REGULATING CANNABIS MEDICINES

7 CONSIDERATIONS FOR ESTABLISHING QUALIFYING MEDICAL CONDITIONS

A substantial and growing body of evidence supports the therapeutic benefits of cannabis. State-level medical cannabis programs currently provide access to cannabis medicines for over six million individuals under the supervision of healthcare professionals with profound and far-reaching impacts, including enhancing patient outcomes as well as alleviating burdens to the healthcare systems that serve them. While Cannabis remains a Schedule I substance at the federal level, Congress has passed legislation every year to protect state medical cannabis programs from federal interference. In December 2022, Congress passed the Medical Marijuana & Cannabidiol Research Expansion Act (Title III, Section 301), which amended the Controlled Substances Act to explicitly protect medical professionals who recommend cannabis and cannabinoids as treatment options for their patients.

> **Over two-thirds (68.9%) of clinicians surveyed believe that cannabis has medicinal uses, and just over a quarter (26.6%) had ever recommended cannabis to a patient. [1]**

Cannabis medicines are used to treat a variety of medical conditions in the U.S., with patients and their medical professionals consistently reporting improved quality of life, reduced pain, better sleep, enhanced mood, and increased mobility with fewer side effects. These experiences have been validated through a growing body of scientific evidence and by HHS, FDA, NIH, and the National Academies of Science.

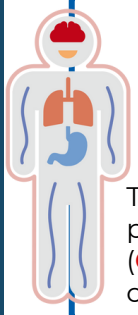
- **95% of the 7,000 known rare diseases have no treatment.**
- **Chronic & Mental Health Conditions are Responsible for 90% of the $4.1 Trillion Spent Annually on U.S. Healthcare**
- **$35 Billion Annually on Opioid Misuse & Related Healthcare Costs**

Additional research will optimize how cannabis is grown, formulated, dosed, and administered, but numerous conventional medications remain on the market even as ongoing research refines our understanding of their mechanisms, side effects, and best practices for use. Moreover, limitless examples of medications being used safely for off-label indications exist. This is an accepted practice because the medication's safety is known, and a healthcare professional monitors its overall efficacy in a specific patient. **Policymakers should be cautious not to limit medical professionals' ability to treat their patients when determining how to best serve their constituents. The following fact sheet was created to aid in such deliberations.**

ACCESSING QUALIFYING CONDITIONS

1. CANNABIS IS POLYPHARMACOLOGICAL, MULTI-MODAL MEDICINE
2. CANNABIS SAFETY PROFILE (IN REGULATED MARKETS)
3. TOOLS AVAILABLE TO MEDICAL PROFESSIONALS
4. STATE APPROACHES TO QUALIFYING CONDITIONS
5. FILLING TREATMENT GAPS
6. CANNABIS MEDICINES & PAIN
7. BOTANICALS & PRESCRIPTION CANNABNOIDS

CANNABIS & THE HUMAN BODY



Chemical compounds found in the cannabis plant interact with receptors in the body's **endocannabinoid system** (ECS). The ECS is the body's mechanism for preserving homeostasis (keeping all body functions running smoothly) and consists of endocannabinoids, cannabinoid receptors, and enzymes. The ECS regulates various physiological processes including **movement, mood, memory, appetite and pain.**

To keep systems running smoothly, the body produces endocannabinoids as needed; these are similar to phytocannabinoids, the cannabinoids found in the cannabis plant. They bind with cannabinoid receptors (**CB1** & **CB2**) that are found in central and peripheral nervous systems and immune cells. The effects depend on a variety of factors.

CANNABINOIDS & TERPENOIDS

Cannabis sativa L.

CBG
BENEFIT
Muscle relaxant, anti-eurythmic, analgesic, digestive aid

CBD
BENEFIT
Non-intoxicating, anti-depressant, anti-inflammatory, anti-convulsant, anti-emetic, anxiolytic, analgesic, muscle relaxant

THCA
BENEFIT
Anti-inflammatory, immunomodulatory, neuroprotectiver

THC
BENEFIT
Psychotropic, analgesic, anti-inflammatory, anti-microbial, muscle relaxant

CBN
BENEFIT
sedative, topical analgesic for burns, may stimulate bone growth

CBC
BENEFIT
Anti-inflammatory, analgesic, anti-anxiety, antidepressant

Cannabis provides a combination of cannabinoids, terpenes, & flavonoids that work synergistically.

This enhances therapeutic effects –a concept known as the "entourage effect."

LIMONENE
Potent immunostimulant via inhalation, anxiolytic, apoptosis of breast cancer cells and acne bacteria

β-MYRCENE
Blocks inflammation, analgesic, sedative, muscle relaxant, hypnotic, blocks hepatic carcinogenesis by aflatoxin

β-CARYOPHYLLENE
Gastric cytoprotective, anti-malarial, selective CB2 agonist, anti-inflammatory

α-PINENE
Anti-inflammatory, bronchodilatory, acetylcholinesterase inhibitor

LINALOOL
Anti-anxiety, local anesthetic, analgesic, anticonvulsant/anti-glutamate

PHYTOL
GABA via SSADH inhibition

NEROLIDOL
Sedative

1 CANNABIS IS POLYPHARMACOLOGICAL, MULTI-MODAL MEDICINE

An estimated 129 million Americans have at least one chronic disease, and over half of the adults aged 65 and older report having one or more rheumatic conditions. These individuals often take between five and twenty or more medications daily, the majority of which—nine out of ten—are palliative. Despite extensive pharmacological efforts, treatments for diseases such as Metabolic Syndrome, psychiatric disorders, degenerative central nervous system disorders, cancers, Parkinson's disease, Alzheimer's disease, Huntington's disease, multiple sclerosis (MS), Amyotrophic Lateral Sclerosis (ALS), stroke, Traumatic Brain Injury (TBI), pain, and Epilepsy remain inadequate.

There is growing recognition in healthcare that multi-modal therapeutics are essential for treating complex chronic diseases. However, investments in this area are scarce due to the complexities and expenses of the modern drug approval process, which is more accommodating to monomolecular drugs. Cannabis offers a unique opportunity to fill this gap through its polypharmacological interaction with the endocannabinoid system (ECS).

While some multimodal drugs have been discovered through chance or phenotypic screening, many have emerged from ethnobotany and traditional medicine. Ibuprofen (Advil), and acetylsalicylic acid (aspirin) are examples of widely used multimodal drugs whose mechanisms of action in reducing fevers and pain remain only partially understood but are used widely thanks to a proven safety profile and broad therapeutic applications. Similarly, **cannabinoids offer significant potential as multi-modal therapeutics, providing relief across a range of conditions even if the precise mechanisms are not yet fully understood.**

2 CANNABIS SAFETY PROFILE (IN REGULATED MARKETS)

According to FDA's Center for Drug Evaluation and Research (CDER):

> **None of the evidence from the systematic reviews included in our analysis demonstrated substantial safety concerns that would argue against the use of marijuana in any of the indications where there exists some support for its benefit [2].**

Cannabis-based treatments have proven effective for conditions where traditional pharmaceutical options either do not exist, fail to provide adequate relief, or produce intolerable side effects. This efficacy is especially critical for patients who must take multiple medications, significantly increasing their risk of adverse drug events, tolerance, dependence, and medication resistance. Unlike opioids and many other prescription medications, cannabis does not influence critical respiratory or cardiac functions, effectively eliminating the risk of lethal overdose.

POTENTIAL SIDE EFFECTS
Sedation, dizziness, nausea, vomiting, constipation, physical dependence, tolerance, respiratory depression, death

POTENTIAL SIDE EFFECTS
Liver failure, loss of language, cognitive decline, respiratory depression, rage, suicide, paranoia, death

POTENTIAL SIDE EFFECTS
Dry mouth, dizziness, increased appetite, dry eyes, sedation, euphoria, disorientation/short-term memory impairment

Furthermore, cannabis' unique polypharmacological properties make it particularly advantageous for patients vulnerable to adverse drug events from conventional pharmaceuticals. Data from the Working Group on Medication Overload highlights a troubling trend: over 40 percent of older adults now take five or more prescription medications daily, a rate that has doubled over the past two decades. This medication overload has led to more than 35 million medical visits and over two million hospitalizations among older adults in the past decade alone [3]:

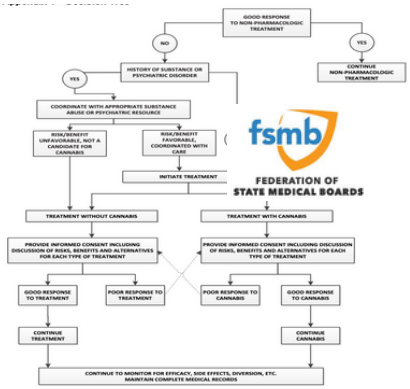
> **"Every day, 750 older people living in the United States (age 65 and older) are hospitalized due to serious side effects from one or more medications."**
>
> **–Working Group on Medication Overload, Lown Institute, 2020**

Cannabis-related side effects are comparatively mild and manageable. However, overly restrictive qualifying conditions drive patients to seek cannabinoid products from unregulated markets without medical supervision, potentially exposing patients to pesticides, adulterants, heavy metals, and microbial contaminants. Ensuring a comprehensive and inclusive qualifying condition list allows patients access to safe, regulated products under professional supervision.

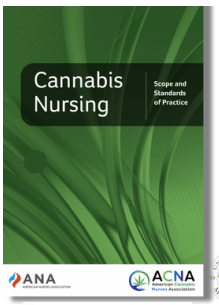
3 TOOLS AVAILABLE TO MEDICAL PROFESSIONALS

Today, medical professionals have robust resources and guidelines for recommending cannabis as a therapeutic option, reflecting its integration into mainstream medicine.

The Minnesota Department of Health issued the "Dosing and Chemical Composition Report," providing clear guidance on cannabis dosages for qualifying medical conditions [4].



The Federation of State Medical Boards (FSMB) adopted "Model Guidelines for the Recommendation of Marijuana in Patient Care," and numerous state medical boards, such as the Medical Board of California, have issued detailed guidance to assist physicians in responsibly incorporating cannabis into treatment plans [5].



In 2023, the American Nurses Association (ANA) officially recognized Cannabis Nursing as a specialty practice releasing an official "Scope and Standards of Practice" handbook. Thousands of healthcare providers now possess specialized training and degrees in cannabis-related fields, with undergraduate and graduate-level programs available in Cannabis Biology and Chemistry, Pharmaceutical Sciences, Agriculture and Horticulture, Cultivation, Medical Plant Sciences, Clinical Applications, and Cannabis Policy. Prominent universities offering these programs include the University of Maryland School of Pharmacy, Thomas Jefferson University, Cornell University, and the University of Colorado.

Medical professionals are increasingly supported by substantial academic and clinical research facilitated by universities and specialized cannabis research centers funded by state cannabis programs.

4 STATE APPROACHES TO QUALIFY CONDITIONS

State Medical cannabis programs recognize over 125 symptoms and medical conditions as qualifying conditions that healthcare providers and their patients can legally treat with medical cannabis based on supportive research presented at the time of drafting the legislation. Several states have adopted language allowing physicians to recommend cannabis for whatever condition they determine appropriate, rather than limiting conditions. Twenty-one state medical cannabis programs included a process to add qualifying medical conditions through a designated expert committee appointed by the State's Department of Health, a process deemed by the DOJ's Office of Legal Counsel as proof of "accepted medical use" under the definitions of the Controlled Substances Act (CSA). The list of qualifying conditions below is grouped by therapeutic action; 65 were added through an expert review process.

ANALGESIC/ PAIN MODULATION

Chronic Pain*, Pain/Musculoskeletal, Disorders*, Intractable Pain*, Neuropathic Pain*, Severe Pain* , Pain/Degenerative, Spinal Disorders*, Complex Regional Pain Syndrome (CRPS)*, Reflex Sympathetic Dystrophy (RSD), Causalgia, Fibromyalgia*, Intractable Headache Syndromes*, Migraine, Interstitial Cystitis*, Bladder Pain Syndrome, Postherpetic Neuralgia*, Post-Laminectomy Syndrome*, Chronic Radiculopathy, Residual Limb Pain (RLP), Vulvodynia*, Vulvar Burning*, Osteoarthritis*, Arthritis*, Chronic Pancreatitis*, Sickle Cell Disease*, & Superior Canal Dehiscence Syndrome*

NEUROPROTECTIVE & NEUROLOGICAL SUPPORT

Seizure Disorders/Epilepsy, Parkinson's Disease*, Huntington's Disease*, Amyotrophic Lateral Sclerosis (ALS)*, Traumatic Brain Injury (TBI), Post-Concussion Syndrome, Chronic Traumatic Encephalopathy (CTE), Spinocerebellar Ataxia (SCA), Neurofibromatosis, Arnold-Chiari Malformation, Syringomyelia, Hydromyelia, Hydrocephalus*, Degenerative/Pervasive, Neurological Condition*, Pediatric Sensory Processing Disorder, Tourette Syndrome (TS)*, Stroke, & Mitochondrial Disease

ANTISPASMODIC/ MUSCLE RELAXANT

Multiple Sclerosis (MS), Persistent Muscle Spasms, Spasticity Disorders*, Intractable Skeletal Muscular Spasticity*, Intractable Spasticity/Spinal Cord Injury*, Intractable Spasticity/Nerve Tissue Damage, Spastic Quadriplegia, Chronic Vocal Motor Tic Disorder*, Dyskinetic/Spastic Movement Disorders*, Spasmodic Torticollis (Cervical Dystonia), Dystonia*, Myoclonus, Cerebral Palsy*, & Muscular Dystrophy*

ANTI-INFLAMMATORY & IMMUNOMODULATORY

Colitis*, Rheumatoid Arthritis, Inflammatory Bowel Disease (IBD), Crohn's Disease (CD), Ulcerative Colitis* , Lupus, Sjogren's Syndrome, Severe Psoriasis & Psoriatic Arthritis, Coeliac Disease, Neuro-Bechet's Autoimmune Disease*, Immune-Mediated Inflammatory Diseases, & Endometriosis

ANTI-EMETIC & GI REGULATION

Intractable Nausea or Vomiting, Severe Nausea, Intractable Appetite Loss Anorexia*, Bulimia, Cachexia or Wasting Syndrome*, Intractable Cramping, Irritable Bowel Syndrome (IBS)*, & Chronic Pancreatitis

ANXIOLYTIC & PSYCHIATRIC SYMPTOM RELIEF

Post-Traumatic Stress Disorder (PTSD)*, Anxiety Disorders*, Depression*, Bipolar Disorder, Attention Deficit Disorder (ADD) Attention-Deficit/Hyperactivity Disorder ADHD)*, Autism*, Alzheimer's Disease*, & Agitation Associated with Alzheimer's

END OF LIFE CARE

Hospice & Terminal Illness*

SLEEP & SEDATIVE EFFECTS

Insomnia, & Obstructive Sleep Apnea*

ANTI-NEOPLASTIC (CANCER-RELATED SUPPORTIVE CARE)

Cancer*, Terminal Cancer, & Chemotherapy Treatment*

VASODILATORY & NEUROVASCULAR

Glaucoma, Elevated Intraocular Pressure, Migraines*, & Superior Canal Dehiscence Syndrome*

DEPENDENCE & OPIOID ALTERNATIVE

Opioid Use Disorder*, Any condition opioids prescribed* , and Any condition typically treated with addictive medication, where cannabis is deemed a safer alternative.

RARE, GENETIC, & OTHER SYSTEMIC CONDITIONS

HIV/AIDS, Hepatitis C*, Asthma, Ehlers-Danlos Syndrome*, Epidermolysis Bullosa, Fibrous Dysplasia, Inclusion Body Myositis, Cystic Fibrosis, Chronic Renal Failure, Decompensated Cirrhosis, MALS Syndrome*, Myasthenia, Gravis Nail–Patella Syndrome (NPS), Osteogenesis Imperfecta, Polycystic Kidney Disease (PKD)*, Wilson's Disease, Tarlov Cysts/Perineural Cysts, Superior Canal Dehiscence Syndrome, Spinal Cord Injury (SCI)* , Spinal Cord Diseases, Arachnoiditis, Spinal Stenosis, Rare Condition or Disease, one or more injuries that significantly interfere with daily activities, & any other condition that is severe & resistant to conventional medicine.

* **Conditions added by expert committee**

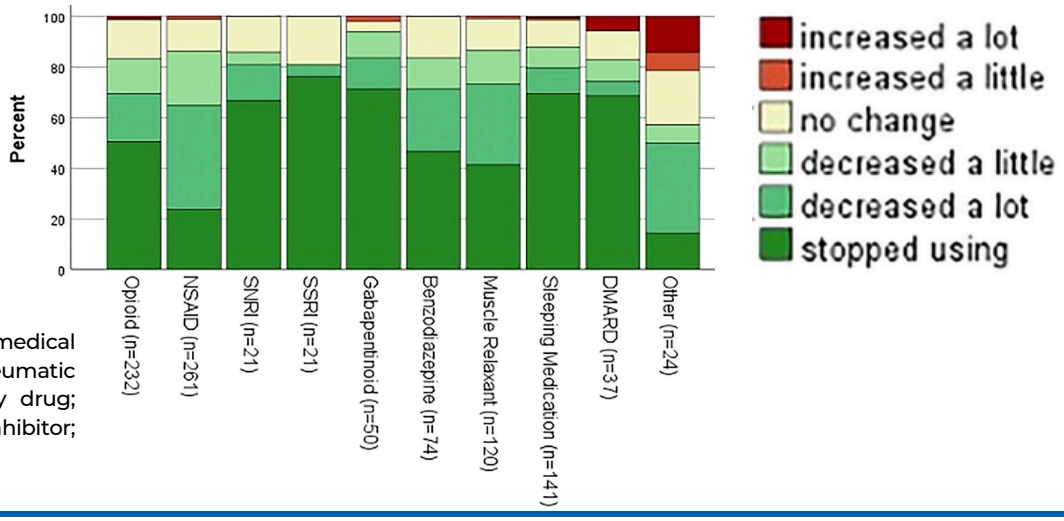
5 FILLING TREATMENT GAPS

Chronic diseases are the primary drivers of U.S. healthcare costs, accounting for 90% of the $4.1 trillion spent annually. Chronic and mental health conditions account for 90% of the $4.1 trillion spent annually on U.S. healthcare (Centers for Disease Control and Prevention, 2023). These conditions are often accompanied by chronic pain, depression, and opioid misuse and are exacerbated by chronic stress. Similarly, rheumatic diseases —including rheumatoid arthritis (RA), Crohn's disease, and lupus—affect millions of Americans. The conditions affect mobility, productivity, and quality of life and contribute to significant healthcare costs, especially as their prevalence increases with an aging population.

Medical cannabis offers a promising alternative for addressing these unmet needs, interacting directly with the body to modulate inflammation, alleviate pain, and improve mood. Current therapies for these conditions frequently fail to provide sufficient relief, pose risks of significant adverse effects, such as immune suppression, gastrointestinal issues, and cardiovascular problems., or are nonexistent. Moreover, Furthermore, according to the National Organization on Rare Disorders (NORD) there are over 7,000 rare diseases that together affect more than 30 million Americans. of which 95% have no treatment options.

Combination drug treatments increase the likelihood of adverse events, side effects, tolerance and dependence, and drug resistance. Cannabis offers unique polypharmacological benefits, filling gaps where other treatments are ineffective or intolerable, with a robust safety profile compared to many pharmaceuticals.

A study in ACR Open Rheumatology, "Substituting Medical Cannabis for Medications Among Patients with Rheumatic Conditions in the United States and Canada,[7]" found that 62.5% of participants substituted medical cannabis for medications, with 54.7% replacing NSAIDs, 48.6% opioids, 29.6% sleep aids, and 25.2% muscle relaxants. Following substitution, most reported a reduction or cessation in their use of these medications (see figure below). With nearly 50% of adults age ≥65 years reporting at least one rheumatic condition.



Change in medication use since starting medical cannabis. DMARD, disease-modifying antirheumatic drug; NSAID, nonsteroidalanti-inflammatory drug; SNRI, serotonin norepinephrine uptake inhibitor; SSRI, selective serotonin reuptake inhibitor.

6 — CANNABIS MEDICINES & PAIN

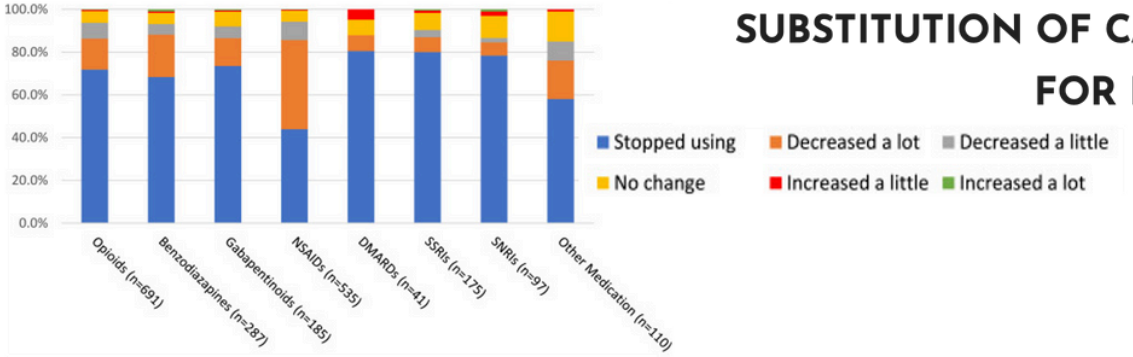
According to the Institute of Medicine's report "Relieving Pain in America," chronic pain affects approximately one-third of U.S. adults and generates an annual economic burden of $560–$635 billion. The impact of untreated chronic pain extends beyond individual suffering, affecting workforce participation, education, childcare, and increasing reliance on government services.

Reliance on opioids for chronic pain management has fueled an epidemic of addiction and overdose deaths. The U.S. healthcare system spends approximately $35 billion annually on opioid misuse and related healthcare costs (Pew Charitable Trust, 2021). Studies consistently demonstrate that states with medical cannabis programs experience reductions in opioid prescriptions and overdose deaths. Expanding access to medical cannabis represents a crucial strategy to address both the chronic pain crisis and the opioid epidemic. Despite strong evidence, medical cannabis programs currently serve only about 2% of the population, significantly below the estimated 50 million or more U.S. adults living with chronic pain.

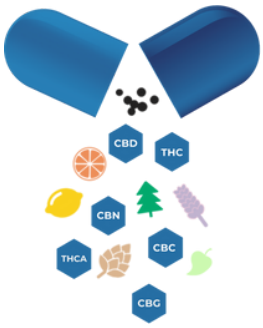
Unlike opioids, cannabinoid receptors do not regulate critical respiratory or cardiac functions, virtually eliminating the possibility of lethal overdose. In 2017, The National Academies of Sciences, Engineering, and Medicine released "The Health Effects of Cannabis and Cannabinoids [8]: The Current State of Evidence and Recommendations for Research, which compiled research from over 10,000 studies on cannabis and its components. The report states:

> **In adults with chronic pain, patients who were treated with cannabis or cannabinoids are more likely to experience a clinically significant reduction in pain symptoms… There is conclusive or substantial evidence that cannabis or cannabinoids are effective for the treatment of chronic pain in adults, as anti-emetics in the treatment of chemotherapy-induced nausea and vomiting, and for improving patient-reported multiple sclerosis spasticity symptoms.**

SUBSTITUTION OF CANNABIS FOR PAIN MEDICATION [9]



7 BOTANICALS & PRESCRIPTION CANNABINOIDS



The success of whole-plant cannabis reflects a growing recognition in pharmacology: multi-target, multi-component approaches are essential for the treatment of complex diseases. Disorders such as chronic pain, neurodegenerative conditions, and psychiatric illnesses frequently involve multiple overlapping pathways in the body. Unlike “magic bullet” pharmaceutical treatments, comprised of a single agent that targets a single receptor or enzyme, full-spectrum cannabis can simultaneously modulate multiple physiological targets and help to provide symptomatic relief to a diverse set of patients.

Patients consistently report better outcomes and reduced side effects with whole-plant cannabis products compared to FDA-approved synthetic cannabinoids like dronabinol (Marinol) and nabilone (Cesamet). This can also be said for the efficacy of full-spectrum cannabis products compared to highly purified Cannabidiol (Epidiolex) in the treatment of seizure disorders. This preference is attributed to the "entourage effect," wherein over 140 phytocannabinoids, terpenes, and flavonoids in cannabis work synergistically to provide comprehensive relief.

Cannabis medicines have supported human health for millennia, long before the emergence of the modern pharmaceutical industry. In fact, even major pharmaceutical companies, including Eli Lily and Park-Davis were investing heavily into this medicine in the early 1900’s – long before we understood HOW it was helping patients. Today, science is catching up to confirm what many have experienced for generations. Rather than condemning patients to suffer while regulatory processes stall, states have stepped up to fill this gap.

As policymakers navigate decisions regarding medical cannabis access, it is essential to recognize the substantial body of evidence supporting cannabis' safety, efficacy, and therapeutic versatility. Comprehensive qualifying conditions and regulatory frameworks designed with patient safety in mind will ensure those who need access to cannabis-based medicines will have it while ultimately enhancing public health outcomes. Policymakers should trust that healthcare professionals have resources to guide informed, patient-centric treatment decisions, addressing both individual needs and broader public health goals effectively and be cautious not to limit their ability to treat their patients.

Americans for Safe Access

Americans for Safe Access Foundation (ASA) is a 501(c)3, nonprofit organization. Founded in 2002, ASA is the largest national organization of patients, medical professionals, scientists, providers, and concerned citizens promoting safe and legal access to cannabis for therapeutic use and research. **www.SafeAccessNow.org**

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