



CLINICIAN CONSULTATION CENTER
Translating science into care

Medical Cannabis and Chronic Pain Management

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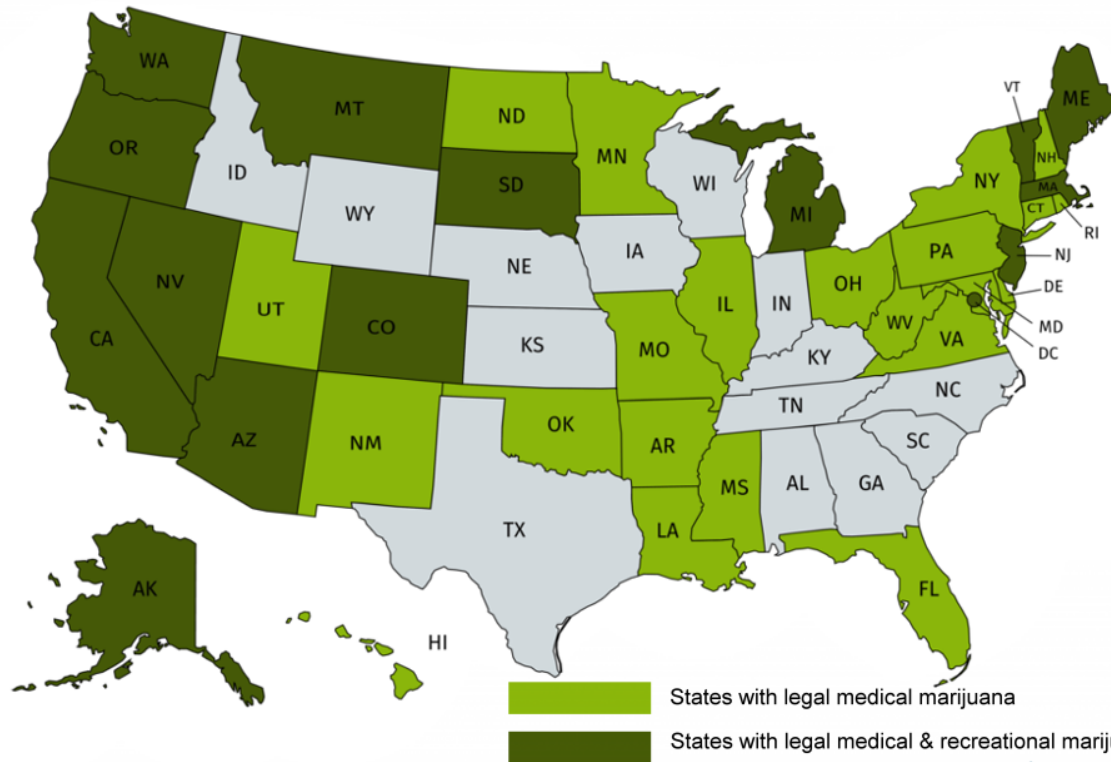
Disclosures

- Marijuana is not FDA approved
- Off-label use of FDA approved cannabinoids (dranabinol, nabilone) may be discussed



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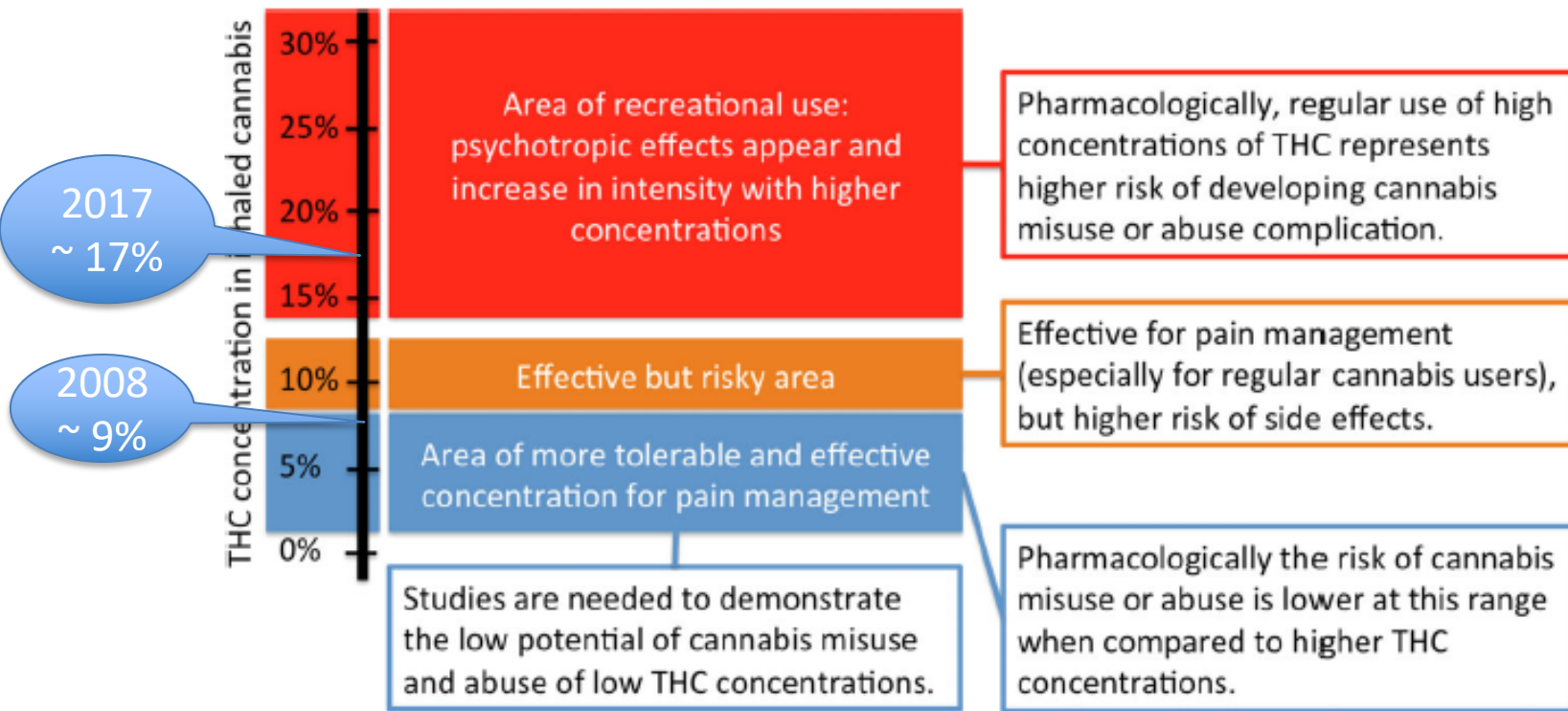
Legal Medical & Recreational Marijuana States



BRITANNICA
PROCON.ORG | RELIABLE.
NONPARTISAN.
EMPOWERING.



Recreational vs Medicinal





Cannabis Pharmacology

Two primary active components

- Delta-9-tetrahydrocannabinol (THC)
- Cannabidiol (CBD)

Two primary receptors

- Cannabinoid receptor type 1 (CB1)
- Cannabinoid receptor type 2 (CB2)



Cannabis Formulations

- FDA approved products
 - Dronabinol- plant derived THC
 - Nabilone- synthetic THC
 - Canabidiol- pharmaceutical CBD oil
- Products approved in other countries
 - Nabixmols- plant derived THC/CBD
- Retail cannabis products
 - plant, creams, oils, gels, gummies, tonics



Cannabis Pain Research

Indication	Total Number of Studies	Oral	Oromucosal Spray	Smoked cannabis
MS Spasticity	14	8	5	1
Neuropathic Pain	7	1	3	3
Chronic Pain	4	3	1	-

JAMA 2015;313:2474-2483

Canadian Family Physician 2015;61:e372-81



Neuropathic Pain and Smoked Cannabis

HIV peripheral neuropathy

- Ellis et al. 2009 (1-8% THC vs placebo)
 - 46% vs 18% with reduction in pain
- Abrams et al. 2007 (3.56% THC vs placebo)
 - 52% vs 24% with reduction in pain

Mixed neuropathic pain syndromes

- Wilsey et al. 2008 (7% THC vs placebo)
 - 61% vs 26% with reduction in pain



Evidence for Chronic Neuropathic Pain

Pooled Analysis of all medications:

NNTB = 20 for 50% or greater pain relief

NNTB = 11 for pt global impression change

NNTH = 25 discontinuation for adverse affects

16 studies (2 dronabinol, 2 nabilone, 10 oromucosal spray, 2 smoked cannabis)

NNTB- number needed to treat for an additional beneficial outcome

NNTH – number needed to treat for an additional harmful outcome



Co-administration with Opioids

- Single dose dronabinol + baseline opioid
 - 10 and 20mg doses superior to placebo for all pain measures
- 4 week open label + baseline opioid
 - Pain improved across all time points

(median MME 47.5mg for > 2 years)

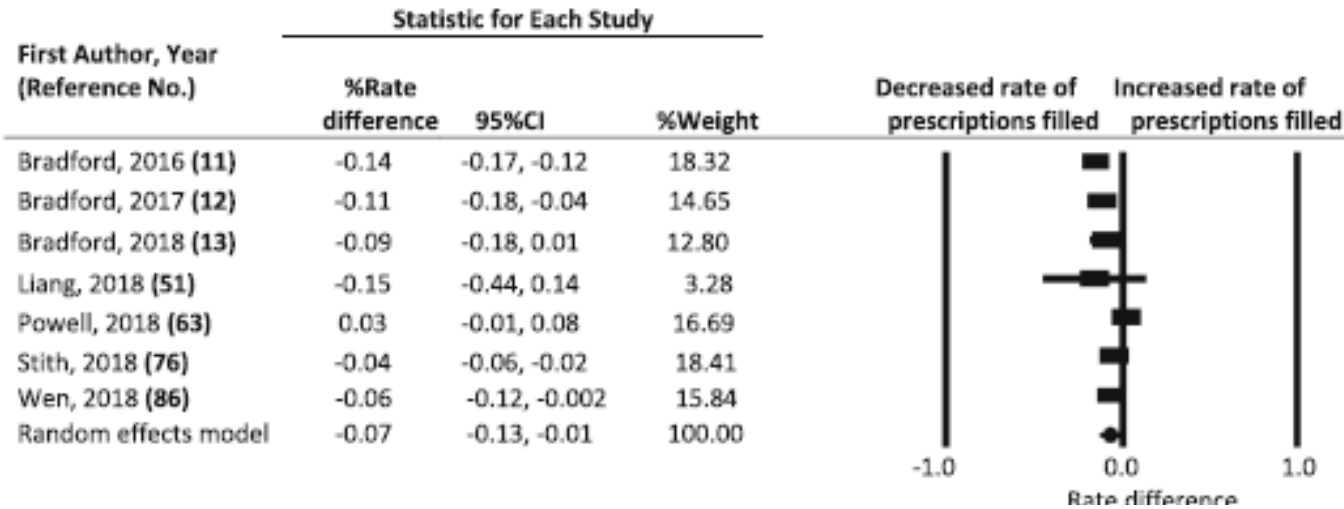


Opioid Sparing?

- Pre-clinical data meta-analysis
 - Effective dose of morphine 3.6 times less with THC than morphine alone (7 studies)
 - Effective dose of codeine 9.5 times lower with THC than codeine alone (2 studies)
- Clinical data
 - No high quality data is supportive

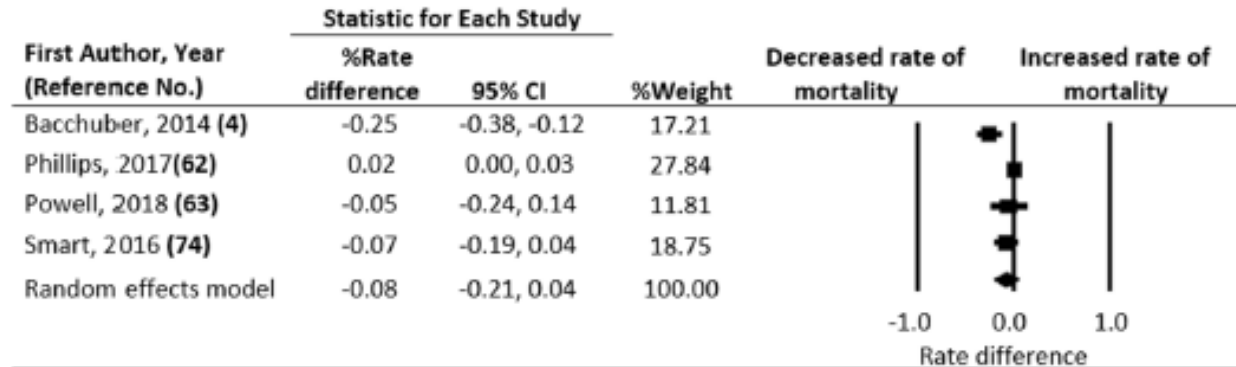


Cannabis Access and Overdose Mortality



No
significant
impact on
opioid Rx's

No
significant
impact on
opioid
overdoses





Final Thoughts

- Most research is on prescription oral products which are rarely used or preferred in practice
- Less is more for the treatment of pain
- Not likely to turn the tide on opioid consumption
- Place in therapy?

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for overdose/withdrawal and its aftercare.

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The Substance Use Warmline is a collaboration between the Indian Health Service, Northwest Portland Area Indian Health Board and the Clinician Consultation Center at the University of California, San Francisco.



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Thank you!

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