



# ANNUAL DATA REPORT - 2013

## VERMONT PRESCRIPTION MONITORING SYSTEM

# What is the Vermont Prescription Monitoring System?



- In 2006, the Vermont Legislature passed Act 205 authorizing the Vermont Department of Health to establish and operate a Prescription Drug Monitoring Program (PDMP).
- Vermont's PDMP, known as the Vermont Prescription Monitoring System (VPMS), became operational in January of 2009.
- The VPMS is a statewide electronic database of controlled substance prescriptions dispensed from Vermont-licensed pharmacies.

# VPMS Data Collection

- Act 205 stipulates that Vermont-licensed pharmacies must upload data on all dispensed Schedule II, III, and IV controlled substances to VPMS.
  - ▣ Schedule II – Drugs with a high potential for abuse, use may potentially lead to severe psychological or physical dependence. These drugs are considered dangerous.
    - Examples include: oxycodone, fentanyl, amphetamine, and methylphenidate.
  - ▣ Schedule III – Drugs with a moderate to low potential for physical or psychological dependence.
    - Examples 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 include: clonazepam, diazepam, and alprazolam.
- Controlled substance data collected from Vermont-licensed pharmacies includes information on the:
  - ▣ Prescribed drug
  - ▣ Recipient of the prescribed drug
  - ▣ Health care provider who wrote the prescription
  - ▣ Pharmacy that dispensed the prescription

**Note:** Irrespective of how drugs are scheduled relative to each other, all controlled substances have the potential for abuse and misuse.

# Data Limitations

- VPMS does not currently collect data on controlled substances dispensed from:
  - ▣ Emergency rooms
  - ▣ Veterinarian offices
  - ▣ Opioid addiction treatment programs (OTPs) that dispense methadone and buprenorphine
  - ▣ Veteran's Affairs hospitals and pharmacies
- Data submitted to VPMS by pharmacies can contain errors. Each data upload from a pharmacy is screened for errors and sent back to the pharmacy to be corrected if errors are discovered. However, not all errors are found or corrected.

## How is VPMS used?



- VPMS is a clinical tool that exists to promote the appropriate use of controlled substances for legitimate medical purposes, while deterring the misuse, abuse, and diversion of controlled substances.
- VPMS also serves as a surveillance tool that is used to monitor statewide trends in the prescribing, dispensing, and use of controlled substances.
- This report summarizes VPMS surveillance data for all Schedule II – IV prescriptions that were dispensed from Vermont-licensed pharmacies from 01/01/2010 to 12/31/2013.

# Total Number of Prescriptions and Recipients by Year

During the last four years, Vermont-licensed pharmacies dispensed more than 4.3 million prescriptions for Schedule II, III, and IV controlled substances.

The annual number of controlled substance prescriptions dispensed has increased slightly during this time while, the number of unique recipients of at least one controlled substance prescription has decreased slightly.

**Total Number of Controlled Substance Prescriptions and Recipients by Year**

	Total # of Prescriptions	Total # of Recipients	% of VT
2010	1,070,854	193,035	29%
2011	1,072,062	190,009	28%
2012	1,081,730	186,926	28%
2013	1,083,612	182,885	27%

# Drug Type Definitions

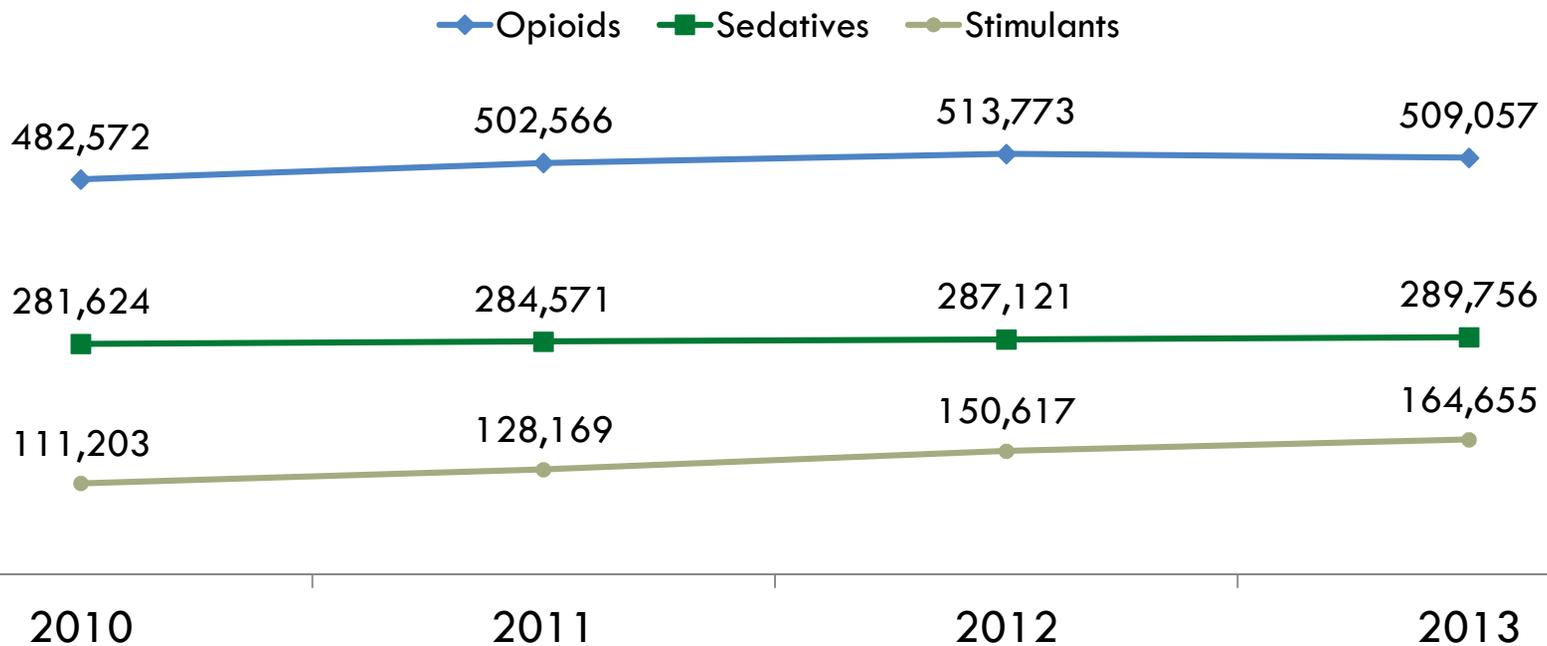
For the purposes of this report, the following drug types were defined using the U.S. Food and Drug Administration's established pharmacologic class (EPC).

- Opioids
  - EPCs: Opioid Agonist, Opioid Agonist/Antagonist, Opioid Antagonist, Partial Opioid Agonist, Partial Opioid Agonist/Antagonist
  - Examples: oxycodone, hydrocodone, fentanyl, morphine, buprenorphine, methadone
- Sedatives
  - EPCs: Barbiturate, Benzodiazepine, Central Nervous System Depressant, Muscle Relaxant
  - Examples: lorazepam, clonazepam, diazepam, carisoprodol, alprazolam
- Stimulants
  - EPCs: Central Nervous System Stimulant, Amphetamine Anorectic
  - Examples: methylphenidate, lisdexamfetamine, dextroamphetamine/amphetamine,
- Hormones
  - EPCs: Androgen, Estrogen
  - Examples: testosterone, esterified estrogens/methyltestosterone
- Cannabinoids
  - EPCs: Cannabinoid
  - Examples: tetrahydrocannabinol

# Number of Prescriptions by Drug Type and Year

- Opioids account for approximately 46% of the controlled substances dispensed in VT on an annual basis. Sedatives account for approximately 27%.
- Opioids and stimulants are being prescribed at higher rates than they were four years ago.

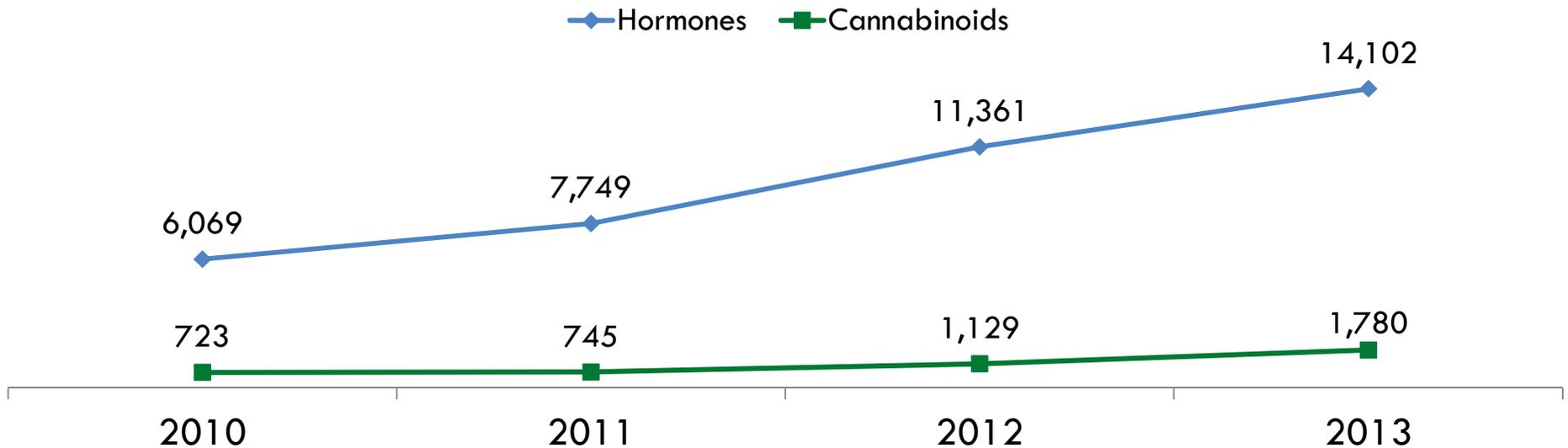
**Total Number of Controlled Substance Prescriptions by Drug Type and Year**



## Number of Prescriptions by Drug Type and Year (cont.)

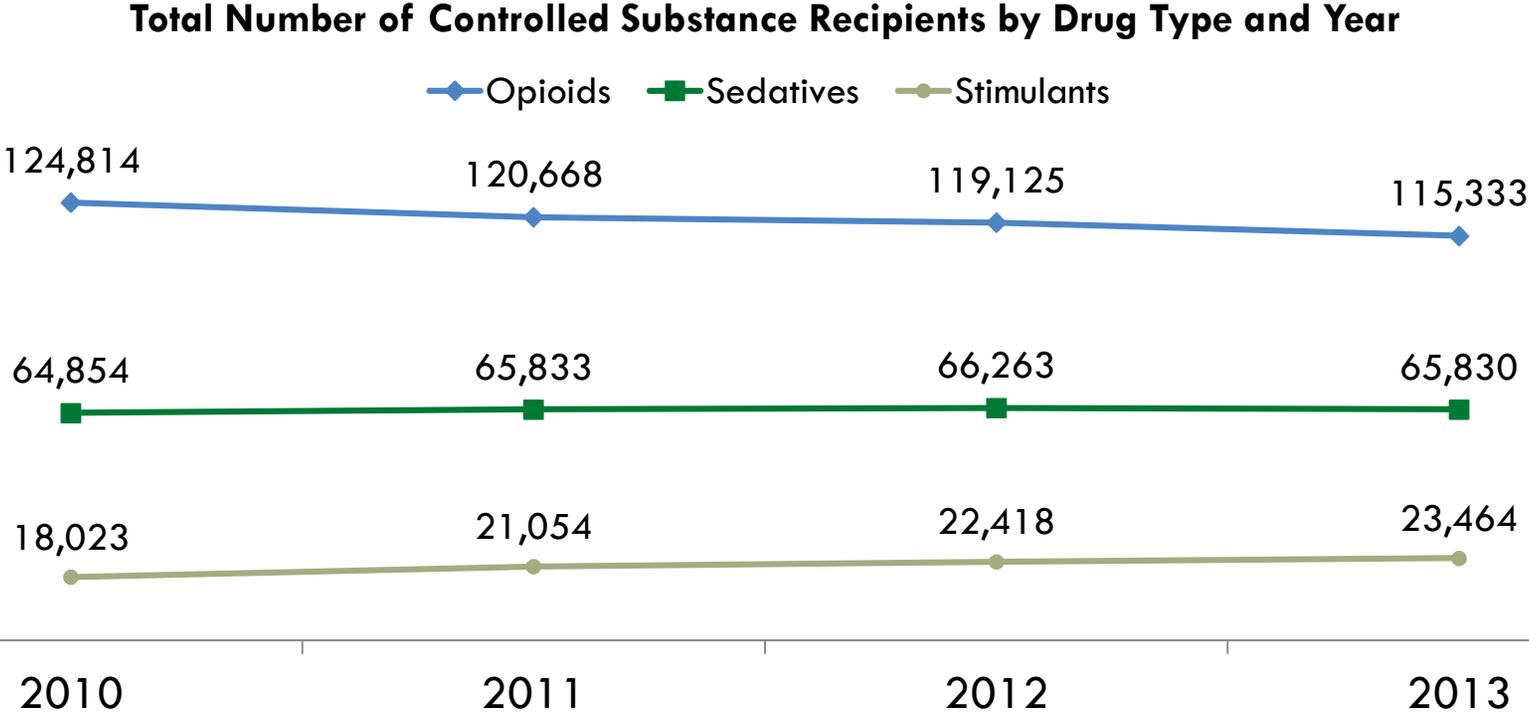
- While the absolute number of dispensed prescriptions for hormones and cannabinoids is much lower than opioids, sedatives, or stimulants, they have seen a disproportionately greater increase in use over the last four years.

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



# Number of Recipients by Drug Type and Year

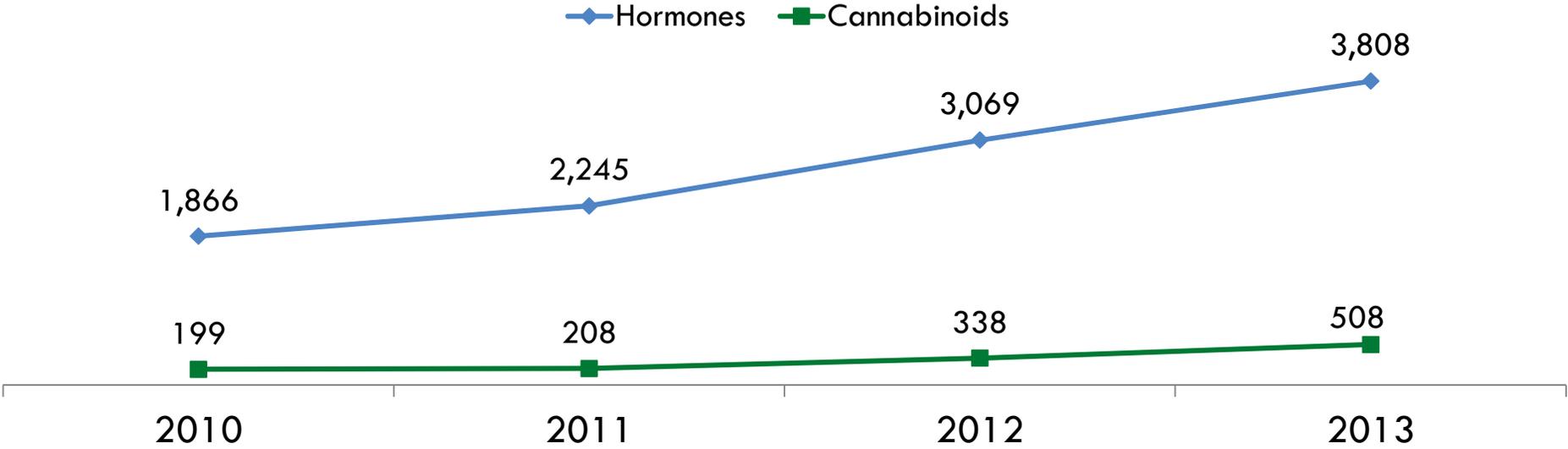
- Opioids were dispensed to more recipients than any other drug type, followed by sedatives and stimulants.



# Number of Recipients by Drug Type and Year (cont.)

- Hormones and cannabinoids were dispensed to far fewer recipients than other drug types.

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



Source: Vermont Prescription Monitoring System

# Changes in Prescription and Recipient Totals by Drug Type

- There were fewer opioid recipients in 2013 than 2010 despite the increase in opioid prescriptions dispensed during the same time.
- There were marked increases of both prescriptions and recipients in the stimulant, hormone, and cannabinoid drug types in 2013 than 2010.
- The number of sedative prescriptions and recipients remained relatively stable from 2010 through 2013.

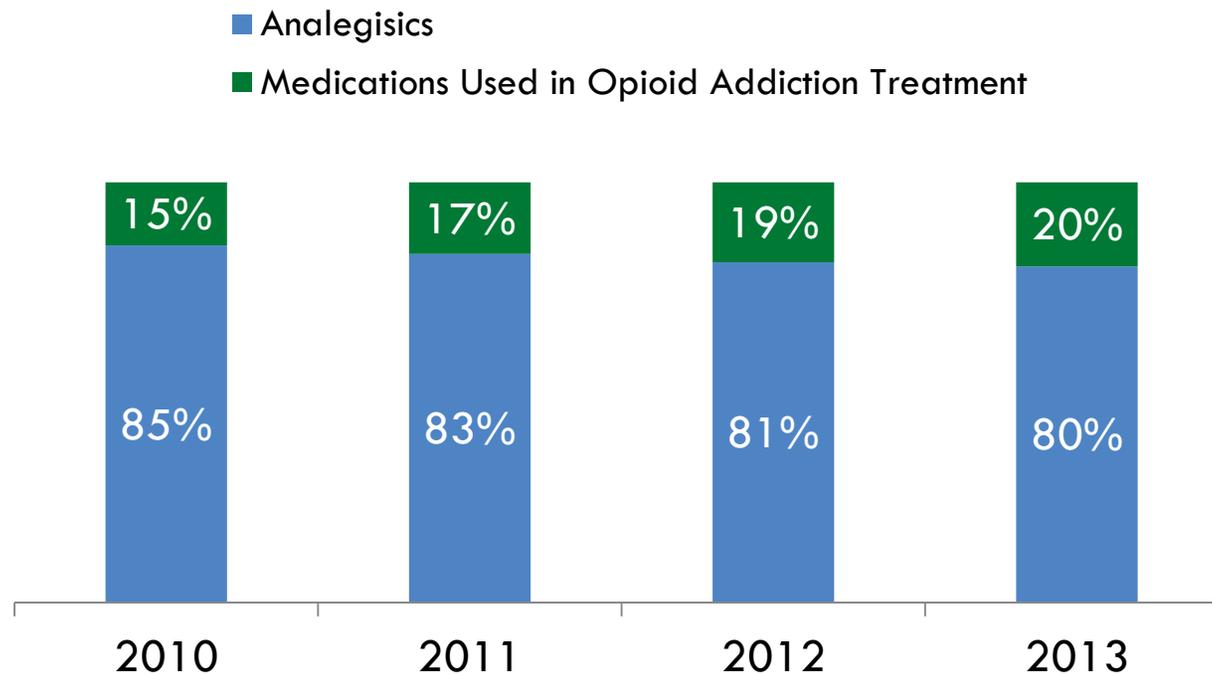
**Changes in Prescription and Recipient Totals by Drug Type**

	<b>% Change - Prescriptions</b>	<b>Change in # of Prescriptions</b>	<b>% Change - Recipients</b>	<b>Change in # of Recipients</b>
<b>Opioids</b>	5%	26,485	-8%	-9,481
<b>Sedatives</b>	1%	8,132	2%	976
<b>Stimulants</b>	48%	53,452	30%	5,441
<b>Hormones</b>	132%	8,033	104%	1,942
<b>Cannabinoids</b>	146%	1,057	155%	309

# Opioid Prescriptions by Clinical Application and Year

- Opioids can be broken down into two broad categories: analgesics that are prescribed to treat pain and medications prescribed to help treat opioid addiction. Opioid prescriptions used to treat addiction are a growing proportion of all opioid prescriptions, however 80% of opioid prescriptions are analgesics.

**Percent of Opioid Prescriptions by Clinical Application and Year**

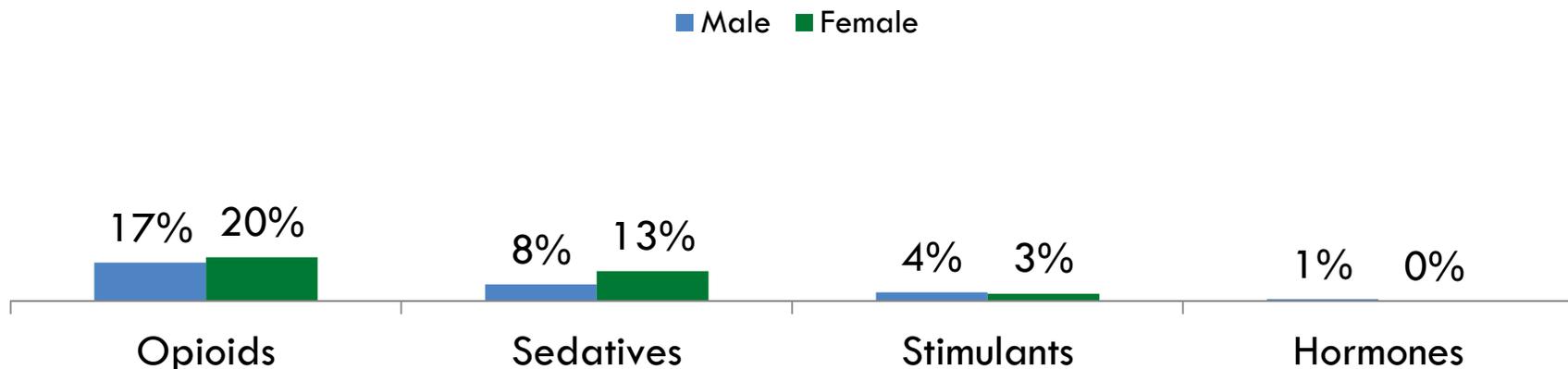


**Note:** The only medication used in opioid addiction treatment that is reported to VPMS is buprenorphine. Methadone is not represented in VPMS data because it is dispensed from opioid addiction treatment programs that are prohibited from reporting to VPMS.

# Recipients by Drug Type and Sex in 2013

- Women received more prescriptions for opioids and sedatives than men in 2013.
- Men received more prescriptions for stimulants and hormones than women in 2013.
- These differences remain when data are analyzed by the number of prescriptions instead of the number of recipients.
- Prescriptions for cannabinoids are not represented in the chart below because they were prescribed to less than 1% of Vermont's total population.

**Total Number of Recipients Represented as Percentage of Vermont Population by Drug Type and Sex in 2013**

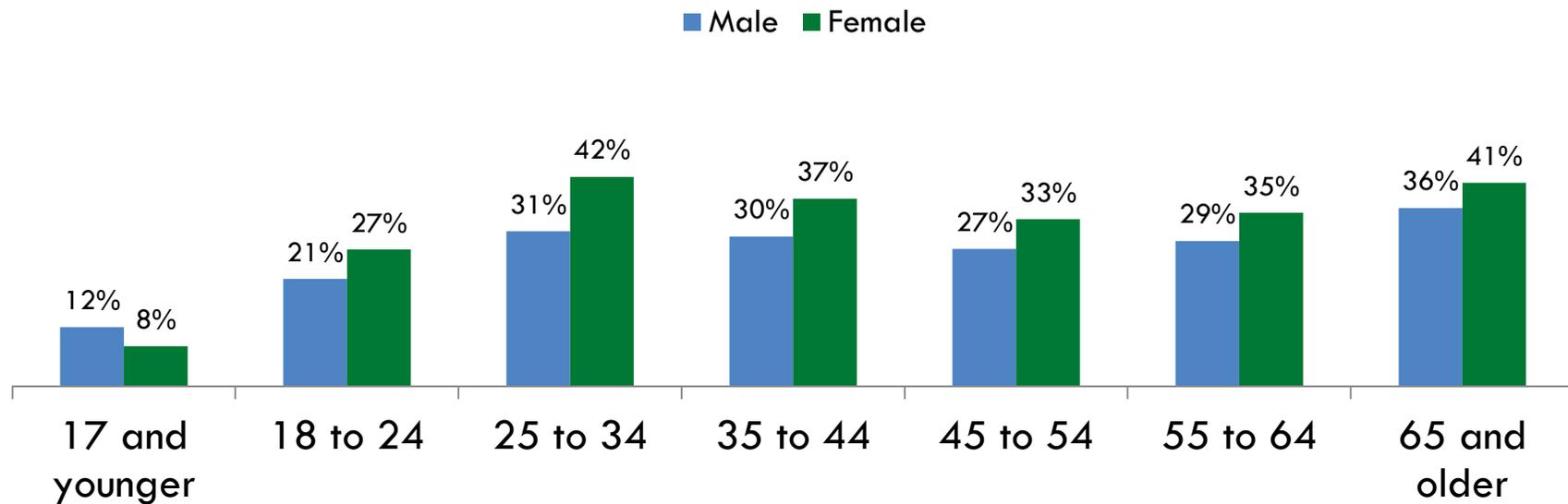


**Note:** Recipients are counted more than once if they received prescriptions from more than one drug type.

## Percent of Recipients by Age and Sex

- Women received more controlled substance prescriptions than men in all age groups except for the 17 and younger age group.

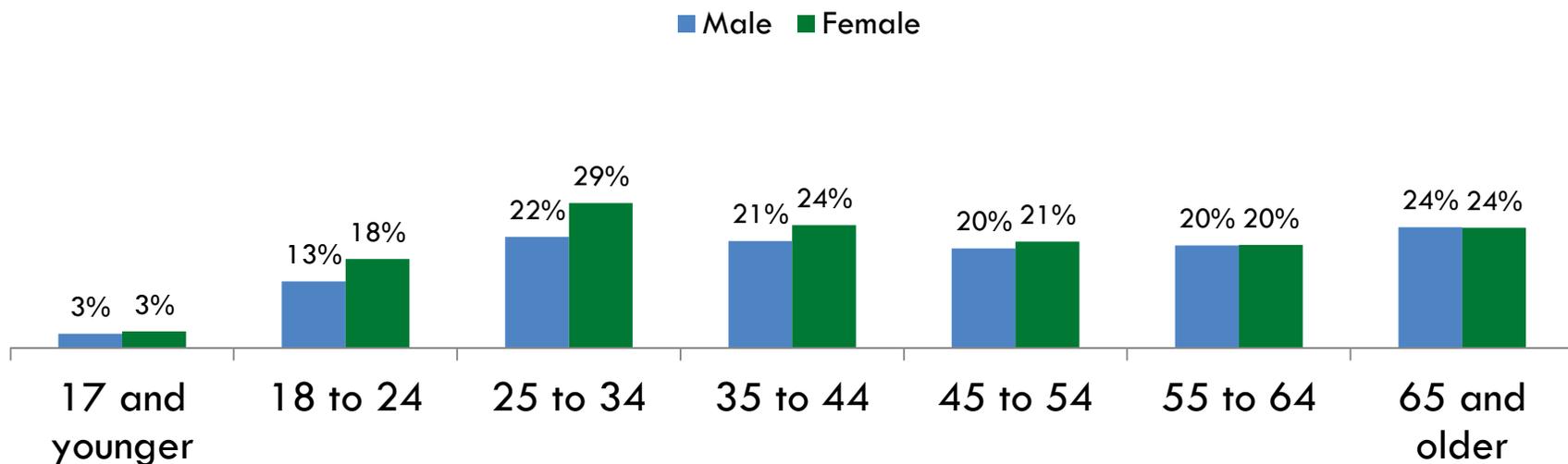
**Percentage of Vermont Population That Received At Least One Prescription for a Controlled Substance by Age and Sex in 2013**



## Percent of Opioid Recipients by Age and Sex

- Women received more opioid prescriptions than men in all age groups, but this discrepancy was less pronounced in the older age groups.

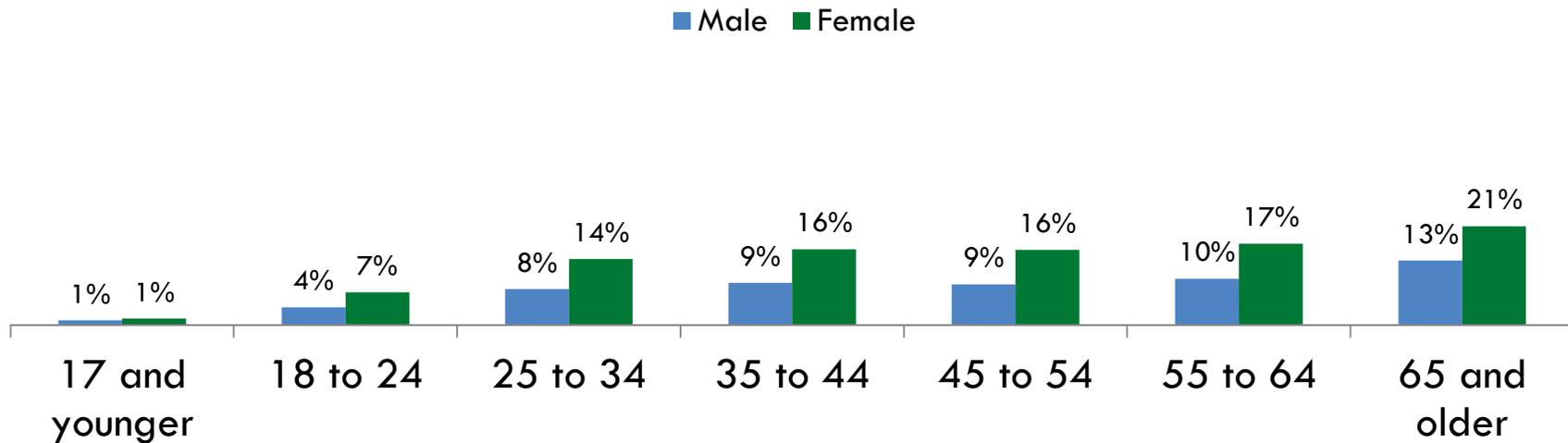
**Percentage of Vermont Population That Received At Least Once Prescription for an Opioid by Age and Sex in 2013**



## Percent of Sedative Recipients by Age and Sex

- Women received more sedative prescriptions than men in all age groups.
- In general, sedative use increases with age.

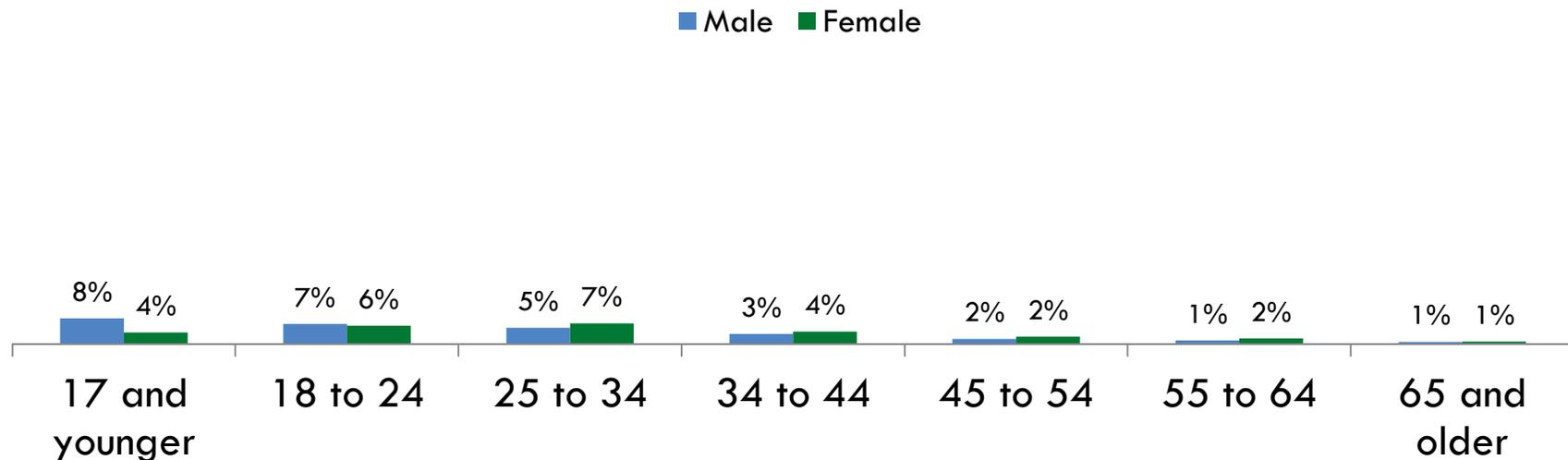
**Percentage of Vermont Population That Received At Least One Prescription for a Sedative by Age and Sex in 2013**



## Percent of Stimulant Recipients by Age and Sex

- Young males received more stimulant prescriptions than young females. Notably, 8% of Vermont males under 18 received a stimulant prescription.
- In the 17 and younger age group, males received over 70% of all stimulant prescriptions.
- Females received more stimulants than males in all age groups 25 and older.

**Percentage of Vermont Population That Received At Least One Prescription for a Stimulant by Age and Sex in 2013**



# Percent of Vermonters Receiving At Least One Prescription by County

- Annually, approximately 92% of all prescriptions for controlled substances that are dispensed by Vermont licensed pharmacies are dispensed to Vermont residents.
- 27% of Vermont residents received at least one prescription for a controlled substance in 2013.
- The range among Vermont counties was quite wide. In Essex County, only 14% of residents received a controlled substance, whereas in Rutland County 31% did.

County	Recipients	% of Pop
Addison	9,839	27%
Bennington	11,096	30%
Caledonia	7,799	25%
Chittenden	40,806	26%
Essex	861	14%
Franklin	14,153	29%
Grand Isle	2,127	30%
Lamoille	7,292	29%
Orange	6,361	22%
Orleans	7,987	29%
Rutland	18,972	31%
Washington	16,678	28%
Windham	12,884	29%
Windsor	11,084	20%
All VT	168,277	27%

# Percent of Vermonters Receiving At Least One Opioid Prescription by County

- 17% of Vermont residents received at least one prescription for an opioid in 2013.
- The range of residents having received an opioid prescription in 2013 among Vermont counties was from 10% in Essex County to 21% in Rutland County.

County	Recipients	% of Pop
Addison	6,085	17%
Bennington	7,114	19%
Caledonia	5,176	17%
Chittenden	23,675	15%
Essex	603	10%
Franklin	9,665	20%
Grand Isle	1,404	20%
Lamoille	4,805	19%
Orange	3,968	14%
Orleans	5,292	20%
Rutland	12,911	21%
Washington	10,150	17%
Windham	7,814	18%
Windsor	6,985	12%
All VT	105,647	17%

# Percent of Vermonters Receiving At Least One Sedative Prescription by County

- 10% of Vermont residents received at least one prescription for a sedative in 2013.
- The range of residents having received a sedative prescription in 2013 among Vermont counties was from 4% in Essex County to 11% in Lamoille, Orleans, Rutland, Washington, and Windham Counties.

County	Recipients	% of Pop
Addison	3,611	10%
Bennington	4,291	12%
Caledonia	2,548	8%
Chittenden	15,404	10%
Essex	259	4%
Franklin	4,876	10%
Grand Isle	712	10%
Lamoille	2,740	11%
Orange	2,410	8%
Orleans	2,934	11%
Rutland	6,776	11%
Washington	6,457	11%
Windham	4,872	11%
Windsor	4,184	7%
All VT	62,074	10%

# Percent of Vermonters Receiving At Least One Stimulant Prescription by County

- 3% of Vermont residents received at least one prescription for a stimulant in 2013.
- The range of residents having received a stimulant prescription in 2013 among Vermont counties was from 1% in Essex County to 5% in Rutland County.

County	Recipients	% of Pop
Addison	1,234	3%
Bennington	1,290	4%
Caledonia	1,111	4%
Chittenden	5,804	4%
Essex	79	1%
Franklin	1,340	3%
Grand Isle	215	3%
Lamoille	965	4%
Orange	770	3%
Orleans	876	3%
Rutland	1,843	3%
Washington	2,309	4%
Windham	2,364	5%
Windsor	1,294	2%
All VT	21,494	3%

# Contact VPMS

- This report and more information can be found on the VPMS website:  
<http://www.healthvermont.gov/adap/VPMS.aspx>
- If you have questions that can't be answered using this report, please contact the VPMS staff.
  - ▣ Programmatic questions can be directed to the program manager, Meika DiPietro at:  
[Meika.Dipietro@state.vt.us](mailto:Meika.Dipietro@state.vt.us)  
or  
(802) 652-4147
  - ▣ Data-related questions can be directed to the program analyst, David Horton at:  
[David.Horton@state.vt.us](mailto:David.Horton@state.vt.us)  
or  
(802) 863-6354