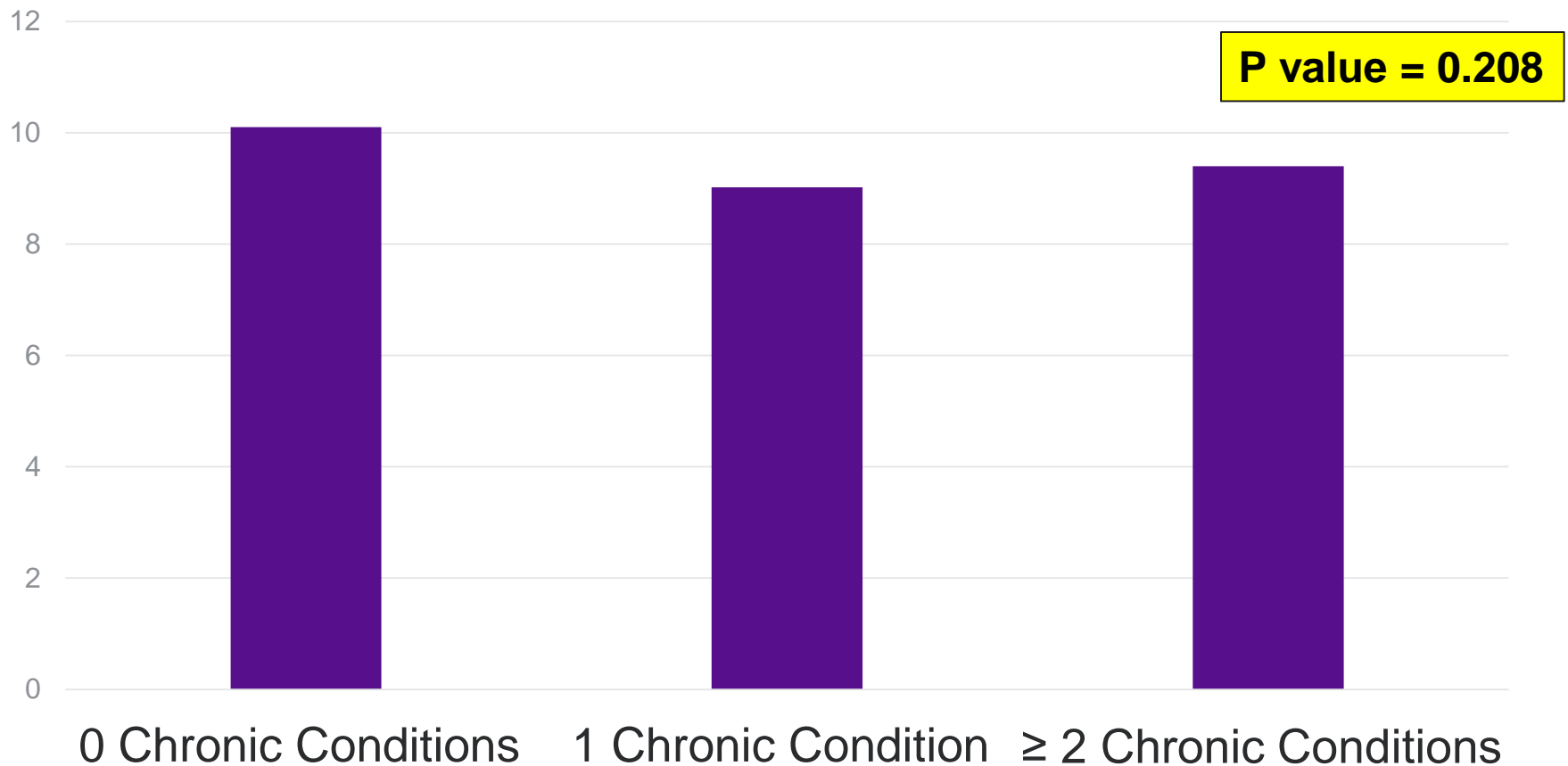
- **Statistical Analyses:**

- Cross-sectional aggregated prevalence of the presence of 0, 1, and ≥ 2 chronic conditions among older adults with past-year drug use and diagnosed substance use disorder.
- Logistic regression models were used to examine correlates of multiple chronic conditions among adults reporting past year drug use.

Results

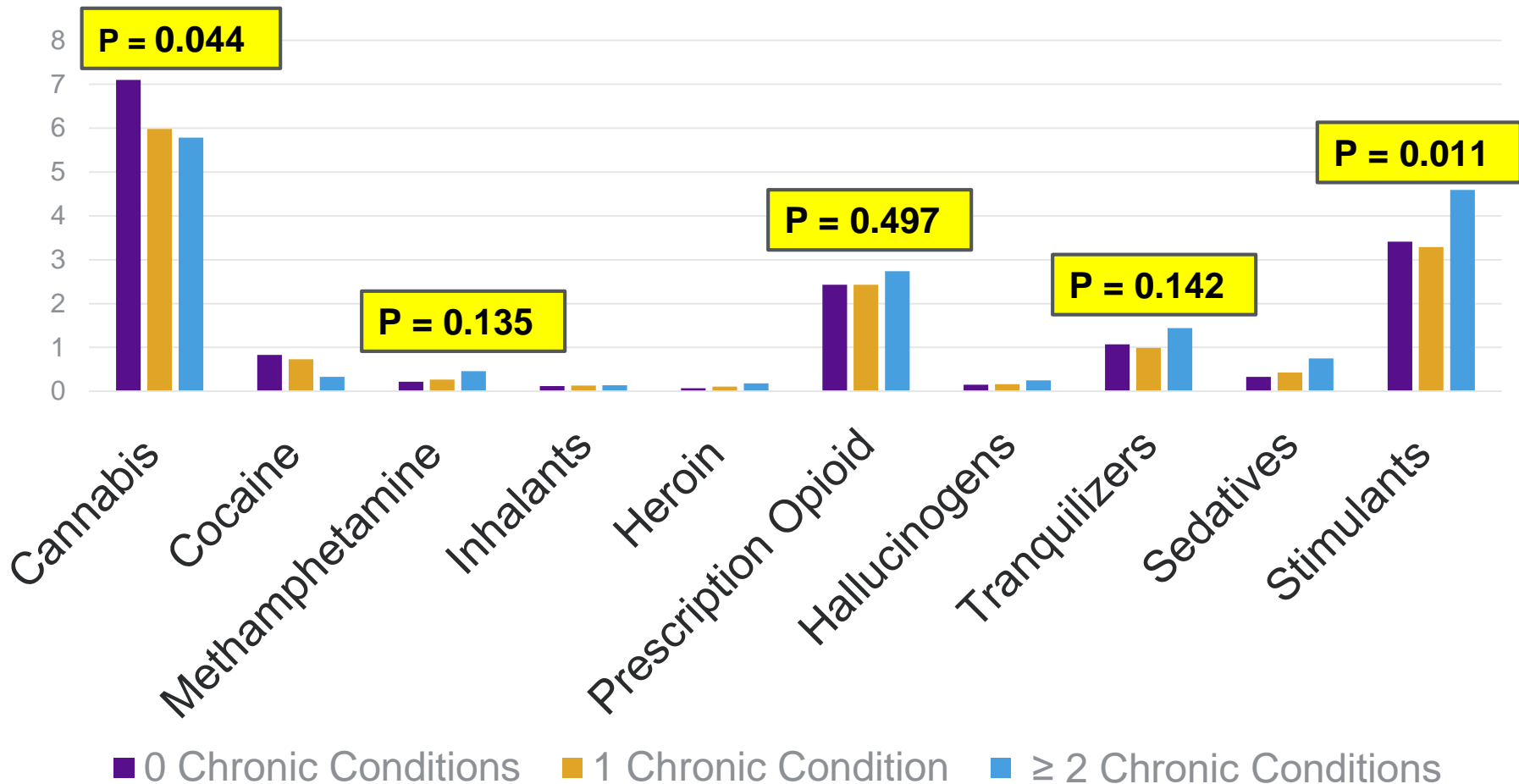
Population, n = 17,571

Percentage of Adults ≥ 50 Years Old Using Any Illicit Drug, 2015-2016



Results

Percentage of Adults ≥ 50 Years Old Using Various Illicit Substances, 2015-2016

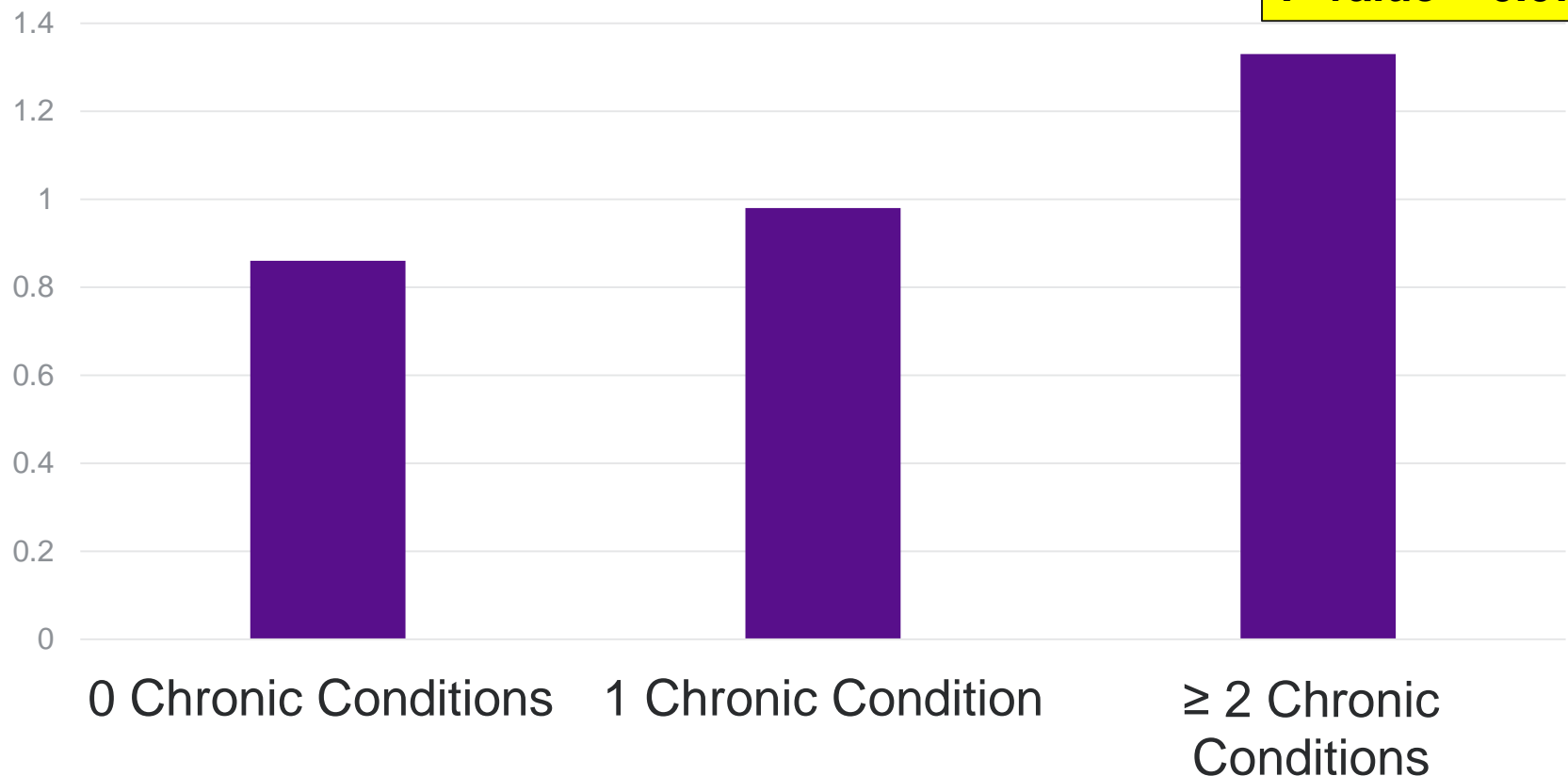


Results

Population = 17,571

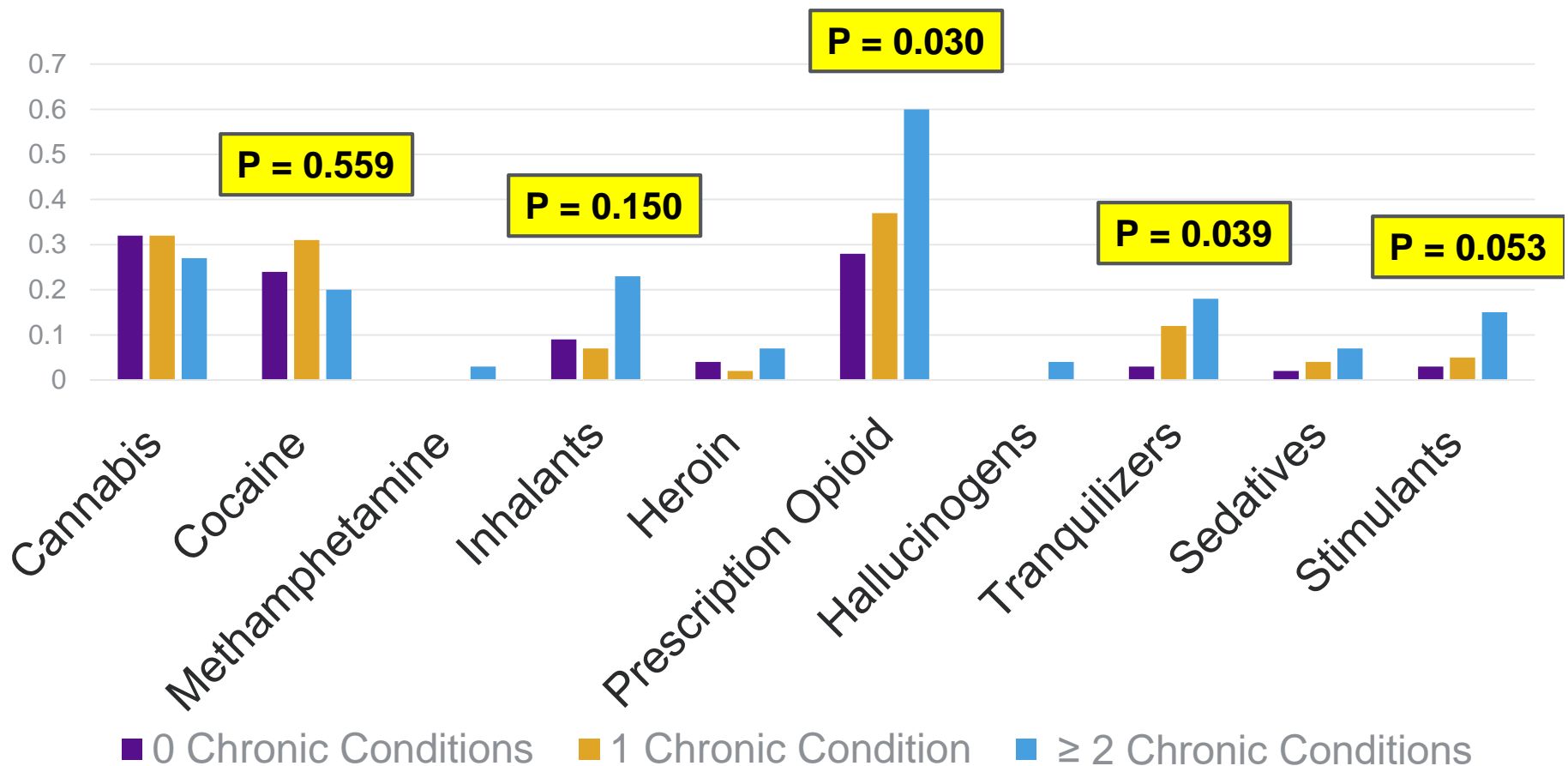
Percentage of Adults ≥ 50 Years Old
Diagnosed with Any Substance Use Disorder,
2015-2016

P value = 0.075



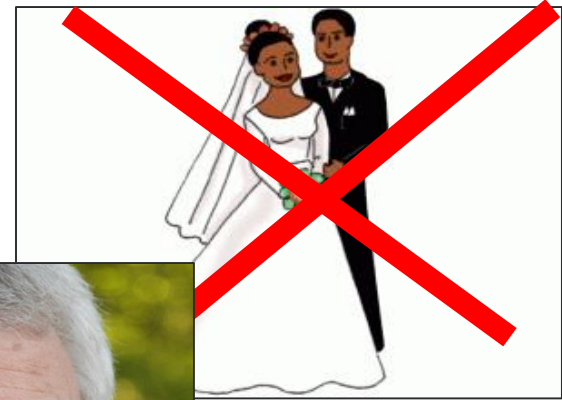
Results

Percentage of Adults ≥ 50 Years Old With Various Substance Use Disorders, 2015-2016



Results

- Substance-using adults ≥ 50 years old, who suffer from ≥ 2 chronic conditions are more likely to be:
 - Male
 - Divorced/separated (AOR = 1.74) or never married (AOR = 2.44)
 - Smoke tobacco (AOR = 2.54)
 - Have concurrent alcohol use disorder (AOR = 2.67)
 - There was no significant difference between: race, income or health care use



Results: Summary

- Nationally, adults ≥ 50 years old are using illicit substances at a rate of approximately 10% and about 1% of them have been diagnosed with substance use disorder.
- Nationally, adults ≥ 50 years old are using all types of different illicit substances, cannabis and prescription drugs misused being the highest.
- **THE SAME NUMBER OF ADULTS ≥ 50 USE ILLICIT DRUGS, WHETHER OR NOT THEY HAVE CHRONIC CONDITIONS.**

Limitations

- The survey is based on self-report, so it is subject to recall and social-desirability bias.
- The chronic medical diseases studied were predetermined and often vague, for example, “heart conditions”. We were limited to the choices of NSDUH.
- There was no distinction between frequent use of an illicit drug in the past year and one time use.
- This data does not capture institutionalized individuals; including those in jail or in nursing homes; ignoring a potentially large portion of the population of interest.

Results: Significance

- Geriatric population using drugs is expected to increase:
 - 2016 → 8.5% of the world was ≥ 65 years old
 - 2050 → 17% of the world is projected to be ≥ 65 years old
 - Younger-aging generations are more likely to use illicit substances.
- Older adults who use drugs are not getting the care they need:
 - Many geriatricians claim difficulty in addressing substance use in their older patients.
 - Short term and long term care facilities are rejecting patients with a history of substance use and/or not addressing substance use upon admission.

Discussion

- Screen older adults for substance use and develop age-specific screening criteria.
- Increase awareness of the dangers of substance use in patients with multiple chronic conditions.
- Provide rehabilitation programs focused on older adults.
- Increase training on substance use for physicians, nurses, and other healthcare staff.

Acknowledgements

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Thank you!