

# Cannabis Use and Self-Reported Difficulties Concentrating, Remembering, or Making Decisions Among Adults 50 and Over

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## Background

- Marijuana, or cannabis, is the most commonly used illicit drug in the U.S.
- Use is growing in the older adult population.<sup>1</sup>
  - Between 2015 and 2018, there was a 75% relative increase in cannabis use—from 2.4% to 4.2%—among adults 65+ (P=0.001)<sup>2</sup>
- Cannabis is known to impair learning, memory, attention, concentration, and abstract reasoning<sup>3</sup>
  - Little is known about these effects on older adults<sup>4</sup>



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## Objective

To investigate the relationship between self-reported past-month cannabis use and serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition among adults age 50 years and older.

## Methods

### Data Source:

- 2016-2019 Behavioral Risk Factor Surveillance System (BRFSS)

### Sample (N = 294,000):

- Respondents 50 years and older
- Past-month cannabis use and difficulty concentrating, remembering, or making decision because of a physical, mental, or emotional condition variables
- 20 U.S. states and 2 territories

### Analysis:

- Additive multiple logistic regression
- Controlled for age, gender, education, race, income, marital status, employment status, health status, depression, diabetes, and tobacco and heavy alcohol use.

**Table 1**

*Adjusted Odds Ratios (AORs) for Reported Past-Month Cannabis Use and Functional Difficulty in Adults Age 50 and Older, 2016-2019 (N = 294,000)*

Variable	Difficulty Concentrating, Remembering, or Making Decisions Because of a Physical, Mental, or Emotional Condition		
	AOR	Lower	Upper
Reported Past-Month Cannabis Use	1.423	1.136	1.782
Age 65 and older	0.608	0.523	0.707
Good/Better General Health	0.398	0.344	0.461
Depression	5.661	4.939	6.489
Employed	0.394	0.329	0.472
Graduated College or Tech School	0.686	0.542	0.868
Income=\$25,000 to less than \$35,000	0.631	0.504	0.789
Income=\$35,000 to less than \$50,000	0.593	0.465	0.758
Income=\$50,000 or more	0.411	0.322	0.523

Note. Table excludes covariates that were included in the model but which were not statistically significant,  $p < 0.05$ . Point estimates incorporated the BRFSS' complex survey design and sampling weights.

## Results

**Demographics:** Over one-half of the sample (55.5%) was 50-64 years old, female (53.4%), and White (75.6%), with 76.5% reporting good or better general health. Approximately one-half of the sample (51.6%) reported an income of \$50,000 per year or more and 30% had graduated from college or technical school.

## Results

- Respondents who reported past-month cannabis use were 1.423 times more likely to have difficulty concentrating, remembering, or making decisions because of physical, mental, or emotional condition than nonusers, controlling for other characteristics.
- Those with depression were 5.661 times more likely to experience difficulty with concentrating, remembering, or making decisions than those without depression, controlling for other characteristics.
- Reporting good/better general health, being employed, graduating from college or technical school, and having an annual income of \$50,000 or more was associated with lower adjusted odds ratios of having difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition, controlling for other characteristics.

## Conclusions

- Understanding the relationship between reported past-month cannabis use and concentration, memory, and decision-making because of a physical, mental, or emotional condition is vital to public health.
- Older adults who have difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition are likely to have unmet health needs, reduced access to care, and poor health outcomes.<sup>5</sup>
- Our results are consistent with a prior study that found that self-report cognition worsened in former and current cannabis users over 50 years old.<sup>6</sup>
- This study makes an important contribution to what is known about cannabis use and its potential adverse effects on older adults.
- Findings are important to patients, clinicians, and policymakers as they contemplate decisions about older adults' cannabis use.



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