

The background of the slide is a dense field of green cannabis plants with serrated leaves and developing flower buds.

Cannabis

**research, adverse effects,
myths**

Katedralskolan, Lund
August 23, 2022

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I will talk about:

- ▶ My own background
- ▶ Basic facts about cannabis
- ▶ Cannabis and the brain
- ▶ How many are using?
- ▶ Climate impact
- ▶ A good medicine?
- ▶ Legalization
- ▶ What will YOU do with your life?



My background

Härnösand 1955



Umeå 1974



... Afghanistan, Uganda, Scotland,
Jamaica, Canada, USA , the Netherlands ...



CANNABIS SOM MEDICIN
HISTORIA – POLITIK – FORSKNING

My latest books

**Sveriges höga
narkotikadödlighet**
Vad beror den på och vad kan göras?
Pelle Olsson

8
**myter om
cannabis**
3.0

PELLE OLSSON

**Kärlek,
jävlar i
helvete**

roman
PELLE OLSSON

BIG MARIJUANA
Ny omarbetad upplaga



Different drugs from cannabis



Cannabis herb,
marijuana



Cannabis resin
hasch

Edibles (to eat and drink)
THC- concentrates

Cannabis contains a.o.:

- ▶ THC

(delta-9-tetrahydrocannabinol)
The substance that makes you high.

- ▶ CBD

(cannabidiol) Doesn't give any intoxication, but might protect the brain from THC.



Yesterdays cannabis



Batman 1966

Cannabis of today



Batman 2016

Which sources about
cannabis can you trust?

Correct answer:

Research published in
scientific magazines.



Winston De La Haye
researcher, addiction doctor
Kingston, Jamaica:

”There is a scientific
consensus about
cannabis.”

Current scientific reviews



All other sources are uncertain:

- * Internet * Social media * Friends *
- * Films * Politicians
- * TV-programs
- * Newspapers
- * Cannabis users
- * Debates
- * The cannabis industry

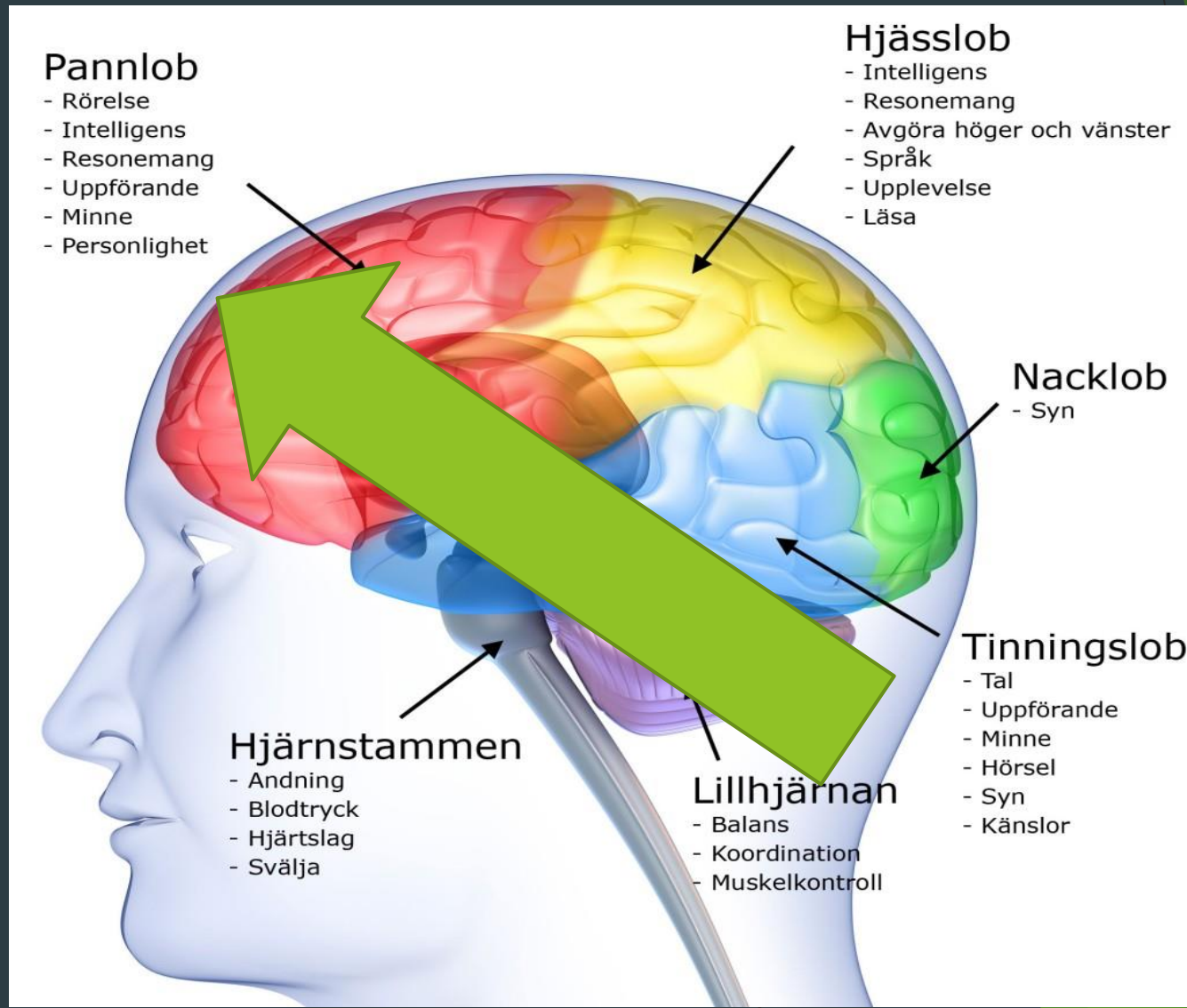


The human brain



... has about 100 billions brain cells

The brain development goes from the back of the head and forwards, from 0-25 years

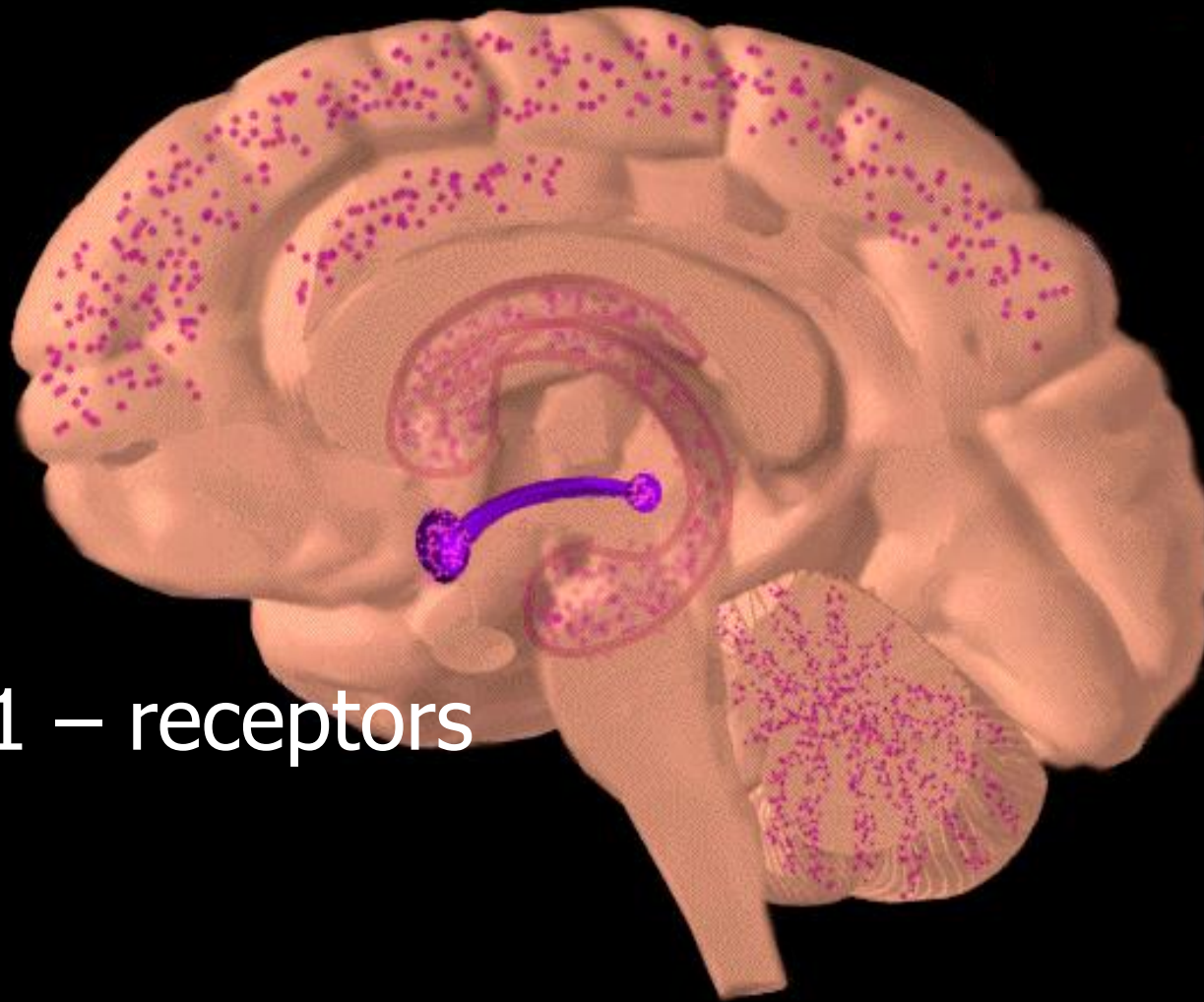


The differences between "adult brain" och "teenage brain" are found in the frontal lobe.

- ▶ Judgement
- ▶ Impulse control
- ▶ Decision-making
- ▶ Coordination ability
- ▶ Ability to process complicated impressions

Cannabis and the brain

CB1 – receptors



CB1-receptors are part of the
endocannabinoid system which regulate:

The heart

Digestion

Immune defense

Thinking

Memory

Coordination

Reward

m.m.

The CB1-receptors are affected by

- ▶ Our own endocannabinoids (anandamid and others) = GOOD
- ▶ Cannabis = BAD

What happens in the body and the brain when you are using cannabis?

- ▶ Inoxication (often nice)
- ▶ Brain damages (often not notable for the user)
- ▶ The same physical harms as tobacco (after a longer time)

Cognitive impairment

Among others:

- ▶ Memory
- ▶ Intelligens, IQ
- ▶ Verbal capacity

→ poorer educational outcomes

DuPont, RL. et al (2013). Americas drop out crisis. The unrecognized connection to adolescent substance use. Institute for Behavior and Health (IBH) and Center on Young Adult Health and Development (CYAHD). March 2013.

More harms on the young brain

- ▶ Not fully developed frontal lobe
- ▶ 2-5 times increased risk of schizophrenia
- ▶ 3-4 increased risk of psychosis
- ▶ 17 percent will be addicted

Source: National Academies of Science. The health effects of cannabis and cannabinoids 2017. See also Big Marijuana 2018.

Other probable risks

- ▶ lower IQ (intelligens)
 - ▶ suicide
 - ▶ violent behavior
 - ▶ birth effects
 - ▶ cancer
- ▶ heart- lung diseases

Conclusion:
Cannabis = the worst
poison for a young brain



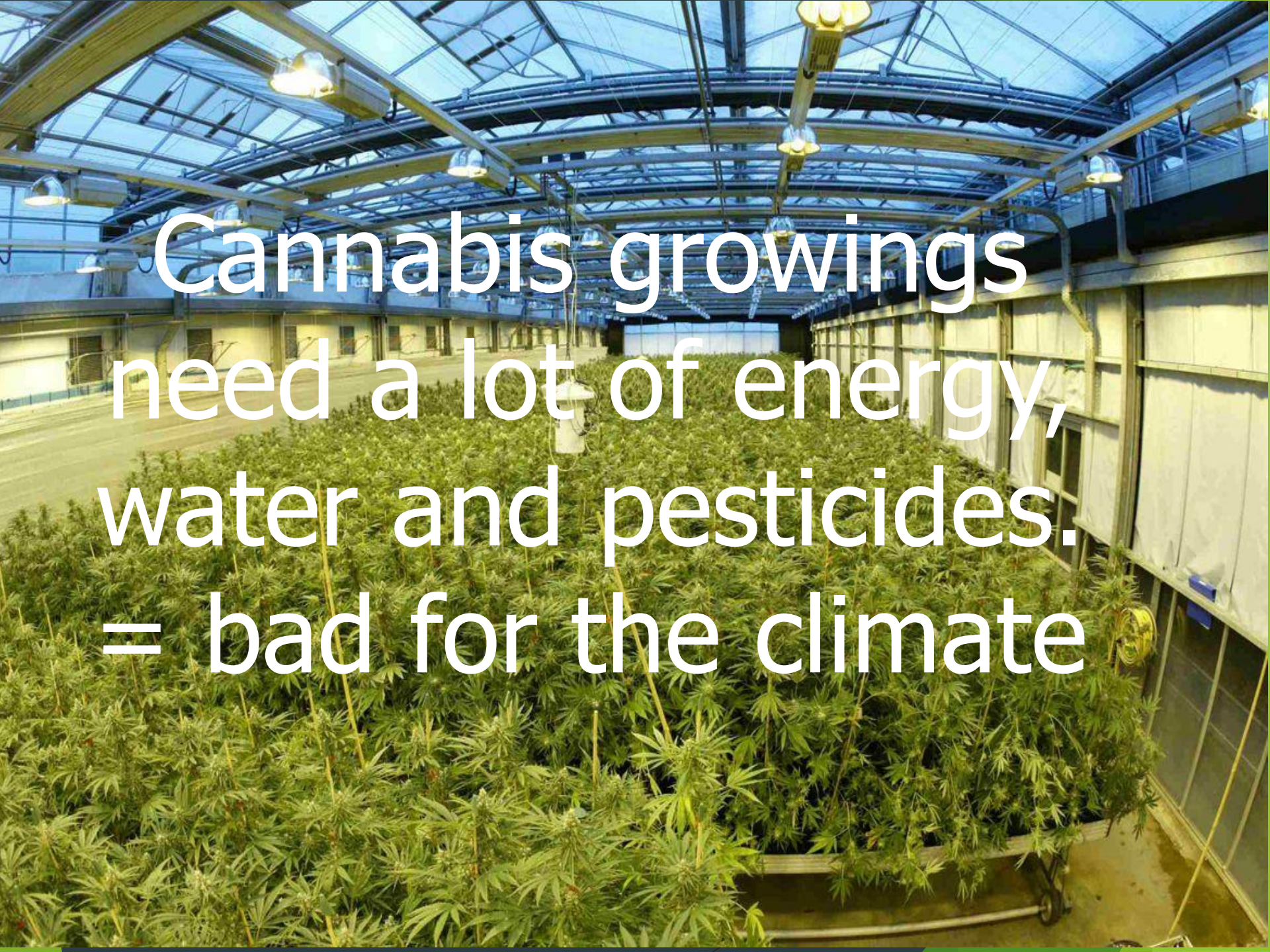
Victor, 24, ex-cannabis user

” The worst harm of cannabis is that the big life perspective disappears. You become apathetic without notice it yourself, you lose the desire and curiosity to meet new people, you lose your life energy at the age when you need it most.”

(interview with Victor 2010)

Most people have not used cannabis

- ▶ 96 % of the population in the world have not used cannabis during the last year.
- ▶ 97 % in Sweden have not used last year
- ▶ 84 % of boys in your age and 88 % of girls have ever used.

A wide-angle photograph of a large-scale indoor cannabis cultivation facility. The space is filled with rows of green cannabis plants growing in long, low beds. The plants are supported by thin vertical stakes. The facility has a high ceiling with a complex metal framework and a translucent, arched roof. Numerous bright, rectangular artificial grow lights are suspended from the ceiling, illuminating the plants. The overall atmosphere is industrial and controlled.

Cannabis growings
need a lot of energy,
water and pesticides.
= bad for the climate

A good medicin?



Wayne Hall
Professor, researcher
etc. Australia:

“The evidences
that marijuana
is an effective
medicine are
very weak.”

Own interview 2011



Pharmacological science about cannabis:

- Cannabis can alleviate pain, nausea, spasm in Multiple sclerosis, MS, epilepsy among children and increase appetite, but there are too many adverse effects.
- Some sources;
 - Bertha K. Madras. Update of Cannabis and its medical use. 37th ECDD Agenda item 6.2, WHO. 2015.
 - The National Academies of Sciences: The Health effects of cannabis and cannabinoids (2017)

”Medical” cannabis

1. The plant cannabis is not approved medicine (läkemedel) by any pharmaceutical authority in the world.
2. North America: all kinds of cannabis can be called ”medical”
Europa: more strict regulations

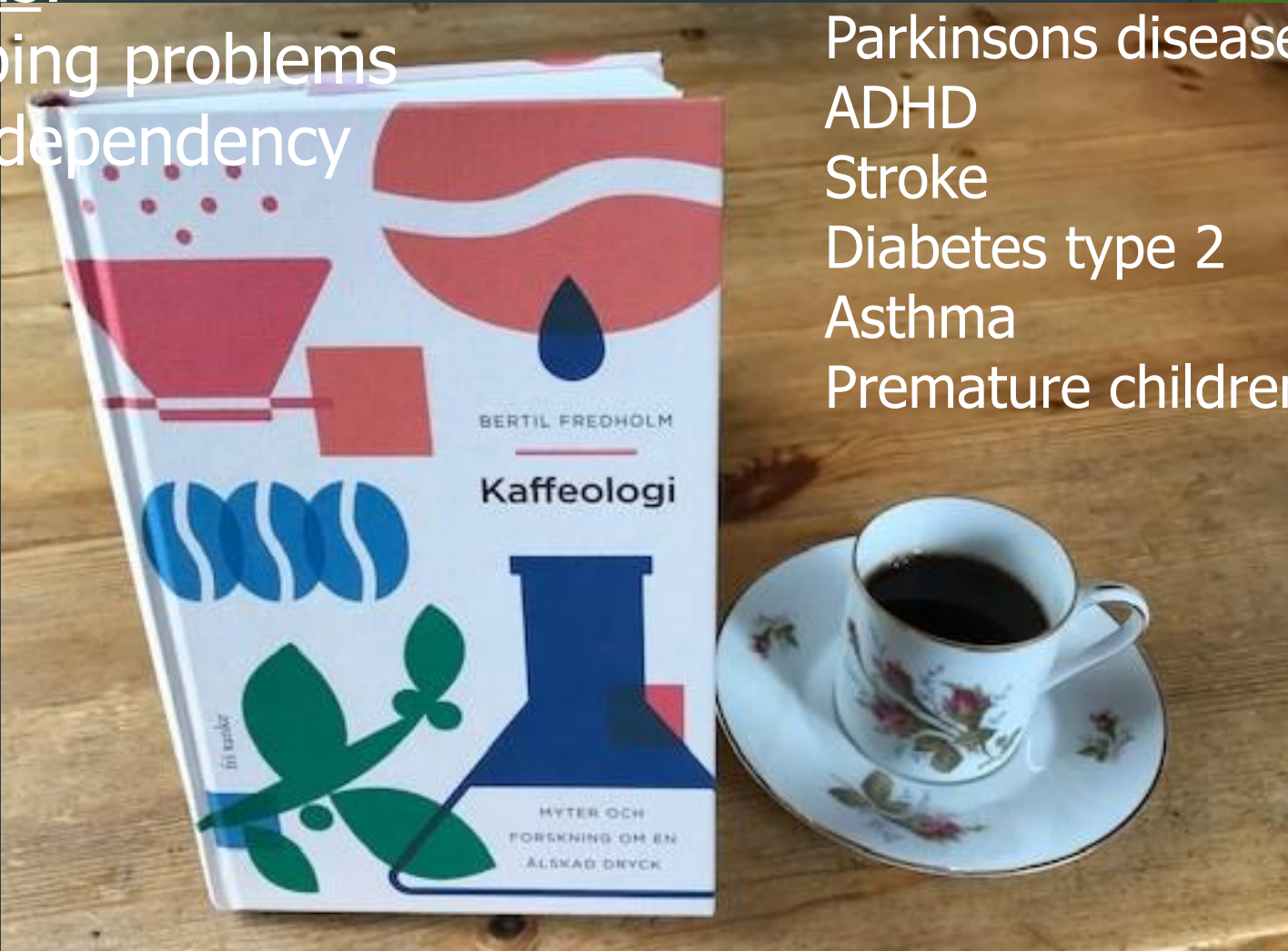
PS . Coffee has also medical values, but better than cannabis

Harms:

Sleeping problems
Mild dependency

Good effects:

Parkinsons disease
ADHD
Stroke
Diabetes type 2
Asthma
Premature children



PS 2. All other narcotic drugs and alcohol has medical qualities



What are the results of
cannabis legalization?

The impact in Colorado

Colorado, USA

2000: Medical marijuana

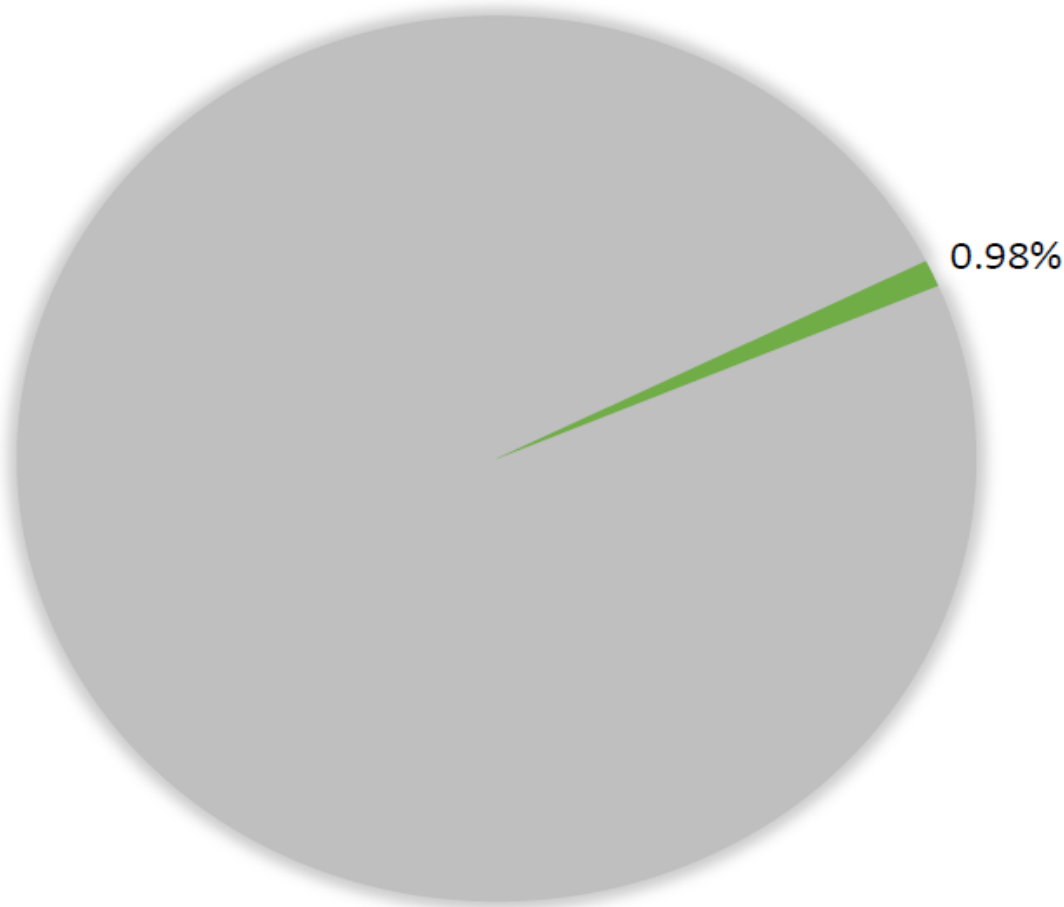
2010: 116.000 "patients"

2014: Legalization

Source: Rocky Mountain High Intensity Drug Trafficking Area: The Legalization of Marijuana in Colorado: The impact. Volume 7. Sept 2020, samt Volume 8. Sept 2021.

Marijuana tax revenues

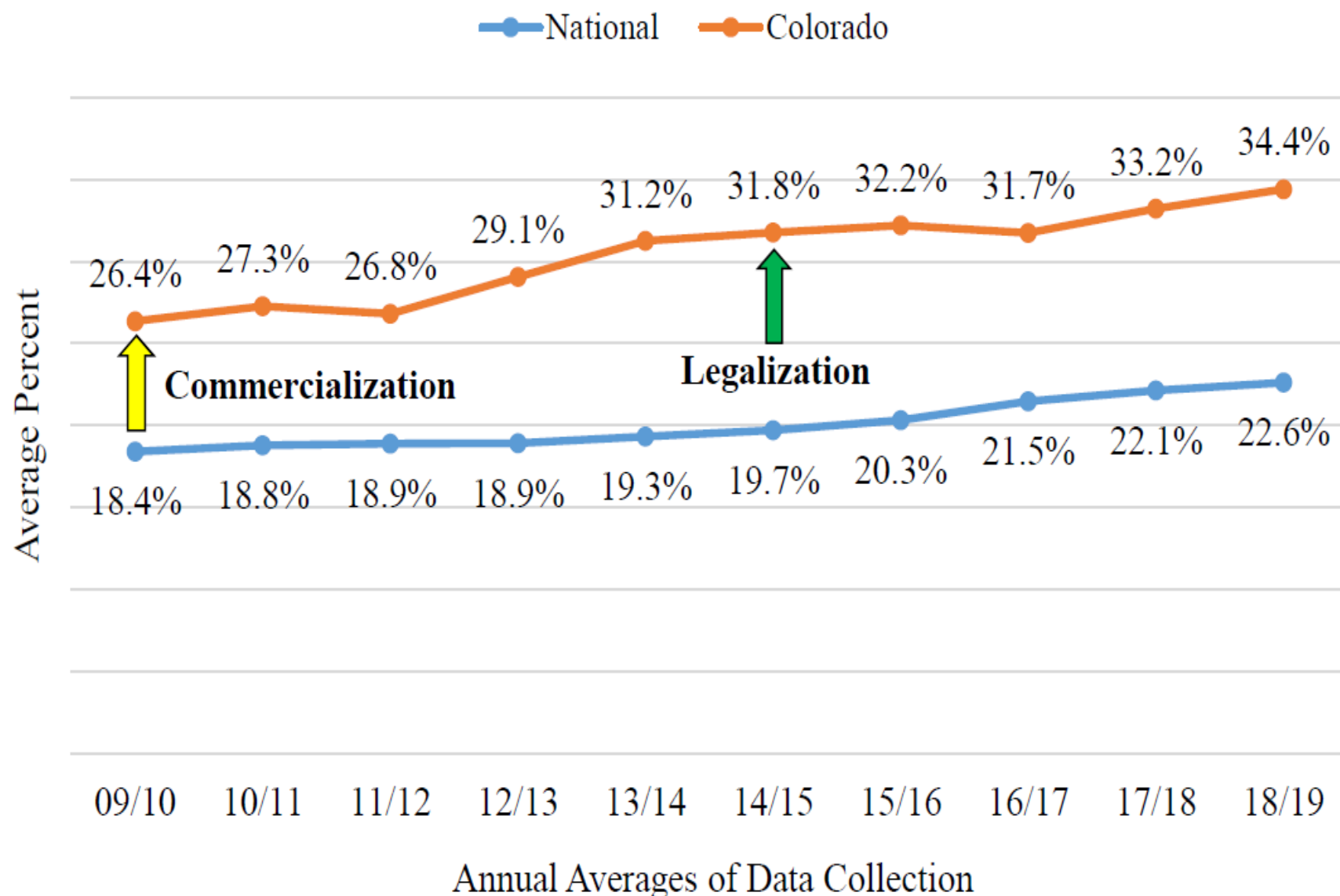
COLORADO'S STATEWIDE BUDGET, FY 2020



Marijuana Tax Revenue*
(Medical and Recreational)
= Ninety-eight hundredths of
one percent or \$319
Million dollars of the \$32.5
Billion budget

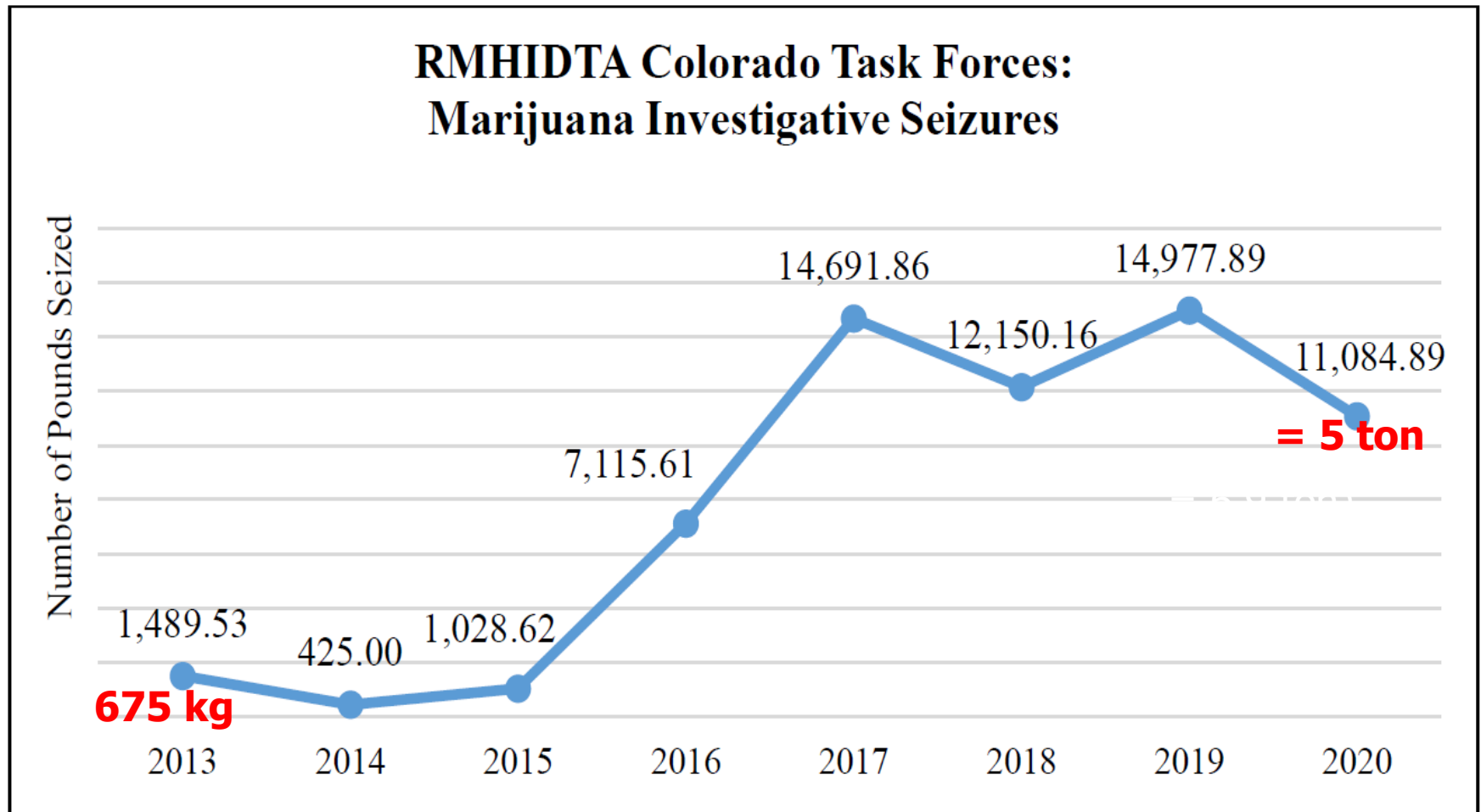
*Revenue from marijuana taxes as a portion of Colorado's total statewide budget

Past Month Marijuana Use, Ages 18 to 25 Years Old



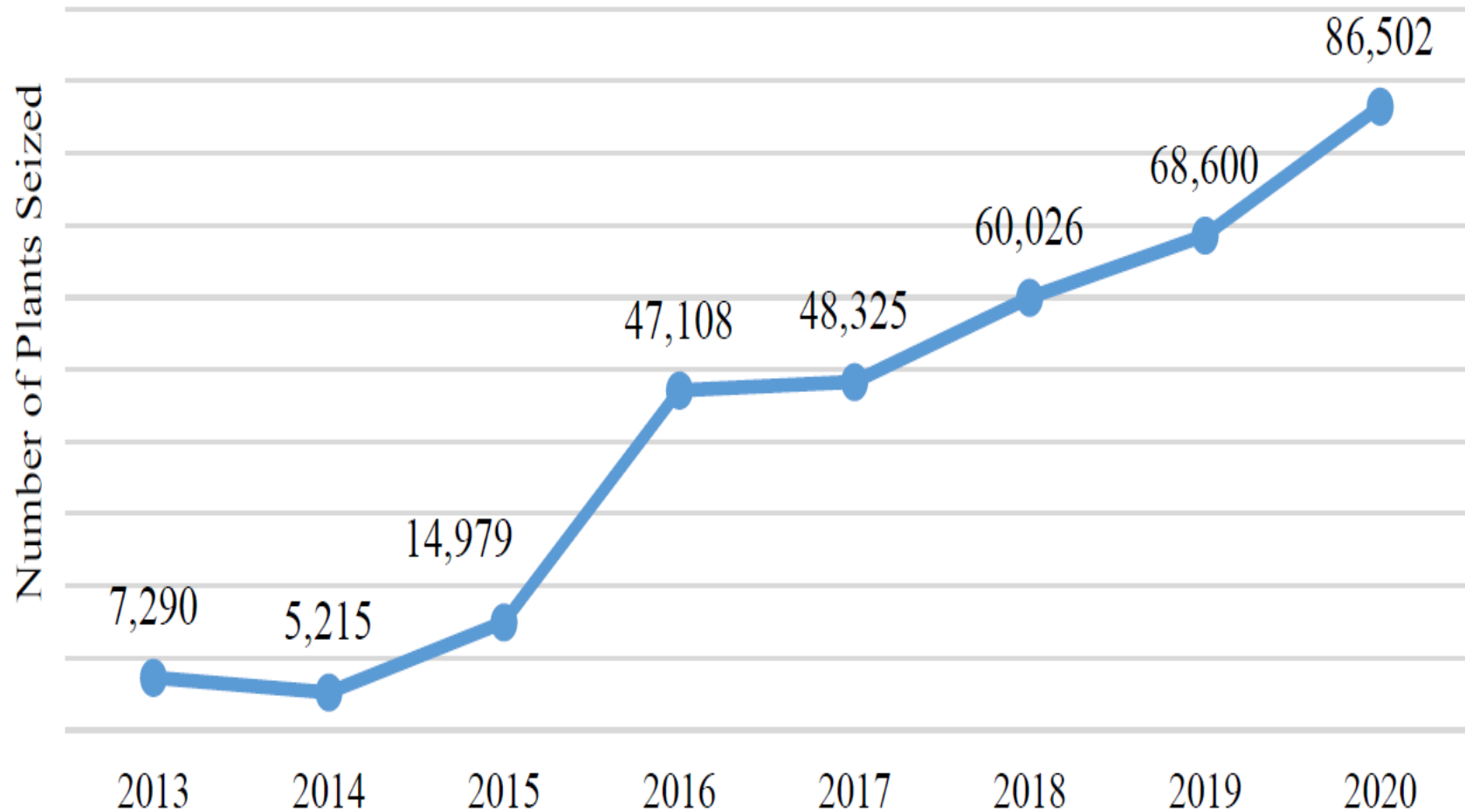
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2018 and 2019

The black cannabis market is bigger than before the legalization



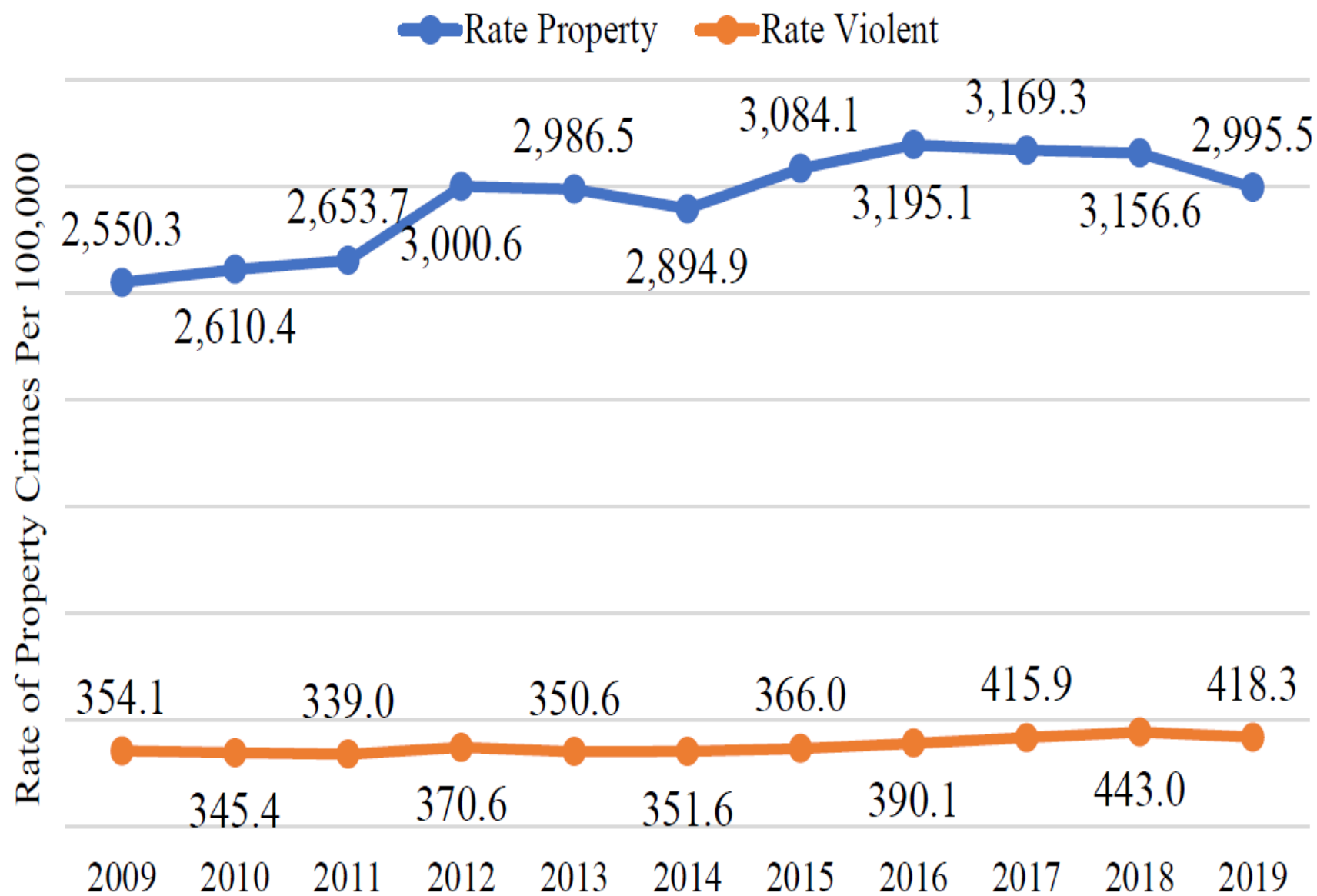
SOURCE: Rocky Mountain HIDTA Performance Management Process (PMP) Data

RMHIDTA Colorado Task Forces: Marijuana Investigative Plant Seizures



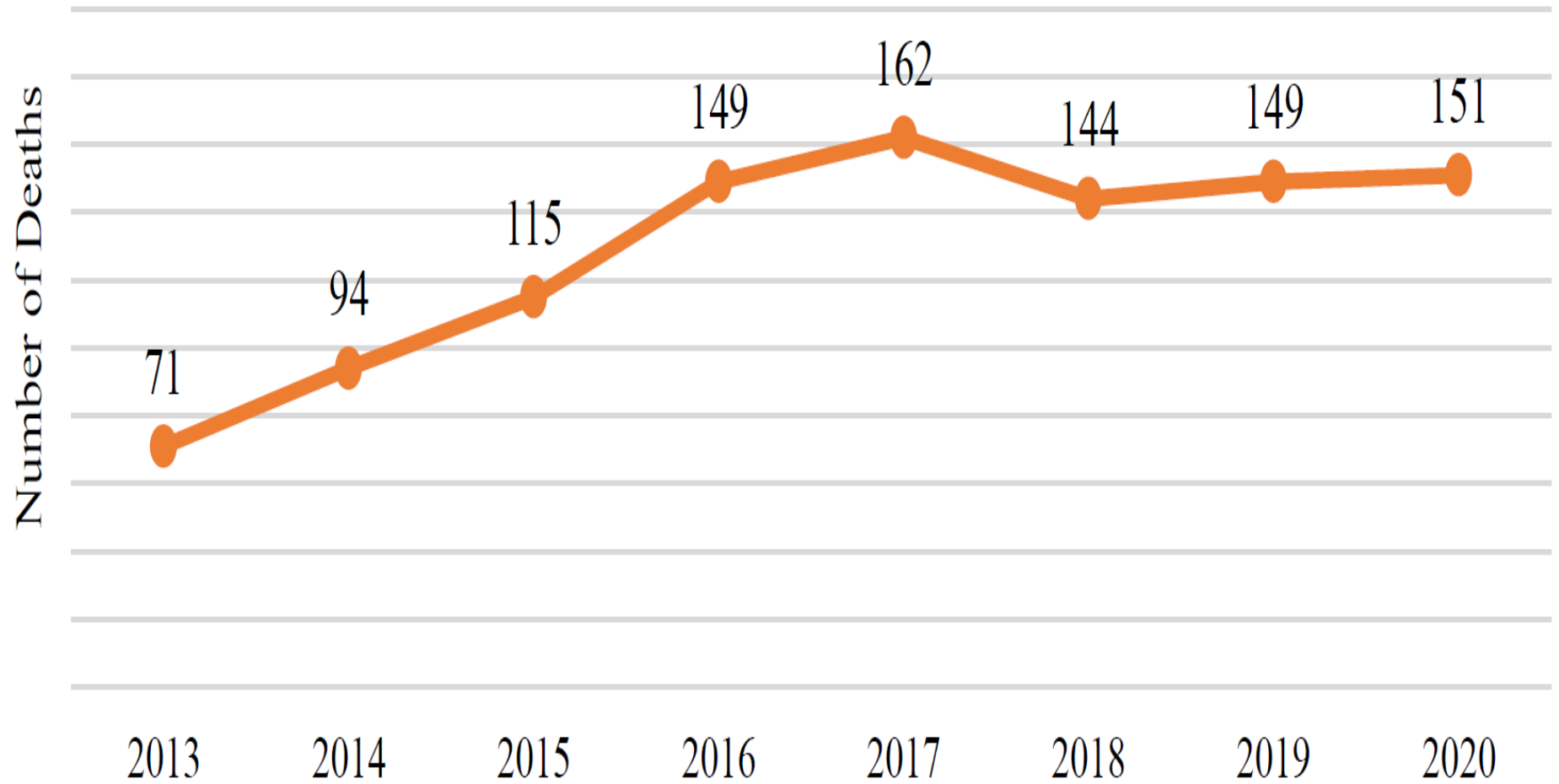
SOURCE: Rocky Mountain HIDTA Performance Management Process (PMP) Data

Rate of Crimes in Colorado Per Population



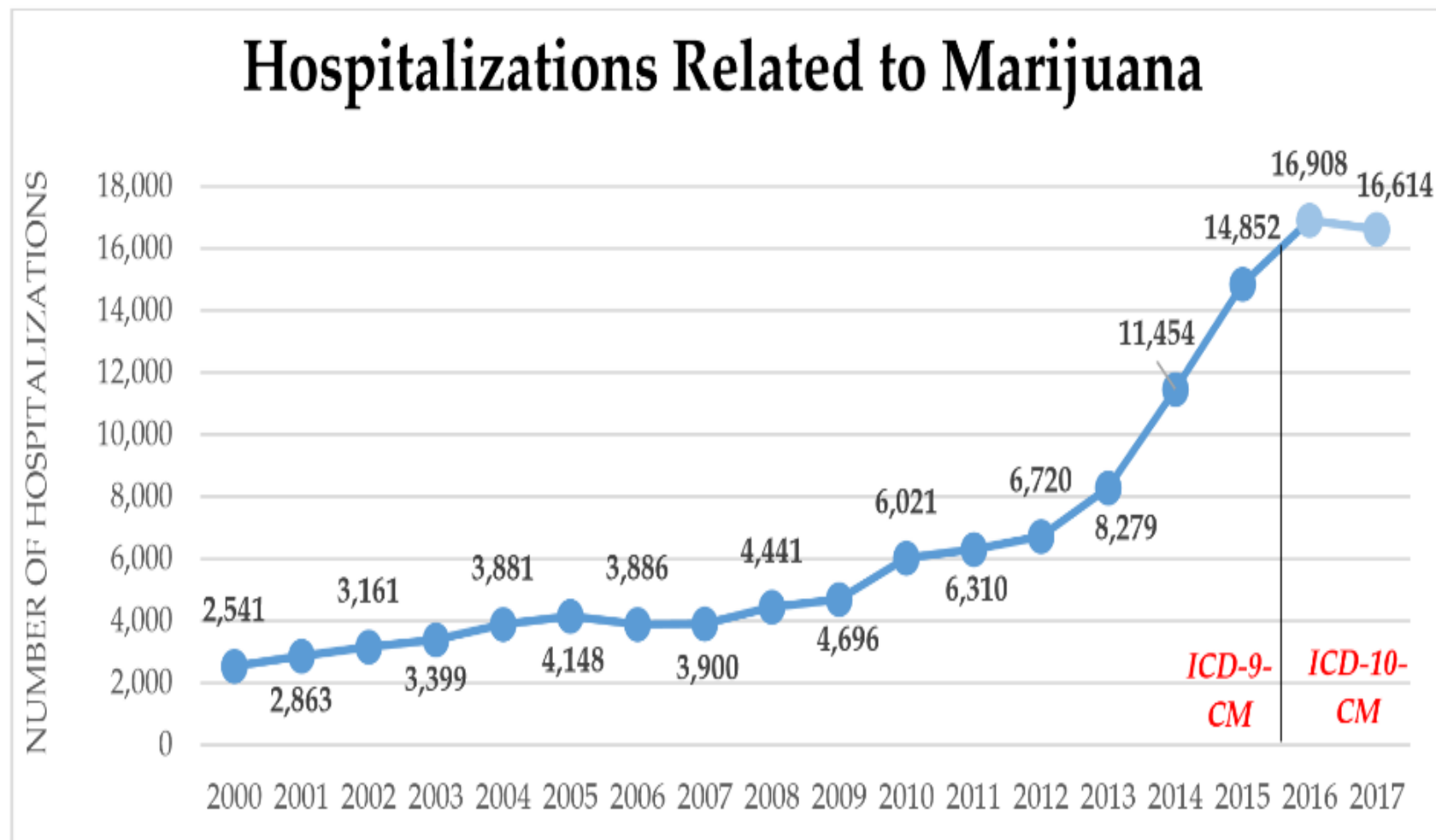
SOURCE: Colorado Bureau of Investigation

Traffic Deaths when an OPERATOR Tested Positive for Marijuana



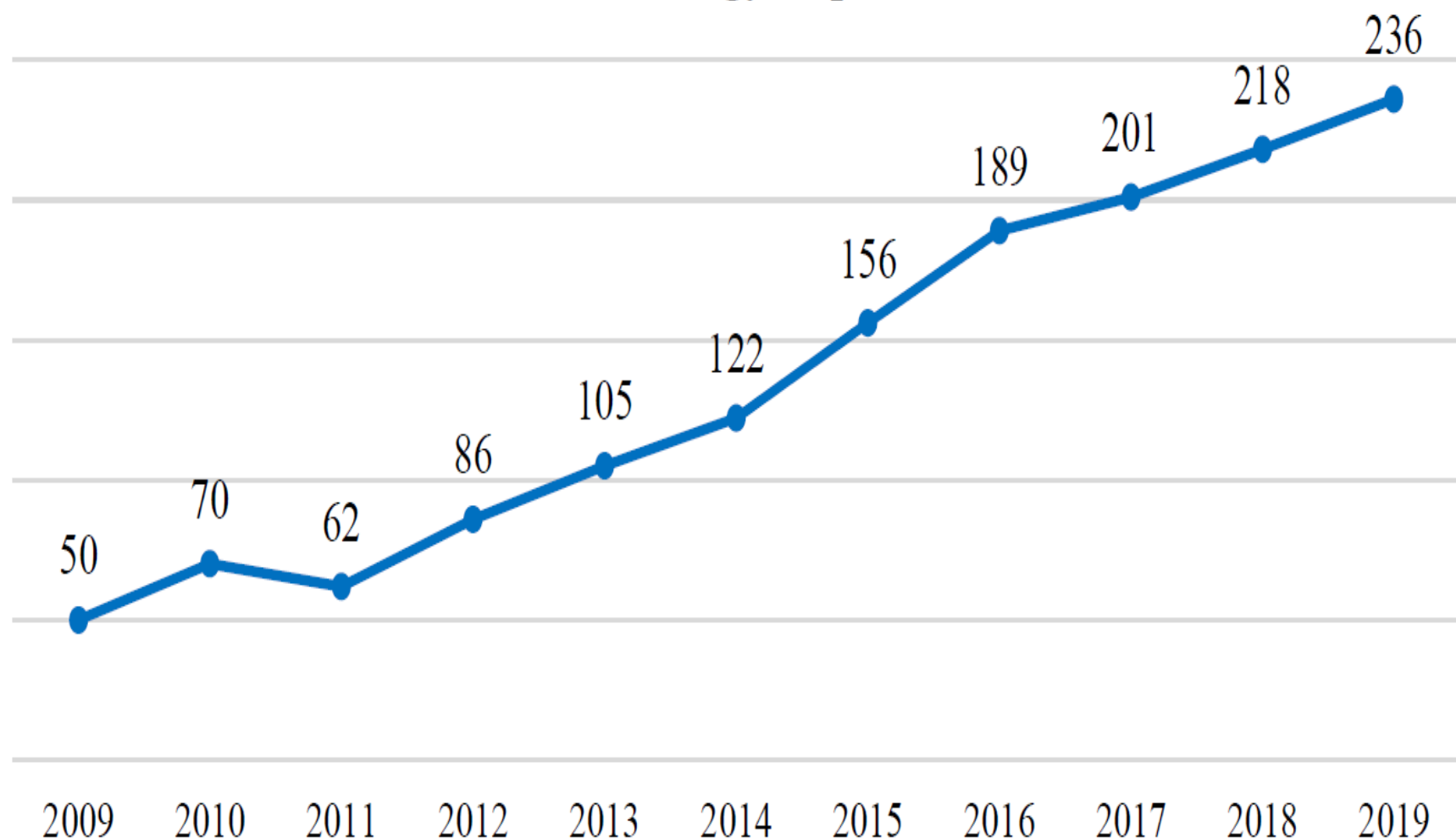
SOURCE: CDOT 2013-2020

Hospitalization Data

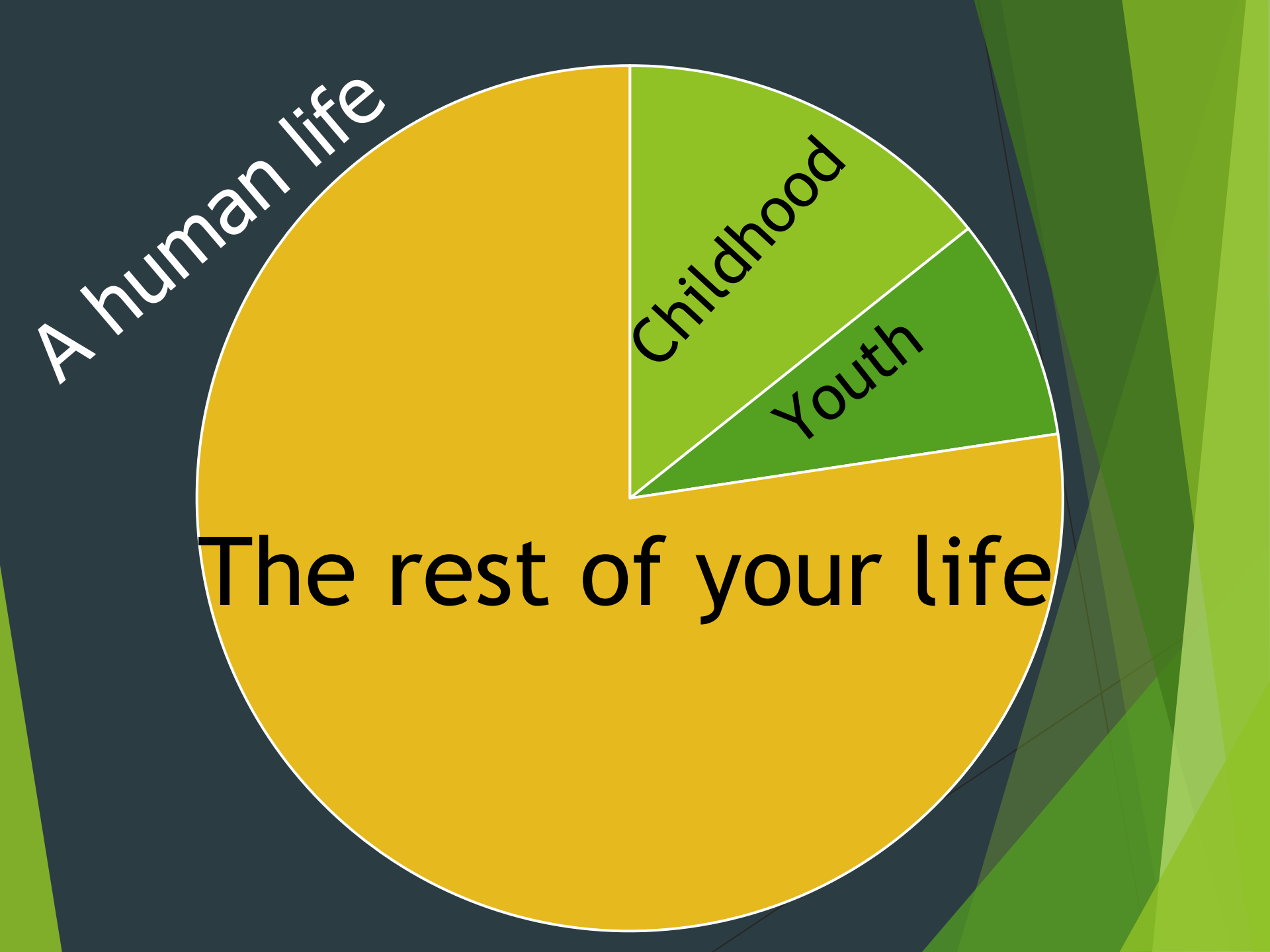


SOURCE: Emergency Department Discharge Dataset, as analyzed by the Colorado Department of Public Health and Environment; 2013-2017

Number of Suicides in Colorado with Marijuana Present in Toxicology Report



SOURCE: CDPHE, Colorado Violent Death Reporting System




A human life

Childhood

Youth

The rest of your life

- 
- ▶ What do you want to do during the rest of your life?
 - ▶ How can you achieve your goals?

Arguments against cannabis



Thanks you for your attention!

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www.drugnews.se