

Good morning! I am Jill Rinehart, a community pediatrician practicing in Burlington, Vermont. I am an Associate Clinical Professor of Pediatrics at the Robert J. Larner School of Medicine at the University of Vermont and current American Academy of Pediatrics Vermont Chapter President and a member of the Vermont Medical Society. I represented these interests as part of the Governor's Advisory Task Force on Marijuana

I am happy to be here in front of you, the Health and Welfare committee to discuss my fears related to further legalization of MJ and offer some recommendations.

I am here to remind you of the adverse outcomes linked to marijuana use by youth, and that a consumer market for marijuana depends on adolescent users.

Commercialization gives our youth the wrong message, that as legal, marijuana must be safe. As perception of harm drops, youth use increases

In the first year of legalization in Colorado, the number of 12- to 17-year olds using marijuana within the past month increased by eight percent , while college age Coloradans (ages 18-25) increased by 11 percent to nearly 30 percent (Medina KL, Hanson KL, Schweinsburg AD, Cohen-Zion M, Nagel BJ, Tapert SF)

We already have one of the highest rates of youth use at about 13%, Just behind Colorado at 14.9%, just ahead of Washington 12.8% (States with the most legal access to MJ-have the highest rate of use)

- *We all agree that youth should be protected from MJ—*

But how is that possible, when the success of the marijuana industry depends on creating life-long users—and doing so relies on an adolescent marijuana market? In states where commercialized marijuana exists, 80% of the consumption is by 20% of the users. Today's youth are the chronic daily marijuana users of tomorrow that support the industry. Similar

to tobacco and e-cigarettes/vaping—marketing to children makes for “good business” and capital gains.

And legalizing hasn’t eliminated black market activity in state’s where commercialization has occurred, and the ability to tax and therefore have revenue off MJ is limited by this black market.

Why should we care about increasing marijuana use?

- MJ use is linked to:
- Poor school performance and increased high school drop out rates,
- Chronic use in adolescence has been linked to decline in IQ that doesn’t recover with cessation (Meier et al. 2012)
- Marijuana use in adolescence is associated with an increased risk for later psychotic disorder in adulthood (D’Souza, et al. 2016)
- Worse job prospects
- Problems with memory, problem solving and attention worsen with minimal use and worsens with prolonged use
- Weekly cannabis use as a teen DOUBLES the risk of developing anxiety and depression later in life
- We’ve learned that the use of marijuana interferes with one’s ability to change course—even if it is imperative that you do (unable to motivate to change a bad habit)
- Frequent marijuana use is associated with opioid misuse, heavy alcohol use, and depression

In America today: 10% of adolescents experience depression, and when you look at those who have used MJ in past 30 days it jumps to 21%

Most recent data from SAMHSA (Substance Abuse and Mental Health Services Administration) indicates that nationwide:

- Transitional age youth -these emerging adults (age 18-25 y) have increasing rates of serious mental illness, major depression, and suicidality.
- This is also the Age group with the Largest rate of growth in MJ use **(18-25)—38% of this age in VT have used MJ in the past 30 days.** (MJ propaganda is working)
- Women, (esp. pregnant women) have increasing use of substances including MJ (Colleague in Washington said his NICU about 68% of mothers report having used MJ in pregnancy)
- Marijuana and Pregnancy: may be associated with fetal growth restriction, stillbirth, and preterm birth; may cause problems with neurological development, resulting in hyperactivity, poor cognitive function (Metz TD and Stickrath EH, 2015) cardiac anomalies

If we legislators/state policy makers gave half as much consideration to our state's greatest resource— that is, our youth and teens— as we have given to the marijuana industry, I would be much less concerned with commercializing MJ.

**Because we know how to lower levels of youth use of marijuana!**

And its not by telling them to “Just say “No,” or scaring them with the science of marijuana and the brain.

We need to invest in our adolescents as if they were our future!

The Most “at risk” time of the day for adolescents is 3 pm—its when unplanned pregnancies occur, drug use starts, bullying, and getting into trouble happen

I'm going to tell the Iceland story in just a few sentences: In 1998 Iceland had the highest level of youth use of alcohol, tobacco and MJ,in Europe: 42% of 15-16 year olds had been

drunk in the last 30 days, 23% were daily smokers and 17% had had marijuana in the last 30 days (our VT rate 14%)

In 2017—6%, 5% and 2%

Estimates that every \$1 spent in this prevention effort saved \$10 down stream (on rehab, substance abuse programs, hospitalizations)

What did they do?

Treated their adolescents as community assets!

Created an extracurricular environment for everyone!

Each student has a budget, per term to put toward extracurriculars.

Given useful roles in their community

Giving their Youth a sense of purpose

Strengthened parent organizations —like PTO

Supported *quality controlled* extracurricular activities— arts and sports, technical skills and supported young people at risk inside the schools—jobs, creative arts

They conducted health research about their community—administer a detailed annual survey (like YRBS)

Communicated the research to community—encouraged community solutions and state supported the solutions

Along with decreased substance use they saw:

Less sexual violence against women,

less bullying in schools,

less crime,

less injury and

less drug related traffic deaths

Increase in:

popular and classical music expression

bonding and cooperation between parents in neighborhoods  
Engagement in arts and participation in sports

They showed that more time adolescents spent with parents, better outcomes were

Holly Morehouse VT Afterschool— is spear heading a VT effort to protect teens in this manner.

In conclusion, I'd argue that commercializing marijuana is like preparing our youth to jump off a cliff— I can recommend a helmet and some knee pads and chest protector— such as child resistant packaging for MJ, increased substance misuse programs and improved access to adolescent mental health services, restricting the access to MJ to venues only to those >21

**Or** we can keep them off the cliff altogether and give youth a soft landing by supporting high quality Afterschool curriculum for teens, not commercializing marijuana and incentivizing communities to promote meaningful roles for the adolescents in our state.