The Public Health Crisis of Opioid Addiction: How Vermont Has Responded

AFDO Annual Education Conference

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VERMONT
DEPARTMENT OF HEALTH

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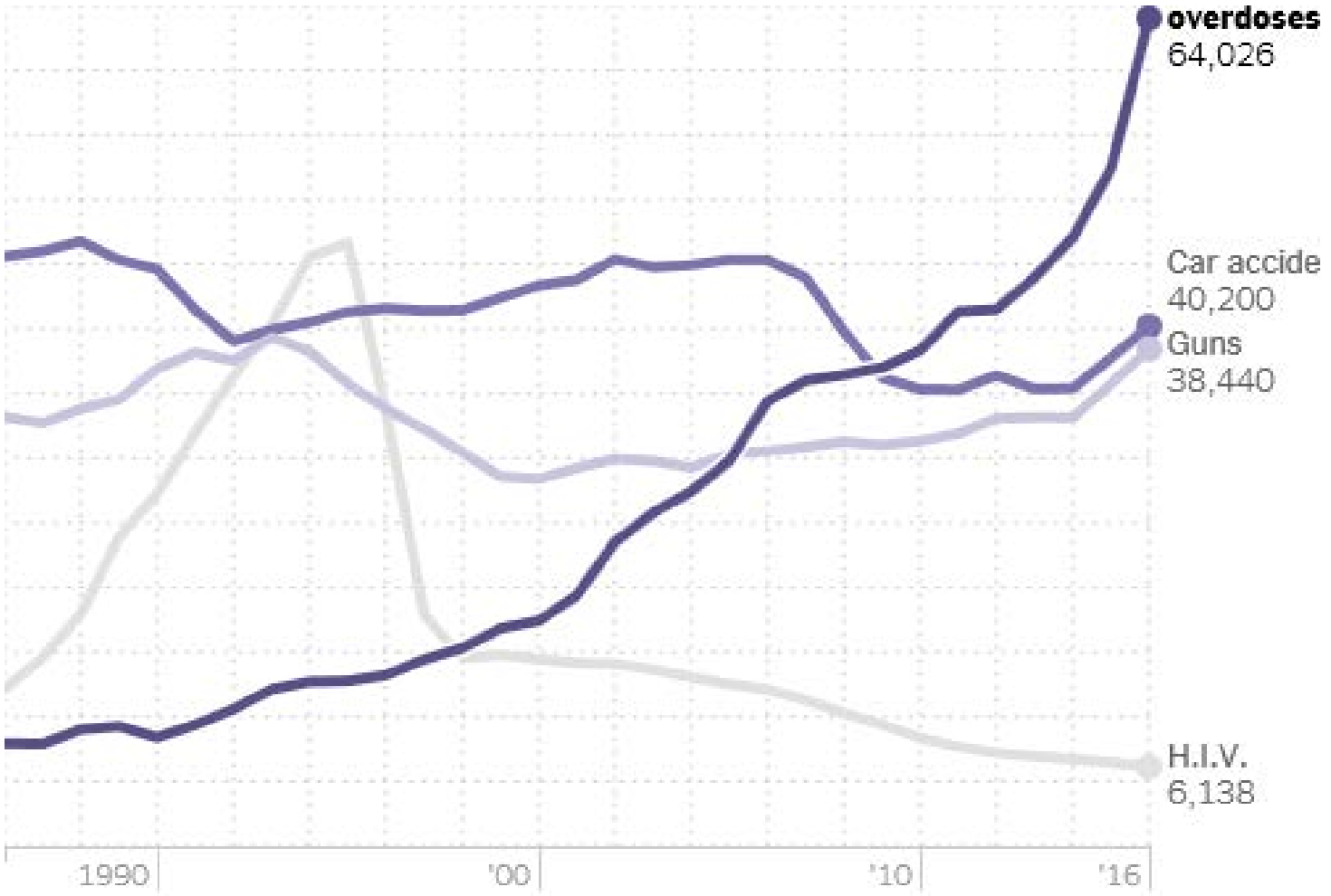
Objectives

- Review Vermont's opioid crisis, both challenges and successes, in the **context** of the national epidemic
- Discuss Vermont's current and future response, the "four legged stool":
  - Prevention
  - Intervention and Treatment
  - Enforcement
  - Recovery
- Focus on the Hub and Spoke model of care

Epidemiology

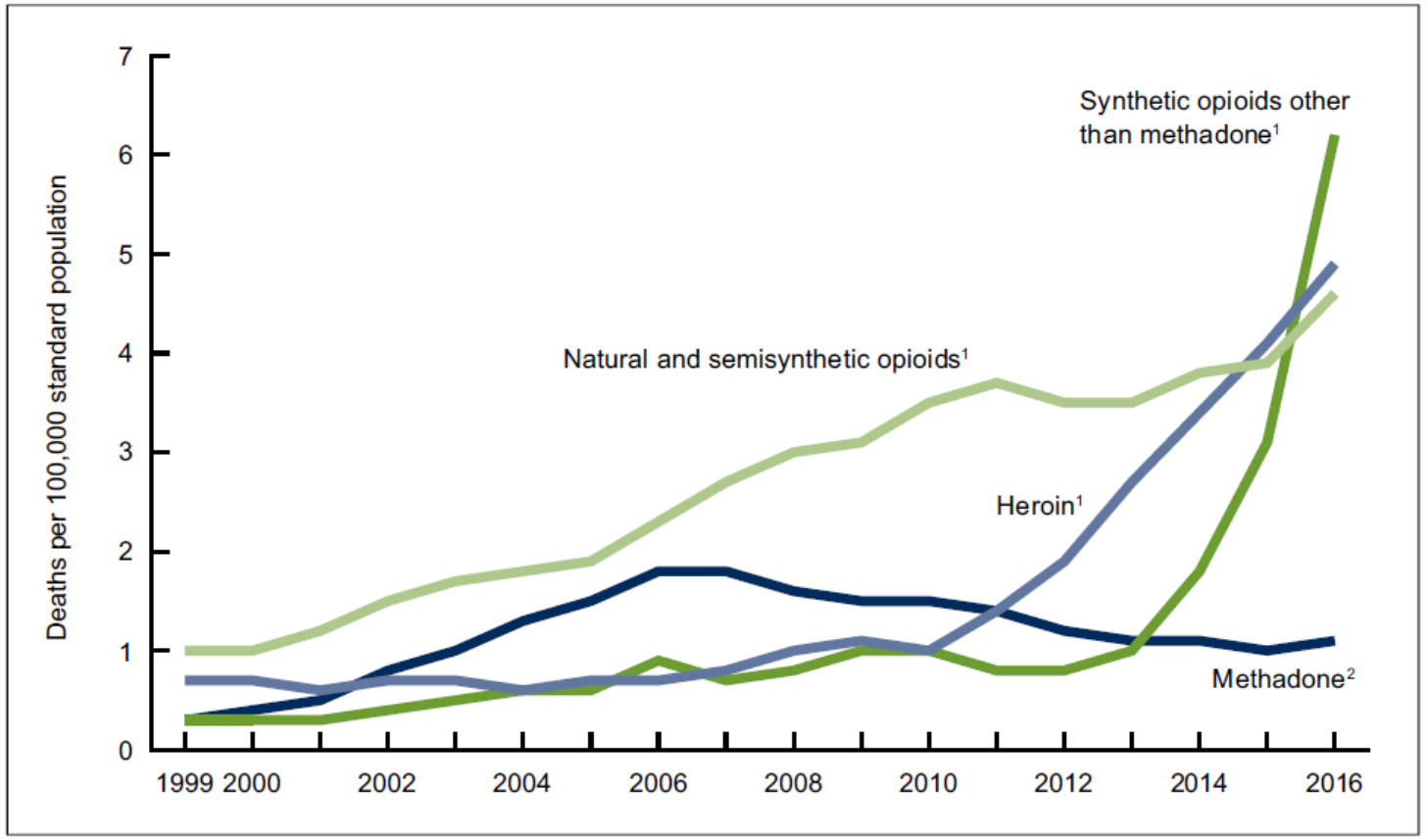
- 21 million Americans have a substance use disorder,
  - Comparable with the number of people diagnosed with diabetes
  - 1.5 times the prevalence of all cancers combined.
- 12.5 million Americans reported misusing prescription pain medications in the past year
  - 1.9 Million dependent on pain relievers
  - 517,000 dependent on heroin
- 1-2 in 10 people with a substance use disorder currently receives treatment.

US Drug overdoses have overtaken car accidents, guns and HIV as cause of death and are leading cause under age 50



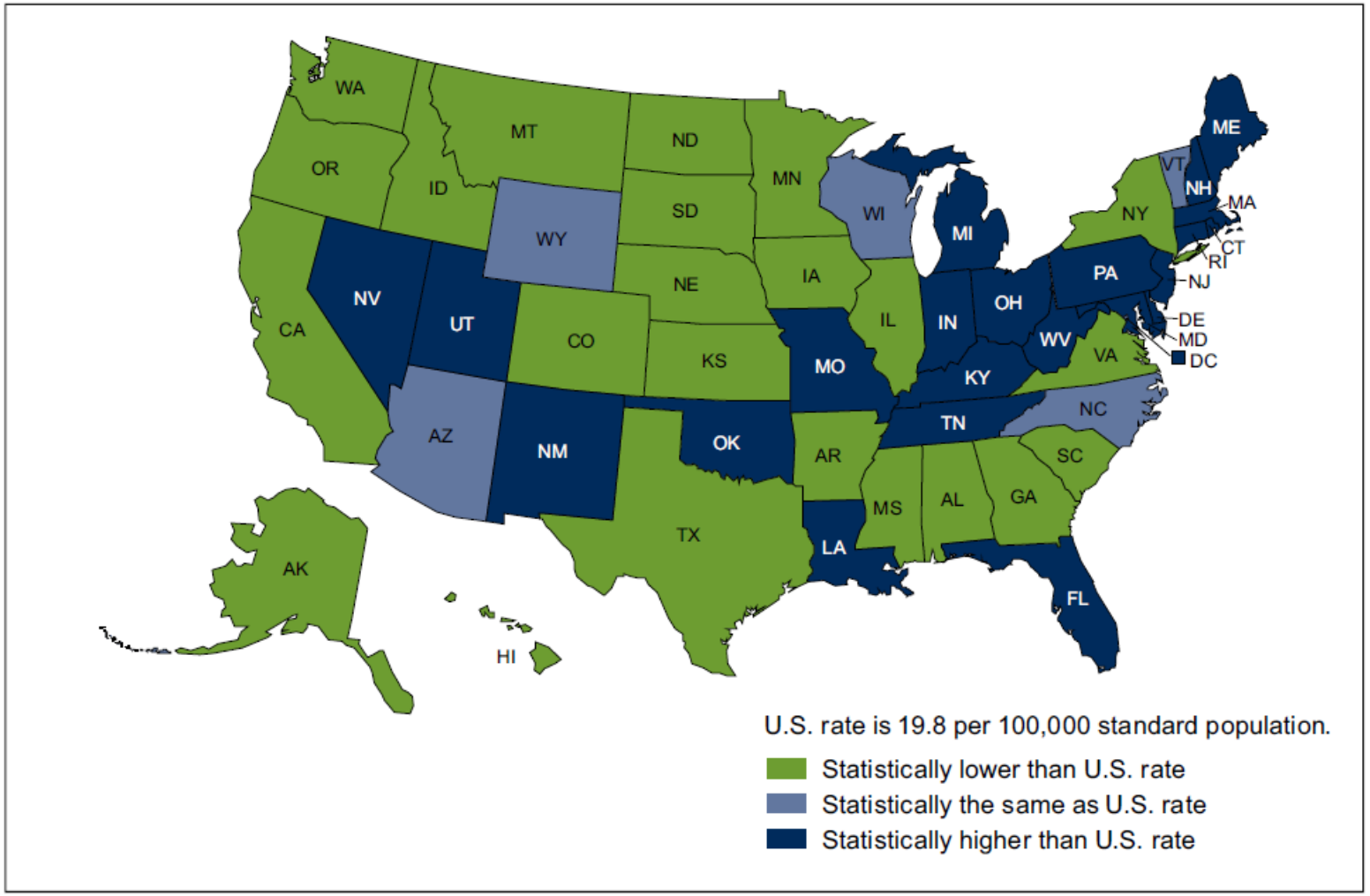
Vermont Department of Health

Age Adjusted Overdose Deaths Involving Opioids by Type of Opioid United States, 1999-2016



[1]Significant increasing trend from 1999 to 2016 with different rates of change over time, $p < 0.05$.
[2]Significant increasing trend from 1999 to 2006, then decreasing trend from 2006 to 2016, $p < 0.05$.
NOTES: Deaths are classified using the *International Classification of Diseases, Tenth Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Drug overdose deaths involving selected drug categories are identified by specific multiple-cause-of-death codes: heroin, T40.1; natural and semisynthetic opioids, T40.2; methadone, T40.3; and synthetic opioids other than methadone, T40.4. Deaths involving more than one opioid category (e.g., a death involving both methadone and a natural or semisynthetic opioid) are counted in both categories. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, with ranges of 75%–79% from 1999 to 2013, and 81%–85% from 2014 to 2016. Access data table for Figure 4 at: https://www.cdc.gov/nchs/data/databriefs/db294_table.pdf#4.
SOURCE: NCHS, National Vital Statistics System, Mortality.

VT was statistically similar to the US rate in 2016: Age Adjusted Drug OD Death Rates



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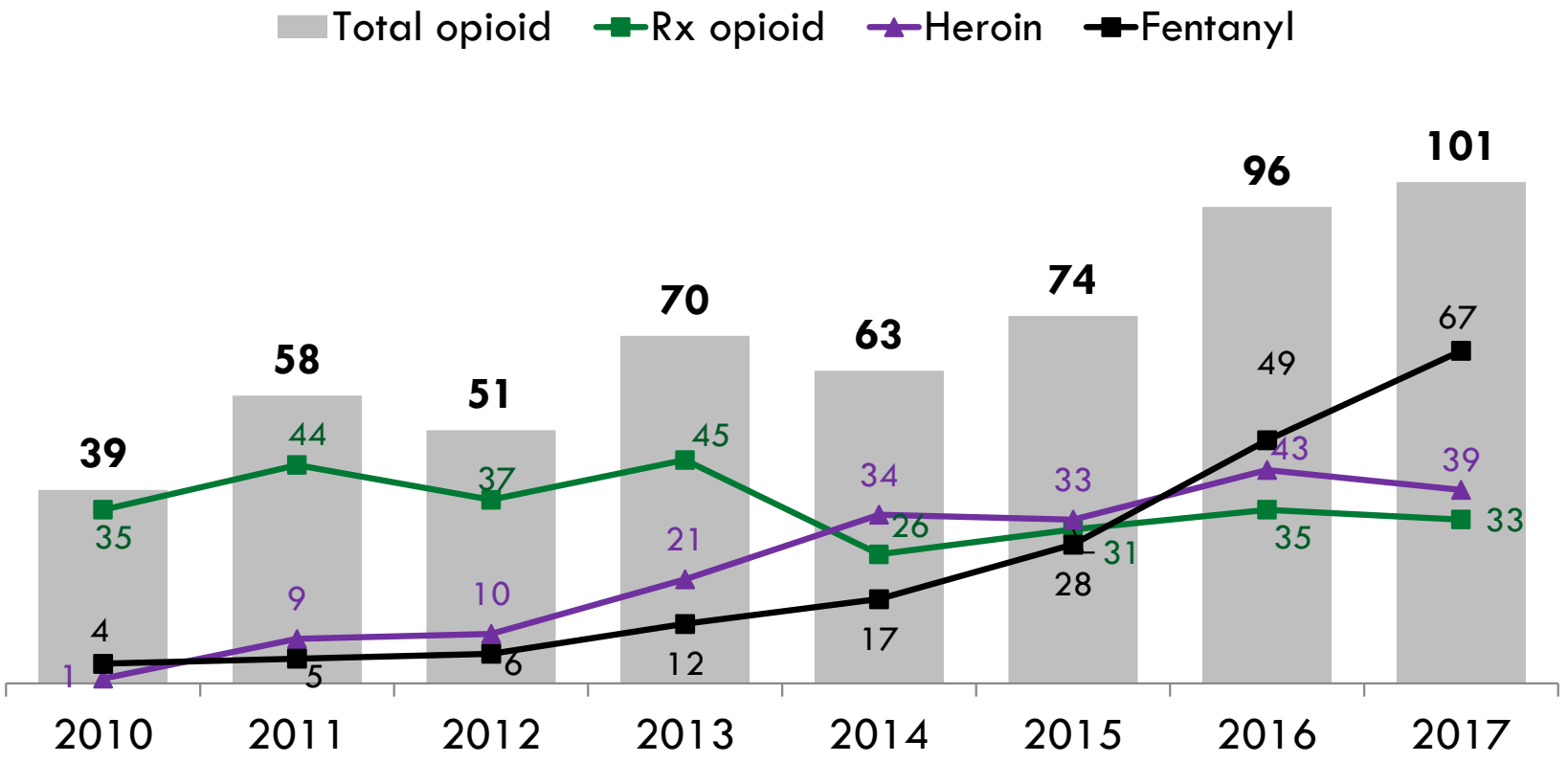
SOURCE: NCHS, National Vital Statistics System, Mortality.

Drug-Related Fatalities Involving Opioids

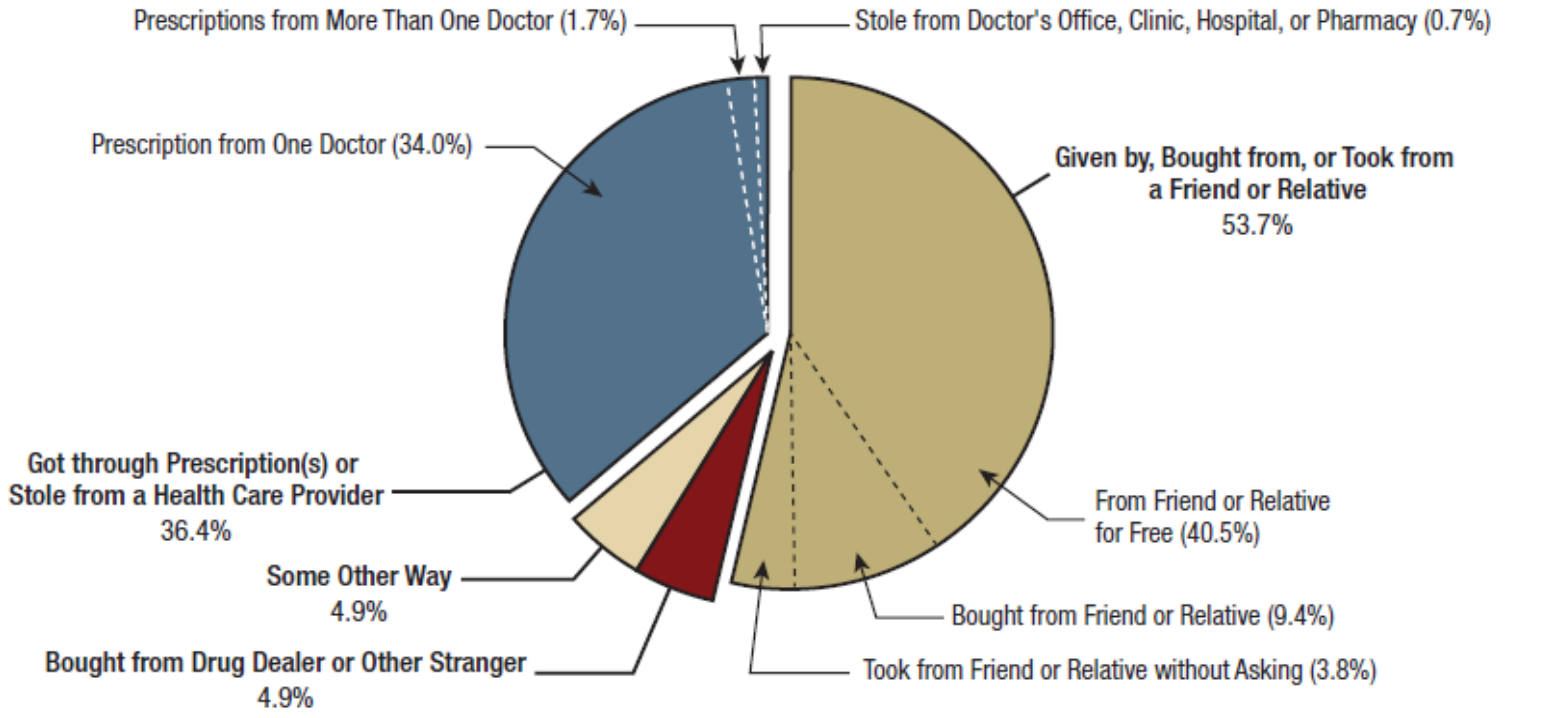
Total number of accidental and undetermined manner drug-related fatalities involving an opioid
(categories not mutually exclusive)



Source: Vermont Department of Health Vital Statistics System

Nationally, over half of those who misused a prescription pain reliever got it from a friend or relative

Figure 24. Source Where Pain Relievers Were Obtained for Most Recent Misuse among People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year: Percentages, 2015

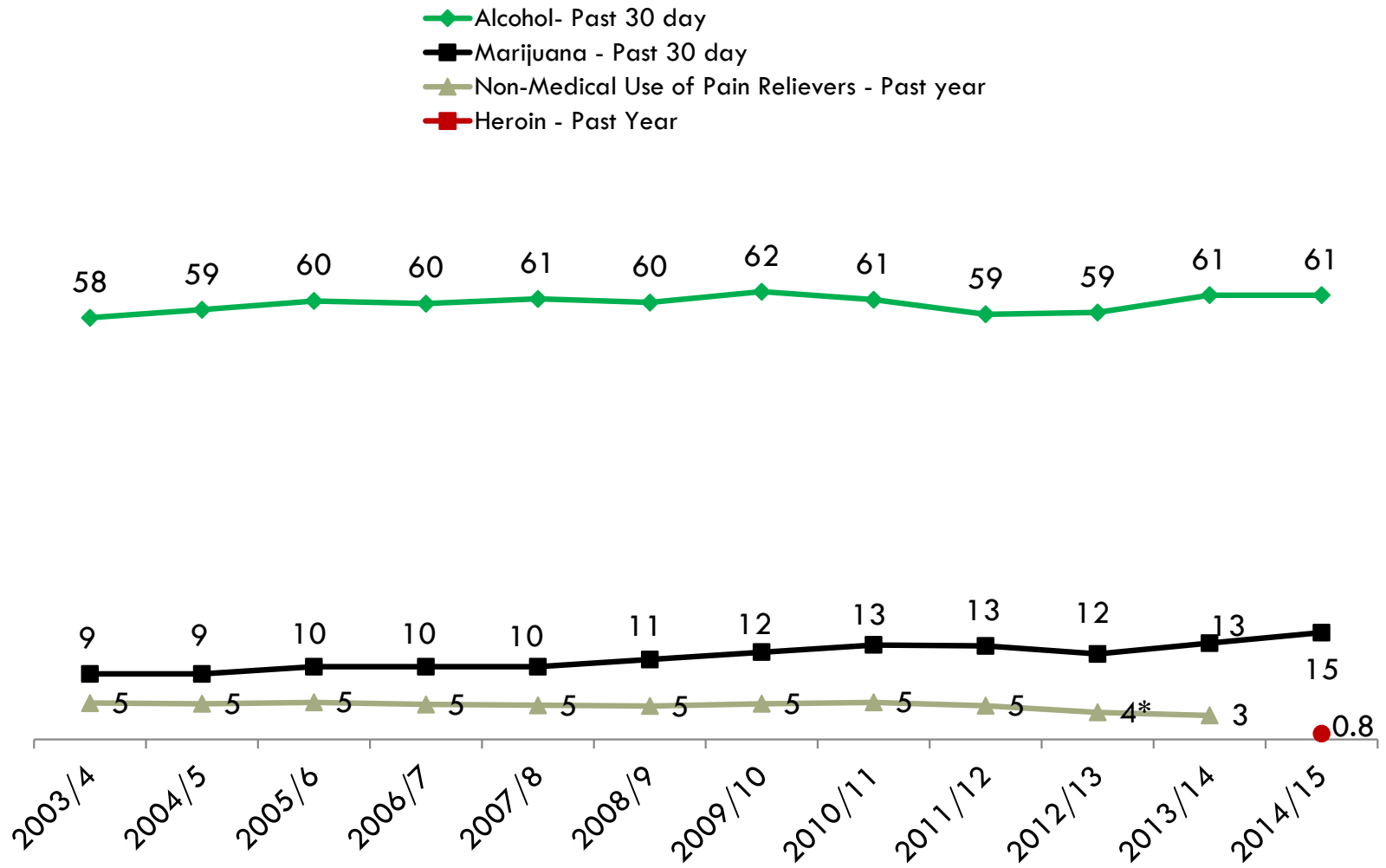


Note: The percentages do not add to 100 percent due to rounding.

Note: Respondents with unknown data for the Source for Most Recent Misuse or who reported Some Other Way but did not specify a valid way were excluded.

Source: National Survey on Drug Use and Health, 2015

Substances Used by Vermonters Ages 12+ by Substance Type

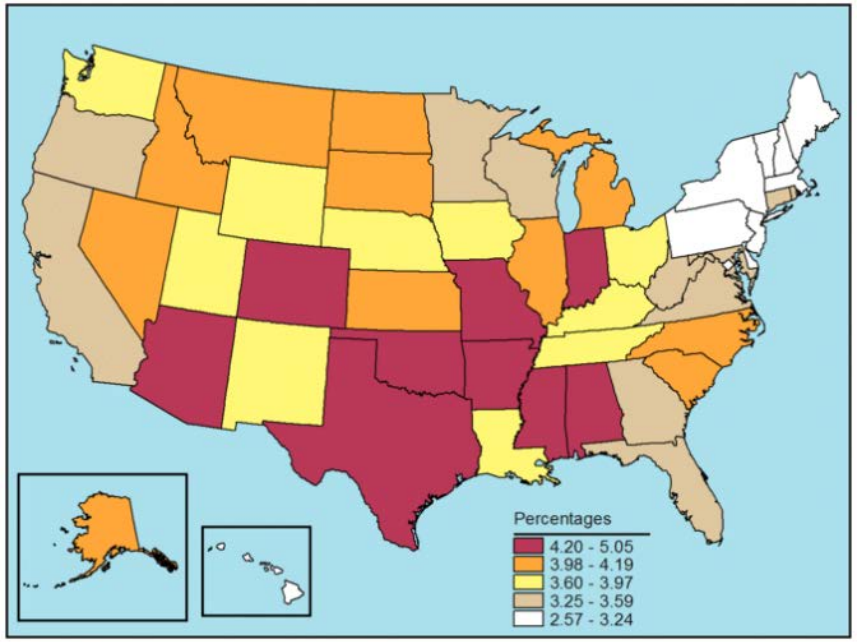


Source: National Survey on Drug Use and Health, 2002-2015
Note: * delineates a significant drop since 2011/2012 ($p<0.05$)

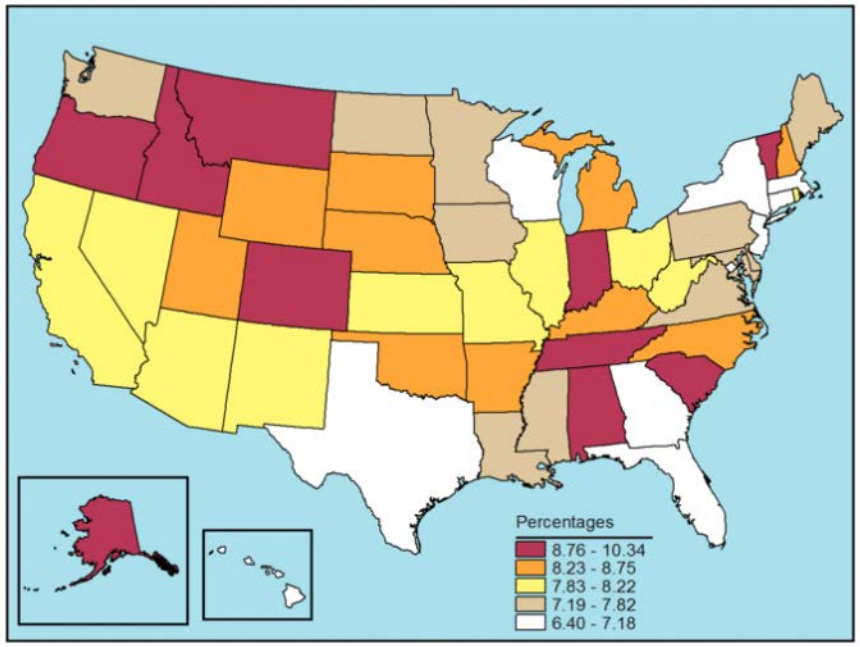
Past Year Pain Reliever Misuse by State: Percentages

Annual Averages Based on 2015 and 2016 NSDUH Surveys

Past Year Pain Reliever Misuse Age 12-17



Past Year Pain Reliever Misuse Age 18-25



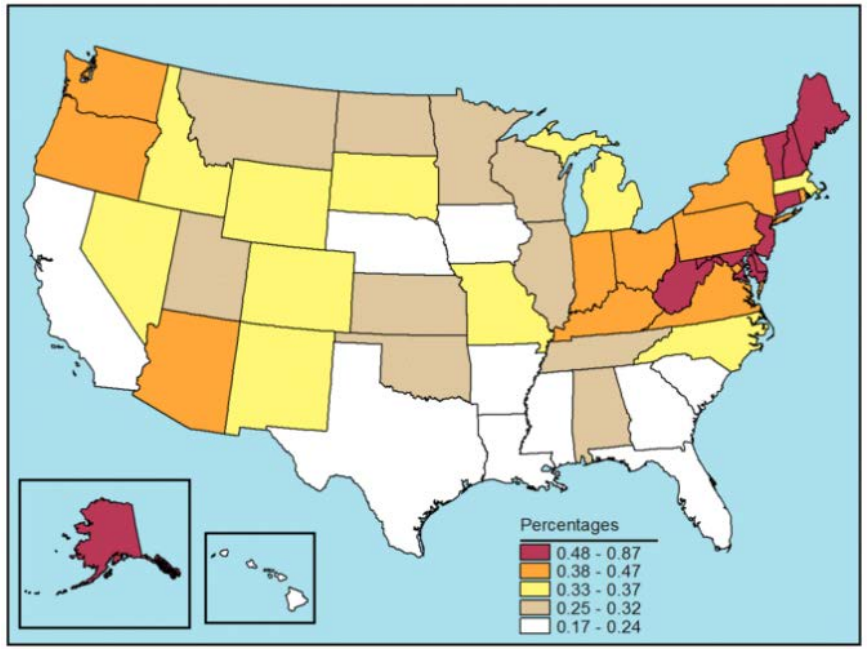
Vermont kids 12-17 have among the lowest rates of past year pain reliever misuse; those age 18-28 have among the highest

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2015 and 2016

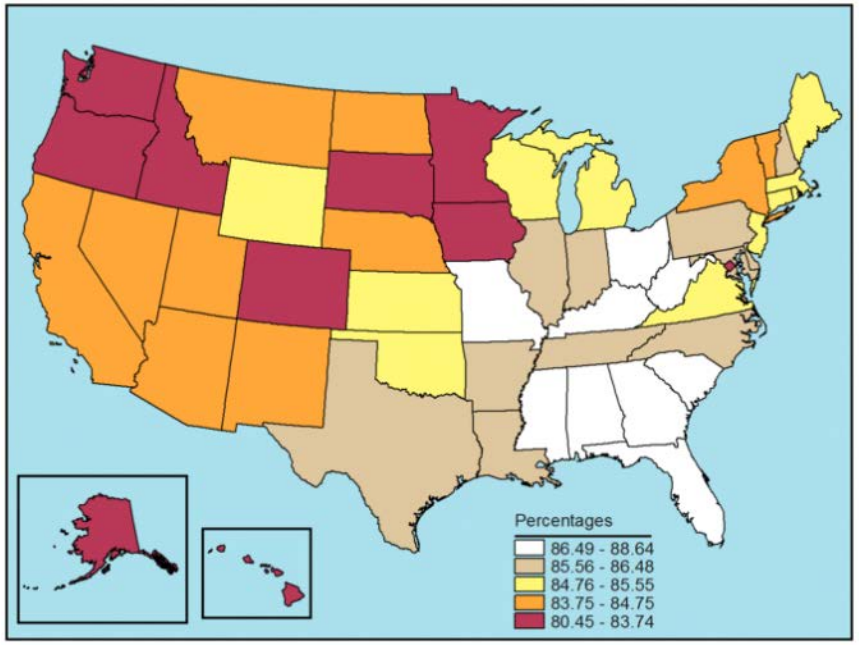
Past Year Heroin Use and Perceptions of Great Risk Aged 12 or Older, by State: Percentages

Annual Averages Based on 2015 and 2016 NSDUH Surveys

Past Year Heroin Use



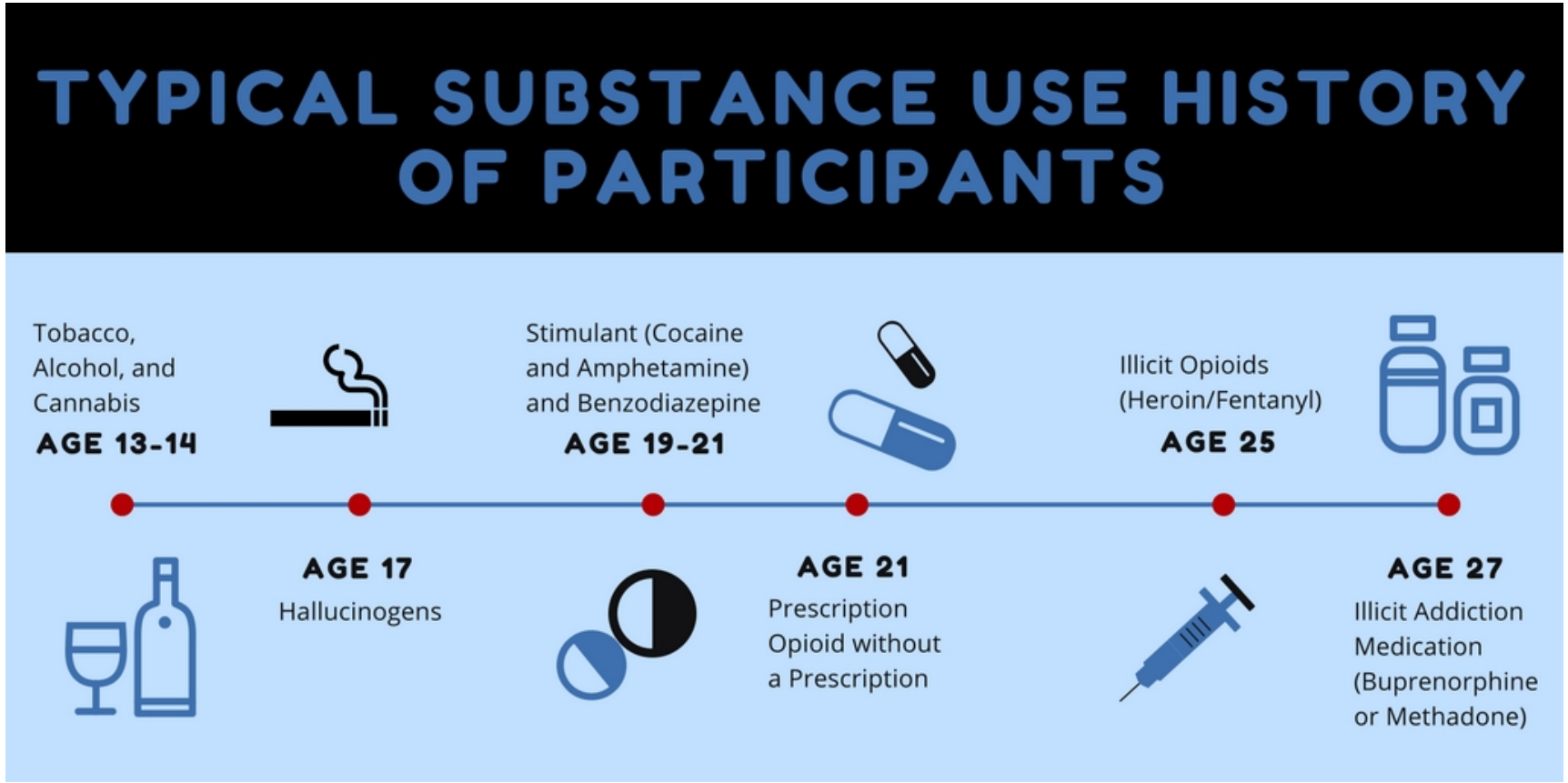
Perception of Great Risk of Trying Heroin Once or Twice



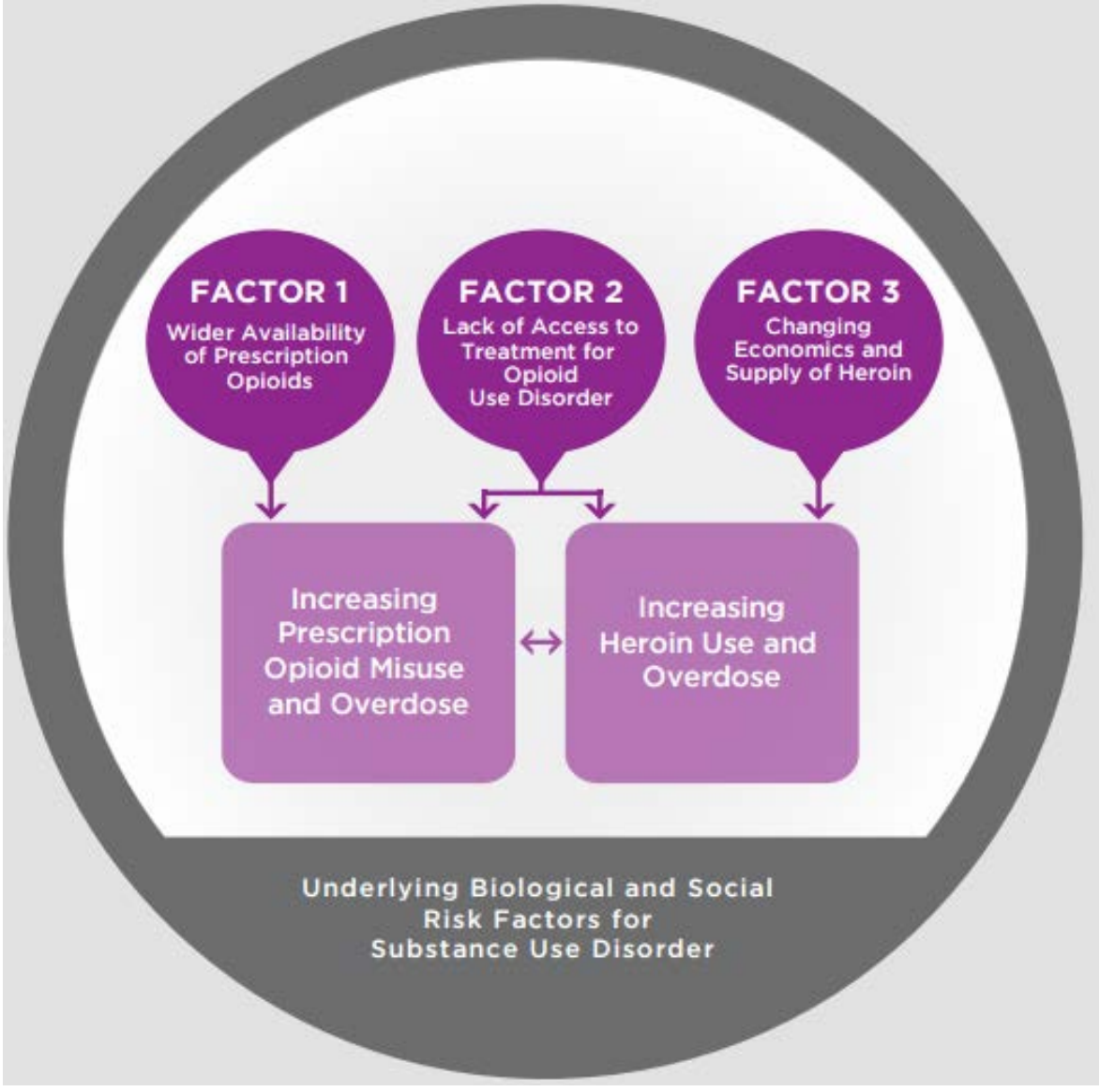
Vermonters have the highest use of heroin and amongst the lowest perception of great risk of trying heroin once or twice.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2015 and 2016

Hub & Spoke Evaluation: Participants



Major Factors Driving the Prescription Opioid and Heroin Epidemic

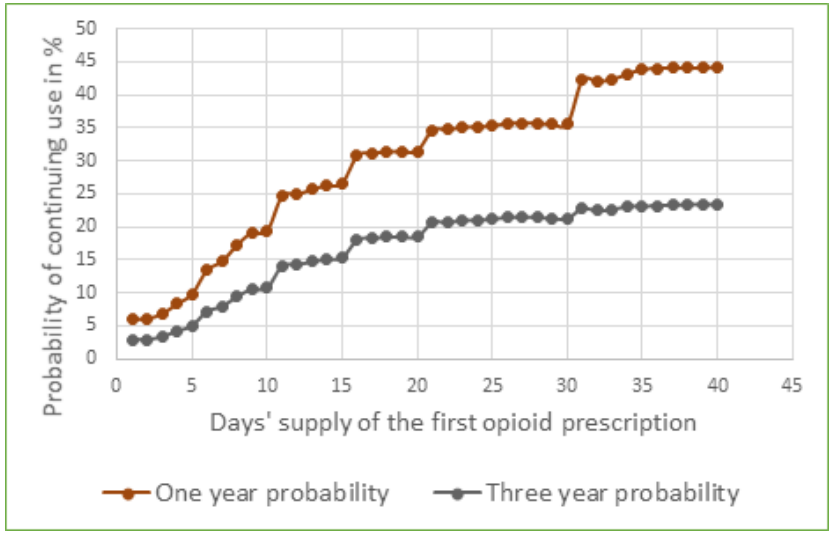


Source: NGA

The more opioids prescribed during the first episode of opioid use, the greater the likelihood of continued opioid use

Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015

One- and 3-year probabilities of continued opioid use among opioid-naïve patients, by number of days' supply* of the first opioid prescription — United States, 2006–2015



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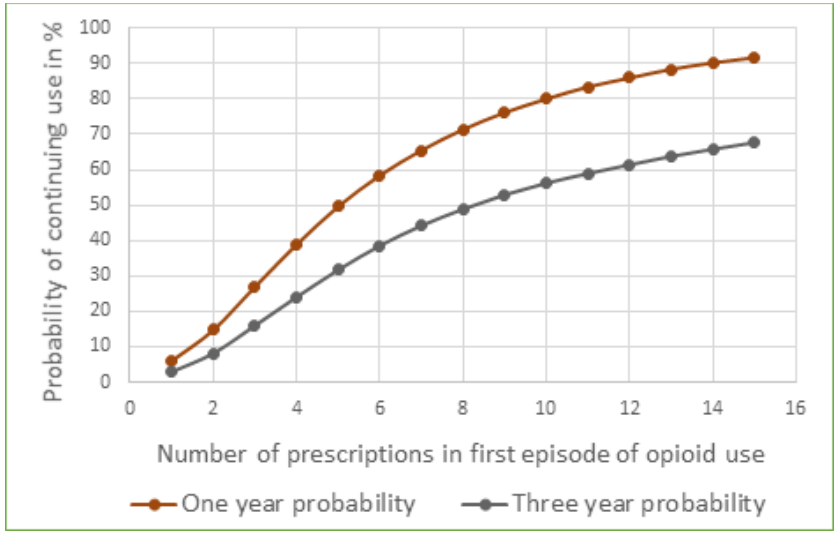
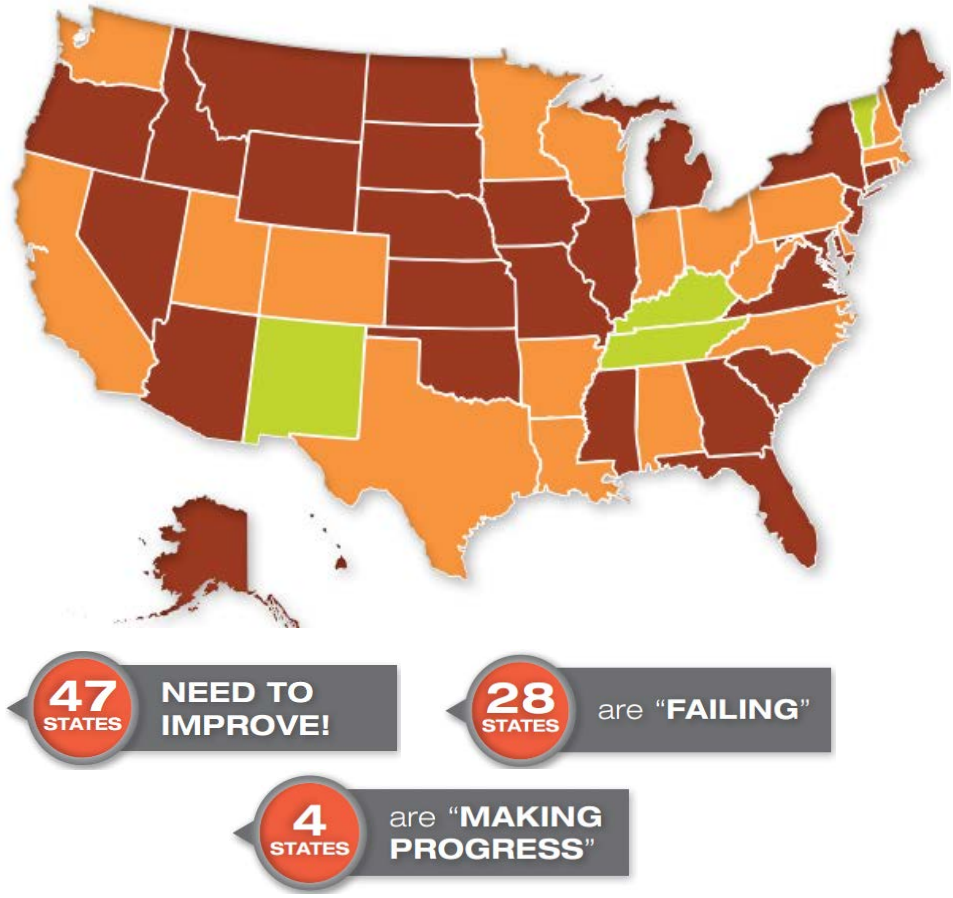


Source: Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. MMWR Morb Mortal Wkly Rep 2017;66:265–269. DOI: http://dx.doi.org/10.15585/mmwr.mm6610a1.

What is Vermont Doing?

The National Safety Council Categorized Vermont as One of Four States Making Progress in Strengthening Laws and Regulations Aimed at Preventing Opioid Overdose



Areas Assessed:

- Mandatory Prescriber Education
- Opioid Prescribing Guidelines
- Eliminating Pill Mills (VT doesn't have them but also doesn't have legislation to eliminate/prevent them)
- Prescription Drug Monitoring Programs
- Increased Access to Naloxone
- Availability of Opioid Use Disorder Treatment

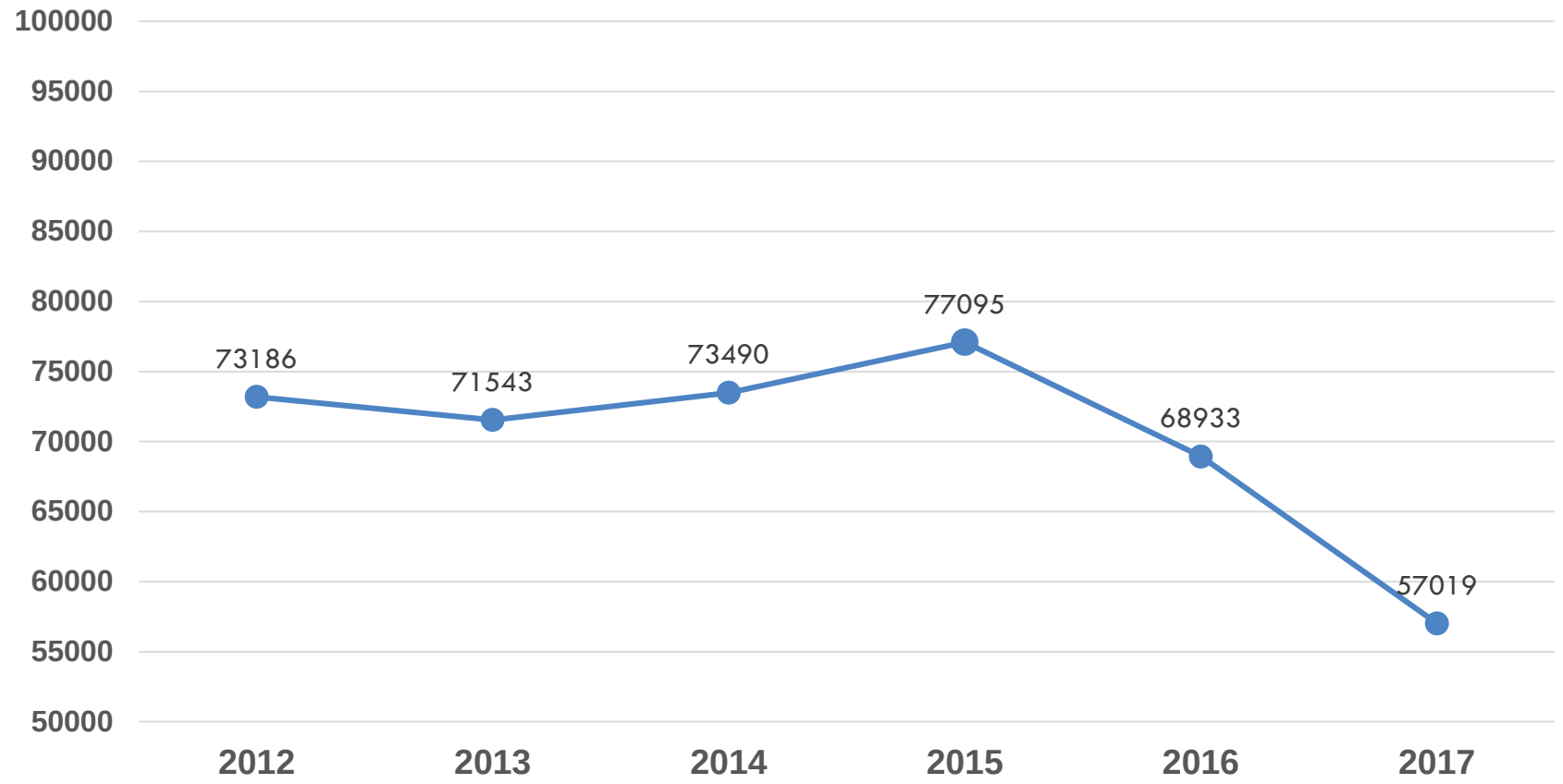
In Place	Not in Place

Elements of a High Functioning State Response to the Opioid Crisis

Prevention

- Pain management and prescribing practices:
  - Pain management core competency education for practicing clinicians, students, graduate medical education, dental, etc.
  - Prescriber rules, guidelines and tools
  - Prescription Drug Monitoring Program – clinical, surveillance, and self-monitoring system. Enhancements include interstate data sharing and quality improvement tools.
  - Use of effective evidence-based pharmacologic and non-pharmacologic alternatives to opioids for pain management

Fewer Opioid Pain Relievers are Being Dispensed in Vermont - Total MME Opioid Analgesics per 100 Residents



Note: Prior to rescheduling tramadol was not reported to VPMS. On August 14, 2014 tramadol was changed from a schedule V to a schedule IV drug. There was a 26% decrease in dispensed opioids between 2015 and 2017, years that include tramadol.

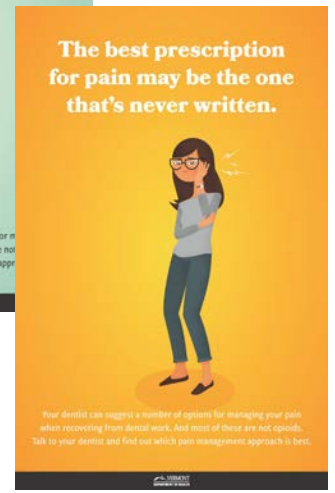
Data Source: VPMS

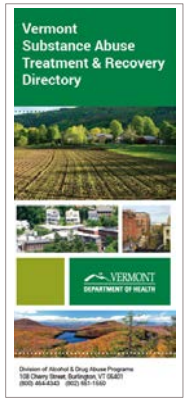
Elements of a High Functioning State Response to the Opioid Crisis

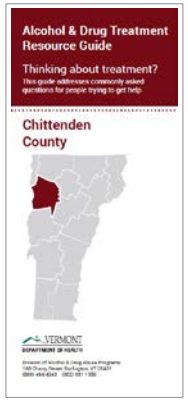
Prevention

- Public Level:
  - Messaging campaigns/education to raise awareness and address stigma
  - Evidence-based strategies to strengthen family environments for at-risk children
  - School-based primary prevention programs
  - Build collaboration across state agencies
  - Community mobilization including developing and expanding community coalitions
  - Payment mechanisms for non-pharmacologic services for pain management

Communications & Marketing







Elements of a High Functioning State Response to the Opioid Crisis

- Intervention and Treatment
  - Screening, intervention, and referral to treatment in medical settings (SBIRT)
  - Widely available evidence-based outpatient Medication Assisted Treatment (MAT) with methadone, buprenorphine or naltrexone:
    - Health Home model: integrate and coordinate primary, acute, behavioral health, and long-term services and supports, or
    - With added counseling services and treatment for poly substance use
    - Effective use of Medicaid design, reimbursement, waivers, health homes
  - Residential treatment, with or without MAT, where clinically indicated
  - Non-MAT outpatient treatment, where clinically indicated

Care for Opioid Use Disorder – the "Hub"

"HUB" A *Hub* is a specialty regional treatment center responsible for coordinating the care of individuals with complex opioid use disorder across the health and substance abuse treatment systems of care. All Medications are dispensed. A *Hub* is designed to do the following:

- Provide comprehensive assessments and treatment protocols.
- Provide medication (methadone, buprenorphine, and/or vivitrol) treatment and supports.
- For clinically complex clients, initiate medication treatment and provide care for initial stabilization period.
- Coordinate referral to ongoing care.
- Provide specialty addictions consultation and support to ongoing care.
- Provide ongoing coordination of care for clinically complex clients.

- Five Programs Operate 9 Sites Across Vermont

Care for Opioid Use Disorder – the "Spoke"

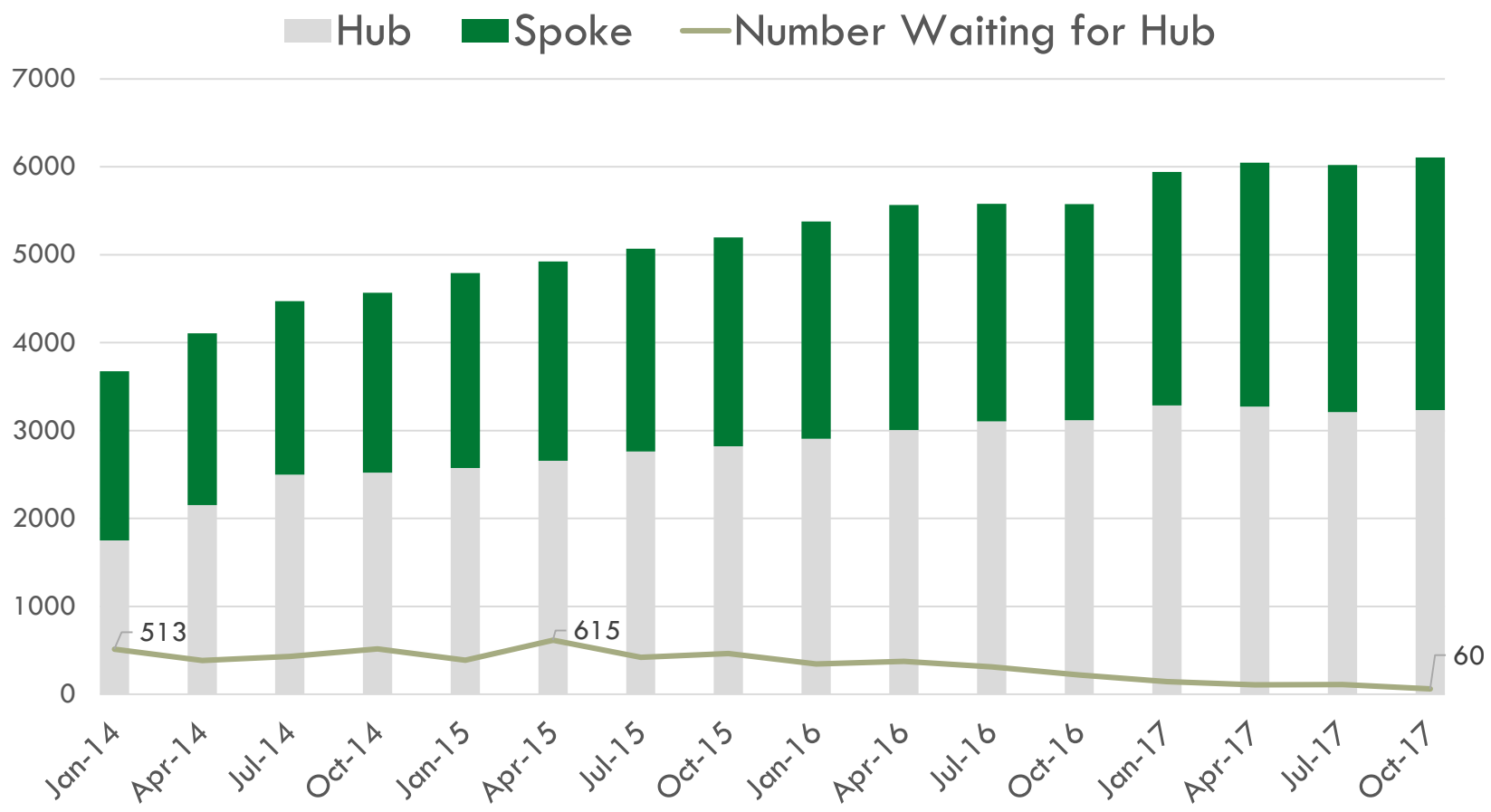
"SPOKE"

A *Spoke* is the ongoing care system comprised of a prescribing MD, APRN, or PA and collaborating health and addictions professionals who monitor adherence to treatment, coordinate access to recovery supports, and provide counseling, contingency management, and case management services. *Spokes* can be:

- Primary care offices
- Outpatient substance abuse treatment programs
- Pain clinics
- OB-GYN offices
- Independent psychiatry practices

- Spoke Teams include the prescribing provider and 1 FTE RN + 1FTE MH/SU Counselor for every 100 patients
- 80 different practices / programs are Spoke sites in Vermont

Number of people receiving MAT in hubs and spokes vs number waiting for services over time



Source: Hub Census and Waitlist, Medicaid Claims for Spokes

Self-Reported Changes in Opioid Use: T1 to T2

Opioid use decreased substantially for people in both hubs and spokes. Those not in treatment continued to use at high levels.

Measure	In Treatment		Out of Treatment	
	Change in Ave Days Used	Percent Using at T_2	Change in Ave Days Used	Percent Using at T_2
Days of Opioid Use	-96% ⬇	15%	+12%	100%
Days of Opioid Injection	-92% ⬇	11%	-1%	85%

⬇ Designates statistically significant change

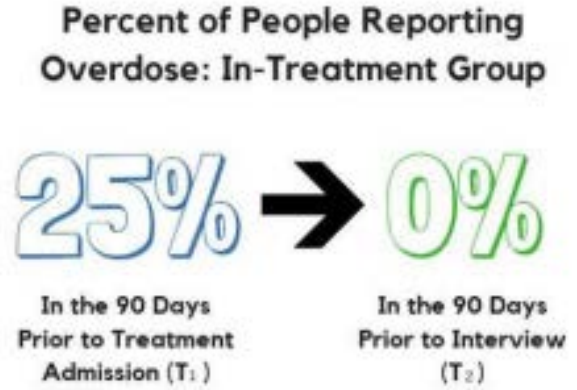
"The hub was really good in a lot of ways because of the structure, the discipline. It makes you get back on track if you want to get back on track." – Hub Patient

"The main support is always they focus on your health and your wellbeing. They always try to make sure you're safe. That's the number one thing, and then your substance abuse, to not using." – Spoke Patient

Self-Reported Changes in Functioning: T1 to T2

There were significant decreases in the number of ED visits, arrests, and days of illegal activity. No study participants overdosed in the 90 days prior to the interview. Days of school or training increased but there was not a significant change in days of work.

Measure	In Treatment Group (n=80)
Number of ED Visits	-89% ⇓
OD in the previous 90 days	-100% ⇓
Days of school or training	+257% ⇑
Days of work	+8%
Number of police stops or arrests	-90% ⇓
Days of illegal activity	-90% ⇓



The out of treatment group is excluded because there were no significant changes

⇅ Designates statistically significant change

DVHA/Blueprint Cost Analysis

- "Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization Rates in Vermont" published in the Journal of Substance Abuse Treatment (August 2016)
  - Highlights:
    - Higher MAT treatment costs offset by lower non-opioid medical costs
    - MAT associated with lower utilization of non-opioid medical services
    - MAT suggested to be cost-effective service for individuals addicted to opioids
  - https://www.ncbi.nlm.nih.gov/pubmed/27296656

Elements of a High Functioning State Response to the Opioid Crisis

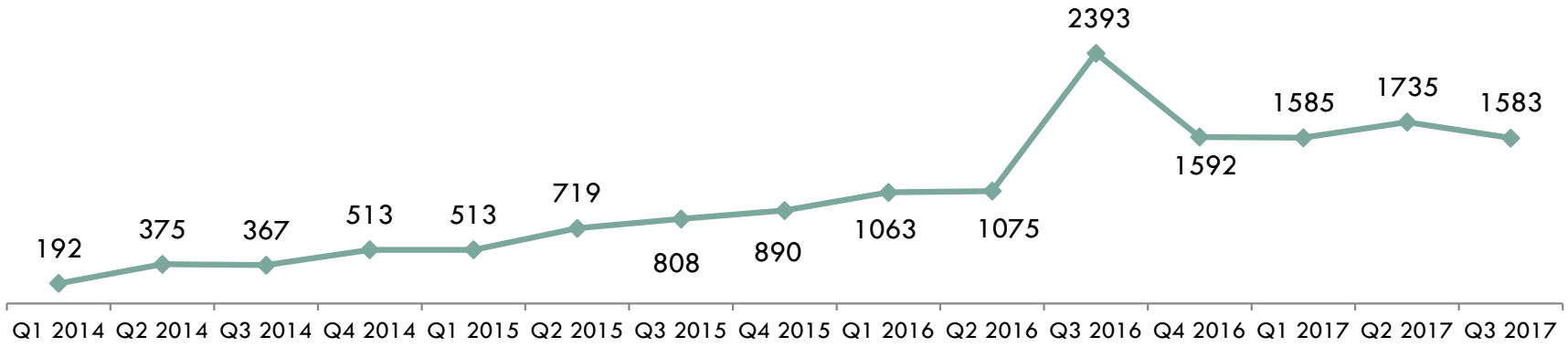
- Intervention and Treatment, cont'd.
  - Expand rapid access to MAT in EDs and other medical settings
  - Peer recovery coaches in ED and hospitals
  - MAT for incarcerated individuals and treatment referral at release
  - Specialty treatment services for pregnant women and their infants
  - Expand numbers of clinicians obtaining training and authority for MAT
  - Expand team-based care, licensed counseling and case management workforce
  - Use drug courts as a vehicle to MAT
  - Develop telehealth programs to increase access to care in rural/underserved areas

Elements of a High Functioning State Response to the Opioid Crisis

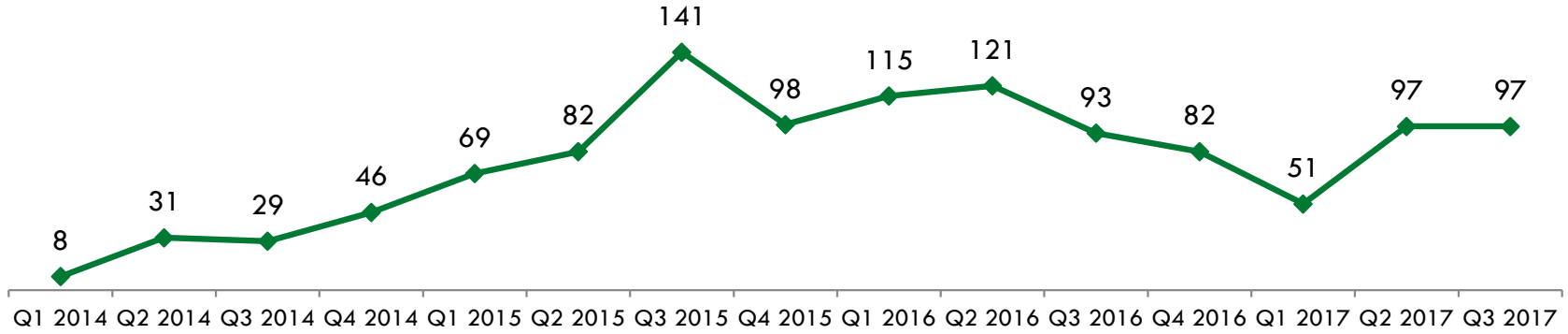
- Harm-reduction strategies:
  - Drug disposal systems; safe storage guidelines
  - Sharps collection and disposal programs
  - Naloxone distribution programs/training for first responders and the public
  - Naloxone standing order
  - Good Samaritan Law
  - Syringe services programs
  - Increase screening and treatment for co-occurring depression, suicidal ideation, anxiety, PTSD
  - Emerging but not yet widely adopted initiatives: fentanyl test strips, safe injection facilities

Naloxone

Number of rescue kits distributed to community members



Reports of naloxone use in response to a perceived overdose incident



In July of 2016, VDH slowly began to switch to distributing naloxone in new packaging – demand for the new kits was high. Dose in the new kit is twice that of the old kit.

Source: Vermont Department of Health Naloxone Pilot Program

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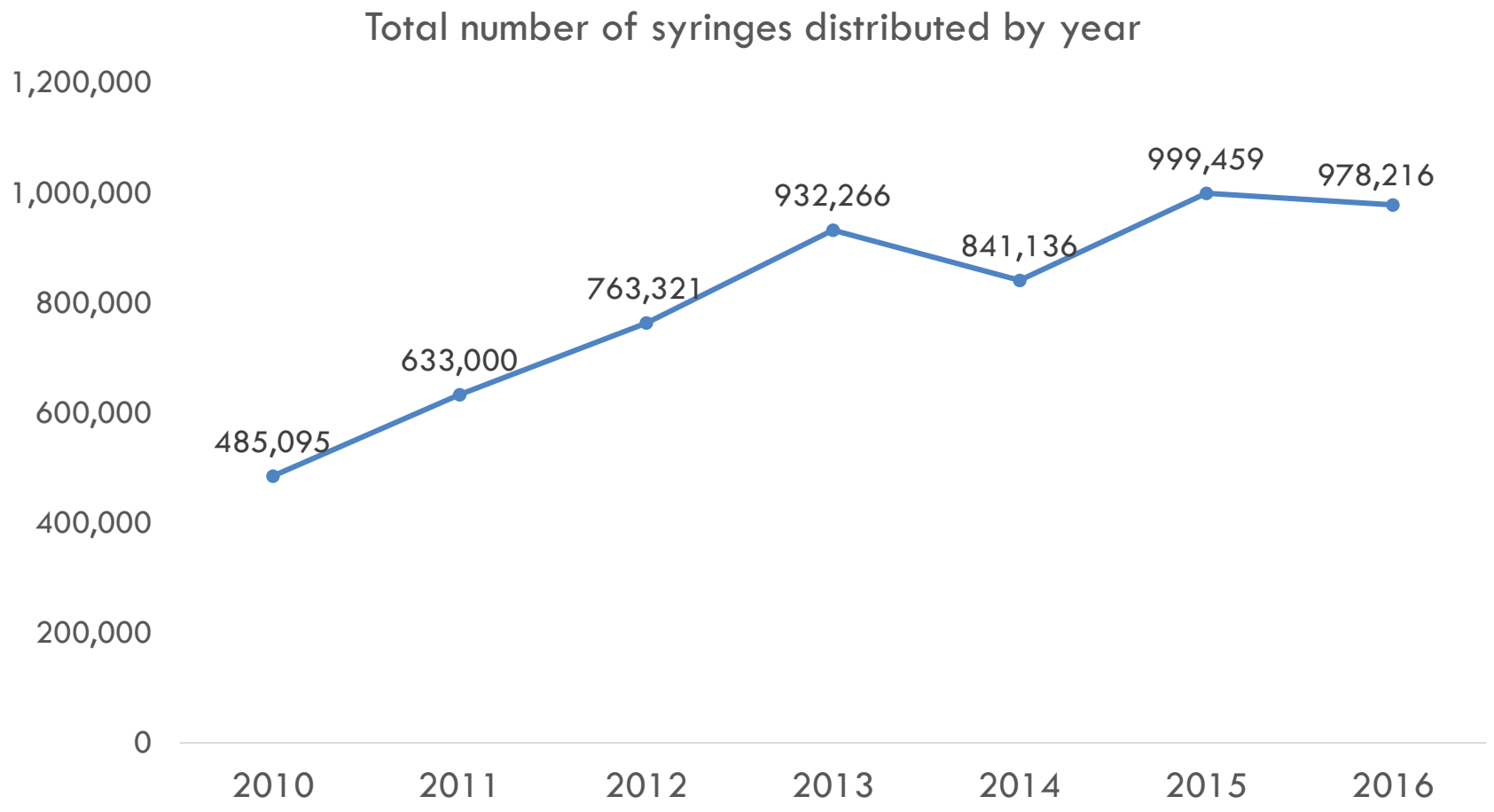
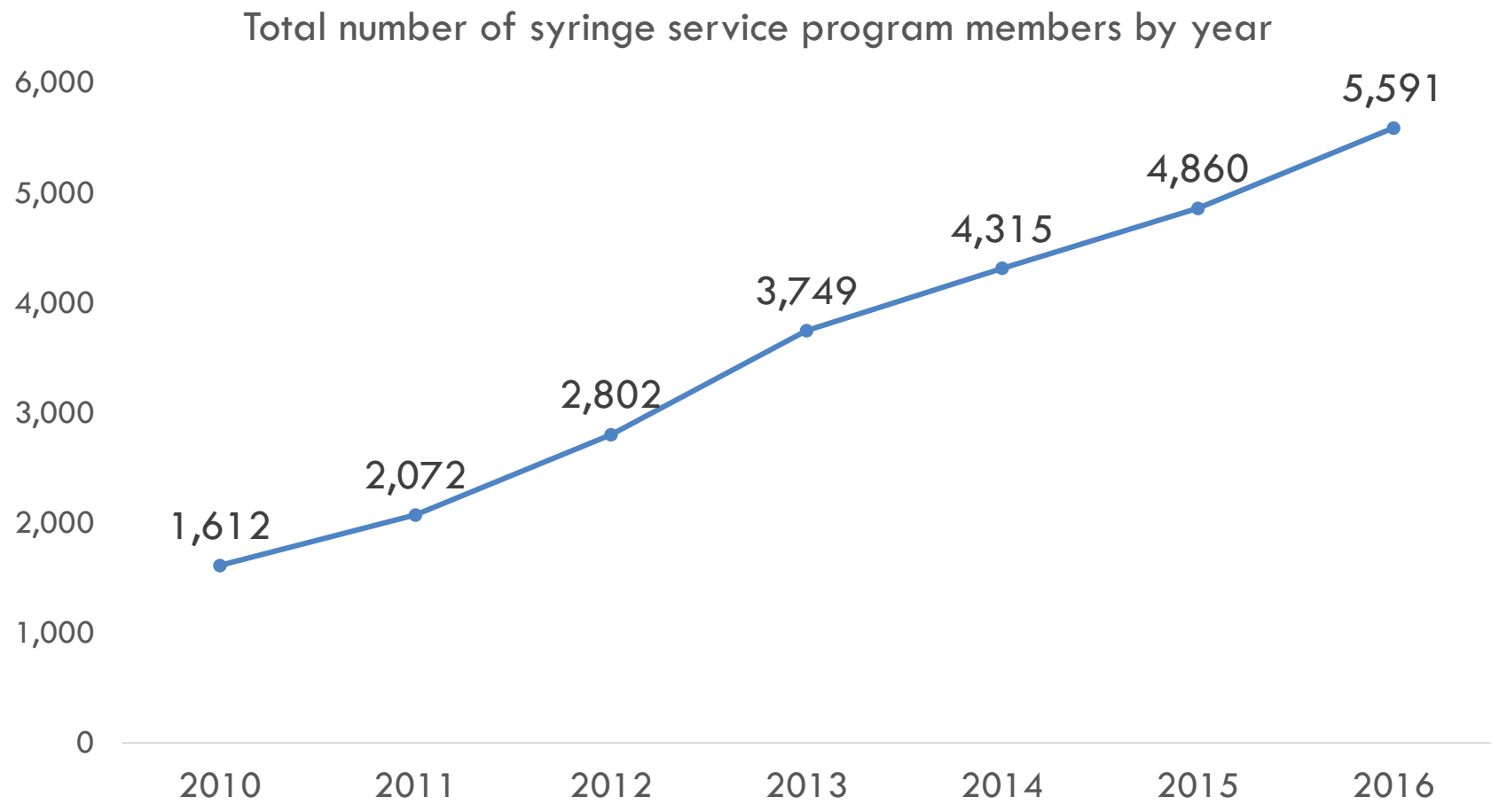
Syringe Service Distribution



Syringe Service Program Members



Elements of a High Functioning State Response to the Opioid Crisis

Recovery

- Statewide network of recovery centers with a wide variety of supports and services
- Peer recovery coach training and use
- Access to stable recovery housing
- Employment supports and opportunities for individuals in recovery