

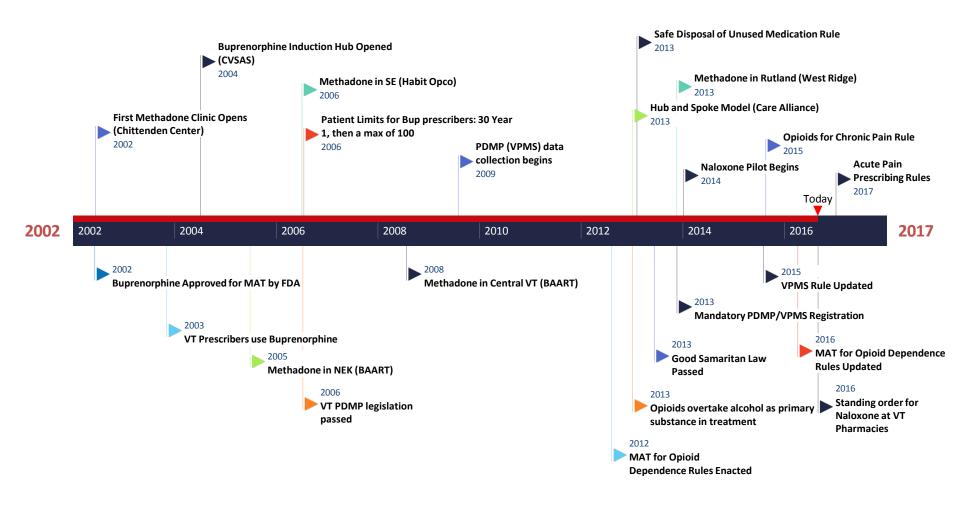
# Addressing Opioid Use Disorder in Vermont

## Barbara Cimaglio, Deputy Commissioner, Alcohol and Drug Abuse Programs



October 2017

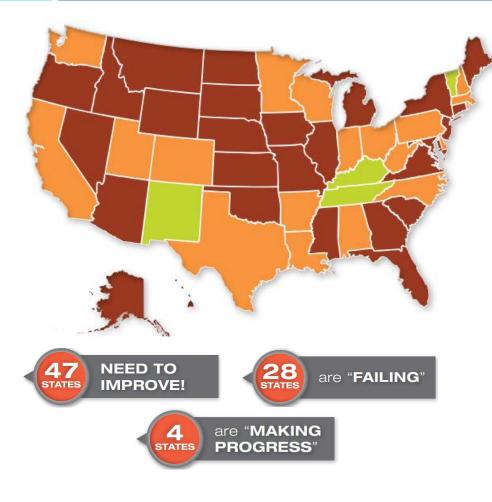
# Timeline: Addressing Opioid Misuse and Addiction in Vermont





## Vermont compared to National, Regional, and Best Practice Data

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

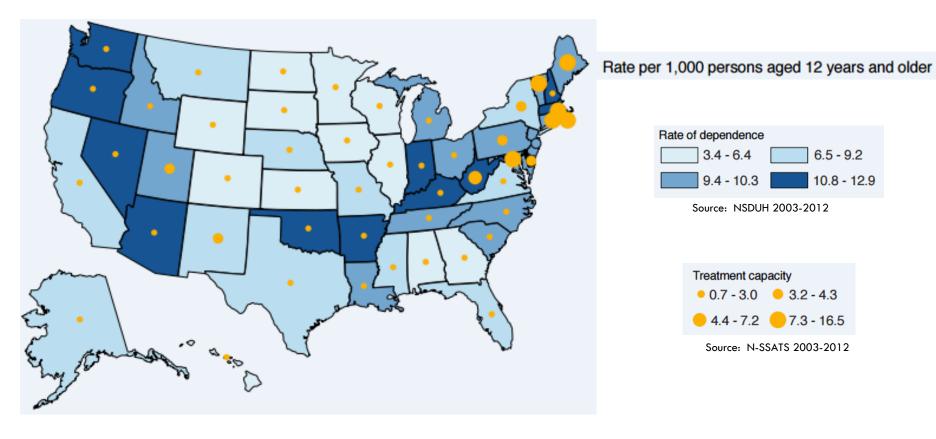


## Areas Assessed:

- 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



Rate of Past Year Opioid Abuse or Dependence\* and Rate of Medication Assisted Treatment Capacity with Methadone or Buprenorphine



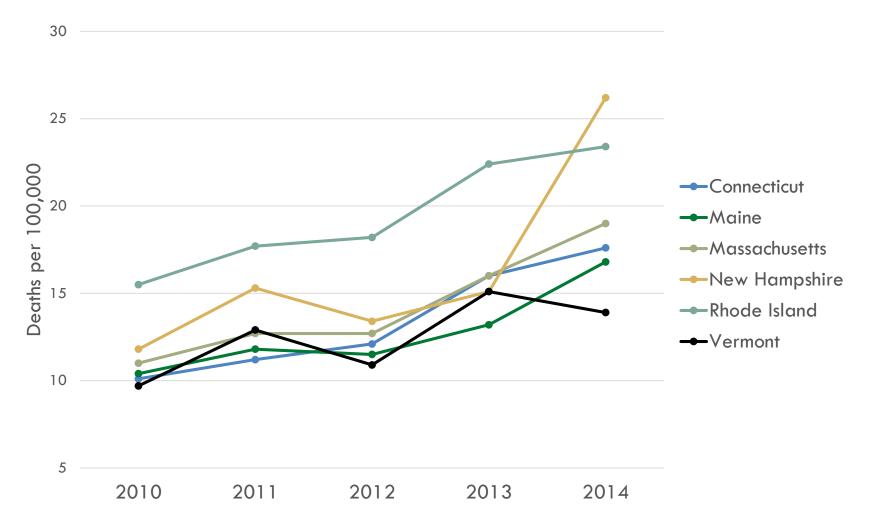
\*Opioid abuse or dependence includes prescription opioids and/or heroin Source: AJPH 2015; 105(8):e55-63

# All drug overdose deaths per 100,000 people decreased between 2013 and 2014

Percent change in deaths per 100,000 people 2013 to 2014 80.0% 73.9% 70.0% 60.0% 50.0% 37.3% 40.0% 30.0% 18.8% 20.0% 10.0% 10.0% 4.5% NH MA ME СТ 0.0% VT RI -10.0% -7.9% -20.0%

Source: CDC/NCHS, National Vital Statistics System, mortality data. Includes opioids and other drugs

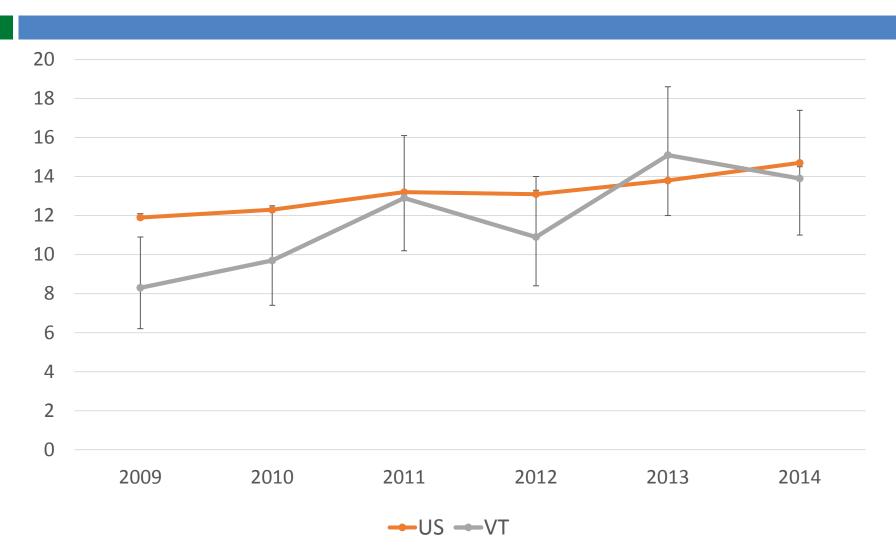
# New England Drug Overdose Deaths by State and Year



Vermont Department of Health

Source: CDC/NCHS, National Vital Statistics System, mortality data. Includes opioids and other drugs 7

# Except for 2009, the Vermont Drug Overdose Rate per 100,000 is Not Statistically Significantly Different than the US



Source: CDC/NCHS, National Vital Statistics System, mortality data. Includes opioids and other drugs

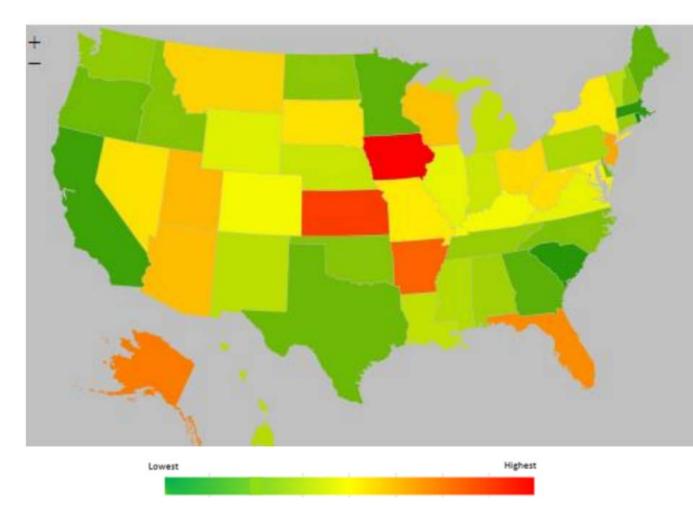
#### Statistically significant drug overdose death rate increase from 2013 to 2014, US states



Vermont Department of Health

Source: CDC/NCHS, National Vital Statistics System, mortality data. Includes opioids and other drugs.

Private Payer Average Cost per Person\* with opioid use disorder in Vermont is lower than many other states



Average national private payer cost per person\* with OUD in 2015 was \$63,356

Average Medicaid cost per person<sup>\*</sup> participating in the Hub and Spoke system of care in Vermont in 2015 was \$16,402

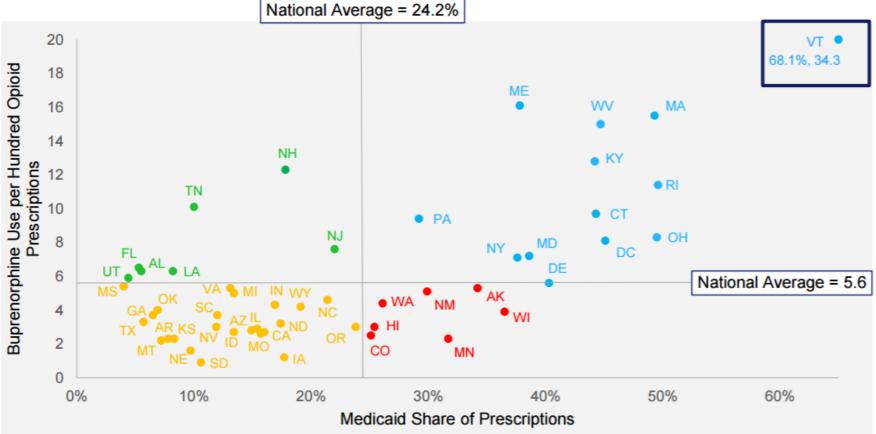
\*All claims associated with the patient regardless of diagnosis

#### Vermont Department of Health

Source: A FAIR Health White Paper, September 2016

Vermont has much higher access to buprenorphine both in the number of people receiving and the level of Medicaid Support

#### State Level Comparison of Relative Buprenorphine Use and Public Funding



Source: IMS Institute for Healthcare Informatics, June 2016; see Appendix for full data

In Vermont, Medicaid funding is used by patients filling 68.1% of total buprenorphine

#### prescriptions.

Vermont Department of Health

Source: IMS Institute for Healthcare Informatics, September 2016

# **CDC Prevention Status Reports Ranking**

Measure	CDC Rating of Vermont	Subsequent Action	
Requirement for timely data submission to prescription drug monitoring program	Yellow More than 24 hours but within one week	Act 173 (2016) requires dispensers to report within 24 hours which is consistent with a "green" ranking. This will be implemented in 2017.	
Requirement for universal use of state prescription drug monitoring program	VT has overly broad exceptions to use requirements.Prescribers are not required to consult the PDMP before initial opioid prescriptions, OR such a requirement does exist but there is no required subsequent check and/or the policy includes subjective standards or broad exceptionsLaws that applied only to limited classes of providers (e.g., only opioid treatment programs or pain clinics) or that had overly broad exceptions (e.g., exempting prescriptions lasting 90 days or less), were not deemed as requiring PDMP checks in this report and were	Act 173 (2016) requires licensing authorities to develop standards for acute and chronic pain. In order to be ranked "green", prescribers must consult VPMS before initially prescribing opioid pain relievers and benzodiazepines, and at least every three months thereafter.	

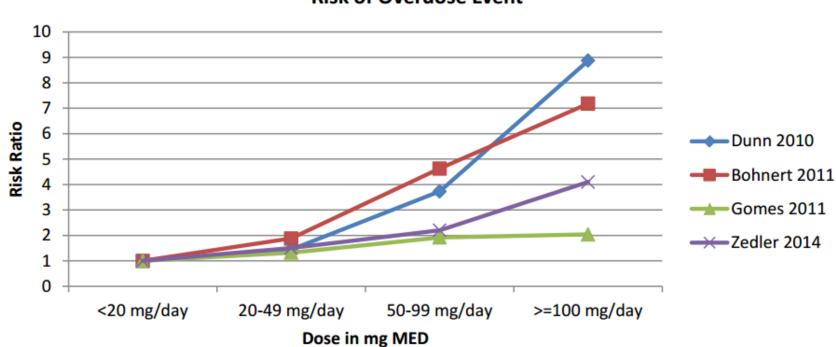


# Relationship between Nonmedical Prescription-Opioid Use and Heroin Use

- Increases in heroin use preceded efforts to address prescription opioid abuse and addiction
  - Prescription monitoring programs
  - Law enforcement/regulatory
  - Abuse-deterrent formulations of prescription opioids
  - Public education campaigns
- People engaged in the non-medical use of prescription opioids rarely use heroin
- □ Primary causes in increase in heroin use & associated overdoses
  - Lower market prices
  - Higher purity for heroin

Source: Compton WM., Jones CM, Baldwin GT. Relationship between Nonmedical Prescription-Opioid Use and Heroin Use. N Engl J Med 2016; 374:154-163. http://www.nejm.org/doi/full/10.1056/NEJMra1508490

# Higher doses of prescription painkillers increase risk of overdose



**Risk of Overdose Event** 

MED = Morphine equivalent dose

15



# **Retrospective System Evaluation**

□ Assessment of the Hub and Spoke system on:

Clinical impact of the hub and spoke system

- Change in client functioning substance use, mental health, quality of life, living situation, employment, criminal activity
- Patient and family perception of services
  - Interview process
- Access to Care

Telephone survey of individuals waiting for services

□ Evaluation Cost: \$199,200

Timing: Began 8/2016. Results expected 1/2018

# Proposed Prospective System Evaluation

- Differs from Retrospective Evaluation because participants are recruited at admission to care with follow completed at 6 and 12 months thereby removing error related to client recall
- Clinical impact of the hub and spoke system
  - Change in client functioning substance use, mental health, quality of life, living situation, employment, criminal activity
- Expected Evaluation Cost: \$1,500,000 plus associated indirect rate (for UVM it's approx. 50%)
  - Currently seeking funds to allow this evaluation to be completed
  - Timing: Approximately 3 years to complete

# 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

<u>https://www.ncbi.nlm.nih.gov/pubmed/27296656</u>

# DVHA/Blueprint Data Linking

- Cost and service reporting for Medicaid hub and spokes will be complete in December 2016
- Protocols and agreements are being developed to link claims data with other data sources to determine impact of medication assisted treatment on:
  - Corrections involvement
  - Employment

# **Results First**

VDH is reviewing the feasibility of completing a cost/benefit analysis of medication assisted treatment

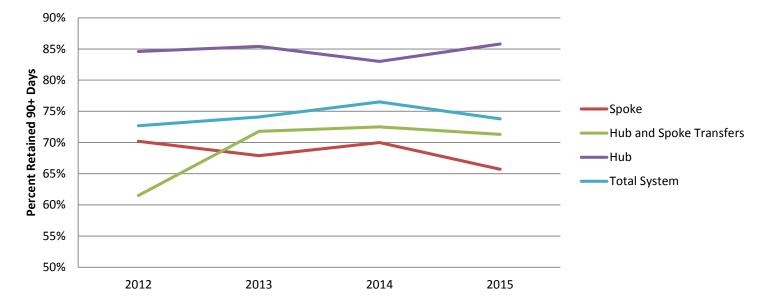
### Steps

- Create inventory of programs
- Review which programs work based on independent research
- Conduct cost/benefit analysis using actual Vermont costs
- Use results to inform spending/policy decisions
- Cost/timeframe: tbd

# Process Measure - Retention

Retention in Treatment - Research indicates that most addicted individuals need at least 3 months in treatment to significantly reduce or stop their drug use and that the best outcomes occur with longer durations of treatment.

> 90 Day Retention Rate for New Hub/Spoke Clients with Continuous Medicaid Enrollment by CY



# CDC Grant Funded Ethnographic Evaluation of Opioid Hard Drug Users in Vermont

- Institutional Review Board approval and formative research completed through July 2016
- Structured interviews of 300+ hard drug users between three locations: Burlington, St. Johnsbury, Brandon completed August – October 2016
  - After interviews are conducted, interviewees are linked to services
- □ Draft report due Feb 2017.

## Patient level surveys of opioid use after surgery

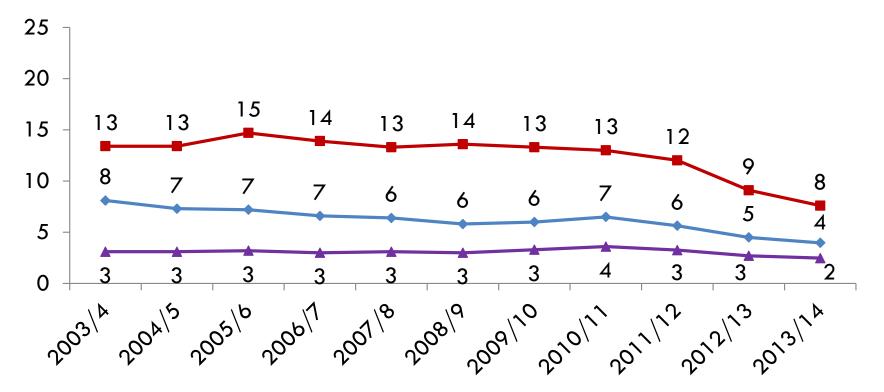
- Dartmouth-Hitchcock researchers estimate that patients need 43% of opioids prescribed after surgery (Sep. 2016)
- UVM is doing similar work. Data collection to end in November 2016



Non-medical use of prescription pain relievers in Vermont

Percent of Vermont population reporting non-medical use of pain relievers in the past year by age in years.

→12-17 →18-25 →26+



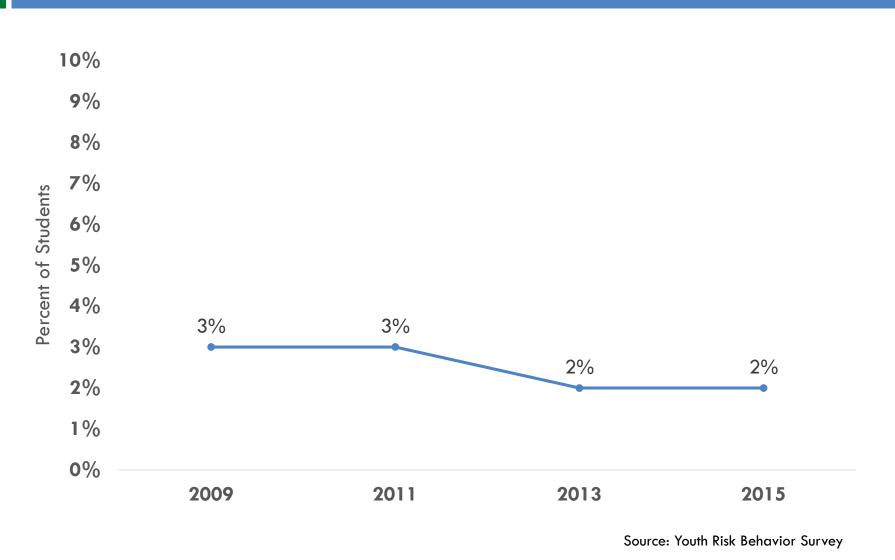
Vermont has one of the lowest rates of past year nonmedical use of prescription pain relievers

In 2013/2014 only two states had lower prevalence rates for people age 12+ compared to 37 in 2010/2011. Number of states (and DC) with **HIGHER** prevalence rates of non-medical use of prescription pain relievers (NSDUH) by age group:

Age	2010/2011	2013/2014
Age 12-17	21	46
Age 18-25	7	38
Age 26+	34	51
All (12+)	14	49

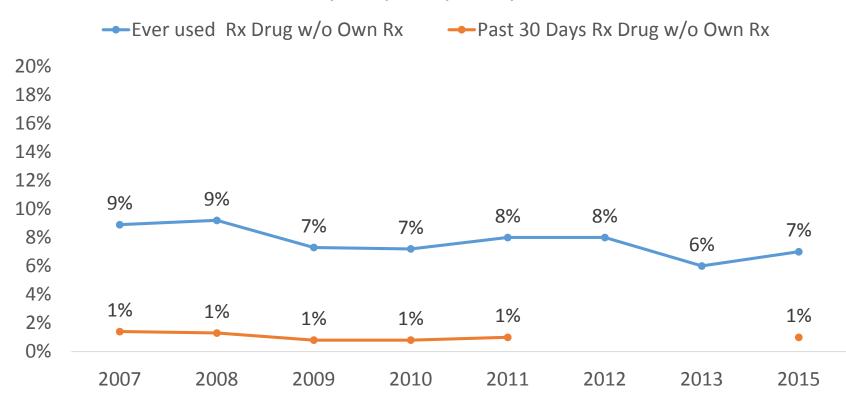
Vermont rates have decreased in all age groups between 2010/2011 and 2013/2014

# Lifetime Heroin Use of 9<sup>th</sup> – 12<sup>th</sup> Graders Has Decreased



### Percent of Adults Who Report Prescription Drug Misuse

#### Percent of adults (18+) who report prescription drug misuse by frequency and year



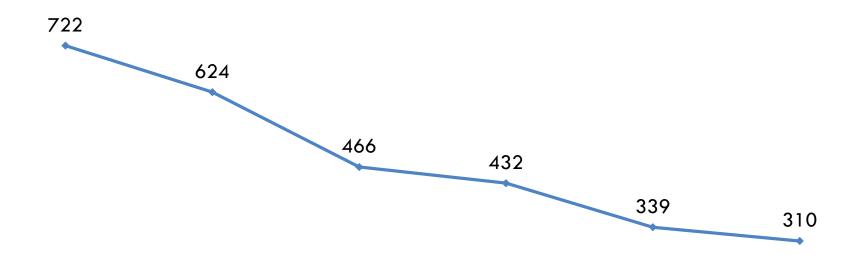
Vermont Department of Health

Source: Behavioral Risk Factor Surveillance System



## VPMS Patients meeting thresholds for proactive reporting

Since 2010, the number of patients identified by VPMS's as visiting multiple prescribers and/or pharmacists has declined steadily.



2010	2011	2012	2013	2014	2015
------	------	------	------	------	------

## Number of Prescriptions by Drug Type and Year

- Opioids account for approximately 48% of the controlled substances dispensed in VT on an annual basis. Sedatives account for approximately 26%.
- The adjusted opioid prescription total indicates that fewer opioid prescriptions were dispensed in 2015

**Total Number of Controlled Substance Prescriptions by Drug Type and Year** 

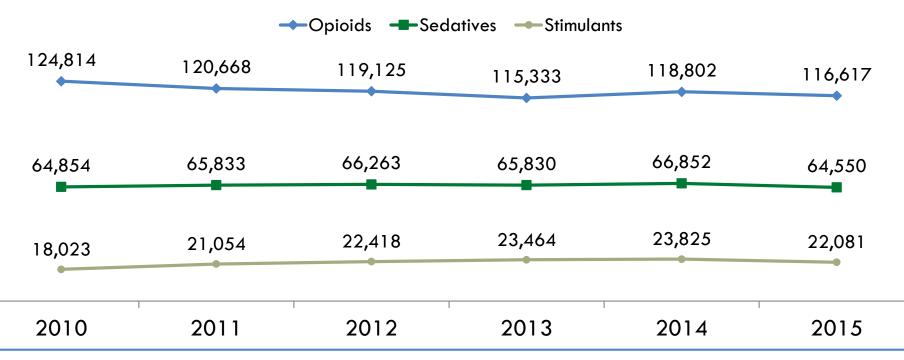
482,572	→ Opioids • 502,566	Sedatives – 513,773	<ul> <li>Stimulants</li> <li>509,057</li> </ul>	Adjusted Opioids 538,403	601,506 498,973
462,372					470,773
281,624	284,571	287,121	289,756	291,011	291,833
111,203	128,169	150,617	164,655	173,199	185,315
2010	2011	2012	2013	2014	2015
fication resulted in an	increase of 82,992 opioid pr	rescriptions being reported to	eclassified from a Schedule V VPMS 2015. Additionally, the in 2015. Had these two new d	e White River Junction Vetera	ans Affairs Medical Ce

number of opioid prescriptions would have decreased for the first time since 2010. (See the Adjusted Opioids trend line.)

#### Source: Vermont Prescription Monitoring System

### Number of Recipients by Drug Type and Year

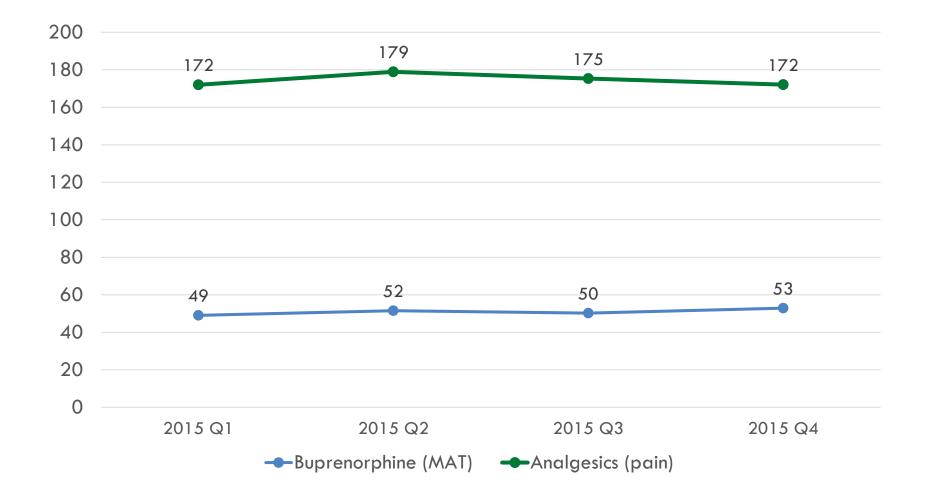
- Opioids were dispensed to more recipients than any other drug type, followed by sedatives and stimulants.
- □ The number of people receiving opioids has decreased since 2010



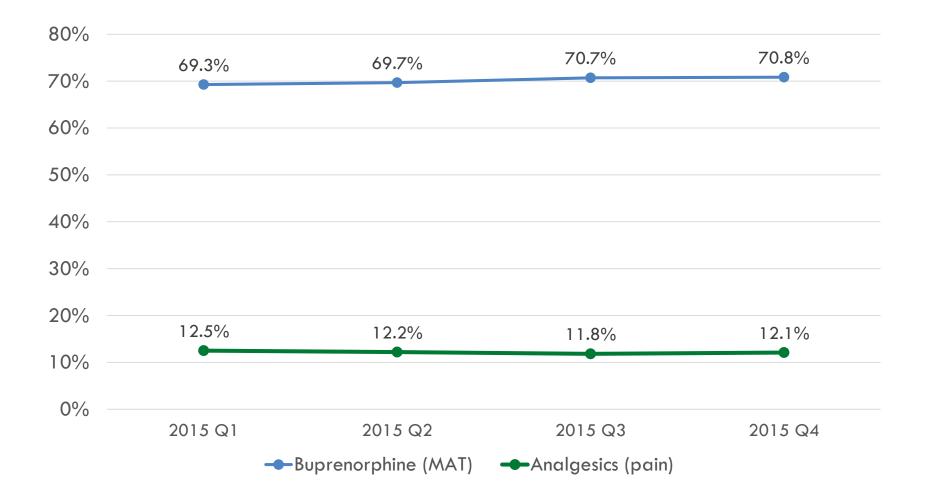
Total Number of Controlled Substance Recipients by Drug Type and Year

Source: Vermont Prescription Monitoring System

# Number of Opioid Prescriptions per 1,000 Vermonters by Type



# Percent of Patients Receiving More than an Average Daily Dose of >90 Morphine Milligram Equivalents



### Changes in Prescription and Recipient Totals by Drug Type

- There were fewer opioid and sedatives recipients in 2015 than 2010 despite the increase in prescriptions associated with these drug types during the same time.
- There were marked increases of both prescriptions and recipients in the stimulant, hormone, and cannabinoid drug types in 2015 than 2010.

	% Change – Prescriptions	Change in # of Prescriptions	% Change - Recipients	Change in # of Recipients
Opioids	25%	118,934	-7%	-8,197
Sedatives	4%	10,209	0%	-304
Stimulants	67%	74,112	23%	4,058
Hormones	90%	5,481	50%	934
Cannabinoids	104%	750	75%	149

#### Changes in Prescription and Recipient Totals by Drug Type from 2010 to 2015

**Note:** The 2015 Annual Report reflects the first full year of VPMS data with tramadol reclassified from a Schedule V to a Schedule IV drug. Its inclusion in VPMS data due to this reclassification resulted in an increase of 82,992 opioid prescriptions being reported to VPMS 2015. Additionally, the White River Junction Veterans Affairs Medical Center began uploading to VPMS in March of 2015. It uploaded 19,541 opioid prescriptions in 2015.

Sources: Vermont Prescription Monitoring System & U.S. Census

### **Opioid Prescription Total by Year and Clinical Application**

- Opioid prescriptions can be broken down into two broad categories based on their clinical application:
  - Analgesics are prescribed to treat pain
  - Opioids used in medication-assisted treatment (MAT drugs) are prescribed to help treat opioid addiction

#### Total Number of Opioid Prescriptions by Year and Clinical Application

	All Opioids	Analgesics	MAT Drugs
2010	482,572	410,600	71,972
2011	502,566	415,846	86,720
2012	513,773	416,204	97,569
2013	509,057	405,953	103,104
2014	538,403	426,007	112,395
2015	601,506	470,008	131,494

**Note:** The 2015 Annual Report reflects the first full year of VPMS data with tramadol reclassified from a Schedule V to a Schedule IV drug. Its inclusion in VPMS data due to this reclassification resulted in an increase of 82,992 opioid prescriptions being reported to VPMS 2015. Additionally, the White River Junction Veterans Affairs Medical Center began uploading to VPMS in March of 2015. It uploaded 19,541 opioid prescriptions in 2015.

Sources: Vermont Prescription Monitoring System



### Pre Hub/Spoke - 2350

- **OTP numbers served (4/2012): 650** (source: SATIS)
- OBOT Medicaid served (4/2012): 1700 (Source: Medicaid Claims)

### Post Hub/Spoke - 5792 (246% increase)

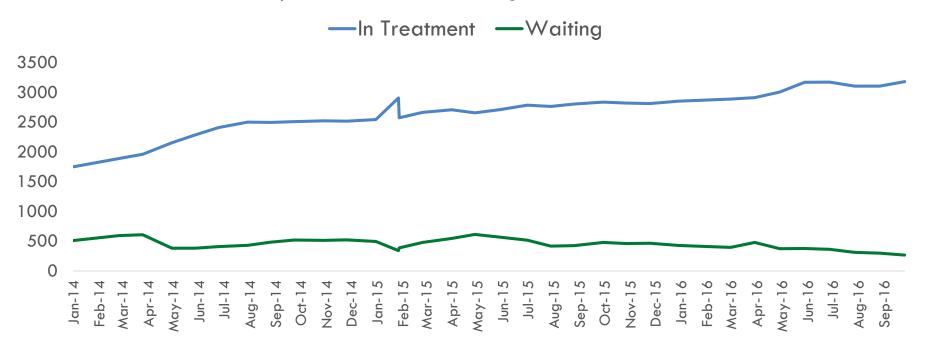
- **Current OTP served (6/16):** 3171 (Source: Hub Census Report)
- Current OBOT Medicaid Served (6/16): 2621 (Source: Blueprint Spoke Report)

Note: In 2015, over 5000 individuals received at least one prescription for an antiaddiction drugs dispensed by pharmacies, the overwhelming majority of which were for buprenorphine products. Source: VPMS



The statewide number of people waiting for opioid use disorder treatment in hubs has trended downward over time; the number of people served in hubs has increased

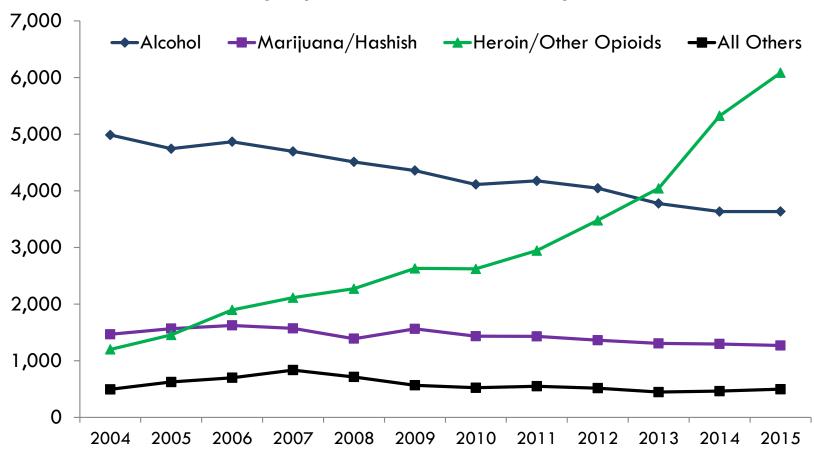
#### Number of People in Hubs and Waiting for Hub Services Over Time



Vermont Department of Health

Source: Alcohol and Drug Abuse Treatment Programs

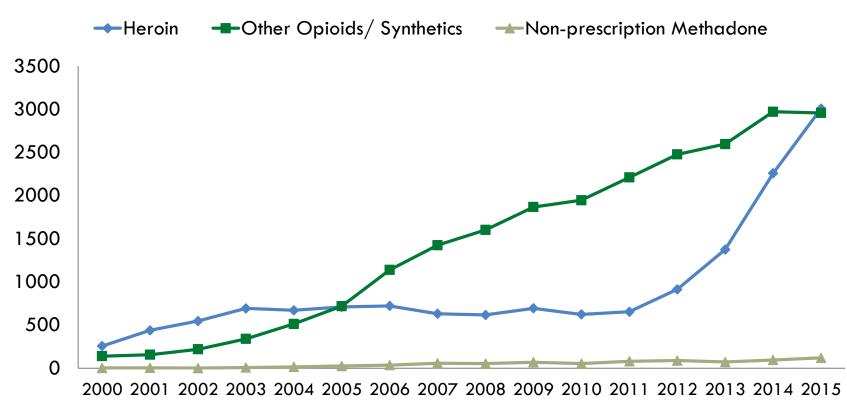
The number of individuals using heroin at treatment admission is increasing faster than for other opioids/synthetics



Number of people treated in Vermont by substance

The number of individuals using heroin at treatment admission has increased in the last five years

#### Number of People Treated by Type of Opioid Being Used on Admission to Treatment

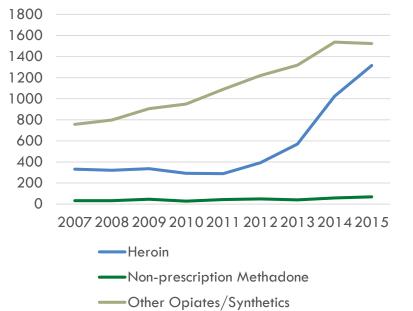


# Primary Opioid of Abuse- Gender

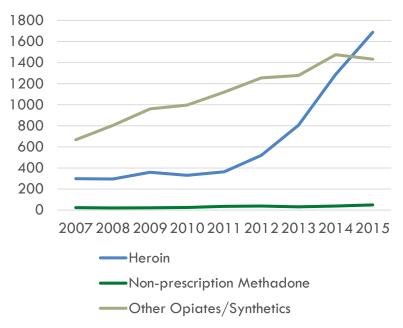
#### **FEMALES**

#### MALES

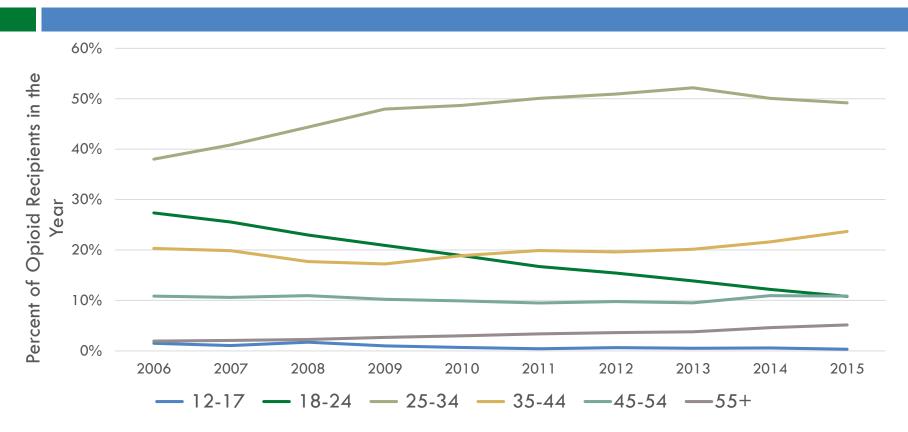




#### Primary Substance by State Fiscal Year

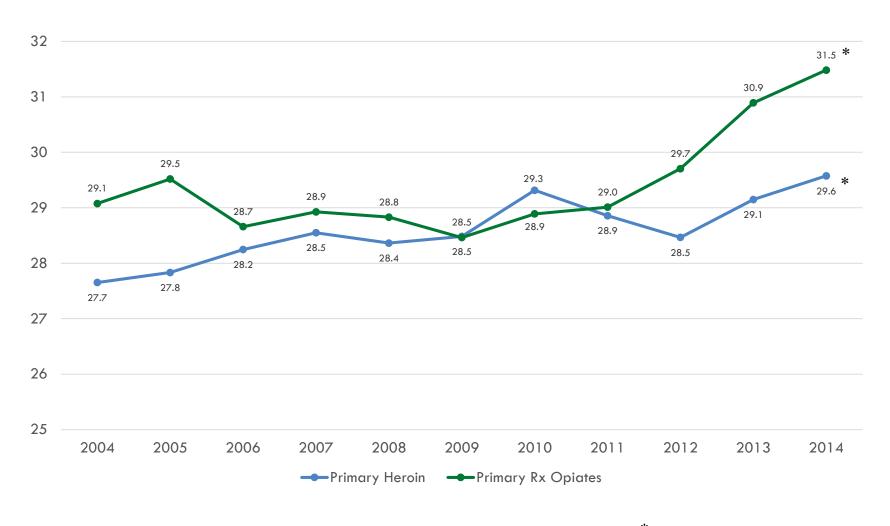


#### Age of Medicaid Recipients With at Least One Primary Opioid Diagnosis or Buprenorphine Prescription by CY



Claims with Primary Opioid Diagnosis (304.00, 304.01, 304.02, 304.03, 304.7, 304.71, 304.72, 304.73, 305.5, 305.51, 305.52, 305.53, F11), procedure code H0020 or MAT prescriptions (Buprenorphine, Subutex, Suboxone, Vivitrol, Bunavail). Excludes Lab Claims. Excludes drug poisoning. Not adjusted for eligibility.

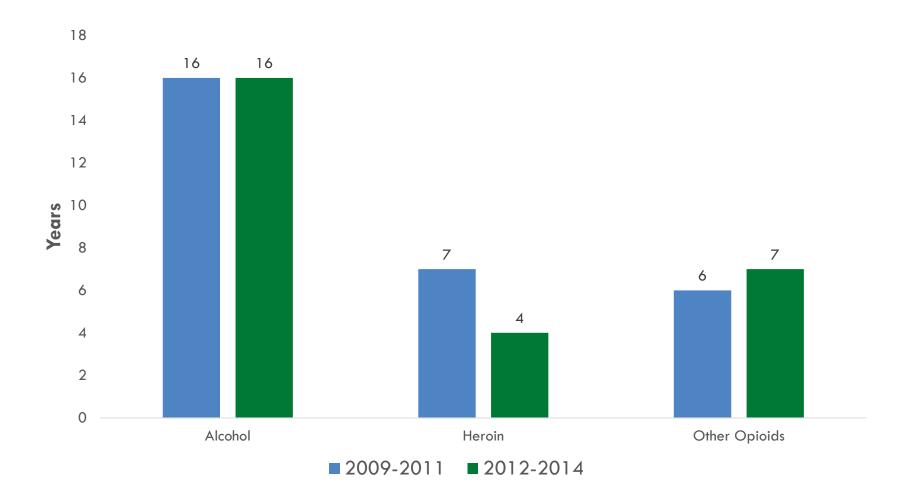
### Average Age at Admit Over Time (SATIS)



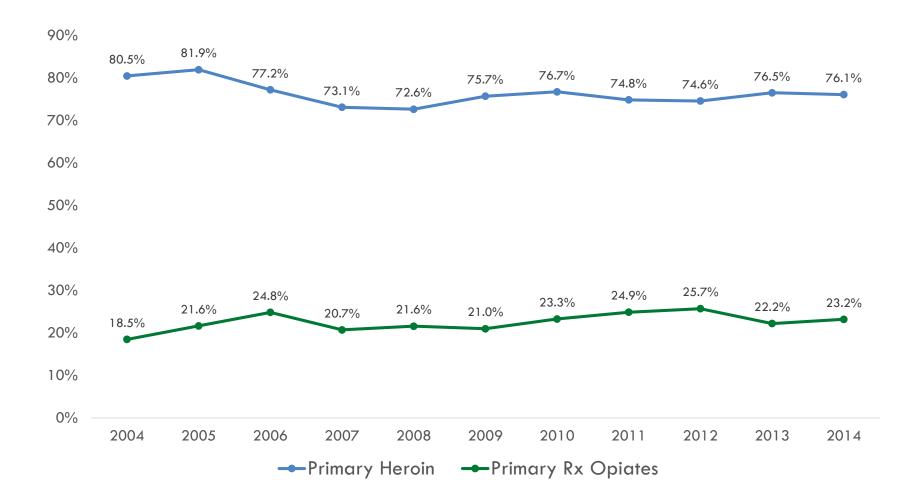
Source: Alcohol and Drug Abuse Treatment Programs

\*2014 significantly greater than 2004

### Median Time to Treatment from Age of First Use

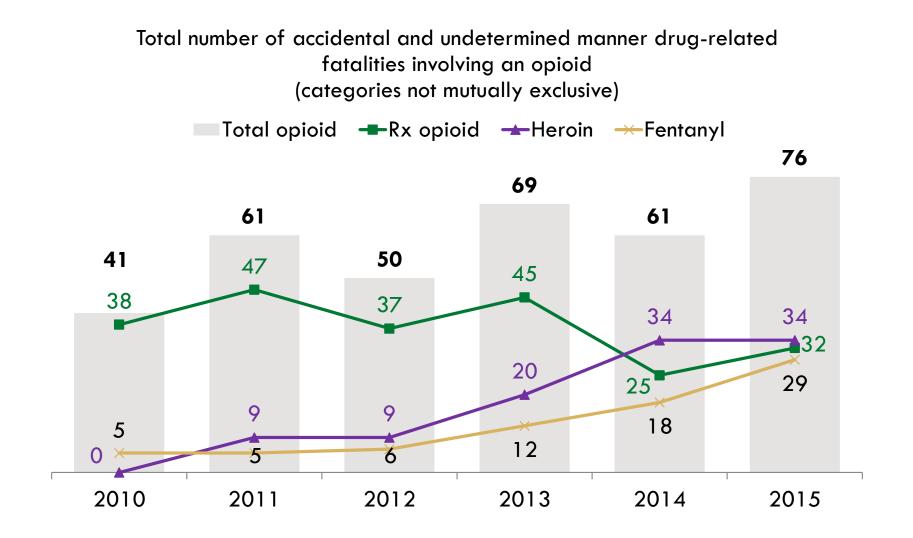


# Percent IVDU 2004-2014 (SATIS)





Drug-Related Fatalities Involving Opioids

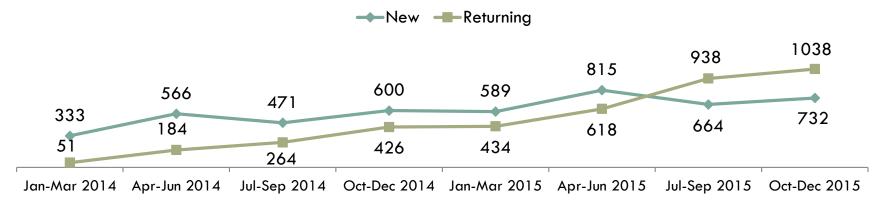


### For every 1 fatal opioid overdose in VT there are:

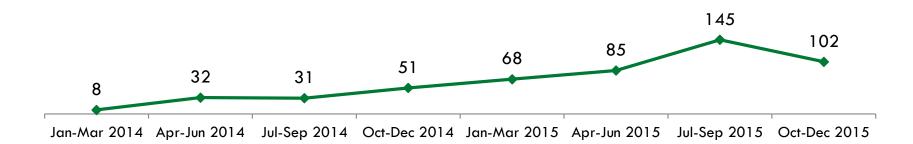
people receiving at least one rx for analgesics	1,482
nonmedical rx opioid users	235
people receiving at least one MAT service for OUD	113
needle exchange members	64
EMS overdose calls	18
community opioid reversals	5
emergency department visits for opioids	3
infants born exposed to opioids	2

# Naloxone

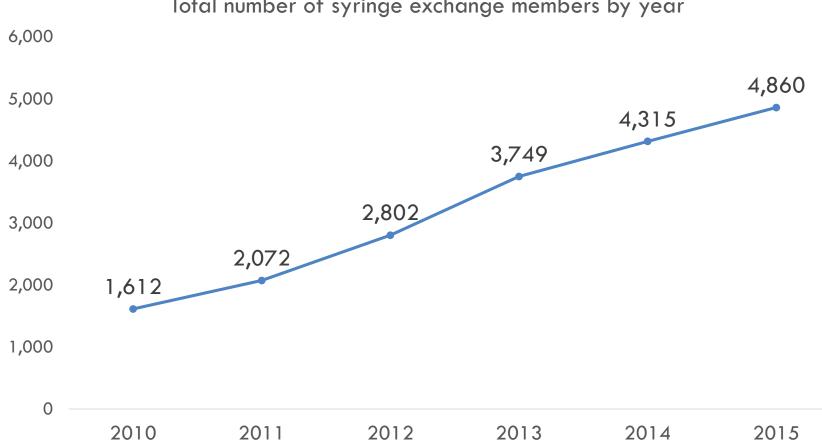
Number of doses dispensed to clients by client type, quarter and year



# Number of reports of naloxone use in response to a perceived overdose incident

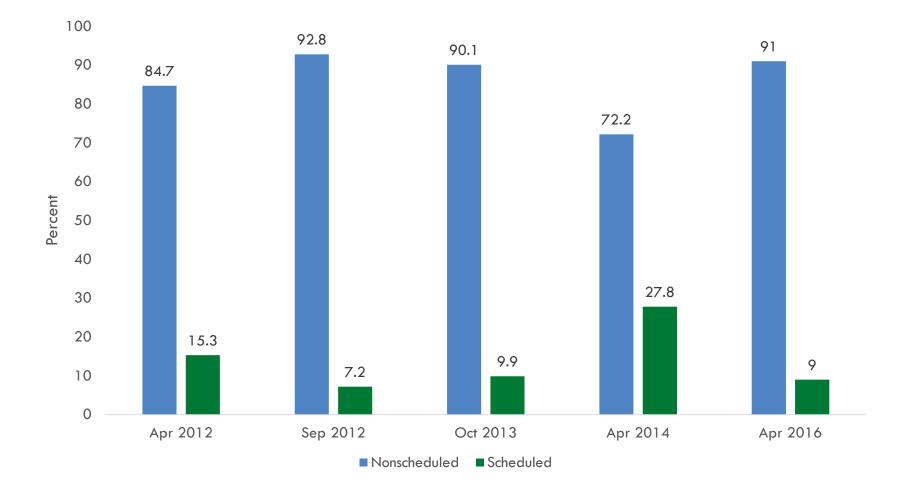


# Needle exchange members



Total number of syringe exchange members by year

# Burlington "Drug Take Back" Results



# Recognition

### Examples of press and data dissemination

# Vermont Recognition

 Association of State and Territorial Health Officials
 Maximizing Public Health Partnerships with Medicaid to Improve Health case study.

http://www.astho.org/Health-Systems-Transformation/Medicaid-and-Public-Health-Partnerships/Case-Studies/Vermont-MAT-Program-for-Opioid-Addiction/

NYT: Vermont Tackles Heroin, With Progress in Baby Steps <u>http://www.nytimes.com/2015/02/26/us/as-vermont-tackles-heroin-addiction-progress-is-measured-in-baby-steps.html</u>

# Boston Globe: In Rutland, Vt., a rare glimmer of hope in battle against opioid addiction

https://www.bostonglobe.com/metro/2015/10/26/rutland-makes-gains-opioid-battle/0xJPia7xu1mQDI3jpFUPVK/story.html

# Data Dissemination

- AIDS Education & Training Center Southeast: "Hub and Spoke:" Vermont's Framework for Medication Assisted Treatment for Opioid Addiction <u>http://www.seaetc.com/events/event/hub-and-spoke-vermonts-framework-for-medication-assisted-treatment-for-opioid-addiction/</u>
- Journal of Substance Abuse Treatment: Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization Rates in Vermont <u>http://www.ncbi.nlm.nih.gov/pubmed/27296656</u>
- American Assoc. for the Treatment of Opioid Dependence, Inc.: Integrated Service Delivery Models for Opioid Treatment Programs in an Era of Increasing Opioid Addiction, Health Reform, and Parity
   <u>http://www.aatod.org/wp-content/uploads/2016/07/2nd-Whitepaper-.pdf</u>

# For additional Information

# Vermont Department of Health Division of Alcohol and Drug Abuse Programs

Website:

http://www.healthvermont.gov/adap/treatment/opioids/index.aspx

For questions about the slides contact Anne Van Donsel Anne.VanDonsel@Vermont.gov