Medical Marijuana
a way to legalize cannabis?

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Moscow

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Is cannabis medicine or a narcotic drug?

- Is opium medicine or a narcotic drug?
- How about amphetamine?
- Medicine – pharmaceutical drug

- Another important distinction:
- Cannabis (e.g.marijuana - flowers and haschish - resin)
- Cannabinoids – extracted from cannabis (e.g. THC, CBD – more than 60 in total), endocanabinoids (anandamide) and synthetic canabinoids (in Spice)

Fooling the brain…

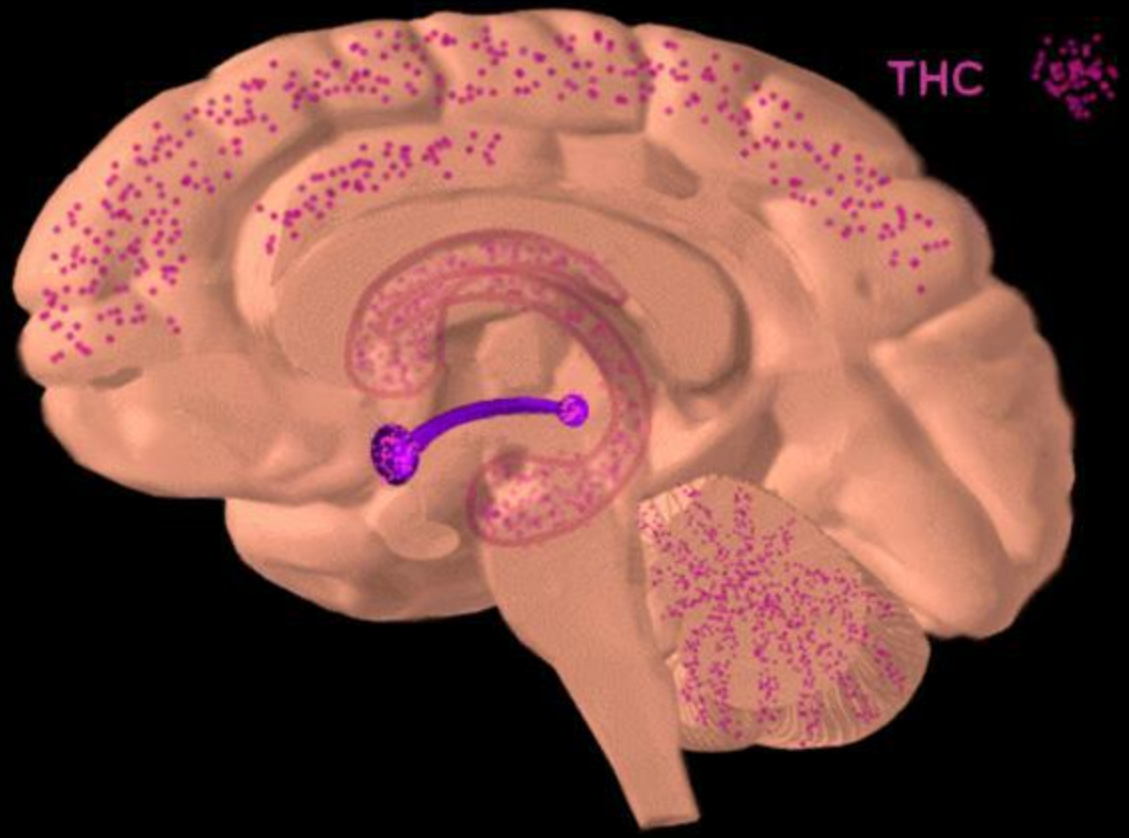
Brain's Chemical

Anandamide

Drug

THC

THC Binding Sites



Front

Back

Source: NIDA

Cannabis as medicine

- First documented från China 2727 BC
- Effects pain, nausea, anorexia, spasticity
- There is ongoing research on extracted cannnabinoids
- There are approved pharmaceuticals, like Marinol and Sativex

Approved pharmaceuticals, 1

- Marinol (THC)
  - Approved by FDA already in 1985 for treatment of
  - Nausea of chemotherapy
  - Wasting of AIDS
  - Not widely used (due to limited effect and many side effects)

Approved pharmaceuticals, 2

- **Sativex (THC+CBD)**
  - Mouth spray for spaticity of MS – approved in Sweden in December 2011
  - CBD counteracts hallucinogenic effects of cannabis (almost totally absent in the abused marijuana due to plant breeding)

Is marijuana an approved pharmaceutical in the US?

- Agencies that approve pharmaceuticals like Läkemedelsverket in Sweden and Food and Drug Administration (FDA) in the US have very strict requirements for approval
- The substance should be well defined and controlled, the same amount should contain the same dose
- It must safe and effective
- The mode of administration must be safe
- The substance must be tested on animals and humans in several steps
- The production must be controlled
- The profile of side effects must be carefully described

Does marijuana meet these requirements?

- THC concentration varies a lot (2-30%) and is usually unknown. More than 60 different cannabinoids. More than 400 other substances.
- Safety is very questionable – a number of serious side effects
  - Psychiatric – psychoses, depression, anxiety
  - Somatic – lung deseases incl. lung cancer
  - addictive
  - The effect on e.g. pain and nausea is not impressive
- Smoking is not a safe mode of administration. E.g. 4 times more tar in the lungs compared to cigarette smoking

Does marijuana meet these requirements? – cont.

- Tests on animals and humans have not been performed
- Growing and manufacturing is not at all controlled. E.g. high doses of peticides that can harm humans are used
- There is no defined profile of side effects, it is sold without a proper description of containing substances, dose of each substance, how much or for how long it should be used for the conditions involved, etc

Has FDA approved marijuana as a pharmaceutical in the US?

- The answer is: No. On the contrary. FDA discourages from recommending marijuana smoking for medical purposes
- It is still illegal to posses and sell cannabis according to federal law in the US
- It is illegal to drive while on cannabis
- Companies can sack an employee who refuses to quit marijuana smoking although he/she is a ”licenced marijuana user”

Then, what has happened in the US?

- 18 states beginning with California in1996, have voted on state ballot initiative to allow the use of marijuana for medical purposes within their state borders
- The campaigns in support of these initiatives have been well organized and well funded
- E.g. TV commercials with severely ill people testifying how smoking marijuana has made their lives endurable appealing to people's compassion
- The critics have not had anywhere near as much funds to spend to oppose the initiatives.

Organisations in support of medical marijuana

- The Marijuana Policy Project (MPP)
- The Drug Policy Alliance (DPA)
- The National Organization for the Reform of Marijuana Laws (NORML)
- These all have legalization on their agenda

- Two states – Washington and Colorado in fall 2012 voted in favour of legalization (”regulate and tax”)

How does medical marijuana work?

- You obtain a ”recommendation”(not a prescription) from a medical doctor that marijuana may be helpful for your medical condition
- You can also designate a friend or a relative as your primary caregiver
- Now you both have documentation that allows you to possess and grow marijuana för ”medical puposes”
- You can now both buy marijuana in so called marijuana dispensaries.
- The doctor’s recommendation usually lasts for a year regardless of the result of the medication and it can easily be renewed

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PHYSICIAN'S STATEMENT

This letter is to verify that I am the attending physician for

_____ regarding the therapeutic value of medical
Patient Name

marijuana for him/her.

Additionally, this letter verifies that he/she has been diagnosed with a serious medical condition and that the medical use of marijuana is appropriate for that serious medical condition.

This letter is made a part of the patient's permanent record.

Signed _____ License No.:
Joanne Benzio MD
MediCann, Inc.

Date of Statement: Nov 28, 2005

Clinic Location: San Diego

Time Period Covered

☐ 3 Months ☐ 6 Months

☒ 12 Months ☐ Other_____

This patient uses marijuana topically which greatly increases his need. It is recommended that this patient be allowed to have up to Seventy five marijuana plants growing and up to five pounds of dry marijuana.

Joanne M Benzio M.D.

Private & Confidential
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Version 1.2

"Medical" Marijuana

Source:
Newsweek, 2010

How does it work? – cont..

- There is virtually no control of how much you buy. You can buy every day and in more than one dispensary
- There are no requirements for the doctors to follow up the result of the medication.
- Doctors advertize their services in local media
- Not all doctors participate. At one dispensary >50% of all letters of recommendation were issued by two doctors

Cont.

- American Society of Addiction Medicine (ASAM) advice doctors not to recommend patients to use marijuana for medical purpuses
- Because marijuana can harm patients
  - Psychiatric side effects (Psychosis, depression etc)
  - Addictive
  - Can cause cancer. 4x more of some carcinogens than in tobacco
  - Illegal by federal law
  - Doctors not protected by their insurance
  - Doctors may risk their licences

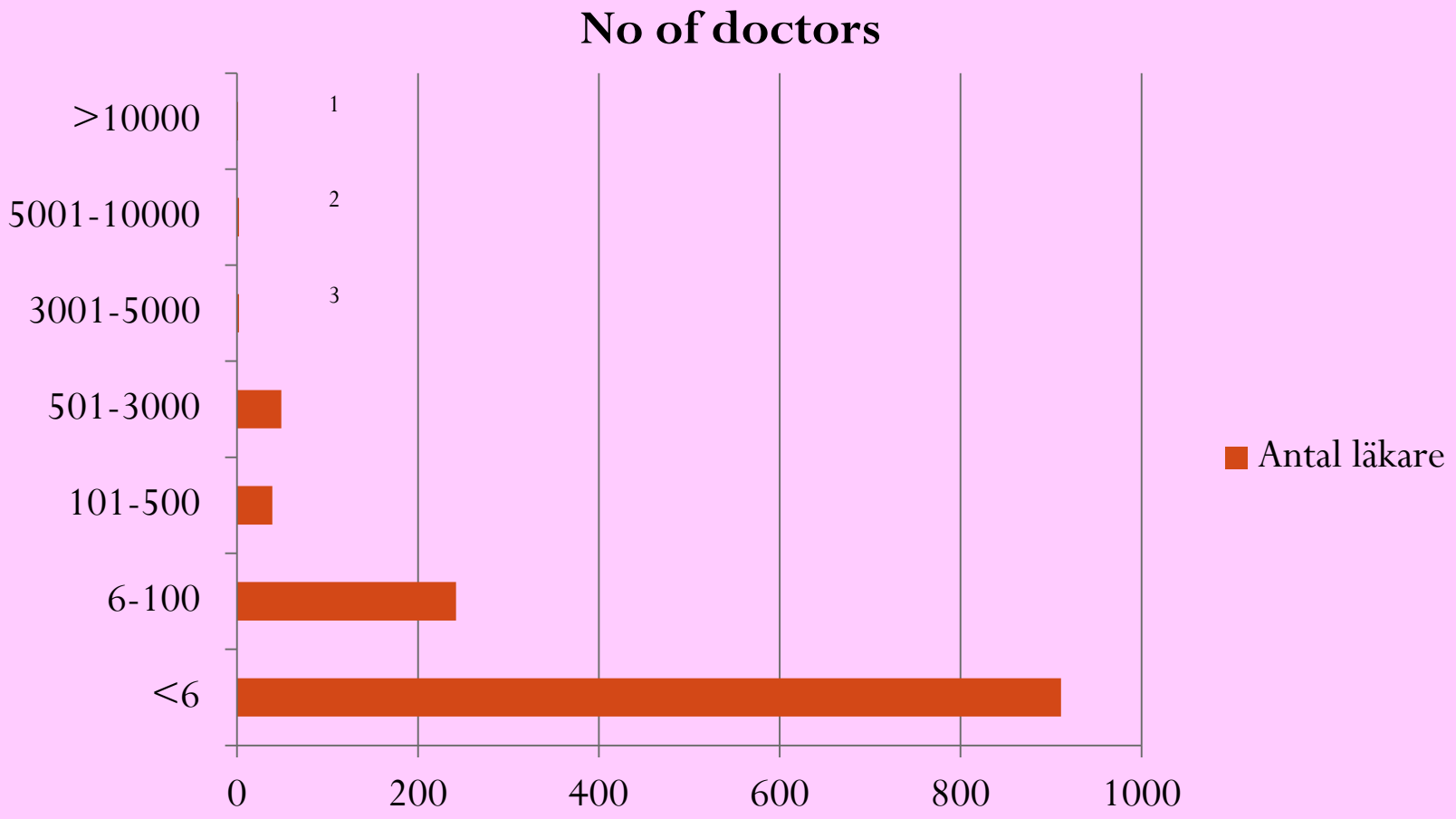
Who are the ”patients”?

- No systematic registration. One report from some dispensaries in California revealed that
- 52% were under 30 years old
- 72% were under 40
- Common diagnoses: insomnia, anxiety, depression and muscle pain
- Cancer, Glauoma and AIDS patients made up about 2% of the people receiving medical marijuana from these dispensaries

Colorado – one example

- Medical marijuana ballot initiative was passed in 2000
- In 2010 Colorado had 99.599 registered users = about 2% of the population
- 94% were registered on pain diagnosis
- In Colorado there was at that time 809 marijuana dispensaries, more than Starbuck's cafés

Number of registered patients per doctor in Colorado



9% of the doctors in Colorade had registered to issue marijuana recommendations

Colorado – what happened among teenagers?

- A rapid increase in the number of medical marijuana patients occurred in 2009
- Minimum age for medical marijuana is 18
- What happened among younger persons?
- Marijuana smoking last month among 9-12 graders increased from 19 to 30% between 2008 and 2010 (=58% increase)
- School expulsions for drug use increased from 534 to 753 students (=44% increase)

What is medical marijuana in the US?

- A well organized, well funded strategy to
- Legalize all use of cannabis
- With bad science
- Ignorance in the general population
- By appealing to people's compassion with severely ill people

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