

Prevention is possible.

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Icelandic prevention model “Planet Youth” offers a powerful example of how an out of control epidemic of addiction *can* be turned around.

Decrease demand for
drugs through
community building

Prevention is possible

“The Icelandic Model of Preventing Adolescent Substance Use. Prevention Is Possible: A Brief History of the Origin and Dissemination of the Icelandic Prevention Model.”

<https://journals.sagepub.com/doi/pdf/10.1177/1524839919886314>

- Johnny's Ambassadors might ask: (instead of what did I do wrong or what can I do to be sure my kids don't become mixed up in drugs..)
- What can *we* do to prevent drug misuse? What can *we* do that works in the real world? What tools exist to help us?

Iceland's success story

Iceland's drug
prevention model
Planet Youth is *not a
shame based or will
power based program.*

For Johnny's Ambassadors
prevention is even more important
because the brain damage which
cannabis use can cause may
sometimes be very difficult to
reverse.

Principles and assumptions

1. Teen behavior is a reflection of their social environment – teen use is not randomly distributed throughout the population It is a reflection of their environment

- A Causes of the causes – social environmental risk and protective factors. lead to
- B. Causes of substance use – depression, low school engagement, boredom lead to
- C. substance use

2. Individual behavior change is very difficult to change – weight loss is very difficult- change the environment makes it easier (no sugar/cake in the house)

3. Scope of the solution should match the scope of the problem – years to arrive at high use rates

Core steps:

- Community capacity building
- Data collection analysis – recommendations for the community
- Structural community response
- Repetition –a process not a program

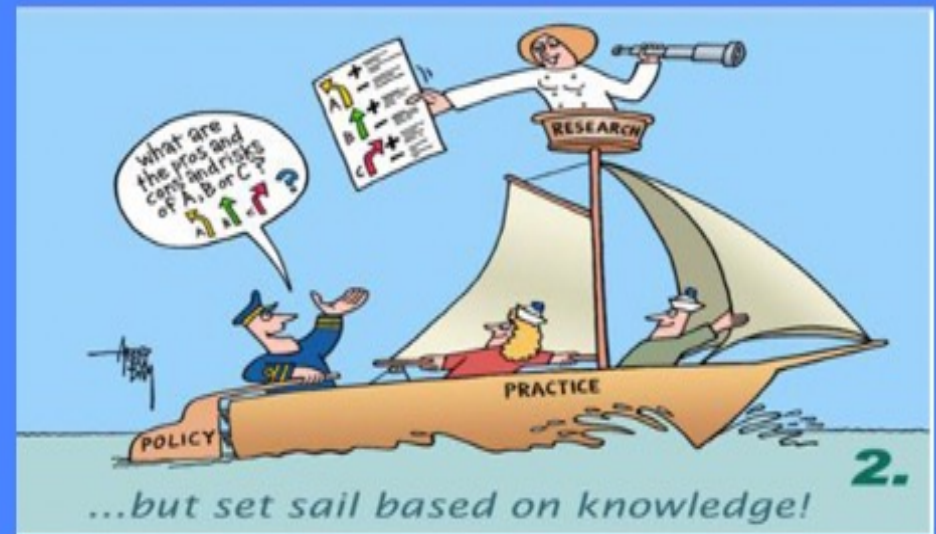
Kristjansson AL, et al. Implementing the Icelandic Model for Preventing Adolescent Substance Use. Health Promotion Practice, 21. 70-79.

Process Structure to Increase Collaboration...



The researchers "guru" approach

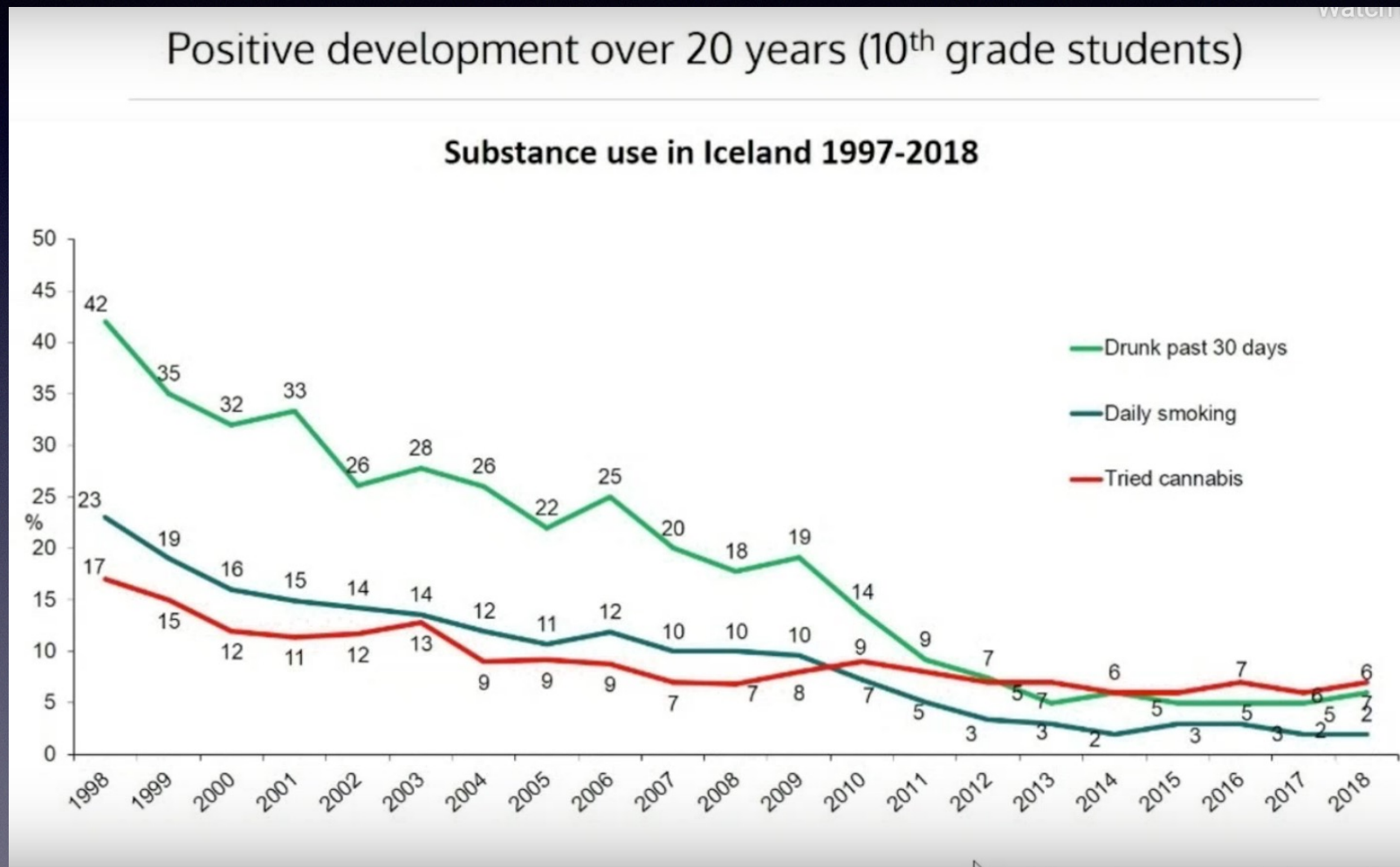
**Research pays little attention to policy.
Policy often ignores research.
And practitioners just go about their business.**



The way we work now

**The Iceland model
integrates research, policy,
and practitioners.**

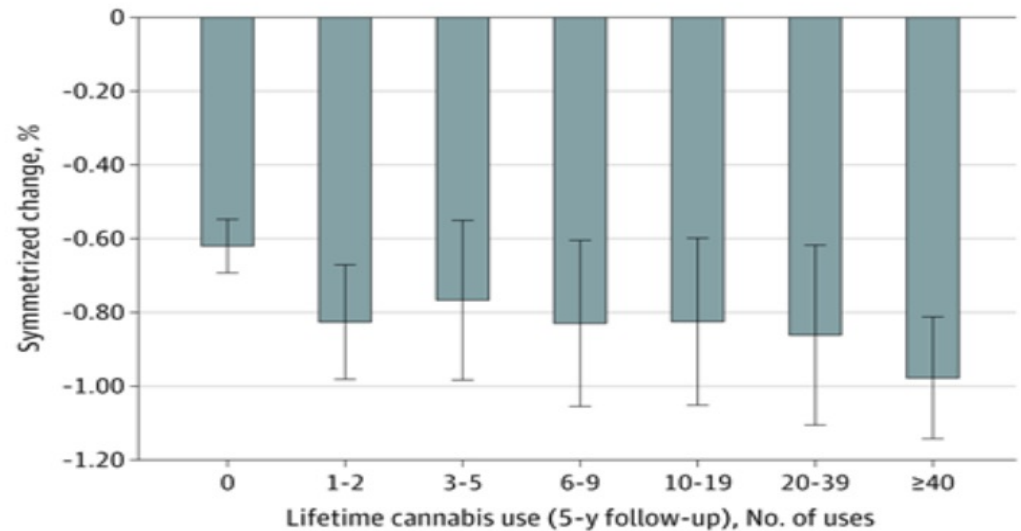
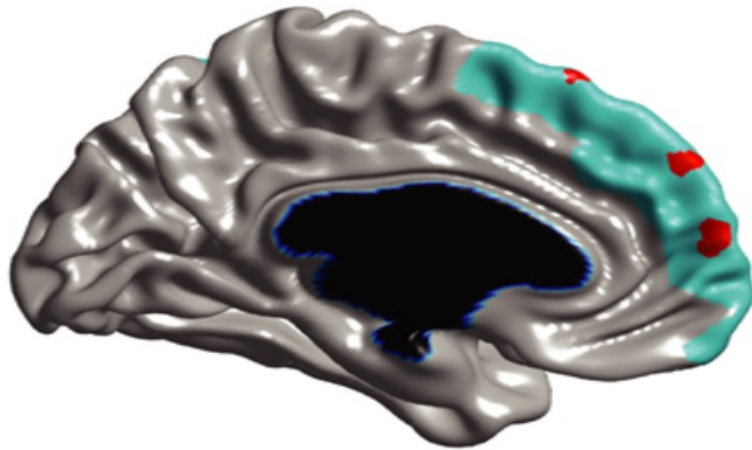
Credit to Icelandic Prevention Model “Planet Youth” and Jon Sigfusson for use of many slides in this presentation
Iceland has taken primary prevention theory and made it a reality, showing the world a successful model “how”



In Iceland it started with a public perception of ALARM

- 17% of Icelandic kids reported a lifetime (ever) use of cannabis. (1990s) (alarming)
- 40% of Vermont kids report a lifetime (ever) use of cannabis. (2019) (not alarming)

B Left dorsomedial prefrontal cluster



A, Right dorsomedial prefrontal cluster from linear mixed-effects analysis. B, Left dorsomedial prefrontal cluster from linear mixed-effects analysis. The bar graphs depict within-individual symmetrized percentage change (ie, change in cortical thickness, in millimeters per year, with respect to the mean cortical thickness across both time points) for each cluster at varying levels of lifetime cannabis use (at 5-year follow-up). Error bars represent 95% confidence intervals. Brain figure

PDF

Even a lifetime use of a few joints (1-2) is associated with cortical thinning on MRI in teens 14-18

Albaugh MD, Ottino-Gonzalez J, Sidwell A, et al. Association of Cannabis Use During Adolescence With Neurodevelopment. *JAMA Psychiatry*. 2021;78(9):1031-1040. doi:10.1001/jamapsychiatry.2021.1258

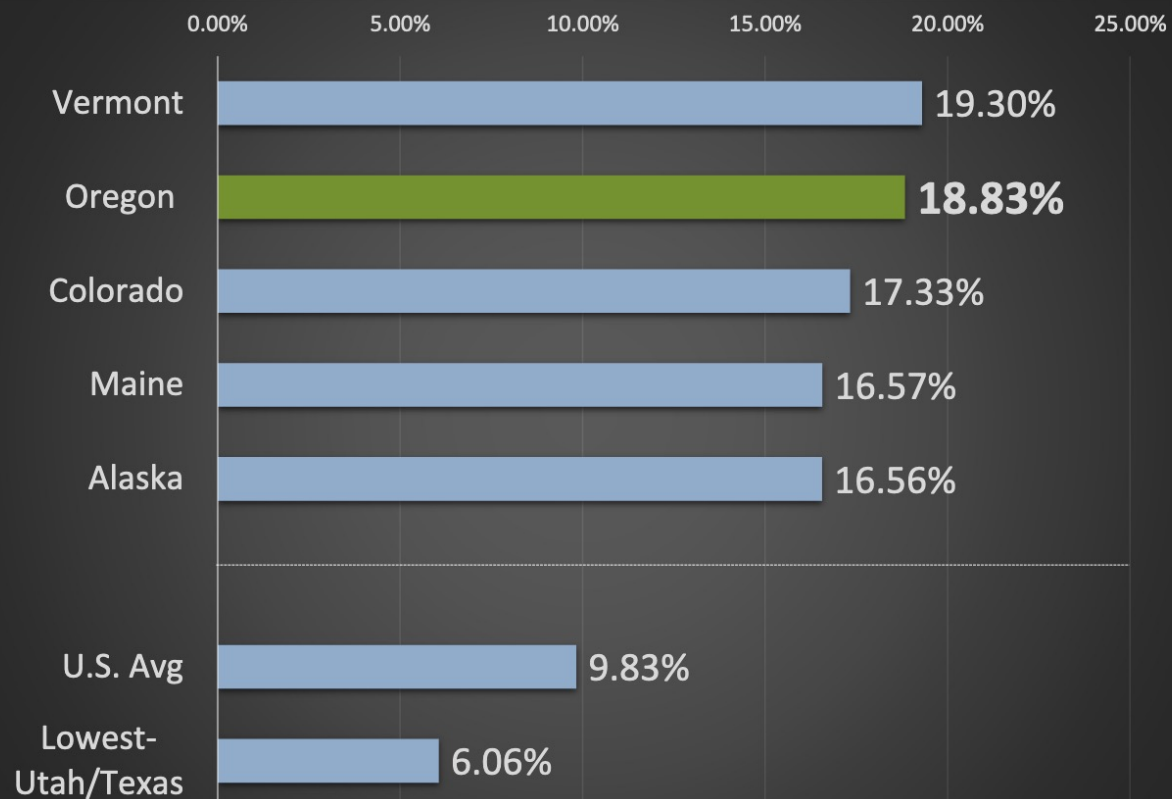


Marijuana Use in the Past Month, *by Age Group and State: Percentages,* *NSDUH December 2019 Report (2017-2018, n=135,000, ages 12 and older)*

marijuana

**Oregon
Ranks 2nd**

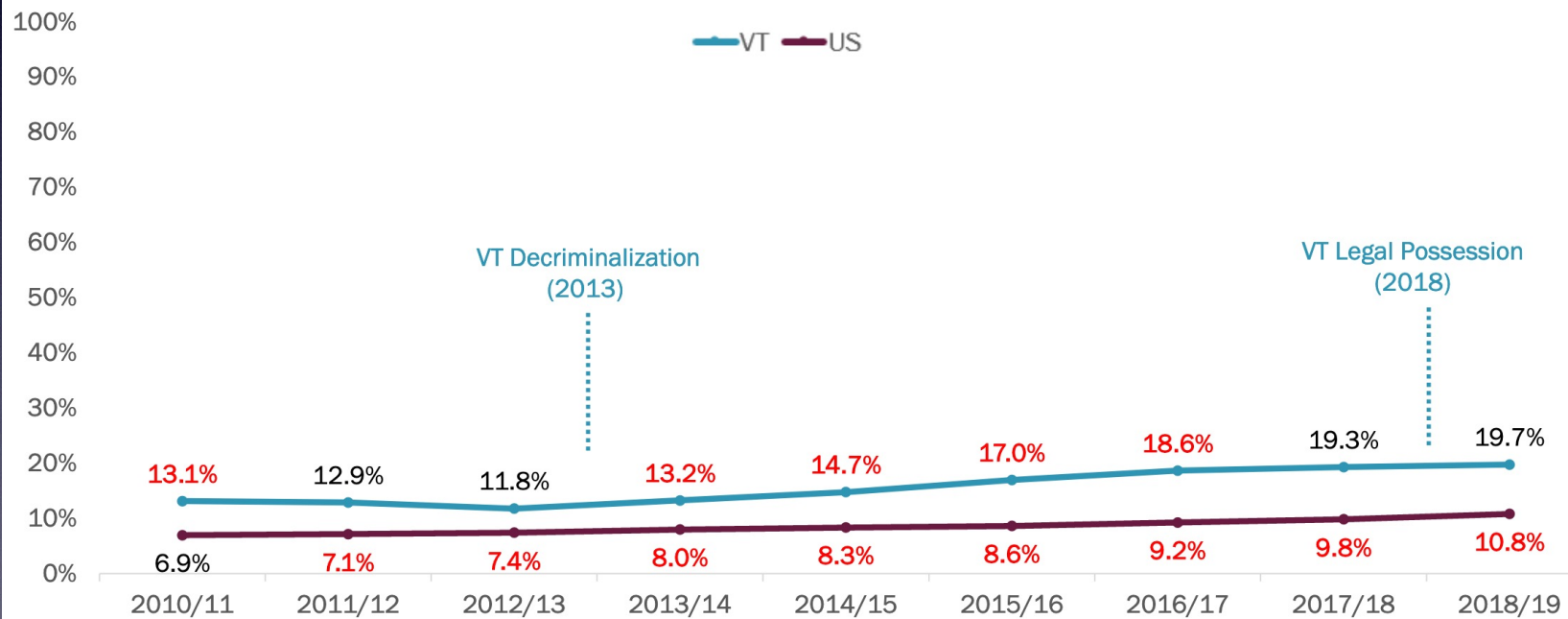
*Percent of
population
(teens & adults)
reporting
past month
marijuana use*



Vermont has the highest past month use of marijuana in USA for all age groups except 26 +

Source: National Survey on Drug Use and Health 2018-19

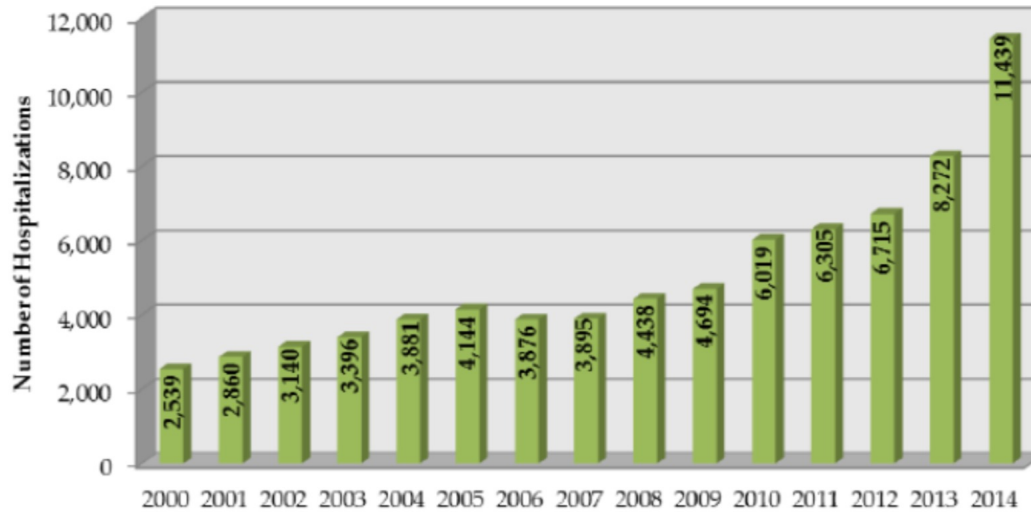
The percentage of Vermonters age 12+ using marijuana in the past month is consistently higher than the national average. Vermont and US have both had significant increases in use.



Bold red or green label indicates a significant change from previous

Cannabis Related Hospitalizations

Hospitalizations Related to Marijuana



SOURCE: Colorado Hospital Association, Hospital Discharge Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment

4/27/21 'A crisis': Kids seeking mental health care are waiting for days in emergency rooms" Vtdigger By K. Jickling. No mention of cannabis in the 5 recent articles,



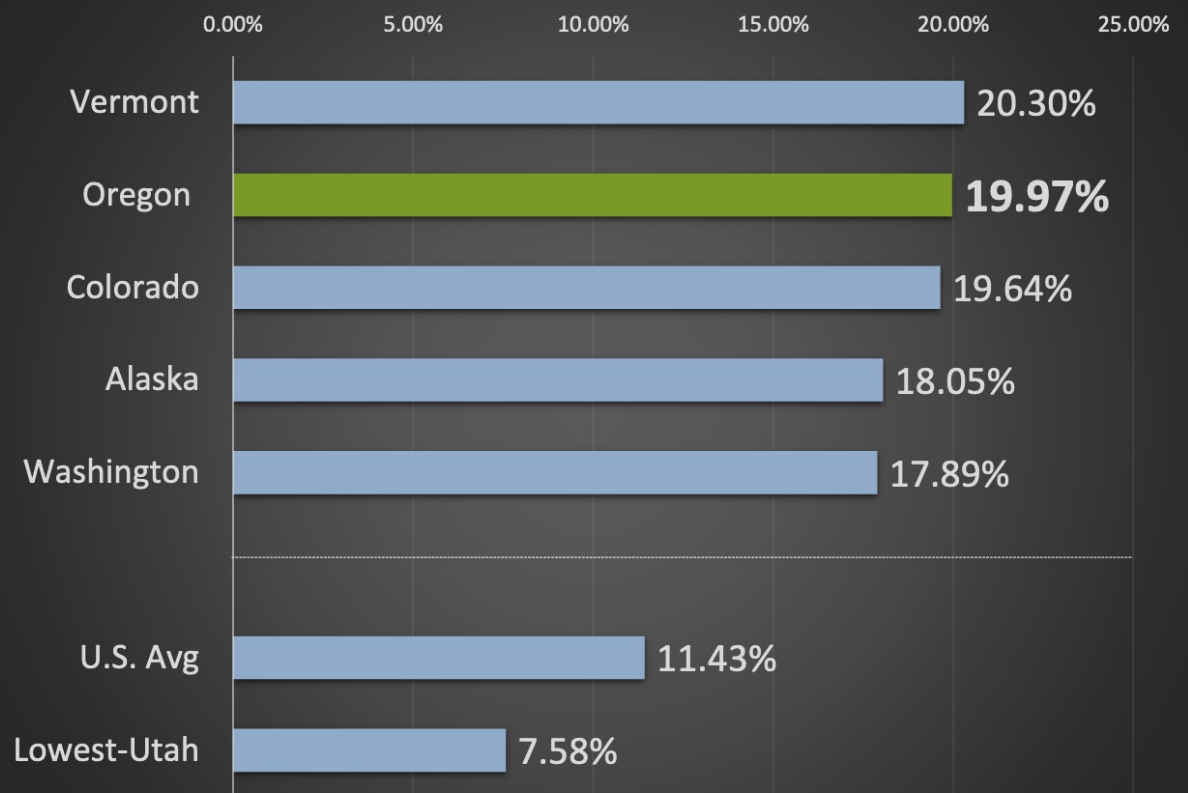
Illicit Drug Use in the Past Month, *by Age Group and State: Percentages, NSDUH*

December 2019 Report (2017-2018, n=135,000, ages 12 and older)

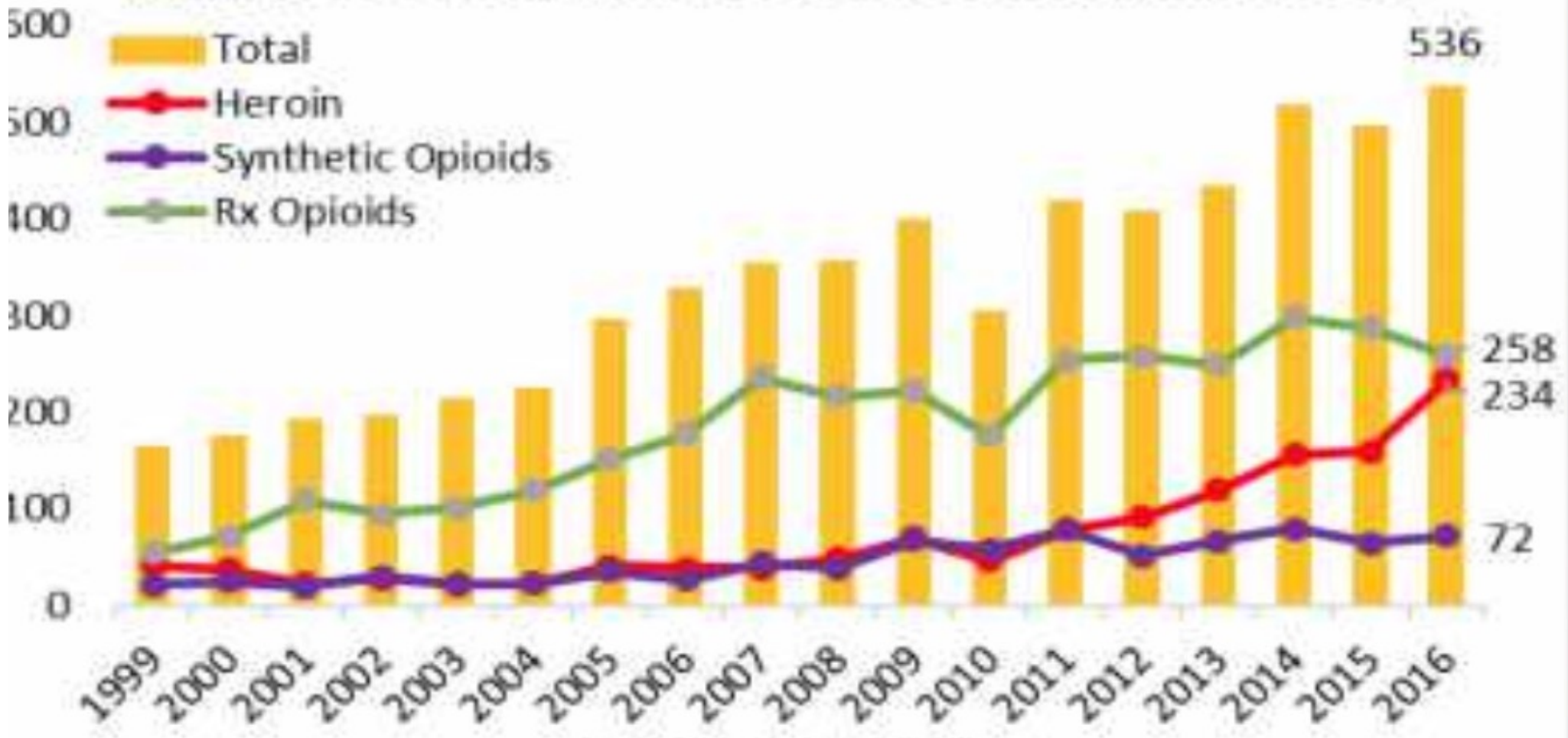
all illicit drugs

Oregon Ranks 2nd

Percent of population (teens & adults) reporting past month illicit drug use



Number of Opioid-Related Overdose Deaths in Colorado



Source: CDC WONDER

In Vermont more people died from substance overdose than from COVID ...(and Vermont's death rate increased during 2020.)

INDUSTRY PROMOTES MYTHS which serve to decrease our alarm or sense of urgency

- There is nothing we can do about problem substance misuse rates.
- 10% of the population will develop a use disorder no matter what our public policy is.
- The things we can do are not do able .. like change a person's genetics or propensity for mental illness

But Iceland's sustained decreasing substance use rates have proven all these myths false.

Positive development over 20 years (10th grade students)

Substance use in Iceland 1997-2018



How does Iceland's Model work?

- Preventing childhood use can prevent the development of substance misuse
- Youth are predictably and reliably products of their environment
- Scientific Method Surveys are used to identify risk and protective factors
- Sustained collaborative effort by adults to improve the situation by increasing protective factors such as spending time with family and adoption of conventional norms which do not embrace drug use while decreasing risk factors



> 90%

**BEGAN
SMOKING,
DRINKING OR
USING OTHER
DRUGS BEFORE
AGE 18**

More than 90% of people with a substance problem began smoking, drinking or using other drugs before age 18.

Heroin use is part of a larger substance abuse problem.

Nearly all people who used heroin also used at least 1 other drug.

Most used at least **3** other drugs.

Heroin is a highly addictive opioid drug with a high risk of overdose and **death** for users.

People who are addicted to...



ALCOHOL

are

2x



MARIJUANA

are

3x



COCAINE

are

15x



Rx OPIOID PAINKILLERS

are

40x

...more likely to be addicted to heroin.

SOURCE: National Survey on Drug Use and Health (NSDUH), 2011-2013.

Heroin use is part of a larger substance abuse problem.

Nearly all people who used heroin also used at least 1 other drug. Most used at least 3 other drugs.

The developing brain is easily addicted.

"higher prevalence of SUD within 12 months of cannabis and prescription misuse initiation among adolescents than among young adults"

“Adjusted prevalence of cannabis use disorder was higher among adolescents than among young adults within 12 months of initiation”

March 29, 2021

Prevalence of Substance Use Disorders by Time Since First Substance Use Among Young People in the US

Nora D. Volkow, MD¹; Beth Han, MD, PhD, MPH¹; Emily B. Einstein, PhD¹; [et al](#)

» [Author Affiliations](#)

JAMA Pediatr. 2021;175(6):640-643. doi:10.1001/jamapediatrics.2020.6981

Earlier age at drug initiation has been shown to be associated with faster transition to substance use disorder (SUD).¹ However, prevalence of specific SUDs as a function of time since first substance use among young people has not, to our knowledge, been investigated. We examined the prevalence of specific SUDs since first drug use (including tobacco, alcohol, cannabis, cocaine, methamphetamine, and heroin) or prescription misuse (including opioids, stimulants, and tranquilizers) in adolescents aged 12 to 17 years and young adults aged 18 to 25 years.

Prefrontal cortex

- Decision making, and moderating social behavior. Not developed until the mid to early 20s
- Drugs and alcohol can disrupt PFC and set the brain up for addiction.
- Arain M, Haque M, Johal L, Mathur P, Nel W, Rais A, Sandhu R, Sharma S. Maturation of the adolescent brain. *Neuropsychiatr Dis Treat*. 2013;9:449-61. doi: 10.2147/NDT.S39776. Epub 2013 Apr 3. PMID: 23579318; PMCID: PMC3621648. [Nat Rev Neurosci. 2011 Oct 20; 12\(11\): 652–669.](#)
- Goldstein RZ, Volkow ND. Dysfunction of the prefrontal cortex in addiction: neuroimaging findings and clinical implications. *Nat Rev Neurosci*. 2011 Oct 20;12(11):652-69. doi: 10.1038/nrn3119. PMID: 22011681; PMCID: PMC3462342.

**Children, products of their
environment and community,
rely on parents and
community norms to scaffold
them while their brains are
under construction
until fully developed in their
20s.**



What about the role of industry?

“Daily and the near daily users account for 80% of all the [alcohol/drug/tobacco/] expenditures.

For profit, companies can be expected to focus on creating and maintaining these heavy users; dependence is good for the bottom line...



The way we work now

**The Iceland model
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and practitioners.**

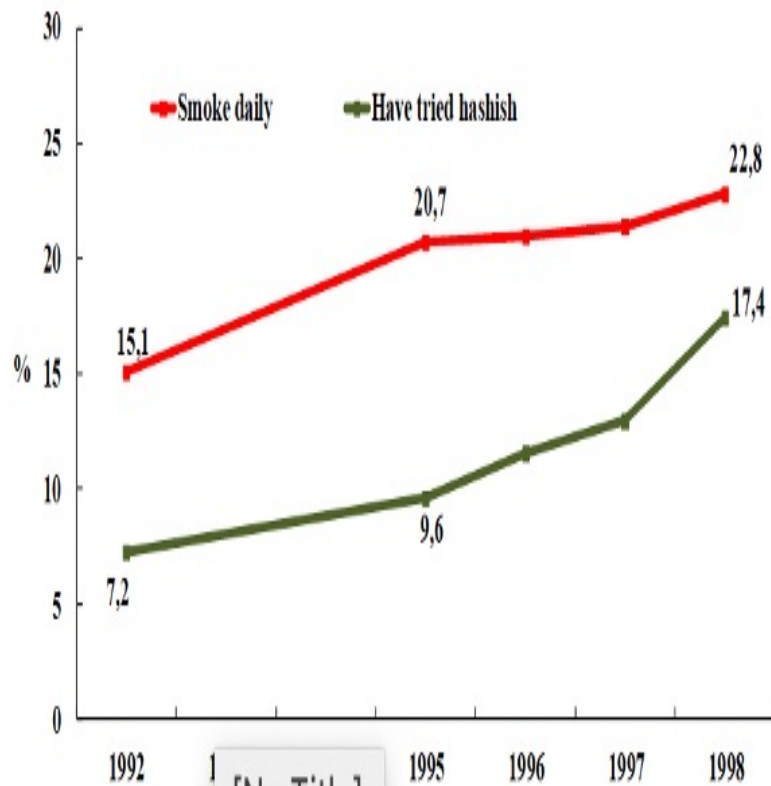


The Iceland Model: Planet Youth

©ICSRA 2017

Surveys demonstrated to the Icelandic scientists that "just say no" and scaring kids did not work.

Upward trend 1992 - 1998



”We decided to quit trying to fix the kids and we decided to fix society’

(Dr.) Dagur Bergboruson Eggertsson

Mayor of Reykjavík City

- Dagur is formally educated as a [physician](#) but also has a master's degree in Human Rights and International Law from the [University of Lund](#) in Sweden.



Inga Dóra Sigfúsdóttir, Professor, Reykjavik University
Founding Dean and Director of the Icelandic Centre for
Social Research and Analysis at Reykjavik University

TEENAGERS IN ICELAND IN THE 80s & 90s WERE

Overview of adolescents lives

Substance use – all categories

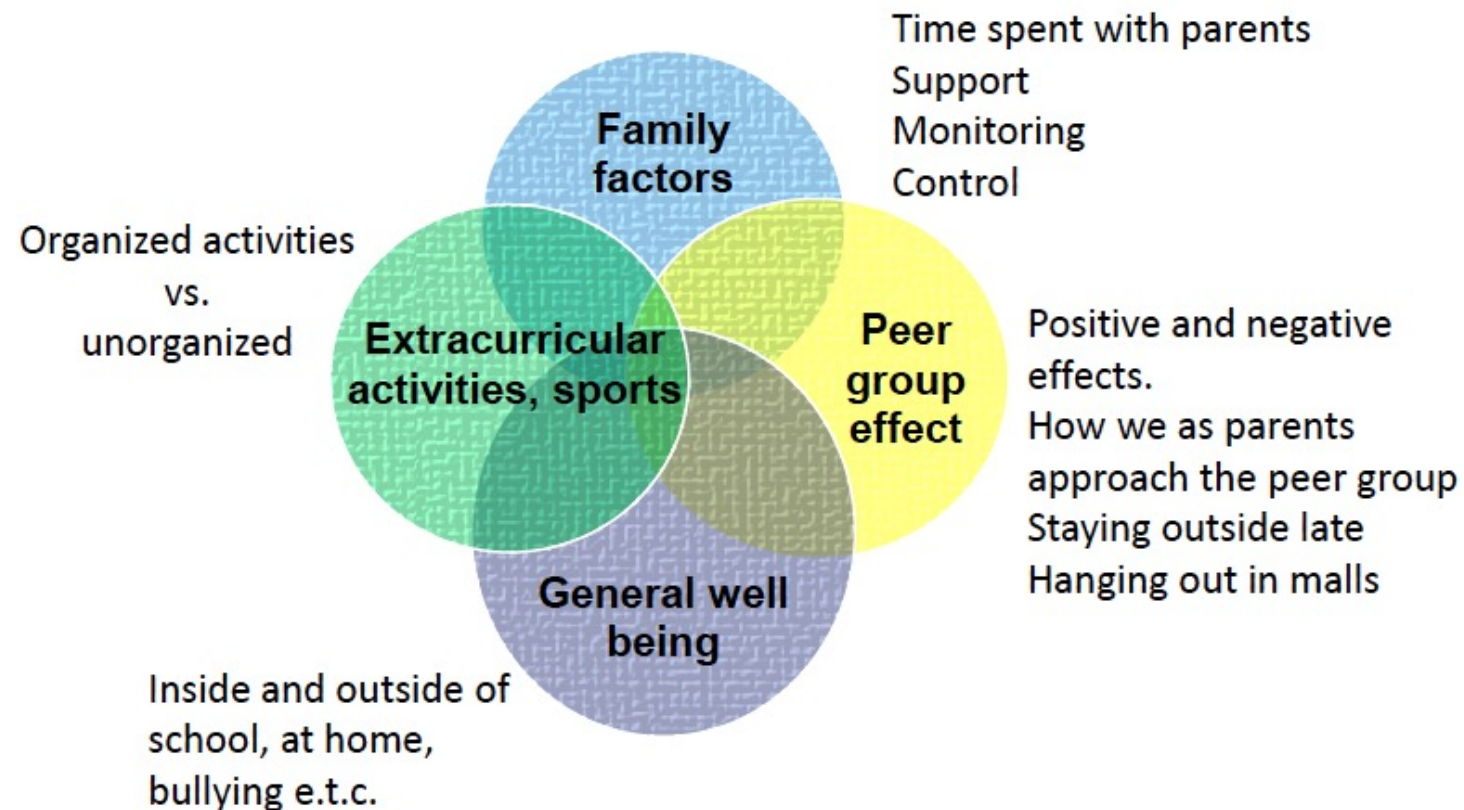
Parental factors – support, monitoring, caring, warmth and more

Peer group effect

Leisure time – sports, youth activities

Mental and physical health

And analysing deeper



"Analysis of these surveys shows that affiliations with family, peer group effects, and types of recreational activities available are the strongest predictors of the paths taken by adolescents."

Professor Inga Dora Sigfusdottir

local community action

A bronze statue of a man playing a cello, standing on a pedestal in a park-like setting with mountains in the background. The statue is the central focus, with a blue semi-transparent box overlaid on the right side containing text. The background shows a large, snow-capped mountain range under a clear sky, with a body of water and some structures in the distance.

Use research as the basis before deciding on action.

Strengthen parent organizations and cooperation such as PTO, Together, and School & Home.

Support quality controlled extracurricular activities such as the arts and sports.

Support young people at risk inside schools.

Results: cultural shift build “social capital”

- “Parents and children spend more time together” strongest predictive factor - Doubled
- “Increased participation in organized sports” – more than 4x per wk. Increased 25% to 50%
- “Rates of student who have been outside after 10 pm 3 times in the past week” 50 to 25%
- “My parents know where I am in the evening” 50 to 80%

Evidence

- 2010 study compared communities in Iceland which implemented the Youth in Iceland program to those which did not 1997-2009
- In the 2 groups, risk and protective factors and the outcome of substance use, showed greater improvement in the test communities than the control communities.

Kristjansson A.L. et al. Adolescent substance use, parental monitoring and leisure-time activities: 12-year outcomes of primary prevention in Iceland. *Preventive Medicine*. 51(2010) 168-171.

RESULTS: Need for drug treatment was decreased by one half for men 18-21 who grew up while this prevention method was implemented, compared to previous years

Iceland has 6 drug overdose
deaths per 100,000
(2019)

Credit: National Institute for Health and Welfare/ Directorate of Health of Iceland

***USA has 21.6 overdose
deaths per 100,000
(2019)***

<https://www.cdc.gov/drugoverdose/deaths/index.html>

Iceland now has one of the lowest alcohol use rates in
Europe [https://statice.is/publications/news-
archive/health/alcohol-consumption-in-iceland/](https://statice.is/publications/news-archive/health/alcohol-consumption-in-iceland/)

Costs to Health Care and to Society

- Substance mis use costs the US over 800 billion dollars, over 200 billion in health care costs alone, according to the National Institute on Drug Abuse data from 2007-2013.
- <https://archives.drugabuse.gov/trends-statistics/costs-substance-abuse>

Prevention historically cost about one dollar for every ten dollars spent in costs and injury resulting from substance misuse.

-National Center on Addiction and Substance Abuse at Columbia University, June 29, 2011

<https://files.eric.ed.gov/fulltext/ED521379.pdf>.

Iceland proves it's possible to reverse an epidemic of addiction by

Conducting health research about the community.

Communicating the discoveries to the community.

Encouraging community involvement and solutions.

Supporting the solutions.

**In addition to
decreasing drug use
Iceland also saw**

decreases in

**sexual violence against women
bullying in schools,
crime, injury,
drug related traffic deaths**

and...



increases in

**popular and classic music expression,
bonding/cooperation between parents
in neighborhoods,
engagement in arts and participation in
sports.**

- Iceland has shown the world, in practice not just in theory, that crippling substance use disorder is PREVENTABLE and
- PREVENTION saves money for the community by decreasing crime, health care costs, lost educational goals and
- PREVENTION promotes healthy, connected communities while saving money

Planet Youth spreads across Europe





PLANET YOUTH IN BURLINGTON

Friday at 10:30 A.M.
Davis Auditorium
UVM Medical Center
Burlington



Psychiatry Department Grand Rounds at UVM MC
3/22/2019



University of Vermont Grand Rounds by
Chilean Pediatric Society President Dr.
Humberto Soriano with Dr. David Rettew
March 19, 2019

Met with the Governor

- Presented to local communities and parents and providers
- Recorded interviews on TV
- Interviewed on VPR
- <https://www.vpr.org/vpr-news/2019-04-25/what-vt-might-learn-from-iceland-about-preventing-substance-abuse>

- 5 Vermont Communities have implemented Vermont Youth Projects using the Planet Youth Model
- The first surveys were taken Fall 2019. Results analysis followed community building and parent teacher and provider education have begun in these communities.

Positive development over 20 years (10th grade students)

Substance use in Iceland 1997-2018



Thoughts from Vermont prevention professionals...

- We fund schools with the expectation that children are entitled to a certain quality of education in Vermont and the USA.
- Schools are not dependent on a competitive grant process for funding.....*but prevention is.*
- The result is there are prevention deserts (in VT and the USA). Where there was once great funded prevention programs, there is currently nothing.
- Successful prevention in these areas depends on grant writing talent, individual prevention professionals who are well connected with local policy makers and individual prevention professionals who have good knowledge of prevention principles. This is a pretty tall order. Iceland's proven method can help.

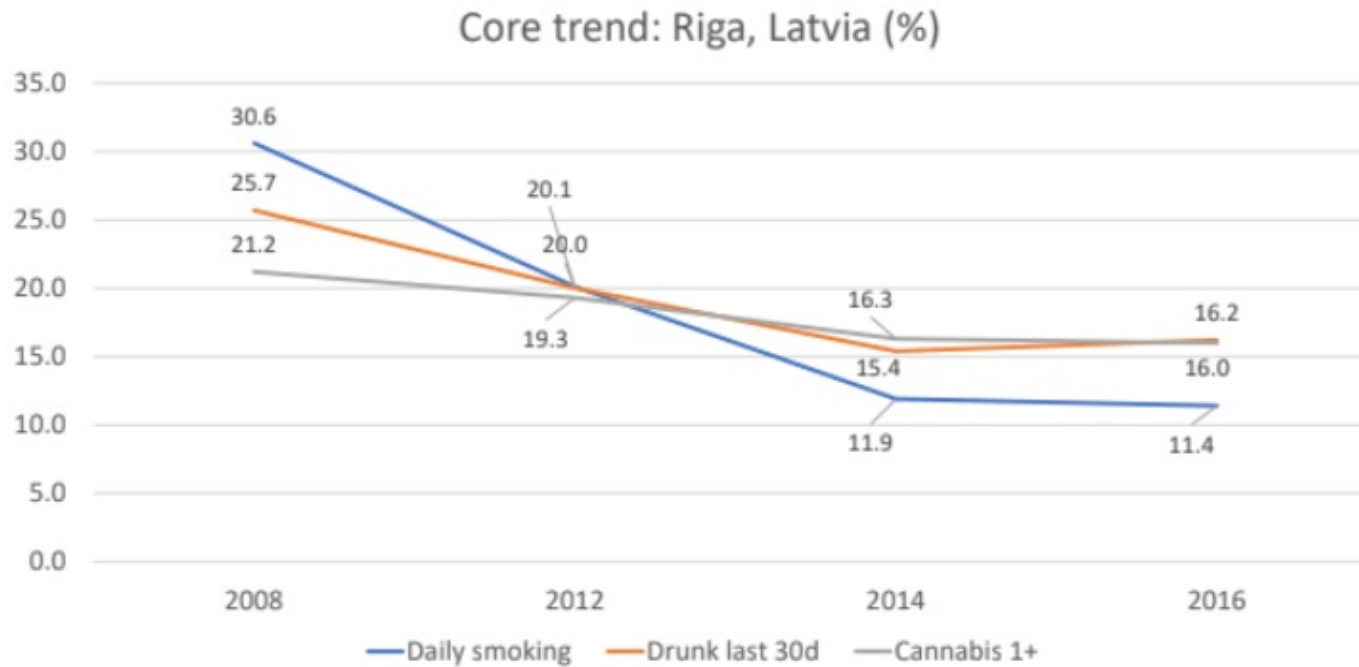
Iceland's experience teaches.. "Prevention is possible."

Sustained effort and funding are important for success.

Cliff..

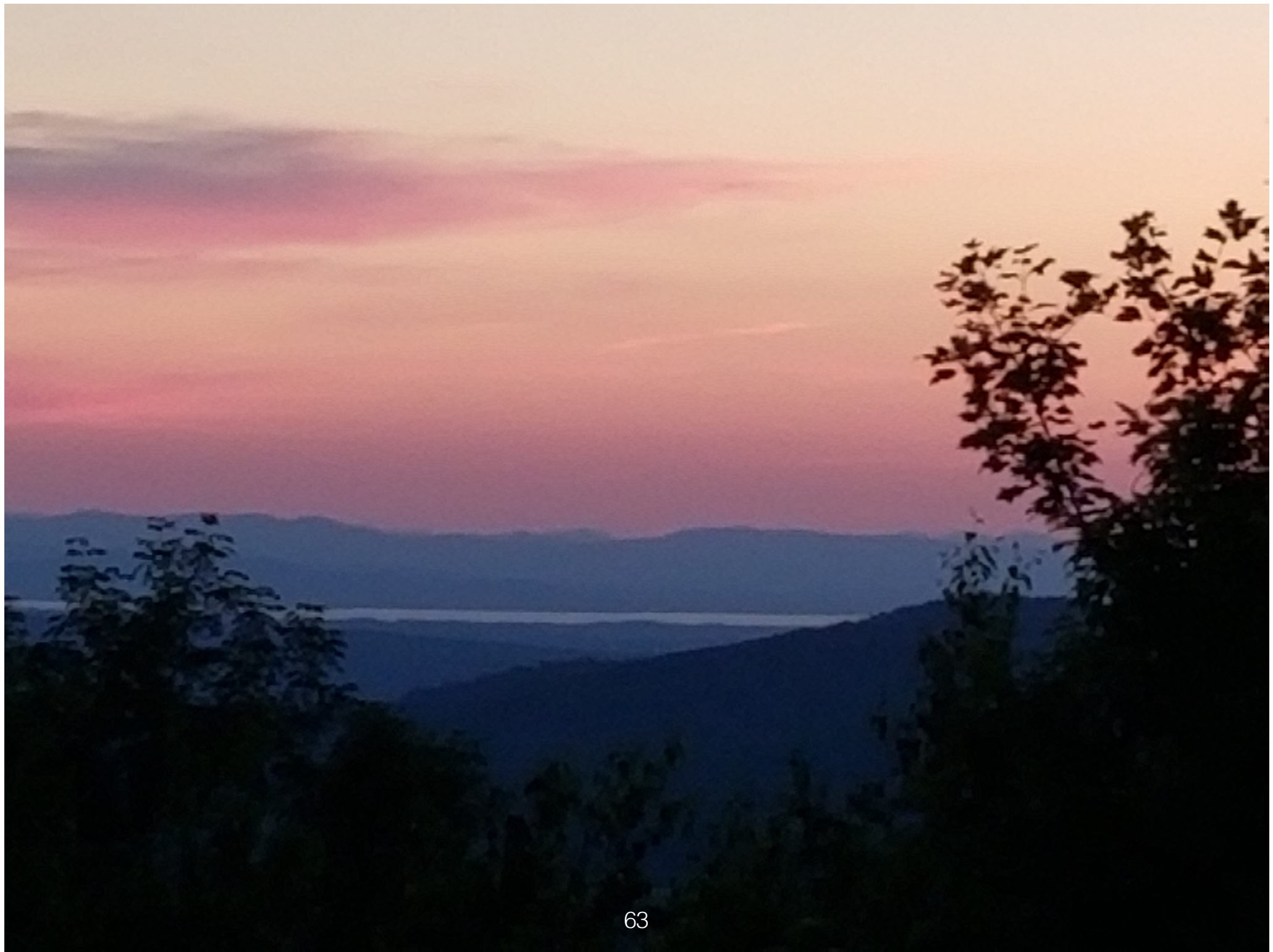
- We can buy more ambulances to pick up the bodies and bones at the bottom of a cliff .
- Or we can build a safety guard rail to prevent folks from going over.





Professor Alfgeir Kristjansson, PhD,
 Program Director West Virginia University





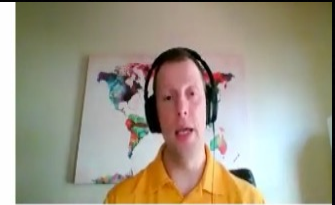
Possible actionable steps for your community

- Contact political leaders to allocate *sustained* resources for this infrastructure investment (not one time or “renewable” grants)
- Present locally to parents and stakeholders to introduce the Planet Youth methodology as a tool to create a more supportive environments for kids to grow up substance free.
- Consider engaging Planet Youth to administer their survey tool and trainings in your community

Hope – Prevention is possible
Alarm – Motivation to change

Without hope, and an example of how to change the situation, alarm can be unfocused unproductive energy.

IPM: 10 Steps to Implementation



ay (k)

