VERMONT PRESCRIPTION MONITORING SYSTEM

Annual Report 2016

CONTENTS

Executive Summary

The Vermont Prescription Monitoring System (VPMS) collects information on Schedule II–IV controlled substances dispensed by Vermont-licensed retail pharmacies. The intent of VPMS is to improve patient care and prevent problems associated with misuse of controlled substances.

This report shows that there are significant changes in prescribing patterns over time and by geography.

- State and local efforts to decrease opioid analgesic pain medication use have made an impact.
  - The total amount of opioid analgesic pain relievers dispensed has decreased 5.8% since 2012 based on the total morphine milligram equivalents (MME) dispensed per 100 residents. This is despite the re-classification of tramadol in 2014. Prior to 2014, the third most commonly dispensed opioid analgesic (Tramadol) was not included in VPMS data.
  - Between 2015 and 2016, the total MME dispensed per 100 residents declined 10.6%.
  - The percentage of Vermonters who received at least one opioid for pain decreased nearly 2 percentage points, from 17.9% to 16.1% between 2015 and 2016.
- Stimulant prescribing has increased steadily since 2012.
  - The number of stimulant prescriptions dispensed increased 26% between 2012 and 2016.
  - Eight percent of Vermont boys under age 18 received at least one prescription for a stimulant in 2016.
- County-level dispensation of controlled substances varies widely. Stakeholders are encouraged to use this report, in combination with other community information, to determine if these variations are of concern.
  - Some counties may have under-reported prescriptions due to residents filling prescriptions in border states, most frequently New Hampshire.
  - Franklin County residents, for example, receive 91 opioid analgesic prescriptions per 100 residents. This is significantly higher than the state rate of 68 prescriptions per 100 residents.
  - Windham County has a rate of 48 stimulant prescriptions per 100 residents. This is significantly higher than the state rate of 31 prescriptions per 100 residents.

There were changes to the VPMS in 2016 due to a migration to a new system with greater functionality. The new system supports interstate data sharing which allows Vermont registered providers to access information on prescriptions dispensed to their patients in other approved states. This system has a more accurate patient matching method and new data are now being collected such as how the prescriptions being dispensed are paid for (ie, insurance type or cash).

Still, there are opportunities for system improvements such as offering interoperability of the VPMS with electronic health records, providing users with reports that help them compare their prescribing practices with those of others, and the ability to proactively notify prescribers and pharmacists when a patient may have a concerning combination of prescriptions. VPMS staff are pursuing these system enhancements to provide a tool that is both easy to use and clinically relevant.

Introduction

The Vermont Prescription Monitoring System (VPMS) is a database of controlled substance prescriptions dispensed by Vermont licensed pharmacies. The data in VPMS helps prescribers and pharmacists make evidence-based clinical decisions and identify potential diversion of controlled substances. The system is used by approved registered users to review prescriptions received by individuals to avoid contraindicated prescription combinations or overlapping prescriptions of similar drugs. It may also identify potential misuse of prescriptions and provide an opportunity to discuss substance abuse screening, referral, and treatment options.

VPMS also serves as a surveillance tool to monitor statewide trends in the dispensing of controlled substances.

This report includes prescription data for 2016 and trend information for 2012 to 2016. More detailed information, including county level trend information, is available in the appendix.

Definitions

Prescription Drug Monitoring Program

Prescription Drug Monitoring Programs (PDMPs) are databases that collect and track controlled substance prescriptions dispensed by pharmacies licensed in the state they operate. Each state operates its own PDMP and has different access and use requirements based on the state statutes in which they are located. VPMS is Vermont's PDMP.

Drug Schedules

The Drug Enforcement Agency (DEA) assigns controlled substances to different schedules according to their potential for abuse or dependence. VPMS collects information on Schedule II-IV controlled substances. The scheduling is as follows:

- **Schedule I**
  Drugs with no currently accepted medical use and a high potential for abuse. These drugs are illegal at the federal level and are not included in VPMS.

  Examples of Schedule I controlled substances include: heroin, lysergic acid diethylamide (LSD), marijuana (cannabis), 3,4-methylenedioxymethamphetamine (ecstasy), methaqualone, peyote, and illicitly manufactured fentanyl and fentanyl analogs.

- **Schedule II**
  Drugs with a high potential for abuse. Use of these drugs may lead to severe psychological or physical dependence.

  Examples of Schedule II controlled substances include: oxycodone, prescribed fentanyl, amphetamine, and methylphenidate.

- **Schedule III**
  Drugs with a moderate to low potential for physical or psychological dependence.

  Examples of Schedule III controlled substances include: products containing not more than 90 mg of codeine per dosage unit, buprenorphine, and anabolic steroids.

- **Schedule IV**
  Drugs with a moderate to low potential for abuse and low risk of dependence.

  Examples of Schedule IV controlled substances include: clonazepam, diazepam, and alprazolam.

- **Schedule V**
  Drugs with lower potential for abuse than Schedule IV and consisting of preparations containing limited quantities of certain narcotics. Schedule V drugs are generally used for antidiarrheal, antitussive, and analgesic purposes. These are not included in VPMS.

  Examples of Schedule V controlled substances are: cough preparations with less than 200 milligrams of codeine per 100 milliliters such as (Robitussin AC), Lomotil, Motofen, Lyrica, Parepectolin.

Drug Type and Classes
This report allocates drugs to drug classes based on the U.S. Center for Disease Control's treatment classes. The drug types included in this report are:

- Opioid analgesics: opioids used in the treatment of pain.
  Examples: oxycodone, hydrocodone, prescribed fentanyl

- Medication-Assisted Treatment (MAT) opioid agonist/antagonist: medications used to treat opioid use disorder. With a few exceptions, any drug containing buprenorphine is considered a MAT opioid.
  Examples: Suboxone, Subutex

- Benzodiazepines: sedatives to treat anxiety, insomnia and other conditions.
  Examples: lorazepam, clonazepam, diazepam

- Stimulants: medication to increase alertness, attention and energy.
  Examples: methylphenidate, amphetamine

- Other: all other schedule II-IV drugs that are not in the other categories.
  Examples: hormones, muscle relaxants, cannabinoids, and non-hypnotic sedatives such as Ambien, among others

Opioid Types

Opioid prescriptions are reported in two different categories: opioid analgesics and MAT prescriptions. Opioid analgesics are opioids prescribed for the treatment of pain. MAT prescriptions, most frequently buprenorphine, are opioids prescribed to people for the treatment of opioid use disorder (OUD). This report includes data on only those MAT drugs dispensed by a Vermont-licensed pharmacy. For types NOT included, please see below in Disclaimers.

Morphine Milligram Equivalents (MME)

Opioid pain medication strengths, dosages, and number of days supply vary significantly across prescriptions. To better understand trends and patterns of use, Morphine Milligram Equivalents (MME) are used as a standardized measure. MME is a way to express the strength of an opioid analgesic as though each prescription were converted to morphine. Many research experts, federal agencies (e.g., CDC, BJA, SAMHSA) and VPMS use MME dispensed to compare different formulations of drugs and better understand the abuse and overdose potential of opioid analgesics. MME is expressed as total MME, which is the total MME in a prescription or combination of prescriptions, or an average daily MME which means the amount dispensed and intended to be used in a single day.

Disclaimers

Data Exclusions and Qualifications

VPMS contains prescriptions that are dispensed by Vermont-licensed pharmacies, including mail-order pharmacies dispensing to Vermonters. VPMS does not include prescriptions dispensed in the following situations:

- Prescriptions filled at out-of-state pharmacies that are not licensed in Vermont,
- Methadone and/or buprenorphine that is dispensed by specialty substance abuse treatment providers such as Opioid Treatment Programs (OTP) which are known as "hubs" in Vermont,
- Drugs dispensed from an emergency room in an amount to treat pain for 48 hours or less,
- Drugs administered directly to a patient in a medical setting, and
- Prescriptions dispensed from veterinary offices.

MAT drugs dispensed in VT are roughly split 50/50 between those dispensed in "hubs" and those dispensed in "spokes". VPMS includes MAT drugs used to treat opioid use disorder when they are prescribed at a physician's office or office-based opioid treatment (OBOT) provider, commonly referred to as a "spoke." These opioids are shown as "MAT Prescriptions" in this report. MAT drugs that are directly dispensed to a patient through an OTP, or "hub" are not included in VPMS because of federal regulations. Therefore, VPMS only tells us about prescription distribution from spokes.

Data submitted to VPMS by pharmacies may contain errors. Each upload from a pharmacy is screened for errors and returned to the pharmacy to be corrected. However, not all errors are found or corrected.

VPMS does not contain prescriptions that are written but not filled. Patient diagnosis or information on how a prescribed medication is used is not included in VPMS.

County level information is based on the recipient's county of residence.

People in counties that border other states may fill prescriptions in other states. Those prescriptions are not included in this report. This may affect county-level measures and trends.

Measures that are based on the number of prescriptions should be interpreted carefully. A prescription may be for a short period of time, such a less than a week, while others may much longer, such as 30 days. We suggest looking at the number of prescriptions in combination with days' supply – or use "MME" (see page 7) – for a more complete view of prescribing.

Tramadol

Tramadol is an opioid analgesic. Prior to August 2014, tramadol was classified as a Schedule V Controlled Substance and not reported to VPMS. As of August 2014, tramadol was designated as a Schedule IV Controlled Substance and began being reported to VPMS. Tramadol has a lower MME per dose than most opioid analgesics; a 100 mg tablet of tramadol has 10 MME compared to a 10 mg tablet of oxycodone (the most commonly used opioid analgesic in Vermont), which has 15 MME. Tramadol is the third most commonly used opioid analgesic so rescheduling has had a significant impact on trends over time and must be considered when viewing opioid analgesic prescription trends prior to and during 2014.

Changes to Legislation and VPMS Platform Capabilities

Act 173

In 2016, Act 173 was signed into law to combat opioid abuse by strengthening prescribing guidelines and requirements. Updates to the *Rule for the Prescribing of Opioids* included the addition of universal precautions, guidelines for the limiting of opioids for acute pain prescriptions, and the prescribing of naloxone. The *Rule* became effective on July 1st, 2017. While the *Rule* was not effective during the time period covered in this report, stakeholders were engaged in open communication about the contents and possible inclusions in the *Rule* during 2016.

Modifications to VPMS were required because of Act 173:

- Pharmacies were required to upload data on dispensed prescriptions within 24 hours or one business day of dispensing. This requirement went into effect January 1st, 2017.
- The *Vermont Prescription Monitoring Rule* was updated to reflect an increase in the types of situations in which a prescriber must query the system. Pharmacists were required to query the system for the first time. The *Rule* became effective on July 1st, 2017.

Vendor Transition

In 2016, VPMS migrated from one vendor platform to a new vendor platform. Considerable staff time and effort was dedicated to ensuring complete and accurate transfer of all historical data into the new system, validating all tools and processes, and confirming that provider accounts were active and functioning.

The new platform provided an easier-to-use interface for providers, a more current data reporting standard, and the opportunity to allow approved users to view the data from PDMPs in other states.

ASAP 4.2

VPMS uses a standardized format for reporting prescription data from the American Society for the Automation of Pharmacies (ASAP). During 2016, VPMS upgraded ASAP version 3.0 to ASAP version 4.2. This allowed the collection of additional data fields, including, but not limited to, the date the prescription was sold, the payer (third party insurance, self-pay, Medicaid, etc.) and species codes to more accurately determine if a prescription was for a pet or for a person. The addition of these fields helps provides context and clarity about prescriptions dispensed in Vermont.

Interstate Data Sharing

Interstate data sharing allows Vermont providers to view information about patient prescriptions dispensed in approved states. Prescribers and pharmacists can't register to use PDMPs in states in which they are not licensed, and prescriptions are not reported to Vermont unless they are dispensed at a Vermont-licensed pharmacy. Therefore, patients may fill their prescriptions at pharmacies in other states and this information is not included in VPMS.

VPMS has formal agreements with other states to ensure that only users allowed by Vermont regulations are authorized to view VPMS data. Data from other states is included in a patient query when that state's data is requested by the provider. While providers can view out of state prescriptions through patient queries, prescriptions dispensed by non-Vermont licensed pharmacies do not appear in summary reports, such as this document, because these data are not "owned" by Vermont. This means prescription data may be less complete for counties along the eastern and southern borders of the state.

In 2016, Vermont began sharing prescription data with Connecticut, Massachusetts, New Hampshire and New York.
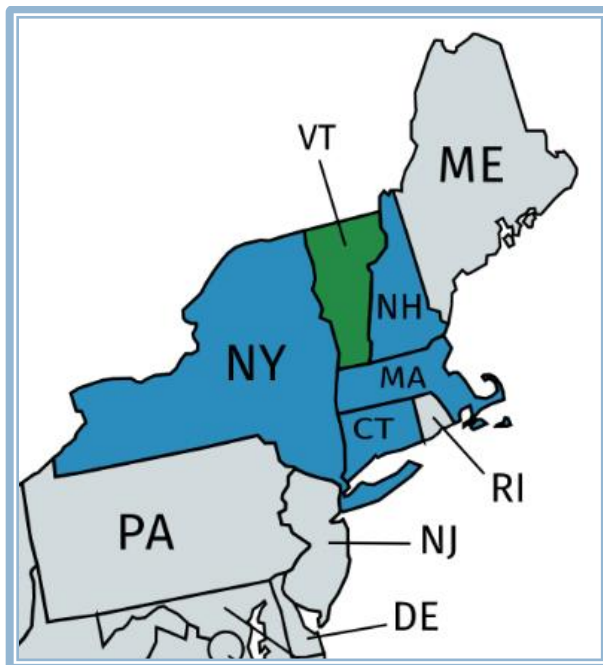
Vermont providers queried other states' PDMPs 27,775 times in 2016. Of these, approximately 16% returned prescription information from the other states' PDMP. Approved users in other states accessed VPMS data 405,645 times. Due to state confidentiality requirements, the number of queries returning additional information is unknown.

Pharmacy Compliance

Uploading prescription data in a timely manner ensures that information is readily accessible and relevant for providers reviewing patients. In 2016, pharmacies were required to upload prescription data within seven days of dispensing.

In 2016, VPMS began tracking and enforcing compliance with the reporting requirements. By the end of 2016, 100% of pharmacies located within Vermont were compliant with the requirement to upload prescriptions within seven days of dispensing. Nearly 78% of Vermont-licensed out-of-state pharmacies, such as mail-order pharmacies, were compliant with the uploading requirements. Overall, 83% of Vermont-licensed pharmacies were compliant.

Although prescriptions were required to be submitted within a seven-day limit, many pharmacies reported more frequently, resulting in a four-day average time between the date dispensed and the date uploaded to VPMS. More frequent reporting provides more complete data for clinical decision-making.

Registration and Use

Access to VPMS is limited to provider types that are outlined in statute. These providers are primarily focused on patient care. All Vermont-licensed prescribers of controlled substances Schedule II-IV are required to register for VPMS.

Both prescribers and pharmacists can approve delegates, such as office staff, to query the system on their behalf. This helps improve workflow.

Figure 1: Number of VPMS Patient Care User Accounts

User Type	Number of Accounts
Prescriber	1,403
Prescriber Delegate	682
Pharmacist	395
Pharmacist Delegate	32
Total Patient Care User Accounts	**2,512**

VPMS users made over 181,000 patient look-ups, known as queries, in the VPMS in 2016. Prescribers or prescriber delegates accounted for more than 118,000 queries (65%), while pharmacists and pharmacist delegates made approximately 62,000 queries (35%) (Fig.2). A small number of queries were made by "Other" user types such as administrative and system support staff, the Medical Director of the Department of Vermont Health Access, the Vermont Medical Examiner, and delegates from the Office of the Chief Medical Examiner.

Figure 2: Number of VPMS Queries by User Type

User Type	Number of Queries
Prescriber	51,663
Prescriber Delegate	66,867
Pharmacist	60,502
Pharmacist Delegate	1,895
Other	199
Total Queries	**181,128**

In 2016, nearly two-thirds of prescriptions in VPMS were written by a prescriber who was licensed in Vermont and had a VPMS account.

Total Vermont Population Prescription Trends

Just over 16% of Vermonters received at least one opioid analgesic prescription in 2016. Nine and a half percent received a benzodiazepine, 3.6% received a stimulant, and less than one percent received a prescription for MAT.

The percentage of the VT population receiving an opioid analgesic prescription declined slightly between 2012 and 2016, from 17.7% to 16.1% even with the tramadol rescheduling mid-2014 and the resultant increase in opioid analgesic reporting. (Fig. 3)

Figure 3: Percent of Vermont Residents Receiving at Least One Prescription by Drug Class
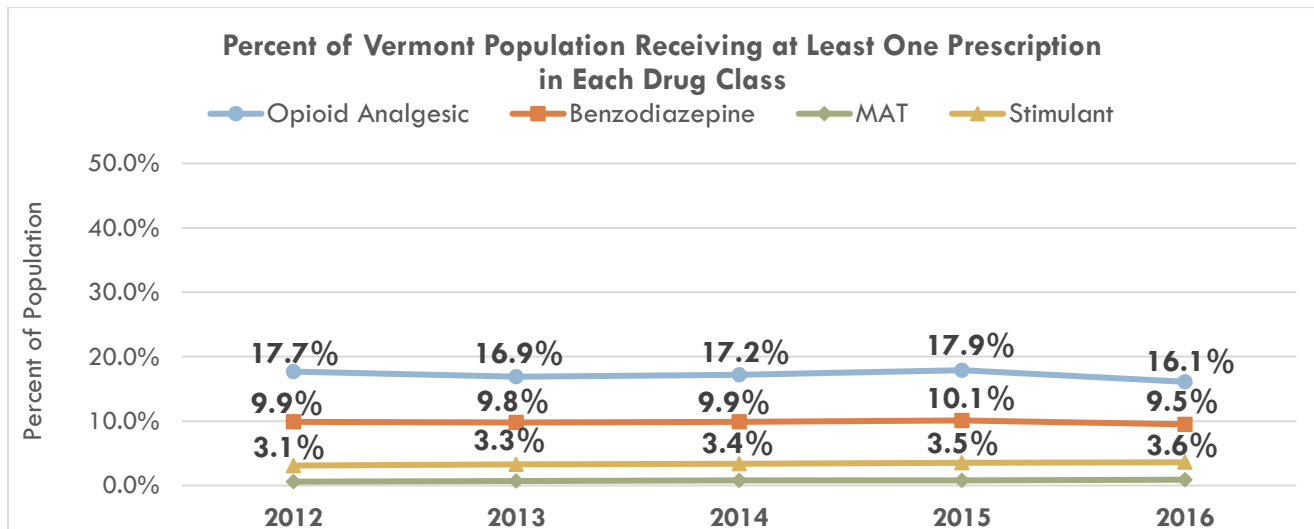
Drugs dispensed vary significantly by age. Opioid analgesic and benzodiazepine use increase with age; MAT drugs are most frequently used by those age 25-34, and people under 35 are most likely to be dispensed stimulants. (Fig. 4)

Figure 4: Percent of Vermont Residents With At Least One Prescription by Drug Class and Age Group

Percent of Population Receiving At Least 1 Prescription by Drug Class and Age Group

Opioid Analgesic
- 3.0%
- 9.9%
- 16.6%
- 18.3%
- 20.6%
- 22.3%
- 24.7%

Benzodiazepine
- 1.3%
- 4.3%
- 8.9%
- 11.3%
- 12.9%
- 14.1%
- 15.6%

MAT
- 0.0%
- 0.8%
- 3.9%
- 2.1%
- 0.7%
- 0.3%
- 0.1%

Stimulant
- 5.8%
- 5.8%
- 6.0%
- 4.6%
- 2.9%
- 2.0%
- 0.9%

Legend:
- ☐ 17 and Younger
- ☐ 18 - 24
- ☐ 25 - 34
- ☐ 35 - 44
- ■ 45 - 54
- ■ 55 - 64
- ■ 65 and Older
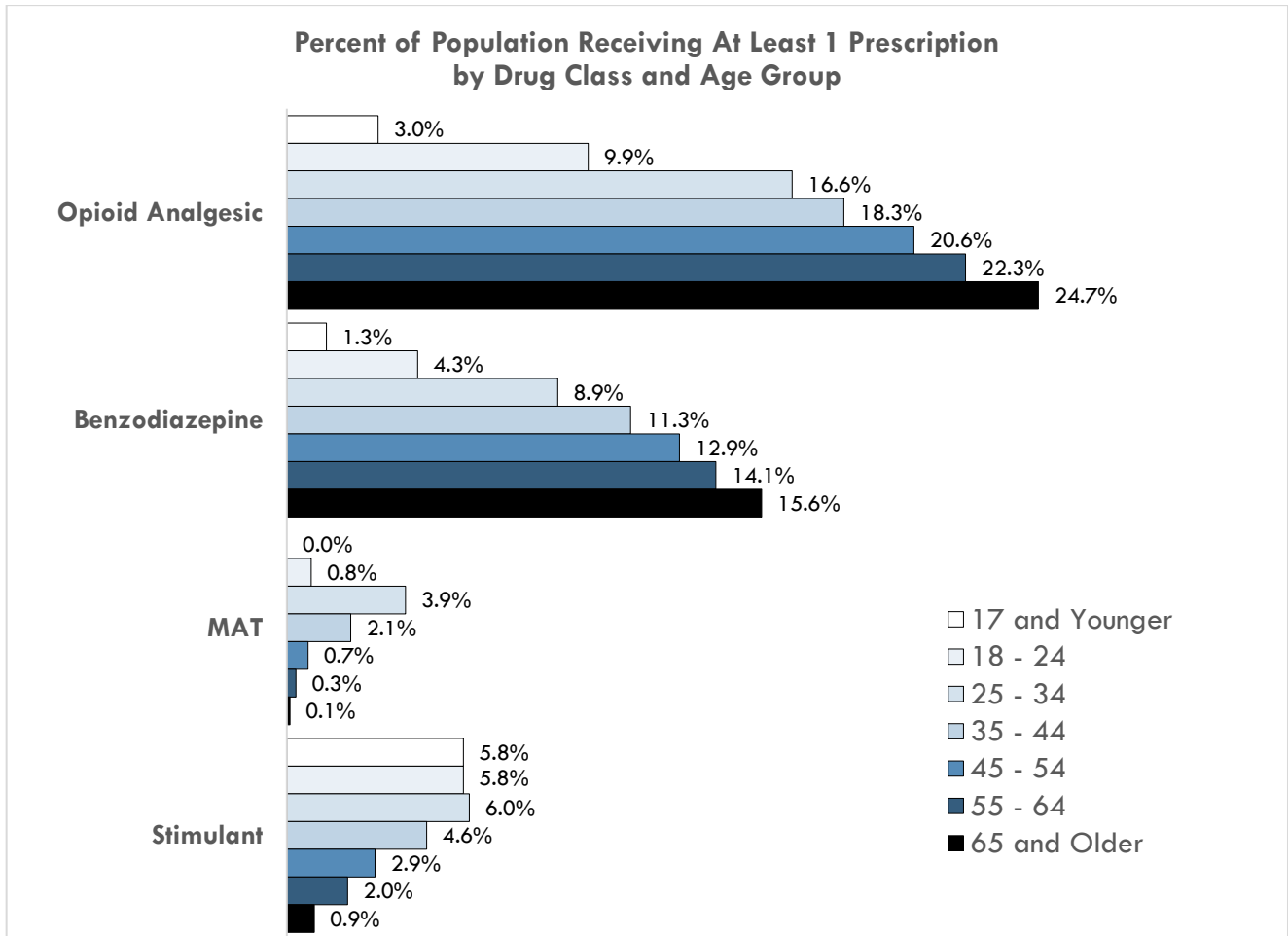
Over 17% of women and 15% of men received an opioid analgesic prescription in 2016. Benzodiazepines are also more commonly used by women, at 12% of the population, than men (7%). Men and women are nearly equally likely to receive stimulants and MAT drugs. (Fig. 5)

Figure 5: Percent of Prescriptions by Drug Class and Gender

Percent of Population Receiving at Least 1 Prescription by Gender and Drug Class

■ Male ■ Female

Drug Class	Male	Female
Opioid Analgesic	15.0%	17.2%
Benzodiazepine	7.0%	12.0%
MAT	0.9%	0.8%
Stimulant	3.8%	3.5%
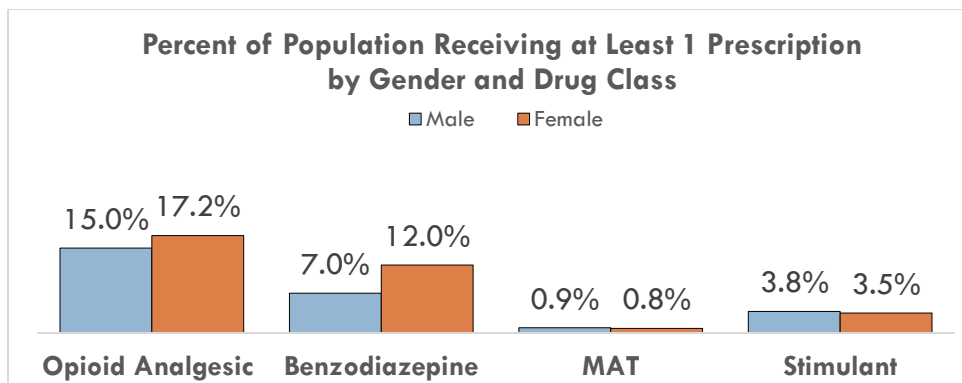
Opioids analgesics are the most commonly dispensed controlled drug class. Although the portion of Vermonters receiving opioid analgesics showed little change between 2012 and 2016, there was an increase in the rate of prescriptions per 100 people in 2015 likely due to the rescheduling and subsequent inclusion of tramadol in VPMS in mid-2014. The rate per 100 people in 2016 is the same as the 2014 rate. This is significant as Tramadol was the third most commonly prescribed opioid analgesic in 2016. (Fig. 13) Even with the rescheduling of Tramadol, the actual *amount* of opioid analgesics dispensed, based on MME dispensed per 100 residents, is decreasing. (Fig. 14)

The rate of benzodiazepine prescriptions dispensed decreased between 2015 and 2016 after being relatively consistent since 2012. The rate of MAT per 100 people increased approximately 50% between 2012 and 2016 due to increased access to treatment for opioid use disorder and an increase in prescribers with waivers to prescribe buprenorphine, or "spoke" providers. Stimulant prescriptions increased nearly 30% between 2012 and 2016. (Fig. 6)

Figure 6: Rate of Prescriptions per 100 Vermont Residents by Drug Class
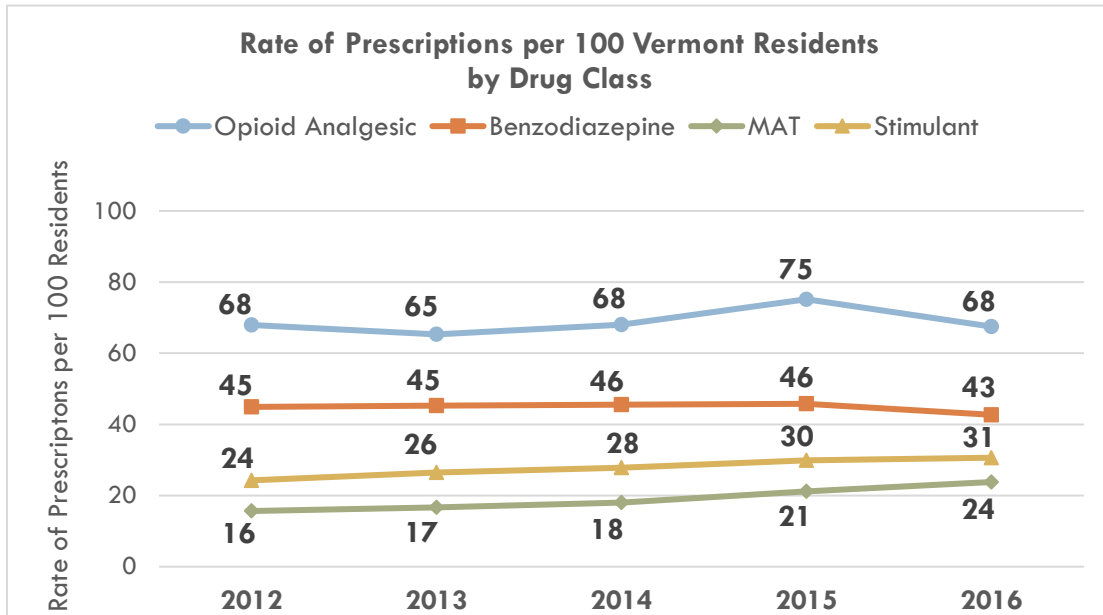
Over 420,000 prescriptions for opioid analgesics were dispensed in 2016, as were more than 260,000 prescriptions for benzodiazepines. MAT prescriptions were the least common, with nearly 150,000 prescriptions. There were approximately 190,000 prescriptions for stimulants dispensed in 2016. (Fig. 7)

The number of prescriptions provides a simple metric for measuring prescriptions dispensed but it does not accurately depict the actual quantities of medication dispensed. A single prescription may contain different doses, numbers of pills, different strengths of the medication, etc. A standardized way to measure opioid analgesic prescriptions is the morphine milligram equivalents, or MME. Further information on opioid analgesics using this standardized measure is found in the definitions section of this report.

Figure 7: Number of Prescriptions by Drug Class

Number of Prescriptions by Drug Class in 2016

Number of Prescriptions

- Opioid Analgesic: 421,656
- Benzodiazepine: 266,614
- MAT: 148,923
- Stimulant: 191,307
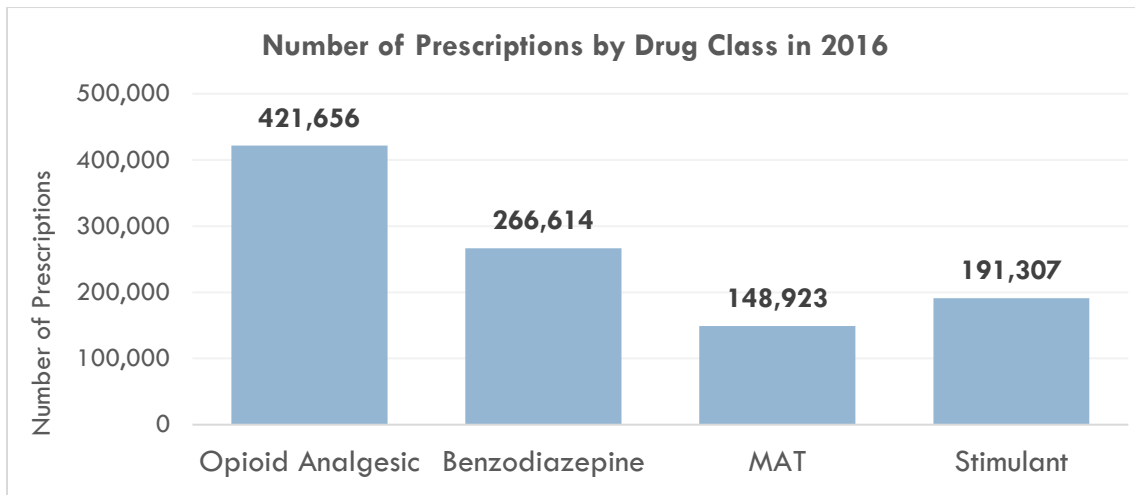
Women receive more opioid analgesics, benzodiazepines and MAT drugs than men; men are more likely to receive stimulants. (Fig. 8)

Figure 8: Percent of All Prescriptions by Drug Class and Gender

Percent of All Prescriptions by Drug Class and Gender

☐ Male ☐ Female

Drug Class	Male	Female
Opioid Analgesic	45.9%	54.1%
Benzodiazepine	37.2%	62.8%
MAT	47.1%	52.9%
Stimulant	52.9%	47.1%
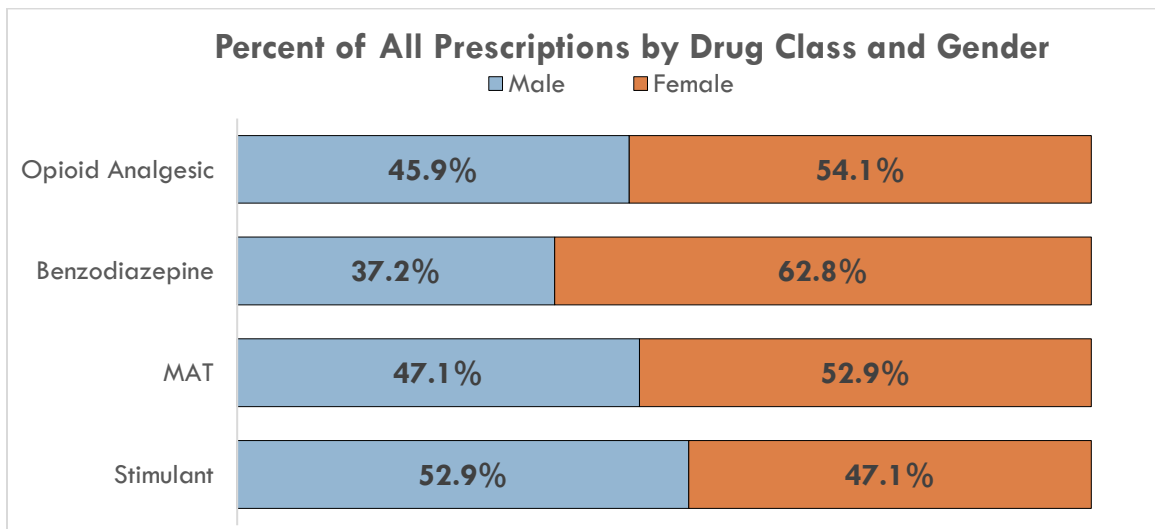
Opioid analgesic and benzodiazepine prescriptions are most frequently prescribed to older Vermonters. More than half of the prescriptions in these classes are written to persons 55 and older. Fewer than 15% of the prescriptions in this class are written to people under the age of 35. Just one percent of opioid analgesic or benzodiazepine prescriptions are written for those under 18.

Over half of prescriptions for MAT are written for those between the ages of 25 and 34 years of age and a quarter are written to those between 35 and 44.

Youth under 18 receive more stimulant prescriptions than any other age group, followed by those age 25-44. (Fig. 9)

Figure 9: Percent by Prescriptions by Drug Class by Age Group

Percent of Prescriptions by Drug Class by Age Group
□17 and Younger ☐18 - 24 ☐25 - 34 ☐35 - 44 ■45 - 54 ■55 - 64 ■65 and Older

Drug Class	Values
Opioid Analgesic	7.8% / 12.0% / 21.0% / 26.8% / 28.9%
Benzodiazepine	9.3% / 12.9% / 19.8% / 25.2% / 28.7%
MAT	9.7% / 51.4% / 24.4% / 9.8% / 3.8%
Stimulant	32.5% / 11.9% / 18.9% / 14.3% / 10.6% / 8.1%
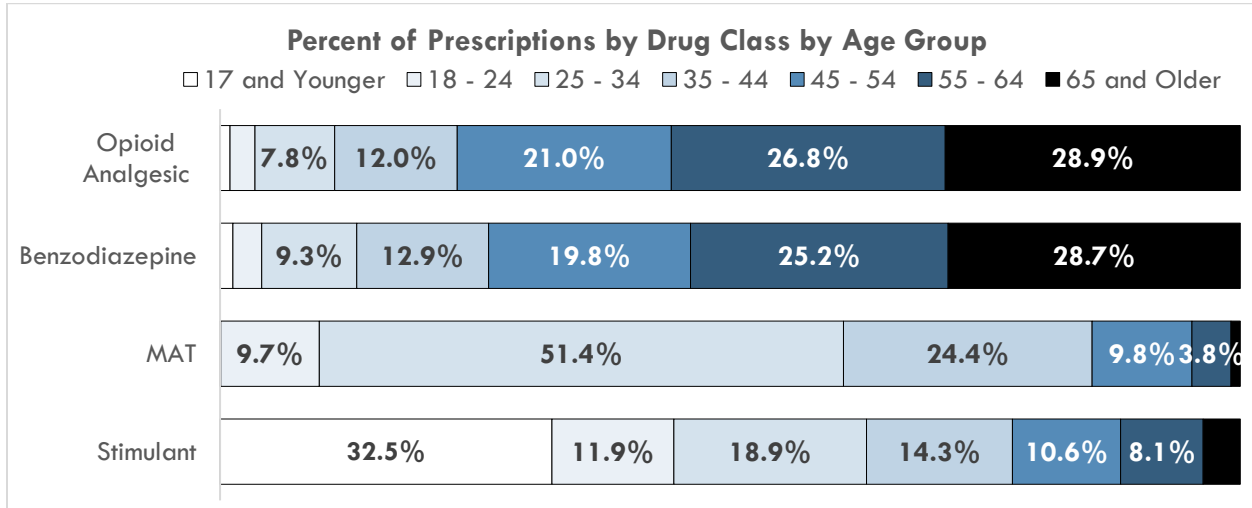
Opioid Analgesic Prescribing Patterns

Opioid analgesics are prescription opioids used to treat pain. VPMS does not include diagnosis information so a combination of opioid analgesic measures must be considered to show trends and patterns of use. For example, looking at the rate of opioid analgesic prescriptions per 100 people (Fig. 12) and the percent of the population receiving opioid analgesics (Fig. 10) in tandem provides more context than viewing each separately, as high rates of prescriptions per 100 people may indicate that prescribers are giving short term prescriptions such as three separate five-day prescriptions rather than one 15-day prescription. When reviewing county level variations, also consider factors such as the age distribution in the county, likelihood that a prescription may have been filled out of state, and potentially the most common professions and associated risk of injury to people in the region as each of these may impact prescribing patterns in the region.

The percent of the population receiving opioid analgesics (Fig. 5), average daily MME (Fig. 16), percentage by MME category (Fig. 19), and the average days' supply (Fig. 22) all provide information about prescribing practices. High MMEs may indicate use for chronic pain. Opioid analgesic prescriptions with less than a five-day supply typically indicate use acute pain management such as immediately after an injury or surgery.

There is considerable county-level variation in opioid analgesics dispensed. In 2016, 16.1% of Vermonters received an opioid prescription compared to 19.2% of Rutland County residents and Essex and Orange Counties rates of just over 11%. (Fig. 10)

Figure 10: Percent of Population Receiving at Least One Opioid Analgesic Prescription by County

Percent of Vermont Population Receiving at Least One Opioid Analgesic Prescription by County

County	Percent
Addison	**14.4%**
Bennington	**17.4%**
Caledonia	**15.4%**
Chittenden	**13.0%**
Essex	**11.1%**
Franklin	**16.4%**
Grand Isle	**17.4%**
Lamoille	**16.2%**
Orange	**11.2%**
Orleans	**16.2%**
Rutland	**19.2%**
Washington	**14.9%**
Windham	**16.9%**
Windsor	**11.8%**

VT: **16.1%**
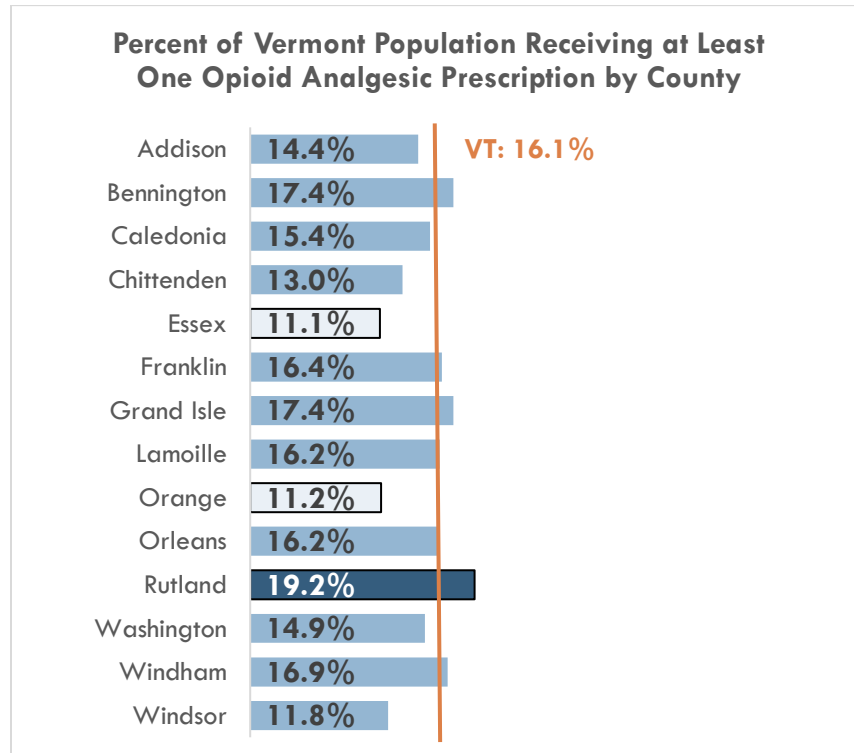
As people age they are more likely to receive opioid analgesics. For those under age 55, females are more likely to receive opioid analgesics than males. Males and females age 55+ are almost equally likely to receive opioid analgesics. (Fig. 11)

Figure 11: Percent of Population Receiving at Least One Opioid Analgesic by Age and Gender

Percent of Population Receiving At Least One Opioid Analgesic Prescription by Age and Gender

■ Males ■ Females

Percent of Population Receiving RX

Age	Males	Females
17 and Younger	2.7%	3.3%
18 - 24	8.1%	11.7%
25 - 34	13.9%	19.5%
35 - 44	16.5%	20.1%
45 - 54	19.5%	21.7%
55 - 64	22.5%	22.2%
65 and Older	24.9%	24.6%
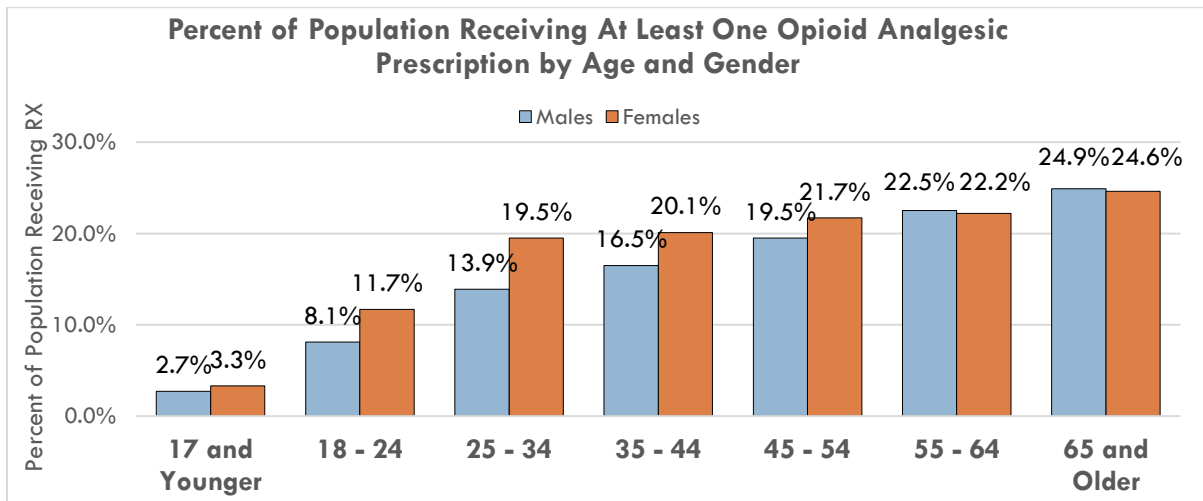
Opioid analgesics are the most frequently dispensed controlled drug class in all counties, although there is significant variation in the rate between counties. Franklin has the highest rate of opioid analgesic prescriptions dispensed. Grand Isle, Rutland, Bennington, Orleans, and Windham counties also have rates above the statewide rate. (Fig. 12)

Figure 12: Rate of Opioid Analgesic Prescriptions per 100 Residents by County

Rate of Opioid Analgesic Prescriptions per 100 Residents by County

County	Rate
Addison	59
Bennington	73
Caledonia	62
Chittenden	53
Essex	49
Franklin	91
Grand Isle	84
Lamoille	65
Orange	45
Orleans	72
Rutland	80
Washington	60
Windham	73
Windsor	49

VT: 68
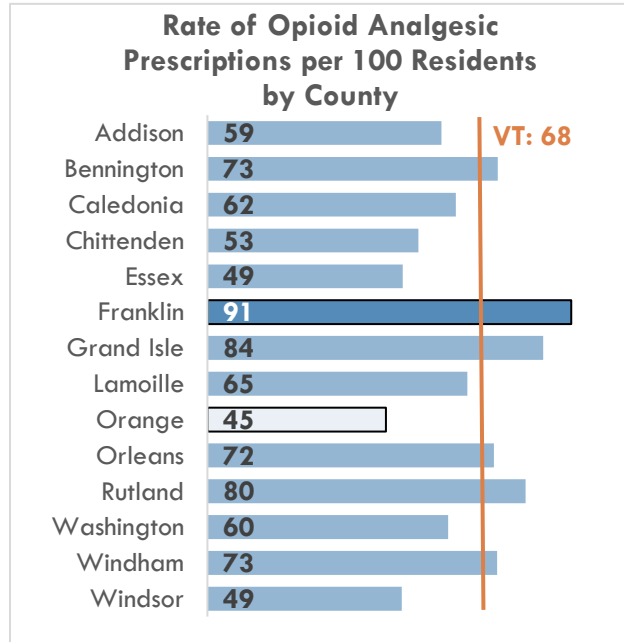
Opioid analgesics can be categorized as short acting (SA) or long acting (LA). Short acting opioid analgesics were the most commonly prescribed opioid analgesics in Vermont in 2016 led by Oxycodone SA at 29.9%, Hydrocodone SA at 21.6%, and Tramadol SA at 19.2%. (Fig. 13)

No other opioid analgesic made up more than six percent of opioid analgesic prescriptions.

Figure 13: Ten Most Commonly Prescribed Opioid Analgesics

Ten Most Commonly Prescribed Opioid Analgesics

Percent of Opioid Analgesic Prescriptions

Drug	Percent
OXYCODONE SA	29.9%
HYDROCODONE SA	21.6%
TRAMADOL SA	19.2%
HYDROMORPHONE SA	5.9%
MORPHINE LA	5.3%
FENTANYL LA	3.8%
METHADONE	3.5%
OXYCODONE LA	3.2%
CODEINE	3.2%
MORPHINE SA	3.0%
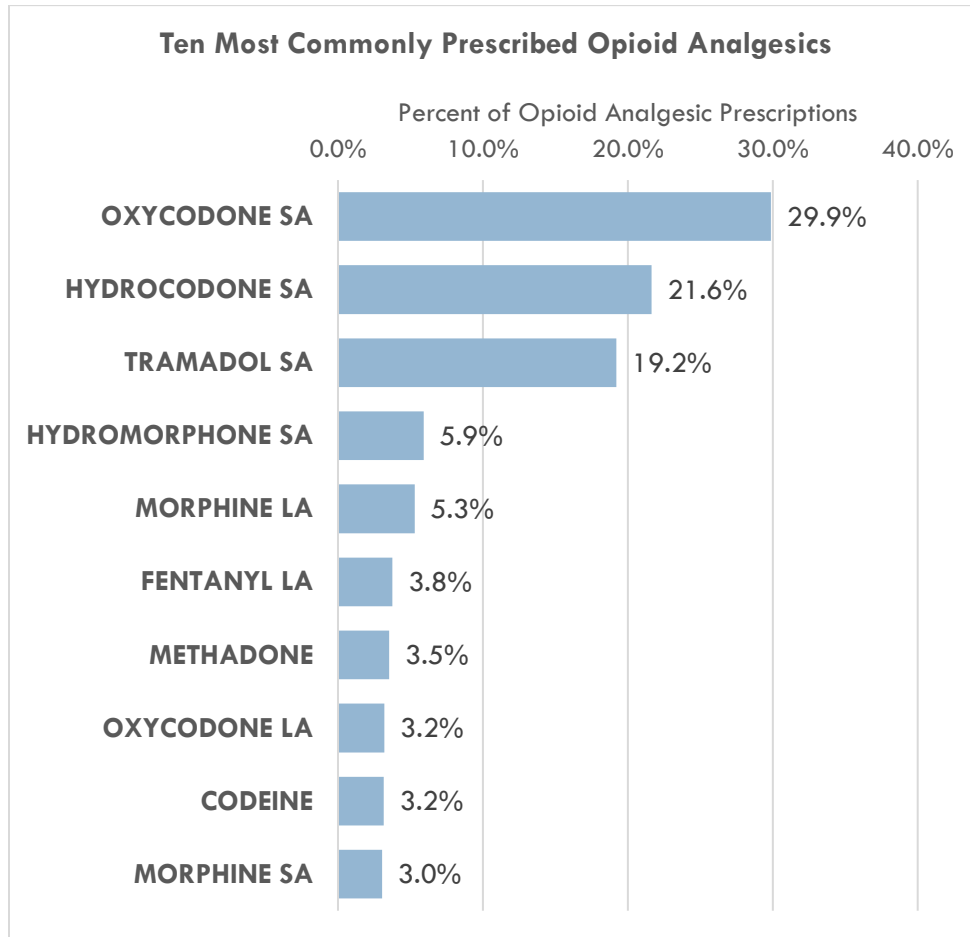
The total MME per 100 residents declined from 73,174 in 2012 to 68,915 in 2016. This is significant because prior to August of 2014, VPMS data did not include tramadol prescriptions. Tramadol prescriptions were first reported to VPMS in mid-2014 when it was rescheduled from a schedule V to a schedule IV-controlled substance.

Tramadol is the third most commonly used opioid analgesic in Vermont (Fig. 13), so the rescheduling resulted in an increase in both MME and number of prescriptions in both 2014 and 2015. Even with the inclusion of tramadol, the MME per 100 residents declined 5.8% between 2012 and 2016. This decrease is the result of overall decreased dispensing of opioid analgesics. (Fig. 14)

Figure 14: Total Opioid Analgesic MME per 100 Residents

Total Opioid Analgesic MME per 100 Residents

Year	Rate of Total MME Per 100 Residents
2012	73,174
2013	71,521
2014	73,476
2015	77,090
2016	68,915
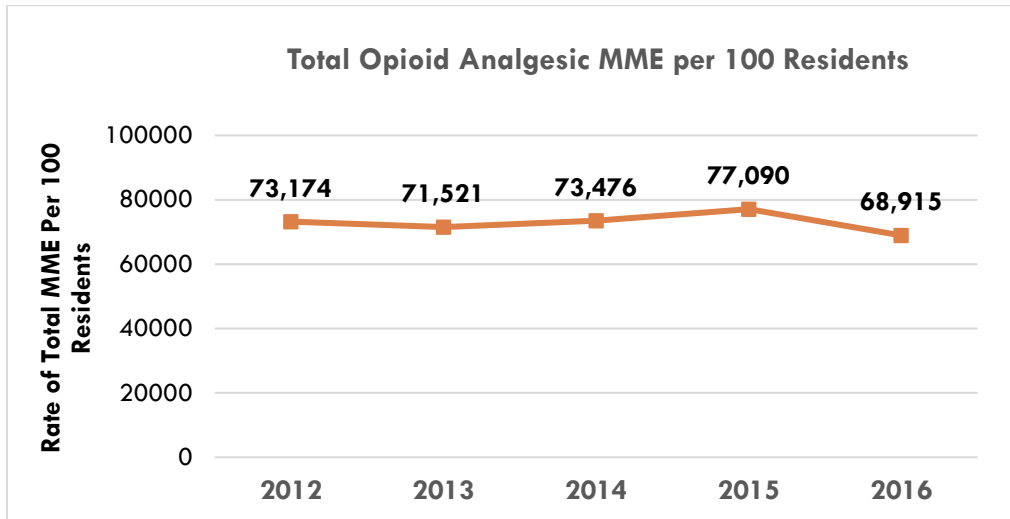
All counties except Bennington, Essex, Franklin and Rutland saw a decline in opioid analgesic MME per 100 residents between 2012 and 2016. Franklin and Grand Isle Counties had the highest rates over time while Orange County consistently had the lowest rates over time. ([Fig. 15](#))

Figure 15: Total Opioid Analgesic MME per 100 Residents by County

Total Opioid Analgesic MME per 100 Residents by County (2012, 2016)

County	2012	2016
Addison	67,718	63,029
Bennington	60,342	67,689
Caledonia	68,300	58,939
Chittenden	64,794	58,421
Essex	52,386	52,624
Franklin	98,824	100,633
Grand Isle	116,867	85,286
Lamoille	79,910	63,581
Orange	51,182	42,140
Orleans	73,683	73,050
Rutland	72,387	76,070
Washington	69,585	57,294
Windham	78,674	70,109
Windsor	60,620	54,137
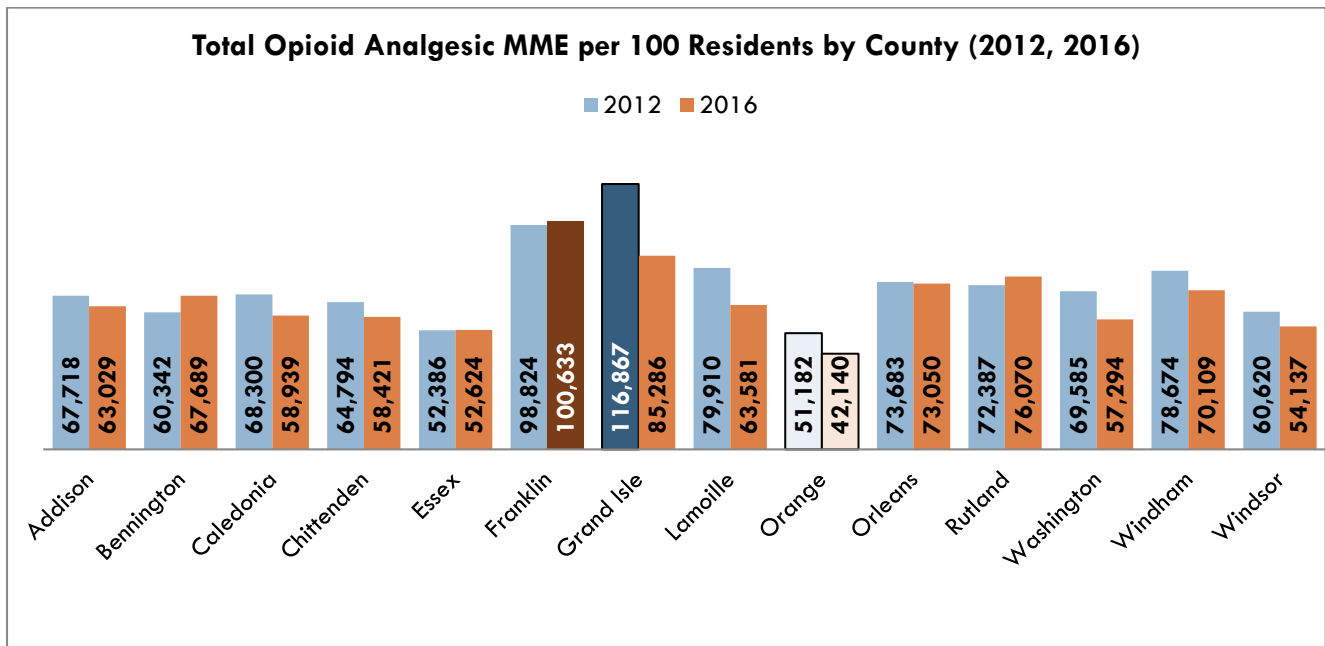
The average daily MME is equal to the total MME of the prescription dispensed divided by the total days' supply of the prescription. This provides a standardized way to report the total strength of the prescription over the period that it is to be taken.

Prescriptions with higher MMEs can be associated with increased risk of harm. Increasing dosages to 50 or more MME/day increases overdose risk without additional benefits for pain control or function. The Centers for Disease Control and Prevention (CDC) recommends that clinicians carefully reassess evidence of individual benefits and risks when considering increasing opioid dosages to ≥50 MME/day. Most experts also agree that opioid dosages should not be increased above 90 MME/day without careful justification based on diagnosis and an individualized assessment of benefits and risks. [1]

The Vermont Department of Health's *Rule Governing the Prescribing of Opioids for Pain* (eff. July 1, 2017) sets MME limits for first-time acute pain prescriptions to ensure that the lowest possible dose of opioid analgesics is prescribed to appropriately manage the patient's pain. While this Rule was not in effect during 2016, the legislation that necessitated its revision was enacted in 2016, and outreach about reducing or limiting initial opioid analgesic prescriptions was implemented in 2016. These discussions likely contributed to the decreases in average daily MME, total prescriptions, and total MME between 2015 and 2016.

The average daily MME for opioid analgesics declined 11.6% from 69 in 2012 to 61 in 2016. (Fig. 16)

Figure 16: Average Daily MME for Opioid Analgesic Prescriptions
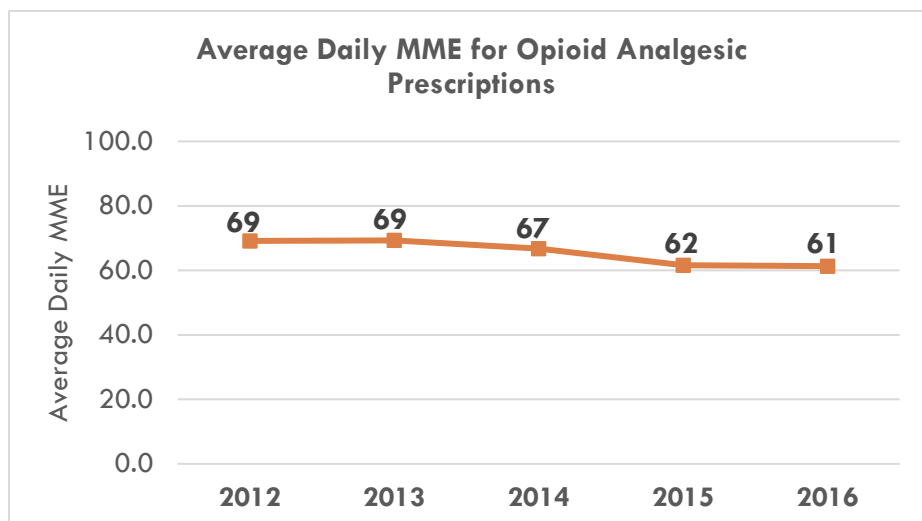
In 2016, Franklin County had the highest average daily MME at 70, followed closely by Chittenden County at 69. Orange County had the lowest average daily MME at 50. (Fig. 17)

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[1] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1

Figure 17: Average Daily MME for Opioid Analgesic Prescriptions by County

Average Daily MME for Opioid Analgesic Prescriptions by County (2016)

County	Average Daily MME
Addison	64
Bennington	52
Caledonia	57
Chittenden	69
Essex	62
Franklin	70
Grand Isle	61
Lamoille	56
Orange	50
Orleans	55
Rutland	63
Washington	54
Windham	57
Windsor	62

VT: 61
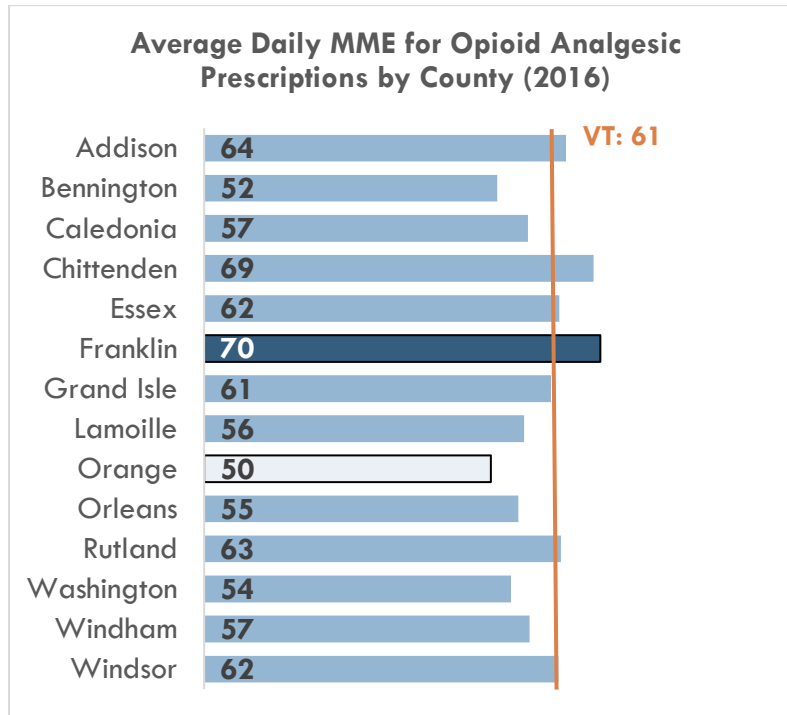
Men typically have higher average daily MME than women, except in the youngest age groups. Among Vermonters under the age of 24, the average daily MME is similar for males and females. Average daily MME increases until age 55 and older, when it begins to decline. (Fig. 18)

Figure 18: Opioid Analgesic Average Daily MME by Age and Gender

Opioid Analgesic Average Daily MME by Age and Gender

■ Male ■ Female

Age Group	Male	Female
17 and Younger	35	35
18 - 24	42	42
25 - 34	58	47
35 - 44	74	63
45 - 54	76	65
55 - 64	71	62
65 and Older	57	49
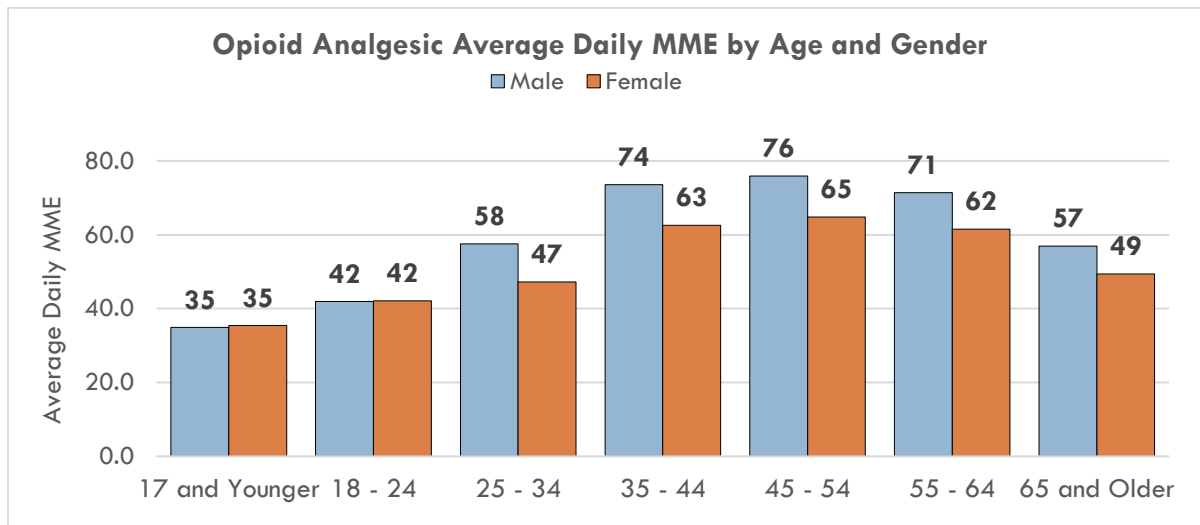
The Center for Disease Control and Prevention Guidelines for Prescribing Opioids for Chronic Pain[1] categorizes prescribing based on three daily MME groups: under 50 MME, between 50 and 90 MME, and over 90 MME. Higher MMEs are associated with greater risks of harm.

In 2016, nearly two thirds of opioid analgesic prescriptions in Vermont had an average daily MME under 50, a 10% increase since 2012. High daily MME prescribing (≥90 MME) decreased nearly 15% in the same period. (Fig. 19) The increase in prescriptions with low average daily MME may be partially due to tramadol rescheduling in mid-2014 because of tramadol's high dispense rate and low MME.

Figure 19: Percent of Opioid Analgesic Prescriptions by Average Daily MME Category
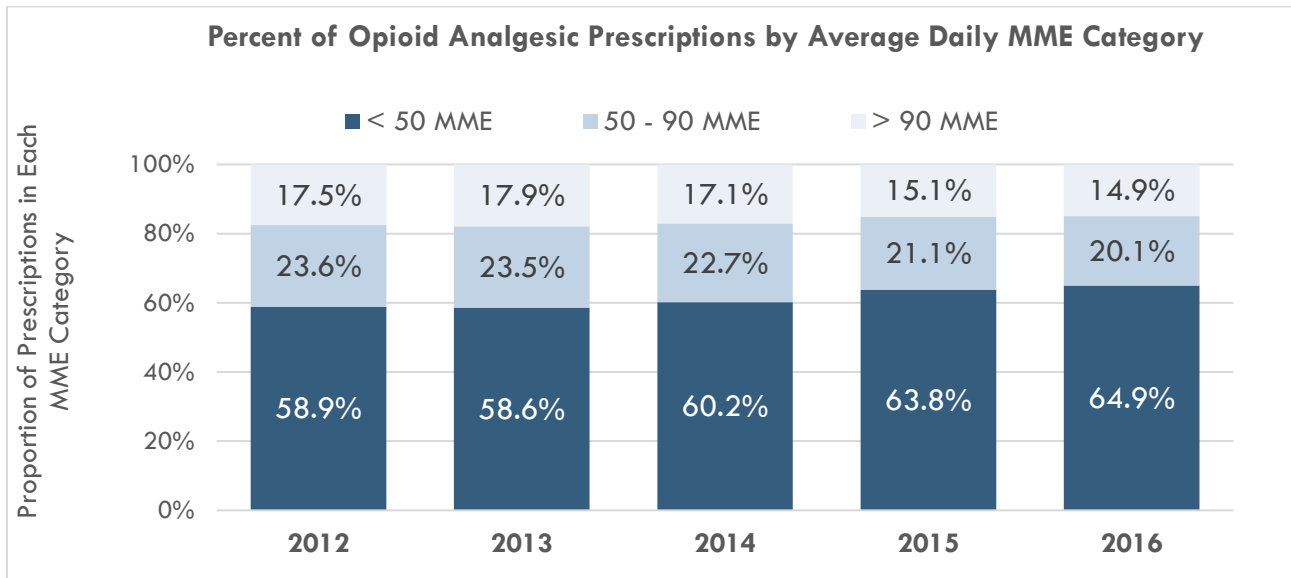
In 2016, average daily MME distributions across counties are similar to the state level. However, Grand Isle, Chittenden, and Franklin Counties have the greatest percentage of high MME opioid analgesic use and Bennington County has the lowest. (Fig. 20)

Figure 20: Average Daily MME for Opioid Analgesic Prescriptions by County

Average Daily MME for Opioid Analgesic Prescriptions by County

■ < 50 MME　■ 50 - 90 MME　■ > 90 MME

County	> 90 MME	50 - 90 MME	< 50 MME
Addison	16.4%	24.3%	59.3%
Bennington	11.0%	23.2%	65.8%
Caledonia	14.8%	22.1%	63.2%
Chittenden	19.7%	22.4%	57.9%
Essex	15.5%	22.1%	62.4%
Franklin	19.2%	23.7%	57.1%
Grand Isle	21.0%	23.6%	55.5%
Lamoille	14.5%	20.4%	65.1%
Orange	14.7%	21.4%	63.9%
Orleans	14.7%	20.3%	65.0%
Rutland	14.4%	20.7%	64.9%
Washington	14.8%	21.0%	64.2%
Windham	15.3%	21.3%	63.3%
Windsor	18.1%	22.6%	59.3%
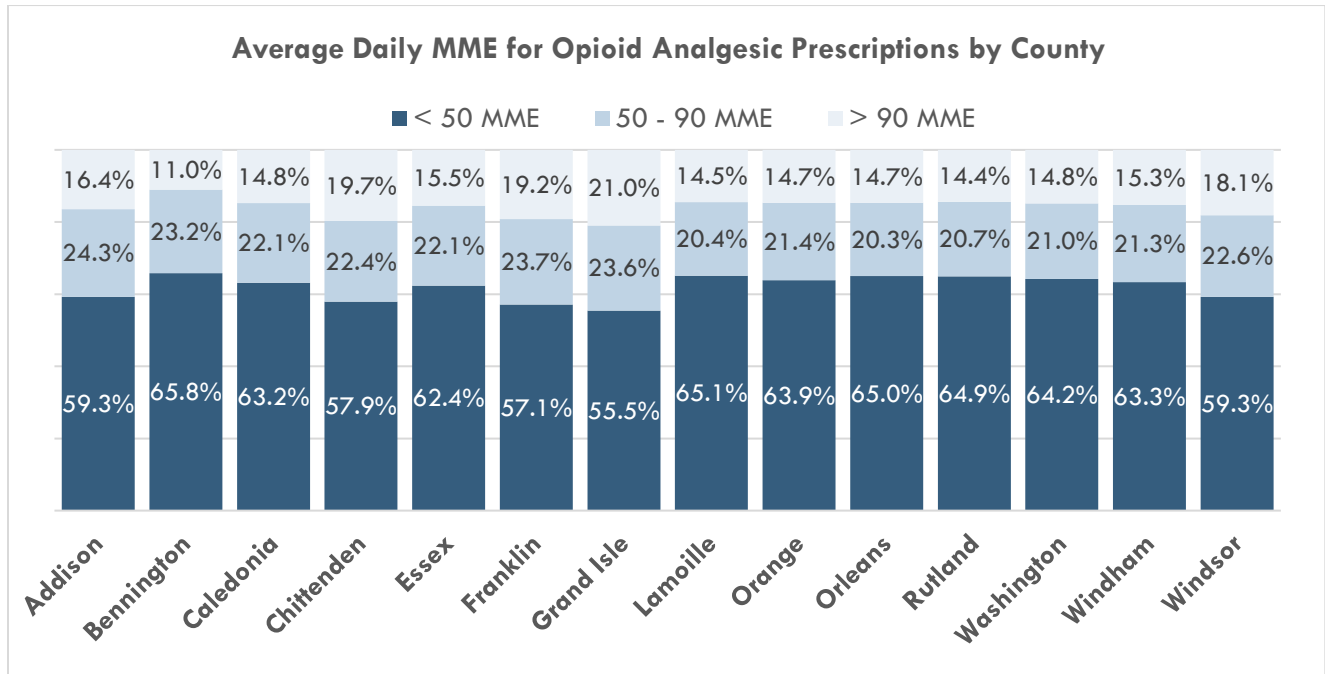
Long-term opioid use often begins with treatment of acute pain. The CDC notes that in cases of acute pain, more than a few days of exposure to opioid analgesics significantly increases hazards and risk of overdose.[2] Supplying three or fewer days of opioids in an initial opioid analgesic prescription reduces the likelihood of chronic opioid use. CDC guidelines indicate that taking even a low-dose opioid for more than 3 months increases the risk of addiction by 15 times.[1] Each day of unnecessary opioid use increases likelihood of physical dependence. Prescriptions with fewer days' supply also minimize the number of pills available for unintentional or intentional diversion.

The VPMS does not include the diagnosis for which a substance has been prescribed, so intended use related to acute or chronic pain is unknown.

In 2016, the total days' supply of opioids dispensed in VT equaled enough for each resident to use opioids for 12 days a year. (Fig. 21)

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[2] Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. MMWR Morbidity & Mortality Weekly Rep 2017;66:265–269. DOI: http://dx.doi.org/10.15585/mmwr.mm6610a1

Figure 21: Potential Average Days of Opioid Analgesic Use Per Vermont Resident, Based on Total Amount Dispensed

Potential Average Days of Opioid Analgesic Use Per Resident Based on Total Amount Dispensed By Year

Average Days' of Opioid Analgesic Use

Year	Value
2012	10
2013	10
2014	11
2015	13
2016	12
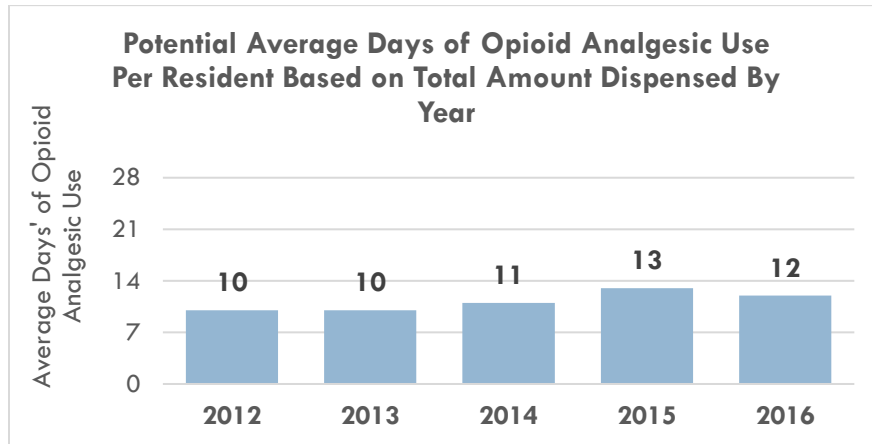
Since 2012, the average days' supply per opioid analgesic prescription has increased from 15 days to 17 days. Between 2015 and 2016, the average days' supply per prescription stayed the same. (Fig. 22)

Figure 22: Average Days' Supply per Opioid Analgesic Prescription

Average Days' Supply per Opioid Analgesic Prescription

Average Number Days' Supply

Year	Value
2012	15
2013	15
2014	16
2015	17
2016	17
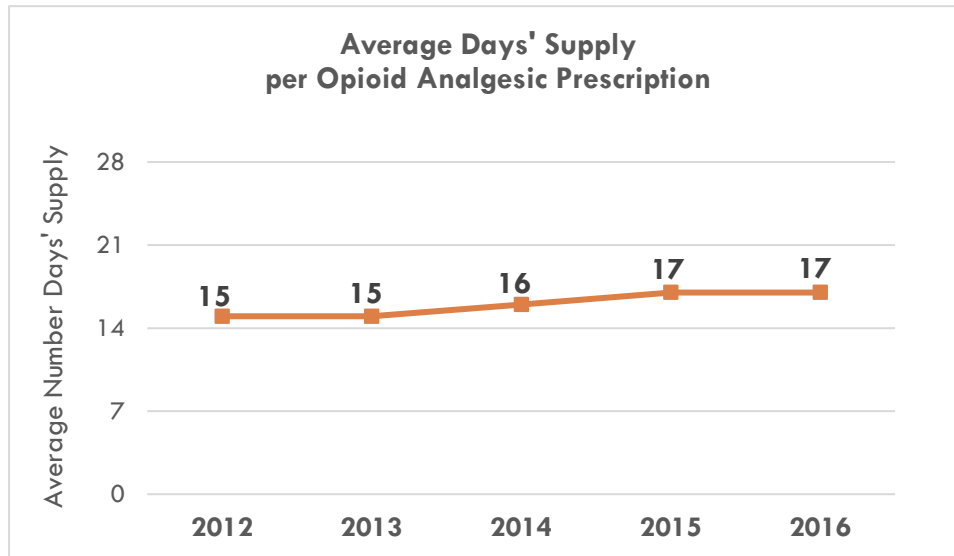
In 2016, Essex, Orange, and Orleans had the highest average days' supply at 19 days. (Fig. 23)

**Figure 23: Opioid Analgesic Average Days' Supply
by County**

**Opioid Analgesic Average Days' Supply by
County**

County	Days	
Addison	16	VT: 17
Bennington	18	
Caledonia	17	
Chittenden	17	
Essex	19	
Franklin	17	
Grand Isle	18	
Lamoille	17	
Orange	19	
Orleans	19	
Rutland	16	
Washington	18	
Windham	17	
Windsor	18	
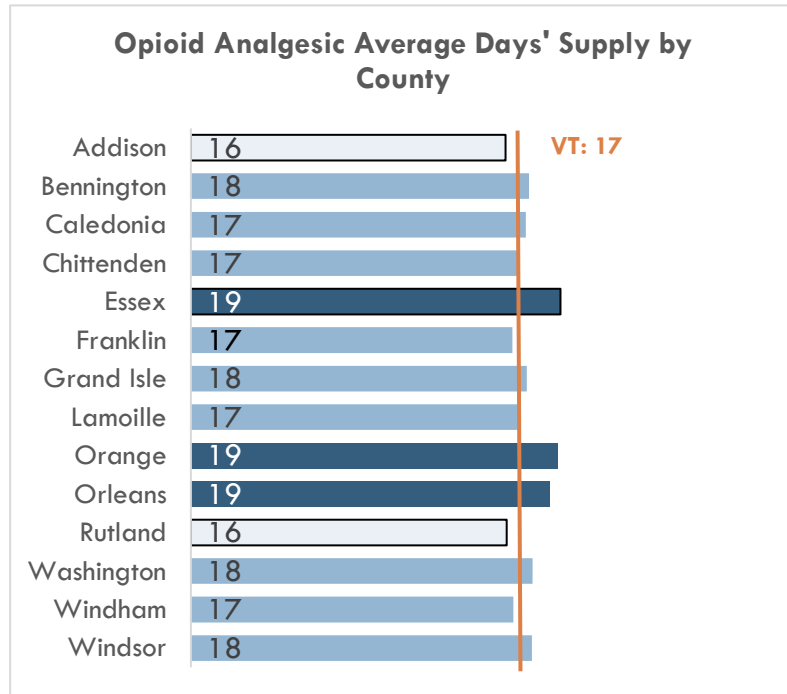
Prescriptions that are greater than 90 MME typically have the longest average days' supply at 18 days. Prescriptions under 50 MME have increased from 14 to 18 days' supply. Prescriptions with MME between 50 to 90 MME have the lowest days' supply on average – approximately 15 days. (Fig. 24)

Figure 24: Average Days' Supply by MME Category Trend

Average Days' Supply by MME Category

Less than 50 MME ▬ 50 - 90 MME ▬ Greater than 90 MME

	2012	2013	2014	2015	2016
Greater than 90 MME	18	18	18	18	18
Less than 50 MME	14	15	16	17	18
50 - 90 MME	14	14	14	15	15
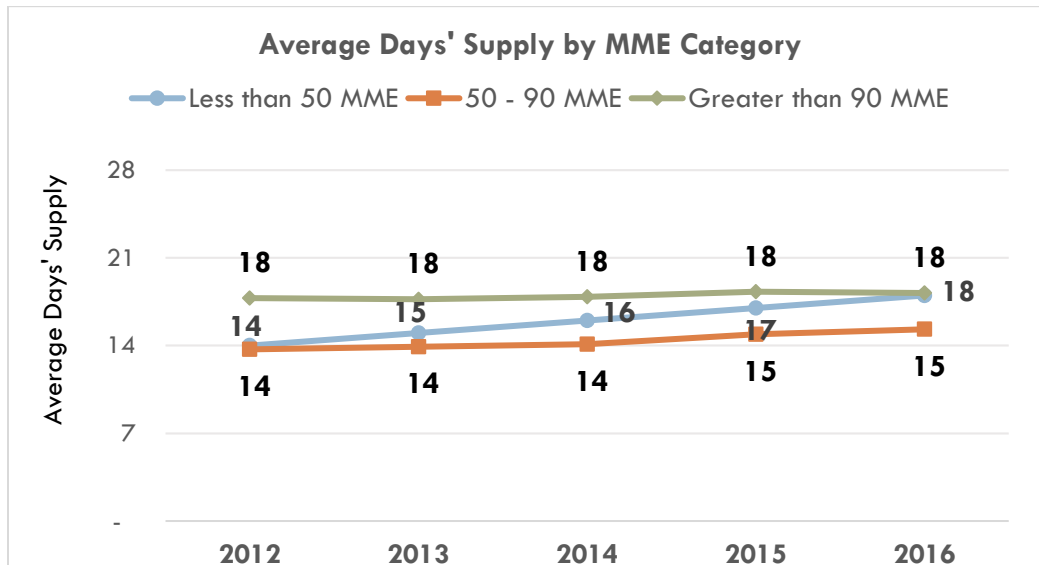
Opioid naïve patients are at greater risk for overdose than those who are accustomed to using opioids. VPMS considers patients to be opioid naïve when they have received less than one opioid prescription within the last 30 days.

In 2016, nearly half of opioid prescription recipients were opioid-naïve when they received their prescription (49%). There has been very little change over time. (Fig. 25)

Figure 25: Percent of Opioid Naïve Recipients of Opioid Analgesic Prescriptions

Percent of Opioid-Naive Recipients of Opioid Analgesic Prescriptions

Year	Percent
2012	Not Available
2013	49%
2014	51%
2015	48%
2016	49%
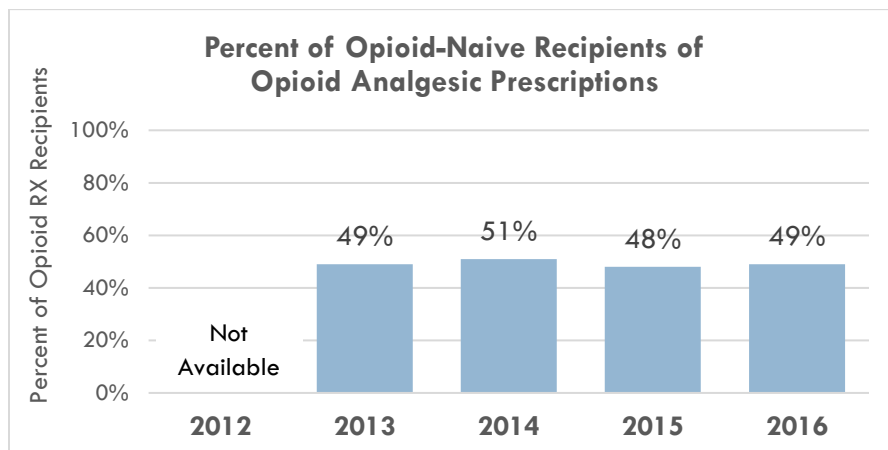
Medication Assisted Treatment Prescribing Patterns

There was a 52% increase in the number of prescriptions for medication assisted treatment (MAT) medications to treat opioid use disorder (OUD) between 2012 and 2016. (Appendix Table 13)

These numbers do not include information about people who receive treatment in specialty treatment facilities that dispense buprenorphine or methadone, known as "hubs." Only individuals who received a prescription from an office based opioid treatment (OBOT) provider, also known as a "spoke," are included in these calculations. "Spoke" data is included in VPMS as the prescriptions are dispensed by a pharmacy, whereas "hub" medications are dispensed directly to the patient at the facility. Approximately half of the people receiving MAT for OUD receive care through a hub; therefore, the numbers of individuals on MAT in VPMS represent approximately half of all Vermonters receiving treatment. Because of this, the VPMS MAT data is not necessarily representative of all persons receiving medication assisted treatment for opioid use disorder.

Men and women are equally likely to be prescribed MAT drugs in every age category. People age 25-34 are most likely to receive a MAT prescription. (Fig. 26)

Figure 26: Percent of Population Receiving at Least One MAT Prescription by Age Group and Gender

Percent of Population Receiving At Least One MAT Prescription by Age Group and Gender

■ Males   ■ Females

Age Group	Males	Females
17 and Younger	0.0%	0.0%
18 - 24	0.7%	0.9%
25 - 34	3.8%	4.0%
35 - 44	2.4%	1.8%
45 - 54	0.9%	0.6%
55 - 64	0.4%	0.3%
65 and Older	0.1%	0.0%
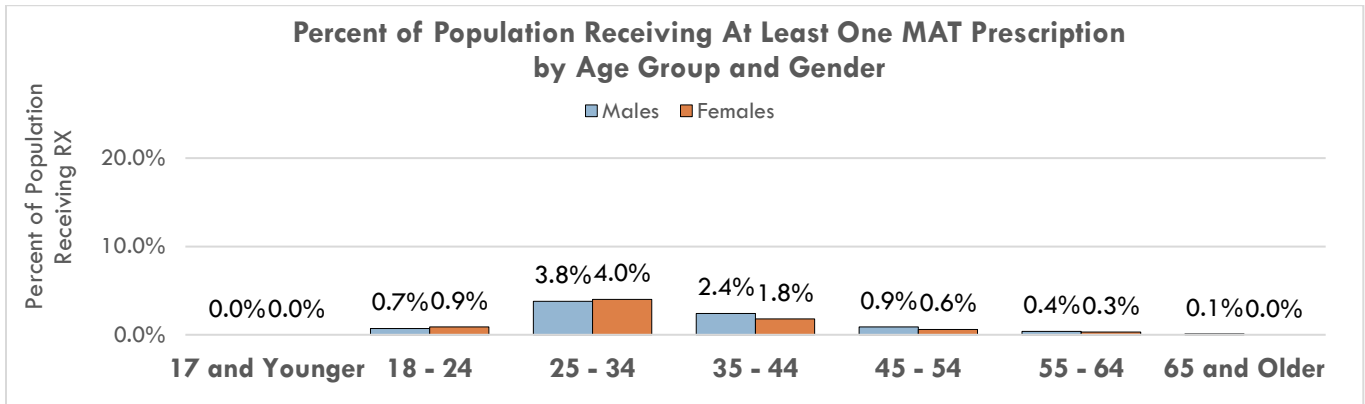
The data below should be reviewed with the context that counties with high rates of treatment in spokes typically have low rates of treatment in hubs and vice versa. Current hub and spoke census information is available on the VDH ADAP website.

Figure 27: MAT Prescriptions per 100 Residents by County

MAT Prescriptions per 100 Residents in Each County

VT: 24

County	Value
Addison	16
Bennington	45
Caledonia	9
Chittenden	18
Essex	3
Franklin	50
Grand Isle	33
Lamoille	27
Orange	11
Orleans	12
Rutland	34
Washington	15
Windham	18
Windsor	23
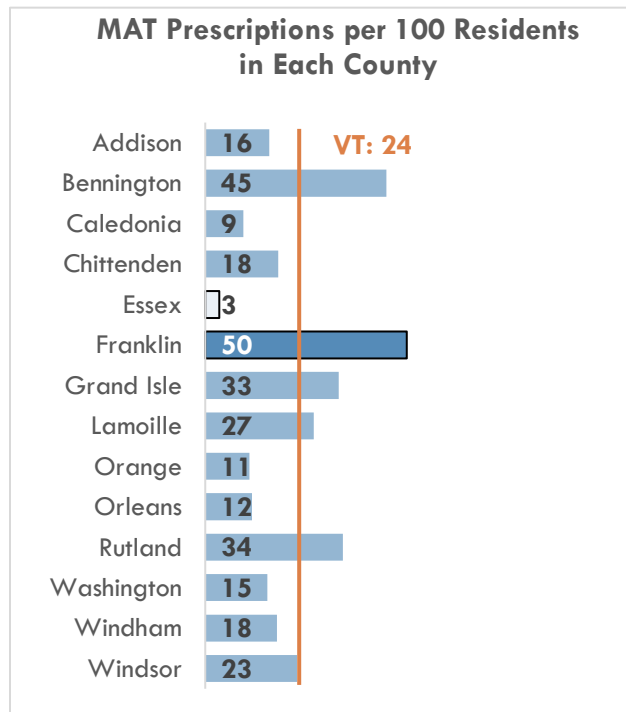
Stimulant Prescribing Patterns

The total number of stimulant prescriptions dispensed increased 26% between 2012 and 2016. (Appendix Table 13) Boys under the age of 18 are prescribed stimulants at almost twice the rate of girls. Between 18 and 24 years of age, both genders are prescribed stimulants at the same rate. Between 25 and 54, women are more likely to be prescribed stimulants. (Fig. 28)

Figure 28: Percent of Population Receiving At Least One Stimulant Prescription by Age Group and Gender
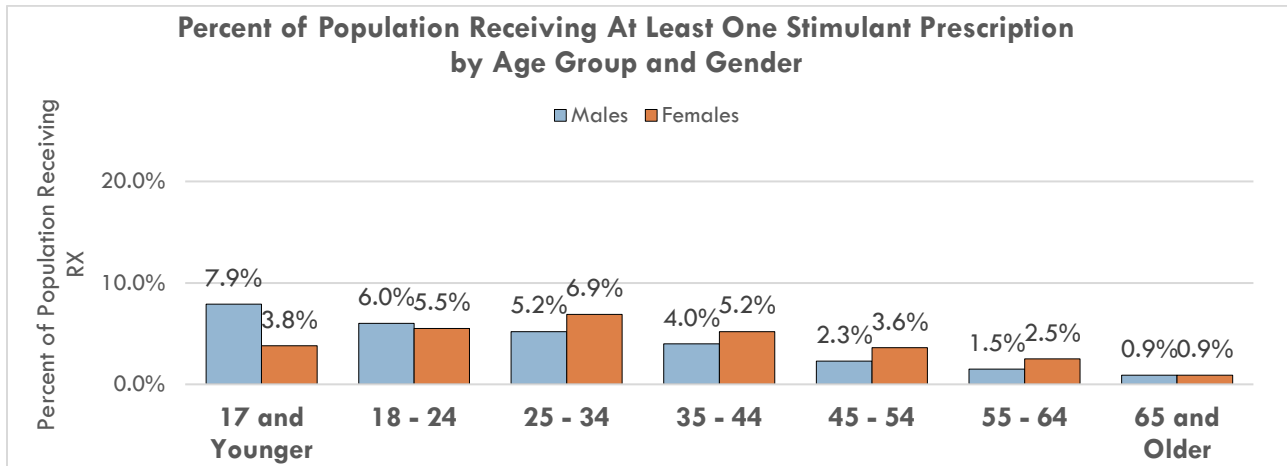
Figure 29: Rate of Stimulant Prescriptions per 100 Residents by County
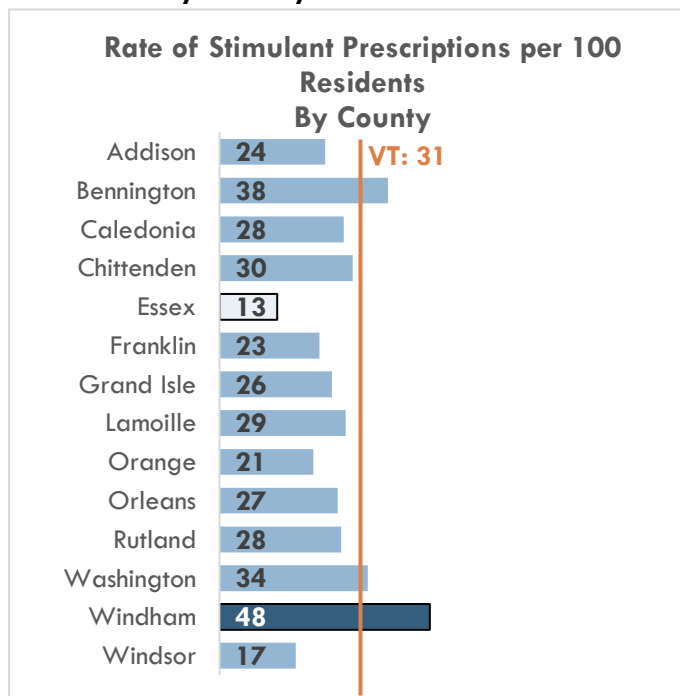
Benzodiazepine Prescribing Patterns

The number of prescriptions dispensed for benzodiazepines decreased five percent between 2012 and 2016. (Appendix Table 13) Women in all age categories are more likely to receive prescriptions for benzodiazepines than men. Benzodiazepine use increases as people age. (Fig. 30)

Figure 30: Percent of Population Receiving At Least One Benzodiazepine Prescription by Age Group and Gender
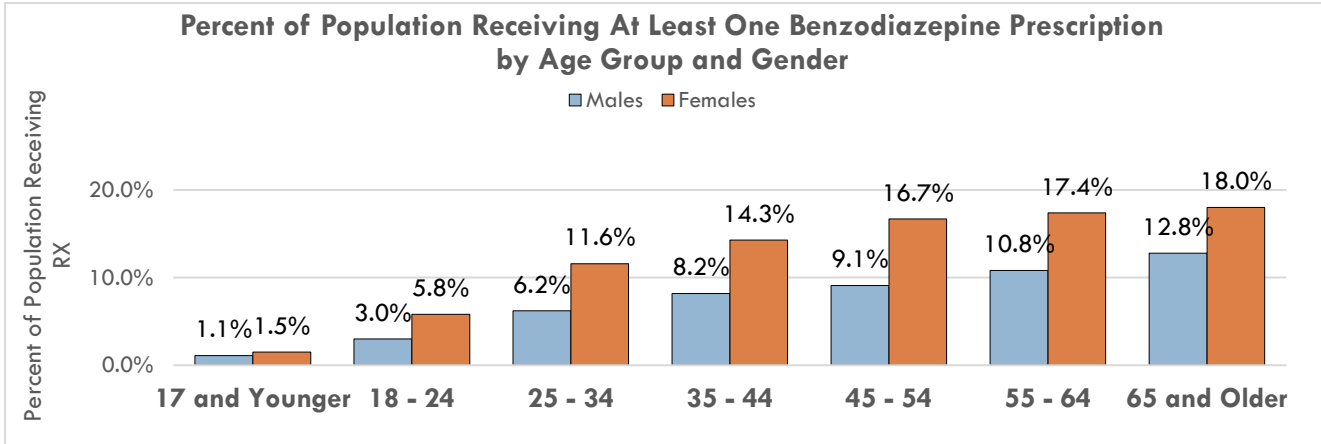
There are significant differences in benzodiazepine prescribing rates by county with Windham, Bennington, Rutland, Washington, and Orleans counties all higher than the state rate of 43 prescriptions per 100 residents.

Figure 31: Benzodiazepine Prescriptions per 100 Residents by County
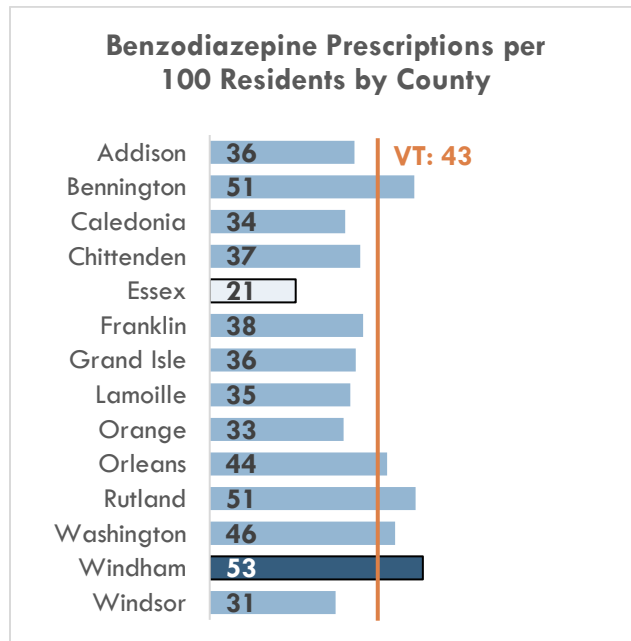
Prescription Issues of Concern

Simultaneous use of opioid analgesics and benzodiazepines is shown to be a risk factor for prescription misuse or overdose, as is receiving overlapping opioid analgesic prescriptions. Among those individuals with an opioid analgesic prescription, one in five prescription days overlapped with a second opioid analgesic prescription (20.3%). One in ten opioid analgesic prescription days overlapped with a benzodiazepine prescription (10.7%). (Fig. 32)

Figure 32: Percent of Opioid Analgesic Prescription Days with Overlapping Prescriptions
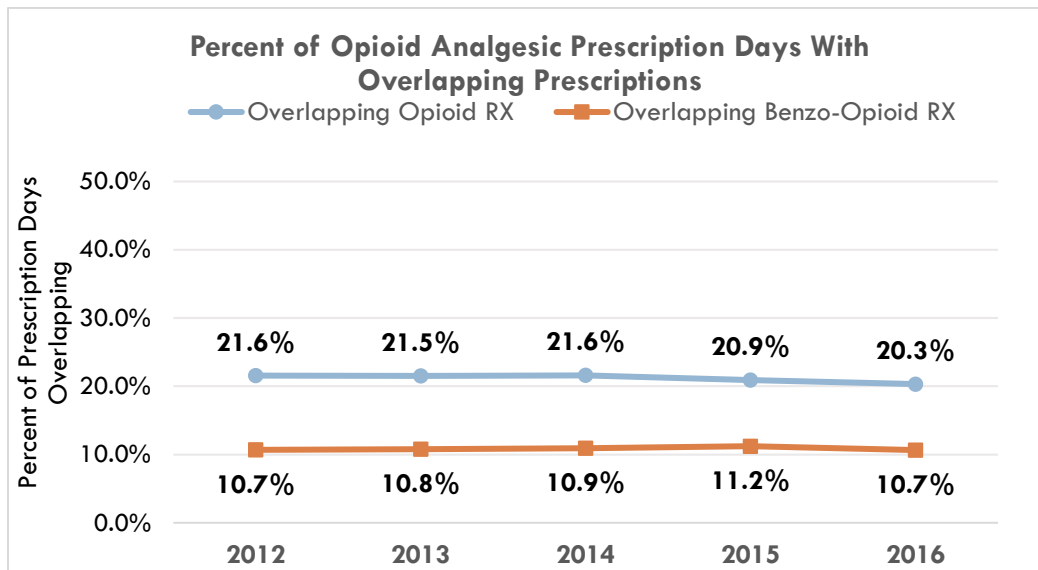
Receiving prescriptions from multiple prescribers and pharmacies within a given period of time is a measure of potential misuse or diversion, as it may show that an individual is purposefully receiving prescriptions from multiple providers without a clinical need. During the first half of 2016, 52 individuals exceeded the multiple provider thresholds set by the VPMS program. This means that these individuals went to both multiple pharmacies as well as multiple prescribers within a six-month period. In the second half of 2016, 42 individuals exceeded the thresholds. These numbers have been decreasing since 2015. (Fig. 33)

Figure 33: Individuals Exceeding Multiple Provider Thresholds in a Six-Month Period
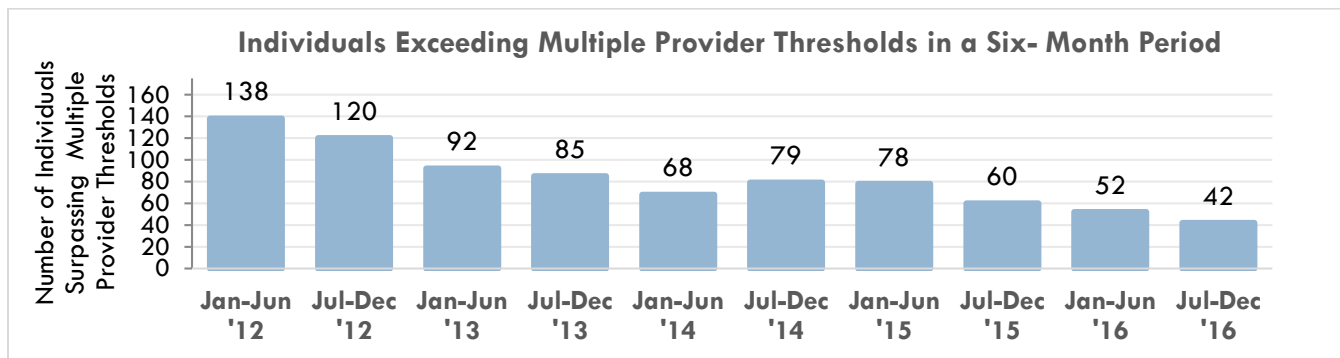
CONCLUSION

Vermont has been making incremental progress in improving the VPMS platform and tools available to assist prescribers and pharmacists in providing care to their patients. This, along with awareness of opioid use disorder and forthcoming changes in the prescribing Rule, has resulted in a reduction in opioid analgesics dispensed in the State. Simultaneously, there has been an increase in the availability of medication assisted treatment for opioid use disorders as shown in the increase in MAT prescribing. These prescribing trends show that Vermont is making progress in addressing the opioid epidemic.

Opportunities for improvement remain. These include providing additional tools to make it easier for prescribers to use the information in VPMS such as allowing prescribers to compare their own patterns of prescribing to other prescribers in the state and more proactively notifying prescribers when patients are receiving prescriptions that may put them at risk of complications or overdose. In addition, there are opportunities to make it easier to incorporate the use of VPMS in the prescribers' work flow such as linking the VPMS with an organizations' electronic health record.

APPENDIX: DATA TABLES

Appendix Table 1: Percent of Population Receiving at Least One Prescription by Drug Class (2016)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	14.4%	8.6%	0.6%	3.0%
Bennington	17.4%	10.9%	1.3%	4.4%
Caledonia	15.4%	7.8%	0.5%	3.5%
Chittenden	13.0%	9.0%	0.8%	3.7%
Essex	11.1%	5.1%	0.2%	2.0%
Franklin	16.4%	8.1%	1.5%	2.5%
Grand Isle	17.4%	8.6%	1.2%	3.0%
Lamoille	16.2%	9.6%	1.1%	3.5%
Orange	11.2%	7.8%	0.7%	2.7%
Orleans	16.2%	9.8%	0.6%	3.2%
Rutland	19.2%	10.1%	1.4%	3.1%
Washington	14.9%	10.2%	0.8%	4.0%
Windham	16.9%	10.4%	0.7%	5.4%
Windsor	11.8%	7.0%	0.8%	2.2%
VERMONT	16.1%	9.5%	0.9%	3.6%

See also Figure 3

Appendix Table 2: Percent of Population Receiving at Least One Opioid Analgesic Prescription (Trend)

Nearly all VT counties showed a slight decrease in the proportion of the population with an opioid analgesic prescription over time. Essex County is the only county which shows an increase in the percent of population with at least one opioid analgesic prescription between 2012 and 2016.

County	2012	2013	2014	2015	2016
Addison	15.9%	15.3%	15.4%	15.9%	14.4%
Bennington	19.2%	18.2%	19.2%	19.6%	17.4%
Caledonia	16.2%	15.7%	15.7%	16.5%	15.4%
Chittenden	14.9%	14.0%	14.3%	14.5%	13.0%
Essex	10.4%	10.6%	10.8%	11.4%	11.1%
Franklin	18.0%	17.0%	17.9%	18.5%	16.4%
Grand Isle	20.4%	18.7%	18.9%	19.5%	17.4%
Lamoille	20.1%	18.6%	19.2%	19.2%	16.2%
Orange	12.9%	12.5%	12.6%	13.3%	11.2%
Orleans	18.3%	17.9%	18.1%	18.8%	16.2%
Rutland	21.1%	20.0%	20.6%	20.7%	19.2%
Washington	17.0%	16.6%	16.3%	16.8%	14.9%
Windham	17.1%	16.6%	17.2%	18.4%	16.9%
Windsor	12.7%	12.1%	12.5%	13.6%	11.8%
VERMONT	17.7%	16.9%	17.2%	17.9%	16.1%

See also Figure 3

Appendix Table 3: Percent of Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	3.2%	7.7%	16.8%	15.8%	18.5%	19.0%	22.3%
Bennington	3.3%	11.2%	22.5%	22.2%	21.1%	22.2%	23.7%
Caledonia	2.7%	10.5%	19.0%	17.2%	19.7%	20.6%	22.0%
Chittenden	2.6%	5.8%	11.8%	14.9%	17.5%	20.5%	24.8%
Essex	1.5%	9.1%	15.7%	15.0%	13.2%	14.3%	13.2%
Franklin	2.9%	14.2%	17.8%	18.0%	21.1%	22.7%	27.8%
Grand Isle	1.8%	14.2%	17.9%	19.7%	21.0%	23.7%	25.4%
Lamoille	3.1%	11.9%	16.9%	18.6%	21.9%	23.1%	24.3%
Orange	1.6%	5.6%	11.7%	13.4%	14.7%	15.3%	16.3%
Orleans	2.9%	11.0%	18.4%	17.4%	21.3%	20.6%	23.2%
Rutland	3.8%	13.8%	21.2%	23.5%	24.1%	24.5%	26.0%
Washington	2.6%	8.3%	15.6%	16.4%	19.0%	20.7%	23.3%
Windham	2.4%	12.8%	20.5%	20.6%	21.3%	22.6%	21.3%
Windsor	1.9%	9.9%	11.1%	13.6%	13.9%	15.5%	16.6%
VERMONT	3.0%	9.9%	16.6%	18.3%	20.6%	22.3%	24.7%

See also Figure 4

Appendix Table 4: Percent of Population Receiving at Least One Benzodiazepine Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.6%	2.8%	8.5%	9.5%	11.3%	12.5%	15.1%
Bennington	1.6%	4.8%	10.5%	14.3%	14.9%	15.1%	15.9%
Caledonia	0.9%	3.0%	7.4%	9.6%	11.4%	10.8%	12.4%
Chittenden	1.3%	2.9%	8.1%	11.1%	13.0%	15.4%	17.7%
Essex	0.4%	1.6%	5.1%	6.1%	5.6%	6.0%	8.1%
Franklin	0.8%	3.9%	6.8%	9.2%	10.5%	12.6%	16.4%
Grand Isle	1.5%	4.3%	7.9%	8.1%	11.3%	11.2%	14.4%
Lamoille	2.2%	5.6%	8.8%	10.5%	12.9%	15.1%	15.2%
Orange	1.0%	4.0%	9.2%	10.1%	10.2%	10.6%	10.6%
Orleans	0.8%	4.1%	8.5%	10.2%	13.3%	13.9%	16.5%
Rutland	1.7%	6.0%	9.6%	12.4%	13.2%	13.9%	14.7%
Washington	1.1%	4.6%	10.0%	12.4%	14.5%	15.6%	15.2%
Windham	1.3%	5.4%	11.1%	13.1%	14.4%	14.4%	14.5%
Windsor	0.8%	3.9%	5.6%	7.9%	9.4%	9.6%	10.6%
VERMONT	1.3%	4.3%	8.9%	11.3%	12.9%	14.1%	15.6%

See also

Appendix Table 5: Percent of Population Receiving at Least One MAT Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	0.0%	0.3%	2.8%	1.4%	0.6%	0.2%	0.1%
Bennington	--	2.1%	7.0%	3.5%	0.9%	0.4%	0.1%
Caledonia	--	0.3%	2.3%	1.2%	0.5%	0.1%	0.1%
Chittenden	--	0.6%	3.1%	2.0%	0.7%	0.3%	0.1%
Essex	--	0.3%	0.9%	0.6%	--	--	--
Franklin	--	2.1%	7.1%	3.1%	0.7%	0.2%	0.1%
Grand Isle	--	1.1%	7.1%	2.7%	0.9%	0.3%	--
Lamoille	--	1.3%	5.7%	1.9%	0.4%	0.2%	0.0%
Orange	0.0%	0.7%	3.3%	1.4%	0.6%	0.3%	0.1%
Orleans	--	0.3%	2.5%	1.6%	0.6%	0.2%	--
Rutland	--	1.5%	7.4%	3.6%	1.0%	0.4%	0.1%
Washington	0.0%	0.7%	3.3%	1.9%	0.7%	0.3%	0.1%
Windham	--	0.8%	2.8%	2.0%	0.9%	0.4%	0.1%
Windsor	--	1.6%	3.6%	1.8%	0.8%	0.4%	0.1%
VERMONT	0.0%	0.8%	3.9%	2.1%	0.7%	0.3%	0.1%

" – " indicates individuals or prescriptions in a particular category.

See also

Appendix Table 6: Percent of Population Receiving at Least One Stimulant Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	6.7%	4.1%	4.8%	2.9%	2.0%	1.5%	0.8%
Bennington	9.1%	6.1%	6.5%	6.4%	3.6%	2.1%	0.7%
Caledonia	5.9%	4.6%	6.7%	4.4%	2.8%	1.7%	1.0%
Chittenden	5.3%	4.2%	5.8%	4.7%	3.2%	2.3%	1.0%
Essex	4.2%	2.1%	4.2%	3.3%	2.2%	0.5%	0.1%
Franklin	5.0%	3.7%	3.4%	2.6%	1.5%	1.0%	0.3%
Grand Isle	5.2%	5.4%	5.4%	3.9%	2.6%	1.7%	0.8%
Lamoille	4.4%	4.1%	7.0%	5.2%	3.2%	2.4%	0.7%
Orange	6.1%	3.8%	3.0%	3.0%	1.8%	1.4%	1.0%
Orleans	4.7%	4.6%	7.3%	5.1%	2.7%	1.3%	0.6%
Rutland	6.9%	4.1%	4.9%	4.0%	2.3%	1.5%	0.6%
Washington	5.3%	5.2%	8.1%	5.8%	3.4%	2.6%	1.2%
Windham	7.9%	9.9%	10.5%	7.6%	5.3%	2.9%	1.5%
Windsor	4.2%	4.7%	3.3%	2.3%	1.9%	1.2%	0.6%
VERMONT	5.8%	5.8%	6.0%	4.6%	2.9%	2.0%	0.9%

See also

Appendix Table 7: Percent of Population Receiving at Least One Opioid Analgesic Prescription By Gender (2016)

County	Male	Female
Addison	13.3%	15.6%
Bennington	15.7%	19.1%
Caledonia	14.2%	16.6%
Chittenden	11.8%	14.2%
Essex	11.0%	11.2%
Franklin	15.2%	17.8%
Grand Isle	16.6%	18.2%
Lamoille	14.5%	18.0%
Orange	10.2%	12.2%
Orleans	14.8%	17.6%
Rutland	17.3%	21.0%
Washington	13.6%	16.3%
Windham	15.4%	18.4%
Windsor	11.1%	12.4%
VERMONT	15.0%	17.2%

See also Figure 5

Appendix Table 8: Percent of Population Receiving at Least One Benzodiazepine Prescription By Gender (2016)

County	Male	Female
Addison	6.1%	11.2%
Bennington	7.7%	13.9%
Caledonia	6.1%	9.5%
Chittenden	6.5%	11.4%
Essex	4.2%	5.9%
Franklin	6.2%	9.9%
Grand Isle	6.6%	10.7%
Lamoille	7.5%	11.9%
Orange	6.3%	9.3%
Orleans	7.2%	12.4%
Rutland	7.1%	13.0%
Washington	7.2%	13.1%
Windham	7.4%	13.3%
Windsor	5.2%	8.7%
VERMONT	7.0%	12.0%

See also Figure 5

Appendix Table 9: Percent of Population Receiving at Least One MAT Prescription By Gender (2016)

County	Male	Female
Addison	0.6%	0.5%
Bennington	1.4%	1.3%
Caledonia	0.5%	0.4%
Chittenden	0.9%	0.8%
Essex	0.2%	0.1%
Franklin	1.4%	1.6%
Grand Isle	1.2%	1.3%
Lamoille	1.1%	1.1%
Orange	0.7%	0.6%
Orleans	0.5%	0.6%
Rutland	1.5%	1.3%
Washington	0.8%	0.7%
Windham	0.8%	0.7%
Windsor	0.9%	0.8%
VERMONT	0.9%	0.8%

See also

Appendix Table 10: Percent of Population Receiving at Least One Stimulant Prescription By Gender (2016)

County	Male	Female
Addison	3.3%	2.8%
Bennington	4.4%	4.3%
Caledonia	3.7%	3.2%
Chittenden	3.8%	3.5%
Essex	2.1%	1.9%
Franklin	2.9%	2.1%
Grand Isle	3.3%	2.8%
Lamoille	3.5%	3.6%
Orange	3.0%	2.4%
Orleans	3.4%	3.0%
Rutland	3.3%	2.9%
Washington	4.0%	4.0%
Windham	5.4%	5.4%
Windsor	2.4%	2.0%
VERMONT	3.8%	3.5%

See also

Appendix Table 11: Rate of Prescriptions per 100 Residents by Drug Class (2016)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	58.7	36.1	15.9	24.0
Bennington	72.8	51.0	44.9	38.2
Caledonia	62.3	33.8	9.5	28.2
Chittenden	52.9	37.5	18.1	30.2
Essex	49.0	21.4	3.5	13.1
Franklin	91.2	38.3	50.0	22.7
Grand Isle	84.2	36.4	33.1	25.5
Lamoille	65.2	35.0	26.9	28.7
Orange	44.8	33.4	11.0	21.3
Orleans	71.8	44.2	11.6	26.8
Rutland	79.8	51.3	34.1	27.6
Washington	60.4	46.2	15.4	33.7
Windham	72.6	53.1	17.8	47.8
Windsor	48.7	31.4	22.8	17.3
VERMONT	67.5	42.7	23.8	30.6

See also

Appendix Table 12: Total Number of Prescriptions by Drug Class by County (2016)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	21,689	13,327	5,874	8,858
Bennington	26,360	18,459	16,264	13,838
Caledonia	18,895	10,243	2,877	8,559
Chittenden	85,439	60,530	29,209	48,805
Essex	3,025	1,323	215	809
Franklin	44,628	18,708	24,452	11,089
Grand Isle	5,825	2,519	2,290	1,767
Lamoille	16,507	8,874	6,818	7,263
Orange	12,945	9,645	3,180	6,165
Orleans	19,299	11,872	3,114	7,211
Rutland	47,320	30,412	20,228	16,384
Washington	35,317	27,030	9,020	19,709
Windham	31,335	22,909	7,664	20,610
Windsor	27,023	17,421	12,625	9,618
VERMONT**	421,656	266,614	148,923	191,307

*****Note: The number of prescriptions by county will not equal the total number of prescriptions statewide for a specific year. Not all prescriptions in VPMS have correct address information; therefore, some prescriptions cannot be assigned to a county.*

See also Figure 7

Appendix Table 13: Total Number of Prescriptions by Drug Class (Trend)

Year	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
2012	425,353	281,329	97,886	151,892
2013	409,181	283,776	104,510	165,620
2014	426,367	285,468	113,020	174,479
2015	470,534	286,519	132,257	187,269
2016	421,656	266,614	148,923	191,307

See also Figure 7

Appendix Table 14: Percent of Opioid Analgesic Prescriptions by Gender (2016)

Generally, the proportions of prescriptions by gender by county is similar to the statewide totals (Fig. 8). However, in Essex County, most opioid analgesic prescriptions are dispensed to men.

County	Male	Female
Addison	44.6%	55.4%
Bennington	43.2%	56.8%
Caledonia	47.8%	52.2%
Chittenden	42.9%	57.1%
Essex	54.5%	45.5%
Franklin	46.6%	53.3%
Grand Isle	47.4%	52.6%
Lamoille	44.8%	55.2%
Orange	47.6%	52.5%
Orleans	49.0%	51.0%
Rutland	42.5%	57.5%
Washington	45.5%	54.5%
Windham	45.7%	54.3%
Windsor	46.8%	53.2%
VERMONT	45.9%	54.1%

See also

Appendix Table 15: Percent of Benzodiazepine Prescriptions by Gender (2016)

Essex also differs from statewide trends in its distribution of benzodiazepine prescriptions — women still receive a majority (54.9%), but men receive almost half (45.1%).

County	Male	Female
Addison	36.1%	63.9%
Bennington	33.4%	66.6%
Caledonia	38.7%	61.3%
Chittenden	36.3%	63.7%
Essex	45.1%	54.9%
Franklin	38.3%	61.7%
Grand Isle	40.9%	58.8%
Lamoille	38.6%	61.4%
Orange	40.4%	59.6%
Orleans	36.7%	63.3%
Rutland	35.1%	64.9%
Washington	37.0%	63.0%
Windham	35.8%	64.2%
Windsor	36.9%	63.1%
VERMONT	37.2%	62.8%

See also

Appendix Table 16: Percent of MAT Prescriptions by Gender (2016)

The gender distribution of MAT prescriptions by county varies widely. In five counties, men receive most of the MAT prescriptions. These include Caledonia, Essex, Orange, Washington, and Windham counties. There are six counties where more women receive MAT prescriptions: Bennington, Chittenden, Franklin, Grand Isle, Lamoille, and Orleans counties. Essex County differs the most from the statewide values, which are nearly evenly divided - 72.6% of the MAT prescriptions are written to men and just 27.4% to women.

County	Male	Female
Addison	49.0%	51.0%
Bennington	43.2%	56.8%
Caledonia	56.2%	43.8%
Chittenden	45.1%	54.9%
Essex	72.6%	27.4%
Franklin	42.0%	58.0%
Grand Isle	40.8%	59.2%
Lamoille	45.6%	54.4%
Orange	51.2%	48.8%
Orleans	44.6%	55.4%
Rutland	48.7%	51.3%
Washington	52.0%	47.8%
Windham	50.6%	49.4%
Windsor	47.4%	52.2%
VERMONT	47.1%	52.9%

See also Figure 8

Appendix Table 17: Percent of Stimulant Prescriptions by Gender (2016)

County	Male	Female
Addison	56.0%	44.0%
Bennington	55.1%	44.9%
Caledonia	55.4%	44.7%
Chittenden	51.8%	48.2%
Essex	51.9%	48.1%
Franklin	60.4%	39.6%
Grand Isle	51.2%	48.4%
Lamoille	47.9%	52.1%
Orange	57.4%	42.6%
Orleans	52.2%	47.8%
Rutland	53.5%	46.5%
Washington	50.5%	49.5%
Windham	48.7%	51.3%
Windsor	56.1%	43.9%
VERMONT	52.9%	47.1%

See also Figure 8

Appendix Table 18: Percent of Opioid Analgesic Prescriptions by Age Group (2016)

The age group distribution for opioid analgesic and benzodiazepine prescription recipients by county is similar to the state totals (Fig. 9), with the majority of prescriptions dispensed to people 55 or older.

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.2%	2.9%	8.0%	10.2%	20.4%	24.8%	32.6%
Bennington	1.0%	2.7%	7.9%	12.0%	20.5%	25.6%	30.4%
Caledonia	1.0%	2.3%	8.0%	11.9%	20.0%	27.1%	29.6%
Chittenden	1.1%	2.5%	7.6%	11.5%	21.6%	26.8%	28.9%
Essex	0.6%	1.7%	5.6%	13.0%	15.1%	32.3%	31.7%
Franklin	0.9%	2.4%	9.2%	15.0%	24.5%	24.9%	23.2%
Grand Isle	0.5%	1.4%	8.4%	13.3%	22.9%	30.8%	22.9%
Lamoille	1.3%	2.6%	8.9%	12.4%	22.6%	27.0%	25.3%
Orange	0.8%	1.4%	6.4%	14.1%	20.5%	27.9%	28.9%
Orleans	0.9%	1.7%	8.1%	11.2%	21.8%	24.8%	31.5%
Rutland	1.0%	2.5%	7.3%	11.7%	19.7%	27.5%	30.3%
Washington	1.0%	1.9%	7.7%	11.7%	21.6%	26.1%	29.9%
Windham	0.7%	2.2%	8.9%	12.1%	19.6%	30.5%	26.0%
Windsor	0.8%	2.1%	5.7%	12.3%	19.6%	27.8%	31.8%
VERMONT	1.0%	2.4%	7.8%	12.0%	21.0%	26.8%	28.9%

See also Figure 9

Appendix Table 19: Percent of Benzodiazepine Prescriptions by Age Group (2016)

The age group distribution for opioid analgesic and benzodiazepine prescription recipients by county is similar to the state totals (Fig. 9), with the majority of prescriptions dispensed to people 55 or older.

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.3%	2.1%	8.4%	10.4%	18.4%	25.3%	34.2%
Bennington	1.8%	2.6%	7.5%	12.5%	21.1%	24.8%	29.7%
Caledonia	1.7%	1.9%	8.0%	14.1%	22.4%	24.3%	27.6%
Chittenden	1.4%	3.0%	10.2%	13.1%	19.8%	24.8%	27.8%
Essex	1.2%	0.6%	10.0%	16.9%	15.4%	22.6%	33.3%
Franklin	1.0%	1.9%	8.6%	12.6%	21.4%	25.6%	29.0%
Grand Isle	1.9%	1.9%	7.9%	10.0%	23.8%	26.7%	27.8%
Lamoille	2.0%	3.0%	9.0%	13.9%	19.3%	26.2%	26.7%
Orange	1.4%	2.6%	11.3%	14.2%	19.7%	25.9%	24.9%
Orleans	0.9%	1.6%	8.3%	9.8%	20.5%	24.6%	34.3%
Rutland	1.4%	2.8%	8.8%	13.1%	19.9%	25.4%	28.7%
Washington	1.0%	2.9%	10.5%	14.9%	20.5%	25.9%	24.3%
Windham	1.1%	2.6%	10.5%	13.1%	17.9%	27.7%	27.2%
Windsor	0.9%	2.5%	6.7%	13.4%	19.8%	25.2%	31.6%
VERMONT	1.3%	2.8%	9.3%	12.9%	19.8%	25.2%	28.7%

See also Figure 9

Appendix Table 20: Percent of MAT Prescriptions by Age Group (2016)

Most MAT prescriptions are dispensed to people between 25 and 44 years of age. This is consistent across counties.

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.1%	9.6%	49.9%	23.4%	11.7%	3.4%	1.0%
Bennington	--	15.0%	49.0%	24.8%	7.6%	2.6%	1.0%
Caledonia	--	4.5%	49.5%	27.8%	12.3%	3.3%	2.6%
Chittenden	--	9.8%	52.5%	23.9%	10.0%	3.2%	0.6%
Essex	--	10.7%	49.3%	40.0%	--	--	--
Franklin	--	10.9%	56.8%	24.1%	6.6%	1.5%	0.1%
Grand Isle	--	3.7%	62.7%	21.1%	8.2%	4.3%	--
Lamoille	--	8.5%	62.9%	20.5%	6.2%	1.5%	0.4%
Orange	0.8%	7.0%	50.1%	19.6%	13.9%	6.3%	2.5%
Orleans	--	1.0%	47.8%	34.9%	10.9%	5.4%	--
Rutland	--	7.8%	53.2%	25.1%	9.3%	3.5%	1.2%
Washington	0.2%	5.6%	50.6%	28.3%	10.1%	4.6%	0.6%
Windham	--	7.8%	39.0%	25.5%	16.9%	9.0%	1.8%
Windsor	--	13.1%	45.4%	21.0%	12.7%	6.6%	1.1%
VERMONT	0.1%	9.7%	51.4%	24.4%	9.8%	3.8%	0.9%

" – " indicates individuals or prescriptions in a particular category.

See also

Appendix Table 21: Percent of Stimulant Prescriptions by Age Group (2016)

Stimulant prescriptions are most frequently dispensed to people under the age of 35, although there is variation by county. The counties with the highest proportion of stimulant prescriptions dispensed to people under 18 include Bennington and Franklin (45% each); while the counties with the lowest are Lamoille and Washington (25% each).

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	42.8%	12.1%	13.9%	10.0%	9.0%	8.1%	4.2%
Bennington	45.2%	9.8%	13.0%	13.0%	9.7%	7.2%	2.2%
Caledonia	37.5%	10.1%	18.3%	14.2%	8.9%	7.2%	3.9%
Chittenden	28.4%	12.9%	20.8%	15.3%	10.7%	8.7%	3.2%
Essex	39.8%	4.6%	18.2%	19.4%	13.4%	3.1%	1.6%
Franklin	45.1%	9.8%	18.1%	12.5%	7.9%	5.0%	1.7%
Grand Isle	32.4%	8.8%	19.2%	16.1%	11.2%	9.2%	3.0%
Lamoille	25.2%	8.4%	23.5%	18.2%	13.3%	8.9%	2.5%
Orange	44.1%	10.0%	10.3%	12.2%	8.1%	10.3%	5.1%
Orleans	30.0%	8.1%	24.9%	18.0%	10.5%	5.7%	2.9%
Rutland	42.5%	8.2%	15.8%	12.1%	10.7%	7.8%	2.9%
Washington	25.0%	9.8%	22.2%	17.2%	11.5%	9.8%	4.6%
Windham	26.3%	9.6%	21.6%	15.2%	12.9%	9.3%	5.0%
Windsor	37.1%	10.2%	14.7%	12.1%	12.5%	8.0%	5.5%
VERMONT	32.5%	11.9%	18.9%	14.3%	10.6%	8.1%	3.6%

See also Figure 9

Appendix Table 22: Percent of Male Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.5%	6.5%	14.9%	14.5%	17.4%	18.7%	21.4%
Bennington	3.0%	9.1%	17.6%	19.5%	19.3%	22.1%	22.8%
Caledonia	2.1%	8.4%	15.6%	15.0%	18.5%	21.4%	22.0%
Chittenden	2.3%	5.2%	9.7%	13.3%	16.8%	20.2%	24.4%
Essex	1.6%	3.6%	12.3%	16.2%	13.9%	14.7%	14.0%
Franklin	2.7%	11.2%	15.3%	17.1%	19.6%	22.6%	26.9%
Grand Isle	1.7%	12.4%	13.3%	18.8%	21.2%	23.7%	25.6%
Lamoille	2.9%	9.7%	13.6%	15.5%	19.4%	22.4%	23.5%
Orange	1.6%	4.2%	8.9%	11.8%	13.2%	15.6%	15.9%
Orleans	2.4%	7.0%	14.0%	15.4%	20.3%	21.0%	23.3%
Rutland	3.2%	11.0%	17.2%	20.1%	22.5%	24.0%	25.0%
Washington	2.3%	5.5%	12.5%	14.7%	18.2%	21.2%	22.8%
Windham	2.3%	9.3%	17.6%	19.3%	20.2%	22.1%	20.2%
Windsor	1.8%	7.8%	10.0%	11.6%	13.7%	15.4%	16.7%
VERMONT	2.7%	8.1%	13.9%	16.5%	19.5%	22.5%	24.9%

See also

Appendix Table 23: Percent of Female Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	4.0%	9.0%	18.8%	17.2%	19.6%	19.3%	23.2%
Bennington	3.6%	13.2%	27.6%	24.9%	22.8%	22.4%	24.5%
Caledonia	3.3%	13.2%	22.8%	19.4%	20.9%	19.9%	21.9%
Chittenden	3.0%	6.3%	14.2%	16.6%	18.2%	21.0%	25.2%
Essex	1.4%	14.9%	19.1%	13.9%	12.4%	13.9%	12.3%
Franklin	3.0%	17.4%	20.5%	18.9%	22.6%	22.9%	28.7%
Grand Isle	2.0%	16.1%	23.0%	20.5%	21.4%	23.7%	25.3%
Lamoille	3.3%	14.3%	20.5%	21.7%	24.5%	23.9%	25.2%
Orange	1.6%	7.2%	14.7%	14.9%	16.2%	15.0%	16.7%
Orleans	3.5%	15.8%	23.6%	19.7%	22.3%	20.4%	23.2%
Rutland	4.5%	16.7%	25.4%	26.9%	25.7%	25.1%	26.8%
Washington	2.8%	12.2%	18.8%	18.0%	19.8%	20.2%	23.9%
Windham	2.4%	17.0%	23.3%	21.8%	22.4%	23.1%	22.4%
Windsor	2.1%	12.0%	12.1%	15.6%	14.2%	15.6%	16.4%
VERMONT	3.3%	11.7%	19.5%	20.1%	21.7%	22.2%	24.6%

See also

Appendix Table 24: Ten Most Commonly Prescribed Opioid Analgesics by Generic Name (Trend)

	2012	2013	2014	2015	2016
Oxycodone SA	30.7%	31.3%	30.0%	29.1%	29.9%
Hydrocodone SA	37.6%	36.6%	31.4%	24.4%	21.6%
Tramadol SA	--	--	7.7%	17.8%	19.2%
Hydromorphone SA	6.1%	6.4%	6.1%	5.8%	5.9%
Morphine LA	4.9%	5.2%	5.1%	5.0%	5.3%
Fentanyl LA	4.2%	4.1%	4.1%	3.8%	3.8%
Methadone	4.3%	4.3%	3.9%	3.5%	3.5%
Oxycodone LA	3.7%	3.6%	3.5%	3.3%	3.2%
Codeine	5.0%	4.6%	3.9%	3.4%	3.2%
Morphine SA	2.7%	2.9%	3.0%	2.9%	3.0%
Oxymorphone LA	0.3%	0.2%	--	--	--

" – " *indicates individuals or prescriptions in a particular category.*

 Note – Tramadol was not considered a Schedule IV controlled substance and was not collected in VPMS until August 14th, 2014

See also Figure 13

Appendix Table 25: Total Opioid Analgesic MME Per 100 Residents (Trend)

County	2012	2013	2014	2015	2016
Addison	67,718	65,116	62,924	63,479	63,029
Bennington	60,342	63,021	67,476	74,427	67,689
Caledonia	68,300	66,590	70,941	68,635	58,939
Chittenden	64,794	63,146	63,674	65,061	58,421
Essex	52,386	55,608	60,390	55,397	52,624
Franklin	98,824	98,952	103,073	106,564	100,633
Grand Isle	116,867	108,620	95,707	100,197	85,286
Lamoille	79,910	76,618	80,076	80,067	63,581
Orange	51,182	53,510	56,418	55,088	42,140
Orleans	73,683	72,788	78,060	87,987	73,050
Rutland	72,387	68,200	74,191	80,378	76,070
Washington	69,585	69,753	66,991	69,196	57,294
Windham	78,674	77,860	79,889	77,823	70,109
Windsor	60,620	56,805	57,341	61,629	54,137
VERMONT	73,174	71,521	73,476	77,090	68,915

See also

Appendix Table 26: Average Daily MME for Opioid Analgesic Prescriptions (Trend)

County	2012	2013	2014	2015	2016
Addison	72.3	70.3	64.5	58.8	63.7
Bennington	55.2	59.5	55.8	52.1	51.6
Caledonia	61.1	59.8	61.3	58.2	57.0
Chittenden	77.7	78.0	74.9	68.9	68.5
Essex	61.6	61.8	61.5	51.5	62.5
Franklin	71.8	75.1	72.3	66.5	69.7
Grand Isle	79.3	79.1	72.5	66.0	61.0
Lamoille	61.0	62.1	61.9	58.0	56.3
Orange	66.2	66.3	61.4	54.5	50.4
Orleans	62.8	61.9	60.9	58.0	55.3
Rutland	67.7	68.6	65.8	61.5	62.8
Washington	64.1	64.5	59.7	56.1	54.0
Windham	69.9	69.4	66.8	58.9	57.3
Windsor	71.6	69.3	69.4	63.7	62.3
VERMONT	69.1	69.3	66.8	61.6	61.3

Appendix Table 27: Average Daily MME for Male Population By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	38.4	40.4	72.9	64.2	80.9	86.2	61.4
Bennington	33.2	39.9	44.2	47.7	62.7	61.3	51.7
Caledonia	38.5	47.0	50.4	54.5	80.6	65.2	53.9
Chittenden	35.9	43.1	59.7	86.8	95.8	82.9	59.4
Essex	35.8	49.7	37.3	78.6	110.4	61.7	64.9
Franklin	36.3	52.4	91.1	95.0	76.4	74.7	60.3
Grand Isle	49.7	42.8	64.9	71.3	78.2	70.8	46.4
Lamoille	39.5	39.9	44.6	62.4	59.5	54.1	57.2
Orange	38.8	39.0	45.4	60.6	55.8	52.8	48.6
Orleans	32.7	32.8	50.4	53.6	63.8	63.0	66.8
Rutland	29.0	36.4	50.6	70.0	57.9	78.6	59.8
Washington	35.7	41.7	47.3	64.6	63.5	57.3	53.5
Windham	30.7	40.3	45.9	62.5	85.4	65.7	60.8
Windsor	34.3	36.7	54.6	77.9	87.5	79.5	59.0
VERMONT	34.9	41.9	57.5	73.6	75.9	71.4	56.9

See also Figure 18

Appendix Table 28: Average Daily MME for Female Population By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	40.5	50.0	43.7	55.6	67.9	57.0	54.0
Bennington	33.6	36.2	43.3	51.1	55.3	54.3	42.3
Caledonia	42.8	36.1	42.5	45.8	51.9	63.2	50.7
Chittenden	37.2	46.6	52.3	67.2	70.6	68.0	54.2
Essex	33.9	28.5	33.3	35.2	43.2	63.0	62.4
Franklin	37.4	60.5	53.5	71.0	81.6	66.7	47.7
Grand Isle	35.3	44.1	32.9	68.1	71.0	45.9	57.1
Lamoille	29.2	33.4	35.1	66.6	62.7	72.6	41.0
Orange	33.7	37.7	42.5	55.2	54.1	42.8	48.1
Orleans	33.6	32.7	34.7	41.3	50.1	54.6	53.6
Rutland	29.9	34.4	53.5	85.9	63.5	66.1	52.1
Washington	35.5	38.3	47.2	43.3	61.2	55.6	46.6
Windham	41.8	37.0	46.6	54.2	53.1	55.6	43.0
Windsor	29.2	34.2	42.4	67.3	59.0	58.7	45.4
VERMONT	35.4	42.1	47.2	62.6	64.8	61.5	49.4

See also Figure 18

Appendix Table 29: Percentage of Opioid Analgesic Prescriptions in MME Category (2016)

County	% of RX with Less than 50 MME	% of RX with 50 – 90 MME	% of RX with Greater than 90 MME
Addison	59.3%	24.3%	16.4%
Bennington	65.8%	23.2%	11.0%
Caledonia	63.2%	22.1%	14.8%
Chittenden	57.9%	22.4%	19.7%
Essex	62.4%	22.1%	15.5%
Franklin	57.1%	23.7%	19.2%
Grand Isle	55.5%	23.6%	21.0%
Lamoille	65.1%	20.4%	14.5%
Orange	63.9%	21.4%	14.7%
Orleans	65.0%	20.3%	14.7%
Rutland	64.9%	20.7%	14.4%
Washington	64.2%	21.0%	14.8%
Windham	63.3%	21.3%	15.3%
Windsor	59.3%	22.6%	18.1%
VERMONT	64.9%	20.1%	14.9%

See also

Appendix Table 30: Average Days' Supply for Opioid Analgesic Prescriptions (Trend)

All Vermont counties are similar to the statewide trend (Fig. 22), with increases in the average days' supply between 2012 and 2016. In Essex County, the 2016 average days' supply is lower than the 2015 average.

County	2012	2013	2014	2015	2016
Addison	14	14	15	16	16
Bennington	14	15	15	17	18
Caledonia	16	16	17	17	17
Chittenden	15	15	16	17	17
Essex	18	19	18	20	19
Franklin	15	16	16	17	17
Grand Isle	15	15	17	18	18
Lamoille	15	16	16	17	17
Orange	15	16	18	19	19
Orleans	16	16	17	18	19
Rutland	13	13	15	16	16
Washington	15	15	16	18	18
Windham	15	15	16	17	17
Windsor	15	15	16	17	18
VERMONT	15	15	16	17	17

See also Figure 22

Appendix Table 31: Average Days' Supply by MME Category (2016)

County	Average Days' Supply of RX with Less than 50 MME	Average Days' Supply of RX with 50 – 90 MME	Average Days' Supply of RX with Greater than 90 MME
Addison	16	14	19
Bennington	18	16	21
Caledonia	18	15	18
Chittenden	18	14	17
Essex	20	18	19
Franklin	18	14	16
Grand Isle	19	15	17
Lamoille	17	14	19
Orange	20	17	20
Orleans	19	18	21
Rutland	17	15	17
Washington	18	16	19
Windham	16	17	19
Windsor	18	16	20
VERMONT	18	15	18

See also Figure 24

Appendix Table 32: Percent of Male Population Receiving at Least One MAT Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	0.3%	2.5%	1.8%	0.8%	0.1%	0.1%
Bennington	--	2.1%	7.0%	3.5%	0.7%	0.5%	0.1%
Caledonia	--	0.3%	2.3%	1.3%	0.8%	0.2%	0.0%
Chittenden	--	0.5%	3.0%	2.1%	1.0%	0.3%	0.1%
Essex	--	0.5%	1.5%	0.6%	--	--	--
Franklin	--	1.1%	6.7%	3.5%	0.8%	0.2%	0.1%
Grand Isle	--	0.8%	5.6%	3.6%	1.4%	0.1%	--
Lamoille	--	1.5%	5.0%	2.0%	0.5%	0.2%	0.1%
Orange	--	0.5%	3.3%	1.6%	0.5%	0.4%	0.2%
Orleans	--	0.2%	2.0%	1.6%	0.5%	0.2%	--
Rutland	--	1.6%	7.2%	4.3%	1.1%	0.5%	0.2%
Washington	--	0.6%	3.4%	2.1%	0.8%	0.3%	0.1%
Windham	--	0.9%	2.6%	2.6%	1.0%	0.5%	0.1%
Windsor	--	1.7%	3.6%	2.1%	0.8%	0.5%	0.1%
VERMONT	--	0.7%	3.8%	2.4%	0.9%	0.4%	0.1%

" – " indicates individuals or prescriptions in a particular category.

See also

Appendix Table 33: Percent of Female Population Receiving at Least One MAT Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
	Percent of FEMALE Population in Each Age Group Receiving MAT Prescription by County						
Addison	0.0%	0.3%	3.0%	0.9%	0.4%	0.2%	--
Bennington	--	2.1%	7.0%	3.5%	1.0%	0.3%	0.0%
Caledonia	--	0.3%	2.2%	1.1%	0.1%	0.0%	0.2%
Chittenden	--	0.6%	3.2%	1.8%	0.5%	0.2%	0.1%
Essex	--	--	0.4%	0.6%	--	--	--
Franklin	--	3.2%	7.6%	2.7%	0.7%	0.3%	0.1%
Grand Isle	--	1.3%	8.7%	1.9%	0.4%	0.5%	--
Lamoille	--	1.1%	6.4%	1.9%	0.3%	0.2%	--
Orange	0.0%	0.9%	3.3%	1.2%	0.7%	0.1%	0.0%
Orleans	--	0.5%	3.2%	1.6%	0.7%	0.2%	--
Rutland	--	1.4%	7.8%	2.9%	1.0%	0.3%	0.0%
Washington	0.0%	0.7%	3.1%	1.7%	0.5%	0.3%	0.1%
Windham	--	0.7%	2.9%	1.5%	0.8%	0.3%	0.0%
Windsor	--	1.4%	3.6%	1.5%	0.9%	0.3%	0.0%
VERMONT	0.0%	0.9%	4.0%	1.8%	0.6%	0.3%	0.0%

" – " *indicates individuals or prescriptions in a particular category.*

See also

Appendix Table 34: Percent of Male Population Receiving at Least One Stimulant Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	8.5%	4.4%	4.5%	2.4%	1.3%	1.2%	0.8%
Bennington	11.3%	6.9%	4.9%	4.1%	2.4%	1.4%	0.8%
Caledonia	8.1%	5.4%	6.4%	3.7%	1.7%	1.2%	0.8%
Chittenden	7.2%	4.5%	5.0%	4.1%	2.7%	1.8%	0.9%
Essex	5.1%	1.5%	3.8%	2.5%	2.6%	0.5%	0.3%
Franklin	6.9%	4.4%	3.5%	2.1%	1.2%	0.8%	0.4%
Grand Isle	7.7%	5.0%	3.6%	5.2%	2.2%	1.2%	0.9%
Lamoille	6.3%	4.5%	5.2%	4.1%	2.8%	2.0%	0.6%
Orange	8.4%	3.9%	2.2%	2.8%	1.3%	1.2%	0.9%
Orleans	6.0%	4.5%	6.1%	5.0%	2.6%	1.2%	0.6%
Rutland	9.3%	4.3%	4.4%	2.8%	1.7%	1.1%	0.6%
Washington	7.1%	4.4%	7.1%	5.4%	2.5%	2.0%	1.2%
Windham	10.8%	9.3%	8.9%	6.7%	3.8%	2.1%	1.1%
Windsor	5.8%	5.1%	3.1%	2.1%	1.5%	0.9%	0.7%
VERMONT	7.9%	6.0%	5.2%	4.0%	2.3%	1.5%	0.9%

See also

Appendix Table 35: Percent of Female Population Receiving at Least One Stimulant Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	4.7%	3.7%	5.1%	3.5%	2.7%	1.9%	0.8%
Bennington	6.7%	5.3%	8.2%	8.7%	4.7%	2.7%	0.5%
Caledonia	3.5%	3.8%	7.0%	5.1%	3.8%	2.3%	1.1%
Chittenden	3.3%	3.9%	6.6%	5.4%	3.6%	2.9%	1.0%
Essex	3.2%	2.8%	4.5%	4.1%	1.7%	0.6%	--
Franklin	3.0%	3.0%	3.3%	3.1%	1.8%	1.2%	0.3%
Grand Isle	2.8%	5.8%	7.3%	3.2%	3.0%	2.2%	0.8%
Lamoille	2.5%	3.6%	8.8%	6.3%	3.6%	2.8%	0.8%
Orange	3.6%	3.6%	4.0%	3.2%	2.1%	1.6%	1.0%
Orleans	3.4%	4.8%	8.8%	5.2%	2.7%	1.4%	0.6%
Rutland	4.5%	3.9%	5.4%	5.2%	2.8%	2.0%	0.7%
Washington	3.6%	6.3%	9.1%	6.3%	4.2%	3.1%	1.2%
Windham	4.8%	10.6%	12.1%	8.5%	6.6%	3.7%	1.7%
Windsor	2.6%	4.3%	3.6%	2.6%	2.3%	1.4%	0.5%
VERMONT	3.8%	5.5%	6.9%	5.2%	3.6%	2.5%	0.9%

See also Figure 28

Appendix Table 36: Percent of Male Population Receiving at Least Benzodiazepine Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.2%	1.9%	5.5%	6.4%	7.5%	8.8%	11.8%
Bennington	1.0%	3.4%	7.3%	8.6%	10.0%	11.4%	12.8%
Caledonia	0.8%	2.5%	5.7%	7.0%	8.3%	8.2%	11.1%
Chittenden	1.0%	2.0%	5.6%	8.2%	9.3%	11.3%	14.3%
Essex	0.5%	0.5%	3.1%	5.9%	4.6%	4.7%	7.3%
Franklin	0.7%	3.2%	5.0%	7.5%	7.9%	9.6%	13.3%
Grand Isle	1.8%	3.7%	3.6%	5.0%	7.5%	8.7%	13.0%
Lamoille	2.0%	4.0%	6.6%	8.4%	9.2%	11.5%	13.2%
Orange	0.9%	2.8%	7.2%	9.3%	8.3%	8.4%	8.8%
Orleans	0.5%	2.3%	5.9%	6.9%	8.4%	11.5%	13.4%
Rutland	1.5%	4.1%	6.4%	7.8%	8.8%	10.3%	11.3%
Washington	1.0%	2.7%	7.1%	9.0%	10.0%	11.7%	11.6%
Windham	1.1%	3.8%	7.0%	10.3%	9.9%	10.8%	10.6%
Windsor	0.6%	2.6%	4.0%	5.8%	6.7%	7.6%	8.6%
VERMONT	1.1%	3.0%	6.2%	8.2%	9.1%	10.8%	12.8%

See also

Appendix Table 37: Percent of Female Population Receiving at Least One Benzodiazepine Prescription By Age Group (2016)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.0%	3.7%	11.6%	12.6%	15.0%	16.2%	18.2%
Bennington	2.3%	6.1%	13.9%	19.9%	19.2%	18.6%	18.7%
Caledonia	0.9%	3.6%	9.2%	12.1%	14.5%	13.4%	13.5%
Chittenden	1.5%	3.7%	10.8%	14.0%	16.4%	19.3%	20.2%
Essex	0.2%	2.8%	7.1%	6.3%	6.6%	7.4%	8.9%
Franklin	0.9%	4.6%	8.5%	10.9%	13.0%	15.4%	19.3%
Grand Isle	1.2%	4.9%	12.6%	10.9%	15.1%	13.7%	15.8%
Lamoille	2.5%	7.4%	11.1%	12.7%	16.8%	18.5%	17.2%
Orange	1.1%	5.5%	11.3%	11.0%	12.1%	12.7%	12.3%
Orleans	1.2%	6.0%	11.5%	13.6%	18.3%	16.4%	19.2%
Rutland	2.0%	8.0%	13.0%	16.9%	17.7%	17.3%	17.5%
Washington	1.3%	7.3%	12.9%	15.7%	18.7%	19.2%	18.2%
Windham	1.4%	7.3%	15.1%	15.8%	18.3%	18.0%	17.9%
Windsor	1.0%	5.3%	7.2%	10.0%	12.0%	11.4%	12.4%
VERMONT	1.5%	5.8%	11.6%	14.3%	16.7%	17.4%	18.0%

See also