Third Meeting of the HB 21-1317 Scientific Review Council

April 26, 2022

colorado school of public health

Cannabis Research & Policy Project

Opening Remarks, Introductions and Welcome, Updates on Conflict of Interest

Christopher E. Urbina, MD, MPH
Chair, HB 21-1317 Scientific Review Council

Cannabis Research & Policy Project Team Members

Member	Sub-Team
Lisa Bero, PhD	Systematic Review
Ashley Brooks-Russell, PhD, MPH	Subject Area Expertise
Meghan Buran, MPH	Administration
Kelsey Phinney, BA	Administration
Rosa Lawrence, BA	Systematic Review
Louis Leslie, BA	Systematic Review
Tianjing Li, MD, PhD, MHS	Systematic Review
Christi Piper, MLIS	Systematic Review
Thanitsara Rittiphairoj, MD, MPH	Systematic Review
Jean-Pierre Oberste, BA	Systematic Review
Jonathan Samet, MD, MS	Administration
Greg Tung, PhD, MPH	Administration, Subject Area Expertise
Sam Wang, MD	Subject Area Expertise

Scientific Review Council Members

Member	Role on Council	Affiliation(s)
Chris Urbina, MD, MPH (Chair)	Preventive medicine specialist (or preventive medicine public health professional)	Pueblo Department of Public Health and Environment; Former Director of CDPHE
Gregory Kinney, PhD, MPH	Epidemiologist	Colorado School of Public Health
David Brumbaugh, MD, MSc	Physician familiar with the administration of medical marijuana pursuant to current state laws with experience recommending medical marijuana to those aged zero to seventeen	Children's Hospital Colorado; University of Colorado School of Medicine
Kennon Heard, MD	Medical Toxicologist	University of Colorado School of Medicine
Archana Shrestha, MD	Neurologist	University of Colorado School of Medicine
Erica Wymore, MD, MPH	Pediatrician	University of Colorado, School of Medicine
Paula Riggs, MD	Psychiatrist	University of Colorado, School of Medicine
Susan Calcaterra, MD, MPH	Internal medicine physician (or other specialist in adult medicine)	University of Colorado School of Medicine
Joseph Schacht, PhD	Licensed Substance Abuse Disorder Specialist	University of Colorado School of Medicine
Kent Hutchison, PhD	Neuropsychopharmacologist	University of Colorado School of Medicine
Lesley Brooks, MD	Medical professional (or public health professional) who specializes in racial and health disparities and systemic inequalities in health care and medicine	North Colorado Health Alliance; SummitStone Health Partners

Review of Agenda

Christopher E. Urbina, MD, MPH
Chair, HB 21-1317 Scientific Review Council

Start time	Topic	Presenter(s)
11:15 am	Review of Meeting Minutes and Response to SRC Recommendations	Chris Urbina & Jon Samet
11:25 am	Progress Update	Jon Samet, Lisa Bero, & Tianjing Li
11:40 am	Challenges to Classification of Exposures and Outcomes	Tianjing Li
12:05 pm	Introduction to Evidence Map and Planned Approach	Rosa Lawrence & Lisa Bero
12:30 pm	Educational Campaign Update	Greg Tung & Jon Samet
12:35pm	General Remarks & Discussion	Chris Urbina
12:55 pm	Next Meeting Timing and Closing Remarks	Jon Samet & Chris Urbina

Review of Meeting Minutes and Response to SRC Recommendations

Christopher E. Urbina, MD, MPH
Chair, HB 21-1317 Scientific Review Council

Jonathan M. Samet, MD, MS
Dean, Colorado School of Public Health


Cannabis Research & Policy Project
Our Team
Scientific Review Council
Resources
Events
Contact Us
Researching and educating on cannabis and health
The CRPP team studies cannabis and health, provides policy recommendations, and educates the public.
Who we are
The Cannabis Research & Policy Project team is a group of researchers from the Colorado School of Public Health and the University of Colorado Anschutz Medical Campus.

Progress Update

Jonathan M. Samet, MD, MS
Dean, Colorado School of Public Health

Lisa Bero, PhD
Professor, School of Medicine

Tianjing Li, MD, MHS, PhD
Associate Professor, School of Medicine, Colorado School of Public Health

Charge to the Colorado School of Public Health

Tasks for the Colorado School of Public Health in HB 21-1317

- Conduct a systematic review of high-potency THC marijuana
- Establish a Scientific Review Council
- Produce a public education campaign

High-Potency THC Marijuana and Marijuana Concentrate Research

- Conduct a systematic review of high-potency THC marijuana:
  - Systematically curate and synthesize the evidence regarding possible physical and mental health effects
  - Identify needed research
    - Report on gaps identified by 1/31/2022 and what needed to address the gaps, including funding and timeline for new studies
- Provide initial report by 7/1/2022
- Potentially conduct additional research
- The research must be conducted independently without any predetermined outcomes or undue influence from any party

Systematic Scoping Review

What type of systematic review? Per House Bill 21-1317

- "…all available scientific evidence-based research regarding the possible physical and mental health effects of high-potency THC marijuana and marijuana concentrates regardless of the location of the research."
- "The research must systematically curate and synthesize existing research, identify evidence gaps, and identify new research that is needed to better understand the health implications of high-potency THC marijuana products and the specific THC potency levels and amounts at which various health concerns arise."

Research Questions for the Review

- Identify and describe studies that explore the relationship of high-potency cannabis products with **beneficial** and **adverse** health outcomes
- Identify and describe studies that report adverse effects of exposure to high-potency products (with no comparison group)

Why a systematic scoping review?

1) to identify the types of evidence available in a given field
2) to clarify key concepts
3) to examine how research is conducted on a certain topic
4) to identify key factors or characteristics related to a concept
5) as preparation for further systematic reviews
6) to identify and analyze knowledge gaps

Scoping Review Findings

Overview of literature

Future systematic reviews

Research gaps

Progress to Date

Over the initial 9 months since project funding was received, the following has been accomplished:

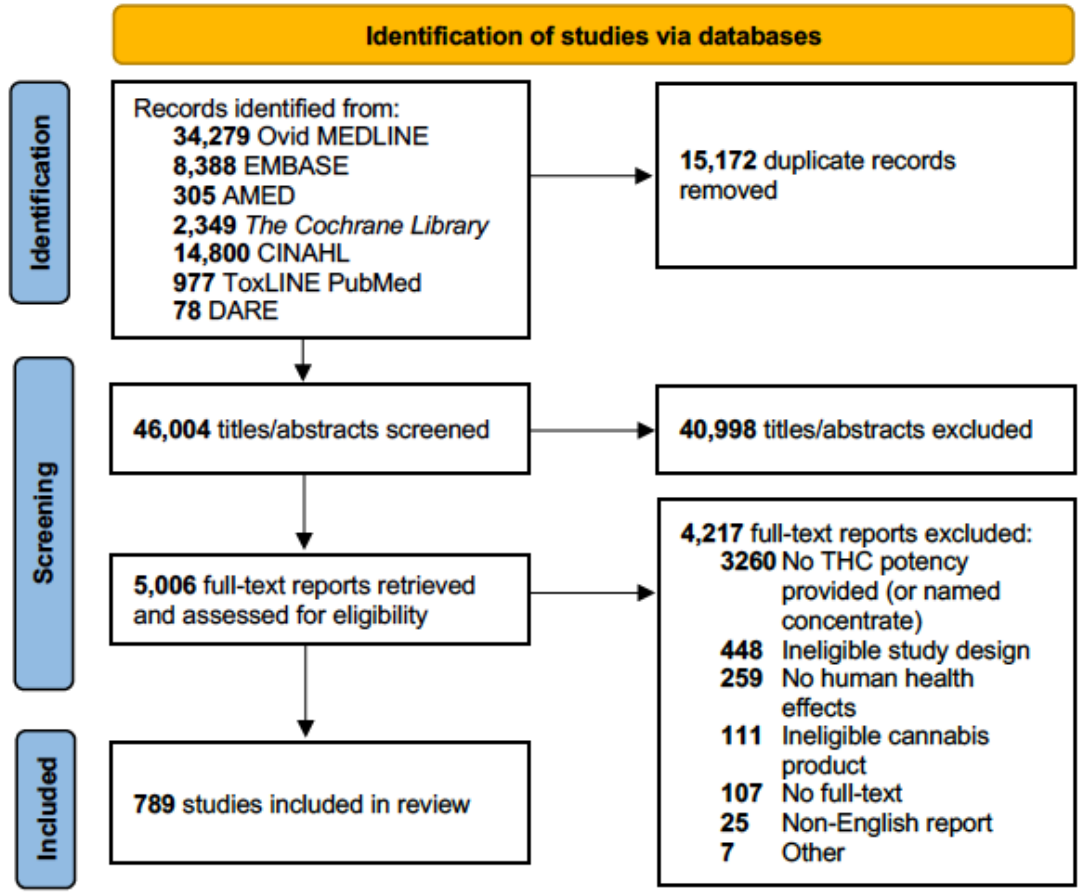
- Assembled the Cannabis Research and Policy Research Team.
- Recruited the Scientific Review Council according to the requirements of HB 21-1317 and has met three times: 11/17/2021, 1/24/2022, and 4/24/2022.
- Screened all staff and Council members for potential conflicts of interest.
- Developed and published the protocol for the review (https://osf.io/wv7e9).
- Completed literature search.
- Presented the progress to the CO House Public and Behavioral Health and Human Services Committee on 2/18/2022.
- Screened all titles/abstracts, and subsequently full-text reports for inclusion.
- Developed and pilot tested data extraction forms and procedures.

Blue color: new since last scientific council meeting

Review Timeline

Data extraction elements

Data category	Data coding
Bibliographic information	Type of publication
	Journal article
	If journal article, systematic review, original research, other
	Report
	Other?
	Authors (list each)
	Year of Publication
	Journal
	Author Affiliations (for each author)
	COI statement (verbatim for each author)
	Funding Statement (verbatim) (select all that apply)
	Cannabis industry
	Pharmaceutical industry
	Government
	NGO / non-profit
	Other, specify
	Country where published
Study objectives	Study objective (verbatim)
	Overall study objective
	Efficacy
	Harm / safety
Study design	Systematic review
	Review of case reports
	Observational / epidemiological
	Randomized controlled trial
	Other, specify



included studies using the program citationchaser.[13]

Challenges to Classification of Exposures and Outcomes

Tianjing Li, MD, MHS, PhD
Associate Professor, School of Medicine, Colorado School of Public Health

colorado school of public health

Cannabis Research & Policy Project

Exposures

Specific type of product and route (Kaczor 2021)

The type of edible was identified and documented in 91% of cases. Chocolates (38%) and gummies (34%) were the most common (Supplementary Table 2), but other types included brownies, juice and other liquids, toaster pastries, and cookies. A specific edible product name was identified and documented in 22% of cases, with product names like *TKO Edibles*, *Stoney Patch*, *Willy Wonka*, *Chilly Wonka*, and *Patriot Care Dispensary* (Supplementary Table 3).

Specific route but no type (Mauzay 2021)

Inclusion/Exclusion Criteria

Given that different routes of administration can produce differential effects across varying periods of time, analyses were restricted to sessions involving inhaled cannabis (e.g., smoking, vaping), which is the most common route of administration (Sexton et al., 2016). Further, only sessions in which symptoms were re-rated within 4 hours of cannabis use were included, since the effects of inhaled cannabis dissipate after 3-4 hours (Grotenhermen, 2003; Menkes et al., 1991). Finally, given concerns about the validity and reliability of user generated data, only sessions for which THC and CBD concentrations were obtained directly from producers were analyzed.

Broad type/potency (Venkatesan 2020)

Cannabis concentrate[c]

Potency of cannabis concentrate

- Low (around 20% THC)
- Medium (40%)
- High (60%)
- Very high (80%)
- Do not know
- Unknown/missing

Potency of smoked cannabis

- Low (<5% THC)
- Medium (10% THC)
- High (15% THC)
- Very high (20% THC)
- Do not know

Type of cannabis product studied

Use the study definition.

Select an Answer

- Select an Answer
- Cannabis / marijuana (generic, not specified)
- Kief
- Concentrate
- Dab
- Extract
- Hash / hashish
- Oil
- Resin
- Skunk
- Wax
- Unspecified (potency without product type)
- Not reported
- Other

Potency

Potency ranges in % (Venkatesan 2020)

Cannabis concentrate
- Potency of cannabis concentrate
  - Low (around 20% THC)
  - Medium (40%)
  - High (60%)
  - Very high (80%)
  - Do not know
  - Unknown/missing

Categorical but no thresholds (Di Forti 2014)

Type used independent of frequency of use
- Hash-like (low potency)
- Skunk-like (high potency)

Mg and mg/kg (Kaczor 2021)

THC consumed (mg), median (IQR)

THC dose (mg/kg), median (IQR)

THC potency range

List the highest and lowest potency THC reported (numeric and units).

Highest Potency (numeric value)	Highest Potency (units)
...	Select an Answer
Lowest Potency (numeric value)	L
...	

Select an Answer
%
mg
mg/kg
mg/ml
Other

Normalize the potency? Need help!

Frequency

General frequency (Venkatesan 2020)

Frequency of smoking highly potent cannabis concentrate
- Never
- Almost never
- Sometimes
- Most of the time
- Almost always
- Always
- Do not know
- Unknown/missing

Daily or non-daily (Di Forti 2014)

Frequency of use independent of type used
- Less than daily
- Daily

Different frequencies for different products (Bid

Table 1
Comparison of survey respondents who frequently use concentrates (FC) to those who never use concentrates (I rarely use concentrates (FF).

		FC	NC	p-V
N		67	64	–
Demographics	Gender (% male)	59.7%	42.2%	0.(
	Age	37.5 (15.8)	47.1 (17.5)	<
	Age at onset of regular cannabis use	21.6 (12.5)	25.2 (16.4)	0.1
	Race/ethnicity			0.7
	White non-Hispanic	78.8%	79.7%	
	White Hispanic	11.5%	7.8%	
	Asian	1.5%	1.6%	
	African American	1.5%	6.3%	
	Native American	3.0%	4.7%	
	Native Hawaiian/Pacific Islander	1.5%	0%	
	Employment status	–	–	0.5
	Full-time employed/student	58.2%	48.4%	
	Part-time employed/student	11.9%	12.5%	
	Unemployed/retired/homemaker	29.9%	39.1%	
Cannabis use	Days vaping/smoking flower per week	6.0 (2.1)	4.2 (3.1)	<
	Percent daily users	79.1%	47.6%	0.(
	Per-day vaping/smoking use sessions (among daily users)	4.6 (1.5)	3.9 (1.7)	
	Days of concentrate use per week	6.7 (0.8)	–	–
	Percent daily users	79.1%	0%	–
	Per-day concentrate use sessions (among daily users)	4.1 (1.7)	–	
	Days of edible use per week	1.4 (2.1)	1.5 (2.3)	0.7

Frequency of intake (verbatim)

Record VERBATIM with abbreviations spelled out in full.

...

Frequency of intake (select all that apply)
- ☐ Daily (once vs >1 daily)
- ☐ Weekly (once weekly vs > 1 time weekly)
- ☐ Monthly (once vs > 1 time monthly)
- ☐ Heavy
- ☐ Occasional
- ☐ Frequent
- ☐ Not reported
- ☐ Other

Outcomes

One outcome domain (Di Forti 2014)

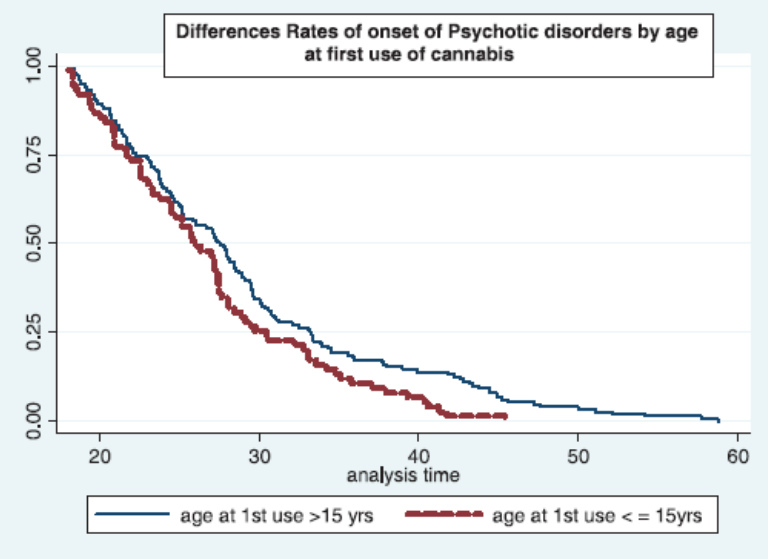
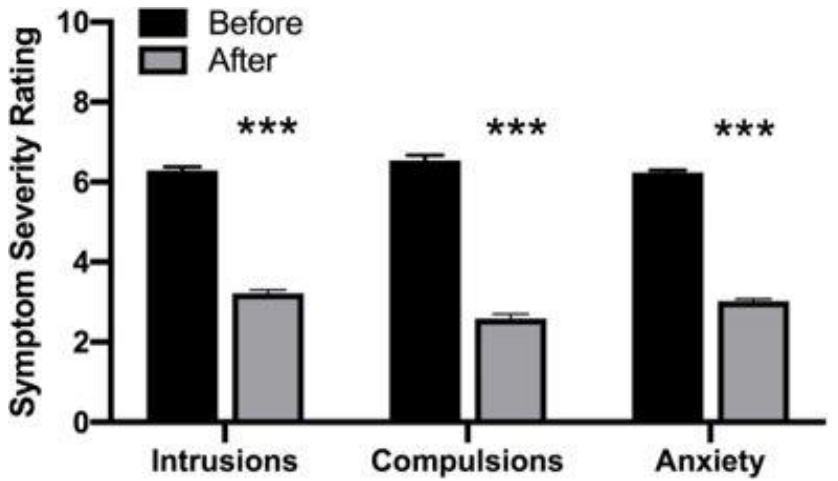


Fig. 2. Kaplan–Meier survival curves showing rate (*y* axis) of onset for participants grouped by age at first use of cannabis. Subjects who started using cannabis at age 15 years or younger experience their onset of psychosis (*x* axis in years) earlier compared with those who started using cannabis older than 15 years of age.

Multiple outcome domains (Kaczor 2021)

Signs/symptoms, n (%)	Lethargy/somnolence	19 (59%)
	Ataxia/dizziness	16 (50%)
	Confusion	11 (34%)
	Vomiting	9 (28%)
	Seizure	1 (3%)
Vital sign abnormalities, n (%)	Tachycardia	29 (91%)
	Hypotension	24 (75%)
	Hypertension	12 (38%)
	Bradypnea	11 (34%)
	Bradycardia	2 (6%)
	Hypoxia	2 (6%)
	Hypercarbia	2 (6%)

Multiple symptoms in one outcome domain (Mauzay 2021)



Outcomes (cont'd)

Multiple outcome domains (Venkatesan 2020)

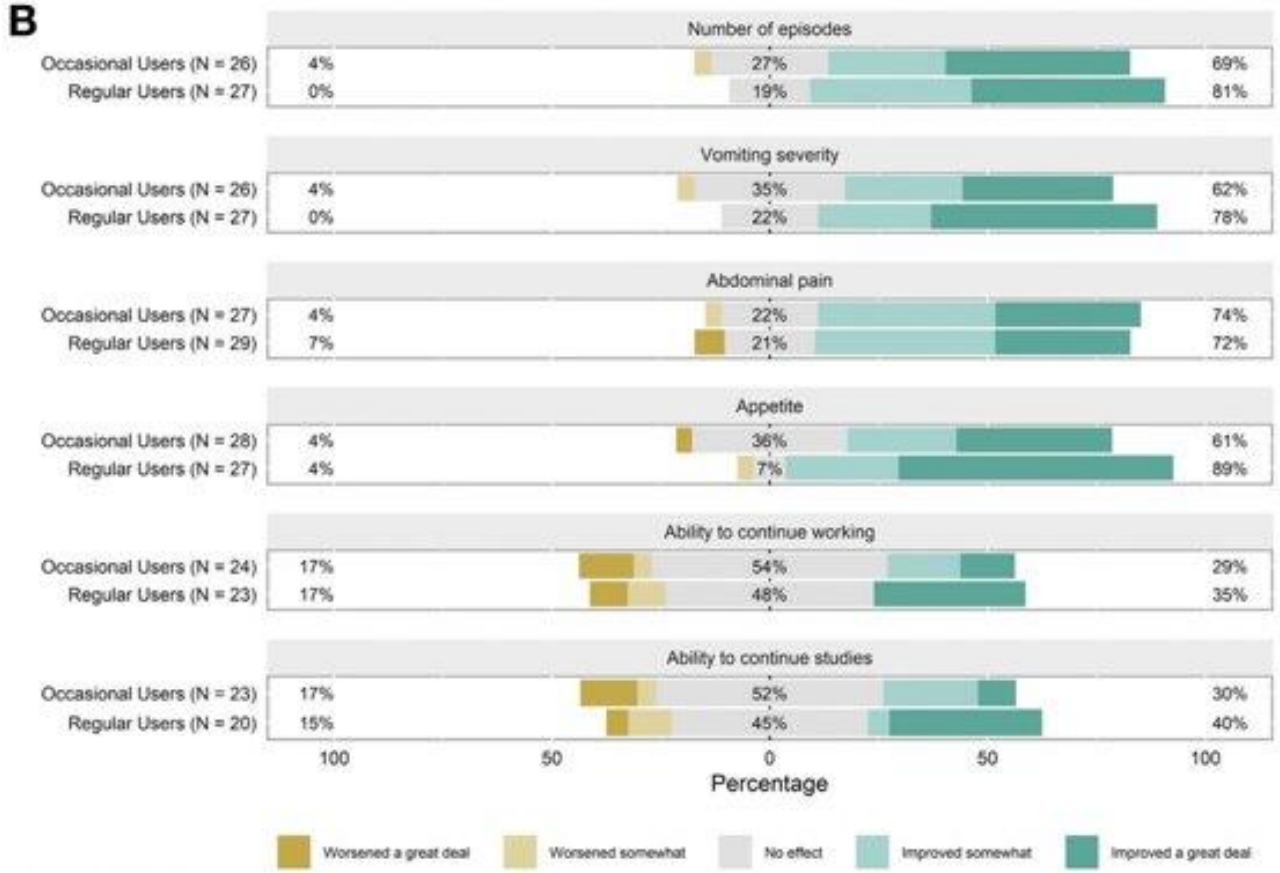


Figure 2. (*A*) Self-reported effects of cannabis use on symptoms, health care utilization, and functioning in all cannabis users. (*B*) Denotes effects of cannabis use in occasional and regular users.

Outcomes

Enter all reported outcomes based on domains listed in the review protocol. Contact the review team if you are unsure.

Outcome domains (select all that apply)

- ☐ Cancer
- ☐ Cardiometabolic
- ☐ Gastrointestinal
- ☐ Immunity
- ☐ Injury and death
- ☐ Mental health
- ☐ Neurological
- ☐ Ocular
- ☐ Pain
- ☐ Pre-, peri-, and neonatal
- ☐ Pregnancy related outcomes (mother)
- ☐ Psychosocial
- ☐ Respiratory
- ☐ Sexual health and reproductive health
- ☐ Sleep
- ☐ Substance use /substance dependence
- ☐ Other domain

Exposures-Outcomes Association

Types of users related to outcome but no pote
(Venkatesan 2020)

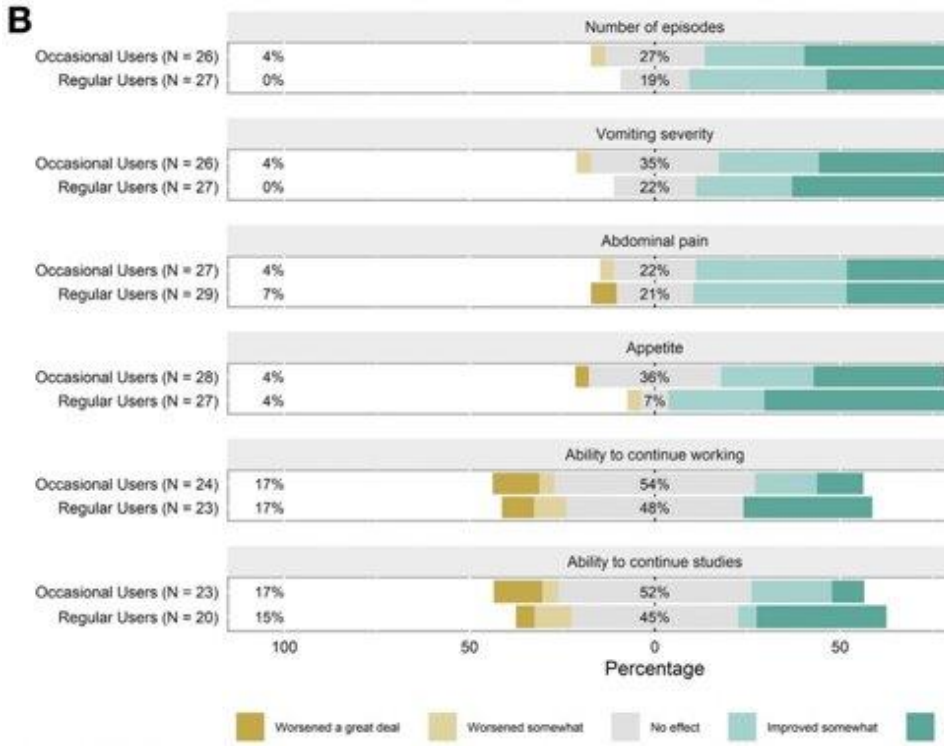


Figure 2. (*A*) Self-reported effects of cannabis use on symptoms, health care utilization, and functioning (*B*) Denotes effects of cannabis use in occasional and regular users.

Quantitative data and analyses

Instructions: This applies to ANY of the listed exposures and outcomes above. Look in the Results section for relevant information.

Reported data (select all that apply)

Effect estimate (e.g., difference in means, odds ratios, risk ratios)

Measure of precision (e.g., confidence interval, standard error)

Significance tests (e.g., p-value)

Sample size (e.g., number of people)

Correlation coefficient (e.g., Pearson correlation coefficient)

Regression coefficient

Raw data (e.g., counts sufficient to populate a 2x2 table, proportions)

- [ ] Effect estimate
- [ ] Measure of precision
- [ ] Significance tests
- [ ] Sample size
- [ ] Correlation coefficient
- [ ] Raw data
- [ ] Regression coefficient
- [ ] Unclear
- [ ] Not reported

In searching for a ‘perfect’ study…

J Pain. 2016 September ; 17(9): 982–1000. doi:10.1016/j.jpain.2016.05.010.

An Exploratory Human Laboratory Experiment Evaluating Vaporized Cannabis in the Treatment of Neuropathic Pain from Spinal Cord Injury and Disease

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Abstract

Using eight hour human laboratory experiments, we evaluated the analgesic efficacy of vaporized cannabis in patients with neuropathic pain related to injury or disease of the spinal cord, the majority of whom were experiencing pain despite traditional treatment. After obtaining baseline data, 42 participants underwent a standardized procedure for inhaling 4 puffs of vaporized cannabis containing either placebo, 2.9%, or 6.7% delta-9-tetrahydrocannabinol on three separate occasions. A second dosing occurred 3 hours later; participants chose to inhale 4 to 8 puffs. This flexible dosing was utilized to attempt to reduce the placebo effect. Using an 11-point numerical pain intensity rating scale as the primary outcome, a mixed effects linear regression model demonstrated a significant analgesic response for vaporized cannabis. When subjective and psychoactive side effects (e.g., good drug effect, feeling high, etc.) were added as covariates to the model, the reduction in pain intensity remained significant above and beyond any effect of these

More Results from Screening

Full text screening form

Highest THC potency studied (number)

...

Highest THC potency studied (units)

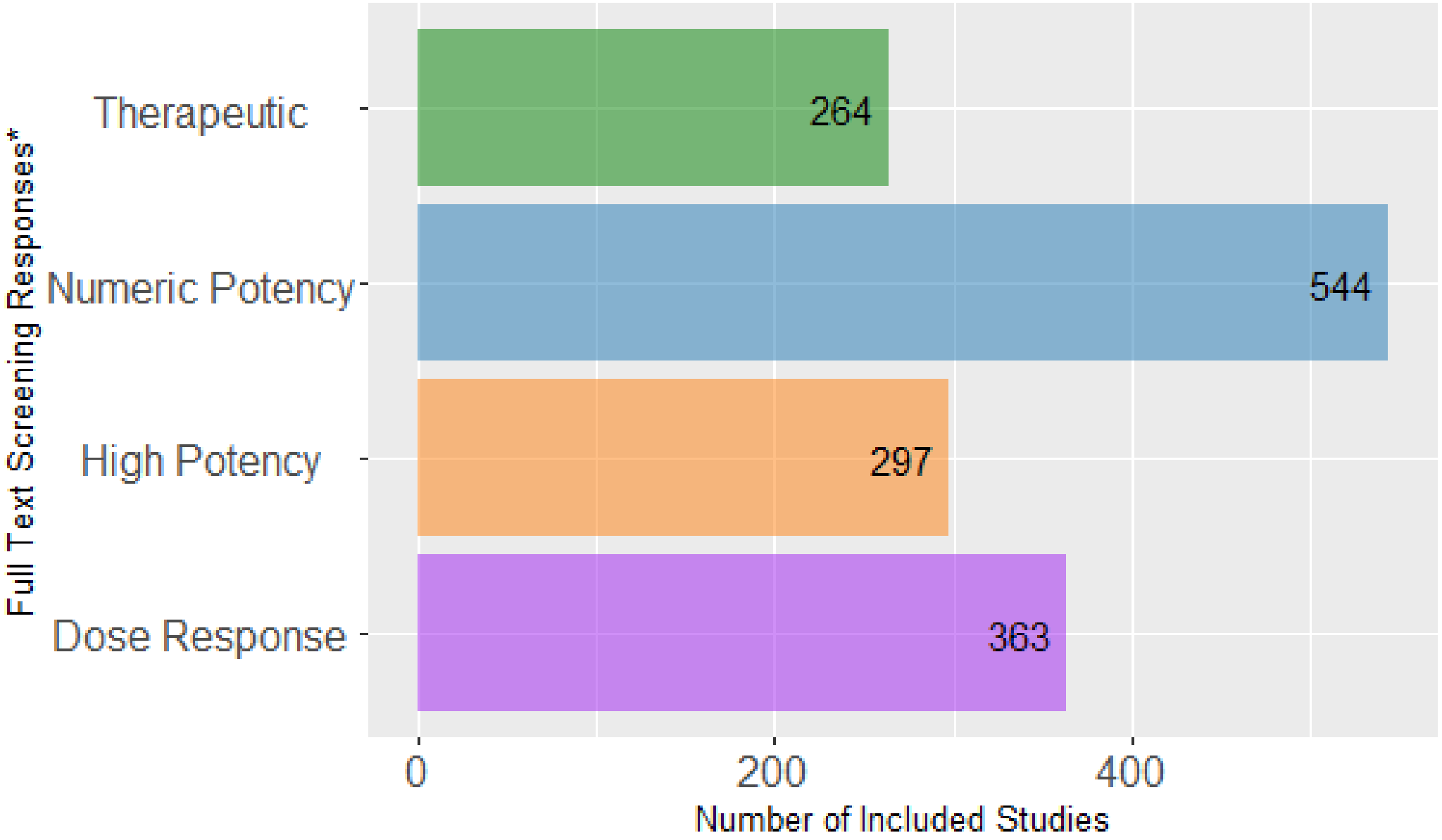
Select an Answer

Numeric Potency

Does the report describe any of the following? (check all that apply)

- ☐ Compared different dose (dose-response), frequency, duration, route, or type of exposure; or self-titration — **Dose Response**
- ☐ Interventional study that evaluated the therapeutic use of cannabis for a medical condition — **Therapeutic**
- ☐ Study of high-potency THC products (e.g. concentrates, vaping, edible) — **High Potency**

Figure 1. Reported ‘exposures’ for included studies (n = 789)



*Categories not mutually exclusive

Figure 2. Type of potency reported (n = 789)

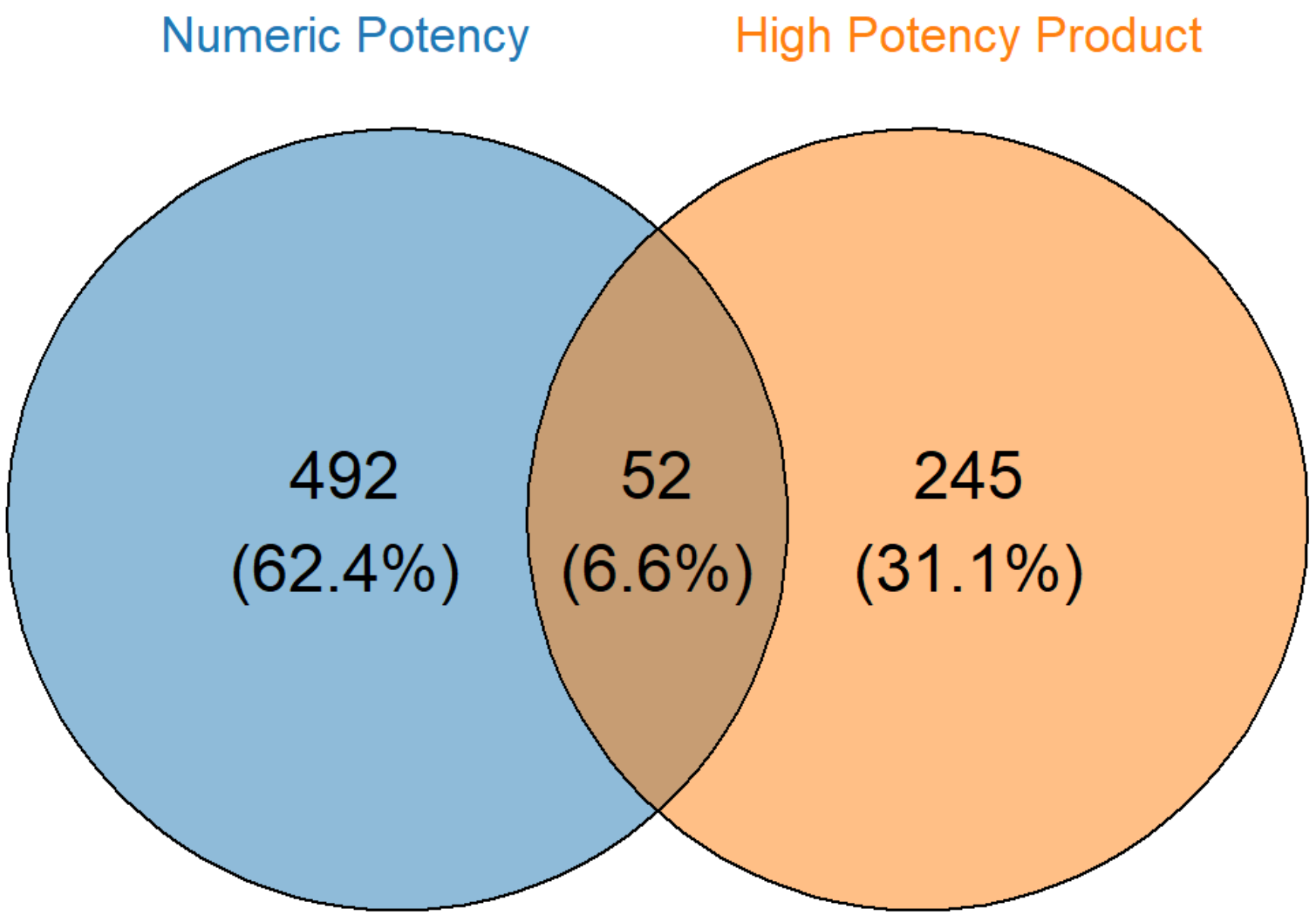
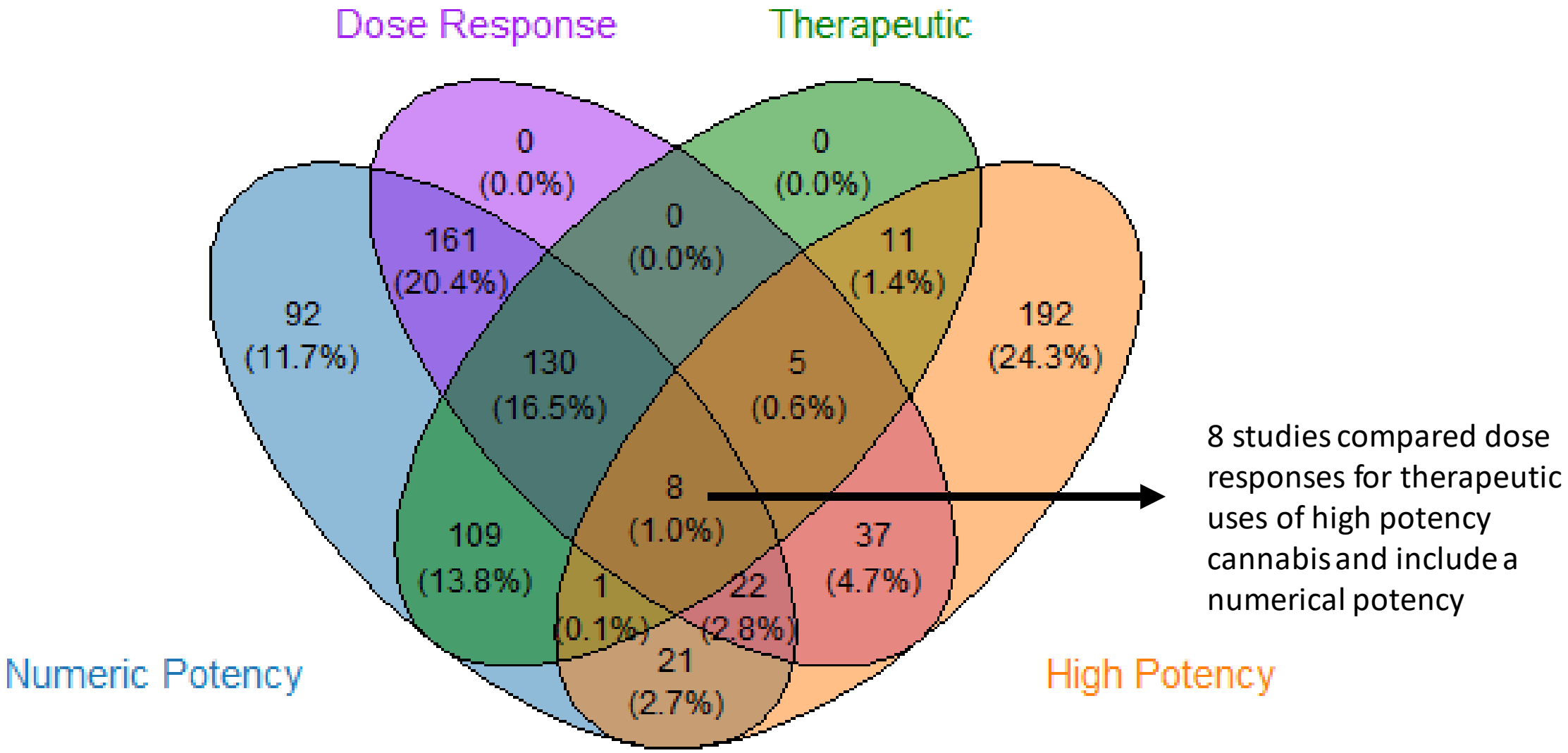


Figure 3. Overlap of all exposures examined for included studies (n = 789)



8 studies compared dose responses for therapeutic uses of high potency cannabis and include a numerical potency

Figure 4. Frequency of **numeric potencies** by unit (n = 470)

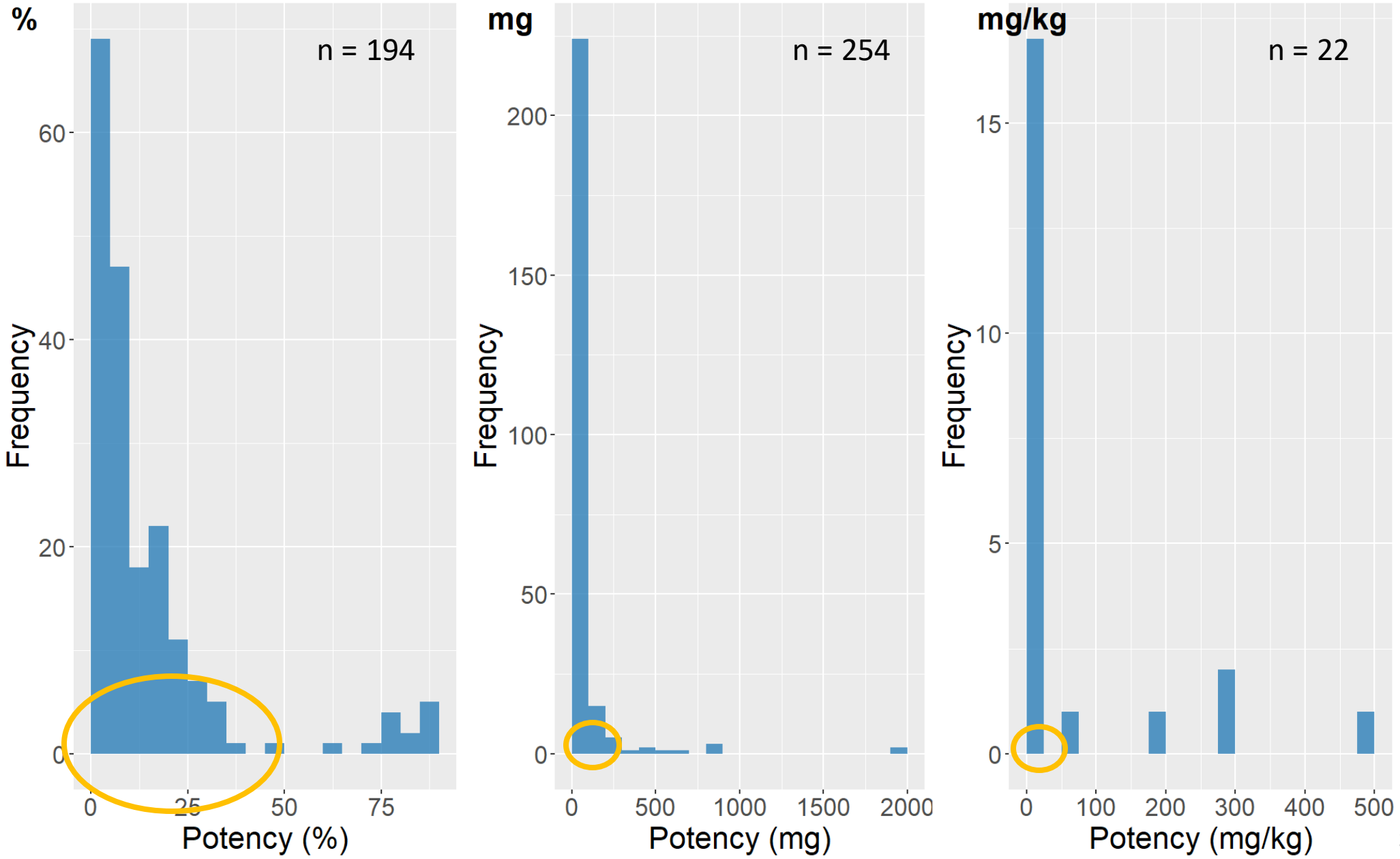
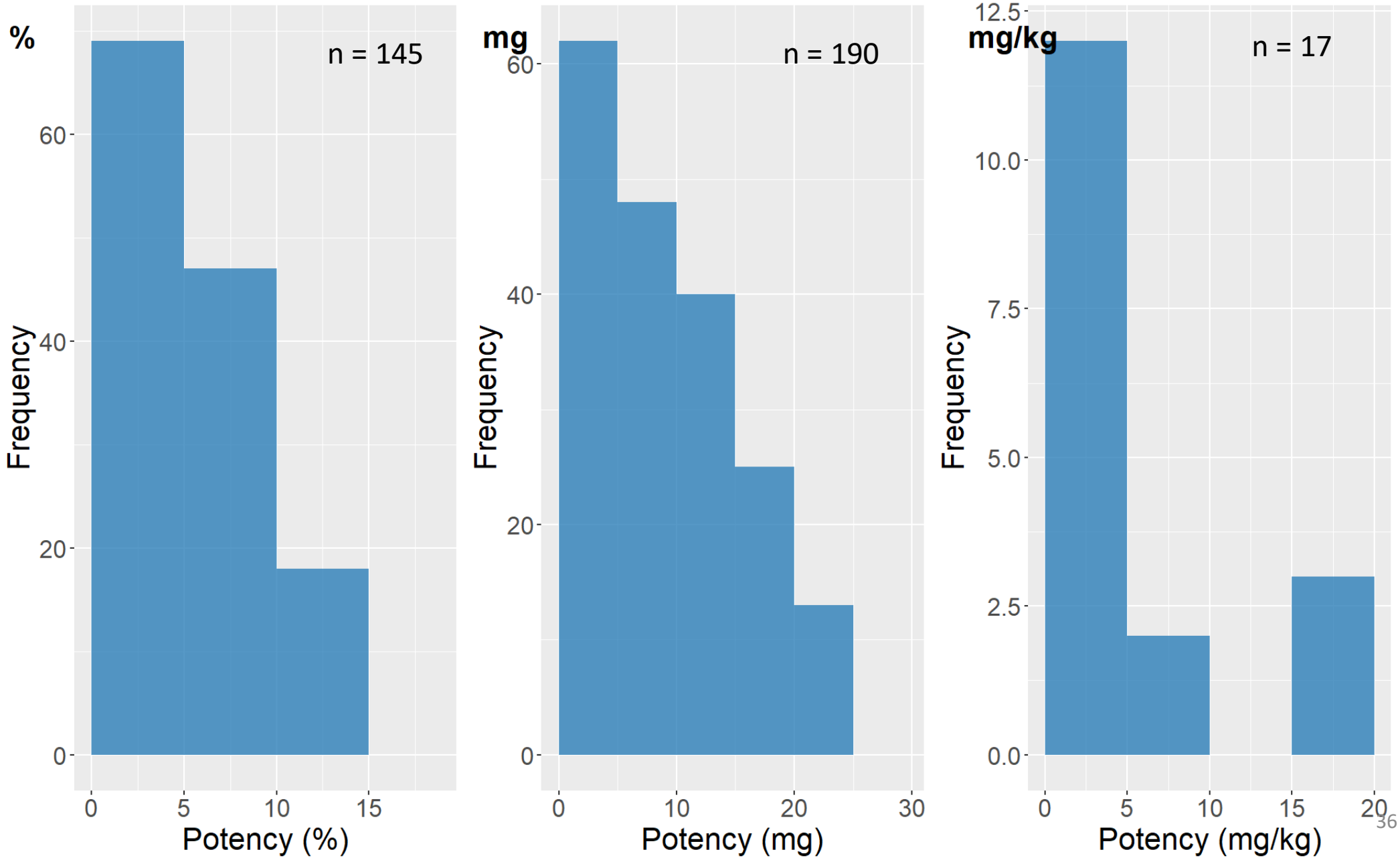


Figure 5. Frequency of numeric potencies by unit, outliers removed (n = 352)



Interim Results from Data Extraction

Study Characteristics

- *Author affiliations*
- *Conflict of interest of any author*
- *Funding of the study*
- *Study design*
- *Overall study objectives*
- *Restrictions on eligibility criteria*
- *Analyzed indicators of health equity*
- *Included subgroup analysis or stratification*
- *Analyzed structural racism or inequities*
- *Focused exclusively on historically excluded populations*
- *Country*
- *Sex*
- *Race*
- *Ethnicity*
- *Age*
- *Exposure history*

Table 1. Characteristics of included studies		
Characteristic	**n**	**(%)**
Author affiliations		
Academic		
Government		
Non-governmental organization/non-profit		
Commercial/private		
Other		
Not reported		
Conflict of interest of any author		
Cannabis Industry		
Pharmaceutical Industry		
Government		
Non-governmental organization/non-profit		
States authors have no conflicts		
Other		
Not reported		
Funding for the study		
Cannabis Industry		
Pharmaceutical Industry		
Government		
Non-governmental organization/non-profit		
States authors have no conflicts		
Other		
Not reported		
Study design		
Systematic review		
Case report/series		
Observational/epidemiological		
Randomized controlled trial		
Other		
Unclear		
Not reported		
Overall study objectives		
Efficacy		

Introduction to Evidence Maps and Planned Approach

Lisa Bero, PhD
Professor, School of Medicine

Rosa Lawrence, BA
Professional Research Assistant, Center for Bioethics and Humanities,
University of Colorado School of Medicine

colorado school of public health

Cannabis Research & Policy Project

Projected Results – Evidence Maps

NOTE: Dummy data used

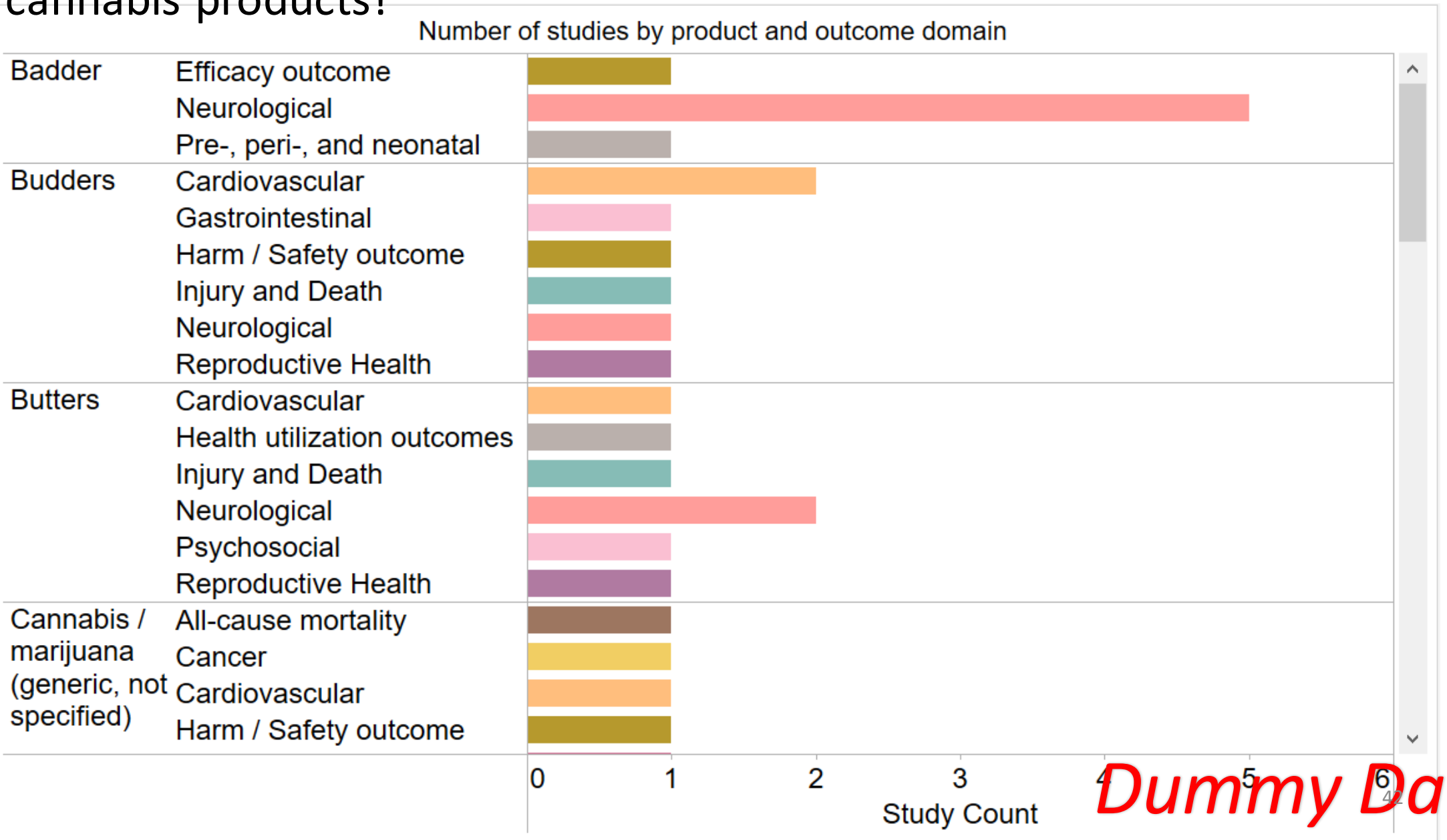
1. Of the different types of cannabis products studied, how many have reported potency, frequency, and/or duration?

Number of studies by product and exposure

	Badder	Budders	Butters	Cannabis / marijuan..	Cannabis concentrate	Crumble	Dab	Extract	Hash / hashish	Oil	Resin	Rosin	Skunk	Sugar	Wax	Other
Potency Reported	5	3	6	4	4	4	5	5	6	5	7	5	4	5	6	5
Frequency Reported	6	7	6	6	5	5	5	5	5	6	5	6	5	5	5	5
Duration Reported	6	5	6	6	4	3	3	4	4	3	4	3	4	2	4	4

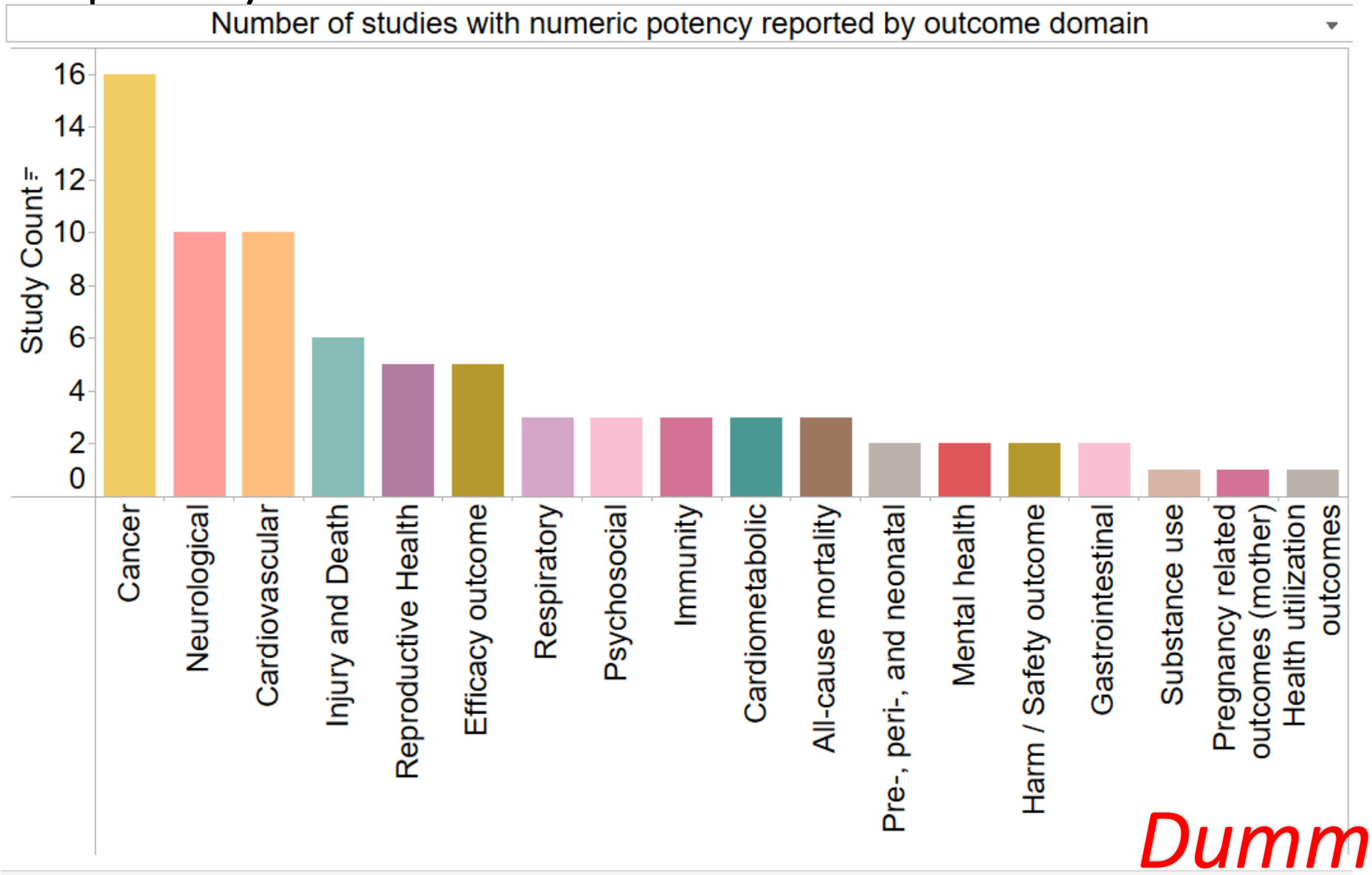
Dummy Data

2.A. What types of outcomes have been studied for the different types of cannabis products?



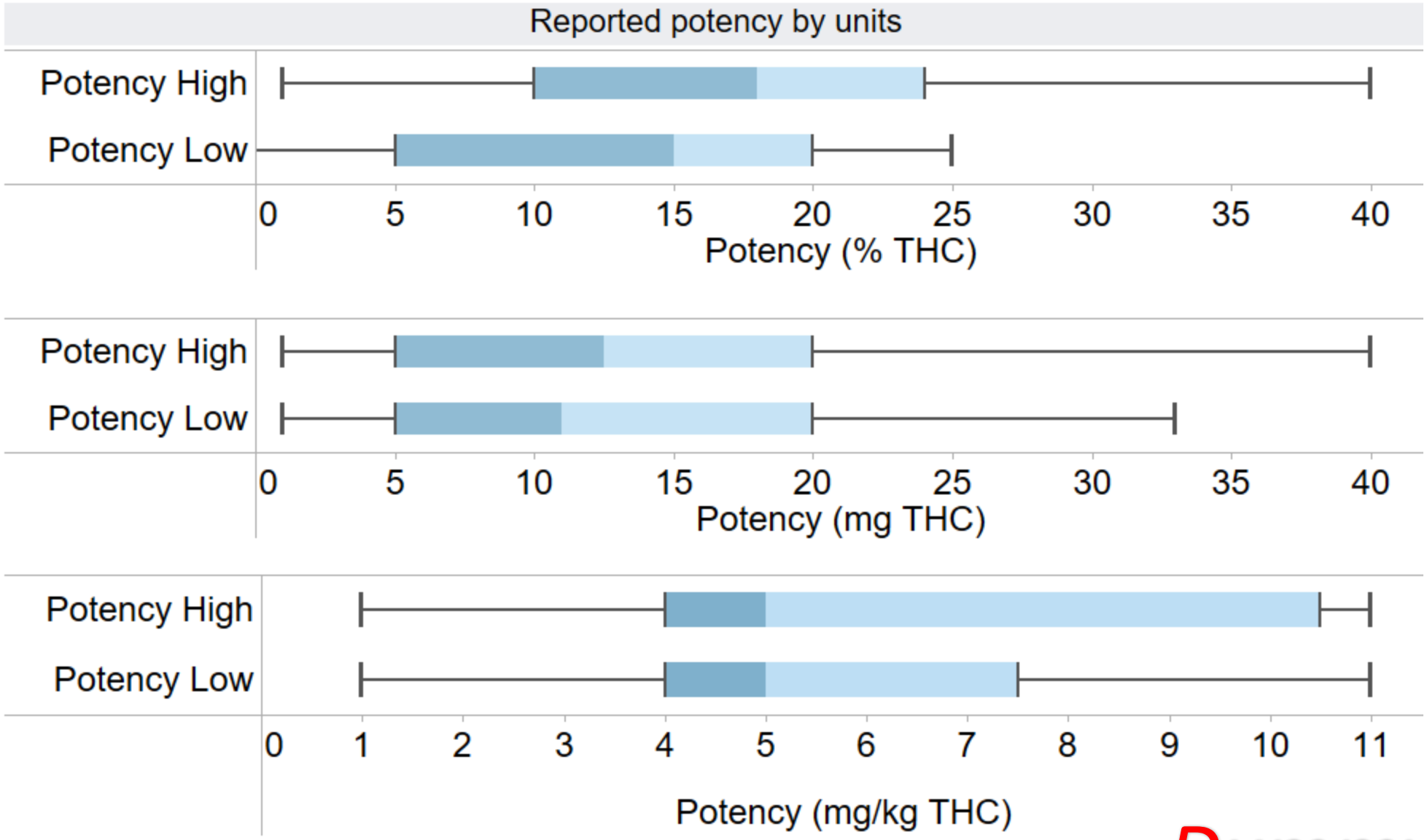
Dummy Data

2.B. What types of outcomes have been examined for studies that reported potency?



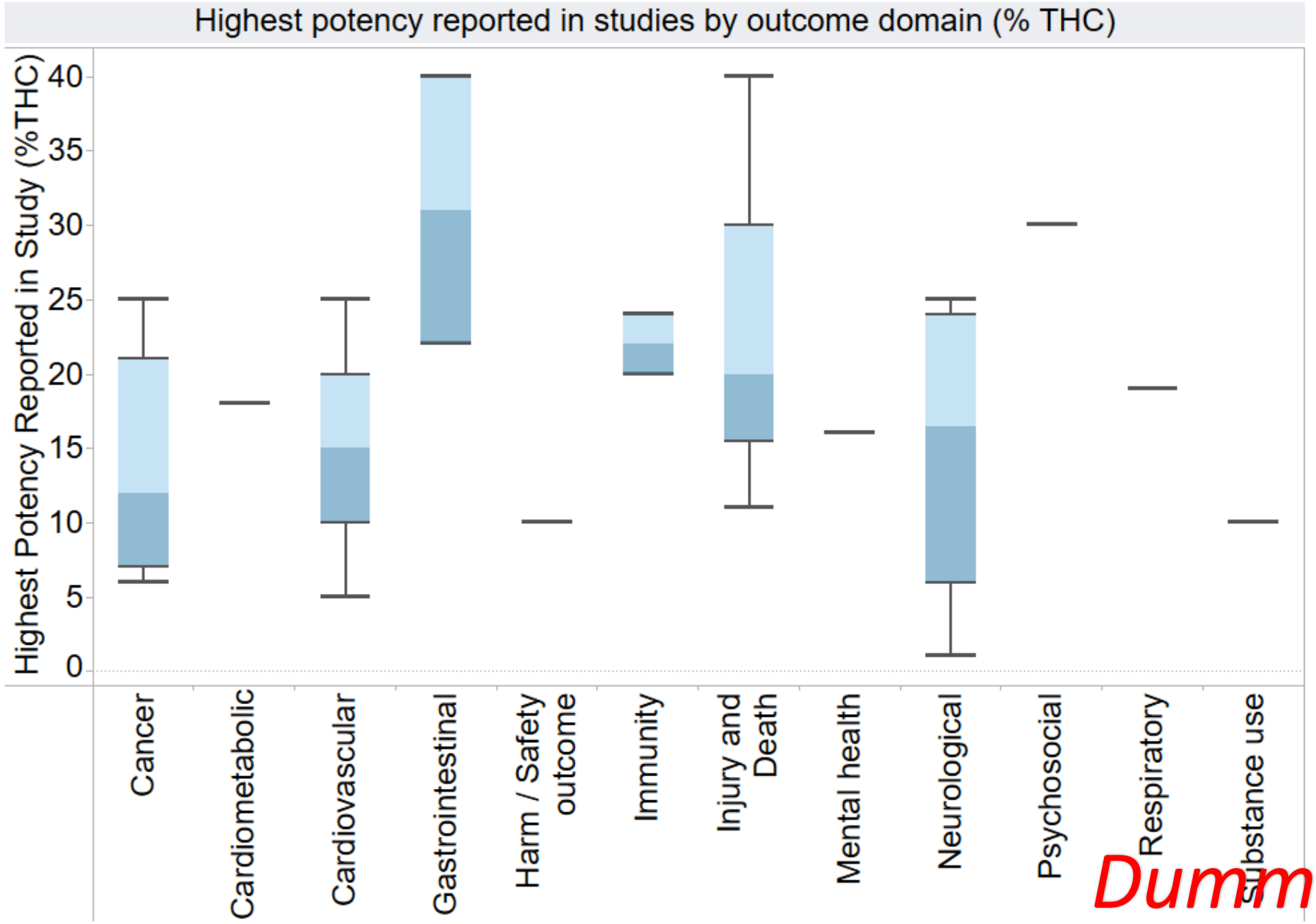
Dummy Data

3. What potencies have been reported in the literature?



Dummy Data

4. What potencies have been studied by outcome?



Dummy Data

Tableau dashboard of study results

Study Population Filters:

Age (Multiple values)

Ethnicity (Multiple values)

Race (Multiple values)

n 1 — 1228

Outcome Domain and Study Design for Selected Study Population

Outcome Domain	Case report / case series	Observational / epidemiological	Randomized controlled trial	Systematic review	Other
All-cause mortality, occupational injury, motor veh..				6	
Cancer				4	
Cardiometabolic	1	1		1	
Cardiovascular		2		14	
Efficacy outcome				6	
Gastrointestinal		1		2	
Harm / Safety outcome				6	
Health utilization outcomes (e.g., hospital admissi..				6	
Immunity			1	2	
Injury and Death				7	
Mental health				2	1
Neurological	2	2	2	2	3
Ocular				2	
Pre-, peri-, and neonatal	2			2	

Heat map showing the number of studies for outcome domains and study design

Studies included in selected categories

Ref ID	Design	Outcome..	Product	Exposure Route	Exposure Freqency	Exposure Duration	
2	Case rep..	Pre-, peri..	Badder	Inhaled: vaped	Weekly (once weekly v..	Acute (If so, defined as)	https..
18	Observat..	Neurolog..	Badder	Inhaled: smoked	Heavy	Chronic (If so, defined as)	https..
34	Case rep..	Sleep	Badder	Inhaled: vaped	Daily (once vs >1 da..	New user (no previous use)	https..
50	Systema..	Pregnan..	Badder	Inhaled: vaped	Monthly (once vs > ..	No use in previous year	https..
66	Systema..	Cardiova..	Badder	Inhaled: vaped	Occasional	Not described	https..

List of included studies

Link to articles

Dummy Dat

Filter by study population

Filter selections update the tables

Study Population Filters:

Age

Adolescent (9-17)

Enter search text

- [x] Adolescent (9-17)
- [ ] Adult (25-64)
- [ ] Birth to < 1 years of age
- [ ] Child (1 to less than 9 years)
- [ ] In utero (offspring stage)
- [ ] Older adult (65 and over)
- [ ] Postpartum breastfeeding
- [ ] Postpartum maternal
- [ ] Preconception
- [ ] Pregnancy (mother's stage – trime…
- [ ] Young adult (18-24)

Ethnicity

(Multiple values)

Race

(Multiple values)

1228

ain and Study Design for Selected Study Population

Outcome Domain	Observational / epidemiological	Systematic review	Other
All-cause mortality, occupational injury, motor veh..		2	
Cardiovascular	1	4	
Harm / Safety outcome		1	
Health utilization outcomes (e.g., hospital admissi..		1	
Injury and Death		1	
Neurological	2		
Ocular		2	
Respiratory	1	1	1
Sexual Health and reproductive health (e.g., fertili..		1	

Studies included in selected categories

Ref ID	Design	Outcome..	Product	Exposure Route	Exposure Freqency	Exposure Duration	
18	Observat..	Neurolog..	Badder	Inhaled: smoked	Heavy	Chronic (If so, defined as)	https://w..
83	Systema..	Sexual H..	Budders	Inhaled: smoked	Daily (once vs >1 da..	Acute (If so, defined as)	https://w..
68	Systema..	Cardiova..	Butters	Ingested: solid by m..	Not described	Not described	https://w..
33	Systema..	Ocular	Cannabis / ..	Inhaled: smoked	Not described	Acute (If so, defined as)	https://w..

Dummy Data

Study Population Filters:

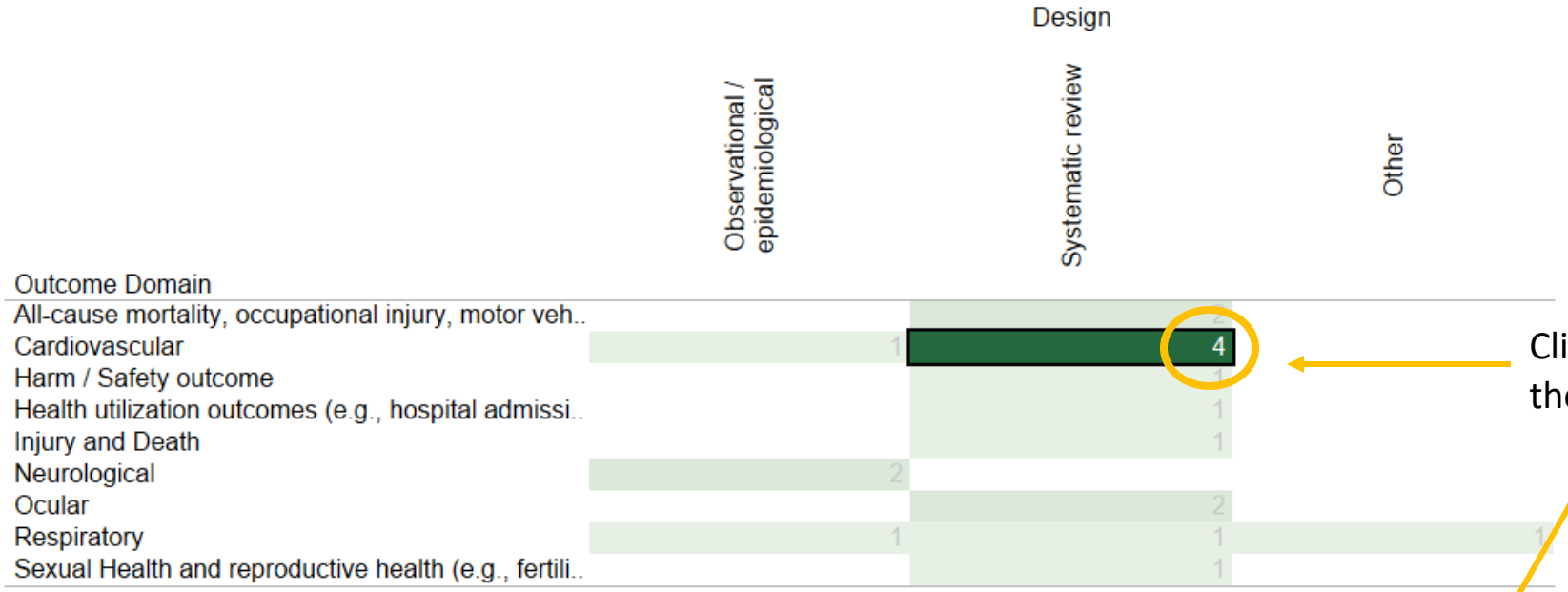
Age: Adolescent (9-17)

Ethnicity: (Multiple values)

Race: (Multiple values)

n: 1 — 1228

Outcome Domain and Study Design for Selected Study Population



Click cells to filter to the specified studies

Studies included in selected categories

Ref ID	Design	Outcome..	Product	Exposure Route	Exposure Freqency	Exposure Duration	
68	Systema..	Cardiova..	Butters	Ingested: solid by m..	Not described	Not described	https://w..
73	Systema..	Cardiova..	Hash / hash..	Inhaled: smoked	Occasional	Not described	https://w..
43	Systema..	Cardiova..	Resin	Inhaled: inhaler	Monthly (once vs > ..	No use in previous year	http://onl..
63	Systema..	Cardiova..	Wax	Inhaled: inhaler	Weekly (once weekly v..	Not described	https://w..

Dummy Data

Study Population Filters:

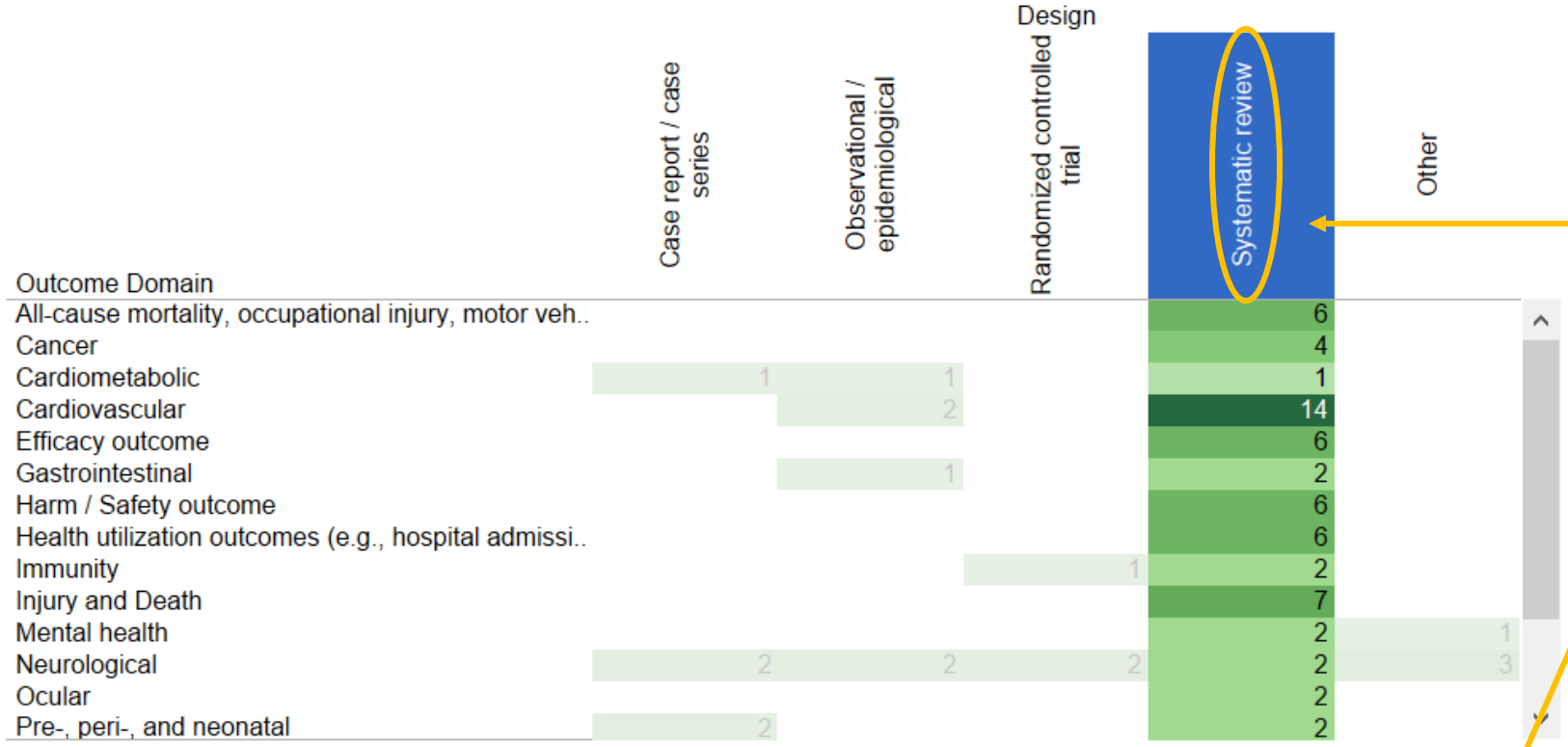
Age: (Multiple values)

Ethnicity: (Multiple values)

Race: (Multiple values)

n: 1 — 1228

Outcome Domain and Study Design for Selected Study Population



Click column to filter by study design

Studies included in selected categories

Ref ID	Design	Outcome..	Product	Exposure Route	Exposure Freqency	Exposure Duration	
50	Systema..	Pregnan..	Badder	Inhaled: vaped	Monthly (once vs > ..	No use in previous year	https..
66	Systema..	Cardiova..	Badder	Inhaled: vaped	Occasional	Not described	https..
82	Systema..	Injury an..	Badder	Inhaled: smoked	Not described	Chronic (If so, defined as)	https..
98	Systema..	Efficacy ..	Badder	Topical	Weekly (once weekly v..	Acute (If so, defined as)	https..
35	Systema..	Injury an..	Budders	Inhaled: inhaler	Weekly (once weekly v..	Experienced user (any previ..	https..

Dummy Data

Next Steps

- Complete data extraction (anticipated by August 2022)
- Assess the scope of the evidence and qualitatively synthesize the evidence identified
- Provide initial review findings to the Science Review Council
- Provide initial recommendations: targeted reviews and modeling, research recommendations, initial policy recommendations
- Plan for the educational campaign