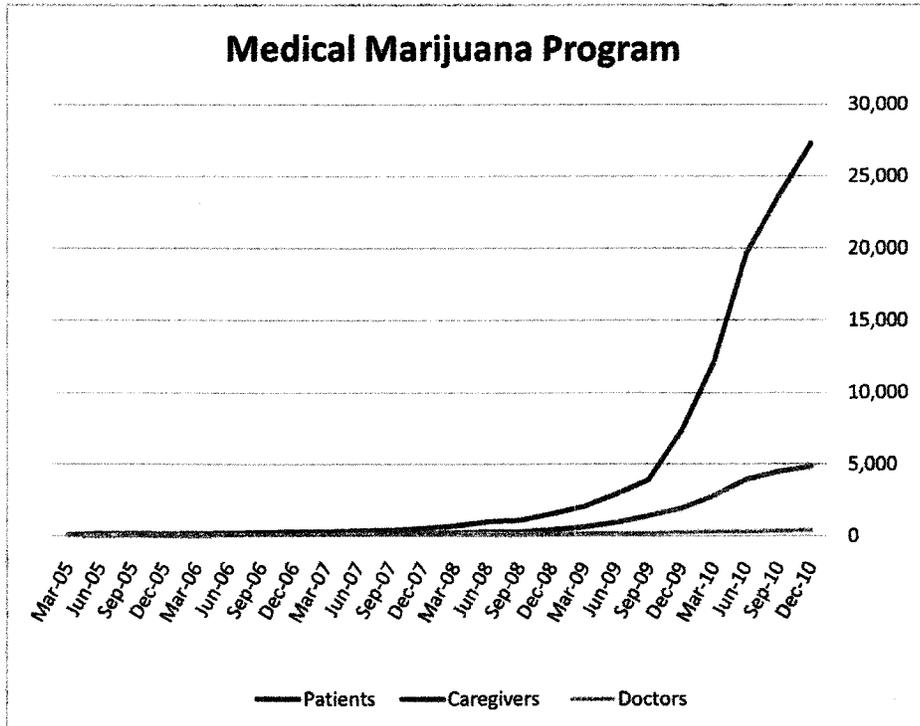


MMP Stats

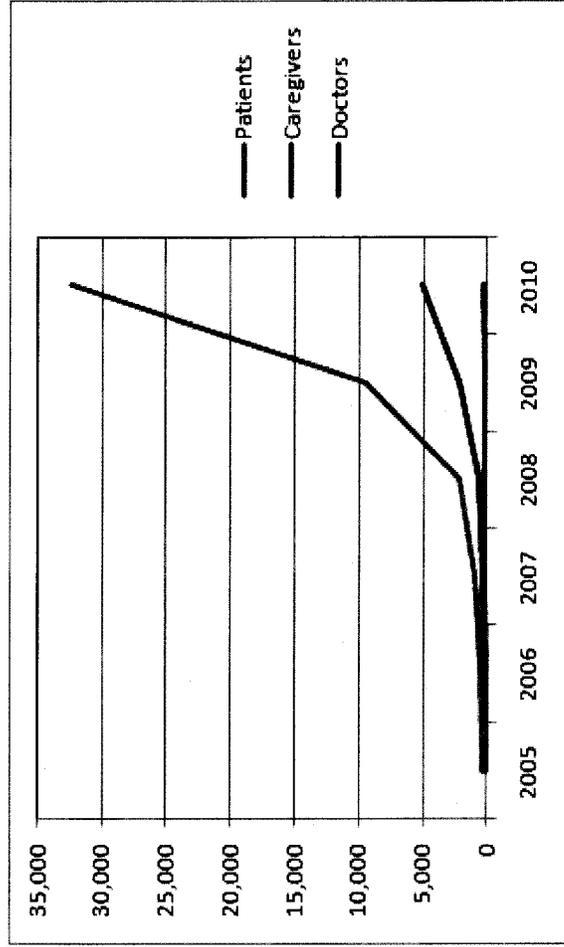
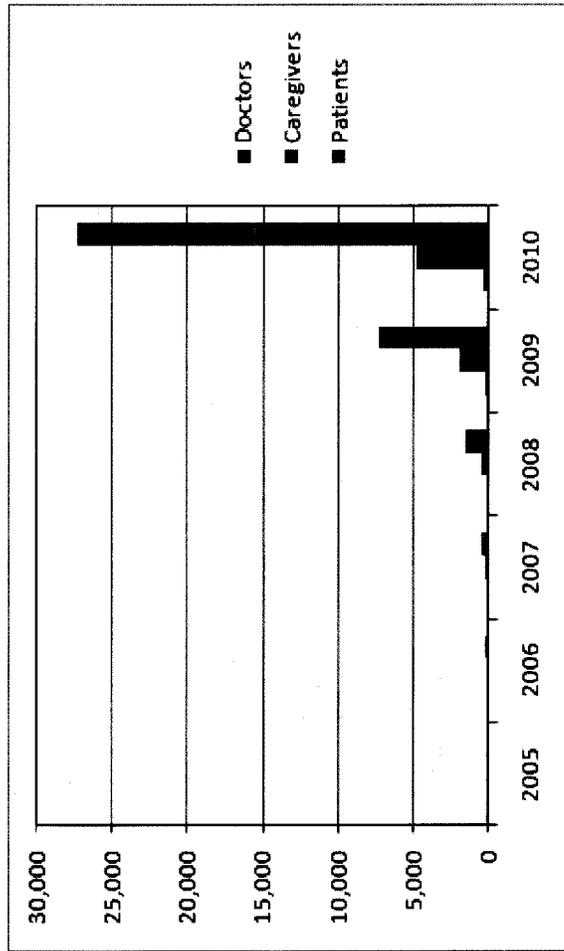
History of Qualifying Patients, Caregivers, and Doctors
 January 2005 - December 2010

Mar-05	
Jun-05	
Sep-05	
Dec-05	
Mar-06	
Jun-06	
Sep-06	
Dec-06	
Mar-07	
Jun-07	
Sep-07	
Dec-07	
Mar-08	
Jun-08	
Sep-08	
Dec-08	
Mar-09	
Jun-09	
Sep-09	
Dec-09	
Mar-10	
Jun-10	
Sep-10	
Dec-10	



2005	176	n/a	66	n/a	98	n/a
2006	287	163%	116	176%	114	116%
2007	572	199%	194	167%	145	127%
2008	1,577	276%	465	240%	171	118%
2009	7,339	465%	1,942	418%	247	144%
2010	27,292	372%	4,807	248%	359	145%

Source: Montana Department of Health & Human Services (Dec. 2010)



Medical Marijuana Registry Statistics

as of Dec. 31, 2010

Medical Marijuana Patients by Age

Age	Number of Patients			Percentage of Cardholders		
	3/31/2010	6/30/2010	12/31/2010	3/31/2010	6/30/2010	12/31/2010
Under 18	22	45	58	0.18%	0.23%	0.21%
18-20	397	791	1,077	3.29%	4.03%	3.95%
21-30	2,981	5,045	6,797	24.68%	25.69%	24.9%
31-40	2,503	4,019	5,657	20.72%	20.47%	20.73%
41-50	2,476	3,953	5,245	20.49%	20.13%	19.22%
51-60	2,762	4,308	6,102	22.86%	21.94%	22.36%
61-70	917	1,261	1,997	6.76%	6.42%	7.32%
71-80	105	173	292	0.87%	0.88%	1.07%
81-90	16	38	58	0.13%	0.19%	0.21%
Over 90	2	2	9	0.02%	0.01%	0.03%
Total	12,081	19,635	27,292	100%	100%	100%

Medical Marijuana Patients by Medical Condition

Debilitating Medical Condition	Number of Patients		
	3/31/2010	6/30/2010	12/31/2010
Cachexia or Wasting Syndrome	400	480	659
Cancer, Glaucoma, or HIV (AIDS)	355	521	769
Multiple Sclerosis	23	23	26
Seizures	116	163	233
Severe Nausea	218	275	452
Severe or Chronic Pain	6,988	13,291	20,084
Severe or Chronic Pain/Muscle Spasms	2,634	3,160	3,452
Severe or Chronic Pain/Nausea	616	812	1,218
Severe or Chronic Pain/Seizures	106	130	191
Severe or Chronic Pain/Nausea/Muscle Spasms	372	431	503
Severe or Persistent Muscle Spasms	211	276	503
Severe Seizures and/or Nausea and/or Muscle Spasms	42	73	59

Number of Patients Per Caregiver and Certifying Physician

Number of Patients	Number of Caregivers		Number of Physicians	
	3/31/2010	6/3020/10	3/31/2010	6/3020/10
No caregiver identified	776	1,024		
1 patient	1,554	2,054	106	98
2-4 patients	746	1,072	83	99
5-9 patients	258	409	53	52
10-14 patients	83	146	9	18
15-19 patients	47	79	7	9
20 or more patients	109	180	23	26
More than 100 patients			14	20
Total Caregivers	2,797	3,940	295	322

Patients Per Caregiver and Certifying Physician, as of Dec. 31, 2011

Number of Patients	Number of Caregivers	Number of Physicians
1 patient	2,444	115
2 patients	695	41
3 patients	373	28
4 patients	233	27
5 patients	172	17
6 patients	117	15
7 patients	89	10
8 patients	86	8
9 patients	65	8
10 patients	56	6
11-20 patients	239	29
21 to 30 patients	92	8
31 to 40 patients	42	7
41 to 50 patients	26	3
51 to 60 patients	16	2
61 to 70 patients	11	0
71 to 80 patients	6	2
81 to 90 patients	8	0
91 to 100 patients	4	1
More than 100 patients	33	32
Total	4,807	359

Patients and Caregivers by County

County	Caregivers		Patients		Population	Patients as % of Population	
	6/30/2010	12/31/2010	6/30/2010	12/31/2010		6/30/2010	12/31/2010
Beaverhead	24	21	129	196	8,903	1.45%	2.20%
Big Horn	7	10	52	115	12,841	0.40%	0.90%
Blaine	10	7	52	67	6,491	0.80%	1.03%
Broadwater	30	33	140	163	4,704	2.98%	3.47%
Carbon	28	37	122	208	9,657	1.26%	2.15%
Carter	0	0	1	2	1,234	0.08%	0.16%
Cascade	278	304	1,762	1,850	82,026	2.15%	2.26%
Chouteau	6	8	44	57	5,225	0.84%	1.09%
Custer	10	21	84	201	11,149	0.75%	1.8%
Daniels	0	1	10	12	1,643	0.61%	0.73%
Dawson	18	22	86	108	8,490	1.01%	1.27%
Deer Lodge	19	16	158	222	8,843	1.79%	2.51%
Fallon	0	0	18	22	2,716	0.66%	0.81%
Fergus	44	48	168	195	11,195	1.50%	1.74%
Flathead	596	718	2,538	3,431	88,473	2.87%	3.88%
Gallatin	538	659	2,729	3,642	89,824	3.04%	4.05%
Garfield	0	0	3	6	1,184	0.25%	0.51%
Glacier	2	4	61	139	13,297	0.46%	1.05%
Golden Valley	2	3	7	18	1,081	0.65%	1.67%
Granite	8	11	55	53	2,821	1.95%	1.88%
Hill	31	34	323	397	16,454	1.96%	2.41%
Jefferson	33	40	188	300	11,255	1.67%	2.67%
Judith Basin	6	4	15	17	2,014	0.74%	0.84%
Lake	115	114	576	677	28,690	2.01%	2.36%
Lewis and Clark	217	261	1,362	2,028	60,925	2.24%	3.33%
Liberty	5	6	15	17	1,725	0.87%	0.99%
Lincoln	141	164	498	619	18,971	2.63%	3.26%
Madison	36	59	172	355	7,509	2.29%	4.73%
McCone	2	3	4	5	1,676	0.24%	0.30%
Meagher	8	9	31	47	1,868	1.66%	2.52%
Mineral	28	45	149	220	3,862	3.86%	5.70%

County	Caregivers		Patients		Population	Patients as % of Population	
	6/30/2010	12/31/2010	6/30/2010	12/31/2010		6/30/2010	12/31/2010
Missoula	565	736	2,924	4,131	107,320	2.72%	3.85%
Musselshell	15	16	99	123	4,498	2.20%	2.73%
Park	156	193	606	738	16,189	3.74%	4.56%
Petroleum	1	2	4	8	436	0.92%	1.83%
Phillips	9	14	33	43	3,904	0.85%	1.10%
Pondera	20	20	72	81	5,852	1.23%	1.38%
Powder River	0	0	6	12	1,694	0.35%	0.71%
Powell	18	24	100	143	7,041	1.42%	2.03%
Prairie	3	5	6	11	1,064	0.56%	1.03%
Ravalli	262	326	959	1,440	40,664	2.36%	3.54%
Richland	8	12	56	131	9,270	0.60%	1.41%
Roosevelt	2	6	40	63	10,089	0.40%	0.62%
Rosebud	3	5	49	151	9,190	0.53%	1.64%
Sanders	82	98	249	342	11,034	2.26%	3.10%
Sheridan	4	7	23	51	3,283	0.70%	1.55%
Silver Bow	96	119	559	908	32,803	1.70%	2.77%
Stillwater	14	20	73	122	8,687	0.84%	1.40%
Sweet Grass	7	10	49	71	3,790	1.29%	1.87%
Teton	8	8	83	98	5,992	1.39%	1.64%
Toole	7	7	58	78	5,141	1.13%	1.52%
Treasure	0	0	5	10	637	0.78%	1.57%
Valley	19	15	58	81	6,892	0.84%	1.18%
Wheatland	5	4	24	29	2,010	1.19%	1.44%
Wibaux	1	1	6	7	866	0.69%	0.81%
Yellowstone	393	497	1,942	2,928	142,348	1.36%	2.06%
Totals	3,940	4,807	19,635	27,189*	967,440	2.03%	2.81%

Source: Department of Public Health and Human Services

* Totals to less than the 27,292 registered patients because 103 patients are out-of-state residents

From U.S. Department of Justice Drug Enforcement Adm "Position on Marijuana"

Because of abuses associated with the cannabis clubs, law enforcement and localities have cracked down on these fronts for marijuana dealers.

- In Montana, where voters approved "medical" marijuana in 2004, there has been a recent influx of registered "medical" marijuana cardholders. As of June 2009 there were only 2,923 cardholders; now there are approximately 15,000 cardholders. As a result of this increase, there has been a proliferation of storefront dispensaries, with an increase from 919 to over 5,000. The existing law does not have the proper regulations to manage these businesses and ensure public safety.⁷³
 - In Billings, the City Council approved a six-month moratorium on new medical businesses in May 2010 after two evenings of violence against dispensaries. They also ordered the closure of 25 of the 81 dispensaries for not being properly registered with the state.⁷⁴
 - In Kalispell, they recently banned any new "medical" marijuana stores in the city following the bludgeoning death of a patient that authorities believe was related to the theft of "medical" marijuana plants.⁷⁵
 - In April 2010 the principal and counselors from Great Falls High School testified that teenagers are smoking more marijuana than ever before. Principal Dick Kloppel stated that "I firmly believe it is directly attributable to the increased availability of the drug through caregivers and cardholders."⁷⁶
 - Mikie Messman, Chemical Awareness/Responsive Education Coordinator for the school district testified that the students told her that marijuana relieves their stress. Instead of learning how to cope with stress, they are covering it up. "These kids are using it as medication so they don't have to deal with adolescence," Messman said.⁷⁷
 - In response to the information provided by school personnel and others who testified, in June 2010 Great Falls city commissioners voted to ban medical marijuana businesses from the city.⁷⁸
 - A block from the state capitol in Helena, the Cannabis Caregivers Network, set up a cannabis caravan, a makeshift clinic, using a band of doctors and medical marijuana advocates roaming Montana to sign up thousands of patients to become "medical" marijuana cardholders. For \$150 patients see a doctor who provides a recommendation that they be allowed to buy and smoke "medical" marijuana. The Montana Medical Board has been working to curtail the practice of such mass screenings. They recently fined a doctor who participated in a similar clinic for seeing 150 patients in 14 and 1/2 hours, or approximately a patient every six minutes. There was no way a thorough examination, a medical history, discussion of alternative treatments and oversight of the patients could have occurred.⁷⁹
 - One caravan recently ran a clinic in a hotel in Helena, where they processed between 200 and 300 people seeking a doctor's recommendation. The group then assisted the patient with sending the application and doctor's recommendation to the state health department. Afterwards patients were ushered into another room where half a dozen marijuana providers competed for their business.⁸⁰

physical, mental, emotional, and behavioral changes, and contrary to popular belief--it can be addictive."⁹³

Skunk, the more potent form of marijuana being used in the United Kingdom today, contains 15 to 20 percent THC, and new resin preparations have up to 30 percent.⁹⁴

Increasingly, the international community is joining the United States in recognizing the fallacy of arguments claiming marijuana use is a harmless activity with no consequences to others.

- Antonio Maria Costa, Executive Director of the United Nations Office on Drugs and Crime, noted in an article published in *The Independent on Sunday* "The debate over the drug is no longer about liberty; it's about health." He continued, "Evidence of the damage to mental health caused by cannabis use—from loss of concentration to paranoia, aggressiveness and outright psychosis—is mounting and cannot be ignored. Emergency-room admissions involving cannabis is rising, as is demand for rehabilitation treatment. ...It is time to explode the myth of cannabis as a 'soft' drug."⁹⁵
- As ONDCP Director R. Gil Kerlikowske noted, "The concern with marijuana is not born out of any culture war mentality, but out of what science tells us about the drug's effects."⁹⁶

MENTAL HEALTH ISSUES RELATED TO MARIJUANA

There is mounting evidence that use of marijuana, particularly by adolescents, can lead to serious mental health problems.

- "Nearly one in ten first-year college students at a mid-Atlantic university have a cannabis use disorder (CUD) according to a NIDA-funded study of drug use conducted by investigators from the Center for Substance Abuse Research at the University of Maryland." "Students who had used cannabis five or more times in the past year – regardless of whether or not they met the criteria for CUD – reported problems related to their cannabis use, such as concentration problems (40.1 percent), regularly putting themselves in physical danger (24.3 percent), and driving after using marijuana (18.6 percent)."⁹⁷
- According to a recent report by the Office of National Drug Control Policy on teens, depression and marijuana use:⁹⁸
 - Depressed teens are twice as likely as non-depressed teens to use marijuana and other illicit drugs.
 - Depressed teens are more than twice as likely as their peers to abuse or become dependent on marijuana.
 - Marijuana use can worsen depression and lead to more serious mental illness such as schizophrenia, anxiety, and even suicide.

- Teens who smoke marijuana at least once a month are three times more likely to have suicidal thoughts than non-users.
 - The percentage of depressed teens is equal to the percentage of depressed adults, but depressed teens are more likely than depressed adults to use marijuana than other drugs.
- Researchers from the University of Oulu in Finland interviewed over 6,000 youth ages 15 and 16 and found that “teenage cannabis users are more likely to suffer psychotic symptoms and have a greater risk of developing schizophrenia in later life.”⁹⁹
 - Australian researchers report that long-term, heavy cannabis use may be associated with structural abnormalities in areas of the brain which govern memory, emotion, and aggression. Brain scans showed that the hippocampus was 12 percent smaller and the amygdala 7 percent smaller in men who smoked at least 5 cigarettes daily for almost 10 years. Dr. Mura Yucel, the lead researcher stated that “this new evidence plays an important role in further understanding the effects of marijuana and its impact on brain functions. The study is the first to show that long-term cannabis use can adversely affect all users, not just those in the high-risk categories such as the young, or those susceptible to mental illness, as previously thought.”¹⁰⁰
 - A two-year study by the National Cannabis Prevention and Information Centre, at the University of New South Wales in Sydney, Australia found that cannabis users can be as aggressive as crystal methamphetamine users, with almost one in four men and one in three women being violent toward hospital staff or injuring themselves after acting aggressively. Almost 12 percent were considered a suicide risk. The head of the Emergency Department at St. Vincent’s Hospital, Gordian Fulde, said “that most people still believed marijuana was a soft drug, but the old image of feeling sleepy and having the munchies after you’ve smoked is entirely inappropriate for modern-day marijuana. With hydroponic cannabis, the levels of THC can be tenfold what they are in normal cannabis so we are seeing some very, very serious fallout.”¹⁰¹
 - A study published in the March 2008 Journal of the American Academy of Child and Adolescent Psychiatry cited the harm of smoking marijuana during pregnancy. The study found a significant relationship between marijuana exposure and child intelligence. Researchers concluded that “prenatal marijuana exposure has a significant effect on school-age intellectual development.”¹⁰²
 - Doctors at Yale University documented marijuana’s damaging effect on the brain after nearly half of 150 healthy volunteers experienced psychotic symptoms, including hallucinations and paranoid delusions, when given THC, the drug’s primary active ingredient. The findings were released during a May 2007 international health conference in London.¹⁰³
 - U.S. scientists have discovered that the active ingredient in marijuana interferes with synchronized activity between neurons in the hippocampus of rats. The authors of this November 2006 study suggest that action of tetrahydrocannabinol, or THC, might explain why marijuana impairs memory.¹⁰⁴

- A pair of articles in the *Canadian Journal of Psychiatry* reflects that cannabis use can trigger schizophrenia in people already vulnerable to the mental illness and assert that this fact should shape marijuana policy.¹⁰⁵
- Memory, speed of thinking, and other cognitive abilities get worse over time with marijuana use, according to a new study published in the March 14, 2006 issue of *Neurology*, the scientific journal of the American Academy of Neurology. The study found that frequent marijuana users performed worse than non-users on tests of cognitive abilities, including divided attention and verbal fluency. Those who had used marijuana for 10 years or more had more problems with their thinking abilities than those who had used marijuana for 5-to-10 years. All of the marijuana users were heavy users, which was defined as smoking four or more joints per week.¹⁰⁶
- John Walters, then the Director of the Office of National Drug Control Policy, Charles G. Curie, then the Administrator of the Substance Abuse and Mental Health Services Administration, and experts and scientists from leading mental health organizations joined together in May 2005 to warn parents about the mental health dangers marijuana poses to teens. According to several recent studies, marijuana use has been linked with depression and suicidal thoughts, in addition to schizophrenia. These studies report that weekly marijuana use among teens doubles the risk of developing depression and triples the incidence of suicidal thoughts.¹⁰⁷
- Dr. Andrew Campbell, a member of the New South Wales (Australia) Mental Health Review Tribunal, published a study in 2005 which revealed that four out of five individuals with schizophrenia were regular cannabis users when they were teenagers. Between 75-80 per cent of the patients involved in the study used cannabis habitually between the ages of 12 and 21.¹⁰⁸ In addition, a laboratory-controlled study by Yale scientists, published in 2004, found that THC “transiently induced a range of schizophrenia-like effects in healthy people.”¹⁰⁹
- Carleton University researchers published a study in 2005 showing that current marijuana users who smoke at least five “joints” per week did significantly worse than non-users when tested on neurocognition tests such as processing speed, memory, and overall IQ.¹¹⁰
- Robin Murray, a professor of psychiatry at London’s Institute of Psychiatry and consultant at the Maudsley Hospital in London, wrote an editorial which appeared in *The Independence on Sunday*, on March 18, 2007, in which he states that the British Government’s “mistake was rather to give the impression that cannabis was harmless and that there was no link to psychosis.” Based on the fact that “...in the late 1980s and 1990s psychiatrists like me began to see growing numbers of young people with schizophrenia who were taking large amounts of cannabis” Murray claims that “...at least 10 percent of all people with schizophrenia in the UK would not have developed the illness if they had not smoked cannabis.” By his estimates, 25,000 individuals have ruined their lives because they smoked cannabis. He also points out that the “skunk” variety of cannabis, which is very popular among young people in Great Britain, contains “15 to 20 per cent THC, and new resin preparations have up to 30 percent.”¹¹¹

- Dr. John MacLeod, a prominent British psychiatrist states: “If you assume such a link (to schizophrenia with cannabis) then the number of cases of schizophrenia will increase significantly in line with increased use of the drug.” He predicts that cannabis use may account for a quarter of all new cases of schizophrenia in three years’ time.¹¹²
- A study by Scientists at the Queensland Brain Institute in Australia on long-term marijuana use and the increased risk of psychosis confirms earlier findings. “Compared with those who had never used cannabis, young adults who had six or more years since first use of cannabis were twice as likely to develop a non-affective psychosis (such as schizophrenia),” McGrath wrote in a study published in the Archives of General Psychiatry Journal. “They were also four times as likely to have high scores in clinical tests of delusion.”¹¹³
- According to Margaret Trudeau, “Marijuana can trigger psychosis.” “Quitting cannabis has been an important part of my recovery from mental illness,” Margaret Trudeau, ex-wife of former Canadian prime Minister Pierre Trudeau, reported at a press conference at the Canadian Mental Health Conference in Vancouver on February 15, 2007. “Every time I was hospitalized it was preceded by heavy marijuana use.”¹¹⁴
- A study by doctors from the National Institute of Drug Abuse found that people who smoked marijuana had changes in the blood flow in their brains even after a month of not smoking. The marijuana users had PI (pulsatility index) values somewhat higher than people with chronic high blood pressure and diabetes, which suggests that marijuana use leads to abnormalities in the small blood vessels in the brain. These findings could explain in part the problems with thinking and remembering found in other studies of marijuana users.¹¹⁵
- In a presentation on “Neuroimaging Marijuana Use and Effects on Cognitive Function” Professor Krista Lisdahl Medina suggests that chronic heavy marijuana use during adolescence is associated with poorer performance on thinking tasks, including slower psychomotor speed and poorer complex attention, verbal memory and planning ability. “While recent findings suggest partial recovery of verbal memory functioning within the first three weeks of adolescent abstinence from marijuana, complex attention skills continue to be affected. Not only are their thinking abilities worse, their brain activation to cognitive task is abnormal.”¹¹⁶

PHYSICAL HEALTH ISSUES RELATED TO MARIJUANA

Marijuana use also affects the physical health of users.

- Under the Safe Drinking Water and Toxic Enforcement Act of 1986, the Governor of California is required to revise and republish at least once a year the list of chemicals known to the state to cause cancer or reproductive toxicity. On September 11, 2009, the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, published the latest list. The list includes a new chemical added in June, marijuana smoke, and lists cancer as the type of toxicity.¹¹⁷
- A study by researchers at the Erasmus University Medical Center in Rotterdam, Netherlands found woman who smoked pot during pregnancy may impair their baby’s growth and