Senate Judiciary Committee
"Community Solutions to Breaking the Cycle of Heroin and Opioid Addiction"
March 17, 2014
Questions for the Record from Ranking Member Charles E. Grassley
Dr. Harry Chen, Commissioner of Health, Vermont Department of Health

1. **How many people are currently being treated for heroin or other opioid abuse in Vermont? How does that number compare to other illegal drugs? Is it accurate that in Vermont, more teens enter treatment with a primary diagnosis for marijuana dependence than all other illicit drugs combined?**

In fiscal year 2012, nearly 3,500 individuals were served by state-funded providers for opioid abuse or dependence in Vermont. More youth under the age of 18 are treated for marijuana than for all other substances combined. Please see the below tables for details.

Number of people treated in the Alcohol and Drug Abuse Programs Treatment System by substance of abuse and year, Vermont

Substance	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alcohol	4715	4997	5063	4997	4987	4743	4866	4696	4510	4358	4112	4176	4061
Marijuana/Hashish	1066	1286	1377	1596	1466	1567	1623	1571	1388	1563	1432	1430	1365
Heroin/Other Opiates	399	599	767	1041	1199	1455	1897	2113	2272	2630	2622	2944	3479
All Others	351	353	402	482	495	624	699	835	713	567	522	549	517
Total	6531	7235	7609	8116	8147	8389	9085	9215	8883	9118	8688	9099	9422

Data Source: Vermont Substance Abuse Treatment Information System (SATIS)
This reflects only people receiving treatment at state-funded treatment facilities.

Number of people under 18 years of age treated in the Alcohol and Drug Abuse Programs Treatment System by substance of abuse and year, Vermont

Substance	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alcohol	291	370	378	359	357	294	322	288	256	218	159	158	144
Marijuana/Hashish	438	510	529	579	507	520	537	503	422	419	392	359	378
Heroin/Other Opiates	12	21	18	19	20	22	28	21	22	34	28	22	25
All Others	37	48	54	29	29	40	54	58	48	26	25	18	22
Total	778	949	979	986	913	876	941	870	748	697	604	557	569

Data Source: Vermont Substance Abuse Treatment Information System (SATIS)
This reflects only people receiving treatment at state-funded treatment facilities.

Updates can be found here: http://healthvermont.gov/adap/clearinghouse/publications.aspx#top

In addition, Medicaid recipients are receiving buprenorphine, through a prescription from a physician, to treat opioid addiction. The same individuals may also be receiving treatment within the Alcohol and Drug Abuse Programs Treatment System above.

Number of people treated with buprenorphine for Opioid Addiction in the Medicaid System by year, Vermont

Substance	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Heroin/Other Opiates	0	0	0	77	333	731	1107	1420	1879	2366	2693	2803	2699

Data Source: Vermont Medicaid Paid Claims
This reflects only people receiving buprenorphine to treat opioid addiction.

2. Is there a relationship between the increased abuse of prescription opioids and the increased use of illegal opioids, such as heroin? If so, please describe that relationship.

There is a relationship between prescription pain reliever misuse and heroin use according to the published literature. Two important resources are listed below showing direct relationships between prescription drug misuse and heroin use. The critical conclusions are included in addition to each citation.

Substance Abuse and Mental Health Services Administration (SAMHSA) Data Review[i]

- Nonmedical pain reliever users were 19 times more likely to have used heroin in the prior year
- The majority of nonmedical pain reliever users do not progress to heroin
- There is no standard path to nonmedical use of pain relievers

National Institute on Drug Abuse Fact Sheet[ii]

- Nearly half of young people who inject heroin surveyed in three recent studies reported abusing prescription opioids before starting to use heroin
- Some individuals reported taking up heroin because it is cheaper and easier to obtain than prescription opioids.
- Many of these young people also report that crushing prescription opioid pills to snort or inject the powder provided their initiation into these methods of drug administration

3. What percentage of Vermont residents who end up addicted to opioids or heroin, or who seek treatment for such an addiction, begin their illegal drug use with, or also abuse, marijuana?

Please note that the information listed below is based on client self-reported use. Clients may report only what he or she considers problem use, rather than any use. Alcohol use is also provided for comparison.

Vermont treatment data indicates that of those receiving treatment for opioid addiction between 2007 and 2012, 34% also indicated the use of marijuana or hashish. More than 99% of those using marijuana

or hashish began using these substances prior to using opioids and typically report first use of marijuana four years before beginning to use opioids.

Of those receiving treatment for opioids between 2007 and 2012, 22% indicated also using alcohol. Nearly 96% of these individuals indicated using alcohol prior to opioids and typically report using alcohol five years before beginning to use opioids.

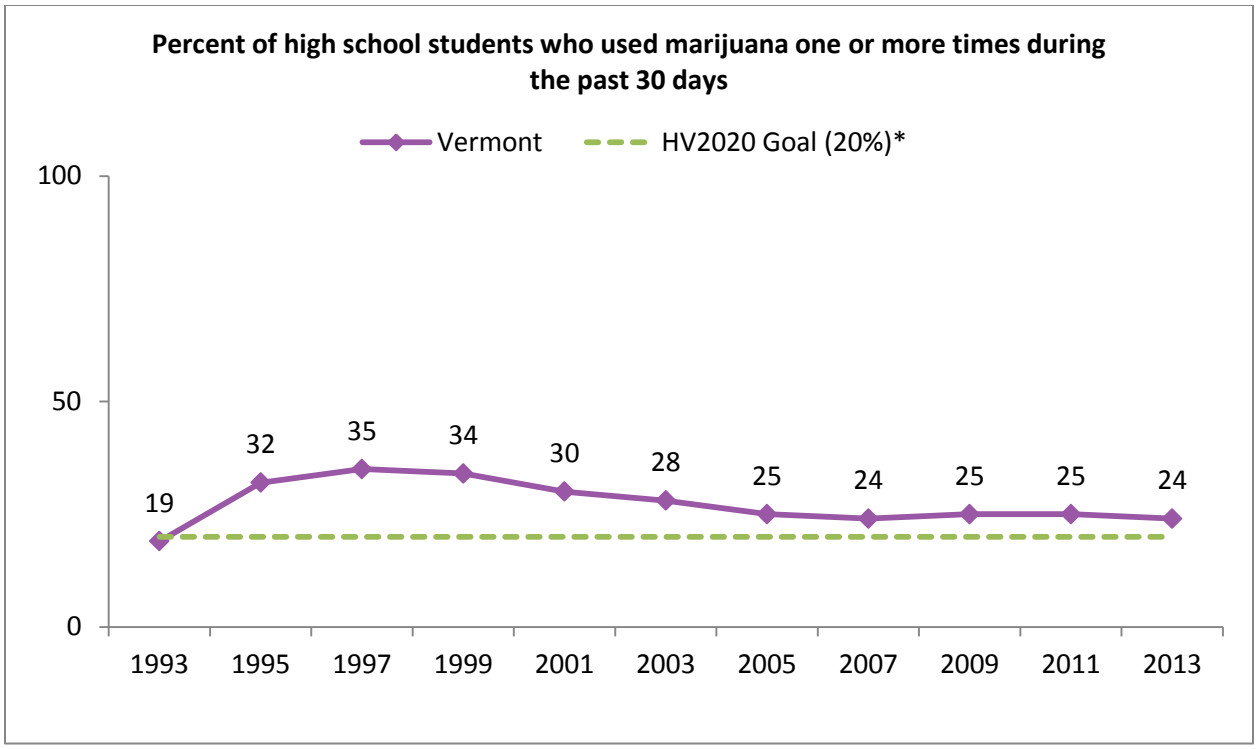
Please keep in mind that correlation isn't cause. Of Vermonters with marijuana as primary substance, only 14 percent also reported the use of opioids. According to the Institute of Medicine of the National Academy of Sciences:

"Patterns in progression of drug use from adolescence to adulthood are strikingly regular. Because it is the most widely used illicit drug, marijuana is predictably the first illicit drug most people encounter. Not surprisingly, most users of other illicit drugs have used marijuana first. In fact, most drug users begin with alcohol and nicotine before marijuana — usually before they are of legal age.

In the sense that marijuana use typically precedes rather than follows initiation of other illicit drug use, it is indeed a "gateway" drug. But because underage smoking and alcohol use typically precede marijuana use, marijuana is not the most common, and is rarely the first, "gateway" to illicit drug use. There is no conclusive evidence that the drug effects of marijuana are causally linked to the subsequent abuse of other illicit drugs."[iii]

4. You mentioned in your written testimony that you "see hope and progress in the 2013 Vermont Youth Risk Behavior Survey results that shows use of tobacco, alcohol, and prescription drugs by Vermont youth declined significantly from 2011 – all priorities for our community-based prevention efforts." Is reducing marijuana use among youth also part of your community-based prevention efforts to battle opioid abuse? If not, should it be? What are the trends in the use of marijuana among Vermont youth from 2011 reflected in this survey?

Reducing marijuana use among youth is a part of our community-based prevention efforts to battle opioid abuse and misuse. However more needs to be done to raise awareness about the health and safety consequences of marijuana use. Reducing the percent of high school students who use marijuana one or more times during the past 30 days is a Healthy Vermonters 2020 Goal. Those goals can be found here: http://healthvermont.gov/hv2020/dashboard/alcohol_drug.aspx. Trend data (looking at data over multiple years) has remained flat (unchanged) for past 30 day marijuana use among high school students, and has not decreased significantly since 2005 (see graph below).



The percentage of students who think that high school students their age are at great risk of harm if they smoke marijuana **has** decreased significantly, from 34% in 2011 to 31% in 2013. Such a drop in perception of risk can lead to increased use in the future. This is of concern for our state because Vermont's marijuana prevalence rates are already higher than the national norm.

Of all high school students, 24% reported using marijuana in the past 30 days, of those, 16% also reported using a prescription pain reliever. Of all high school students, 5% reported misusing a prescription pain reliever in the past 30 days, of those 74% also reported using marijuana in the past 30 days. This is not causal – marijuana use doesn't necessarily lead to the misuse of prescription pain relievers.

We have evidence that a comprehensive prevention approach is effective. A 2012 evaluation of the Strategic Prevention Framework State Incentive Grant (SPF-SIG), funded by the Substance Abuse and Mental Health Services Administration, found those Vermont communities that augmented school and family-based prevention programs with a community education focus on marijuana collectively achieved significant reductions in marijuana use among school aged youth, as compared to other Vermont Communities. (Source: Vermont Department of Health, *SPF-SIG Project Leads to Reductions in Underage Drinking and Marijuana Use*, April 2012)

The following is a brief summary of prevention efforts headed by the Vermont Department of Health, Alcohol and Drug Abuse Programs that directly impact marijuana use.

Combined Community Prevention Grants (CCPG) are a joint initiative, supported by funding from Alcohol and Drug Abuse Prevention, Nutrition and Physical Activity, and Tobacco Control. The goal of this year's program is to support effective and integrated public health programs and communities with the capacity to respond to public health needs , and to produce healthy communities where Vermonters can lead healthy lives. Evidence-based strategies and programs that impact marijuana use that are funded by the CCPG include Community Mobilization, Media Advocacy, Screeening and Brief Intervention, Educational and Parenting Programs.

ADAP supports twenty-one supervisory unions and school districts with grants to deliver substance abuse prevention and early intervention services as part of a coordinated school health program. Evidence-based school prevention programs can save Vermont $18 for every $1 invested.[2]
Examples of ADAP supported school-based services that would impact marijuana use include:

- Substance abuse screening and referral
- Coordinated school health initiatives
- Classroom health curricula
- Parenting programs
- Teacher and support staff training
- Delivery of educational support groups

Partnerships for Success (PFS) is a three-year Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA) Grant. This project builds on the significant outcomes achieved through the Strategic Prevention Framework. Activities that would directly impact marijuana use funded under the PFS grant are parenting programs, community mobilization and media advocacy.

In addition, the state funds Project Rocking Horse, a local educational support group for low-income mothers. During the program's first year, participants increased their perception of risk from drinking or smoking during pregnancy. Those who participated in the program also gained increased confidence in the ability to handle stress and parent their children.

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[i] **Substance Abuse and Mental Health Services Administration (SAMHSA) Data Review**
"This nationally representative study finds a strong association between prior nonmedical use of pain relievers and the subsequent past year initiation of heroin use. There are two key findings that were observed in this study. First, the recent (12 months preceding interview) heroin incidence rate was 19 times higher among those who reported prior NMPR use than among those who did not report NMPR use (0.39 vs. 0.02 percent; $0.39 \div 0.2 \cong 19$). There are many plausible explanations for this finding, including the gateway theory of drug use that posits that the use of some drugs may expose individuals to a repertoire of biological and behavioral factors that could influence their future use of other drugs. In this case, NMPR use may precondition one to engage in heroin use because prescription pain relievers have a similar pharmacological effect as that of heroin, given their similarities in chemical structure. Although the findings indicate that NMPR use is a common step on the pathway to heroin initiation, most NMPR users do not progress to heroin use. Second, heroin use appears to be neither a sufficient nor a necessary condition for the subsequent onset of NMPR use. Put differently, it appears that there are many unique pathways leading to NMPR use, and many of those do not involve heroin as a developmental precursor, or milestone, on the career trajectory of an illicit drug user."

Muhuri P, Gfroerer J, Davies M. Associations of Nonmedical Pain Reliever use and Initiation of Heroin Use in the United States. *SAMHSA CBHSQ*. 2013. http://www.samhsa.gov/data/2k13/DataReview/DR006/nonmedical-pain-reliever-use-2013.pdf

[ii] "Prescription opioid pain medications such as Oxycontin and Vicodin can have effects similar to heroin when taken in doses or in ways other than prescribed, and they are currently among the most commonly abused drugs in the United States. Research now suggests that abuse of these drugs may open the door to heroin abuse. Nearly half of young people who inject heroin surveyed in three recent studies reported abusing prescription opioids before starting to use heroin. Some individuals reported taking up heroin because it is cheaper and easier to obtain than prescription opioids. Many of these young people also report that crushing prescription opioid pills to snort or inject the powder provided their initiation into these methods of drug administration."

National Institute on Drug Abuse. U.S. Department of Health and Human Services, National Institutes of Health. http://www.drugabuse.gov/publications/drugfacts/heroin

[iii] Joy J. et. al. Marijuana and Medicine: Assessing the Science Base. Institute of Medicine. 1999 http://www.nap.edu/openbook.php?record_id=6376&page=99