VERMONT PRESCRIPTION MONITORING SYSTEM

Annual Report 2017

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.

There were changes to the VPMS in 2017 due to migration to a new system with improved functionality such as the addition of Prescriber Insight Reports to allow prescribers to compare their own prescribing patterns to their peers. Interstate data sharing, which allows prescribers to view prescriptions dispensed in states that have a formal sharing agreement, expanded from four states in 2016 to seven in 2017.

VPMS user accounts increased 92% between 2016 and 2017 due in part to increased awareness of mandatory registration. These newly enrolled providers either had not been previously aware of the requirement to register, had previously registered and not regularly used the account, or were new to prescribing in Vermont. These users drove a 50% increase in patient look ups between 2016 and 2017.

Prescribing patterns for most categories of scheduled drugs have changed in recent years.

- The total morphine milligram equivalents (MME) of opioid analgesic pain relievers dispensed per 100 residents declined 20.5% between 2015 and 2017 based on the. The percent of the population receiving at least one opioid prescription dropped 23%, from 17.9% in 2015 to 13.8% in 2017.
- Prescriptions for buprenorphine, which is used to treat opioid use disorder, increased 70% between 2012 and 2017, during which time the state of Vermont increased access to treatment.
- The number of stimulant prescriptions dispensed increased 35% between 2012 and 2017. Males under 18 were most likely to receive stimulants, followed by females between 25 and 34.
- County-level dispensing of controlled substances varies, and stakeholders are encouraged to use this report, in combination with other community information, to determine if these variations are of concern. Some counties along the eastern side of the state, especially Essex, may show artificially lower rates because there are few or no pharmacies in the county so residents may fill their prescriptions in another state. Still, there are some regions with significantly higher rates of use. Based on the number of prescriptions per 100 residents, Franklin county residents receive 41% more prescriptions for opioid analgesics than the statewide average and Windham County residents receive 45% more stimulant prescriptions.

VPMS staff are continuing to pursue opportunities for system improvements such as integrating the VPMS with electronic health records and offering provider tools that are easy to use and clinically relevant to provide essential information about their patients in real-time.

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 2017 and trend information from 2012 to 2017. 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, which have different access and use requirements based on their state statutes. 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. Please note that even though Vermont has legalized both recreational and medical use of marijuana, this is still a federally scheduled drug and not collected by VPMS.

- **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 assigns drugs to drug classes based on the U.S. Centers for Disease Control and Prevention's (CDC) 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. Due to the wide variety of medications included in this group, "Other" prescription data, while present in the database, is not included in this report.

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 situations in which opioid drugs or MAT prescriptions are 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 standardization 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., Centers for Disease Control and Prevention, Bureau of Justice Administration, Substance Abuse and Mental Health Services Administration) 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 averaged over the number of days of the prescription.

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 such as a hospital or nursing home, and
- Prescriptions dispensed from veterinary offices.

MAT drugs in Vermont are dispensed almost equally between “hubs” and “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 opioid treatment program (OTP), or “hub”, are not included in VPMS due to federal regulations. Therefore, VPMS only tells us about prescriptions used by individuals receiving care in spokes.

Data submitted to VPMS by pharmacies may contain errors. Each upload from a pharmacy is screened for errors and returned to the pharmacy it if requires correction. However, it is not likely 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, which is determined by the recipient address information as sent to VPMS by the pharmacy that filled the prescription. 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.

People in counties that border other states may fill prescriptions in other states. Those prescriptions are not included in this report. When reviewing county level variations, also consider factors such as the age distribution in the county and the likelihood that a prescription may have been filled out of state. Even high rates of manual labor and the associated risk of injury may impact regional prescribing patterns.

Measures that are based on the number of prescriptions should be interpreted carefully. A prescription may be for a short period of time, such as 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 as a measure of opioids – 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. Implementation was delayed until 2017 to allow for the updating and development of Administrative Rules resulting from the passage of Act 173. Updates to the *Rule Governing the Prescribing of Opioids for Pain* included the addition of universal precautions, guidelines for the limiting of opioids for acute pain prescriptions, and the prescribing of naloxone.

Modifications to VPMS were required by 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.
- Pharmacists were required to query the system for the first time, mandated by the *Vermont Prescription Monitoring System Rule.* The *Rule* became effective on July 1st, 2017.
- The *Vermont Prescription Monitoring System Rule* was updated to reflect an increase in the types of situations in which a prescriber must query the system. Especially notable was a requirement to query VPMS prior to prescribing a benzodiazepine for the first time. Prior to implementation of the rule, the only time prescribers were required to query the system was when they prescribed opioids for chronic pain.

VPMS Program staff provided extensive outreach and training to providers in advance of the *Rule*'s effective date. The increased awareness of Act 173 led to large increases in provider registration and use of the system.

Vendor Transition

After migrating to a new system in 2016, VPMS was required to migrate again in 2017 due to retirement of the vendor's prior platform. Considerable staff time and effort was dedicated to ensuring complete and accurate transfer of historical data into the new system, validating all tools and processes, and confirming that provider accounts were active and functioning.

The new platform provides an easier-to-use interface for providers and the opportunity to allow for the integration of new provider clinical tools.

Prescriber Insight Reports

With increased attention on improving prescribing practices, prescribers expressed interest in comparing their own prescribing to their peers. In 2017, VPMS debuted Prescriber Insight Reports which are quarterly reports sent to VPMS-registered providers who prescribed at least one opioid analgesic prescription during the previous six months. The reports contain metrics on the prescriptions in VPMS associated with the individual prescriber and compares them to other prescribers in their specialty, as well as with other similar types of prescribers within the same specialty (e.g. physicians, nurse practitioners, physician's assistants). Over 1,891 reports were sent to prescribers in 2017. The state offers technical assistance and quality improvement assistance to prescribers on how to use the reports to understand and change prescribing practices.

Interstate Data Sharing

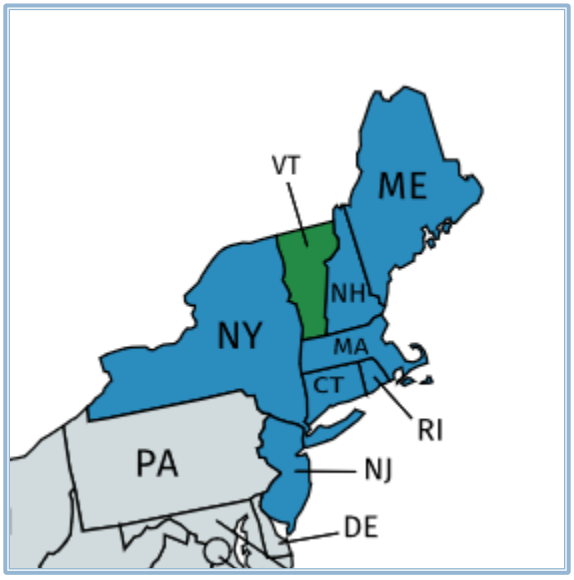
Interstate data sharing allows Vermont providers to view patient prescriptions dispensed in other states. Prescribers and pharmacists can only register to use PDMPs in states in which they are licensed, and prescriptions are only reported to Vermont if they are dispensed by a Vermont-licensed pharmacy. Since patients may fill their prescriptions at pharmacies in other states and receive care in other states, interstate data sharing supplements the information that is included in VPMS.

VPMS has formal agreements with several other states to ensure that only users allowed by Vermont regulations are authorized to view VPMS data. Data from other states are included in a patient query when that state's data is specifically 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 2017, Vermont began sharing prescription data with Maine, New Jersey and Rhode Island. Vermont continued also sharing with Connecticut, Massachusetts, New Hampshire and New York.

Map 1: Map of Interstate Data Sharing Partner States



Vermont providers queried other states' PDMPs 125,640 times in 2017. Of these, approximately 14% returned prescription information. Approved users in other states accessed VPMS data 1,113,283 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 2017, pharmacies were required to upload prescription data within 24 hours or one business day of dispensing Schedule II-IV controlled substances.

VPMS tracks compliance with the reporting requirements. By the end of 2017, 96% of Vermont-licensed pharmacies were compliant. Ninety-six percent of pharmacies located within Vermont were compliant with the requirement to upload prescriptions within 24 hours or one business day. Ninety-four percent of Vermont-licensed out-of-state pharmacies, such as mail-order pharmacies, were compliant with the uploading requirements.

Registration and Use

Access to VPMS is limited to provider types that are outlined in Vermont 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 in busy practices.

The 2016 passing of Act 173, an act relating to combating opioid abuse in Vermont, highlighted the mandatory VPMS registration requirement and contributed to a 92% increase in provider accounts in 2017. These providers either had not been previously aware of the requirement to register, had previously registered and not regularly used their account, or were new to prescribing in Vermont.

Figure 1: Number of VPMS Patient Care User Accounts

User Type	Number of Accounts
Prescriber	2,781
Prescriber Delegate	1,503
Pharmacist	511
Pharmacist Delegate	47
Total Patient Care User Accounts	**4,842**

VPMS users made over 275,000 patient look-ups, known as queries, in 2017, an over 50% increase from 2016. Prescribers or prescriber delegates accounted for 75% of queries, and pharmacists and pharmacist delegates the remaining 25% (Fig.2). "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 occasionally queried the system.

Figure 2: Number of VPMS Queries by User Type

User Type	Number of Queries
Prescriber	70,623
Prescriber Delegate	136,881
Pharmacist	64,457
Pharmacist Delegate	3,397
Other	295
Total Queries	**275,653**

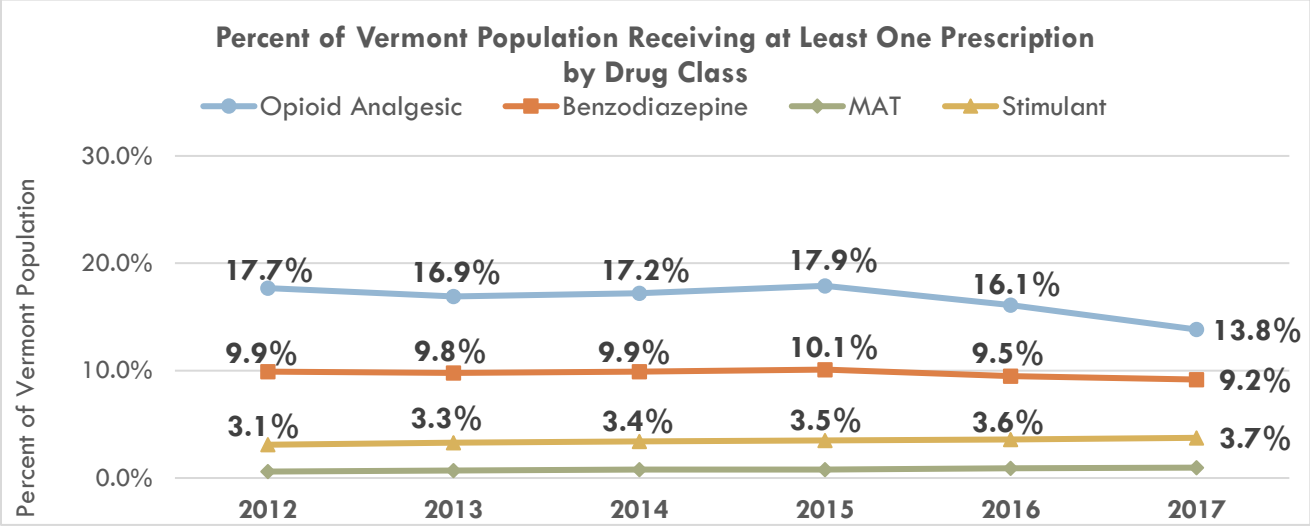
In 2017, over 80% of prescriptions in VPMS were written by a prescriber who was licensed in Vermont and had a VPMS account. The remainder of prescriptions in VPMS were written by providers who did not have a VPMS account or are licensed in another state.

Total Vermont Population Prescription Trends

Opioids analgesics are the most commonly dispensed controlled drug class. Nearly 14% of Vermonters received at least one opioid analgesic prescription in 2017. Of Vermonters, 9.2% received a benzodiazepine, 3.7% received a stimulant, and nearly one received a prescription for MAT.

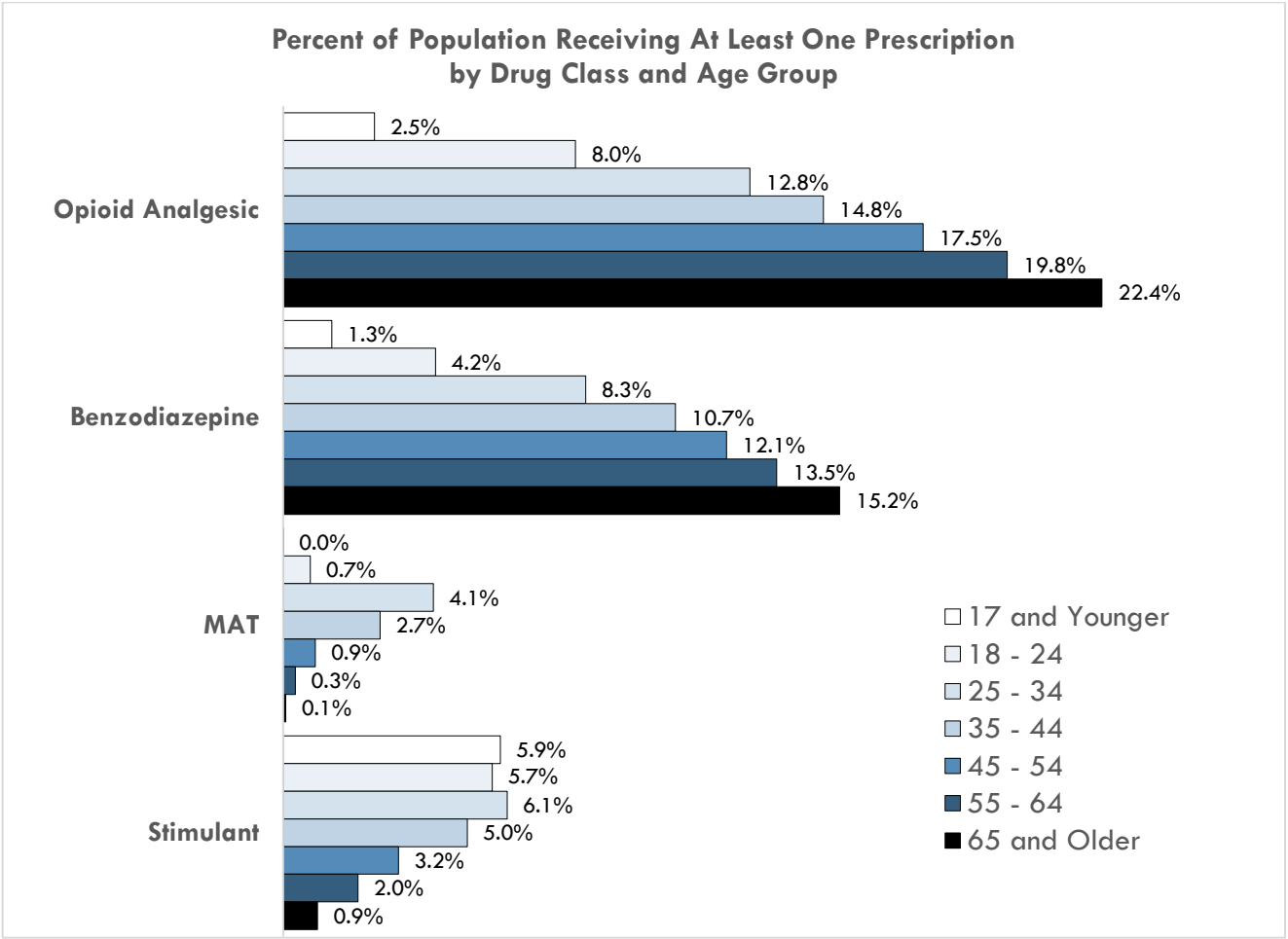
The percentage of the Vermont population dispensed an opioid analgesic prescription declined between 2012 and 2017, from 17.7% to 13.8% even with the tramadol rescheduling mid-2014 and the resultant increase in opioid analgesic reporting. (Fig. 3) There was a 14.3% decrease from 2016 to 2017.

Figure 3: Percent of Vermont Population Receiving at Least One Prescription by Drug Class



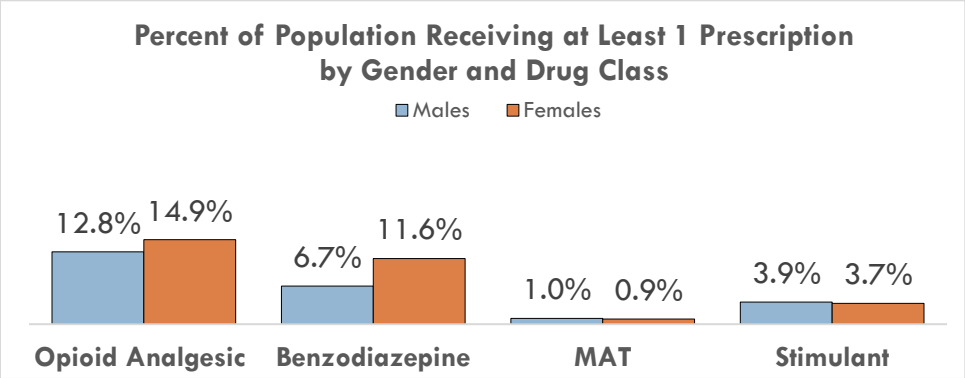
Drugs dispensed vary significantly by age. Opioid analgesic and benzodiazepine use increase with age; MAT drugs are most frequently used by those age 25-34; people under 35 are most likely to be dispensed stimulants. (Fig. 4)

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



Nearly 15% of females and 13% of males received an opioid analgesic prescription in 2017. Benzodiazepines were also more commonly dispensed to females, at over 11% of the population, than males (6.7%). Males and females were similarly dispensed stimulants and MAT drugs. (Fig. 5)

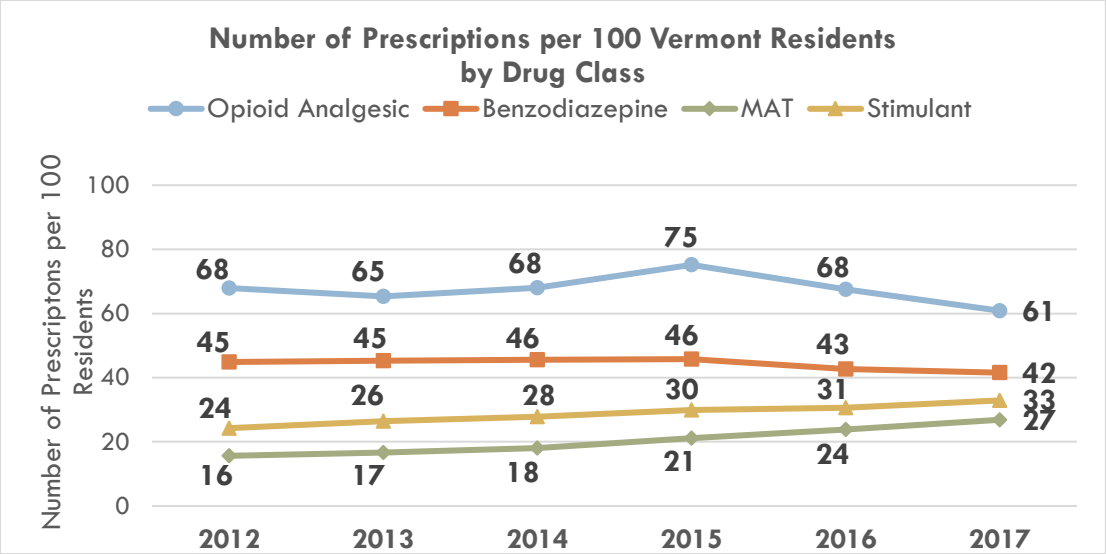
Figure 5: Percent of Prescriptions by Drug Class and Gender



Although the portion of Vermonters receiving opioid analgesics showed an overall decrease between 2012 and 2017, there was an increase in the number of dispensed prescriptions per 100 people in 2015, which is likely due to the rescheduling and subsequent inclusion of Tramadol in VPMS in mid-2014. Rates before and after 2014 can't be directly compared, but even with the Tramadol rescheduling, the rate per 100 people in 2017 is the lowest rate since 2012. This is significant as Tramadol was the second most commonly prescribed opioid analgesic in 2017. (Fig. 13) Between 2015 and 2017, full years that include Tramadol, there was a decrease of 19% in prescriptions per 100 people. This marked decrease in the rate of prescriptions dispensed is likely due to increased awareness during the lead-up to the passage of Act 173 and preparation for the implementation of the prescribing rules that went into effect on July 1st, 2017.

The rate of benzodiazepine prescriptions dispensed decreased between 2015 and 2017 after being relatively consistent since 2012. The rate of MAT per 100 people increased approximately 70% between 2012 and 2017 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 38% between 2012 and 2017. (Fig. 6)

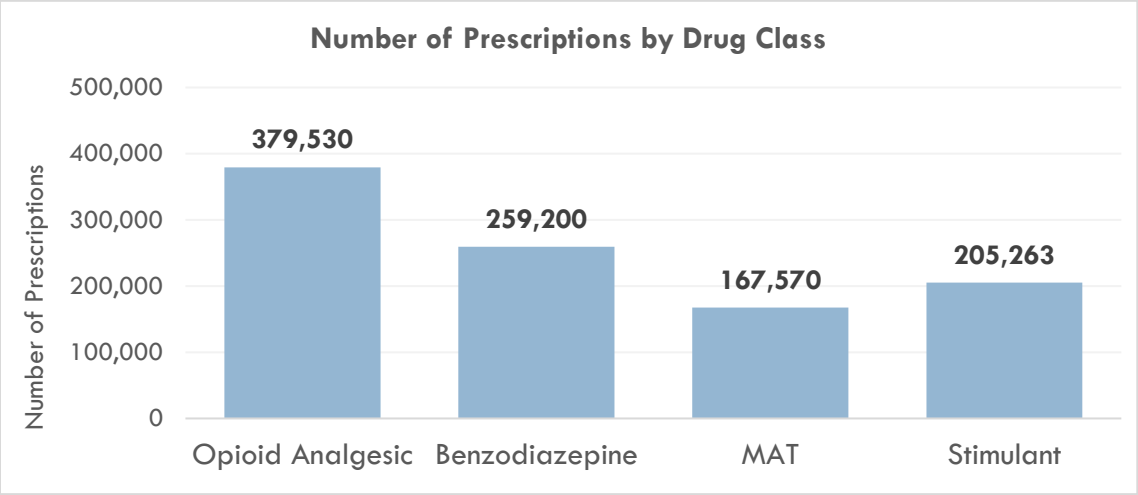
Figure 6: Number of Prescriptions per 100 Vermont Residents by Drug Class



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, different 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.

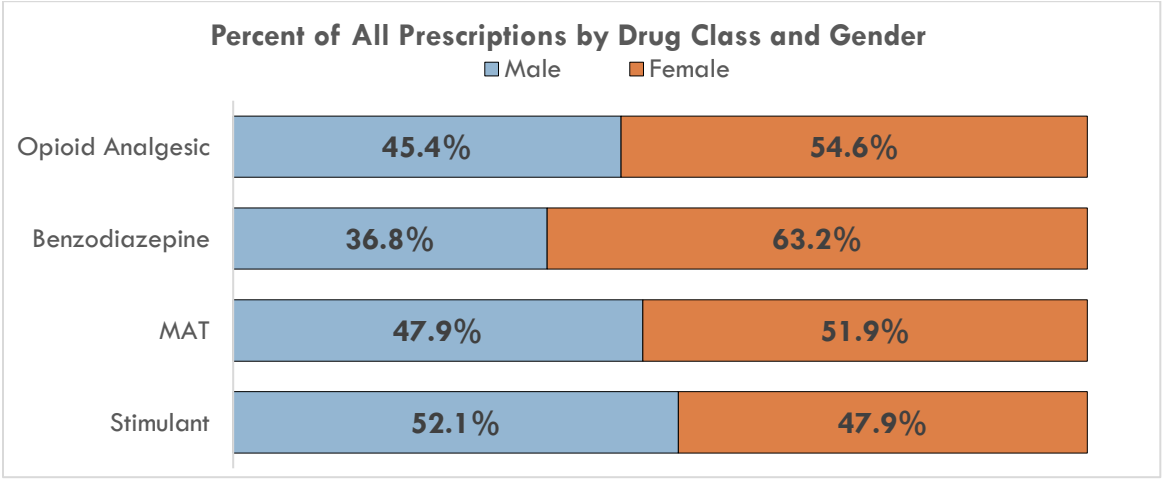
Nearly 380,000 prescriptions for opioid analgesics were dispensed in 2017, as were nearly 260,000 prescriptions for benzodiazepines. MAT prescriptions dispensed were the least common, with fewer than 170,000 prescriptions. There were approximately 205,000 prescriptions for stimulants dispensed in 2017. (Fig. 7)

Figure 7: Number of Prescriptions by Drug Class



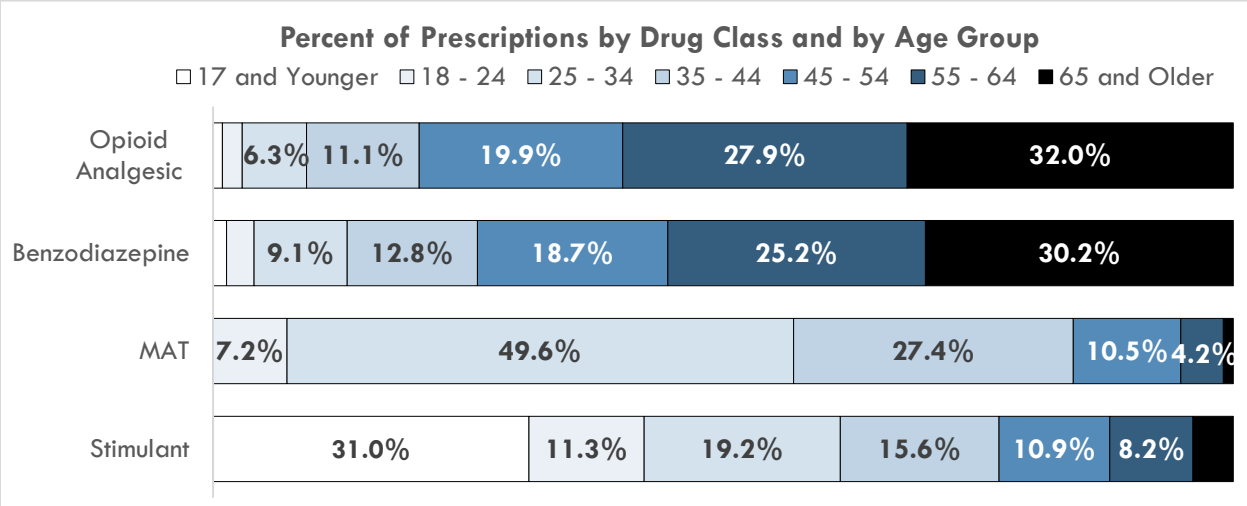
Females are more likely to receive opioid analgesics, benzodiazepines and MAT drugs than males; males are more likely to receive stimulants. (Fig. 8)

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



Opioid analgesic and benzodiazepine prescriptions were most frequently dispensed to older Vermonters. More than half of the prescriptions dispensed in these classes were written to persons 55 and older. Just over 20% of the opioid analgesic prescriptions dispensed were written to people under the age of 35. one percent of opioid analgesic or benzodiazepine prescriptions dispensed were written for those under 18. Almost half of prescriptions dispensed for MAT were dispensed to those between the ages of 25 and 34 years of age, and over a quarter were dispensed to those between 35 and 44. Youth under 18 were dispensed more stimulant prescriptions than any other age group, followed by those age 25-44. (Fig. 9)

Figure 9: Percent of Prescriptions Dispensed by Drug Class and by Age Group



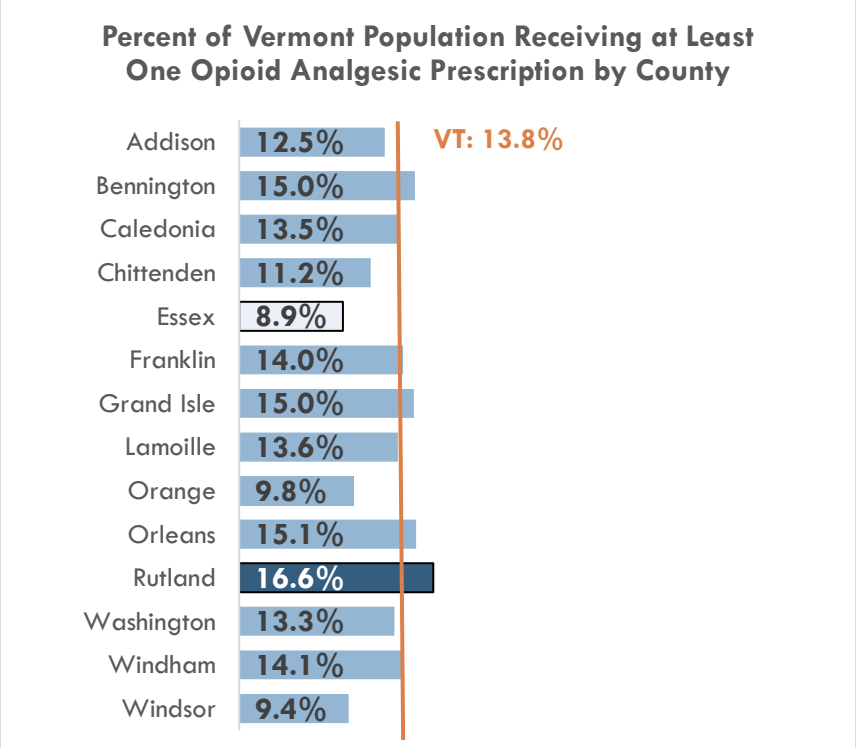
Opioid Analgesic Prescribing Patterns

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, using the percent of the population receiving opioid analgesics (Fig. 10) and the number of opioid analgesic prescriptions per 100 people (Fig. 12)) in tandem provides more context than viewing each separately, as high numbers 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.

The percent of the population receiving opioid analgesics (Fig. 3), average daily MME (Fig. 16), percentage by MME category (Fig. 19), and the average days' supply (Fig. 22) each provide information about prescribing practices. High MME may indicate use for chronic pain. Opioid analgesic prescriptions with a five-day supply or less typically indicate use for acute pain management such as immediately after an injury or surgery.

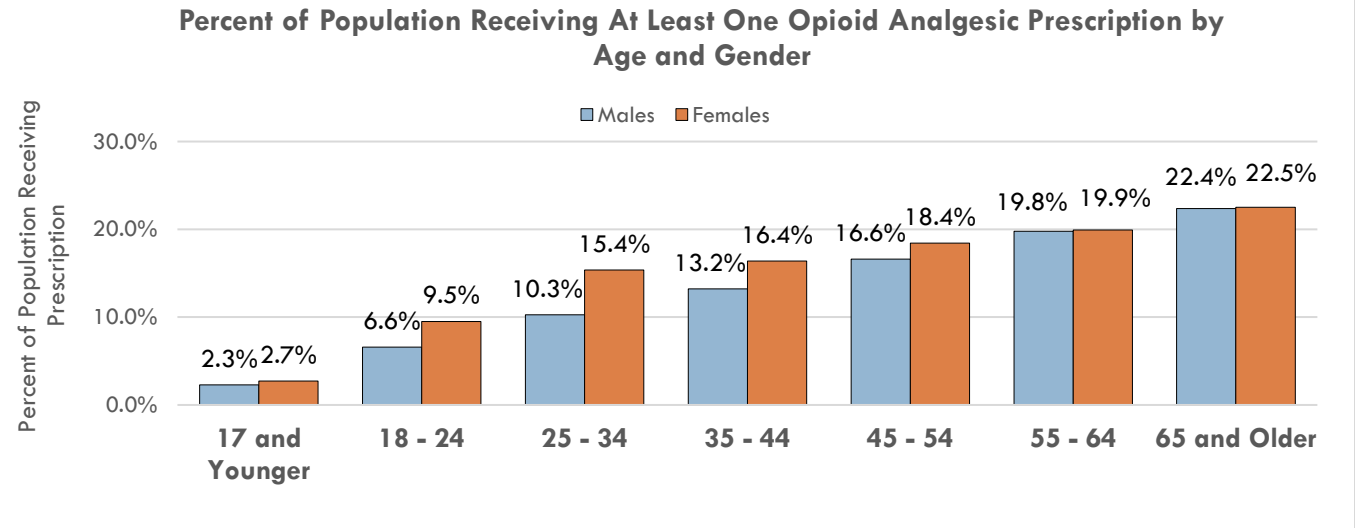
There was considerable county-level variation in opioid analgesics dispensed in 2017. Throughout all of Vermont, a total of 13.8% of the population received an opioid prescription. The variation by county is shown in the differences between Rutland and Essex: 16.6% of the population in Rutland County received an opioid prescription (shown in dark blue), but only 8.9% of the Essex County did (shown in powder blue). (Fig. 10)

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



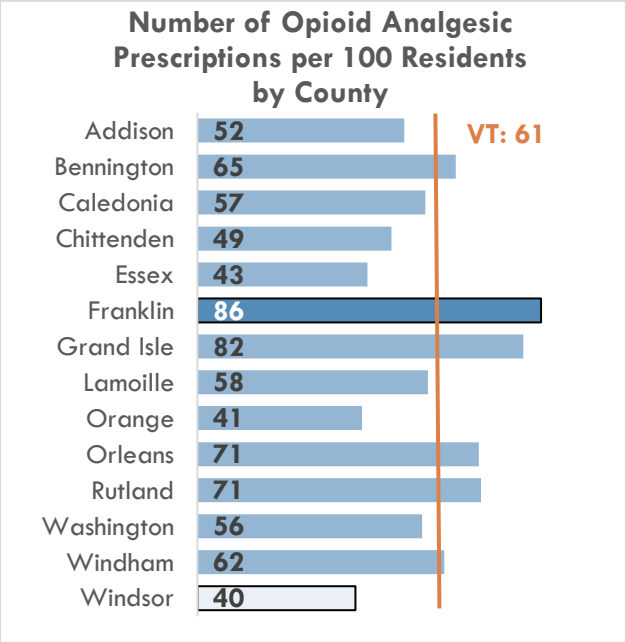
As people age, they are more likely to receive opioid analgesic prescriptions. For those under age 55, females were more likely to receive opioid analgesics than males. Males and females age 55+ were as likely to receive opioid analgesics. (Fig. 11)

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



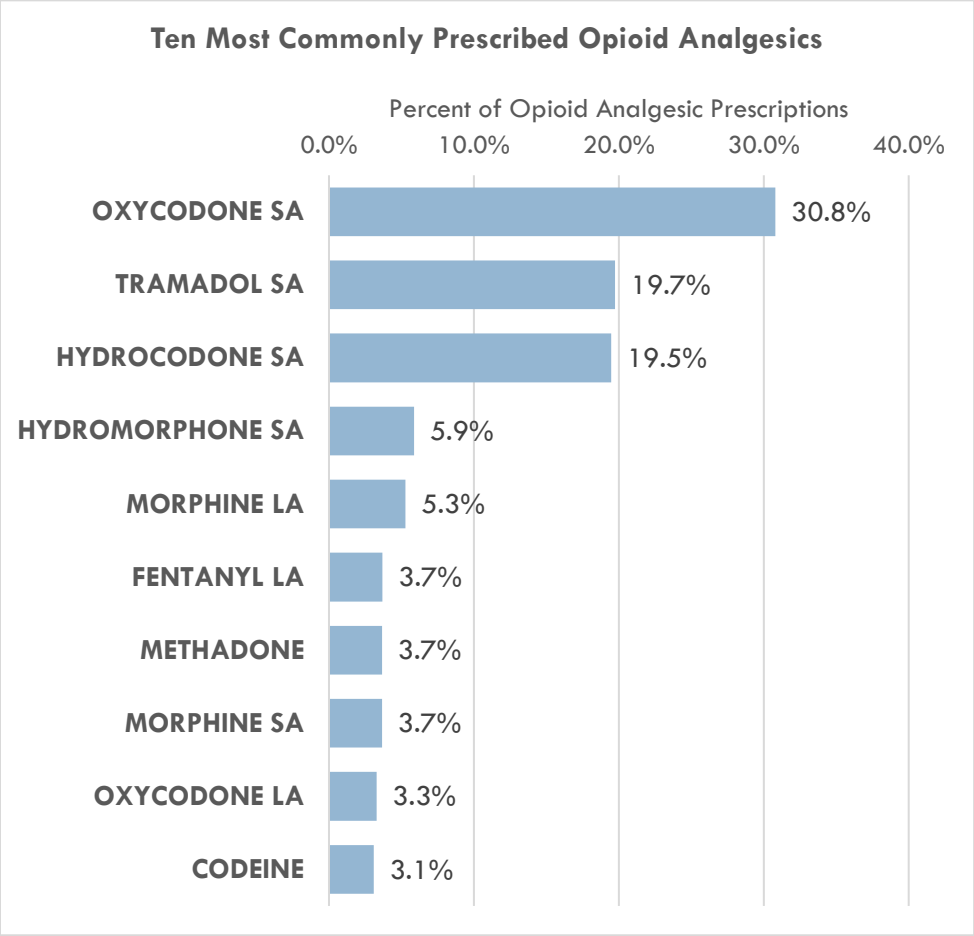
Opioid analgesics were the most frequently dispensed controlled drug class in all counties, although there was significant variation in the rate between counties. Franklin had the highest rate of opioid analgesic prescriptions dispensed. Grand Isle, Rutland, Bennington, Orleans, and Windham counties also have rates above the statewide rate. (Fig. 12)

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



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 2017, led by Oxycodone SA at 30.8%, Tramadol SA at 19.7%, and Hydrocodone SA at 19.5%. (Fig. 13) No other opioid analgesic made up more than six percent of opioid analgesic prescriptions.

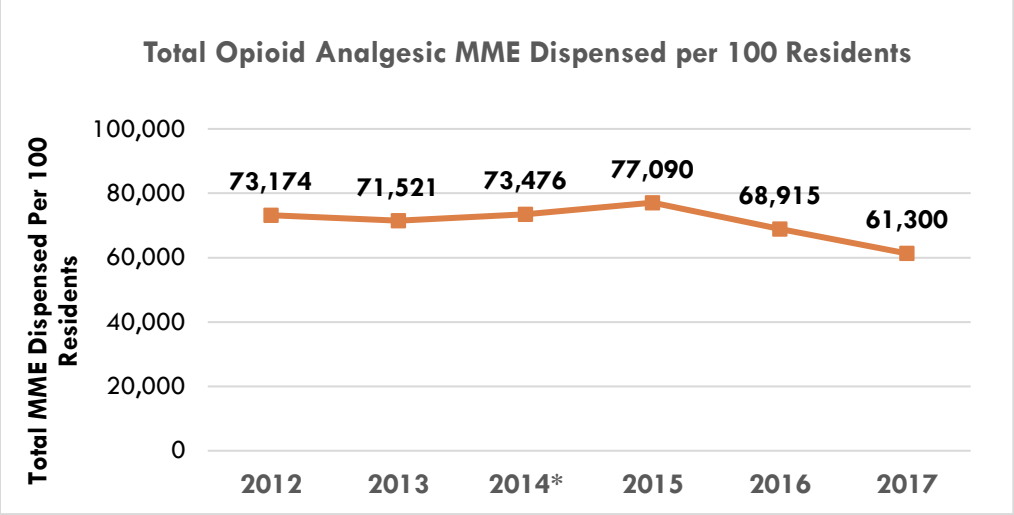
Figure 13: Ten Most Commonly Prescribed Opioid Analgesics



The total MME prescribed per 100 residents declined from 77,090 in 2015 to 61,300 in 2017, a 20.5% reduction. Years prior to 2014 cannot be directly compared to 2015-present due to the rescheduling of Tramadol from a Schedule V (not reported) to a Schedule IV-controlled substance in mid-2014.

Tramadol is the second most commonly dispensed 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. Despite the inclusion of Tramadol, the MME dispensed per 100 residents declined 16.2% between 2012 and 2017. This decrease is the result of overall decreased dispensing of opioid analgesics. (Fig. 14)

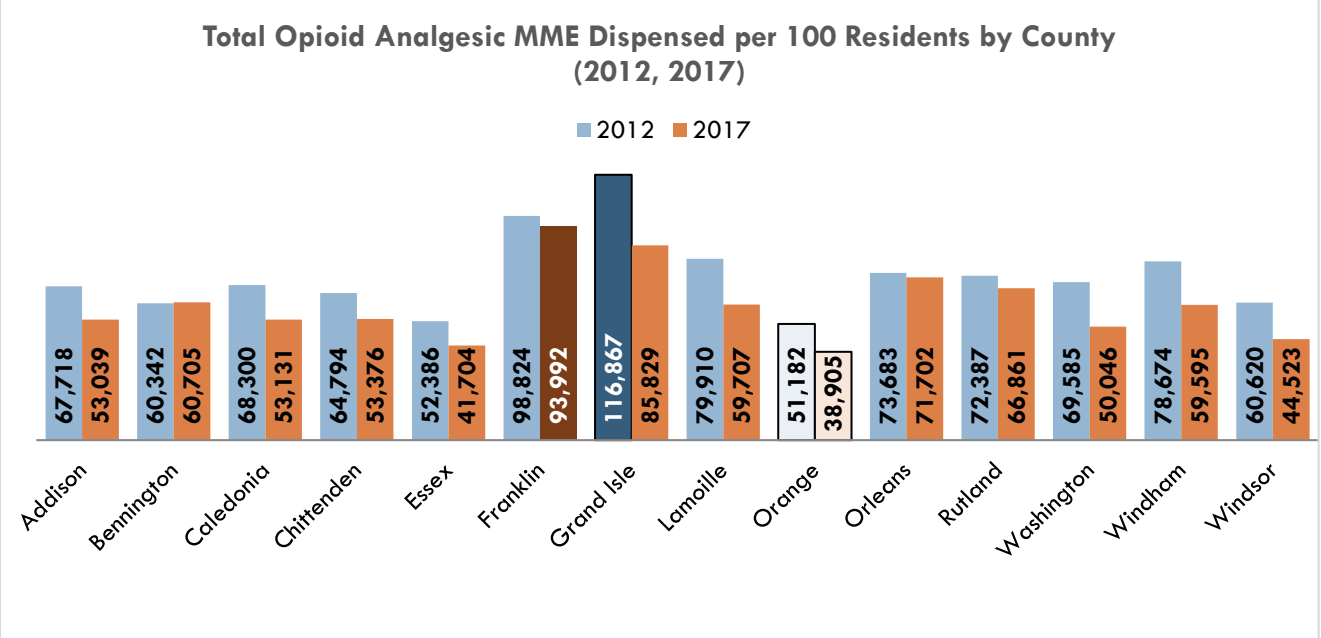
Figure 14: Total Opioid Analgesic MME Dispensed per 100 Residents



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

All counties except Bennington saw a decline in opioid analgesic MME per 100 residents between 2012 and 2017, even with the new inclusion of Tramadol beginning in 2014. Franklin and Grand Isle Counties show reductions during this time but still have the highest rates in the state while Orange County has consistently had the lowest rate. (Fig. 15)

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



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.

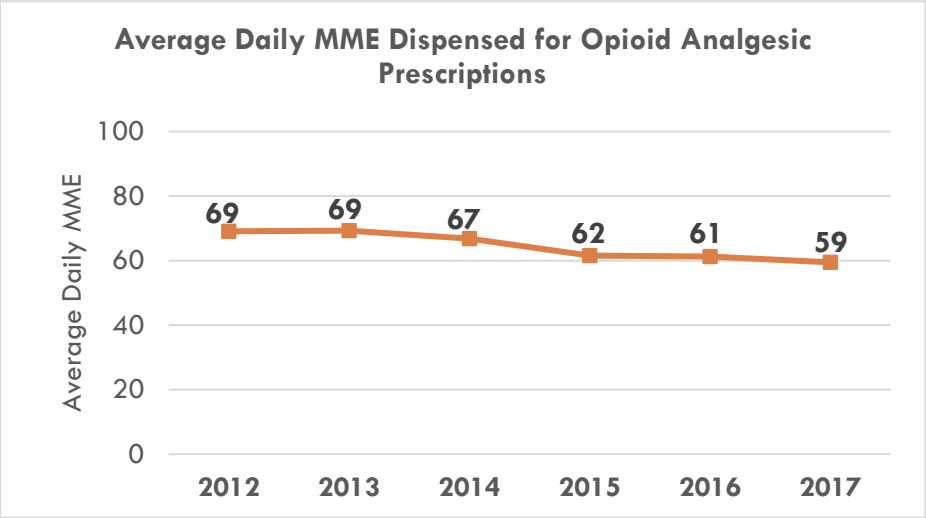
Prescriptions with higher MMEs can be associated with increased risk of harm. Increasing dosages to ≥50 MME/day increases overdose risk without additional benefits for pain control or function. The Centers for Disease Control and Prevention (CDC) recommends that clinicians carefully reassess evidence 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* (effective July 1, 2017) set the MME limit for first-time acute pain prescriptions to ensure that the lowest possible dose is prescribed to manage the patient's pain. While this Rule took effect halfway through 2017, 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 prescribed, total prescriptions, and total MME prescribed between

[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

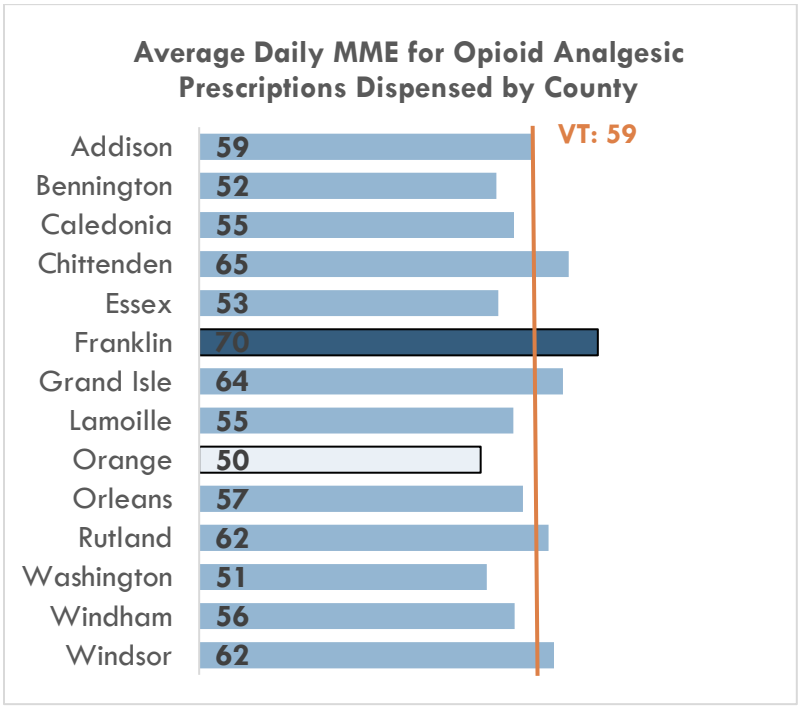
2015 and 2017. The average daily MME dispensed for opioid analgesics declined 14.5% from 69 in 2012 to 59 in 2017. (Fig. 16)

Figure 16: Average Daily MME Dispensed for Opioid Analgesic Prescriptions



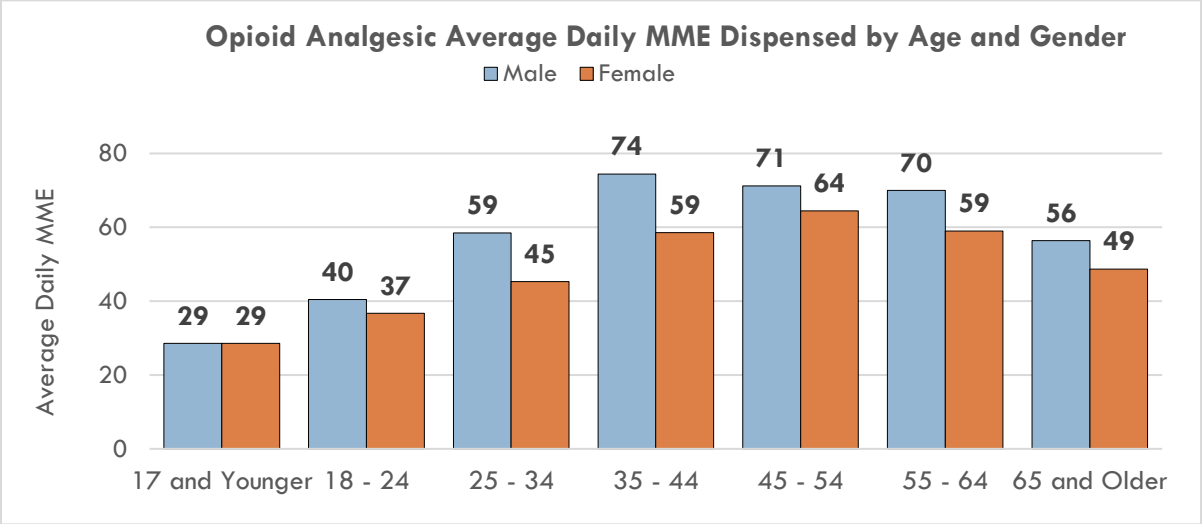
In 2017, Franklin had the highest average daily MME dispensed at 70 followed by Chittenden County at 65. Orange County had the lowest average daily MME dispensed at 50. (Fig. 17)

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



Males typically had higher average daily MME dispensed than females, except in the youngest age group. Among Vermonters under the age of 18, the average daily MME dispensed was similar for males and females. Average daily MME dispensed increased until age 45 and older, when it begins to decline. (Fig. 18)

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

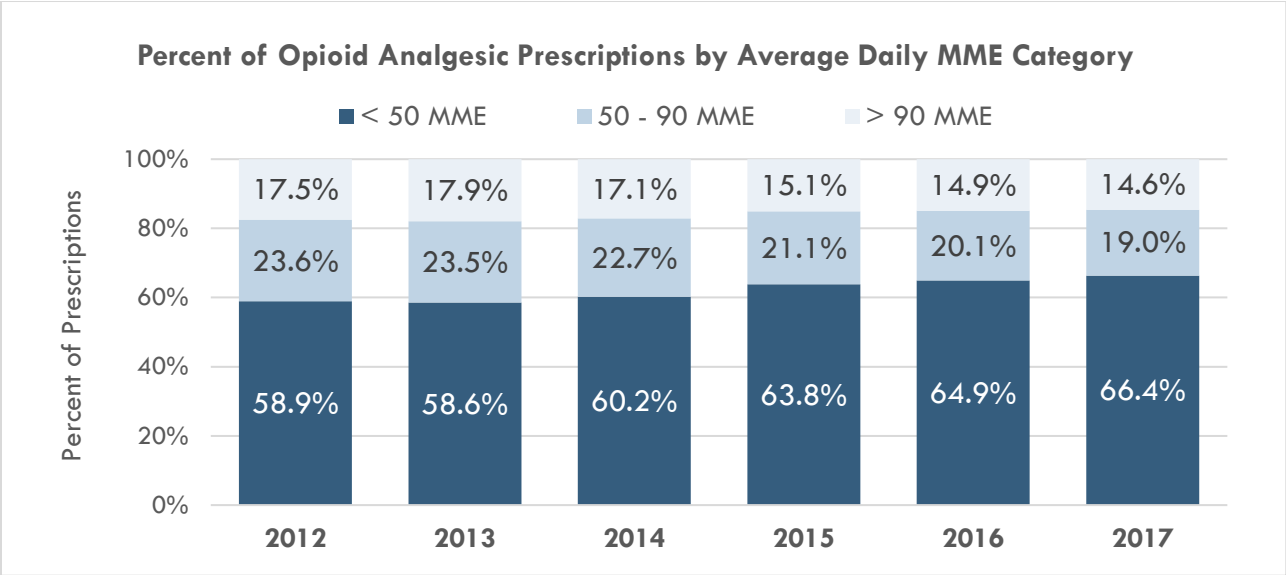


The Centers for Disease Control and Prevention Guidelines for Prescribing Opioids for Chronic Pain[1] categorizes prescribing based on three daily MME groups: <50 MME, 50-90 MME, and >90 MME. Higher MMEs are associated with greater risks of harm.

In 2017, two thirds of opioid analgesic prescriptions dispensed in Vermont had an average daily MME under 50, an increase of nearly 13% from 2012. High daily MME prescribing (≥90 MME) decreased 16.5% in the same period. (Fig. 19)

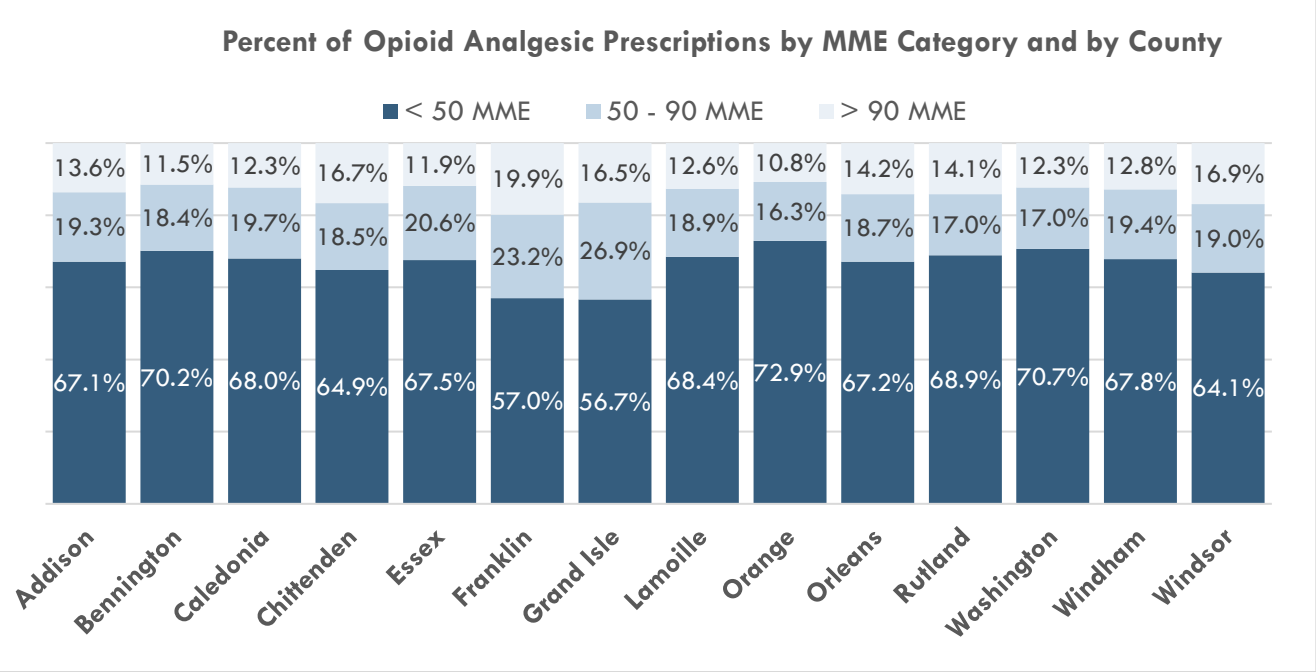
Without diagnosis information, interpreting these trends can be challenging. The increase in prescriptions with low average daily MME may be partially due to Tramadol rescheduling in mid-2014 because of Tramadol's frequent use and categorization as a low MME prescription (<50 MME).

Figure 19: Percent of Opioid Analgesic Prescriptions by Average Daily MME Category



In 2017, average daily MME by county were typically similar to the state level. However, Franklin, Windsor, and Chittenden Counties had the greatest percentage of high MME opioid analgesic use and Orange County had the lowest. (Fig. 20)

Figure 20: Percent of Opioid Analgesic Prescriptions by MME Category and by County

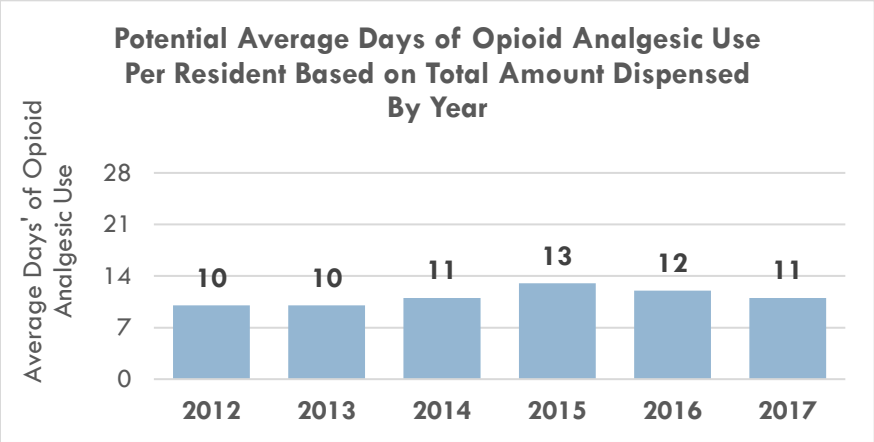


Long-term opioid use often begins with treatment of acute pain. The CDC notes that in cases of acute pain, more than a few days of exposure to opioid analgesics significantly increases hazards and risk of overdose.[2] Supplying three or fewer days of opioids in an initial opioid analgesic prescription 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 use associated with acute or chronic pain is unknown.

In 2017, the total days' supply of opioid analgesics dispensed in VT was enough for each resident to use opioids for 11 days a year. (Fig. 21) The days' supply is specified by the prescriber and transmitted to VPMS as part of the prescription information.

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

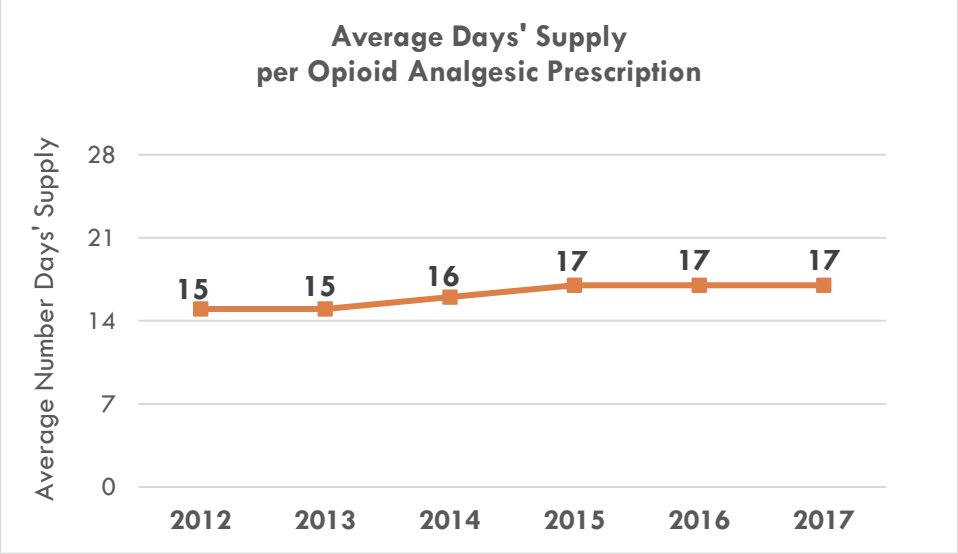


[2] Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. MMWR Morbidity & Mortality Weekly Rep 2017;66:265–269. DOI: http://dx.doi.org/10.15585/mmwr.mm6610a1

Since 2012, the average days' supply per opioid analgesic prescription has increased from 15 days to 17 days. Between 2015 and 2017, the average days' supply per prescription stayed the same. (Fig. 22)

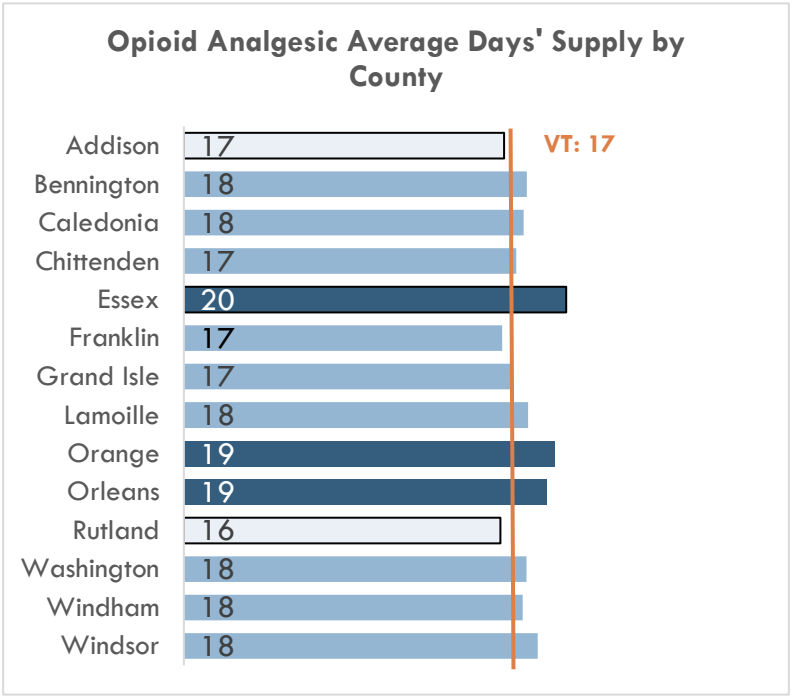
While it is not possible to fully understand why the average days supply has increased without diagnosis information, it is possible that the increase is due to less frequent prescribing of opioid analgesics for acute pain in response to the *Rule*, resulting in an observed increase in the portion of prescriptions associated with chronic pain (which are typically longer). In this situation, the increased average days supply would be an expected result.

Figure 22: Average Days' Supply per Opioid Analgesic Prescription



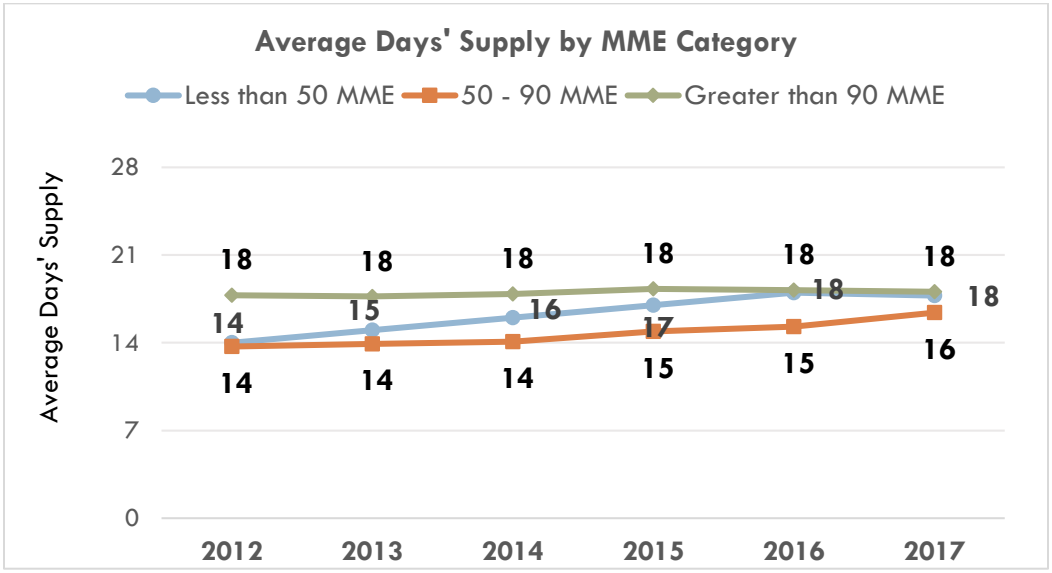
In 2017, Essex County had the highest average days' supply at 20 days. (Fig. 23)

Figure 23: Opioid Analgesic Average Days' Supply by County



Average days supply patterns have been relatively stable over time except for lower MME prescriptions which have slightly increased. (Fig. 24)

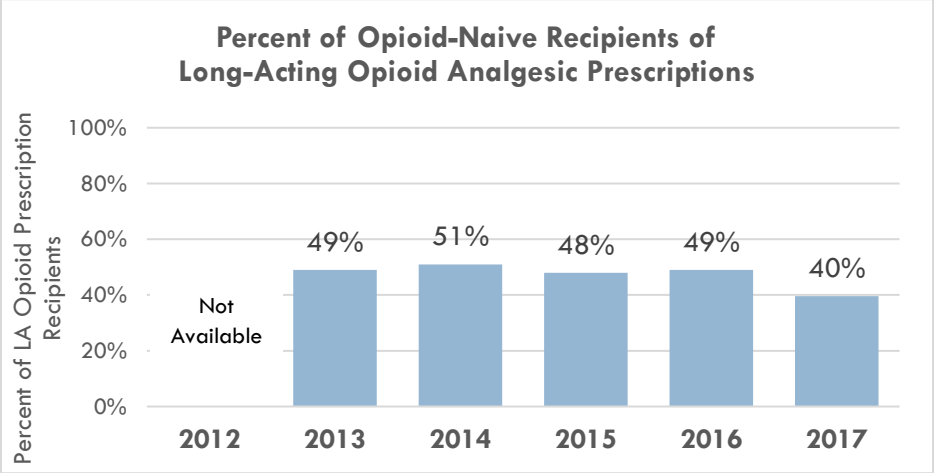
Figure 24: Average Days' Supply by MME Category



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 long-acting (LA) opioid prescription within the last 30 days.

In 2017, 40% of Long-acting opioid prescription recipients were opioid-naïve when they received their prescription, down from 49% in 2016. This is the first year since VPMS began tracking these data that there has been a noteworthy change. (Fig. 25)

Figure 25: Percent of Opioid Naïve Recipients of Long-acting Opioid Analgesic Prescriptions



Medication Assisted Treatment (MAT) Prescribing Patterns

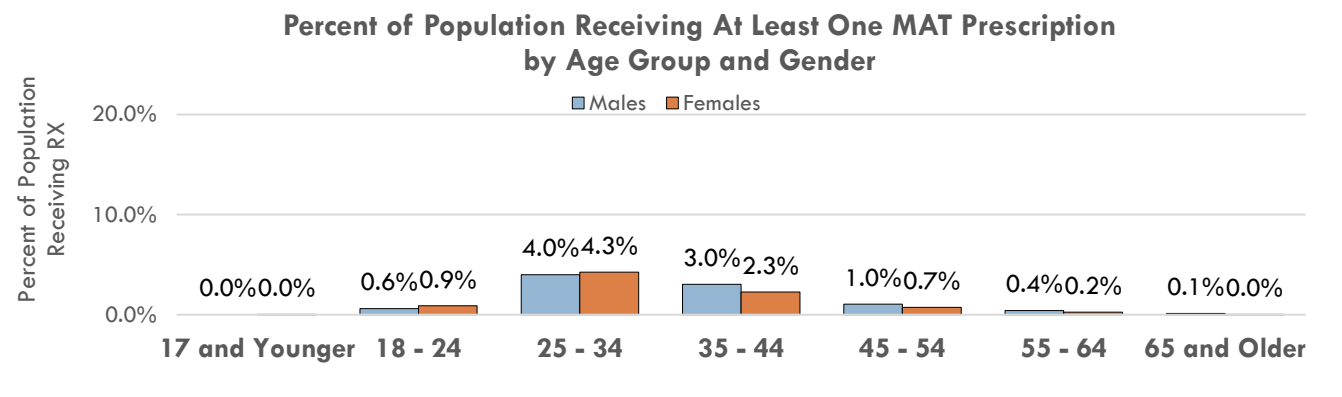
There was a 70% increase in the number of prescriptions dispensed for MAT to treat opioid use disorder (OUD) between 2012 and 2017. (Appendix Table 13) This increase is consistent with the statewide increases in access to MAT.

These numbers do not include information about people who receive treatment in specialty treatment facilities that dispense buprenorphine or methadone, known as "hubs." Buprenorphine or methadone used in "hubs" are dispensed directly to the patient at the facility and do not appear in the VPMS. Approximately 43% of people receiving MAT for OUD receive care through a hub so the number of people on MAT VPMS represents approximately 57% of all MAT provided. Current hub and spoke census information is available on the VDH ADAP website.

Only individuals who received a prescription from an office based opioid treatment (OBOT) provider, also known as a "spoke," are reflected in VPMS data because the prescriptions are dispensed by a pharmacy.

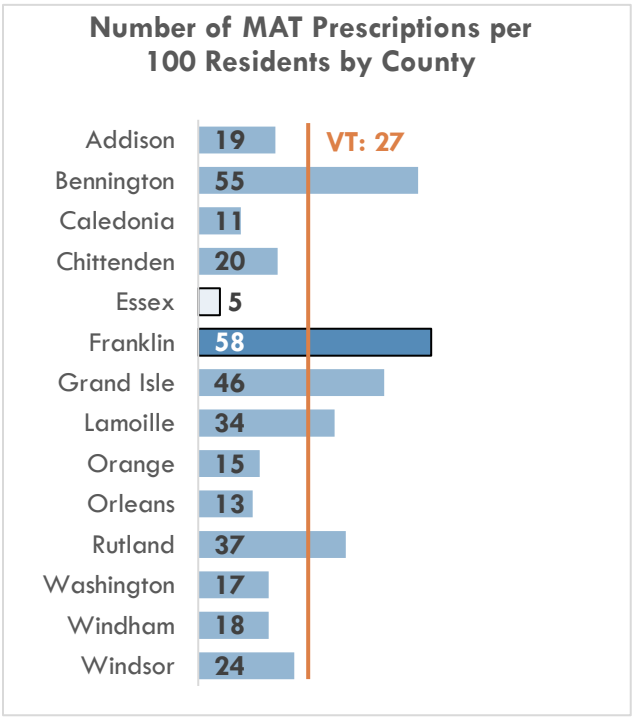
Males and females were equally likely to be prescribed MAT drugs in every age category. People age 25-34 were most likely to receive a MAT prescription. (Fig. 26)

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



MAT prescriptions by county shown below are associated with people receiving care in spokes. (Fig. 27) Counties with high rates of treatment in spokes typically have low rates of treatment in hubs and vice versa.

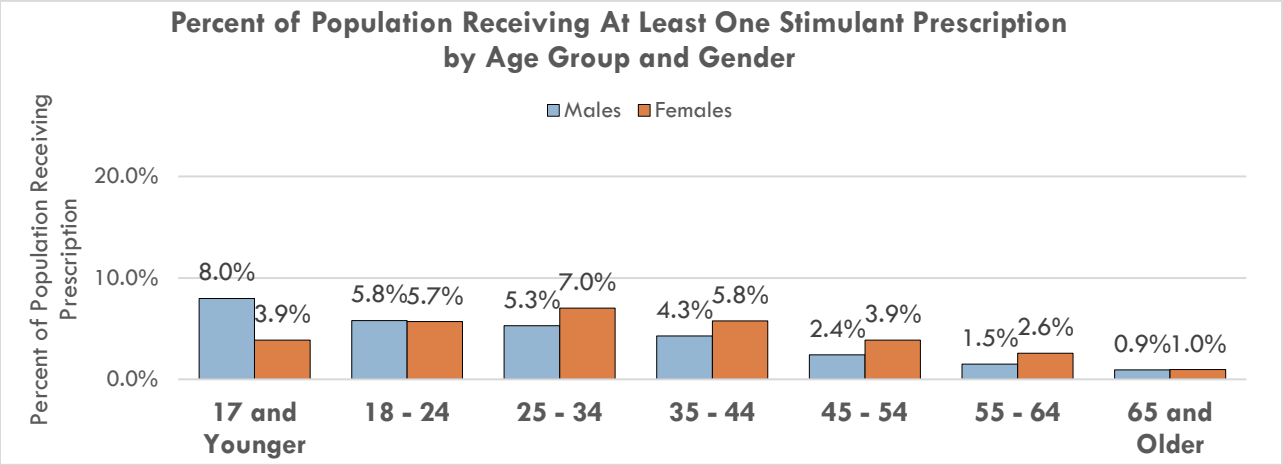
Figure 27: Number of MAT Prescriptions per 100 Residents by County



Stimulant Prescribing Patterns

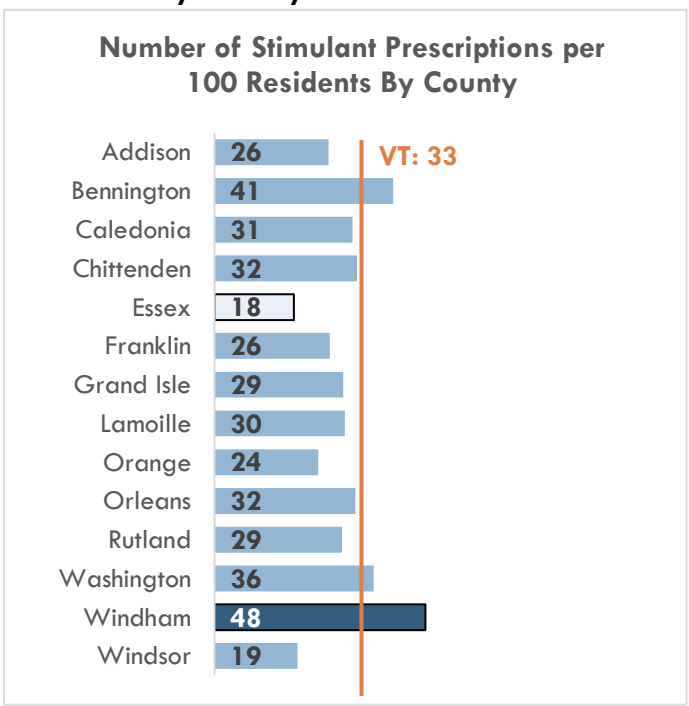
The total number of stimulant prescriptions dispensed increased 35% between 2012 and 2017. (Appendix Table 13) Males under the age of 18 were prescribed stimulants at more than twice the rate of females. Between 18 and 24 years of age, both genders were prescribed stimulants at a similar rate. In categories over the age of 25, females were more likely to be prescribed stimulants. (Fig. 28)

Figure 28: Percent of Population Receiving At Least One Stimulant Prescription by Age Group and Gender



There is significant county to county variation in the number of stimulant prescriptions per 100 residents with Windham county 45% above the state average of 33 stimulant prescriptions per 100 residents. (Fig. 29)

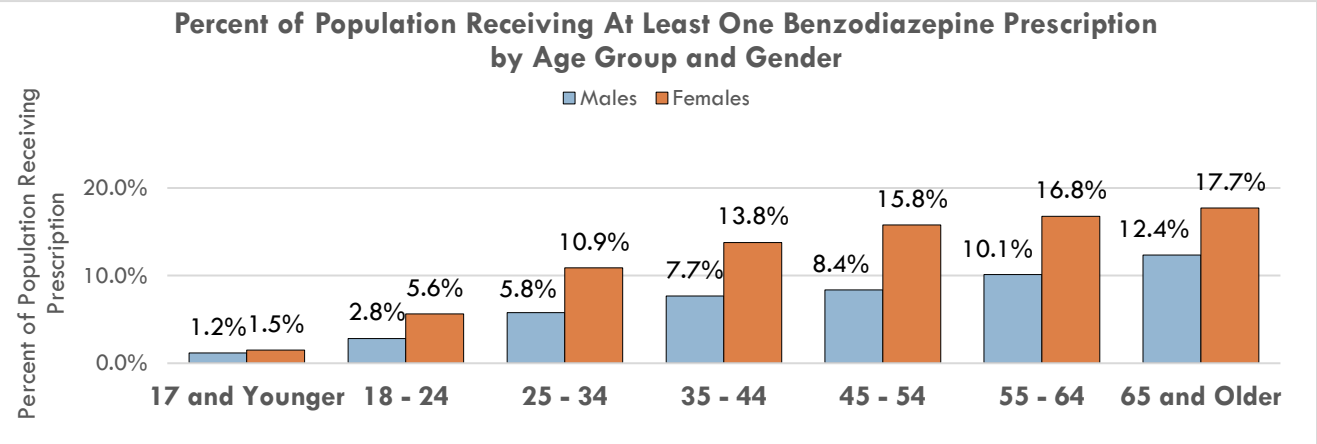
Figure 29: Number of Stimulant Prescriptions per 100 Residents by County



Benzodiazepine Prescribing Patterns

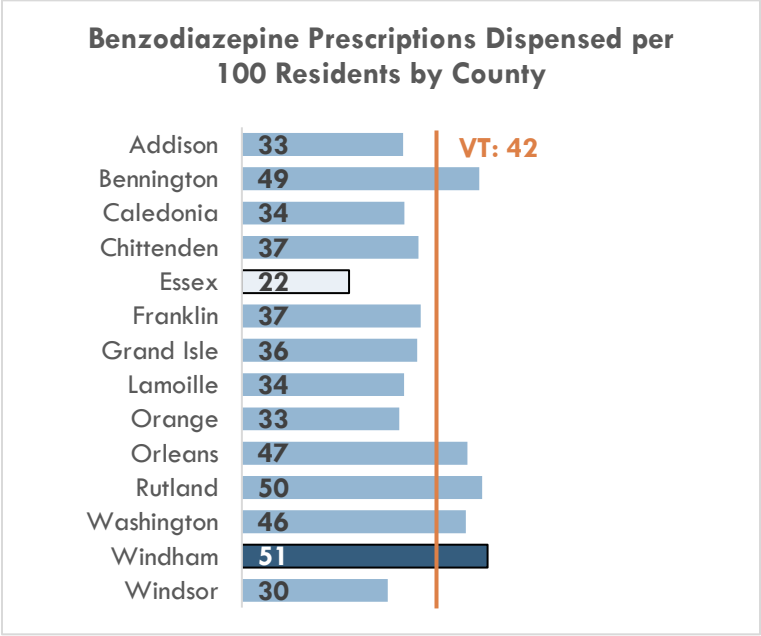
The number of prescriptions dispensed for benzodiazepines decreased eight percent between 2012 and 2017. (Appendix Table 13) Females in all age categories were more likely to receive prescriptions for benzodiazepines than men. Benzodiazepines dispensed increased as people age. (Fig. 30)

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, Rutland, Bennington, Orleans, and Washington counties all higher than the state rate of 42 prescriptions per 100 residents.

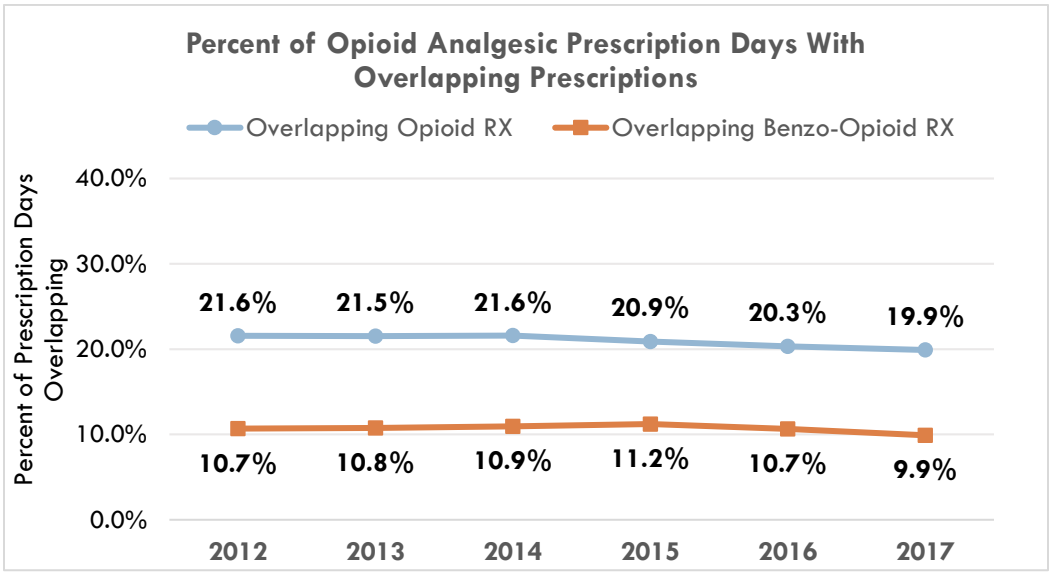
Figure 31: Benzodiazepine Prescriptions Dispensed per 100 Residents by County



Prescription Issues of Concern

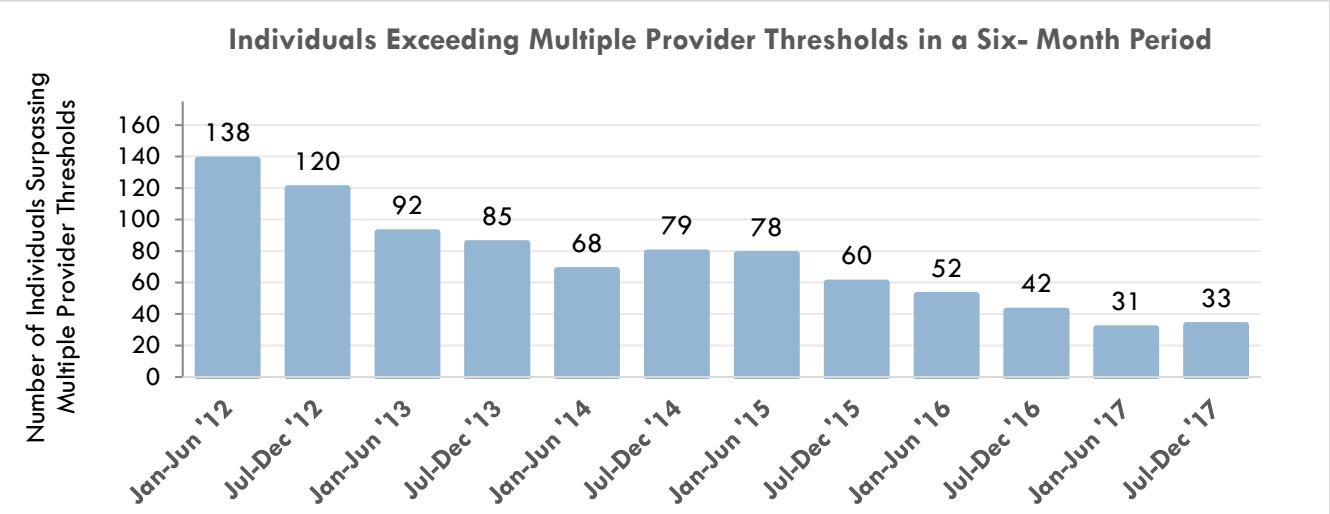
Simultaneous use of opioid analgesics and benzodiazepines is a risk factor for prescription misuse or overdose, as is receiving overlapping opioid analgesic prescriptions. Among individuals with an opioid analgesic prescription, one in five prescription days overlapped with a second opioid analgesic prescription (19.9%). One in ten opioid analgesic prescription days overlapped with a benzodiazepine prescription (9.9%). (Fig. 32)

Figure 32: Percent of Opioid Analgesic Prescription Days with Overlapping Prescriptions



Receiving prescriptions from multiple prescribers and pharmacies within a given period 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 2017, 31 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 2017, 33 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 improved the VPMS platform and tools available to assist prescribers and pharmacists in providing care to their patients. This, along with greater awareness of opioid use disorder and the changes in the *Rule Governing the Prescribing of Opioids for Pain*, 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 (MAT) for opioid use disorders as shown in the increase in MAT prescribing. These prescribing trends suggest that Vermont is making progress in addressing the opioid epidemic.

Opportunities for improvement remain. These include continuing to provide new tools to the VPMS to proactively notify prescribers when patients are receiving prescriptions that may put them at risk of complications or overdose, increasing the number of states with whom Vermont shares data, and allowing linkages between the VPMS and electronic health records.

If you would like to provide feedback on this report please click here to complete a short survey: https://www.surveygizmo.com/s3/4932844/2017-VPMS-Annual-Report-Feedback

APPENDIX: DATA TABLES

Appendix Table 1: Percent of Population Receiving at Least One Prescription by Drug Class (2017)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	12.5%	8.1%	0.9%	3.1%
Bennington	15.0%	10.2%	1.4%	4.3%
Caledonia	13.5%	7.7%	0.5%	3.6%
Chittenden	11.2%	8.8%	0.7%	3.7%
Essex	8.9%	5.3%	0.3%	2.2%
Franklin	14.0%	7.8%	1.7%	2.6%
Grand Isle	15.0%	8.7%	1.5%	3.1%
Lamoille	13.6%	9.2%	1.3%	3.4%
Orange	9.8%	7.5%	0.7%	2.8%
Orleans	15.1%	9.7%	0.5%	3.3%
Rutland	16.6%	9.8%	1.6%	3.2%
Washington	13.3%	9.7%	0.9%	4.0%
Windham	14.1%	10.3%	0.8%	5.5%
Windsor	9.4%	6.5%	1.0%	2.3%
VERMONT	13.8%	9.2%	1.0%	3.7%

See also Figure 3

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

Nearly all VT counties show 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 the population with at least one opioid analgesic prescription between 2012 and 2016, although Essex County had a considerable decrease between 2016 and 2017.

County	2012	2013	2014	2015	2016	2017
Addison	15.9%	15.3%	15.4%	15.9%	14.4%	12.5%
Bennington	19.2%	18.2%	19.2%	19.6%	17.4%	15.0%
Caledonia	16.2%	15.7%	15.7%	16.5%	15.4%	13.5%
Chittenden	14.9%	14.0%	14.3%	14.5%	13.0%	11.2%
Essex	10.4%	10.6%	10.8%	11.4%	11.1%	8.9%
Franklin	18.0%	17.0%	17.9%	18.5%	16.4%	14.0%
Grand Isle	20.4%	18.7%	18.9%	19.5%	17.4%	15.0%
Lamoille	20.1%	18.6%	19.2%	19.2%	16.2%	13.6%
Orange	12.9%	12.5%	12.6%	13.3%	11.2%	9.8%
Orleans	18.3%	17.9%	18.1%	18.8%	16.2%	15.1%
Rutland	21.1%	20.0%	20.6%	20.7%	19.2%	16.6%
Washington	17.0%	16.6%	16.3%	16.8%	14.9%	13.3%
Windham	17.1%	16.6%	17.2%	18.4%	16.9%	14.1%
Windsor	12.7%	12.1%	12.5%	13.6%	11.8%	9.4%
VERMONT	17.7%	16.9%	17.2%	17.9%	16.1%	13.8%

See also Figure 3

Appendix Table 3: Percent of Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.4%	5.9%	13.5%	13.1%	14.9%	18.0%	20.0%
Bennington	2.3%	8.6%	14.4%	17.0%	18.1%	20.0%	23.8%
Caledonia	2.7%	7.8%	13.7%	15.8%	18.4%	18.8%	19.1%
Chittenden	2.4%	5.1%	9.2%	11.9%	15.0%	18.4%	22.1%
Essex	1.3%	7.6%	9.9%	11.6%	10.4%	11.8%	11.1%
Franklin	2.4%	11.5%	13.1%	15.5%	18.4%	20.2%	23.7%
Grand Isle	3.3%	8.2%	13.2%	16.1%	18.5%	20.4%	22.1%
Lamoille	2.9%	9.0%	11.8%	15.5%	17.4%	19.9%	22.0%
Orange	1.3%	6.1%	9.6%	10.7%	13.0%	14.1%	14.0%
Orleans	2.6%	11.4%	16.4%	15.6%	19.1%	20.5%	21.9%
Rutland	3.1%	9.7%	16.3%	18.4%	20.4%	22.4%	24.7%
Washington	1.8%	7.3%	13.4%	13.6%	16.9%	18.6%	22.0%
Windham	2.0%	10.2%	14.8%	15.9%	17.2%	18.4%	20.2%
Windsor	1.5%	7.0%	7.0%	9.4%	10.6%	12.4%	15.0%
VERMONT	2.5%	8.0%	12.8%	14.8%	17.5%	19.8%	22.4%

See also Figure 4

Appendix Table 4: Percent of Population Receiving at Least One Benzodiazepine Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.2%	2.6%	7.8%	8.8%	10.1%	11.7%	14.4%
Bennington	1.6%	4.3%	8.8%	12.7%	13.4%	14.4%	15.9%
Caledonia	1.1%	2.9%	7.1%	9.0%	10.6%	10.7%	12.5%
Chittenden	1.3%	2.9%	7.9%	10.8%	12.2%	14.8%	16.9%
Essex	0.5%	2.8%	5.2%	8.2%	6.7%	7.2%	6.5%
Franklin	1.0%	3.7%	6.2%	8.9%	11.0%	11.8%	14.8%
Grand Isle	1.2%	4.3%	8.1%	9.4%	11.7%	12.1%	13.2%
Lamoille	3.0%	5.5%	7.5%	10.2%	11.4%	13.9%	14.5%
Orange	0.9%	3.2%	8.7%	10.0%	10.0%	9.9%	10.4%
Orleans	1.2%	3.9%	8.8%	9.7%	13.1%	13.9%	15.9%
Rutland	1.8%	5.5%	8.4%	11.6%	12.8%	13.3%	15.1%
Washington	1.1%	4.1%	9.5%	12.0%	12.6%	14.5%	15.6%
Windham	1.1%	5.7%	10.2%	12.6%	13.2%	14.1%	15.3%
Windsor	0.8%	3.3%	4.7%	7.6%	8.4%	8.8%	10.1%
VERMONT	1.3%	4.2%	8.3%	10.7%	12.1%	13.5%	15.2%

See also Figure 4

Appendix Table 5: Percent of Population Receiving at Least One MAT Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	0.8%	4.5%	2.2%	0.7%	0.2%	0.1%
Bennington	--	2.0%	7.3%	4.1%	1.1%	0.4%	0.1%
Caledonia	--	0.3%	2.3%	1.7%	0.6%	0.1%	0.0%
Chittenden	0.0%	0.3%	2.5%	2.2%	0.8%	0.3%	0.1%
Essex	--	0.5%	1.5%	1.3%	0.1%	--	--
Franklin	--	2.2%	7.9%	4.0%	1.0%	0.3%	0.0%
Grand Isle	--	1.5%	7.8%	3.4%	1.1%	0.5%	0.1%
Lamoille	--	1.3%	6.2%	3.0%	0.8%	0.3%	0.0%
Orange	--	0.6%	4.0%	1.5%	0.6%	0.3%	0.1%
Orleans	--	0.3%	2.0%	2.0%	0.6%	0.2%	0.0%
Rutland	--	1.5%	7.9%	4.7%	1.2%	0.4%	0.1%
Washington	--	0.7%	4.1%	2.3%	0.8%	0.3%	0.0%
Windham	--	0.8%	2.8%	2.4%	1.1%	0.4%	0.1%
Windsor	0.0%	1.4%	4.0%	2.3%	1.1%	0.4%	0.1%
VERMONT	0.0%	0.7%	4.1%	2.7%	0.9%	0.3%	0.1%

" -- " indicates no individuals or prescriptions in a particular category.

See also Figure 4

Appendix Table 6: Percent of Population Receiving at Least One Stimulant Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	6.9%	3.7%	4.7%	3.4%	2.2%	1.4%	0.8%
Bennington	8.7%	6.7%	6.2%	6.7%	3.7%	1.9%	0.7%
Caledonia	6.4%	4.3%	6.1%	5.2%	3.0%	1.9%	1.0%
Chittenden	5.3%	4.0%	5.9%	5.3%	3.3%	2.4%	1.0%
Essex	4.5%	2.0%	5.4%	3.6%	2.2%	0.9%	0.4%
Franklin	5.0%	3.7%	3.8%	2.9%	1.8%	0.9%	0.3%
Grand Isle	5.5%	3.9%	5.9%	5.0%	2.3%	1.8%	0.6%
Lamoille	4.3%	3.5%	6.7%	5.1%	3.1%	2.1%	0.8%
Orange	6.1%	4.1%	3.8%	3.3%	2.0%	1.5%	0.7%
Orleans	5.1%	4.1%	7.1%	5.4%	3.0%	1.3%	0.6%
Rutland	7.2%	3.7%	4.9%	4.3%	2.7%	1.6%	0.7%
Washington	5.1%	5.0%	8.2%	6.4%	3.7%	2.7%	1.2%
Windham	8.0%	9.4%	10.1%	8.2%	5.5%	3.2%	1.6%
Windsor	4.6%	4.0%	3.5%	2.7%	2.0%	1.2%	0.7%
VERMONT	5.9%	5.7%	6.1%	5.0%	3.2%	2.0%	0.9%

See also Figure 4

Appendix Table 7: Percent of Population Receiving at Least One Opioid Analgesic Prescription By Gender (2017)

County	Male	Female
Addison	11.5%	13.4%
Bennington	13.6%	16.4%
Caledonia	12.4%	14.8%
Chittenden	10.0%	12.5%
Essex	9.0%	8.7%
Franklin	12.8%	15.3%
Grand Isle	14.0%	15.8%
Lamoille	12.3%	14.8%
Orange	9.1%	10.5%
Orleans	14.0%	16.3%
Rutland	14.9%	18.3%
Washington	12.0%	14.6%
Windham	13.0%	15.2%
Windsor	8.7%	10.0%
VERMONT	12.8%	14.9%

See also Figure 5

Appendix Table 8: Percent of Population Receiving at Least One Benzodiazepine Prescription By Gender (2017)

County	Male	Female
Addison	5.5%	10.7%
Bennington	7.1%	13.1%
Caledonia	5.9%	9.5%
Chittenden	6.3%	11.2%
Essex	4.0%	6.6%
Franklin	6.0%	9.7%
Grand Isle	6.2%	11.2%
Lamoille	7.1%	11.3%
Orange	6.0%	8.9%
Orleans	7.3%	12.3%
Rutland	6.9%	12.6%
Washington	6.9%	12.5%
Windham	7.2%	13.3%
Windsor	4.7%	8.1%
VERMONT	6.7%	11.6%

See also Figure 5

Appendix Table 9: Percent of Population Receiving at Least One MAT Prescription By Gender (2017)

County	Male	Female
Addison	0.7%	1.0%
Bennington	1.4%	1.4%
Caledonia	0.6%	0.5%
Chittenden	0.8%	0.7%
Essex	0.3%	0.3%
Franklin	1.8%	1.7%
Grand Isle	1.3%	1.6%
Lamoille	1.3%	1.4%
Orange	0.7%	0.7%
Orleans	0.5%	0.5%
Rutland	1.8%	1.5%
Washington	1.0%	0.8%
Windham	0.8%	0.7%
Windsor	1.0%	0.9%
VERMONT	1.0%	0.9%

See also Figure 5

Appendix Table 10: Percent of Population Receiving at Least One Stimulant Prescription By Gender (2017)

County	Male	Female
Addison	3.3%	2.9%
Bennington	4.4%	4.3%
Caledonia	3.8%	3.4%
Chittenden	3.9%	3.6%
Essex	2.4%	2.0%
Franklin	3.0%	2.2%
Grand Isle	3.2%	3.0%
Lamoille	3.2%	3.6%
Orange	3.1%	2.6%
Orleans	3.4%	3.1%
Rutland	3.3%	3.1%
Washington	4.1%	4.0%
Windham	5.4%	5.6%
Windsor	2.5%	2.2%
VERMONT	3.9%	3.7%

See also Figure 5

Appendix Table 11: Number of Prescriptions per 100 Residents by Drug Class (2017)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	51.8	33.4	19.1	25.9
Bennington	64.8	49.3	54.5	40.6
Caledonia	57.2	33.7	10.6	31.4
Chittenden	48.7	36.6	19.7	32.4
Essex	42.6	22.2	5.4	18.0
Franklin	86.2	37.1	57.8	26.2
Grand Isle	81.7	36.4	46.1	29.2
Lamoille	57.8	33.6	33.9	29.6
Orange	41.3	32.7	15.2	23.6
Orleans	70.6	46.8	13.5	32.0
Rutland	71.1	49.8	36.6	28.9
Washington	56.3	46.4	17.4	36.1
Windham	61.9	51.0	17.5	47.9
Windsor	39.6	30.2	23.9	18.8
VERMONT	60.9	41.6	26.9	32.9

See also Figure 6

Appendix Table 12: Total Number of Prescriptions by Drug Class by County (2017)

County	Opioid Analgesic	Benzodiazepine	MAT	Stimulant
Addison	19,066	12,292	7,025	9,512
Bennington	23,059	17,534	19,414	14,447
Caledonia	17,243	10,166	3,188	9,457
Chittenden	79,053	59,497	31,924	52,535
Essex	2,654	1,385	335	1,123
Franklin	42,248	18,184	28,328	12,821
Grand Isle	5,718	2,544	3,228	2,046
Lamoille	14,636	8,518	8,577	7,502
Orange	11,974	9,465	4,410	6,834
Orleans	18,940	12,560	3,619	8,596
Rutland	42,040	29,453	21,641	17,100
Washington	32,828	27,061	10,162	21,057
Windham	26,548	21,849	7,503	20,532
Windsor	21,833	16,661	13,146	10,366
VERMONT**	379,530	259,200	167,570	205,263

***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
2017	379,530	259,200	167,570	205,263

See also Figure 7

Appendix Table 14: Percent of Opioid Analgesic Prescriptions by Gender (2017)

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	43.7%	56.2%
Bennington	42.7%	57.2%
Caledonia	48.3%	51.7%
Chittenden	42.3%	57.8%
Essex	52.9%	47.1%
Franklin	45.3%	54.7%
Grand Isle	43.9%	55.8%
Lamoille	45.5%	54.5%
Orange	48.2%	51.8%
Orleans	49.2%	50.8%
Rutland	42.5%	57.5%
Washington	44.7%	55.3%
Windham	45.1%	54.9%
Windsor	46.8%	53.1%
VERMONT	45.4%	54.6%

See also Figure 8

Appendix Table 15: Percent of Benzodiazepine Prescriptions by Gender (2017)

County	Male	Female
Addison	34.4%	65.6%
Bennington	33.1%	66.8%
Caledonia	39.1%	60.9%
Chittenden	35.8%	64.2%
Essex	39.6%	60.4%
Franklin	38.1%	61.9%
Grand Isle	39.8%	59.6%
Lamoille	38.9%	61.1%
Orange	40.4%	59.6%
Orleans	37.3%	62.7%
Rutland	35.8%	64.2%
Washington	36.7%	63.3%
Windham	34.6%	65.3%
Windsor	35.4%	64.6%
VERMONT	36.8%	63.2%

See also Figure 8

Appendix Table 16: Percent of MAT Prescriptions by Gender (2017)

The gender distribution of MAT prescriptions by county varies widely. In three counties, males receive most of the MAT prescriptions. These include Caledonia, Essex, and Washington counties. There are eight counties where more females receive MAT prescriptions: Bennington, Chittenden, Franklin, Grand Isle, Lamoille, Orleans, Rutland, and Windsor counties. Essex County differs the most from the statewide values, which are nearly evenly divided - 74.0% of the MAT prescriptions are written to males and just 26.0% to females in Essex County.

County	Male	Female
Addison	48.9%	50.7%
Bennington	41.9%	58.1%
Caledonia	53.0%	47.0%
Chittenden	48.7%	51.3%
Essex	74.0%	26.0%
Franklin	45.5%	54.5%
Grand Isle	39.3%	60.7%
Lamoille	47.9%	52.1%
Orange	50.1%	49.8%
Orleans	42.6%	57.4%
Rutland	48.3%	51.4%
Washington	51.2%	48.5%
Windham	50.7%	49.0%
Windsor	47.5%	51.5%
VERMONT	47.9%	51.9%

See also Figure 8

Appendix Table 17: Percent of Stimulant Prescriptions by Gender (2017)

County	Male	Female
Addison	55.0%	45.0%
Bennington	55.1%	44.9%
Caledonia	54.5%	45.5%
Chittenden	50.9%	49.1%
Essex	53.9%	46.1%
Franklin	57.8%	42.2%
Grand Isle	49.5%	50.5%
Lamoille	46.2%	53.8%
Orange	57.4%	42.6%
Orleans	52.2%	47.8%
Rutland	52.0%	47.9%
Washington	51.2%	48.8%
Windham	48.1%	51.8%
Windsor	54.5%	45.4%
VERMONT	52.1%	47.9%

See also Figure 8

Appendix Table 18: Percent of Opioid Analgesic Prescriptions by Age Group (2017)

The age group distribution for opioid analgesic 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	0.9%	2.1%	7.9%	10.8%	17.4%	27.7%	33.1%
Bennington	0.8%	2.0%	5.7%	10.4%	18.2%	27.4%	35.5%
Caledonia	1.1%	1.9%	5.9%	11.5%	21.5%	27.2%	31.1%
Chittenden	1.1%	2.3%	6.6%	10.8%	19.7%	28.1%	31.6%
Essex	0.5%	1.5%	4.7%	9.5%	16.5%	32.5%	34.9%
Franklin	0.7%	1.7%	7.5%	14.5%	25.4%	27.2%	23.0%
Grand Isle	0.8%	0.8%	5.7%	11.8%	24.7%	32.0%	24.3%
Lamoille	1.1%	2.0%	5.9%	12.0%	20.5%	30.6%	27.9%
Orange	0.6%	1.4%	5.5%	12.1%	20.0%	29.5%	30.8%
Orleans	0.9%	1.5%	6.1%	10.7%	21.2%	26.1%	33.6%
Rutland	0.9%	1.9%	6.1%	10.0%	17.8%	28.1%	35.3%
Washington	0.7%	1.6%	6.3%	10.0%	21.1%	26.6%	33.7%
Windham	0.7%	1.8%	5.9%	11.1%	18.0%	30.2%	32.3%
Windsor	0.8%	1.5%	3.6%	10.8%	18.9%	27.9%	36.6%
VERMONT	0.9%	2.0%	6.3%	11.1%	19.9%	27.9%	32.0%

See also Figure 9

Appendix Table 19: Percent of Benzodiazepine Prescriptions by Age Group (2017)

The age group distribution for 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%	2.1%	8.3%	10.4%	17.7%	24.4%	35.8%
Bennington	1.7%	2.9%	6.8%	12.2%	19.5%	25.5%	31.5%
Caledonia	1.9%	1.8%	8.0%	13.0%	21.5%	24.1%	29.7%
Chittenden	1.5%	3.0%	10.0%	13.3%	18.2%	25.3%	28.7%
Essex	1.9%	1.2%	9.5%	11.6%	17.5%	27.9%	30.5%
Franklin	1.2%	1.8%	10.0%	13.0%	21.3%	24.5%	28.3%
Grand Isle	0.6%	2.9%	7.2%	11.1%	22.6%	27.4%	28.1%
Lamoille	2.7%	3.1%	7.7%	13.5%	18.5%	26.5%	28.0%
Orange	1.3%	1.7%	12.6%	14.2%	19.3%	24.3%	26.6%
Orleans	1.2%	1.5%	7.5%	10.4%	19.1%	24.4%	35.9%
Rutland	1.6%	2.6%	7.7%	12.3%	18.4%	25.8%	31.7%
Washington	0.9%	2.3%	10.8%	14.8%	19.5%	24.9%	26.8%
Windham	0.8%	2.7%	10.2%	12.3%	16.3%	27.4%	30.3%
Windsor	1.1%	2.1%	6.3%	13.6%	19.0%	25.5%	32.5%
VERMONT	1.3%	2.7%	9.1%	12.8%	18.7%	25.2%	30.2%

See also Figure 9

Appendix Table 20: Percent of MAT Prescriptions by Age Group (2017)

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	--	6.8%	51.2%	26.3%	10.5%	3.9%	1.3%
Bennington	--	10.9%	51.3%	27.4%	7.3%	2.1%	1.0%
Caledonia	--	3.2%	42.3%	34.6%	14.8%	4.2%	0.9%
Chittenden	0.0%	6.0%	48.2%	29.4%	11.4%	4.3%	0.7%
Essex	--	12.5%	52.5%	31.3%	3.6%	--	--
Franklin	--	8.9%	55.4%	26.0%	7.9%	1.8%	0.0%
Grand Isle	--	4.8%	66.8%	17.1%	6.7%	4.5%	0.0%
Lamoille	--	6.8%	58.8%	24.0%	6.3%	3.4%	0.7%
Orange	--	10.7%	47.1%	23.9%	10.3%	6.3%	1.8%
Orleans	--	4.2%	33.5%	39.0%	17.2%	4.5%	1.6%
Rutland	--	6.8%	50.5%	28.2%	9.1%	3.9%	1.6%
Washington	--	4.9%	49.3%	28.5%	13.0%	3.8%	0.5%
Windham	--	4.8%	37.3%	27.1%	19.4%	8.9%	2.6%
Windsor	0.3%	7.3%	44.3%	25.4%	13.6%	7.9%	1.3%
VERMONT	0.0%	7.2%	49.6%	27.4%	10.5%	4.2%	1.0%

" --" indicates no individuals or prescriptions in a particular category.

See also Figure 9

Appendix Table 21: Percent of Stimulant Prescriptions by Age Group (2017)

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, Orange, Addison, and Rutland with over 40% each; while the counties with the lowest proportion are Washington and Lamoille (23.7% and 25%).

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	41.5%	12.3%	14.8%	11.4%	8.7%	6.8%	4.5%
Bennington	43.1%	10.3%	12.8%	13.8%	10.0%	7.1%	2.9%
Caledonia	37.9%	9.0%	16.9%	15.3%	9.4%	7.2%	4.4%
Chittenden	26.1%	12.5%	21.4%	16.7%	10.8%	9.0%	3.6%
Essex	34.7%	5.5%	22.4%	14.9%	14.3%	6.0%	2.3%
Franklin	39.4%	9.0%	22.3%	13.7%	9.3%	4.6%	1.7%
Grand Isle	29.1%	5.3%	22.3%	21.2%	9.8%	7.5%	4.8%
Lamoille	25.0%	7.4%	22.5%	19.3%	12.4%	10.1%	3.2%
Orange	41.9%	9.0%	11.9%	13.5%	9.6%	10.4%	3.7%
Orleans	29.5%	6.9%	24.0%	18.5%	11.5%	6.3%	3.2%
Rutland	40.9%	8.4%	14.9%	13.8%	10.9%	7.2%	4.0%
Washington	23.7%	8.0%	22.6%	19.3%	12.5%	9.2%	4.7%
Windham	25.8%	8.9%	20.8%	16.0%	12.8%	10.4%	5.4%
Windsor	36.6%	8.5%	15.1%	12.9%	12.0%	9.1%	5.9%
VERMONT	31.0%	11.3%	19.2%	15.6%	10.9%	8.2%	4.0%

See also Figure 9

Appendix Table 22: Percent of Male Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.1%	5.0%	11.4%	11.5%	13.6%	17.7%	20.1%
Bennington	1.9%	7.9%	10.6%	13.7%	16.9%	20.2%	23.1%
Caledonia	2.1%	5.9%	10.7%	15.1%	17.2%	19.2%	18.4%
Chittenden	2.1%	4.5%	7.2%	10.5%	14.0%	17.6%	21.3%
Essex	1.4%	4.9%	7.4%	10.7%	11.2%	11.9%	13.0%
Franklin	2.2%	8.8%	10.5%	14.0%	17.7%	20.5%	22.4%
Grand Isle	3.3%	5.7%	10.3%	14.1%	17.1%	19.6%	22.0%
Lamoille	2.7%	6.2%	8.7%	13.3%	16.6%	19.3%	22.2%
Orange	1.1%	4.1%	8.0%	9.4%	11.5%	14.8%	14.4%
Orleans	2.5%	8.4%	12.6%	14.5%	18.1%	20.8%	21.5%
Rutland	2.9%	7.8%	12.7%	16.1%	19.5%	21.4%	23.0%
Washington	1.5%	5.4%	10.4%	12.7%	15.6%	19.1%	20.9%
Windham	1.8%	7.2%	12.3%	14.4%	17.8%	18.1%	19.3%
Windsor	1.3%	5.6%	5.9%	8.4%	10.0%	12.2%	14.9%
VERMONT	2.3%	6.6%	10.3%	13.2%	16.6%	19.8%	22.4%

See also Figure 11

Appendix Table 23: Percent of Female Population Receiving at Least One Opioid Analgesic Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	2.8%	6.8%	15.7%	14.9%	16.2%	18.2%	20.1%
Bennington	2.7%	9.2%	18.4%	20.2%	19.2%	19.8%	24.5%
Caledonia	3.3%	10.1%	17.0%	16.5%	19.5%	18.6%	19.6%
Chittenden	2.6%	5.7%	11.2%	13.2%	16.0%	19.3%	22.7%
Essex	1.1%	10.5%	12.3%	12.4%	9.5%	11.8%	9.1%
Franklin	2.6%	14.3%	15.9%	17.0%	19.1%	20.0%	25.0%
Grand Isle	3.4%	11.0%	16.0%	17.7%	20.0%	20.9%	22.1%
Lamoille	3.1%	11.9%	14.9%	17.7%	18.2%	20.5%	21.9%
Orange	1.5%	8.6%	11.2%	12.0%	14.6%	13.5%	13.6%
Orleans	2.7%	14.7%	20.8%	16.8%	20.2%	20.3%	22.4%
Rutland	3.3%	11.7%	20.2%	20.9%	21.5%	23.4%	26.2%
Washington	2.1%	10.0%	16.3%	14.5%	18.2%	18.3%	23.0%
Windham	2.1%	13.8%	17.4%	17.3%	16.6%	18.9%	21.0%
Windsor	1.7%	8.5%	8.0%	10.5%	11.2%	12.7%	15.1%
VERMONT	2.7%	9.5%	15.4%	16.4%	18.4%	19.9%	22.5%

See also Figure 11

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

While many of the commonly prescribed generic opioid analgesic types have fluctuated minimally over time, short-acting Hydrocodone prescribing is nearly half of what it was since 2012.

	2012	2013	2014	2015	2016	2017
Oxycodone SA	30.7%	31.3%	30.0%	29.1%	29.9%	30.8%
Hydrocodone SA	37.6%	36.6%	31.4%	24.4%	21.6%	19.5%
Tramadol SA	--	--	7.7%	17.8%	19.2%	19.7%
Hydromorphone SA	6.1%	6.4%	6.1%	5.8%	5.9%	5.9%
Morphine LA	4.9%	5.2%	5.1%	5.0%	5.3%	5.3%
Fentanyl LA	4.2%	4.1%	4.1%	3.8%	3.8%	3.7%
Methadone	4.3%	4.3%	3.9%	3.5%	3.5%	3.7%
Oxycodone LA	3.7%	3.6%	3.5%	3.3%	3.2%	3.3%
Codeine	5.0%	4.6%	3.9%	3.4%	3.2%	3.1%
Morphine SA	2.7%	2.9%	3.0%	2.9%	3.0%	3.7%
Oxymorphone LA	0.3%	0.2%	--	--	--	--

" -- " indicates no 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	2017
Addison	67,718	65,116	62,924	63,479	63,029	53,039
Bennington	60,342	63,021	67,476	74,427	67,689	60,705
Caledonia	68,300	66,590	70,941	68,635	58,939	53,131
Chittenden	64,794	63,146	63,674	65,061	58,421	53,376
Essex	52,386	55,608	60,390	55,397	52,624	41,704
Franklin	98,824	98,952	103,073	106,564	100,633	93,992
Grand Isle	116,867	108,620	95,707	100,197	85,286	85,829
Lamoille	79,910	76,618	80,076	80,067	63,581	59,707
Orange	51,182	53,510	56,418	55,088	42,140	38,905
Orleans	73,683	72,788	78,060	87,987	73,050	71,702
Rutland	72,387	68,200	74,191	80,378	76,070	66,861
Washington	69,585	69,753	66,991	69,196	57,294	50,046
Windham	78,674	77,860	79,889	77,823	70,109	59,595
Windsor	60,620	56,805	57,341	61,629	54,137	44,523
VERMONT	73,174	71,521	73,476	77,090	68,915	61,300

See also Figure 14

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

County	2012	2013	2014	2015	2016	2017
Addison	72.3	70.3	64.5	58.8	63.7	58.8
Bennington	55.2	59.5	55.8	52.1	51.6	52.3
Caledonia	61.1	59.8	61.3	58.2	57.0	55.4
Chittenden	77.7	78.0	74.9	68.9	68.5	65.4
Essex	61.6	61.8	61.5	51.5	62.5	52.6
Franklin	71.8	75.1	72.3	66.5	69.7	70.2
Grand Isle	79.3	79.1	72.5	66.0	61.0	64.0
Lamoille	61.0	62.1	61.9	58.0	56.3	55.3
Orange	66.2	66.3	61.4	54.5	50.4	49.5
Orleans	62.8	61.9	60.9	58.0	55.3	56.9
Rutland	67.7	68.6	65.8	61.5	62.8	61.5
Washington	64.1	64.5	59.7	56.1	54.0	50.6
Windham	69.9	69.4	66.8	58.9	57.3	55.5
Windsor	71.6	69.3	69.4	63.7	62.3	62.4
VERMONT	69.1	69.3	66.8	61.6	61.3	59.5

See also Figure 16

Appendix Table 27: Average Daily MME for Male Population By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	30.0	34.5	82.8	71.0	69.3	79.8	57.2
Bennington	24.2	33.8	50.6	39.1	66.6	64.2	51.3
Caledonia	27.7	40.0	50.4	50.9	77.1	64.8	55.7
Chittenden	25.3	44.1	70.2	85.0	78.2	82.9	57.5
Essex	28.8	43.5	41.6	65.8	81.5	40.9	56.8
Franklin	29.3	66.3	78.0	108.1	78.9	75.0	59.0
Grand Isle	28.5	33.0	44.9	119.9	78.3	76.9	41.4
Lamoille	25.6	34.8	34.4	56.5	63.7	55.6	51.0
Orange	29.6	34.4	42.9	58.6	50.4	51.7	43.3
Orleans	29.1	34.6	46.4	57.1	66.0	72.2	70.6
Rutland	25.5	32.6	50.2	78.7	58.1	77.3	61.9
Washington	29.1	34.6	42.9	61.8	66.0	50.8	52.6
Windham	26.7	30.9	40.5	60.7	81.8	62.6	60.1
Windsor	37.1	33.7	64.8	73.8	80.5	77.1	65.2
VERMONT	28.5	40.4	58.5	74.4	71.2	70.0	56.3

See also Figure 18

Appendix Table 28: Average Daily MME for Female Population By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	32.2	32.3	40.2	57.8	49.6	52.5	52.6
Bennington	26.9	33.7	46.3	51.2	55.0	54.8	43.6
Caledonia	31.4	35.6	31.0	48.9	55.4	55.3	45.8
Chittenden	28.4	36.7	47.2	62.4	68.2	66.3	55.2
Essex	19.7	30.6	27.8	26.7	40.4	56.9	54.6
Franklin	26.1	60.2	61.9	68.4	81.6	65.1	46.8
Grand Isle	28.0	41.7	31.8	69.0	76.7	48.9	55.5
Lamoille	24.8	30.8	31.8	61.7	58.3	76.4	38.1
Orange	29.0	31.0	39.7	54.9	52.6	47.9	51.6
Orleans	31.5	32.3	31.2	40.0	47.1	49.6	53.2
Rutland	25.3	31.4	54.7	62.3	81.8	56.2	49.6
Washington	28.4	33.8	36.5	47.3	50.8	53.3	43.8
Windham	29.6	32.7	42.2	50.3	55.9	54.0	43.2
Windsor	31.6	32.4	43.4	67.1	61.6	59.2	45.2
VERMONT	28.6	36.7	45.3	58.6	64.4	59.0	48.7

See also Figure 18

Appendix Table 29: Percentage of Opioid Analgesic Prescriptions in MME Category (2017)

County	Less than 50 MME	50 – 90 MME	Greater than 90 MME
Addison	67.1%	19.3%	13.6%
Bennington	70.2%	18.4%	11.5%
Caledonia	68.0%	19.7%	12.3%
Chittenden	64.9%	18.5%	16.7%
Essex	67.5%	20.6%	11.9%
Franklin	57.0%	23.2%	19.9%
Grand Isle	56.7%	26.9%	16.5%
Lamoille	68.4%	18.9%	12.6%
Orange	72.9%	16.3%	10.8%
Orleans	67.2%	18.7%	14.2%
Rutland	68.9%	17.0%	14.1%
Washington	70.7%	17.0%	12.3%
Windham	67.8%	19.4%	12.8%
Windsor	64.1%	19.0%	16.9%
VERMONT	66.4%	19.0%	14.6%

See also Figure 19

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 2017.

County	2012	2013	2014	2015	2016	2017
Addison	14	14	15	16	16	17
Bennington	14	15	15	17	18	18
Caledonia	16	16	17	17	17	18
Chittenden	15	15	16	17	17	17
Essex	18	19	18	20	19	20
Franklin	15	16	16	17	17	17
Grand Isle	15	15	17	18	18	17
Lamoille	15	16	16	17	17	18
Orange	15	16	18	19	19	19
Orleans	16	16	17	18	19	19
Rutland	13	13	15	16	16	16
Washington	15	15	16	18	18	18
Windham	15	15	16	17	17	18
Windsor	15	15	16	17	18	18
VERMONT	15	15	16	17	17	17

See also Figure 22

Appendix Table 31: Average Days' Supply by MME Category (2017)

County	Less than 50 MME	50 – 90 MME	Greater than 90 MME
Addison	16	16	20
Bennington	18	17	19
Caledonia	18	17	18
Chittenden	18	16	18
Essex	20	19	20
Franklin	18	15	15
Grand Isle	18	15	18
Lamoille	18	17	20
Orange	20	18	20
Orleans	19	18	20
Rutland	17	15	17
Washington	18	17	19
Windham	17	18	19
Windsor	19	18	19
VERMONT	18	16	18

See also Figure 24

Appendix Table 32: Percent of Male Population Receiving at Least One MAT Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	0.5%	3.1%	2.4%	0.9%	0.1%	0.1%
Bennington	--	2.0%	7.0%	4.1%	0.8%	0.6%	0.2%
Caledonia	--	0.1%	2.3%	2.2%	0.8%	0.0%	0.0%
Chittenden	--	0.2%	2.4%	2.3%	1.0%	0.4%	0.1%
Essex	--	0.5%	1.6%	1.3%	0.2%	--	--
Franklin	--	1.4%	7.7%	4.8%	1.1%	0.2%	0.1%
Grand Isle	--	1.2%	5.7%	3.8%	1.4%	0.3%	--
Lamoille	--	1.5%	5.4%	2.8%	0.8%	0.3%	0.1%
Orange	--	0.2%	3.8%	1.7%	0.6%	0.4%	0.1%
Orleans	--	0.1%	1.5%	2.3%	0.7%	0.3%	0.0%
Rutland	--	1.5%	7.6%	5.9%	1.3%	0.5%	0.2%
Washington	--	0.6%	4.5%	2.6%	1.0%	0.5%	0.0%
Windham	--	0.6%	2.5%	2.4%	1.3%	0.6%	0.1%
Windsor	--	1.1%	4.2%	2.4%	1.2%	0.5%	0.1%
VERMONT	--	0.6%	4.0%	3.0%	1.0%	0.4%	0.1%

" -- " indicates no individuals or prescriptions in a particular category.

See also Figure 26

Appendix Table 33: Percent of Female Population Receiving at Least One MAT Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	--	1.1%	5.9%	2.0%	0.6%	0.2%	--
Bennington	--	2.0%	7.7%	4.1%	1.3%	0.3%	0.0%
Caledonia	--	0.6%	2.3%	1.2%	0.3%	0.2%	0.0%
Chittenden	0.0%	0.3%	2.5%	2.0%	0.6%	0.2%	0.0%
Essex	--	0.5%	1.5%	1.3%	--	--	--
Franklin	--	3.0%	8.2%	3.4%	0.9%	0.4%	0.0%
Grand Isle	--	1.8%	10.1%	3.0%	0.8%	0.8%	0.1%
Lamoille	--	1.1%	7.0%	3.1%	0.7%	0.3%	--
Orange	--	1.1%	4.2%	1.2%	0.6%	0.1%	0.0%
Orleans	--	0.5%	2.6%	1.7%	0.6%	0.2%	--
Rutland	--	1.6%	8.4%	3.5%	1.1%	0.3%	0.1%
Washington	--	0.9%	3.7%	2.0%	0.6%	0.2%	0.0%
Windham	--	1.0%	3.0%	2.3%	0.8%	0.3%	0.1%
Windsor	0.0%	1.7%	3.8%	2.2%	1.0%	0.3%	0.0%
VERMONT	0.0%	0.9%	4.3%	2.3%	0.7%	0.2%	0.0%

" -- " indicates no individuals or prescriptions in a particular category.

See also Figure 26

Appendix Table 34: Percent of Male Population Receiving at Least One Stimulant Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	8.7%	4.1%	4.4%	2.8%	1.5%	0.8%	0.7%
Bennington	11.4%	7.5%	4.7%	4.5%	2.5%	1.2%	0.8%
Caledonia	8.4%	4.8%	5.8%	4.3%	2.0%	1.2%	1.1%
Chittenden	7.1%	4.2%	5.3%	4.5%	2.6%	1.8%	1.0%
Essex	5.6%	1.5%	5.1%	3.0%	2.7%	1.1%	0.5%
Franklin	7.1%	4.3%	3.5%	2.3%	1.3%	0.8%	0.4%
Grand Isle	7.5%	3.7%	3.9%	4.9%	2.4%	1.4%	0.6%
Lamoille	5.9%	3.4%	4.9%	4.1%	2.0%	1.7%	0.5%
Orange	8.1%	3.8%	3.0%	3.0%	1.8%	1.3%	0.8%
Orleans	6.8%	4.3%	5.6%	5.3%	2.9%	1.2%	0.6%
Rutland	9.5%	4.0%	4.0%	3.1%	2.0%	1.1%	0.6%
Washington	7.3%	4.6%	7.4%	5.6%	3.0%	2.0%	1.2%
Windham	11.0%	8.9%	8.2%	7.0%	4.1%	2.1%	1.2%
Windsor	6.2%	4.0%	3.1%	2.4%	1.6%	0.8%	0.7%
VERMONT	8.0%	5.8%	5.3%	4.3%	2.4%	1.5%	0.9%

See also Figure 28

Appendix Table 35: Percent of Female Population Receiving at Least One Stimulant Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	5.1%	3.3%	5.1%	4.1%	2.9%	1.9%	0.8%
Bennington	5.9%	6.0%	7.9%	9.0%	4.9%	2.6%	0.7%
Caledonia	4.2%	3.7%	6.5%	6.0%	4.0%	2.4%	0.9%
Chittenden	3.5%	3.9%	6.6%	6.0%	3.9%	3.0%	1.1%
Essex	3.4%	2.6%	5.8%	4.1%	1.7%	0.7%	0.4%
Franklin	2.8%	3.2%	4.2%	3.4%	2.4%	1.0%	0.2%
Grand Isle	3.4%	4.1%	8.1%	5.1%	2.3%	2.3%	0.7%
Lamoille	2.8%	3.7%	8.8%	6.0%	4.2%	2.5%	1.1%
Orange	3.9%	4.6%	4.7%	3.7%	2.3%	1.8%	0.6%
Orleans	3.5%	3.8%	8.9%	5.6%	3.1%	1.4%	0.6%
Rutland	4.9%	3.5%	5.9%	5.5%	3.4%	2.0%	0.7%
Washington	3.1%	5.7%	9.0%	7.2%	4.4%	3.2%	1.2%
Windham	4.9%	10.1%	12.0%	9.2%	6.8%	4.4%	1.9%
Windsor	2.9%	4.0%	3.9%	3.0%	2.3%	1.5%	0.6%
VERMONT	3.9%	5.7%	7.0%	5.8%	3.9%	2.6%	1.0%

See also Figure 28

Appendix Table 36: Percent of Male Population Receiving at Least One Benzodiazepine Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.0%	1.7%	5.6%	6.0%	6.2%	7.7%	10.9%
Bennington	1.2%	3.6%	4.8%	7.5%	8.6%	10.7%	12.6%
Caledonia	0.9%	2.3%	4.8%	6.6%	7.9%	8.1%	11.2%
Chittenden	1.2%	2.0%	5.2%	8.1%	8.5%	10.6%	13.4%
Essex	0.7%	1.0%	3.1%	6.7%	4.3%	5.0%	5.7%
Franklin	1.0%	2.6%	5.2%	6.9%	7.9%	8.7%	12.1%
Grand Isle	1.6%	3.7%	4.1%	5.7%	7.6%	7.2%	10.9%
Lamoille	2.7%	3.9%	5.2%	7.7%	7.8%	10.9%	12.3%
Orange	0.7%	2.4%	7.9%	8.1%	7.4%	8.2%	8.6%
Orleans	0.9%	2.5%	5.7%	6.4%	8.8%	11.2%	13.5%
Rutland	1.5%	3.7%	5.9%	7.1%	8.6%	9.7%	11.5%
Washington	1.0%	2.3%	7.0%	8.1%	8.2%	11.2%	12.2%
Windham	1.1%	3.5%	6.4%	9.1%	9.0%	10.5%	11.0%
Windsor	0.6%	2.2%	3.3%	5.6%	5.7%	6.7%	8.0%
VERMONT	1.2%	2.8%	5.8%	7.7%	8.4%	10.1%	12.4%

See also Figure 30

Appendix Table 37: Percent of Female Population Receiving at Least One Benzodiazepine Prescription By Age Group (2017)

County	17 and Younger	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and Older
Addison	1.5%	3.5%	10.2%	11.7%	14.0%	15.4%	17.7%
Bennington	2.0%	5.0%	12.8%	17.8%	17.8%	17.8%	18.8%
Caledonia	1.2%	3.8%	9.6%	11.4%	13.3%	13.2%	13.8%
Chittenden	1.5%	3.7%	10.7%	13.4%	15.8%	18.9%	19.6%
Essex	0.2%	4.7%	7.3%	9.6%	9.1%	9.3%	7.4%
Franklin	1.0%	4.8%	7.2%	10.9%	14.0%	14.9%	17.2%
Grand Isle	0.8%	5.0%	12.1%	13.2%	15.4%	16.8%	15.4%
Lamoille	3.3%	7.2%	9.9%	12.8%	15.2%	16.8%	16.7%
Orange	1.2%	4.1%	9.6%	12.0%	12.4%	11.5%	12.1%
Orleans	1.5%	5.4%	12.6%	13.0%	17.6%	16.6%	18.1%
Rutland	2.0%	7.2%	11.1%	16.1%	17.0%	16.8%	18.1%
Washington	1.1%	6.7%	12.1%	15.7%	16.8%	17.5%	18.5%
Windham	1.1%	8.6%	14.0%	15.8%	17.0%	17.5%	19.1%
Windsor	1.0%	4.4%	6.0%	9.6%	10.9%	10.8%	12.0%
VERMONT	1.5%	5.6%	10.9%	13.8%	15.8%	16.8%	17.7%

See also Figure 30