

**American Cannabis Nurses Association**

**Scope and Standards of Practice**

**Cannabis Nursing**

DRAFT

## **Scope of Cannabis Nursing Practice**

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Disclaimer: Nurses must be aware that cannabis and most cannabinoids are federally illegal. They must also be knowledgeable about their state's delineated scope of nursing practice and consider the legal status of cannabis in the given state where the practice occurs. The American Cannabis Nurses Association (ACNA) is not responsible for an individual nurse's interpretation or misuse of the document.

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## Preface

The ACNA used the ANA (2021a) *Recognition of a Nursing Specialty, Approval of a Specialty Nursing Scope of Practice Statement, Acknowledgment of Specialty Nursing Standards of Practice, and Affirmation of Focused Practice Competencies* to inform decision making about the quality and validity of competencies relevant to cannabis nursing. The ACNA formed a task group from their membership to research the competencies of other nursing specialties and standards as set forth by the ANA. Multiple iterations and revisions of this research now serve as the foundation for the competencies outlined in this document. *The Nursing: Scope and Standards of Practice, Fourth Edition (2021)* serves as a template for all nursing specialty organizations when describing the details and complexity of that specialty practice. The ACNA's *Scope and Standard of Practices (2019)* was also used as framework and template for the updated and revised Cannabis Nursing Specialty Scope and Standards Practice document.

Our first journey is to find that special place for us.

So never lose an opportunity of urging a practical beginning, however small, for it is wonderful how often in such matters the mustard-seed germinates and roots itself.

Nursing is a progressive art such that to stand still is to go backwards.

*Florence Nightingale, (1859)*

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## 1 **Scope of Cannabis Nursing Practice**

2 The discovery of the endocannabinoid system has led to an emerging field of scientific  
3 research about cannabis. Licensed practical nurses, registered nurses, mastered prepared nurses  
4 and advanced practice nurses have begun to observe an increase in healthcare consumers use of  
5 cannabis at a rate that is outpacing nurses' knowledge and acceptance of cannabis as a medicine.  
6 Cannabis healthcare consumers are currently obtaining their information and medical guidance  
7 from untrained, non-medical professionals. It is common for retail workers in dispensaries to  
8 provide advice on how to use medical cannabis along with or instead of other treatment modalities.

9 Recognizing the importance, the nurse's role in protecting healthcare consumers, the  
10 American Cannabis Nurses Association (ACNA) proposes that the cannabis registered nurse,  
11 masters prepared nurse and advanced practice nurse involved with medical cannabis develop and  
12 demonstrate their requisite knowledge and skills that display competency in this evolving specialty  
13 (American Cannabis Nurses Association, 2019). The ACNA prides itself on embracing diversity,  
14 equity, and inclusion, for all members of the nursing community, including Licensed  
15 Practical/Vocational Nurses (LPNs/LVNs) and registered nurses with undergraduate, graduate,  
16 doctoral degrees, and affiliate members. The ACNA believes it is critical to provide authentic  
17 leadership and mentoring for nurses to fully practice cannabis nursing at the level of their  
18 education, training, and licensure (Institute of Medicine, 2010).

19 The ACNA's vision is to "improve healthcare outcomes by empowering pathways for  
20 cannabis education and competency through wisdom, compassion, integrity, and social justice  
21 principles" (ACNA, 2021). The mission of the ACNA is to advance excellence in cannabis nursing  
22 practice through advocacy, collaboration, education, research, and policy development. The  
23 ACNA has grown from a few dozen nurses to a remarkable group of over 1100 members

24 representing all fifty U.S. states, Canada, and Israel. The ACNA supports cannabis nursing  
25 practice by disseminating scientific information and education to give nurses the knowledge, skills,  
26 abilities, accountability, and judgment to provide competent care for the cannabis healthcare  
27 consumer (ACNA, 2021).

28 Cannabis nursing is described as a specialty practice focused on care of healthcare  
29 consumers seeking education and guidance in the therapeutic use of cannabis (ACNA, 2019).  
30 Cannabis nurses are competent nurses with knowledge of the human endocannabinoid system.  
31 Cannabis nurses provide for the safe and effective use of products containing cannabis and  
32 cannabinoids when managing the process of supporting the cannabis healthcare consumer's  
33 potential endocannabinoid system (ECS) upregulation and homeostasis. More importantly,  
34 cannabis nurses use a holistic approach which incorporates such elements as exercise, dietary and  
35 lifestyle changes, and modalities that are known to support healing, optimal homeostasis, well-  
36 being into the delivery of care. The cannabis nurse applies their nursing education and knowledge  
37 of evidence-based research to educate, care, reduce harm, and coach cannabis healthcare  
38 consumers, caregivers, family members, and other healthcare providers in the use of botanical  
39 cannabis and cannabis therapeutics. As described by the ACNA website (2022) and Clark (2021),  
40 the practice of a cannabis nurse encompasses competencies unique from other nursing specialties.

41 The cannabis nurse's focus is to provide safe, high-quality nursing care, education and  
42 coaching involving cannabis therapeutics and to support and encourage healthcare consumers to  
43 participate in their healing and wellness care planning and to decrease the societal stigma  
44 associated with cannabis prohibition.

45 Cannabis nursing requires nurses to integrate foundational nursing competencies and  
46 cannabinoid science into their nursing practice. Knowledge of the endocannabinoid system,

47 cannabinoids, flavonoids, terpenoids, cannabis laboratory testing requirements, cannabis  
48 therapeutics, potential drug-drug medication interactions, adverse effects, risks and benefits,  
49 evidence-based practice, advocacy, ethics, and the law are examples of advanced competencies  
50 required within the cannabis nursing specialty. In addition, the cannabis nurse is aware of the  
51 implications of the chronic use of cannabinoids and the potential this has on the possible  
52 downregulation of the individual's ECS. Instead, the cannabis nurse steers the cannabis healthcare  
53 consumer towards optimizing the function of their ECS through the prudent use of cannabinoid  
54 products and the incorporation of holistic modalities known to support homeostasis and their well-  
55 being (Clark, 2021).

### 56 **Professional Practice Settings for Cannabis Nurses**

57 State laws across the United States impact the settings in which cannabis therapeutics can  
58 be accessed which affects where the cannabis nurse can provide care. Cannabis nurses function in  
59 a variety of settings where cannabis may be part of the healthcare consumer's plan for healing and  
60 palliation of symptoms. This may involve many specialty nursing areas with cannabis healthcare  
61 consumers across the life span. The cannabis nurse practices in professional settings where health  
62 care is delivered such as clinics and hospitals as well as in dispensaries and community settings.  
63 As new evidence emerges regarding cannabinoid therapeutics effectiveness for various illness, the  
64 environment location of cannabis nursing expands. Cannabis healthcare consumers remain in  
65 many locations, cannabis nurses understand the endocannabinoid system requires an upregulation  
66 maintain homeostasis. This understanding arrives from the healthcare consumer who is interested  
67 in accessing cannabis for healing and / or from the nurse who recognizes people and populations  
68 who benefit from cannabinoid therapeutics and lifestyle changes that upregulate the  
69 endocannabinoid system (Clark, et.al, 2019).

70 From a personal perspective, the cannabis nurse embodies and practices a lifestyle that  
71 embraces self-care as a necessary and critical component of nursing practice. Self-care enables the  
72 cannabis nurse to maintain an optimal professional, intentional, and caring presence in all cannabis  
73 healthcare consumer interactions (American Cannabis Nurses Association, 2019).

#### 74 **Educational Programs and Resources for Cannabis Nurses**

75 Cannabis nursing education is of equal importance to evidence-based research when  
76 providing healthcare consumers with quality and safe cannabis care but limited by its availability.  
77 The six principles of essential knowledge as published by the National Council of State Boards of  
78 Nursing (NCSBN), national nursing guidelines for medical marijuana create a solid foundation for  
79 “safe and knowledgeable nursing care for patients using medicinal and recreational cannabis”  
80 (NCSBN, 2018 p. S21). It should be noted the NCSBN’s six principles of essential knowledge  
81 have yet to be broadly recognized or implemented in U.S. nursing education programs. The  
82 complexity of providing cannabis nursing care to healthcare consumers requires specialized  
83 cannabis nursing curriculum, certification, and education programs. As it stands, nurses have  
84 historically been limited in their access to evidence-based cannabis nursing care education  
85 programs and high-quality evidence-based courses on cannabis therapeutics and pharmacology,  
86 due to this pervasive lack of cannabis in nursing curricula.

87 The cannabis nursing education landscape is slowly improving and there are now a  
88 considerable number of cannabis education programs directed toward nurses, pharmacists, and  
89 other healthcare providers. These programs vary in rigor and curriculum and include graduate  
90 degrees, undergraduate degrees, and certifications, as well as continuing education units (CEUs).  
91 The following is a high-level summary of a select group of cannabis-based degrees and programs  
92 currently being offered in the U.S. as of spring 2022.

**93 University degrees and college-based training programs**

94 Three academic institutions are offering degrees in medical cannabis; these include  
95 University of Maryland, Thomas Jefferson University, and John Patrick University of Health and  
96 Human Services. The University of Maryland – Baltimore’s (UMB) School of Pharmacy is the  
97 first graduate program to offer a Master of Science (MS) in Medical Cannabis Science and  
98 Therapeutics. This program provides education in the following areas: basic science  
99 (pharmacology, chemistry, and medical cannabis delivery systems); clinical uses  
100 (pathophysiology, assessment, and management of conditions); adverse effects and public health  
101 considerations; and federal and state laws and policies. The University of Maryland – Baltimore’s  
102 School of Pharmacy is accredited by the Middle States Commission on Higher Education  
103 (MSCHE).

104 Thomas Jefferson University’s (TJU) Master of Science (MS) in Medical Cannabis Science  
105 and Business program includes classes in cannabis medicine (clinical applications, physiological  
106 impacts, therapies, and health effects); cannabis science (botany, chemistry, pharmacology, and  
107 toxicology); and cannabis business (regulations, management, operations, financial analysis, and  
108 business model innovation. Thomas Jefferson University’s (TJU) Master of Science (MS) in  
109 Medical Cannabis Science and Business program is accredited by the Middle States Commission  
110 on Higher Education (MSCHE). Lastly, John Patrick University of Health and Human Services  
111 (JPUHHS) offers a Master of Science (MS) in Integrative and Functional Medicine with a  
112 concentration in Cannabinoid Medical Sciences. This curriculum includes coursework on  
113 phytocannabinoid chemistry and pharmacology; pharmacodynamics; cannabis therapeutics,  
114 dosage, and toxicology; and global health laws and public health governance. John Patrick

115 University of Health and Human Services is accredited by the Accrediting Commission of Career  
116 Schools and Colleges (ACCSC).

117 **Medical cannabis certificate programs and continuing education units**

118           Currently there is a surge in the number of colleges and universities throughout the United  
119 States offering certificates and continuing education units (CEUs) in medicinal cannabis for nurses  
120 and other healthcare providers. The certificate programs typically offer three to four courses (8-12  
121 credit hours) with a completion timeline ranging from six to 12 months. Pacific College and Health  
122 Sciences (PCHS) offers an accredited three course (eight credit hours) certification program to be  
123 completed in six months. The Pacific College and Health Science’s Medical Cannabis Certificate  
124 program also integrates Radicle Health’s online cannabis nursing curriculum modules along with  
125 intensive required readings to round out the academic offerings. This program was the first  
126 accredited medical cannabis academic certificate program offered in the United States from an  
127 accredited college. The program was initially developed for nurses, by PhD-prepared nurses,  
128 eventually evolving to include interdisciplinary students. The program is currently expanding to  
129 include a Medical Cannabis Master of Science degree. Pacific College Health Sciences is  
130 accredited by Western Association of Schools and Colleges (WASC). Other programs such as  
131 Radicle Health offer self-paced cannabis curriculums that are nurse focused with contact hours and  
132 the ACNA offers CEU’s through the webinars for members. In addition to college and university  
133 classroom instruction, there are numerous online certification programs from private vendors such  
134 as Holistic Caring and The Green Nurse that provide future cannabis healthcare providers with  
135 self-paced online modules and webinars. These private certification programs are proving popular  
136 with cannabis dispensary employers seeking to train their dispensary staff on how to communicate

137 with cannabis consumers about their use of cannabis therapeutics. Other avenues of education that  
138 are widely available are textbooks and nursing education resources as described below.

139 **Education resources and current textbooks for cannabis nurses**

140 The following section briefly describes educational resources published for healthcare  
141 providers by recognized cannabis healthcare experts including Dr. Carey S. Clark and Dr. Dustin  
142 Sulak as well as other prominent cannabis healthcare experts. Dr. Carey S. Clark (2021) published  
143 *Cannabis: A handbook for nurses* through Wolters Kluwer. The book was awarded second-place  
144 prize by the *American Journal of Nursing* for excellence in advanced practice nursing in 2021.  
145 This is the first textbook to provide nursing faculty / educators, nursing students, and practicing  
146 nurses with a foundational resource for cannabis therapeutics. This book focuses on the nurse's  
147 role in cannabis care and is designed to be used across all levels of curricula and supports the  
148 NCSBN's (2018) six principles of essential knowledge. The book provides instruction in nurse-  
149 driven coaching and educational interventions with cannabis healthcare consumers and includes  
150 case studies, applied nursing implications, and NCLEX style questions. In *Cannabis: A handbook*  
151 *for nurses, Chapter 5*, Clark, Parmelee, and Ochester (2021) describes a substantial amount of  
152 current cannabis research studies on topics which include: adult chronic pain, posttraumatic stress  
153 disorder (PTSD), cancer care, cannabis, and opioids: pain and addiction, glaucoma, irritable bowel  
154 disease, and the neurologic issues of multiple sclerosis (MS), spasticity, intractable seizures,  
155 Parkinson's disease (PD) and traumatic brain injury (TBI). Clark, (2021) *Cannabis: A handbook*  
156 *for nurses* also delves into nursing responsibilities and skills in cannabis care as it relates to  
157 specific disease processes. It examines the physiology of the human endocannabinoid system,  
158 cannabis dosing, delivery methods, and side effects. In addition, Clark's (2021) book chapters  
159 include: 1) history of cannabis prohibition; 2) the human endocannabinoid system; 3) cannabis

160 pharmacology; from the whole plant to pharmaceutical applications; 4) cannabidiol; 5) cannabis  
161 science: reviewing trends; 6) the nurses role: providing cannabis care; 7) advanced practice nursing  
162 considerations; 8) legal ethical, and advocacy concerns: cannabis from the federal and state level;  
163 and 9) the cannabis care nurse's experience.

164         The *Handbook of cannabis for clinicians: Principles and practice* by Dustin Sulak, DO  
165 (2021) was written for physicians, psychologists, pharmacists, and nurses, and focuses on the  
166 clinical use of cannabis and cannabinoid therapeutics. Based on over a decade of experience as a  
167 cannabis clinician, the book includes: a literature review, the history of cannabis in medicine, the  
168 foundations of endocannabinoid physiology, the pharmacological effects of cannabis, the clinical  
169 applications for various cannabis preparations and consumption methods, and specific  
170 recommendations for treating the most common health conditions. This book was published by  
171 W.W. Norton and Company (Sulak, 2021).

172         In 2018, Eileen Konieczny, RN, and Lauren Wilson published *Healing with CBD: How*  
173 *cannabidiol can transform your health without the high*. This book serves as a guide to cannabidiol  
174 (CBD) treatments and benefits and draws on the authors' years of experience working with  
175 cannabis healthcare consumers, extensive scientific studies, and includes topics such as: what and  
176 how CBD is made; how CBD is different from THC; what are potential treatments for common  
177 ailments; how to purchase safe quality products; dosing considerations and effects; and an  
178 overview of the endocannabinoid system.

179         In addition to the above mentioned, several other texts authored by physicians and nurses  
180 are credible and reliable educational materials including Michael Backes's (2017) *Cannabis*  
181 *pharmacy: The practical guide to medical marijuana*; Michael Moskowitz's (2017) *Medical*  
182 *cannabis: A guide for patients, practitioners, and caregivers*; and Elizabeth Mack's RN, BSN,

183 MBA (2020) *Cannabis for health: Become a coach*. Michael Backes (2017) *Cannabis Pharmacy:*  
184 *The Practical Guide to Medical Marijuana* is a comprehensive overview of cannabis therapeutics in  
185 a presentation of evidence-based information for over 50 ailments and conditions.

186 Bonni Goldstein, M.D. (2016) with the forward written by renowned Ethan Russo, M.D.  
187 *Cannabis revealed: How the worlds most misunderstood plant is healing everything from chronic*  
188 *pain to epilepsy* published by Bonnie Goldstein M.D. describes the endocannabinoid system and  
189 the science behind using cannabis therapeutics to treat medical conditions. In a second publication,  
190 Goldstein (2020), *How Medical Cannabis and CBD are Healing Everything from Anxiety to*  
191 *Chronic Pain: Cannabis is medicine* also self-published explains the potent healing power of  
192 cannabis with the mantra: First, Do No Harm. Goldstein (2016) describes the current scientific  
193 research and interactions of cannabis therapeutics and the human physiology creating homeostasis  
194 and providing an overview of cannabis as a medicine.

195 Colleen Higgins, R.Ph Pharmacist, (2020) author of *The Cannabis Prescription: How to*  
196 *use medical marijuana to reduce or replace pharmaceutical medications* published by Sway  
197 Innovations. This is an evidenced-based reference book which discusses the option of cannabis  
198 therapeutics as adjuvant or replacement therapeutics for chronic illness, the various routes of  
199 administration, and offers specific dosages of CBD, THC, and CBN to avoid adverse reactions and  
200 effective symptom management.

201 In addition to texts authored by healthcare professionals, educational and training materials  
202 such as the *Cannabis health index: Combining the science of medical marijuana with mindfulness*  
203 *techniques to heal 100 chronic symptoms and diseases* by Uwe Blesching (2015) have emerged to  
204 help cannabis healthcare professional find evidence and information. Blesching's book combines  
205 evidence-based insights from more than 1,000 studies from cannabinoid and consciousness

206 research on the treatment of over 100 chronic conditions and rates the cannabis efficacy by  
207 symptom along with recommendations for use and related mindfulness-based practices to enhance  
208 healing.

209 Russ Hudson (2022) an international cannabis consultant, author of *The Big Book of*  
210 *Terps: Understanding terpenes, flavonoids and synergy in cannabis*, self-published the world's  
211 largest scientific research to compile and dissect and features commentary by top cannabinoid and  
212 terpene researchers including Raphael Mechoulam, Ethan Russo, Susan Trapp, Mitch Earleywine,  
213 and others. *The Big Book of Terps (2022)* includes detailed information about the top 35 terpenes  
214 and top 12 flavonoids found in cannabis with a primary focus on evidence for synergy between  
215 these compounds and cannabinoids, which are a class of terpenes called diterpenes. Each chapter  
216 ends with review questions and provides references to explore discussed topics.

217 Alice O'Leary Randall, LPN, senior spokesperson for the medical cannabis movement  
218 authored *Medical Marijuana in America: Memoir of a pioneer (2014)* and *Pain-Free with CBD:*  
219 *Everything you need to know to safely and effectively use cannabidiol (2019)*. Randall, (2019)  
220 explores the endocannabinoid system, CBD and working to heal the body; method to select high  
221 quality CBD products; individual dosage recommendations, and interactions between CBD and  
222 commonly prescribed medications.

### 223 **Summary of research journals dedicated to the therapeutic use of cannabis**

224 To date, a handful of peer-reviewed journals have emerged and focus on the research into  
225 the therapeutic use of cannabis. These journals include the following:

- 226 • *American Journal of Endocannabinoid Medicine* – self-published
- 227 • *Cannabis* - published by Research Society of Marijuana.
- 228 • *CRx Medicine* - published by Great Valley Publishing Company
- 229 • *Journal of Cannabis and Cannabinoid Research* – published by Maryann Liebert, Inc
- 230 • *Journal of Cannabis Research* – published by Biomed Central
- 231 • *Medical Cannabis and Cannabinoids* – published by Karger Publishers

232 The only magazine to emerge which focuses on the cannabis healthcare consumer's experience is  
233 *Cannabis Patient Care* published by MJH life sciences. The fact that there are limited peer-  
234 reviewed research journals dedicated to cannabis therapeutics and no peer-reviewed journals  
235 focused on cannabis nursing or cannabis care demonstrates the importance of raising the visibility  
236 of cannabis nursing considering the growing use of cannabis therapeutics.

### 237 **Professional associations for cannabis healthcare providers**

238 In addition to the NCSBN's six principles of essential knowledge for nurses, and the  
239 emergence of the ACNA to support cannabis nursing, several physician-based groups, such as the  
240 American Academy of Cannabis Medicine, the American Medical Marijuana Physicians  
241 Association, Doctors for Cannabis Regulation, and the Society for Cannabis Clinicians, have  
242 emerged as champions of cannabis therapeutics and research. Other cannabis organizations such as  
243 the Cannabis Nurse Network (CNN), Project CBD, and Leaf411 are testament to the dedication of  
244 cannabis nurses to provide healthcare consumers with high quality resources. The establishment  
245 and evolution of these professional associations are an undisputable sign of the growing  
246 acceptance among healthcare professionals of the therapeutic use of cannabis for safely treating an  
247 array of chronic health conditions.

### 248 **History of Cannabis as Medicine**

249 From ancient times to the current era, the cannabis plant has been utilized by diverse global  
250 cultures for its medicinal, spiritual, industrial, and recreational properties. Cannabis originated in  
251 Ancient Eastern civilizations, beginning in China and Central Asia, and migrated along trade  
252 routes to India, Middle East, Africa, Europe, and the Americas. Historically, therapeutic potions  
253 derived from cannabis were formulated and routinely used by healthcare providers for a variety of  
254 ailments and conditions globally - including the United States.

**255 Cannabis becomes regulated in the U.S.**

256 During the late 19<sup>th</sup> and early 20<sup>th</sup> century, cannabis was legally available and widely  
257 used throughout the U.S. for industrial and therapeutic purposes. It was frequently prescribed by  
258 physicians. It was also used recreationally by some small segments of society – mainly people of  
259 color and recent immigrants from Mexico who called the plant ‘marihuana’ / ‘marijuana’ which  
260 became the plant’s commonly known name.

261 The use of marihuana by people of color and recent immigrants became a tool for racial  
262 bias; this bias initially manifested in local laws targeted towards people who were using the plant  
263 for social purposes (Musto, 1999). In 1914, the US Congress passed the Harrison Narcotics Act  
264 which established a first ever legislative model for the control of drugs with psychoactive  
265 properties (Musto, 1999). The Harrison Act model was applied to cannabis in 1937 when Congress  
266 passed the Marihuana Tax Act even though the American Medical Association opposed the  
267 legislation. This legislation prohibited the cultivation, production, and possession of cannabis and  
268 cannabis-based products, including medicines, without paying a specific tax, making cannabis  
269 expensive and cumbersome to obtain (Rasmusson, 2014). With many new drugs appearing on the  
270 market, physicians found other avenues of treatment for their patients. In 1942, the drug was  
271 removed from the U.S. Pharmacopeia which was the death knell for cannabis as medicine.

272 In 1970, the U.S. drug laws underwent a major overhaul spurred in part by the Supreme  
273 Court ruling that found the Marijuana Tax Act unconstitutional (Booth, 2003). The Controlled  
274 Substances Act was President Richard Nixon’s fulfillment of his pledge to be ‘tough on drugs’.  
275 The Controlled Substance Act created five schedules of drugs with Schedule I being the most  
276 restrictive. Schedule I drugs such as heroin, LSD, and Ecstasy are defined as having a high  
277 potential for abuse, having no currently accepted medicinal use, and lacking an acceptable level of

278 safety for their use (U.S. Drug Enforcement Administration, n.d.). Marijuana was placed in the  
279 Schedule I category. Congress held hearings on marijuana's placement on the Schedule I list with  
280 several senators requesting evidence that supported its inclusion. Ultimately, their opposition  
281 threatened the bill's passage with Nixon proposing a presidential commission to study marijuana  
282 and recommend the proper scheduling. The presidential commission, chaired by Governor William  
283 Shafer of Pennsylvania, became known as the Shafer Commission, and investigated marijuana for  
284 two years. In 1972, the Shafer Commission released its report stating that marijuana posed  
285 negligible risk to the health and well-being of US citizens (Langdon, 2016) and should be  
286 decriminalized (National Commission on Marihuana and Drug Abuse, 1972). The Shafer  
287 Commission's recommendations were disregarded, and marijuana remains a Schedule I controlled  
288 substance to this day.

### 289 **Nurses evolve into advocates for cannabis healthcare consumers**

290 In 1976, Robert Randall, a resident of Washington, DC, was the first person in the  
291 United States to legally receive federally grown cannabis, for his medical condition, glaucoma.  
292 This created a firestorm of publicity that was noted with considerable interest by the medical  
293 community. Nurses, in particular, were already hearing about the beneficial effects of marijuana  
294 for their cancer chemotherapy patients (O'Leary-Randall, 2014).

295 Robert Randall (1948-2001) is the acknowledged "father" of the medical marijuana  
296 movement and his wife Alice O'Leary Randall, is known as the "First Lady of Medical Marijuana"  
297 (Clark, 2021). In 1980, the couple founded the Alliance for Cannabis Therapeutics (ACT), the first  
298 nonprofit organization dedicated to the therapeutic applications of the cannabis plant. The ACT  
299 drafted national legislation to legalize medical access to cannabis. The legislation was in response  
300 to 34-state laws that had passed between 1978 and 1980 which authorized state programs of

301 research with cancer and glaucoma patients using cannabis under a doctor’s supervision. At one  
302 time the legislation had 110 co-sponsors but was derailed by the “Just Say No” campaign and  
303 Reagan’s ‘War on Drugs’.

304 In the late 1980s, ACT served as one of the primary plaintiffs in historic hearings before  
305 the U.S. Drug Enforcement Administration (DEA) in efforts to prove the therapeutic usefulness of  
306 cannabis. The ACT was successful in convincing the DEA’s chief administrative law judge,  
307 Francis Young, that cannabis should be removed from the classification as a Schedule I controlled  
308 substance, but the decision was overruled by DEA administrator, John Lawn. Despite additional  
309 petition efforts to properly classify cannabis it remains in Schedule I.

310 Denied relief on the removal of cannabis from the Schedule I list, advocates launched a  
311 series of voter initiatives across the U.S. Beginning with the 1996 passage of California's  
312 Compassionate Care Act known as Proposition 215 and continuing into the 21st century, these  
313 voter initiatives have resulted in the creation of statewide medical marijuana programs (MMPs).  
314 Sensing the need of the public for information and education about cannabis, nurses began to  
315 advocate and provide nursing care to cannabis healthcare consumers.

316 In 1995, a former lieutenant in the Navy Nurse Corps, Marilyn Mathre and her  
317 husband, Al Byrne, both of whom were on the board of the National Organization for the Reform  
318 of the Marijuana Laws (NORML), joined Alice and Robert O’Leary to form Patients Out of Time  
319 (POT) as a 501 (C)(3) to educate health care professionals and the public about the therapeutic use  
320 of cannabis. In 2000 they started an accredited national clinical conference series on cannabis  
321 therapeutics .

322

323

### 324 **Founding of the American Cannabis Nurses Association**

325           The American Cannabis Nurses Association (ACNA) was conceived by founding  
326 leaders, Julia (Ed) Glick and Mary Lynn Mathre in 2006 during the *Fourth National Clinical*  
327 *Conference on Cannabis Therapeutics* presented by Patients Out of Time in Santa Barbara  
328 California. The ACNA founding leaders envisioned a nursing organization dedicated to advancing  
329 “excellence in cannabis nursing practice through advocacy, collaboration, education, research, and  
330 policy development” (American Cannabis Nurses Association, 2021). This nursing association  
331 represents the emerging field of cannabis nursing and cannabinoid therapeutics, provides scientific  
332 and educational opportunities to nurses and the public, and assists nurses in understanding and  
333 advocating for their cannabis healthcare consumers.

334           In 2009 and 2010, the founding leaders completed the process to incorporate the ACNA  
335 and set up financial accounting, logo development, and outreach to the American Nurses  
336 Association. The ACNA, a professional organization advocating for cannabis nursing as a  
337 specialty practice, was formally organized in 2010 to represent nursing in the emerging field of  
338 cannabinoid therapeutics. An introductory meeting of the organization was held at the 2010  
339 *Patients Out of Time Conference* in Warwick, Rhode Island by an interim founders committee  
340 composed of nurses: Julia (Ed) Glick, Mary Lynn Mathre, Bryan Krumm, Ken Wolski, Sharon  
341 Palmer, and advocates, Stacie Boilard, and Vincent Shelzi. In November of 2011, the first ACNA  
342 Board was elected to include: Mary Lynn Mathre as President, Julia (Ed) Glick as Secretary, Stacie  
343 Boilard as Treasurer, and Bryan Krumm, Ken Wolski, and Sharon Palmer as board members.

344           By 2014, increases in the ACNA’s membership prompted the ACNA Board of Directors to  
345 restructure the organization to accommodate its growth. While the ACNA’s mission remained the  
346 same, restructuring included rechartering ACNA as a New Jersey non-profit organization and

347 adopting formal bylaws. In 2015, the ACNA applied for and was granted tax-exempt status under  
348 the IRS code 501(C)(3). In 2016, the ACNA held its first member-wide elections for the Board of  
349 Directors. LLLL

### 350 **Establishment of formal guidelines for cannabis nurses**

351 In 2017, Mary Lynn Mathre MSN, CARN and ‘mother of cannabis nursing’ gave the  
352 presentation “*A Historical, Legal and Evidence-based Review of Medical Cannabis*” to the  
353 members of the National Council of State Boards of Nursing (NCSBN) at the NCSBN Annual  
354 Institute of Regulatory Excellence conference. The stated objectives of the presentation were to 1)  
355 describe the long history of medical cannabis from ancient use to the US prohibition, and to the  
356 current legal conundrum; 2) describe the basic components of the endocannabinoid system; and 3)  
357 recognize the ethical/legal conflicts facing nurses today as they relate to medical cannabis.  
358 Mathre’s presentation contributed to the efforts of NCSBN’s Medical Marijuana Guidelines  
359 committee to address the issues, challenges, and barriers faced by nurses regarding medical  
360 cannabis.

361 In Spring of 2018, then president of the ACNA, Dr. Carey Clark met with members of  
362 NCSBN and reached consensus on the idea that the *ACNA Scope and Standards - 2017* were in  
363 alignment with the NCSBN essentials. In July 2018, the NCSBN published a supplemental edition  
364 of the *Journal of Nursing Regulation* to address cannabis nursing. *The NCSBN National Nursing*  
365 *Guidelines for Medical Marijuana* acknowledges that "nurses are left without evidence-based  
366 resources when caring for patients who use medical or recreational cannabis products" ("NCSBN  
367 national nursing guidelines for medical marijuana," 2018, p. S6). Within this edition, the NCSBN  
368 presented six principles of essential knowledge to "provide nurses with principles of safe and  
369 knowledgeable practice to promote patient safety when caring for patients using medical

370 marijuana" ("NCSBN national nursing guidelines for medical marijuana," 2018, p. S19). These six  
371 principles of essential knowledge provide nurses with a solid foundation for future inclusion in  
372 nursing academia, curriculum development, licensing examination assessment criteria, and nursing  
373 certifications within the nursing scope of practice. These six essentials of knowledge directs the  
374 cannabis nurse to include: 1) a working knowledge of the current state of legalization of medical  
375 and recreational cannabis use; 2) a working knowledge of the jurisdiction's medical marijuana  
376 program (MMP); 3) an understanding of endocannabinoid system, cannabinoid receptors,  
377 cannabinoid, and the interactions between them; 4) an understanding of cannabis pharmacology  
378 and the research associated with the medical use of cannabis; 5) being able to identify the safety  
379 considerations for patient's use of cannabis, and 6) approaching the patient without judgment  
380 regarding the patient's choice of treatment or preferences in managing pain and other distressing  
381 symptoms ("NCSBN national nursing guidelines for medical marijuana," 2018, p. S19).

382 As laws and policies surrounding cannabis therapeutics changed over the decades, nurses  
383 recognized the significance of including cannabis healthcare consumers within their nursing  
384 process (ACNA, 2021). Regardless of the state of evidence-based resources and despite legislative  
385 confusion, social justice issues, legal implications, and societal stigma, individuals continue to use  
386 the cannabis plant and nurses will continue to care for cannabis healthcare consumers leading to  
387 the required specialization of cannabis nursing education and a defined practice for cannabis  
388 nurses.

### 389 **Current Use of Therapeutic Cannabis in the United States**

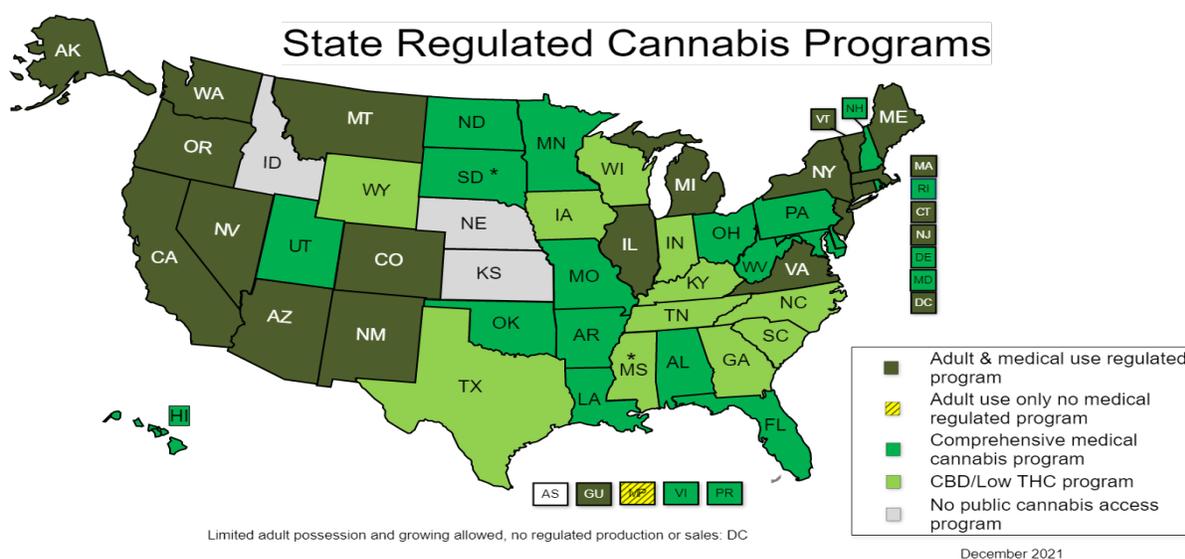
390 Recent polling provides evidence of the overwhelming support among the American public  
391 for the legal use of cannabis for therapeutic, medicinal, and recreational purposes. In the United  
392 States approximately 48.2 million people (18% of the total population) reported consuming

393 cannabis at least once in 2019 (CDC, 2021). The percentage of United States adults who have  
394 consumed cannabis has risen in the past 50 years from four percent of the population in the 1960's  
395 to almost 50% of the population in 2020 (Gallup, 2021). A 2018 Quinnipiac University poll shows  
396 more than 90 percent of United States voters support legalizing medicinal cannabis (Quinnipiac,  
397 2018). A Yahoo Marist (2017) poll revealed 83% of the 1,122 adult participants believed that  
398 cannabis should be legalized for therapeutic use (Stableford, 2017). The Pew Research Center  
399 reports that in 2021, 91% of U.S. adults expressed their opinion that cannabis should be legalized  
400 and 8% declare cannabis should remain illegal (Pew Research Center, 2021). The Pew Survey  
401 (2021) also revealed that approximately 90% of participants between the ages of 18 - 75 support  
402 the legalization of cannabis for therapeutic, medicinal, and recreational use (Pew Research Center,  
403 2021). In addition, according to a poll by Gallup, 86% of adults in the United States supported the  
404 legalization of cannabis (Jones, 2019). Over the past four decades, the American public support  
405 and use of cannabis for therapeutics purposes has steadily risen. The results of these various polls  
406 provide evidence that the American public is supportive of the use of cannabis with an estimated  
407 3.6 million cannabis healthcare consumers currently participating in some form of a state-legal  
408 medical marijuana program (MMP) (Rosenthal. 2021).

### 409 **Legalization of Cannabis in the United States**

410 As of February 2022, thirty-seven states, Washington, D.C., and four U.S. territories have  
411 legalized medical cannabis and adult use (National Conference of State Legislatures (NCSL),  
412 2022). According to 2019 population estimates by the U.S. Census Bureau, 43% of United States  
413 adults reside in a jurisdiction that has legalized the use of cannabis (Pew Research Center, 2021).  
414 The Northern Mariana Islands, a U.S. commonwealth, and Guam, a U.S. territory, legalized the  
415 recreational use of cannabis in 2018 and 2019 respectively. Numerous states have also enacted

416 laws reducing criminal penalties for certain cannabis-related convictions or allowing past  
 417 convictions to be expunged. The result of this cannabis legalization activity across the U.S. and its  
 418 territories is the implementation of over 40 different MMPs (see Figure 1). Each MMP is governed  
 419 by its own state laws, regulations, restrictions, and lists of qualifying health conditions which  
 420 results in a wide degree of variations between state MMPs. Each state has a different process for 1)  
 421 becoming a state-legal certified cannabis consumer; 2) the amount and type of cannabis products  
 422 an individual can purchase; and 3) the legal protections extended to cannabis consumers,  
 423 designated caregivers, nurses, and all health care providers (NCSL, 2017). These dissimilarities in  
 424 MMPs are central to the challenges faced by cannabis nurses, cannabis healthcare consumers, and  
 425 cannabis nurse educators.



426

427

428 Figure 1: <https://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx>

429

430 **Summary of Qualifying Conditions and Evidence of Benefits, Risk, and Adverse Effects**

431

432 As more jurisdictions legalize cannabis for therapeutic purposes, the list of qualifying

433 health conditions continues to grow. A qualifying health condition is a medical condition which a

434 jurisdiction recognizes as qualifying a healthcare consumer to purchase medical cannabis  
 435 (Boehnke et al., 2019). Each jurisdiction that authorizes healthcare consumers to legally consume  
 436 cannabis therapeutics has implemented its own set of rules and its own list of qualifying  
 437 conditions. Parmelee, Clark, and Sommers (2021) provides a summarized list of the qualifying  
 438 conditions drawn from data sourced from MMP registries across the United States. This list  
 439 indicated that the medical condition most often treated with cannabis therapeutics are chronic pain  
 440 (67%), multiple sclerosis (27.4%), cancer and cancer-treatment related side effects (10%), and  
 441 irritable bowel syndrome (5.7%) (Clark, et.al, 2021). According to NCSBN (2018) chronic pain,  
 442 nausea/vomiting, and neuropathies are the most researched and commonly associated with medical  
 443 cannabis. The NCSBN (2018) lists 57 conditions across a wide variety of state MMPs that qualify  
 444 a healthcare consumer to seek a license to use cannabis therapeutically. Table 2 below illustrates  
 445 the eighteen most qualifying conditions (NCSBN, 2018). *Table 2 Eighteen Most Qualifying*  
 446 *Condition Across all MMPs (NCSBN, 2018)*

1. ALS	8. Glaucoma	15. Persistent muscle spasm (including multiple sclerosis)
2. Alzheimer's disease	9. Hepatitis C	16. Posttraumatic stress disorder
3. Arthritis	10. HIV/AIDS	17. Sickle cell disease
4. Cachexia	11. Nausea	18. Terminal illness
5. Cancer	12. Neuropathies	
6. Crohn's disease and other irritable bowel syndromes	13. Pain	
7. Epilepsy/seizures	14. Parkinson's disease	

447 While answers in the form of evidence drawn from large-scale double blind randomized  
 448 controlled studies (RCTs) and human trials as to the 'how and why' cannabis therapeutics are  
 449 effective for specific health conditions remains limited, cannabis itself is now one of the most  
 450 researched plants in the world. For example, there are over 38,500 publications regarding the  
 451 therapeutic use of cannabis available from PubMed (PubMed, 2022).

452 Plant-based cannabinoid therapeutics are complex, plant-based formulations whose use is  
453 made more complicated because cannabis healthcare consumers self-titrate. The safe and effective  
454 use of cannabinoid therapeutics can be ensured when guided by a knowledgeable nurse using a  
455 patient-centered approach. The cannabis nurse must assess, collect data, and analyze each  
456 healthcare consumer's unique holistic health situation when providing guidance on the therapeutic  
457 use of cannabis. Based on the best evidence from the most credible sources the nurse can access,  
458 the cannabis nurse uses this information to make well-informed recommendations and nursing  
459 practice decisions.

460 Three credible sources are available to guide the cannabis nurse in utilizing cannabinoid  
461 medicine science evidence. The National Academies of Sciences, Engineering, and Medicine's  
462 (2017) landmark report entitled *The health effects of cannabis and cannabinoids: The current state  
463 of evidence and recommendations for research*, the NCSBN's *National Nursing Guidelines for  
464 Medical Marijuana* (2018), and the Wolters Kluwer textbook, *Cannabis: A handbook for nurses*  
465 by Dr. Carey S. Clark (2021). These materials outline the health benefits, approaches to safe and  
466 effective use of cannabis, cannabis's risks and adverse effects, and the role of the nurse in working  
467 with cannabis care patients. Following are brief summaries of each of these three sources of  
468 information important for cannabis nurses and nursing practice.

#### 469 **Health Benefits of Cannabis Therapeutics**

470 The NASEM (2017) report collated and reviewed research findings dating back to 1999  
471 related to the health effects of recreational and medical use of cannabis. The review summarizes  
472 then current evidence about the known therapeutic effects of cannabis and considers some of the  
473 potential adverse effects of cannabis use related to specific disease states, including some cancers,  
474 mental health issues and injuries (Clark, et.al, 2021). (See Appendix A for a list of the conditions).

**475 Health Risks of Cannabis Therapeutics**

476 The NASEM committee concluded that cannabis containing the cannabinoid delta 9  
477 Tetrahydrocannabinol (THC) does pose some risks which include developing cardiac-respiratory  
478 conditions, impaired brain development in young adults, testicular cancer; motor vehicle injuries,  
479 learning and attention impairment, and low birth weight babies (NASEM, 2017). The most  
480 significant health risk the NASEM committee attributes to cannabis use its risk to human's  
481 personal safety and criminal persecution due to its status as a controlled substance.

482 Cannabis consumers risk more from being exposed to criminal elements in the illegal  
483 market or from being arrested and imprisoned for its use or possession than from using cannabis  
484 therapeutically (Drug Policy Alliance, 2016). The risk to personal freedom is particularly great for  
485 people of color who are incarcerated for cannabis related crimes at higher rates , yet there is  
486 negligible evidence that people of color consume more cannabis (NAACP, 2016). This situation  
487 has created a massive social injustice and put people consuming cannabis for either medicinal or  
488 recreational purposes in unnecessary danger. See Appendix A for a summary of the risk factors to  
489 human health, the level of risk, and abbreviated comments from the NASEM report (NASEM,  
490 2017).

**491 Adverse Side Effects of Cannabis Therapeutics**

492 While considered one of the safest medicinal plants, there are some adverse effects to  
493 human health related to cannabis containing delta-9 THC. Adverse side effects reported include  
494 increased heart rate, increased appetite, sleepiness, dizziness, decreased blood pressure, dry  
495 mouth/dry eyes, decreased urination, hallucination, paranoia, anxiety and impaired attention,  
496 memory, and psychomotor performance (National Institute of Health, 2019). Other adverse side  
497 effects of cannabis vary by specific populations including adolescence, fertility, pregnancy and

498 neonates, immunocompromised patients, dyskinesia, altered cognition, mania and predisposition to  
499 mania, schizophrenia, preexisting diseases, overdose, abuse dependence, and withdrawal, drug-  
500 drug interactions. [These adverse side effects are described in greater detail in the Journal of  
501 Nursing Regulations (NCSBN, 2018, p 14 - S17)]. Overall, in 2017 the NASEM committee  
502 concluded there is enough evidence to prove that cannabis has medicinal value. As noted above,  
503 Appendix A provides a summary of this evidence including risk factors, levels of risk, and  
504 abbreviated comments (NASEM, 2017).

505 The NASEM (2017) report noted that patients, health care providers, and policymakers still  
506 need more conclusive information about both benefits and risks of using cannabis therapeutically.  
507 The report also concluded that with the rise in both the recreational and medicinal use of cannabis  
508 in the United States, the need to understand the potential risks and benefits becomes both an  
509 individual concern and a public health issue. Another public health issue the NASEM report  
510 identified is the growing evidence that cannabis may be effective in helping stem the alarming rise  
511 of opioid addiction in the United States. Since the NASEM report was published there has been  
512 strong evidence of the effectiveness in helping heal people with opioid addictions (Vyas et al.,  
513 2018).

#### 514 **Summary of Findings - NSCBN National Guidelines for Medical Marijuana**

515 The *Journal of Nursing Regulations "The NSCBN National Guidelines for Medical*  
516 *Marijuana"* (July 2018) contains a detailed table in Appendix B (p. S47 – S51). This table  
517 summarizes 47 cannabis research studies using the GRADE scale (NSCBN, 2018, p S47). The  
518 GRADE scale is a tool for assessing the quality of evidence and for explicating the quality of the  
519 evidence based on a scale of high, moderate, low, and very low. The cannabis studies are arranged  
520 according to qualifying health conditions with significant evidence and preferentially grouped by

521 condition (NSCBN, 2018). The studies consist of the following topics: cachexia, cancer, chronic  
522 pain, epilepsy, fibromyalgia, HIV/AIDS, Multiple Sclerosis (MS), MS neuropathies, MS chronic  
523 pain, nausea / vomiting, neuropathies, diabetes neuropathies, posttraumatic stress disorder,  
524 schizophrenia, spinal cord injury, and Tourette Syndrome.

525 **Summary of Cannabis: A Handbook for Nurses - Ch 5 by Clark, Parmelee, & Ochester**  
526 **(2021)**

527 Clark, et. al. (2021) stated that 85.5% of medical healthcare consumers in the United States  
528 are using cannabis for conditions that NASEM (2017) reported as having substantial or conclusive  
529 evidence of effectiveness. Clark (2021) Chapter five summarizes the NASEM report and explores  
530 research from 2017 to 2020 (Clark, 2021). Chapter five mirrors the John Hopkins approach to  
531 critiquing the evidence and included the process to use search engine tools to obtain current  
532 research articles related to specific disease process. The articles were reviewed for relevancy,  
533 authorship, research methodology, findings, and limitations. In addition, high-quality research  
534 articles of broad interest to cannabis nurses were reviewed regarding adult chronic pain, post-  
535 traumatic stress disorder, cancer care, cannabis and opioids: pain and addiction, glaucoma,  
536 inflammatory bowel disease, multiple sclerosis, seizure disorders, Parkinson's disease, and  
537 traumatic brain injury; this body of evidence can be reviewed in its entirety in Chapter 5 Cannabis:  
538 A Handbook for Nurses (Clark, et.al, 2021 p.219-262).

539 Lastly, as part of their practice, cannabis nurses share a common language and shared  
540 values which are reflected in the definitions and descriptions of key terms, concepts, models,  
541 theories, and values. Following is a summary of those definitions, principles, and values.

542

543

## 544 **Definitions, Guiding Principles, Core Value, and Practice Settings**

545           The nursing profession defines competency as an expected performance level that  
546 incorporates specific knowledge, skills, abilities, and judgment that form the foundation of quality  
547 practice (ANA, Professional Role Competence Position Statement, 2014). The ACNA uses this  
548 definition to define the minimum proficiency and basic performance that a nurse must possess to  
549 safely provide care to cannabis healthcare consumers. Cannabis products are used by diverse and  
550 vulnerable populations of healthcare consumers who consume cannabis therapeutically in a variety  
551 of settings and who have various health conditions. It is vitally important that the nurse understand  
552 foundational concepts and can perform complex cannabis competencies as outlined in this  
553 document. These competencies coupled with specialized knowledge of cannabis therapeutics help  
554 protect the cannabis healthcare consumer, the public, the cannabis industry, the nurse, and the  
555 nursing profession by facilitating the delivery of cannabis care and the effective use of cannabis for  
556 therapeutic purposes. The following definitions provide a shared understanding of terms and  
557 concepts important to cannabis nurses and cannabis care.

## 558 **Definitions of Terms**

559 **Advanced Practice Registered Nurse.** A graduate -level prepared registered nurse who has  
560 completed an accredited graduate-level education program preparing nurses for special licensure  
561 and practice for one of the four recognized APRN roles (Nursing: Scope and Standards of Practice,  
562 Fourth Edition, 2021, p. 109).

563  
564 **Advocacy.** The act or process of pleading for, supporting  
565

566 **Cannabinoid(s).** Any of various naturally occurring, biologically active, chemical constituents  
567 (such as cannabidiol or cannabinol) of hemp or cannabis including some (such as THC) that  
568 possess psychoactive properties (Merriam Webster Medical Dictionary, 2017a). Cannabinoids  
569 include chemical constituents derived from the cannabis plant (phytocannabinoids), endogenously  
570 created in the human body (endocannabinoids), or synthetically created in a controlled setting (i.e.,  
571 dronabinol) (Grotenhermen & Russo, 2008). Phytocannabinoids found in the cannabis plant  
572 including delta 9 tetrahydrocannabinol (THC) and cannabidiol (CBD) interact directly with human  
573 endocannabinoid system (ECS) via a network of CB1 and CB2 receptors found throughout the  
574 body. Cannabinoids are compounds that bind to a cannabinoid cell captoror (Malka, 2022).

575 **Cannabis.** Also commonly known as “marijuana” or “marihuana” which is a term that may be  
576 discriminatory and has fallen from favor in the professional and scientific settings. Any raw  
577 preparation of the leaves of flowers from the plant genus *Cannabis sativa* (NCSBN, 2017). The  
578 cannabis plant, *Cannabis Sativa*, of the Cannabaceae plant family is dioecious (has male and  
579 female plants) with more than 500 chemical compounds called phytocannabinoids, terpenoids, and  
580 flavonoids. Cannabis is a complex plant medicine available in a variety of forms that can produce a  
581 wide range of effects and is also used for the extraordinary strong fibers to make hemp cloth,  
582 paper, and building materials today (Backes, 2017).

583  
584 **Cannabis Therapeutics.** The products formulated from the botanical cannabis plant used for its  
585 curative and healing properties for improving human well-being and homeostasis, the treatment of  
586 acute and chronic health conditions and symptoms, and for enhancing human joy, spirituality,  
587 connections, and happiness.(ACNA, Scope and Standards 2022)

588  
589 **Competence.** Competence is performing successfully at an expected level. (Professional Role  
590 Competence Position Statement, ANA, 2014)

591  
592 **Competency.** An individual who demonstrates “competence” is performing successfully at an  
593 expected level (American Nurses Association, 2021)

594 **Cannabis Care Nurses.** Cannabis care nurses be professional licensed vocational nurses,  
595 registered nurses, or advanced practice registered nurses (Clark, 2021, pp 268 - 307). Cannabis  
596 care nurses have knowledge and formal training regarding the physiology of the human ECS  
597 cannabinoid pharmacodynamics'/pharmacokinetics, the body of scientific evidence related to  
598 cannabinoid effectiveness, and advocacy approaches. They educate and support patients to use  
599 cannabis safely and effectively, and they also provide coaching around the upregulation of the  
600 ECS. They act as advocates for patients to have access to safe, test cannabinoid medicines.  
601 Cannabis care nurses focus on education and coaching patients toward maximizing the health  
602 potential of the ECS and obtaining homeostasis (Clark, 2021 p. 221) .

603  
604 **Cannabis Nursing.** Cannabis nursing is defined as a specialty nursing practice focused on care of  
605 healthcare consumers seeking education and guidance in the therapeutic use of cannabis (ACNA,  
606 2019).

607  
608 **Endocannabinoid Deficiency.** The clinical endocannabinoid deficiency theory suggest that  
609 deficiencies of the ECS that produces pathophysiological syndromes with particular  
610 symptomatology (migraine, fibromyalgia, irritable bowel syndrome. (Russo, 2016)

611  
612 **Endocannabinoid System (ECS).** The endocannabinoid system (ECS) is a widespread  
613 neuromodulatory system that plays important roles in central nervous system (CNS) development,  
614 synaptic plasticity, and the response to endogenous and environmental insults (Lu, 2016). The ECS  
615 consists of endocannabinoids, cannabinoid receptors (CB1 and CB2) and the enzymes responsible  
616 for synthesis and degradation of endocannabinoids (Mackie, 2020). These receptors located  
617 throughout the body and brain are responsible for synthesis and degradation of endocannabinoids  
618 (Higgins, 2020). The ECS is a complex regulatory system located in all complex animals that  
619 regulate functions such as: memory, digestion, motor function, immune response, and

620 inflammation, appetite, blood pressure, bone growth, and protecting neural function (Backes,  
621 2017).

622

623 **Endocannabinoid Tone.** All humans have an underlying endocannabinoid tone where the  
624 centrally acting endocannabinoids anandamide (AEA) and 2-arachidonoylglycerol (2-AG), their  
625 synthesis, catabolism and number of receptor sites in the brain influence ECS function (Russo,  
626 2016).

627

628 **Entourage Effect.** The synergistic relationship that improves the efficacy by utilizing all the  
629 components of whole-plant cannabis flower which contain the entire spectrum of compounds,  
630 (terpenes, flavonoids and phytocannabinoids). The interaction between these compounds are more  
631 effective than when individual compounds are utilized as isolated components (Harris, 2022).  
632 Therapeutics may also be enhanced for pain relief, anti-inflammatory, and antioxidant effects  
633 when combinations of terpenes and cannabinoid acids are combined to enhance the potential  
634 benefits of therapeutics (Blesching, 2022).

635

636 **Environment.** The surrounding milieu, habitat, conditions, and context in which beings participate  
637 and interact, inclusive of the external physical space and habitat, as well as the cultural,  
638 psychological, social, and historical influences. Additionally, the individual's internal physical,  
639 mental, emotional, social, and spiritual experiences are aspects of the environment (ANA, 2015a)

640

641 **Evidence-Based Practice (EBP).** The use of the best well-designed and valid research evidence,  
642 integrative-healing philosophies, personal experience, clinical expertise, and patient preferences to  
643 guide one's nursing decision-making processes and practices (ANA, 2015a; Mariano, 2015). Use  
644 of EBP leads to the nurse making the best clinical decisions and the resultant positive healthcare  
645 outcomes (ANA, 2015a)

646

647 **Flavonoids.** Also known as bioflavonoids a naturally occurring substances with variable phenolic  
648 structures found in berries, cannabis, cocoa, fruits, red wine, tea, and vegetables (Parmelee, 2021  
649 & Goldstein, 2016). Flavonoids compounds give plants their unique colors and antioxidant,  
650 antifungal, anticancer, antiviral, antiallergic, and potent antibacterial properties in cannabis and  
651 other plants. Flavonoids may comprise 2.5% dry weight of cannabis sativa (Hudson, 2022). Three  
652 main flavonoids in cannabis are quercetin, apigenin, and cannafavin A which is unique to the  
653 cannabis plant and is a potent anti-inflammatory agent (Goldstein, 2016).

654

655 **Graduate-level Prepared Registered Nurse.** A registered nurse prepared at the master's or  
656 doctoral educational level; has advanced knowledge, skills, abilities and judgment; functions in an  
657 advanced level as designated by elements of the nurse's role; and not required to have additional  
658 oversight. (Nursing: Scope and Standards of Practice, Fourth Edition, 2021, p. 112)

659

660 **Healing:** The act or process of restoring health or curing; the process of becoming well; tending to  
661 heal or cure (Merriam Webster Medical Dictionary, 2022). Healing involves the physical, mental,  
662 spiritual, and social processes that support recovery, repair, renewal, and transformation of the self  
663 toward integration, balance, wholeness, and coherence (Mariano, 2015).

664

665 **Healthcare Consumer.** The consumer of healthcare; this may be a person (patient), family,  
666 community, or population who receives the nurse's professional services as sanctioned by the state  
667 regulatory bodies the more global term healthcare consumer is intended to reflect proactive focus  
668 on health and wellness care rather than disease and illness (ANA, 2021).

669  
670 **Health.** An experience defined in terms of the continuum between wellness and illness in the  
671 presence or absence of disease or illness (American Nurses Association, 2021); an individually  
672 defined state in which the person experiences well-being, harmony, and unity (Mariano, 2015).

673  
674 **Health or Wellness-Illness Continuum.** The absence or presence of illness or disease does not  
675 adequately define health or wellness. Rather, individuals can move along a continuum toward  
676 greater wellness and health status as they pass through the stages of awareness, education, and  
677 growth (Travis & Ryan, 2004).

678  
679 **Homeostasis.** The maintenance of relatively stable internal physiological conditions and processes  
680 in response to fluctuating internal and environmental conditions (Merriam Webster Medical  
681 Dictionary, 2017c).

682  
683 **Human Caring.** The guiding moral idea of nursing; human attempt to connect with others to  
684 protect, enhance, and preserve human dignity and humanity with integrity as one supports a person  
685 toward finding meaning in illness, suffering, pain, and existence (ANA, 2021, pp 6 - 9; Watson,  
686 2012).

687  
688 **Nursing.** Nursing integrates the art and science of caring and focuses on the protection, promotion  
689 and optimization of health and human functioning; prevention of illness and injury; facilitation of  
690 healing; and alleviation of suffering through compassionate presence. Nursing is the diagnosis and  
691 treatment of human responses and advocacy in the care of individuals, families, groups,  
692 communities, and populations in recognition of the connection of all humanity. (Nursing: Scope  
693 and Standards of Practice, Fourth Edition, 2021, p 1).

694  
695 **Nursing Process.** A critical thinking model used by nurse that is represented as integration of the  
696 singular, concurrent, iterative actions of these six components: assessment, diagnosis,  
697 identification of outcomes, planning, implementation, and evaluation. (ANA, 2021 p. 1) .

698  
699 **Medical Marijuana Program (MMP).** The official jurisdictional resource for the use of cannabis  
700 for medical purposes (NCSBN, 2018, S 7). This refers to the individual state laws and guidelines  
701 that govern medicinal cannabis use.

702  
703 **Recommendation of Cannabis.** At the time of publication, cannabis cannot legally be prescribed  
704 due to the Federal Drug Enforcement Agency's Level I schedule of cannabis. In many states,  
705 medicinal cannabis can be recommended by physicians or APRNs as per the medical marijuana  
706 program in any given state(NCSBN, 2018).

707  
708 **Registered Nurse.** A individual who is educationally prepared and then licensed by a state,  
709 commonwealth, territory, government regulatory body to practice as a registered nurse (American  
710 Nurses Association, 2021, Nursing: Scope and Standards of Practice, Fourth Edition, 2021, p. 113)

711 **Social Determinants of Health.** The social determinants of health are the non-medical factors that  
712 influence health outcomes. They are the conditions in which people are born, grow, work, live, and  
713 age and the wider set of focuses and systems shaping the conditions of daily life. These forces and  
714 systems include economic policies and systems, develop agendas, social norms, social policies,  
715 and political systems (United States Department of Health and Human Services, 2022).

716  
717 **Stakeholder.** Stakeholders, individual or groups who can affect or are affected by an issue  
718 (Schiller, 2013). Stakeholders are those entities that are integrally involved in the healthcare  
719 system (Public Health Nigeria, 2022). Stakeholders are an important source of information in  
720 health research, providing critical perspectives and new insights on the complex determinants of  
721 health. Stakeholders may include: healthcare consumers, nurses, physicians, employers, insurance  
722 companies, pharmaceutical firms, government and regulating bodies, and cannabis cultivators and  
723 cannabis medicine dispensaries (Public Health Nigeria, 2022).

724  
725 **Terpenes/terpenoids.** Terpenes make up the largest group of plant chemicals and cannabis  
726 contains over two hundred terpenes (Grotenhermen & Russo, 2008). Small, concentrated fragrance  
727 hydrocarbon molecules. Currently, in cannabis there are over 120 cannabis-based terpenes  
728 (isoprenoids) that have been confirmed and named according to the number of isoprene units  
729 which they are comprised. There are 61 monoterpenes, 51 sesquiterpenes, 2 diterpenes, 2  
730 triterpenes, and 4 miscellaneous cannabis terpenes. Prevalent terpenes in cannabis therapeutics are  
731 beta-caryophyllene, pinene, linalool, limonene, humulene, myrcene, terpineol, and borneol.  
732 (Hudson,2022, Blesching, 2022)

733  
734 **Therapeutic use of Cannabis.** The use of cannabis product specifically for medicinal, wellness,  
735 and healing purposes (ACNA, 2022).

### 736 737 **Descriptions - Philosophical Principles of Cannabis Nursing**

738 The cannabis nurse applies a guiding philosophy of caring during all cannabis healthcare  
739 consumer encounters (ACNA Scope and Standards, 2019). This philosophy embodies both learned  
740 skills and the intrinsic art and science of nursing and applies to the delivery of acute, chronic, and  
741 wellness care. Previous experiences with healing, wellness, and nursing are called upon to build  
742 one's expertise and support growth within the field of cannabis nursing (ACNA Scope and  
743 Practice, 2019).

### 744 **Core Values of Cannabis Nurses**

745 In brief, the core values of a cannabis nurse are to support, educate, and lead healthcare  
746 consumers toward a maximal state of homeostasis through the upregulation of the

747 endocannabinoid system by supporting wellness and healing through a caring presence. The  
748 cannabis nurse places a high value on education and is knowledgeable in multiple areas and is  
749 supportive by constantly advocating for healthcare consumers' legal right to use cannabis  
750 therapeutically. ACNA identifies the overarching core values of cannabis nurses include having  
751 broad expertise and experience, supporting education and mentorship, championing diversity in all  
752 forms, and having the highest integrity in professional standards (ACNA, 2020).

753 **Evidenced-based practice.** Cannabis nurses remain up to date on the current and best  
754 scientific evidence regarding the use of cannabis to treat specific illness states or support wellness  
755 with patients or populations. Cannabis nurses will also identify inferior quality research and dispel  
756 misinformation when applicable (ACNA Scope and Standards, 2019, p. 6).

757 **Application of caring and social justice-based ethics.** The cannabis nurse is familiar with  
758 the ethical considerations related to nursing practice. They practice from a platform of social  
759 justice and ethics of care by acknowledging that communities of color are disproportionately  
760 affected by health care inequality in cannabis medicine. Cannabis nurses recognize that cannabis  
761 healthcare consumers and family members may face discrimination and ethical dilemmas and  
762 always consider their legal and ethical concerns (ACNA Scope and Standards, 2019, p 6).

763 **Patient-centered care.** The cannabis nurse recognizes that healthcare consumers are at the  
764 center of their own care. The cannabis nurse support healthcare consumers in their autonomy and  
765 freedom to partner with others in determining their own plan of care. Cannabis therapeutics  
766 requires the patient / healthcare consumer participation, and the cannabis nurse may need to  
767 encourage them to enhance their participation to maximize outcomes (ACNA Scope and  
768 Standards, 2019, p 6).

769           **Interprofessional healthcare teamwork.** The cannabis nurse is an integral member of the  
770 interprofessional healthcare team. The interprofessional healthcare team is characterized by a high  
771 degree of collaboration and communication among the health professionals caring for the  
772 individual who collaborate to develop a comprehensive treatment plan that addresses the  
773 biological, psychological, and social needs of the cannabis healthcare consumer. The cannabis  
774 nurse informs other healthcare professionals about the specialty of cannabis nursing (ACNA, 2019,  
775 p 6).

776           **Holistic-based practice.** The cannabis nurse considers the healthcare consumer's holistic  
777 needs (body, mind, spirit) when designing plans of care. The nurse is cognizant that in addition to  
778 supporting their use of cannabis for health and healing, the nurse is also obligated to promote the  
779 healthcare consumer's knowledge of their endocannabinoid system function and the ability to  
780 create and maintain homeostasis by utilizing evidence-based holistic-integrative modalities.

781           **Self-care.** A cannabis nurses recognizes that it is only by valuing their own self-care that  
782 they can maintain a professional and caring presence with cannabis healthcare consumers (ACNA,  
783 2019, p.6).

#### 784 **Development of Standards of Practice and Professional Performance for Cannabis Nurses**

785           The ANA Standards of Practice describe a competent level of nursing practice as  
786 demonstrated by the nursing process that includes assessment, diagnosis, outcomes identification,  
787 planning, implementation, and evaluation (ANA, 2021b). The ANA Standards of Professional  
788 Performance describe a competent level of behavior in the professional role including activities  
789 related to ethics, culturally congruent practice, communication, collaboration, leadership,  
790 education, evidence-based practice and research, quality of practice, professional practice  
791 evaluation, resource utilization, and environmental health (ANA, 2021b).

792 Every specialty nursing organization must address the standards of specialty nursing  
793 practice and competencies for RNs and include the other applicable standards and competencies  
794 for graduate-level prepared specialty nurses, and APRNs (ANA, 2021b). Registered nurses,  
795 graduate-level prepared specialty nurses, and APRNs must demonstrate competence associated  
796 with their level of nursing for each standard of practice and professional performance. Registered  
797 nurses delegate appropriately to other nursing professionals such as CNAs and LPN/LVNs

798 The ACNA used the ANA (2021a) *Recognition of a Nursing Specialty, Approval of a*  
799 *Specialty Nursing Scope of Practice Statement, Acknowledgment of Specialty Nursing Standards of*  
800 *Practice, and Affirmation of Focused Practice Competencies* to inform decision making about the  
801 quality and validity of competencies relevant to cannabis nursing. The ACNA formed a task group  
802 from their membership to research the competencies of other nursing specialties and standards as  
803 set forth by the ANA. Multiple iterations and revisions of this research now serve as the foundation  
804 for the competencies outlined in this document. *The Nursing: Scope and Standards of Practice,*  
805 *Fourth Edition (2021)* serves as a template for all nursing specialty organizations when describing  
806 the details and complexity of that specialty practice. The ACNA's Scope and Standard of Practices  
807 (2021) was also used as framework and template for the (2022) Scope of Practice and Standards  
808 for Cannabis Nursing.

### 809 **Standards of Practice for Cannabis Nurses**

810 The following standards of practice and professional performance provide a comprehensive  
811 overview of what it means to be a cannabis nurse and to deliver cannabis care.

#### 812 **Standard 1: Assessment**

813 The cannabis registered nurse collects relevant data and information related to the cannabis  
814 healthcare consumer's health, needs, and concerns or the situation.

#### 815 **Competencies**

816 Throughout the ongoing assessment process, the cannabis registered nurse:

- 817 1. Creates the safest environment of continuous data collection.
- 818 2. Uses the health and wellness model of assessment to ensure that data collection is
- 819 performed with compassion, caring, respect, and honors the dignity and uniqueness of
- 820 each human's needs.
- 821 3. Collects assessment data that may include, but is not limited to the following:
- 822 a. chronological age and development, health disparities, physiology of disease
- 823 processes, medical interventions, physical and functionality data.
- 824 b. social determinants of health, demographics, environmental and occupational
- 825 exposures, cultural, lifestyle/economic assessment data.
- 826 c. spiritual/transpersonal, psychosocial, cognitive, mental, emotional, sexual, and
- 827 economic concerns.
- 828 4. Recognizes the cannabis healthcare consumer or designated person as the decision-
- 829 maker regarding their health.
- 830 5. Identifies enhancements and barriers to effective communication based on personal,
- 831 cognitive, physiological, psychological, literacy, financial, and cultural considerations.
- 832 6. Engages the cannabis healthcare consumer, their family, significant others, and
- 833 interprofessional team members in holistic culturally sensitive data collection.
- 834 7. Integrates information about current local, regional, national, and global health
- 835 initiatives and environmental factors into the assessment process.
- 836 8. Engages with the cannabis healthcare consumer to understand their culture, values,
- 837 preferences, needs, and level of knowledge related to their health, wellness, illness, and
- 838 cannabis use.
- 839 9. Establishes a trusting relationship that promotes and creates a caring atmosphere for the
- 840 cannabis healthcare consumer, their family, and significant others.
- 841 10. Recognizes the impact of the nurse's own bias, attitudes, values, knowledge, and beliefs
- 842 about cannabis on the assessment process.
- 843 11. Assesses the influence of the family dynamics related to the healthcare consumer's own
- 844 health and use of cannabis.
- 845 12. Prioritizes data collection based on the cannabis healthcare consumer's own health
- 846 condition(s) and expressed concerns.
- 847 13. Utilizes evidence-based assessment techniques to identify cannabis healthcare consumer
- 848 patterns and variances in the use of cannabis therapeutics.
- 849 14. Remains knowledgeable about constantly changing technologies that impact the
- 850 assessment process.
- 851 15. Analyzes assessment data to identify patterns, trends, and situations that impact the
- 852 cannabis healthcare consumer's health and wellness.
- 853 16. Applies ethical, legal, and privacy guidelines and policies throughout the data collection
- 854 process, inclusive of data maintenance, use, and dissemination. Considers federal
- 855 cannabis (medical marijuana) laws as well as state-based Medical Marijuana Program
- 856 (MMP) principles.

- 857 17. Honors the cannabis healthcare consumer's preferences while recognizing their authority  
858 regarding their health.
- 859 18. Gathers specific historical and current data regarding the cannabis healthcare consumer's  
860 knowledge and experience with cannabis.
- 861 19. Integrates knowledge from local, state, and global departments of health such as the  
862 Centers for Disease Control and Prevention (CDC), the World Health Organization  
863 (WHO), and environmental factors into the assessment process.
- 864 20. Communicates changes in a cannabis healthcare consumer's condition to the  
865 interprofessional healthcare team.
- 866 21. Documents data gathered in a secure and compliant manner that protects the privacy of  
867 cannabis healthcare consumers as per the federal mandates required by the Health  
868 Insurance Privacy and Portability Act HIPAA).

869 In addition to the competencies of the cannabis registered nurse, the **Graduate-level prepared**  
870 **cannabis nurse**:

- 871 1. Uses advanced knowledge, skills, assessment techniques, and approaches to maintain,  
872 enhance and improve the health and wellness of the cannabis healthcare consumer.
- 873 2. Analyzes the effect of interactions among individuals, family, community, and social  
874 systems on health, wellness, and illness.
- 875 3. Uses information to synthesize the results leading to clinical understanding.

876 In addition to the competencies of the cannabis nurse and the Graduate-level prepared cannabis  
877 nurse, the **APRN**:

- 878
- 879 1. Uses advanced assessment skills during a review of systems to best potentiate the  
880 cannabis healthcare consumer's journey toward endocannabinoid system health and  
881 wellness. Performs a complete clinical assessment to identify whether a healthcare  
882 consumer has a qualifying condition based on state Medical Marijuana Program (MMP)  
883 guidelines.
- 884 2. Considers current and previous mental health and substance use history.
- 885 3. Initiates appropriate tests and diagnostics related to the healthcare consumer's  
886 endocannabinoid system health status and specific health concerns.
- 887 4. Reviews current treatment of qualifying conditions and responses to treatment.
- 888 5. Reconciles medications.
- 889 6. Applies current requirements and principles of state MMP and considers current  
890 National Council of State Boards of Nursing (NCSBN) recommendations. Considers if  
891 cannabis will be effective for the qualifying condition while considering the current  
892 state of evidence related to cannabis and the qualifying condition(s).

893 **Standard 2: Diagnosis**

894 The cannabis registered nurse analyzes assessment data to formulate the appropriate potential and  
895 actual diagnoses, problems, and other issues.

896

897 **Competencies**

898 Throughout the ongoing diagnostic process, the cannabis registered nurse:

- 899 1. Derives the diagnoses based on the data gathered from and with the cannabis healthcare  
900 consumer and other appropriate sources.
- 901 2. Identifies actual or potential risks to the cannabis healthcare consumer's health, well-being,  
902 and safety.
- 903 3. Verifies the diagnoses, problems, and issues with the cannabis healthcare consumer and  
904 their interprofessional healthcare team.
- 905 4. Prioritizes diagnoses, problems, issues with the cannabis healthcare consumer and  
906 interprofessional colleagues.
- 907 5. Shares diagnostic information with other interprofessional healthcare colleagues as needed.
- 908 6. Establishes goals with cannabis healthcare consumers across the health continuum. Should  
909 not be listed here but in Standard 3 Outcomes Identification
- 910 7. Works with the cannabis healthcare consumer to prioritize goals around the therapeutic use  
911 of cannabis while establishing a safe plan of care. Should not be listed here but in Standard  
912 3 Outcomes Identification
- 913 8. Considers the cannabis healthcare consumer's holistic and other healing needs as related to  
914 the endocannabinoid system health and optimal functioning.
- 915 9. Utilizes current evidence related to cannabis effectiveness and relative risks for the  
916 cannabis healthcare consumer.
- 917 10. Documents diagnoses, problems, strengths, and/or issues in a manner that facilitates the  
918 collaborative development of a plan of care to achieve outcomes that will be evaluated.
- 919 11. Identifies the cannabis healthcare consumer's medical diagnoses and qualifying medical  
920 conditions for cannabis recommendations as defined by state laws and MMP.

921

922 In addition to the competencies of the cannabis registered nurse, the **Graduate-level prepared**  
923 cannabis nurse:

- 924 1. Uses information and communication technologies to analyze the diagnostic practice  
925 patterns of the nurse and the other members of the interprofessional healthcare team.
- 926 2. Employs aggregate-level data to articulate diagnoses, problems, and issues around  
927 organizational and institutional systems encountered by cannabis healthcare consumers.

928 In addition to the competencies of the cannabis registered nurse and the Graduate-level prepared  
929 registered cannabis nurse, the APRN:

930

- 931 1. Formulates a differential diagnosis and actual diagnoses based on the assessment, history,  
932 physical examination, and findings and results from diagnostic testing.  
933 2. Considers risks to specific vulnerable populations based on the current body of scientific  
934 evidence relating to qualifying recommendations, considerations, and the potential  
935 effectiveness of cannabis therapeutics.

936

### 937 **Standard 3: Outcomes Identification**

938 The cannabis registered nurse clearly identifies expected outcomes for an individualized plan  
939 related to the healthcare consumer's or a population's unique situation.

940

#### 941 **Competencies**

942 Throughout the outcome identification process, the **cannabis registered nurse:**

- 943 1. Engages with the cannabis healthcare consumer, family, and interprofessional healthcare  
944 team members to determine desired goals and outcomes. The cannabis healthcare consumer  
945 remains at the center of the process.
- 946 2. Defines the outcomes as related to the cannabis healthcare consumer's, age, beliefs, culture,  
947 preferences, and values, while considering environmental concerns, ethical concerns, and  
948 spiritual practices.
- 949 3. Promotes outcomes that incorporate the cannabis healthcare consumer's culture, ethical  
950 concerns, and values regarding health and cannabis.
- 951 4. Formulates expected outcomes derived from assessments and diagnoses.
- 952 5. Integrates the most relevant available scientific evidence regarding cannabis therapeutics as  
953 well as other scientific evidence to alleviate the concerns of healthcare consumers and  
954 populations.
- 955 6. Integrates evidence considering the best cannabis nurse practices.
- 956 7. Weighs the risks, benefits, and costs related to attaining the intended outcomes.
- 957 8. Generates a time frame for expected outcomes.
- 958 9. Modifies outcomes based on ongoing evaluation of the plan.
- 959 10. Documents expected outcomes and actual outcomes as measurable goals.

960 In addition to the competencies of the cannabis registered nurse the **cannabis graduate-level**  
961 **prepared registered nurse, including the APRN:**

- 962 1. Identifies that expected outcomes and the cannabis healthcare consumer-centered  
963 cannabinoid therapy plan are in alignment with the benchmarks identified by members of  
964 the interprofessional healthcare team.
- 965 2. Supports the cannabis healthcare consumer titration process plan as per National Council of  
966 States Board of Nursing (NCSBN).
- 967 3. Anticipates results from the implementation of the personalized healthcare consumer-  
968 centered cannabis plan of care, considering current evidence-based science, projected costs

- 969 to the cannabis healthcare consumer and family, clinical effectiveness, and the individual  
970 cannabis healthcare consumer's response.
- 971 4. Differentiates outcomes that require care process interventions from those that require  
972 system-level actions.
- 973 5. Identifies quality outcome measures in relation to expected outcomes, safety, and quality  
974 standards.
- 975 6. Takes active role in educating others regarding the identification of anticipated outcomes.

#### 976 **Standard 4: Planning**

977 The cannabis registered nurse develops a collaborative plan that outlines strategies to attain  
978 expected outcomes.

#### 979 **Competencies**

980 Throughout the patient-centered planning process, the **cannabis registered nurse**:

- 981 1. Develops an evidenced based plan in partnership with the cannabis healthcare consumer  
982 that considers age, beliefs, choices, cultural relevance, environmental factors, health  
983 practices and preferences, spirituality, and values.
- 984 2. Develops a plan in conjunction with the cannabis healthcare consumer, family, and other  
985 clinicians and concerned persons, which incorporates the appropriate use of cannabis  
986 therapeutics and modalities that support optimal functioning of the endocannabinoid  
987 system.
- 988 3. Builds upon the established trusting-caring relationship to explore alternative and  
989 integrative options for healing. Includes evidence-based strategies to address established  
990 issues, diagnoses, and problems.
- 991 4. Prioritizes elements of the plan based on the assessment of the cannabis healthcare  
992 consumer's level of safety needs to include risks, benefits, and alternatives.
- 993 5. Identifies costs and financial implications with the cannabis healthcare consumer and their  
994 family, and significant others.
- 995 6. Advocates for compassionate, responsible, and appropriate use of cannabis interventions to  
996 minimize unwarranted or unwanted treatment, and to optimize the cannabis healthcare  
997 consumer's wellness.
- 998 7. Modifies the nursing process to address ongoing assessment and the cannabis healthcare  
999 consumer's responses to their therapeutic use of cannabis.
- 1000 8. Provides coaching, health education, health promotion and teaching, as needed to support  
1001 the cannabis healthcare consumer's interprofessional healthcare team.
- 1002 9. Coordinates implementation of the cannabis healthcare consumer's plan. Belongs with  
1003 Standard 5 A Coordination of Care
- 1004 10. Supports the NCSBN call for the cannabis healthcare consumer to 'start low and go slow'  
1005 with the cannabis titration dosing process through education and communication.

- 1006 11. Documents the plan using evolving standardized cannabis language or recognized cannabis  
1007 terminology.  
1008 12. Contributes actively at all levels in the development and continuous improvement of  
1009 systems that support the planning process.

1010 In addition to the competencies of the cannabis registered nurse, **the Graduate-level cannabis**  
1011 **registered nurse:**

- 1012 1. Designs strategies and approaches to meet the complex health needs of cannabis healthcare  
1013 consumers by partnering with the cannabis healthcare consumer's, family, and significant  
1014 others to implement interprofessional processes addressing the identified diagnoses, health  
1015 challenges, problems, issues, and opportunities.  
1016 2. Leads the design, facilitation, implementation, and evaluation of interprofessional  
1017 healthcare processes to address the identified diagnosis, health challenges, issues, and  
1018 opportunities.

1019 In addition to the competencies of the cannabis registered nurse, and the graduate-level cannabis  
1020 registered nurse:

1021 **the APRN:** (missing advanced competencies associated with population focus?)  
1022

- 1023 1. Creates an evidence-based plan in partnership with the cannabis healthcare consumer and  
1024 their interprofessional healthcare team members.  
1025 2. Applies the nursing process to create a cannabis healthcare consumer-centered holistic plan  
1026 that uses coaching techniques such as active listening, appreciative inquiry, and  
1027 motivational interviewing in efforts to develop innovative strategies tailored to the  
1028 individual.  
1029 3. Utilizes cannabis healthcare consumer-centered resources and professional experience as  
1030 part of the planning process to meet the needs of the cannabis healthcare consumer.  
1031 4. Demonstrates leadership in the design and implementation of therapeutic interventions;  
1032 considers all modalities that may support endocannabinoid system health.  
1033 5. Integrates assessment strategies, diagnostic strategies, and therapeutic interventions that  
1034 reflect current cannabis evidence-based knowledge and practice into the plan of care.

### 1035 **Standard 5: Implementation**

1036 The cannabis registered nurse supports the cannabis healthcare consumer in the implementation of  
1037 the plan of care.  
1038

#### 1039 **Competencies**

1040 Throughout the implementation process, the **cannabis registered nurse:**

- 1041 1. Partners with the cannabis healthcare consumer's, family, and significant others to  
1042 implement the care plan in a safe and equitable manner.

- 1043 2. Develops a therapeutic relationship with the healthcare consumer to implement the care  
1044 plan in a caring, safe, and timely manner while following state laws and MMP regulations.
- 1045 3. Utilizes interprofessional healthcare resources to support cannabis healthcare consumer's'  
1046 achieve desired outcomes.
- 1047 4. Provides an ongoing presence to gather data while implementing the plan of care.
- 1048 5. Uses the nursing process, critical thinking, and data analysis during implementation;  
1049 continuously modifies the care plan based on the healthcare consumer's responses to  
1050 cannabis therapeutics.
- 1051 6. Supports the education and information needs of cannabis healthcare consumers coming  
1052 from diverse populations across the lifespan.
- 1053 7. Provides coordination of care as needed to achieve cannabis-related health and wellness  
1054 outcomes.
- 1055 8. Implements health teaching and health promotion strategies to support cannabis healthcare  
1056 consumers' ongoing educational needs related to their wellness and possible adverse effects  
1057 of their therapeutic use of cannabis.
- 1058 9. Monitors the cannabis healthcare consumer or population for adverse effects related to the  
1059 use of cannabis or related to the implementation of the care plan.
- 1060 10. Engages cannabis healthcare consumer alliances and advocacy groups in health teaching  
1061 and health promotion activities.
- 1062 11. Uses evidence-based interventions and strategies to achieve mutually identified goals and  
1063 outcomes specific to the problems or needs.
- 1064 12. Maintains accountability while delegating the responsibilities for the care of the cannabis  
1065 healthcare consumer based on the circumstances, evaluation, institutional, person,  
1066 regulatory entities, supervision, task, and the state nurse practice act regulations.
- 1067 13. Documents the implementation process.
- 1068 14. Avoids conflicts of interest with the cannabis industry.

1069 In addition to the competencies of the cannabis nurse, the **Graduate-level prepared cannabis**  
1070 **registered nurse:**

- 1071 1. Supports and translates cannabis healthcare consumers implementation of evidence-based  
1072 interventions stated in the personalized care plan. What does this competency mean?
- 1073 2. Demonstrates ethical and critical decision-making, during effective working relationships,  
1074 and through a systems perspective.
- 1075 3. Uses theory-driven approaches to effect organizational or system change.
- 1076 4. Applies quality principles while articulating methods, tools, performance measures and  
1077 standards, as they relate to the implementation of the plan.
- 1078 5. Uses systems, organization, and community resources to lead effective change and  
1079 implement the plan.
- 1080 6. Leads interprofessional teams to effectively communicate and collaborate.

- 1081 7. Serves as a consultant to other nurses, cannabis healthcare consumers, their families, and  
1082 caregivers to provide additional insight and potential solutions.

1083 In addition to the competencies of the cannabis registered nurse, and the graduate-level prepared  
1084 cannabis registered nurse

1085 **the APRN:**

- 1086 1. Uses prescriptive authority with pharmaceuticals and recommendation privileges with  
1087 cannabis and cannabinoid medicines in accordance with state laws and with awareness of  
1088 federal laws.
- 1089 2. Follows state based MMP guidelines for the cannabis recommendation process.
- 1090 3. Educates the cannabis healthcare consumer about evidence-based cannabinoid medicines  
1091 and therapies in accordance with clinical indicators after reviewing results of diagnostic  
1092 and laboratory tests.
- 1093 4. Utilizes an integrative approach where cannabis medicine can be incorporated with lifestyle  
1094 management, holistic modalities, traditional pharmaceutical medications, and herbal  
1095 therapies-supplements in an appropriate and safe manner to support endocannabinoid  
1096 system tone. The side effects, adverse effects, variable effects, and safety considerations  
1097 are explored with the cannabis healthcare consumer, their family/caregiver as decisions  
1098 about cannabis therapeutics are made.
- 1099 5. Provides ongoing clinical consultation regarding cannabis medicine, the titration process,  
1100 and the endocannabinoid system.
- 1101 6. Provides the cannabis healthcare consumer and cannabis healthcare consumer/ family  
1102 members/ caregivers with relevant and accurate information and guidance on appropriate  
1103 cannabis dosing, routes of administration, cannabinoid ratios, and terpenes/terpenoids as  
1104 allowed by practice standards, state MMP mandates, and federal laws.
- 1105 7. Monitors the cannabis healthcare consumer for side effects, adverse effects, and cannabis  
1106 use disorder.

1107 **Standard 5A: Coordination of Care**

1108 The cannabis registered nurse supports the cannabis healthcare consumer in the coordination of the  
1109 delivery of care.

1110

1111 **Competencies**

1112 **The cannabis registered nurse:**

- 1113 1. Provides clinical cannabis consultation for cannabis healthcare consumers and other  
1114 professionals related to complex clinical cases to improve outcomes.
- 1115 2. Collaborates with the cannabis healthcare consumer and the interprofessional team to help  
1116 manage the delivery of health care based on mutually agreed-upon outcomes.
- 1117 3. Organizes the components of the plan with input from the cannabis healthcare consumer  
1118 and other stakeholders.

- 1119 4. Engages the cannabis healthcare consumer in self-care to achieve preferred goals for  
1120 quality of life.
- 1121 5. Assists the cannabis healthcare consumer in identifying options for care and navigating the  
1122 healthcare system.
- 1123 6. Communicates with the cannabis healthcare consumer, interprofessional team, and  
1124 community-based resources to effect safe transitions in continuity of care.
- 1125 7. Advocates for the delivery of dignified and person-centered care by the interprofessional  
1126 team.
- 1127 8. Documents the coordination of care.
- 1128 9. Provides coordination of care as needed to achieve cannabis-related health and wellness  
1129 outcomes.

1130 In addition to the competencies of the cannabis nurse, **the Graduate-level cannabis nurse:**

- 1131 1. Provides leadership in the coordination and integration of interprofessional healthcare for  
1132 the delivery of cannabis healthcare consumer services to achieve safe, efficient, timely,  
1133 person-centered, and equitable care for the individual cannabis healthcare consumer.
- 1134 2. Manages identified cannabis healthcare consumer panels or populations.

1135  
1136 In addition to the competencies of the cannabis nurse, and graduate-level cannabis nurse  
1137 **the APRN:**

- 1138 1. Synthesizes data and information to advise, recommend and provide necessary system and  
1139 community support measures, including modifications of environments.
- 1140 2. Serves as the cannabis healthcare consumer's provider in coordination of cannabis  
1141 healthcare services in accordance with state and federal laws and regulations.

## 1142 **Standard 5B: Health Teaching and Health Promotion**

1143 The cannabis nurse employs strategies to teach and promote health and wellness.

1144

### 1145 **Competencies**

#### 1146 **The cannabis nurse:**

- 1147 1. Provides opportunities for the cannabis healthcare consumer to identify needed health  
1148 promotion, disease prevention and self-management topics such as: healthy lifestyles, self-  
1149 care and risk management, coping, adaptability, and resiliency.
- 1150 2. Uses collaborative health promotion and health teaching methods to educate cannabis  
1151 healthcare consumers, taking into consideration their values, beliefs, health practices,  
1152 developmental level, learning needs, readiness, language preference, spirituality, culture,  
1153 socioeconomic status, and ability to learn.
- 1154 3. Uses feedback from the cannabis healthcare consumer and other assessments to determine  
1155 the effectiveness of the employed strategies.
- 1156 4. Provides cannabis healthcare consumer with information and education about intended  
1157 effects and potential adverse effects of the cannabis plan of care.

- 1158 5. Uses technologies to communicate health promotion and disease prevention information to  
1159 the cannabis healthcare consumer.
- 1160 6. Engages consumer alliance and advocacy groups in health teaching and health promotion  
1161 activities for cannabis healthcare consumers.
- 1162 7. Provides anticipatory guidance to cannabis healthcare consumers to promote health and  
1163 prevent or reduce risk.
- 1164 Implements health teaching and health promotion strategies to support cannabis healthcare  
1165 consumers' ongoing educational needs related to their wellness and possible adverse effects  
1166 of their therapeutic use of cannabis.

1167 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level prepared**  
1168 **registered nurse, including the APRN:**

- 1169 1. Synthesizes evidence on risk behaviors, gender roles, learning theories, information  
1170 literacy, behavioral change theories, motivational theories, translational theories for  
1171 evidence-based practice, epidemiology, technology, and other related theories and  
1172 frameworks when designing cannabis health education information, tools, and programs.
- 1173 2. Evaluates health information resources for applicability, accuracy, readability, and  
1174 comprehensibility to help cannabis healthcare consumers access quality health information.

#### 1175 **Standard 6: Evaluation**

1176 The cannabis registered nurse evaluates progress toward attaining goals and outcomes.

#### 1177 **Competencies**

##### 1178 **The cannabis registered nurse:**

- 1179 1. Uses applicable standards and defined criteria (e.g., National Council on State Boards of  
1180 Nursing (NCSBN) National Guidelines for Medical Marijuana).
- 1181 2. Evaluates the cannabis healthcare consumer's care plan, implementation process, and  
1182 outcomes achievement as prescribed by the indicated timeline.
- 1183 3. Determines the effectiveness, efficiency, safety, timeliness, and equitability of the planned  
1184 strategies as related to cannabis healthcare consumer or population in the response to obtain  
1185 outcomes.
- 1186 4. Uses ongoing assessment and evaluation data to revise the cannabis plan of care, including  
1187 diagnoses, outcomes, plans, and implementation strategies.
- 1188 5. Document's findings and results of the evaluation process.
- 1189 6. Monitors the cannabis healthcare consumer for side effects, adverse effects, variable  
1190 effects, and cannabis use disorder in alignment with state MMP requirements.
- 1191 7. Shares evaluation data and conclusions with the cannabis healthcare consumer and other  
1192 stakeholders to promote clarity and transparency in accordance with state, federal,  
1193 organizational, and professional requirements.

1194 In addition to the competencies of the cannabis nurse, **the cannabis graduate-level prepared**  
 1195 **registered nurse and APRN:**

- 1196 1. Enacts a systematic evaluation process with the goal of enhancing the effectiveness of a  
 1197 cannabis healthcare consumer's plan of care.
- 1198 2. Considers results of evaluation when making recommended revisions to the plan of care.
- 1199 3. Uses cannabis healthcare consumer-centered focus and s interprofessional team members'  
 1200 insight as the plan of care is revised.
- 1201 4. Supports cannabis healthcare consumer with recommendations for cannabinoid/terpenoid  
 1202 administration routes, doses, and ratios based on evaluation findings.
- 1203 5. Follows up with cannabis healthcare consumers regarding any changes in the body of  
 1204 scientific evidence related to cannabis and current qualifying condition(s).
- 1205 6. Makes recommendations for policy, procedure, or protocol revisions based on the  
 1206 evaluation results and cannabis healthcare consumer outcomes.

## 1207 **Standards of Professional Performance**

### 1208 **Standard 7: Ethics**

1209 The cannabis nurse practices ethically in all aspects of practice.

1210

#### 1211 **Competencies**

1212 **The cannabis nurse:**

- 1213 1. Utilizes the *Code of Ethics for Nurses with Interpretive Statements* (ANA, 2015b) to guide  
 1214 practice while establishing and maintaining an ethical environment of nursing care.
- 1215 2. Practices cannabis nursing with compassion, caring, respect, and in acknowledgement of  
 1216 the inherent dignity, worth, and unique attributes of all persons. (Beneficence)
- 1217 3. Advocates for the rights of cannabis healthcare consumers and populations regarding  
 1218 informed decision making and self-determination in relation to cannabis as a medicine.  
 1219 (Respect for Autonomy)
- 1220 4. Demonstrates a primary commitment to the cannabis healthcare consumer and populations  
 1221 in all settings and situations they serve. (Fidelity)
- 1222 5. Maintains therapeutic-caring relationships and professional boundaries.
- 1223 6. Acts to prevent breaches to cannabis healthcare consumer's privacy and confidentiality.
- 1224 7. Safeguards the cannabis healthcare consumer's sensitive information within ethical, legal,  
 1225 and regulatory parameters. (Non-maleficence)
- 1226 8. Identifies relevant resources within the practice setting to assist and collaborate in  
 1227 addressing ethical issues.
- 1228 9. Integrates principles of social justice in all aspects of cannabis nursing practice. (Justice)
- 1229 10. Refines ongoing cannabis nursing ethical competencies through professional and personal  
 1230 education and development opportunities on a continuous basis.
- 1231 11. Portrays professional cannabis nursing identity through demonstrated values and ethics,  
 1232 knowledge, leadership, and professional comportment.
- 1233 12. Demonstrates ongoing commitment to self-reflection and self-care practices.

- 1234 13. Contributes to the establishment and maintenance of ethical environments conducive to the  
 1235 delivery of safe, quality cannabis health care.
- 1236 14. Collaborates with other health professionals and the public to protect human rights and  
 1237 reduce health disparities.
- 1238 15. Enacts personal and nursing core values to maintain the integrity of cannabis nursing  
 1239 practice in all settings.

1240 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse and**  
 1241 **APRN role:**

- 1242 1. Demonstrates advanced knowledge of ethical analyses, ethical principles of respect for  
 1243 autonomy, beneficence, nonmaleficence, and justice and their relation to ethical cannabis  
 1244 nursing practice.
- 1245 2. Provides leadership in developing cannabis nurses' ethical competence that includes  
 1246 making ethical decisions regarding emerging or recurrent ethical issues.
- 1247 3. Practices cannabis nursing from a framework of caring ethics and social justice with a non-  
 1248 discriminatory, caring, and compassionate approach.
- 1249 4. Participates with interprofessional teams as they address ethical risks, benefits, and  
 1250 outcomes related to cannabis healthcare industry practices.
- 1251 5. Acts as an advocate to end social stigma related to the use of cannabis.
- 1252 6. Advances knowledge and practice of ethics through scholarly inquiry, professional  
 1253 standards development, and policy generation.
- 1254 7. Represents the nursing profession and the cannabis nursing specialty as a subject matter  
 1255 expert, advisor, or consultant, locally, statewide, regionally, nationally, and internationally.  
 1256

## 1257 **Standard 8: Advocacy**

1258 The cannabis nurse demonstrates advocacy in all roles and settings.

### 1259 **Competencies**

#### 1260 **The cannabis nurse:**

- 1261 1. Champions the voice of the cannabis healthcare consumer.
- 1262 2. Recommends appropriate levels of care, timely and appropriate transitions, and allocation  
 1263 of resources to optimize outcomes for cannabis healthcare consumers.
- 1264 3. Promotes safe care and the acquisition of sufficient resources for healthcare consumers and  
 1265 safe work environments for other healthcare providers within the cannabis industry.
- 1266 4. Participates in health initiatives on behalf of cannabis healthcare consumers and the  
 1267 systems where nursing occurs.
- 1268 5. Demonstrates a willingness to address persistent, pervasive systemic issues in providing  
 1269 cannabis care to healthcare consumers.
- 1270 6. Informs the political arena about the role of the nurse and the vital components necessary  
 1271 for providing cannabis care in therapeutic settings.

- 1272 7. Empowers all members of the interprofessional healthcare team to include the cannabis  
1273 healthcare consumer in care decisions, including the understanding surrounding the  
1274 limitations of end-of-life care.
- 1275 8. Embraces diversity, equity, inclusivity, health promotion, and health care for individuals of  
1276 diverse cultural, ethnic, gender, geographic, racial, and spiritual backgrounds across the  
1277 lifespan.
- 1278 9. Develops policies that improve cannabis care delivery and access for underserved and  
1279 vulnerable populations.
- 1280 10. Promotes policies, regulations, and legislation at the local, state, and national level to  
1281 improve cannabis healthcare access and delivery of cannabis care.
- 1282 11. Considers cultural, economic, political, and societal factors in addressing social  
1283 determinants of endocannabinoid health.
- 1284 12. Models cannabis advocacy behavior for other healthcare professionals.
- 1285 13. Addresses the urgent need for a diverse and inclusive workforce as a strategy to improve  
1286 outcomes related to social determinants of health and inequities in the delivery of cannabis  
1287 care to healthcare consumers.
- 1288 14. Advances policies, programs, and practices within the health care environment that  
1289 maintains and sustains the resources of the environment and the natural world.
- 1290 15. Contributes to professional organizations which focus on cannabis, endocannabinoid  
1291 health, education, research, and therapeutics.
- 1292

1293 In addition to the competencies of the cannabis nurse, **the Graduate-level cannabis nurse:**

- 1294 1. Analyzes the impact of geographic, societal, political, economic, and cultural factors on  
1295 healthcare disparities experienced by cannabis healthcare consumers.
- 1296 2. Develops alliances with various groups to promote cannabis healthcare consumers'  
1297 advocacy goals.
- 1298 3. Pursues resources to improve health outcomes through the improvement of the delivery of  
1299 cannabis care and services.
- 1300 4. Influences leaders, legislators, governmental agencies, non-governmental organizations,  
1301 and internal bodies to address the relationship of cannabis use and social determinants to  
1302 the health of individuals.
- 1303

1304 In addition to the competencies of the cannabis nurse, and the graduate-level cannabis nurse:  
1305 **the APRN:**

- 1306 1. Promotes universal application of full practice authority in all settings and roles in meeting  
1307 the health care needs of diverse populations of cannabis healthcare consumers.
- 1308 2. Advocates for the development of an organizational structure for the cannabis nurse to  
1309 directly report to the appropriate advanced practice nursing leadership position.

- 1310 3. Endorses the nursing profession's *Consensus Model for APRN Regulation: Licensure,*  
1311 *Accreditation, Certification and Education.*  
1312

1313 **Standard 9: Respectful and Equitable Practice**

1314 The cannabis nurse practices with cultural humility and inclusiveness.

1315 **Competencies**

1316 **The cannabis nurse:**

- 1317 1. Demonstrates respect, equity, and empathy in actions and interactions with all cannabis  
1318 healthcare consumers.
- 1319 2. Respects cannabis consumer decisions without bias.
- 1320 3. Participates in lifelong learning to ensure understanding of diverse cannabis healthcare  
1321 consumers' cultural preferences, worldviews, and choices and how these impact cannabis  
1322 healthcare consumers' decision-making processes.
- 1323 4. Addresses the effects and impact of discrimination and oppression on cannabis practice  
1324 within and among diverse groups.
- 1325 5. Applies knowledge of the differences in health beliefs, practices, and communication  
1326 patterns without assigning value to the differences.
- 1327 6. Provides care to all cannabis healthcare consumers and populations in a non-discriminatory  
1328 manner.
- 1329 7. Communicates with appropriate language and behaviors including the use of qualified  
1330 cannabis healthcare interpreters and translators in accordance with the cannabis healthcare  
1331 consumer needs and preferences for cannabis therapeutics.
- 1332 8. Serves as a role model and cannabis care educator for demonstrating cultural humility and  
1333 the recognition and appreciation of diversity and inclusivity.
- 1334 9. Identifies culturally specific meanings of interactions, terms, and content (such as pot,  
1335 weed, ganja, Mary jane, herb, etc.) during encounters with cannabis healthcare consumers.
- 1336 10. Advocates for cannabis policies that promote health and prevent harm among culturally  
1337 diverse, underserved, vulnerable, or underrepresented cannabis healthcare consumers and  
1338 populations.
- 1339 11. Promotes equality in all aspects of therapeutic use of cannabis and cannabis health care.
- 1340 12. Educates nurse colleagues and the interprofessional healthcare team about the intersection  
1341 between endocannabinoid system and the healthcare needs of diverse populations.
- 1342 13. Provides quality cannabis nursing care to all cannabis healthcare consumers and  
1343 populations in a nondiscriminatory and inclusive manner.
- 1344 14. Advances organizational cannabis policies, programs, services, and practices that reflect  
1345 respect, equity, and values for diversity and inclusion.  
1346

1347 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse and**  
1348 **APRN role:**

- 1349 1. Provides leadership within interprofessional healthcare teams to identify and respond to the  
1350 cultural needs of cannabis healthcare consumers and communities.
- 1351 2. Collaborates with healthcare consumers, communities, medical organizations, and  
1352 lawmakers to create and maintain a focus on cross-cultural partnerships, both within the  
1353 cannabis nursing practice, and populations at large.
- 1354 3. Conducts holistic research on cannabis medicine interventions to improve quality of life  
1355 and health outcomes for culturally diverse cannabis healthcare consumers.
- 1356 4. Develops non-discriminatory recruitment and retention strategies to achieve a diverse and  
1357 inclusive workforce in cannabis clinics and dispensaries.
- 1358 5. Promotes shared decision-making solutions incorporating evidence-based cannabis  
1359 practices to resolve discrepancies that may exist between cultural preferences and/or the  
1360 cannabis healthcare consumer's firsthand experiences.

1361 **Standard 10: Communication**

1362 The cannabis nurse communicates effectively in all areas of practice.

1363 **Competencies**

1364 **The cannabis nurse:**

- 1365 1. Assesses their own communication skills and communication effectiveness.
- 1366 2. Demonstrates cultural empathy, professionalism, and respect when communicating with the  
1367 cannabis healthcare consumer.
- 1368 3. Uses communication methods that demonstrate caring, respect, deep listening, authenticity,  
1369 and trust.
- 1370 4. Maintains communication with interprofessional healthcare teams as needed to ensure  
1371 continuity of care.
- 1372 5. Conveys accurate information regarding the therapeutic use of cannabis.
- 1373 6. Discloses concerns related to potential or actual hazards or safety issues related to the  
1374 therapeutic use of cannabis.
- 1375 7. Applies HIPAA-compliant, ethical, legal, and privacy guidelines and policies throughout  
1376 the communication process, inclusive of information maintenance, use, and dissemination.
- 1377 8. Contributes the cannabis nursing perspective in interactions and discussions with the  
1378 interprofessional healthcare team and other stakeholders.
- 1379 9. Demonstrates continuous improvement of communication skills.

1380 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse and**  
1381 **APRN role:**

- 1382 1. Utilizes compassionate communication skills concerning the therapeutic use of cannabis  
1383 when working with healthcare consumers, while discussing new legislation with  
1384 lawmakers, and during interactions with colleagues.
- 1385 2. Leads the charge for cannabis healthcare consumer advocacy and communication of the  
1386 need for change so that cannabis healthcare consumers have adequate access to medicinal  
1387 cannabis.
- 1388 3. Guides conversations in a forward direction with a positive attitude to facilitate productive  
1389 discussions and creative solutions in the evolving cannabis healthcare industry.
- 1390 4. Acts as a leader by facilitating a psychologically safe communication environment that  
1391 encourages healthy conversation and discourse about the therapeutic use of cannabis and  
1392 the practice of cannabis nursing.

1393 **Standard 11: Collaboration**

1394 The cannabis nurse collaborates with healthcare consumers, clinicians, families, interprofessional  
1395 healthcare teams, key stakeholders, and diverse populations.

1396 **Competencies**

1397 **The cannabis nurse:**

- 1398 1. Identifies areas of cannabis expertise and the contributions of other professionals and key  
1399 stakeholders for purposes of collaboration.
- 1400 2. Treats others with dignity and respect in all interactions.
- 1401 3. Articulates the cannabis nurse role within the interprofessional healthcare team.
- 1402 4. Promotes engagement through consensus building and conflict management.
- 1403 5. Partners with the cannabis healthcare consumer and key stakeholders to advocate for  
1404 change that supports positive healthcare outcomes and enhanced quality of care.
- 1405 6. Uses appropriate tools and techniques including information systems and technologies to  
1406 facilitate discussion and team functions in a manner that protects privacy and  
1407 confidentiality.
- 1408 7. Exhibits dignity, respect, professionalism, and confidentiality when communicating and  
1409 when giving and receiving feedback.
- 1410 8. Shares cannabis knowledge with peers and colleagues in a professional manner.
- 1411 9. Partners with all stakeholders to create, implement, and evaluate plans.
- 1412 10. Models the development of clear roles, effective communication, efficient processes,  
1413 measurable outcomes, mutual trust, and shared goals within the interprofessional healthcare  
1414 team.

1415 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse and**  
1416 **APRN role:**

- 1417 1. Guides cannabis care activities within the interprofessional healthcare care team, including  
1418 endocannabinoid education, consultation, management, technological development, and  
1419 research to enhance positive health and wellness outcomes for the healthcare consumer.  
1420 2. Establishes collaborative relationships between cannabis nursing professionals and those  
1421 nurses seeking cannabis knowledge in efforts to improve overall healthcare for consumers.  
1422 3. Develops protocols and tools to assist the interprofessional healthcare team in the creation  
1423 of plans of care for cannabis healthcare consumers.  
1424 4. Provides an open forum with other interprofessional cannabis professionals to collaborate  
1425 in customizing these protocols to meet specific needs.

1426 **Standard 12: Leadership**

1427 The cannabis nurse leads within profession and practice settings.

1428 **Competencies**

1429 **The cannabis nurse:**

- 1430 1. Fosters effective relationships to facilitate quality outcomes and promote a culture of  
1431 safety.  
1432 2. Provides an open forum with other interprofessional cannabis professionals to collaborate  
1433 in customizing cannabis care protocols to meet specific needs.  
1434 3. Contributes to the evolution of cannabis nursing through participation in professional  
1435 organizations, including but not limited to, the ACNA.  
1436 4. Embraces cannabis nursing practice innovations and role performance to achieve lifelong  
1437 personal and professional goals.  
1438 5. Communicates to lead changes in policy about cannabis care.  
1439 6. Influence policy-making processes about cannabis care throughout nursing.  
1440 7. Ensures cannabis healthcare consumer safety, health, and well-being.  
1441 8. Mentors other cannabis nurses towards the advancement of cannabis nursing practice.  
1442 9. Acts as a professional role model for providing cannabis care to other nurses and healthcare  
1443 professionals.  
1444

1445 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse and**  
1446 **APRN role:**

- 1447 1. Engages with decision-making bodies to communicate knowledge and skills with a goal of  
1448 increasing effectiveness of cannabis healthcare consumer outcomes and advancing  
1449 professional cannabis nursing practice.  
1450 2. Contributes as an active member within interprofessional healthcare teams.  
1451 3. Educates policy makers, colleagues, and cannabis healthcare consumers about advanced  
1452 practice cannabis nursing and role development.

- 1453 4. Provides guidance and counseling to colleagues regarding the acquisition of clinical  
1454 knowledge, skills, ways of knowing, and judgment about safe and effective use of cannabis  
1455 therapeutics.
- 1456 5. Supports APRNs and the promotion of advanced practice roles in cannabis nursing.
- 1457 6. Models expert cannabis nursing practice to colleagues, consumers, and interprofessional  
1458 team members.
- 1459 7. Advocates for the continuous improvement of systems that support the advancement and  
1460 broad implementation of the therapeutic use of cannabis in society.
- 1461 8. Leads change in the evolving cannabis care nursing theory, research, education, and  
1462 practice by assuming advanced leadership roles.

1463 **Standard 13: Education**

1464 The cannabis nurse seeks knowledge and competence that reflect current cannabis nursing  
1465 practices and promote futuristic and innovative thinking.

1466

1467 **Competencies**

1468 **The cannabis nurse:**

- 1469 1. Participates regularly in educational activities related to cannabis nursing to acquire  
1470 knowledge about other disciplines by working with interprofessional healthcare teams.
- 1471 2. Demonstrates a commitment to lifelong learning inclusive of self-reflection and inquiry for  
1472 personal and professional growth.
- 1473 3. Acquires knowledge, skills, and abilities related to the role of the cannabis nurse in clinical  
1474 practice or performance.
- 1475 4. Advocates through formal consultation or informal discussions to address issues in  
1476 cannabis nursing practice, demonstrating an application of education and knowledge.
- 1477 5. Identifies modifications or accommodations needed in the delivery of cannabis education  
1478 based on the learner's needs.
- 1479 6. Mentors new cannabis nurses in their roles for the purpose of ensuring successful  
1480 acculturation, orientation, competence, and emotional support in providing care for the  
1481 cannabis healthcare consumer, their family, and the community.
- 1482 7. Shares educational findings, experiences, and ideas with peers.
- 1483 8. Facilitates a work environment supportive of ongoing cannabis education for healthcare  
1484 professionals and interprofessional colleagues.
- 1485 9. Maintains a professional portfolio that provides evidence of individual competence and  
1486 lifelong learning in cannabis: this includes knowledge of the endocannabinoid system,  
1487 awareness of local and national policy and regulations, and best practices for the delivery  
1488 of care to the healthcare consumer.
- 1489 10. Seeks professional cannabis nursing degrees or cannabis specialty certifications, and / or  
1490 degrees in cannabis medicine.

- 1491 11. Recognizes the value of professional and cannabis nurse specialty certifications and / or  
1492 degrees in cannabis medicine.  
1493

1494 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse**  
1495 including the **APRN**:

- 1496 1. Uses current cannabis healthcare research findings and other evidence to expand  
1497 knowledge, skills, abilities, and judgment to enhance role performance.  
1498 2. Disseminates cannabis science evidence to nurses, interprofessional colleagues,  
1499 communities, and policy makers.  
1500 3. Designs educational activities which incorporate the role of the endocannabinoid system in  
1501 homeostasis and are inclusive of the integrative modalities that support endocannabinoid  
1502 system health and self-regulation.

### 1503 **Standard 14: Scholarly Inquiry**

1504 The cannabis nurse integrates scholarship, current best evidence, and research findings into  
1505 practice.

### 1506 **Competencies**

#### 1507 **The cannabis nurse:**

- 1508 1. Articulates the importance and value of cannabis science-based research and its application  
1509 to cannabis healthcare consumers and populations.  
1510 2. Uses current evidence-based knowledge to guide cannabis nursing practice and decision-  
1511 making processes.  
1512 3. Participates in the formulation of evidence-based practice and contributes to the emerging  
1513 fields of cannabis therapeutics and cannabinoid science research.  
1514 4. Promotes ethical practices and principles regarding cannabis research efforts in nursing  
1515 practice and healthcare settings.  
1516 5. Shares peer-reviewed, evidence-based findings with colleagues to integrate cannabis  
1517 knowledge into nursing practice.  
1518 6. Incorporates evidence and nursing research when initiating changes and improving the  
1519 quality of cannabis nursing practices.  
1520 7. Reviews cannabis nursing research for application in practice and the healthcare setting.

1521 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse**,  
1522 including the **APRN**:

- 1523 1. Integrates current cannabis science evidence in all practice settings to enhance the quality  
1524 of services provided.  
1525 2. Utilizes current evidence-based practices to continuously improve cannabis nursing role  
1526 performance and clinical judgment while developing new knowledge, skills, and abilities.

- 1527 3. Uses critical thinking skills to integrate evidence-based practices and holistic modalities to  
1528 enhance cannabis healthcare consumer-centered practices.
- 1529 4. Contributes to the cannabis nursing knowledge base by conducting cannabinoid science  
1530 research or synthesizing current cannabinoid science evidence to enhance healthcare  
1531 consumer outcomes.
- 1532 5. Encourages other nurses to enhance and grow their research skills.
- 1533 6. Performs rigorous critiques of cannabinoid science to create progressive evidence-based  
1534 cannabis nursing practices and protocols.
- 1535 7. Advocates for ethical cannabis science research and translational scholarship with  
1536 consideration of research participants as protected healthcare consumers.
- 1537 8. Supports a climate of collaborative interprofessional research and clinical inquiry.
- 1538 9. Disseminates research and scholarly findings through peer-reviewed journal publications,  
1539 presentations, and consultations.

1540

**1541 Standard 15: Quality of Practice**

1542 The nurse contributes to quality nursing and cannabis nursing practices.

**1543 Competencies****1544 The cannabis nurse:**

- 1545 1. Ensures quality of nursing practice within the interprofessional healthcare team engaged in  
1546 the delivery of cannabis healthcare consumer services to achieve efficient, equitable,  
1547 person-centered, safe, and timely care for the individual cannabis healthcare consumer.
- 1548 2. Recommends strategies to stakeholders to improve quality of care for cannabis healthcare  
1549 consumers.
- 1550 3. Uses creativity and innovation to enhance nursing care for the cannabis healthcare  
1551 consumer.
- 1552 4. Collects data to monitor quality of cannabis nursing practice.
- 1553 5. Provides critical review of policies, procedures, and guidelines that impacts cannabis  
1554 healthcare consumers and nurses.
- 1555 6. Documents cannabis nursing practice in a manner that supports quality and performance  
1556 improvement.
- 1557 7. Engages with interprofessional healthcare teams in formal and informal peer review of  
1558 cannabis care delivery processes.
- 1559 8. Collaborates with the interprofessional healthcare team to implement quality improvement  
1560 plans and interventions for the cannabis healthcare consumer.
- 1561 9. Incorporates evidence-based practice into cannabis care to improve the quality of outcomes  
1562 and initiatives.
- 1563 10. Fosters a practice environment that supports evidence-based health care.
- 1564 11. Incorporates available benchmarks to evaluate cannabis care practice at the individual,  
1565 departmental, or organizational level.

1566 12. Promotes compliance with internal and external regulatory requirements for cannabis care.

1567

1568 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level nurse and**  
1569 **APRN:**

1570 1. Examines trends in cannabis nursing quality data, especially as it relates to the delivery of  
1571 cannabis theories.

1572 2. Explores cultural, ethnic, and population-based considerations when examining the  
1573 cannabis nursing quality data.

1574 3. Designs innovative plans of care with cannabis therapeutics in accordance with state MMP  
1575 requirements and in consideration of federal laws.

1576 4. Provides leadership in the design and implementation of the protocols and processes which  
1577 support the safe delivery of cannabis therapeutics.

1578 5. Contributes to cannabis nursing knowledge through the pursuit of scientific inquiry.

1579 6. Utilizes quantitative and qualitative data to inform decision-making at all levels of cannabis  
1580 care practice.

1581 7. Influences organizational systems to incorporate cannabis therapeutics and improve  
1582 outcomes for cannabis healthcare consumers.

1583 8. Obtains professional or cannabis nursing specialty certifications and / or degree(s) in  
1584 cannabis medicine

1585

## 1586 **Standard 16: Professional Practice Evaluation**

1587 The cannabis nurse evaluates their own and other nurse's cannabis nursing practices.

### 1588 **Competencies**

#### 1589 **The cannabis nurse:**

1590 1. Regularly engages in self-reflection and self-evaluation of cannabis nurse practice.

1591 2. Adheres to The Nursing Scope and Standards of Practice (ANA, 2021) and The Code of  
1592 Ethics for Nurse with Interpretive Statements (ANA, 2015).

1593 3. Ensures that cannabis nursing practice is consistent with state laws and policy regarding  
1594 MMP, regulatory requirements pertaining to licensure, relevant statutes, rules, and  
1595 regulations.

1596 4. Influences organizational policies and procedures to promote interprofessional evidence-  
1597 based cannabis nursing practice.

1598 5. Provides evidence for making practice decisions and taking actions as part of the process of  
1599 evaluating the cannabis nurse's role performance.

1600 6. Seeks formal and informal evaluation and feedback about their own practice performance  
1601 from the cannabis healthcare consumer, colleagues, and stakeholders.

1602 7. Provides other cannabis nurses with formal and informal constructive feedback regarding  
1603 their practices and role performance.

- 1604 8. Documents the evaluation process, strategies used, and next steps to enhance their own  
1605 cannabis nursing practice.

1606

1607 In addition to the competencies of the cannabis nurse, the **Graduate-level prepared cannabis**  
1608 **registered nurse:**

- 1609 1. Disseminates best practices through activities such as presentations, publications, and  
1610 consultations.
- 1611 2. Demonstrates leadership in evaluating cannabis nursing practice to improve healthcare  
1612 outcomes.
- 1613 3. Mentors other cannabis nurses in the performance of their professional roles and  
1614 responsibilities within the area of cannabis therapeutics.
- 1615 4. Holds leadership positions in professional and specialty cannabis practice organizations.
- 1616 5. Influences development of evaluation standards and guidelines within cannabis nursing.
- 1617 6. Leads implementation and translation of evidence-based standards and guidelines into  
1618 cannabis nursing practice.

1619

1620 In addition to the competencies of the cannabis nurse, and the graduate-level prepared cannabis  
1621 registered nurse, **the APRN:**

- 1622 1. Influences the development of advanced practice standards and guidelines in the specialty  
1623 of cannabis nursing.
- 1624 2. Evaluates professional cannabis nursing practice data and benchmarks to enhance their own  
1625 and other's nursing practice.

## 1626 **Standard 17: Resource Stewardship**

1627 The cannabis nurse utilizes available resources to plan, provide, and sustain evidence-based  
1628 nursing services that are safe, effective, financially responsible, and used judiciously.

## 1629 **Competencies**

### 1630 **The cannabis nurse:**

- 1631 1. Facilitates the cannabis healthcare consumer in factoring costs, benefits, and risks  
1632 regarding decisions about their therapeutic use cannabis.
- 1633 2. Supports the cannabis healthcare consumer in identifying and obtaining medical therapies,  
1634 holistic services, integrative and alternative medical treatments as appropriate to support  
1635 their healing processes.
- 1636 3. Advocates for equitable resources that support and enhance cannabis nursing practice and  
1637 health outcomes.
- 1638 4. Integrates telehealth and mobile health technologies when appropriate to promote positive  
1639 interactions with cannabis healthcare consumers and care providers.
- 1640 5. Uses community resources to support and implement interprofessional plans and  
1641 educational efforts for cannabis healthcare consumers.

- 1642 6. Addresses bias and discriminatory healthcare practices and the adverse impact on cannabis  
1643 healthcare consumers regarding the allocation of cannabis use, therapeutics, and resources.  
1644 7. Uses knowledge and awareness of the existence and use of quasi legal and illegal markets  
1645 for cannabis products when counselling cannabis healthcare consumers.

1646 In addition to the competencies of the cannabis nurse, **the cannabis graduate-level prepared**  
1647 **registered nurse and APRN :**

- 1648 1. Creates comprehensive treatment plans that consider the unique needs, conditions, and  
1649 resources available to the cannabis healthcare consumer.  
1650 2. Develops innovative strategies and solutions to effectively manage the use of cannabis  
1651 therapeutics, while continuously improving quality of care.  
1652 3. Implements evaluation strategies that address cost-effectiveness, cost-benefits, and  
1653 efficiency factors associated with cannabis nursing practice.  
1654 4. Connects the cannabis healthcare consumer with local cannabis resources, including  
1655 supportive programs, cannabis educational opportunities, and informational materials.  
1656 5. Utilizes organizational and community cannabis resources when creating holistic  
1657 interprofessional treatment plans.

#### 1658 **Standard 18: Environmental Health**

1659 The cannabis nurse practices in a manner that advances environmental safety and health.

#### 1660 **Competencies**

##### 1661 **The cannabis nurse:5**

- 1662 1. Creates a safe and healthy workplace environment and professional practice.  
1663 2. Fosters a professional environment that does not tolerate abusive, destructive, and  
1664 oppressive behaviors.  
1665 3. Promotes evidence-based practices to create a psychologically and physically safe  
1666 environment.  
1667 4. Assesses the physical environment to identify and address the impact of social  
1668 determinants and risk factors on health.  
1669 5. Reduces environmental health risks to self, cannabis healthcare consumers, and the world.  
1670 6. Integrates environmental health concepts into cannabis nursing practice.  
1671 7. Communicates information about environmental health risks and exposure reduction  
1672 strategies when using cannabis therapeutics.  
1673 8. Uses cannabis therapeutics or treatments consistent with evidence-based practices designed  
1674 to decrease environmental threats and hazards.  
1675 9. Examines how the healthcare consumer's biography affects their endocannabinoid system,  
1676 resultant health issues, and the ecosystem.  
1677 10. Analyzes the impacts of social, political, and economic influences on the cannabis  
1678 healthcare consumer and the environment.

- 1679 11. Advances environmental concerns and complaints about cannabis therapeutics in through  
1680 advocacy and appropriate reporting mechanisms.
- 1681 12. Promotes sustainable global environmental health polices and conditions that focus on  
1682 prevention of hazards to people and the natural environment.

1683 In addition to the competencies of the cannabis nurse, the **cannabis graduate-level prepared**  
1684 **registered nurse and APRN:**

- 1685 1. Influences social, political, environmental, and economic considerations regarding the  
1686 production of cannabis therapeutics and wellness products.
- 1687 2. Affects social, political, environmental, and economic considerations regarding the  
1688 pharmaceutical production of whole spectrum, botanical cannabinoid medicines.
- 1689 3. Creates partnerships with stakeholders to promote environmentally sound and sustainable  
1690 cannabis cultivation and production practices.
- 1691 4. Designs research addressing the connection between the environment, its conditions, and  
1692 health status of cannabis healthcare consumers.
- 1693 5. Utilizes windshield survey as part of the community assessment data to develop cannabis  
1694 (limited only to cannabis? Consider more global focus) policies, recommendations, plans,  
1695 and programs that prevent harm to the cannabis healthcare consumer and their natural  
1696 environment.

1697 **Conclusion Revise and position at the end of the scope statement.**

1698 In conclusion this *Scope of Practice of Cannabis Nursing as an Emerging Specialty (2022)*  
1699 establishes a standardized nursing presence designed to educate, advocate and support cannabis  
1700 healthcare consumers. The nursing process employed by cannabis nurses guides healthcare  
1701 consumers in the use of this scared plant and its wide and various cannabinoid therapeutics. The  
1702 use of this plant exists well within the nursing domain as needing definition of practice on how to  
1703 support and coach cannabis healthcare consumers on its proper consumption for health and  
1704 nutritional purposes. It is imperative that cannabis nurses follow scope and standards of care that  
1705 fall within the Statement of Practice for this emerging nursing specialty.

1706 The scope of practice statement, and acknowledgement of specialty practice standards is a  
1707 call to action. This document is grounded in philosophies, theories, evidence-based research, and  
1708 the “critical thinking model known as the nursing process” (Nursing Scope and Standards 4<sup>th</sup>

1709 edition, p 113). These statements create the foundation of cannabis nursing and clinical guidelines  
1710 which advance cannabis nursing as a recognized nursing practice. Therefore, the ACNA seeks  
1711 formal designation for cannabis nursing as an emerging nursing specialty through the guidance,  
1712 collaboration, and approval of the American Nurses Association / American Nurses Credentialing  
1713 Center (ANA/ANCC). The first textbook, Cannabis: A handbook for nurses describes the roles  
1714 and supports the competencies of a cannabis nurse. As noted by its author Carey S. Clark, PHD,  
1715 AHN-BC, FAAN, and past president of ACNA, a cannabis nurse combats stigma, is a change  
1716 agent, a leader, and an advocate all while providing compassionate care to cannabis healthcare  
1717 consumers.

1718 Cannabis care nurses stood up, despite the prohibition – era stigma, to become spokespersons  
1719 for those who cannot speak for themselves, and they have learned how to best share this  
1720 wealth of information with others.

1721 Cannabis care nurses are leaders in creating change: they will continue to advocate for  
1722 positive change that supports patient's rights to autonomy in healing, even as we enter this  
1723 cannabis post-prohibition era and move into an era of cannabis regulations.

1724 Cannabis care nurses are called to be caring, compassionate, social justice warriors to ensure  
1725 that all patients need to have the opportunity to access cannabis therapeutics along their  
1726 palliative and healing journeys (Clark, 2021, p. 271).

1727

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- 1924

1925

## Appendix A – NASEM Findings

Ailment, Condition, or Illness being treated with cannabis-based medicine	Degree of Evidence
Chronic pain and inflammation (arthritis, sciatica, etc.)	Substantial
Controlling nausea and the effects of chemotherapy	Substantial
Spasticity in Multiple Sclerosis	Substantial
Chemotherapy-Induced Nausea & Vomiting	Substantial
Intractable Seizures	Substantial
Dravet and Lennox-Gastaut syndromes (CBD)	Substantial
Improving sleep disorders - sleep apnea	Moderate
Fibromyalgia	Moderate
Decreasing intraocular pressure in glaucoma	Moderate
Increased appetite and decreased weight loss for HIV /AIDs patients	Limited
Dementia	Limited
Parkinson's	Limited
Schizophrenia Symptoms	Limited
Post-traumatic stress disorder (PTSD)	Limited
Parkinson Disease (certain symptoms)	Limited
Better outcomes after traumatic brain injury	Limited
Social anxiety disorders	Limited
Cancer – tumor reduction	Insufficient
Decrease in inflammation in healthy individuals	Insufficient
Irritable Bowel Syndrome	Insufficient
Opioid addiction – lowering rate of new addictions and recidivism	Insufficient
ALS	Insufficient

1926

Risk factor	Level of risk	Comment
Getting cancer from smoking cannabis	Does not increase risk	Cannabis does not increase the risk of head, neck, and lung cancers – especially compared to tobacco
Human Papilloma virus	Does not increase risk	No statistical relationship found
Comprising the immune system	Inconclusive	Not enough evidence to determine statistical association
Heart attacks	Inconclusive	Not enough evidence to determine statistical association

Impairing academic achievement / employment / earning potential for young adults	Inconclusive	Limited evidence of statistical relationship between cannabis uses and unemployment / lowered earning potential for young adults
Strokes	Inconclusive	Insufficient evidence to determine statistical association
Developing a sub-type of testicular cancer	Increased risk	Some evidence of increased risk
Developing cardio / respiratory conditions	Increases risk	Smoking cannabis on a regular basis moderately increases the risk of bronchitis and COPD for some users
Injury and death from car accidents	Increases risk	Slight increase in risk in states where cannabis is legal
Injury or poisoning from accidental overdose	Increases risk	Slight increase in risk to small children in states where cannabis is legal
Learning, memory, and attention impairment	Increases risk	Moderate evidence of limited impairment after immediate cannabis use
Prenatal health and low birth weight	Increases risk	Smoking cannabis during pregnancy was linked to lower birth weight in some babies; insufficient evidence linking parental cannabis consumption in pregnancy to greater risk of cancer in their children.
Psychosocial and mental health risks	Increases risk	Moderately increased risk of schizophrenia, social anxiety, and depression in some frequent users; Increased risk of suicidal ideation in some heavy users; slight risk of increased hallucinations in some users
Injury or death on the job	Unknown	Currently under study