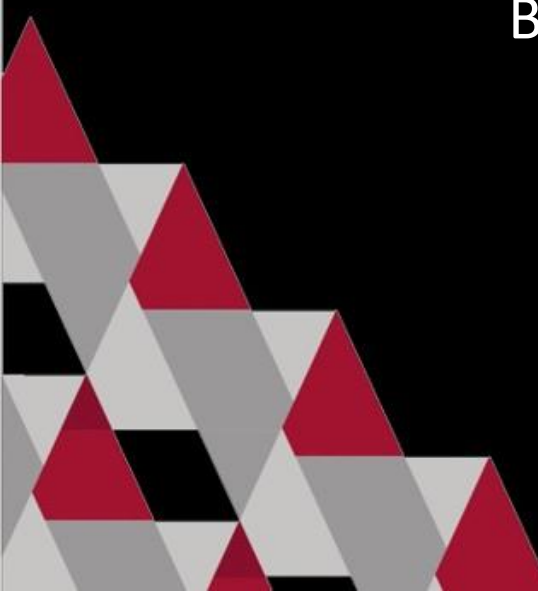


# Clinical Characteristics and Health Status of Potential Medical Cannabis

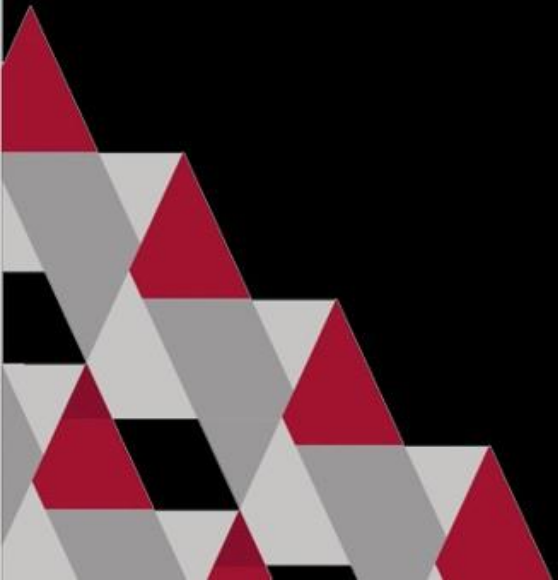
**Lauren Russell, Nalin Payakachat, Mark Ware, Ryan Vandrey, Marcel Bonn-Miller, Staci Gruber, Denise Hung, William Fantegrossi**



# Disclosure

## Funding by:

- 7 Hybrid Cultivation LLC (\$30,000) 08/01/2017 – 08/30/2018
- Internal support from the UAMS Translational Research Institute

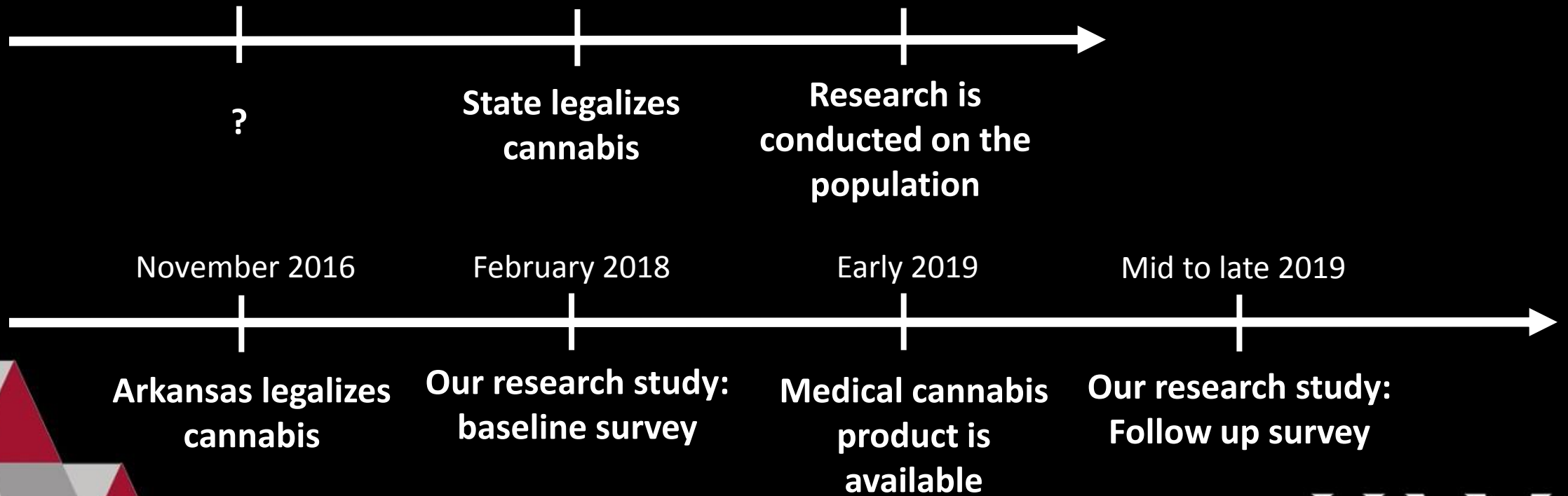


# Issue 6



- Cancer
- Glaucoma
- HIV/AIDS
- Hepatitis C
- Amyotrophic lateral sclerosis
- Tourette's syndrome
- Post traumatic stress syndrome
- Alzheimer's disease

# Typical Cannabis Research Timeline



# Survey Batter Components

- **Demographics**
- WHO Quality of Life scale (WHOQOL-BREF) and **Short-Form 36 (SF36v1)**
- Brief-inventory of psychosocial functioning (B-IPF)
- Current health
- **Current medication/drug use**
- The Insomnia Severity Index (ISI)
- The Brief Pain Inventory (BPI) short-form
- The Inventory of Depression and Anxiety Symptoms (IDAS)
- Attitudes toward pharmacists in dispensing medical cannabis
- **Expectancy of cannabis effects: the Marijuana Effect Expectancy Questionnaire (MEEQ)**
- Self-reported side effects from cannabis products
- Comprehensive Marijuana Motives Questionnaire (CMMQ)
- **Daily Sessions, Frequency, Age of Onset, and Quantity of Cannabis Use Inventory (DFAQ-CU)**

# Study Design

- A 5-year prospective cohort study
  - Baseline data collection began in February 2018 – present (will close when cultivation and dispensary licenses are awarded)
  - Follow-up data will be then collected approximately at 6, 12, 18, 24, 36, 48, and 60 months after legally available MC products in AR.
- Self-reported, self-administered electronic survey
- UAMS IRB # 207440
- Certificate of Confidentiality (NIDA) approved 02/14/2018 – 01/01/2024

# Survey Objectives

- Describe
  - Demographic Characteristics
  - Self-perceived health-related quality of life
  - Expectancy effects of cannabis
  - Current cannabis use
- Compare differences between
  - Have registration cards or plan to apply for the card (**Yes Card**)  
vs.
  - Participants who don't (**No Card**)
- Look at factors that may be associated with medical cannabis use



# Demographic Characteristics

**Table 1. Characteristics for potential card-holder and non-potential card-holder**

	Potential card-holder N=999 (%)	Non-potential card-holder N=815 (%)	p-value
<b>Age</b>			<b>0.35</b>
18-39	399 (40.9%)	324 (40.8%)	
40-64	492 (50.4%)	386 (48.6%)	
≥65	85 (8.7%)	85 (10.7%)	
Mean age (SD)	44.4 (.46)	45.1 (.52)	
<b>Gender</b>			<b>0.08</b>
Female	637 (63.8%)	553 (67.9%)	
Male	333 (33.3%)	241 (29.6%)	
<b>Race</b>			<b>0.54</b>
White	847 (87.2%)	702 (88.2%)	
Non-white	124 (12.8%)	94 (11.8%)	
<b>Veteran Status</b>			<b>0.4</b>
Not a veteran	853 (85.4%)	696 (85.4%)	
Active	0 (0%)	1 (0.1%)	
Inactive/reserve	4 (0.4%)	5 (0.6%)	
Retired/discharge	78 (7.8%)	77 (9.4%)	

**Table 1. Characteristics for potential card-holder and non-potential card-holder**

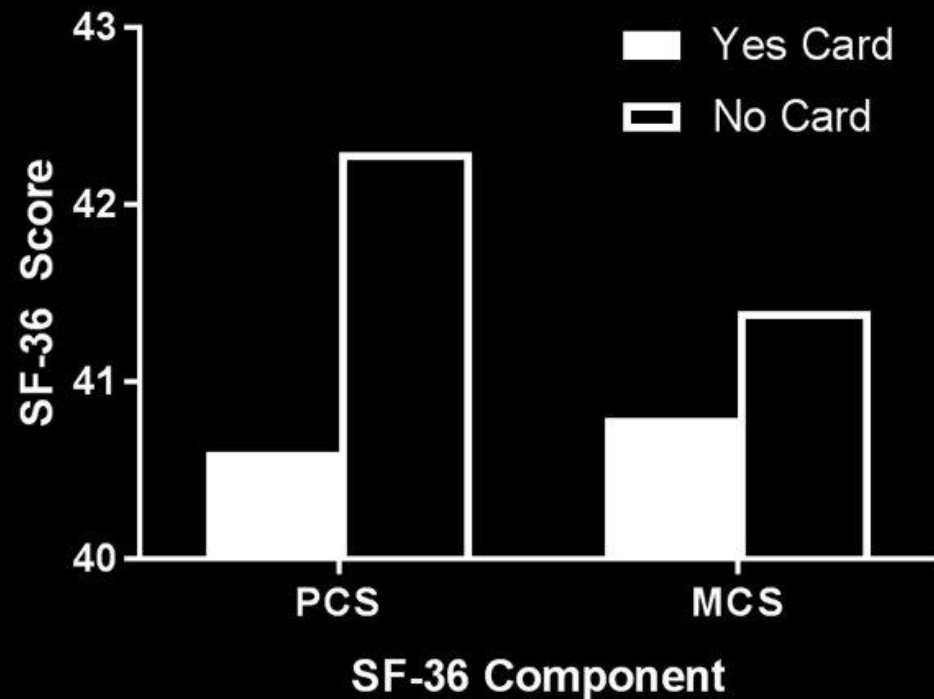
Educational status**			<b>&lt;.01</b>
High school	209 (20.9%)	64 (7.9%)	
Vocational train	516 (51.7%)	280 (34.4%)	
Bachelor's Deg	158 (15.8%)	232 (28.5%)	
Master's degree	91 (9.1%)	221 (27.1%)	
<b>Employment status</b>			<b>&lt;.01</b>
Unemployed	501 (50.1%)	187 (22.9%)	
Employed	469 (46.9%)	606 (74.4%)	
<b>Use history (N=1260)</b>			<b>&lt;.01</b>
Ever used	614 (92.6%)	417 (69.9%)	
Never use	49 (7.4%)	180 (30.1%)	
<b>Prescription use</b>			
Pain	482 (48.2%)	166 (20.4%)	<b>&lt;.01</b>
Sleep	279 (27.9%)	129 (15.8%)	<b>&lt;.01</b>
Mood/Anxiety	514 (51.5%)	270 (33.1%)	<b>&lt;.01</b>
Movement dis.	156 (15.6%)	46 (5.6%)	<b>&lt;.01</b>
Seizure	27 (2.7%)	7 (0.9%)	<b>&lt;.01</b>
Appetite	164 (16.4%)	32 (3.9%)	<b>&lt;.01</b>

\* The percentage may not add up to 100% due to the missing value for some answer

\*\* Educational status were categorized in 1)high school or the equivalent, 2)college, vocational training or associate's degree, 3)bachelor's degree, 4)master's, professional or doctorate degree



# Self-Perceived Health Related Quality of Life



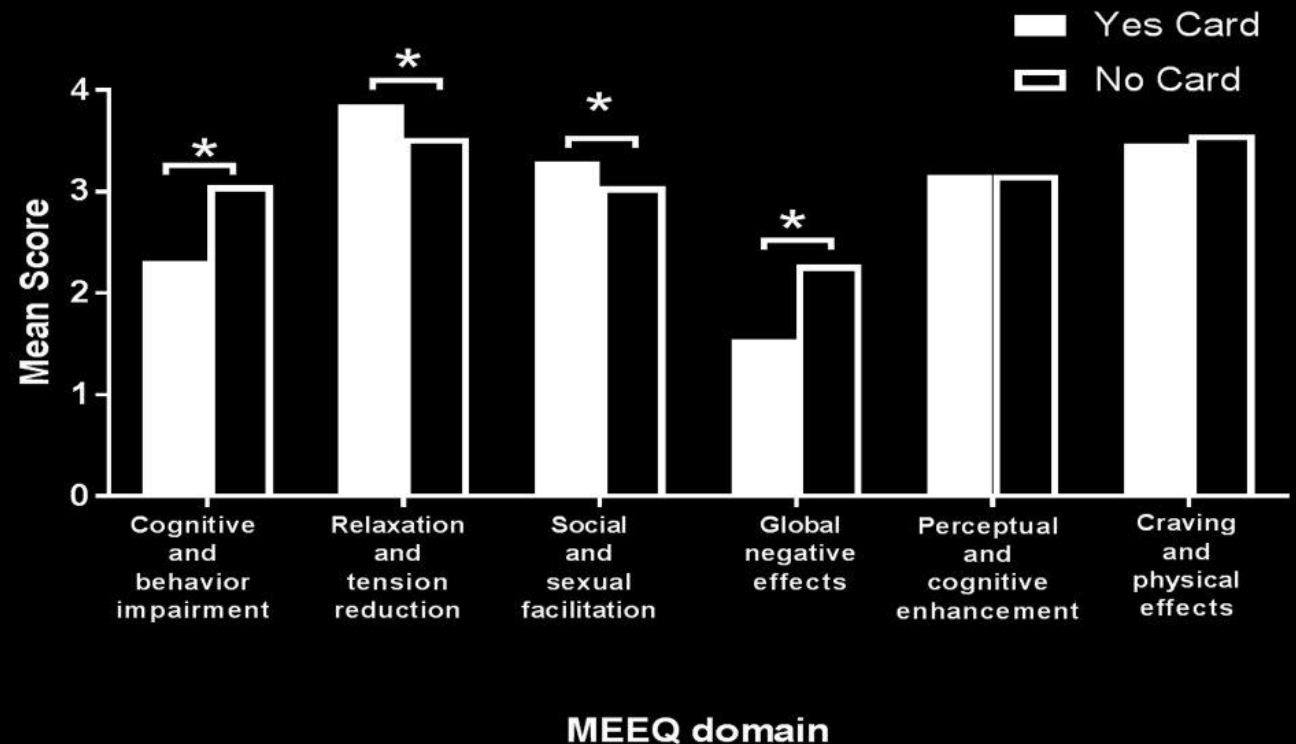
Physical health is lower among potential card holders, however there is no difference in mental health status between the two groups

**CONCLUSION: Potential card holders are in poorer health than non-potential card holders**

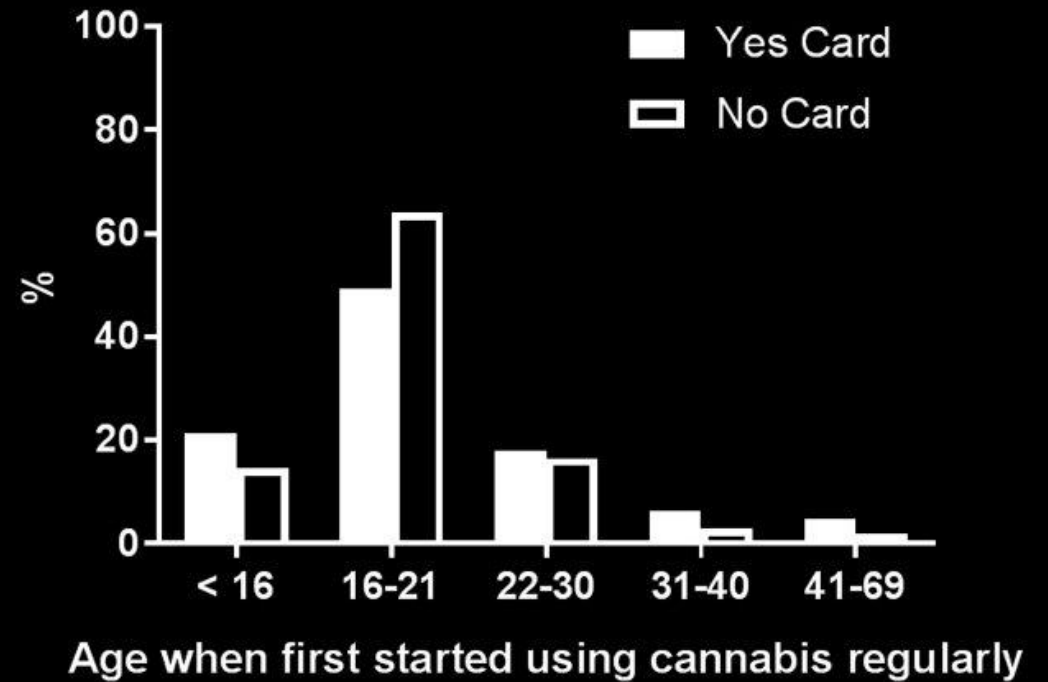
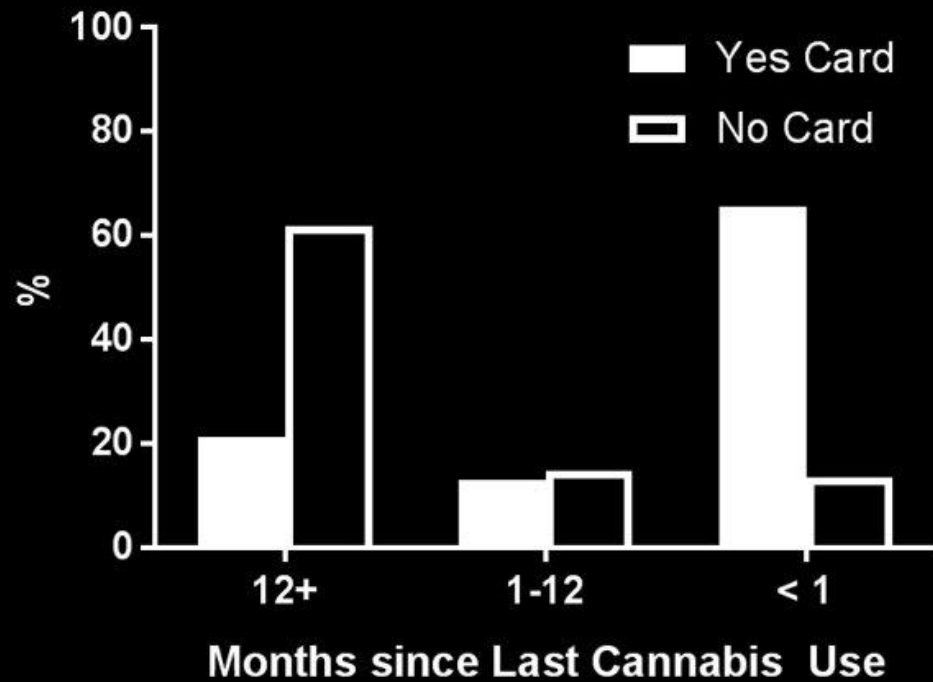
# Expectancy Effects of Cannabis

Potential card-holders had different expectations regarding the effects of cannabis

**CONCLUSION: Expectancy effects of cannabis use are associated with an intention to use medicinal cannabis**



# Current Cannabis Use

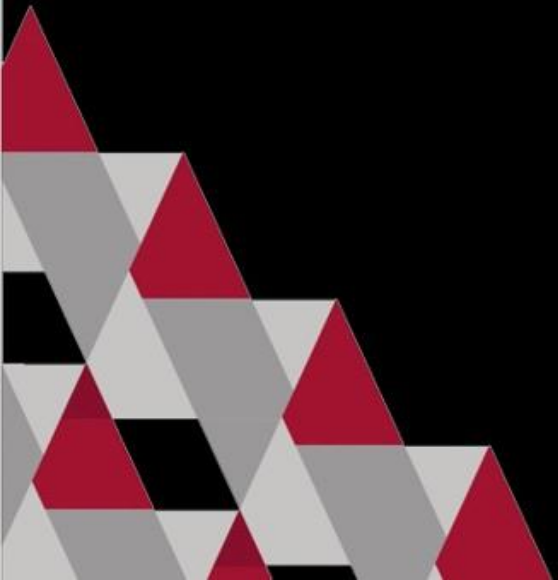


# Research Implications

- After the availability of medical cannabis:
  - Determine if the perceptions of benefits and harms of medical cannabis within the Arkansas community change by cannabis availability
  - Determine if medical cannabis improves health of card-holders
    - Which health conditions
    - Prescription drug use
  - Characterize the effect of route of administration and THC concentrations on various conditions
  - Monitor adverse effects of medical cannabis

# Future Directions

- Cannabis research in older population (50 and older)
- Educate future clinicians (medical, pharmacy, nurses) about cannabis
- ARMedCannabis.uams.edu (in progress)
  - Communicate our study results with participants
  - Provide unbiased information about benefits and harms of cannabis





# Questions