1. Medical condition proposed: Please be specific.

Treatment of menopausal symptoms

2. Provide justification for why this medical condition should be included as a qualifying debilitating medical condition for the use of medical marihuana. Be specific as to why medical marihuana should be used for this condition.

> This article reports on an exploratory study of medical cannabis users. Interviews were completed with 50 self-identified medical cannabis users recruited through notices in newspapers and on bulletin boards. They reported using cannabis for a variety of conditions including HIV-AIDS-related problems, chronic pain, depression, anxiety, menstrual cramps, migraine, narcotic addiction as well as everyday aches, pains, stresses and sleeping difficulties.

https://www.ncbi.nlm.nih.gov/pubmed/11210205

> The survey was completed by 953 participants, of whom 614 (64%) were male and 339 (36%) were female. The mean age was 40.7 years old (range 14–76).
> The majority of subjects in our study were current users who had a health professional involved in the management of their illness, and were using CBMs for at least several years
> 5 patients reported using medical marijuana for Menstrual pain.

http://www.tandfonline.com/doi/abs/10.1080/02791072.2013.805976

In a study of 1655 medical marijuana patients in California, researchers found 9.3% of all female patients used medical marijuana to treat symptoms of gynecologic disorders.

> All Females Males
> N=1655 N=452 N=1203
> Gynecologic disorders
> Dysmenorrhea 7.7%
> Endometriosis 1.8%
> Any of these gynecologic disorder ICDs 9.3%

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673028/

In a survey of 2897 medical marijuana patients in California, researchers found:

> 70 patients used medical marijuana to treat PMS symptoms.
> 50 patients used medical marijuana to treat Menstrual Cramps.
> 20 patients used medical marijuana to treat Menopause symptoms.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5569620/

> Many of the highest endorsed symptoms including irritability, depressive moods, anxiety, and sleep problems have already received empirical support for cannabis's treatment efficacy, and have been previously endorsed in a menopausal study, highlighting cannabis's potential to treat female disorders.

http://www.tandfonline.com/doi/abs/10.1080/16066359.2017.1294165?journalCode=iart20

Famously, It is speculated that Queen Victoria used medical marijuana for PMS cramps.

> Queen Victoria was the first woman to use marijuana for PMS.
> This occurred a few months after Dr. O'Shaughnessy brought cannabis to England about 1840. It was a new highly efficacious drug so lets try it. It was prescribed by a Dr. Sir Russel Reynolds physician to Queen Victoria. The Queen had previously used Opium, Coca (raw cocaine), wine and chloroform.
> The Queen obviously found that cannabis/marijuana worked well. She used it also for morning sickness and obstetrical anesthesia with no harm to fetuses. It seems that ABC TV News is way behind on PMS therapy. The new most promising therapy for PMS was discovered by Queen Victoria about 1850.
> While I was helping patients get permits to use medical marijuana, I was advised by many PMS patients that MMJ did relieve cramps and why not?
> MJ is an excellent anti-spasm drug (cramps ARE spasms) and pain killer.

http://www.salem-news.com/articles/october162009/pms_mj_pl.php

> Even Queen Victoria is said to have sipped marijuana tea prescribed by her court physician to treat menstrual cramps.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1326332/

O'Shaughnessy, W. B. 1839. "On The Preparations Of The Indian Hemp, Or Gunjah: Cannabis Indica Their Effects On The Animal System In Health, And Their Utility In The Treatment Of Tetanus And Other Convulsive Diseases". Journal Of The Asiatic Society Of Bengal 8: 839.

Reynolds, J. Russell, 1890. Therapeutic Uses and Toxic Effects of Cannabis Indica, Lancet 1 (March 22, 1890), 637-638.

> "With these precautions I have never met with any toxic effects, and have rarely failed to find, after a comparatively short time, either the value or the uselessness of the drug"

http://www.onlinepot.org/medical/Dr_Tods_PDFs/s3_3.pdf

> Premenstrual syndrome (PMS) is a group of symptoms linked to the menstrual cycle. PMS symptoms occur 1 to 2 weeks before your period (menstruation or monthly bleeding) starts. For some people, PMS is just a monthly bother. For others, it may be so severe that it makes it hard to even get through the day. PMS goes away when your monthly periods stop, such as when you get pregnant or go through menopause.

https://www.womenshealth.gov/a-z-topics/premenstrual-syndrome

> 17% of women miss work, school out of fear their periods will be discovered
> Women's health app Clue surveyed 90,000 people from 190 countries to learn how the world thinks about menstruation.
> The results prove that most countries do indeed hold negative stigmas surrounding menstruation. As a result, those with periods can feel silenced.

http://mashable.com/2016/03/02/period-stigma/

> Many women have painful periods. Sometimes, the pain makes it difficult to perform normal household, job, or school-related activities for a few days during each menstrual cycle. Painful menstruation is the leading cause of lost time from school and work among women in their teens and 20s.

http://www.nytimes.com/health/guides/symptoms/painful-menstrual-periods/overview.html

> It turns out the concept has been tried in other countries. Japan, Indonesia, Korea and the Philippines all have laws in place that allows a working woman to take time off during her period if the discomfort and pain is too great to do her job.
> According to the American College of Obstetricians and Gynecologists, up to 50 percent of women experience a painful period -- a medical condition known as dysmenorrhea -- for at least one or two days at some point in her lifetime.
> Alice J. Dan, a professor with the College of Nursing at the University of Illinois at Chicago, has researched the topic extensively, especially the impact of the law in Japan. In her paper on Japan's menstrual leave policy, enacted through the Labor Standards Law of 1947, she says that while some readers may love the concept, the law does not benefit the societal view of women. Ultimately, menstrual leave pathologizes a normal human biological function, which in the long run promotes an impression that women are ill-equipped for the working world, at least compared to men.
> "It is used by employees as an argument against providing equal positions for female workers, at the same time that its meager benefits pacify women and keep them from fighting for more substantial benefits like higher wages and better work conditions," writes Dan.

> In her research, Dan found that the number of women who actually use menstrual leave has declined over the years, from 20 percent in 1960 to 13 percent in 1981. Women in factory jobs were most likely to use the time off due to insufficient or unsanitary work conditions.

http://www.cbsnews.com/news/should-women-get-paid-menstrual-leave/

The medications used to treat PMS and other menstrual symptoms have serious side effects.
The most commonly used medicines for PMS are:

- Nonsteroidal anti-inflammatory drugs (NSAIDs) for pain.
- Selective serotonin reuptake inhibitors (SSRIs) for mood-related symptoms.
- Hormonal birth control, which may help relieve premenstrual dysphoric disorder (PMDD).

> The American Association of Poison Control Centers National Poison Data System (AAPCC NPDS) recorded 105,545 case mentions of NSAID ingestion in 2014. Over 75% of these cases were due to single exposures (77,122 cases). In the vast majority of these cases, the NSAID ingested was ibuprofen.

http://emedicine.medscape.com/article/821737-overview

Complications of SSRI toxicity can include the following:

- Seizures
- Arrhythmia
- Rhabdomyolysis
- Disseminated intravascular coagulation
- Acute renal failure
- Respiratory failure

Hormonal birth control can slightly increase the risk of cancers or clots.
https://www.cancer.org/latest-news/birth-control-cancer-which-methods-raise-lower-risk.html

President Trump stops federal rule forcing businesses to cover birth control.
https://www.reuters.com/article/us-usa-trump-religion/trump-undermines-u-s-birth-control-coverage-requirement-idUSKBN1CB1XZ

> More than half of pill users, 58%, rely on the method at least in part for purposes other than pregnancy prevention. Thirty-one percent use it for cramps or menstrual pain, 28% for menstrual regulation, 14% for acne, 4% for endometriosis, and 11% for other unspecified reasons.

https://www.guttmacher.org/sites/default/files/report_pdf/beyond-birth-control.pdf

A safety profile of Medical Marijuana can be found in the first year report of the Minnesota medical marijuana program. The Minnesota Department of Health surveyed 1500+ patients enrolled in the program.

> Adverse Side Effects: At this point, the safety profile of the medical cannabis products available through the Minnesota program seems quite favorable. Approximately 20-25% of enrolled patients report negative physical or mental side effects of some kind, with the majority – around 60% - reporting only one and 90% reporting three or fewer. The vast majority of adverse side effects, around 90%, are mild to moderate in severity. An assessment of the 30 patients reporting severe side effects, meaning “interrupts usual daily activities,” found no apparent pattern of patient age, medical condition, or type of medical cannabis used. The most common adverse side effects are dry mouth, drowsiness, and fatigue. Fortunately, up to the present no serious adverse events (life threatening or requiring hospitalization) have been reported.

http://www.health.state.mn.us/topics/cannabis/about/firstyearreport.html

Medical Marijuana's mild to moderate side effects of dry mouth, drowsiness and fatigue are easily tolerated by the vast majority of patients.

The Mayo Clinic website has assembled dosage information on Medical Marijuana.

http://www.mayoclinic.org/drugs-supplements/marijuana/dosing/hrb-20059701

NIDA finds it difficult to put the words together, but finally admits there is no gateway theory of marijuana use.

> These findings are consistent with the idea of marijuana as a "gateway drug." However, the majority of people who use marijuana do not go on to use other, "harder" substances.

https://www.drugabuse.gov/publications/research-reports/marijuana/marijuana-gateway-drug

NIDA also finds it very difficult to backtrack on the propaganda research they grant. When other researchers tried to duplicate the results of the first study on marijuana and IQ points, they were unable to find any IQ loss due to marijuana use. I hope that any knowledge you have on marijuana is up to date, and that you are paying attention when NIDA’s biased research grants backfire on them, over and over again.

> In a recent study sponsored by NIDA and the National Institute of Mental Health, teens who used marijuana lost IQ points relative to their nonusing peers. However, the drug appeared not to be the culprit. The new findings contribute to an ongoing scientific exploration of the drug's impact on users' cognition.

https://www.drugabuse.gov/news-events/nida-notes/2016/08/study-questions-role-marijuana-in-teen-users-iq-decline
https://www.drugabuse.gov/publications/drugfacts/marijuana

As evidenced by the included medical marijuana patient surveys in other states and countries, adults are using medical marijuana to treat this disease. Patients will continue to use medical marijuana to treat symptoms whether or not you approve this condition. Approving this condition to the list of Qualifying Conditions in the MMMA has the only effect of protecting sick people from arrest or penalty. These patients are currently breaking the law by using a safe and non-toxic plant that they can grow themselves. The alternative are prescriptions that cost thousands of dollars per month, that the FDA approves even if it is toxic and poisons and kills many Americans each year.

3. Provide a summary of the evidence that the use of medical marihuana will provide palliative or therapeutic benefit for this medical condition or is a treatment for this condition.

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2267789/
Although modern medicine has only recently begun to rediscover the therapeutic potential of cannabis, written records of medical use date back thousands of years. The first known mention of cannabis as a medicine appears in the world's oldest known medical text, the *Pen Ts'ao Ching*. Apparently composed by Emperor Shen-Nung around 2800 B.C., the oldest written copy dates back to the first century and suggests that cannabis may be useful in treating hundreds of conditions, including rheumatism, menstrual fatigue, and malaria [1,2]

2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/
Medicinal preparations from the flowers and resin of *C. sativa* have been used in China since ~2700 BCE to treat menstrual disorders, gout, rheumatism, malaria, constipation, and absent-mindedness 4.
4. Abel EL. Marihuana, the first twelve thousand years. New York: Plenum Press; 1980.

3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1261530/
Cannabis preparations have been used medically for thousands of years for illnesses such as epilepsy, migraine headaches, childbirth, and menstrual symptoms.

4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3816549/
The first supplemental analysis addressed the possibility that the association of marijuana use and concurrent coitus/bleeding is due to marijuana use for amelioration of menstrual discomfort.

This is based on apparently widespread belief in analgesic properties of marijuana (Institute of Medicine, 2003). If young women regularly used marijuana for menstrual discomfort, then *any* menses-associated coitus would be associated with marijuana use, and marijuana use should be more common on days with vaginal bleeding than on days without vaginal bleeding. However, there was no evidence of such an association: on days with coital activity, marijuana use was similar on both nonbleeding days (6.3% of days) and bleeding days (6.0% of days; $\chi 2 = 2.46$, df = 1, $p = 0.12$). Marijuana use on days without coitus was similar on nonbleeding days (19.5 of days) and days with bleeding (16.60% of days; data not shown).

5. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918871/
Marijuana, the Endocannabinoid System and the Female Reproductive System
The two studies that have examined the effects of marijuana across the menstrual cycle in humans produced null results [38,39]

1. Griffin ML, Mendelson JH, Mello NK. et al. Marihuana use across the menstrual cycle. Drug Alcohol Depend. 1986;18(2):213–224. [PubMed]
2. Lex BW, Mendelson JH, Bavli S. et al. Effects of acute marijuana smoking on pulse rate and mood states in women. Psychopharmacology (Berl) 1984;84(2):178–187. [PubMed]

6. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5345167/
Additionally, in the 1935 text *Illustrated Analysis of Medicinal Substances* (*Yao Wu Tu Kao*), the ancient statement that cannabis descends blood and cold qi was interpreted by the author Yang Huating as an indication that *mafen* quickens the blood. Yang recommended *mafen* (which he regarded as the female inflorescence) for a variety of conditions including headache, menstrual irregularities, itching, convulsions, anemia, and dry cough (Editorial Committee, 1977).
By the Qing Dynasty, the seventeenth century text *Reaching the Source of Materia Medica* (*Ben Jing Feng Yuan*) stated that cannabis flower (*mahua*) treats “120 types of malign wind” as well as itching, and expels all malign wind and blood; it was also indicated to treat lack of free flow following menstruation.

7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/
Cannabinoids, including herbal cannabis and extracts, have been used for the treatment of pain for centuries. There is evidence in historical texts and ancient pharmacopeia of treatment for various pain syndromes—from menstrual cramps to childbirth to headaches
1. Pertwee RG, editor. Handbook of Cannabis. Oxford, U.K: Oxford University Press; 2014.
2. Guy GW, Whittle BA, Robson PJ, editors. The Medicinal Uses of Cannabis and Cannabinoids. London, U.K.: Pharmaceutical Press; 2004.
3. Grotenhermen F, Russo E, editors. Cannabis and Cannabinoids: Pharmacology, Toxicology, and Therapeutic Potential. New York, NY: The Haworth Therapeutic Press; 2002.

8. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3285527/
The US Pharmacopoeia listed Cannabis until 1941 and stated that cannabis can be used for treating fatigue, coughing, rheumatism, asthma, delirium tremens, migraine headaches, and the cramps and depressions associated with menstruation

History of cannabis and its preparations in saga, science, and sobriquet. *Russo EB Chem Biodivers. 2007 Aug; 4(8):1614-48.*
Grinspoon L, Bakalar JB. Marijuana the Forbidden Medicine. New Haven, CT: Yale University Press; 1993.

9. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3124962/
However, marijuana use may be related to the menstrual cycle for women who have severe premenstrual syndrome or premenstrual dysphoric disorder.
Menstrual cycle phase and responses to drugs of abuse in humans. *Terner JM, de Wit H Drug Alcohol Depend. 2006 Sep 1; 84(1):1-13.*

10. https://www.ncbi.nlm.nih.gov/pubmed/1957518
The results show no significant differences in developmental testing outcomes between children of marijuana-using and non-using mothers except at 30 days of age when the babies of users had more favourable scores on two clusters of the Brazelton Scales: autonomic stability and reflexes. The developmental scores at ages 4 and 5 years were significantly correlated to certain aspects of the home environment and to regularity of basic school (preschool) attendance.

11. https://www.ncbi.nlm.nih.gov/pubmed/8121737
The absence of any differences between the exposed on nonexposed groups in the early neonatal period suggest that the better scores of exposed neonates at 1 month are traceable to the cultural positioning and social and economic characteristics of mothers using marijuana that select for the use of marijuana but also promote neonatal development.

12. https://www.ncbi.nlm.nih.gov/pubmed/11843371
The results of this study suggest that the use of cannabis during pregnancy was not associated with increased risk of perinatal mortality or morbidity in this sample.

13 https://www.ncbi.nlm.nih.gov/pubmed/11210205
This article reports on an exploratory study of medical cannabis users. Interviews were completed with 50 self-identified medical cannabis users recruited through notices in newspapers and on bulletin boards. They reported using cannabis for a variety of conditions including HIV-AIDS-related problems, chronic pain, depression, anxiety, menstrual cramps, migraine, narcotic addiction as well as everyday aches, pains, stresses and sleeping difficulties.

14. 10.1080/02791072.2013.805976
The survey was completed by 953 participants, of whom 614 (64%) were male and 339 (36%) were female. The mean age was 40.7 years old (range 14–76).
The majority of subjects in our study were current users who had a health professional involved in the management of their illness, and were using CBMs for at least several years
5 patients reported using medical marijuana for Menstrual pain.

15. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673028/
Gynecologic disorders
Dysmenorrhea 7.7%
Endometriosis 1.8%
Any of these gynecologic disorder ICDs 9.3%

16. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2683812/
Others suggested that marijuana reduced muscle pain after a hard day of skiing and helped with headaches, and that girls used marijuana for menstrual cramps.

17. http://www.tandfonline.com/doi/abs/10.1300/J175v02n03_02
One botanical agent that exemplifies this lost knowledge is cannabis. As will be discussed, its role as an herbal remedy in obstetric and gynecological conditions is ancient, but will surprise most by its breadth and prevalence. Cannabis appears in this role across many cultures, Old World and New, classical and modern, among young and old, in a sort of herbal vanishing act. This study will attempt to bring some of that history to light, and place it in a modern scientific context.

18. http://www.tandfonline.com/doi/abs/10.1300/J175v02n03_02
The author believes that cannabis extracts may represent an efficacious and safe alternative for treatment of a wide range of conditions in women including dysmenorrhea, dysuria, hyperemesis gravidarum, and menopausal symptoms.

19. http://www.tandfonline.com/doi/abs/10.1080/16066359.2017.1294165
Many of the highest endorsed symptoms including irritability, depressive moods, anxiety, and sleep problems have already received empirical support for cannabis's treatment efficacy, and have been previously endorsed in a menopausal study, highlighting cannabis's potential to treat female disorders.

4. Provide articles published in peer-reviewed scientific journals reporting the results of research on the effects of marihuana on the medical condition or treatment of the medical condition and supporting why the medical condition should be added to the list of debilitating medical conditions under the Medical Marihuana Act. Attach a copy of all articles that are discussed in this section. Please do not attach articles that are not discussed in this section.