

# **Drug Cases Submitted to the Virginia Department of Forensic Science Calendar Year 2021**

**Produced by the Virginia Department of Criminal Justice Services  
in partnership with the Virginia Department of Forensic Science**



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# Drug Cases Submitted to the Virginia Department of Forensic Science

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# Drug Cases Submitted to the Virginia Department of Forensic Science

## Introduction

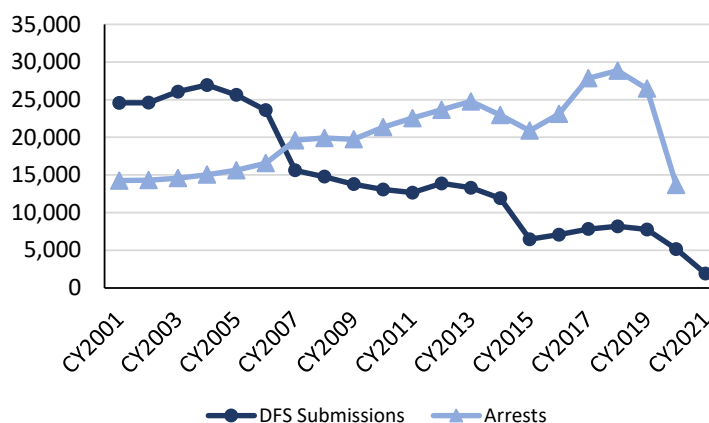
Every year, tens of thousands of drug samples are submitted to the Virginia Department of Forensic Science (DFS). These submissions arrive in many forms, including powders, solid material, liquids, pills, plants, residue, and more. At DFS, they are tested by the Controlled Substances Section, to identify the presence of illicit substances. Hundreds of unique substances are identified each year, and they include illegal drugs, prescription drugs, and over the counter medications.

The frequency with which individual drugs are identified in DFS drug testing can help in understanding the level of availability of those drugs within Virginia, and how that level of availability has changed over time. This report looks at selected drug categories of interest, showing how frequently those drugs are submitted to DFS, both statewide and regionally. The drug categories examined here are among the most common submissions and include both illicit substances and prescription drugs with a potential for abuse. In some cases – particularly with regard to designer drugs and cannabimimetic agents – a substance is identified before it is explicitly listed as a controlled substance in the *Code of Virginia*. Those cases are still counted in this report.

- Illicit substances
  - ◊ Cocaine
  - ◊ Methamphetamine
  - ◊ Heroin
  - ◊ Illicit synthetic opioids (primarily illicitly produced fentanyl and fentanyl analogs)
  - ◊ Illicit benzodiazepines
  - ◊ Hallucinogenic substances (such as LSD, PCP, and psychoactive mushrooms)
  - ◊ Cannabimimetic agents (also known as synthetic cannabinoids)
  - ◊ Other designer drugs (excluding those included in any of the categories above)
- Prescription drugs
  - ◊ Opioids (such as oxycodone and morphine)
  - ◊ Stimulants (primarily medications to treat ADD/ADHD)
  - ◊ Benzodiazepines (such as alprazolam and diazepam)

Marijuana is not included in this report. The *Code of Virginia* was revised in July 2006 to permit law enforcement officers to testify to the results of marijuana field tests at trial in simple possession cases involving plant material. Following this change, the number of marijuana submissions to DFS dropped significantly, while the number of arrests increased significantly through 2018. Data on marijuana submissions to DFS before and after this change cannot be compared. (Note: possession

Marijuana DFS Submissions  
vs Marijuana Arrests



of small amounts of marijuana was decriminalized in Virginia as of July 1, 2020.)

Each of the drug categories listed is presented separately in the pages that follow. These pages report changing trends in both time and geography, as the availability of individual drugs (as measured by the number of submissions to DFS) changed differently for different regions in Virginia. This report examines regional trends using the Virginia State Police (VSP) Divisions, as well as the smaller Virginia Court Districts. A listing of the counties and cities within the 7 VSP divisions, and within the 32 Court Districts, is included in Appendix C.

The pages that follow report the following for each drug category: trends in submissions between 2012 and 2021; the 2021 frequency of submissions of various subcategories of drugs within these larger categories, where applicable; the regional distribution of 2021 submissions; the 2021 rate of submissions, by VSP Division; and maps presenting the trend in submission rates for the 32 Virginia Court Districts, for 2011, 2016, and 2021.

Note that drug submissions in this report may be counted differently than in some other reports of DFS data. For this report, if a submission included at least one substance within a drug category it is counted as a single submission, even if multiple substances within that category were identified. When data are presented for subcategories (e.g., specific prescription opioids), a subcategory is counted once regardless of how many samples of that substance were included in the submission. The sum of the subcategories (where relevant) will usually not equal the total for the drug category, as there are submissions that meet the criteria for multiple subcategories but are still only counted once for the broader category.

# 2021 Drug Submissions to DFS – Highlights

Overall, drug submissions to DFS dropped in CY 2021, but that varied across the different drug categories.

- Several drug categories did show a drop between 2020 and 2021:
  - ◇ Heroin submissions dropped 32%
  - ◇ Cocaine submissions dropped 6%
  - ◇ Prescription Benzodiazepine submissions dropped 13%
  - ◇ Prescription Opioids submissions dropped 4%
  - ◇ Prescription Stimulant submissions dropped 27%
  - ◇ Methamphetamine submissions dropped 2%
  - ◇ Illicit Benzodiazepine submissions dropped 12%
  - ◇ Hallucinogenic Substance submissions dropped 1%
- Other drug categories showed an increase:
  - ◇ Illicit Synthetic Opioid submissions increased 17%
  - ◇ Cannabimimetic Agent submissions increased 28%
  - ◇ Other Designer Drug submissions increased 4%

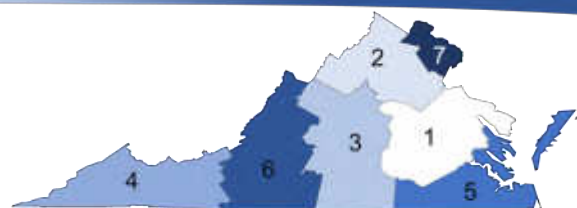
The 2021 rate of drug submissions per 100,000 population varied by drug type and region.

**Cocaine:** The rate of submissions was highest from VSP 1, and lowest from VSP 4.

**Methamphetamine:** Rate of submissions was highest from VSP 4, and lowest from VSP 7.

**Prescription Stimulants:** Rate of submissions was highest from VSP 4, and lowest from VSP 3.

**Heroin:** Rate of submissions was highest from VSP 1, and lowest from VSP 7.



**Virginia State Police Divisions (VSP)**

**Illicit Synthetic Opioids:** Rate of submissions was highest from VSP 2, and lowest from VSP 7.

**Prescription Opioids:** Rate of submissions was highest from VSP 4, and lowest from VSP 7.

**Illicit Benzodiazepines:** Rate of submissions was highest from VSP 2, and lowest from VSP 3.

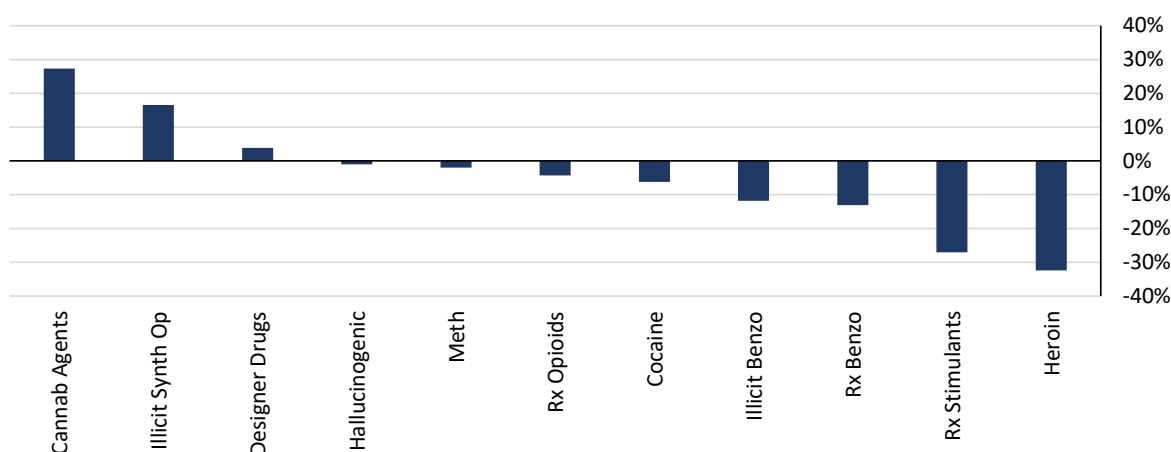
**Prescription Benzodiazepines:** Rate of submissions was highest from VSP 4, and lowest from VSP 7.

**Hallucinogenic Substances:** Rate of submissions was highest from VSP 2, and lowest from VSP 5.

**Cannabimimetic Agents:** Rate of submissions was highest from VSP 4, and lowest from VSP 5.

**Other Designer Drugs:** Rate of submissions was highest from VSP 2, and lowest from VSP 6.

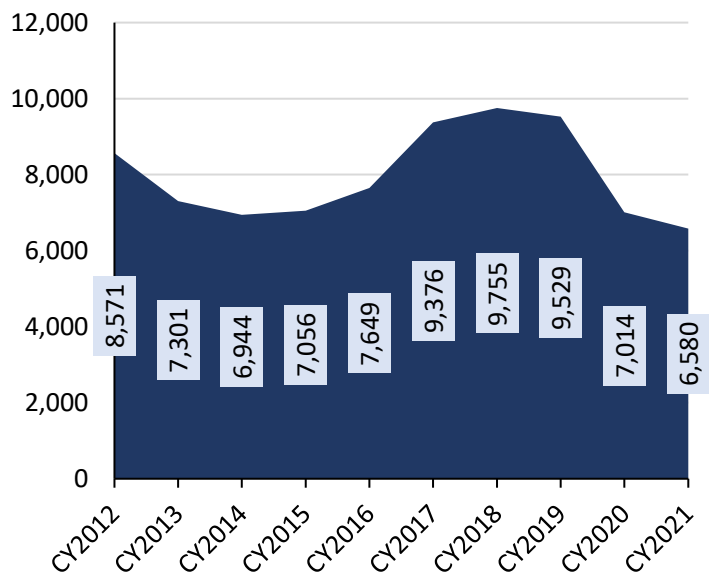
**Change in Submissions—CY 2020 to 2021**



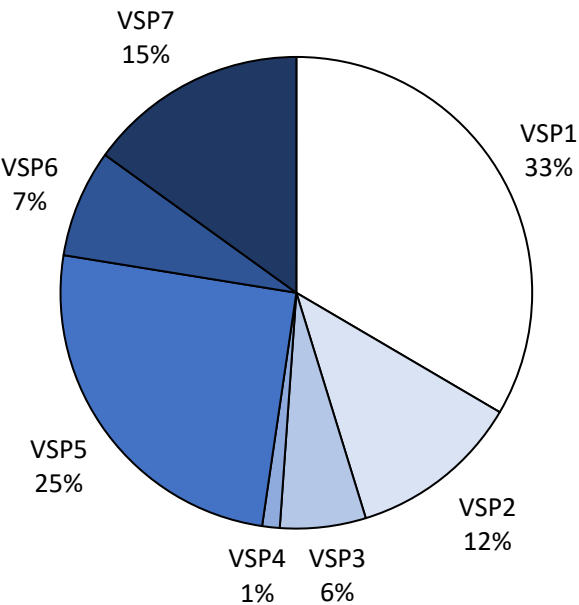
# Cocaine



Cocaine Submissions  
CY2012-2021



2021 Cocaine Submissions  
Percentage Distribution Across Regions



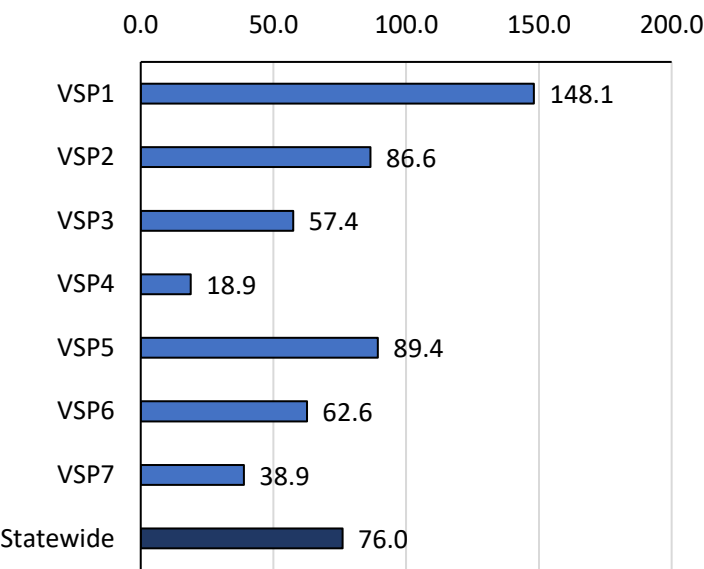
Cocaine submissions to DFS are higher than almost any other individual drug, representing 17% of the total number of submissions to DFS in 2021.

After increasing 40% between 2014 and 2018, cocaine submissions dropped 2% in 2019, 26% in 2020, and another 6% in 2021. Both the highest number and the highest rate of cocaine submissions in 2021 were from VSP 1. Relatively few cocaine submissions were from VSP 4.

Statewide, the rate of cocaine submissions in 2021 was 76.0 per 100,000 population. This was down 16% from 2016.

The maps on the following page present the changing pattern of cocaine submission rates, by Virginia Court District.

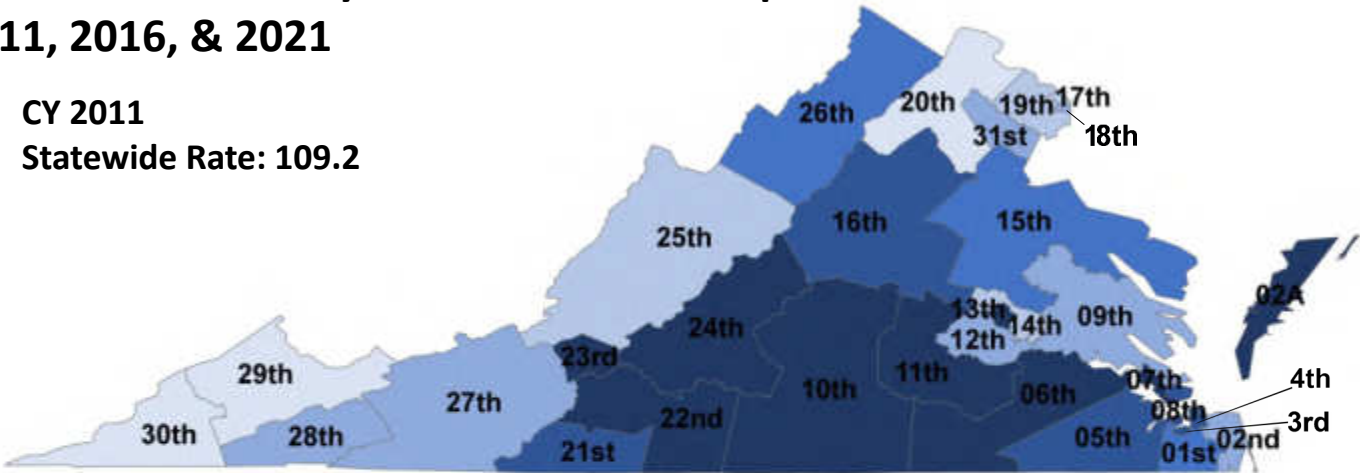
2021 Cocaine Submissions  
Rate per 100,000



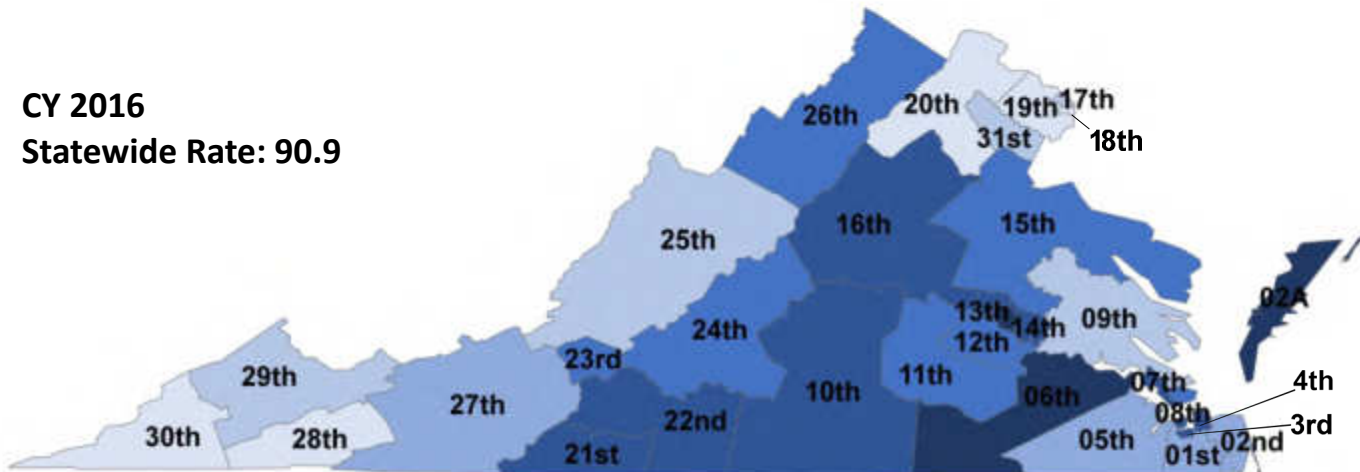
# Cocaine

## Cocaine Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

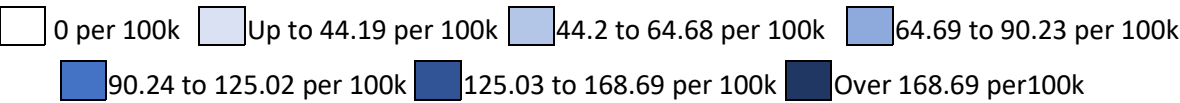
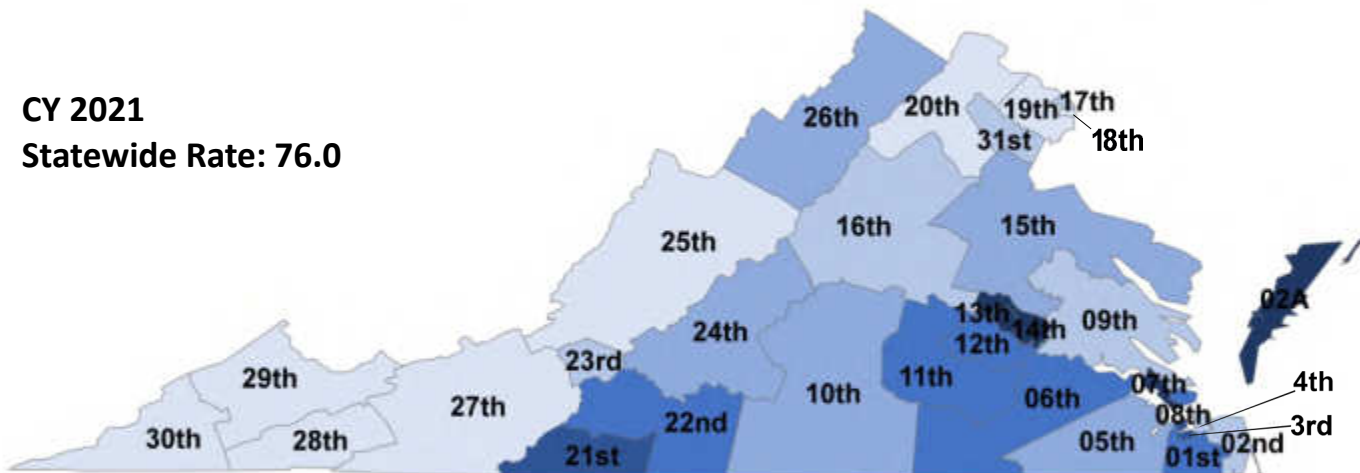
CY 2011  
Statewide Rate: 109.2



CY 2016  
Statewide Rate: 90.9

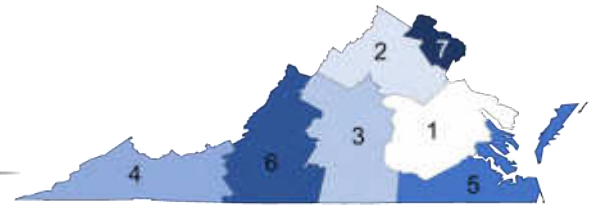


CY 2021  
Statewide Rate: 76.0

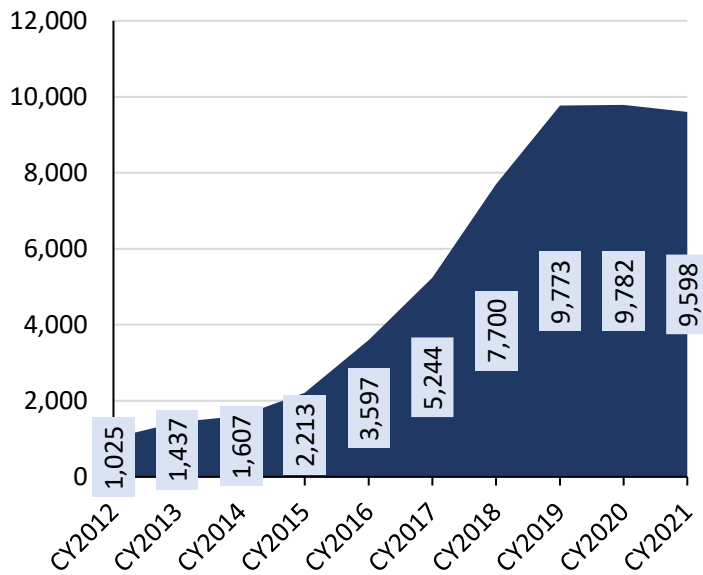




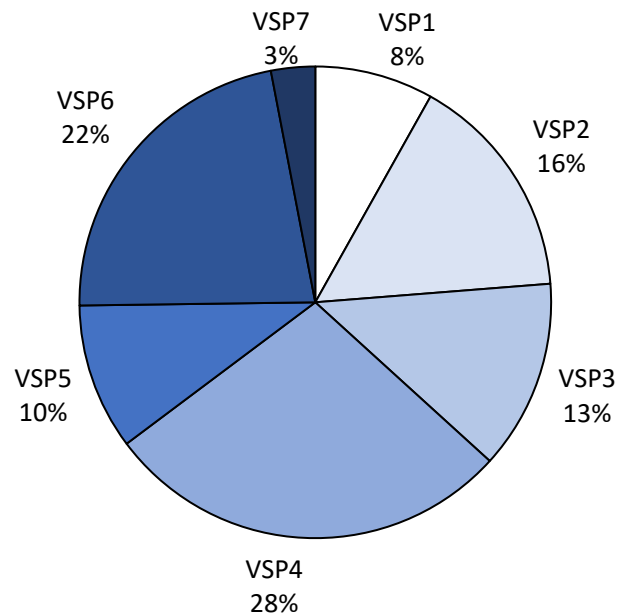
# Methamphetamine



Methamphetamine Submissions  
CY2012-2021



2021 Methamphetamine Submissions  
Percentage Distribution Across Regions



Methamphetamine submissions to DFS are the highest for an individual drug, representing 25% of the total number of submissions to DFS in 2021.

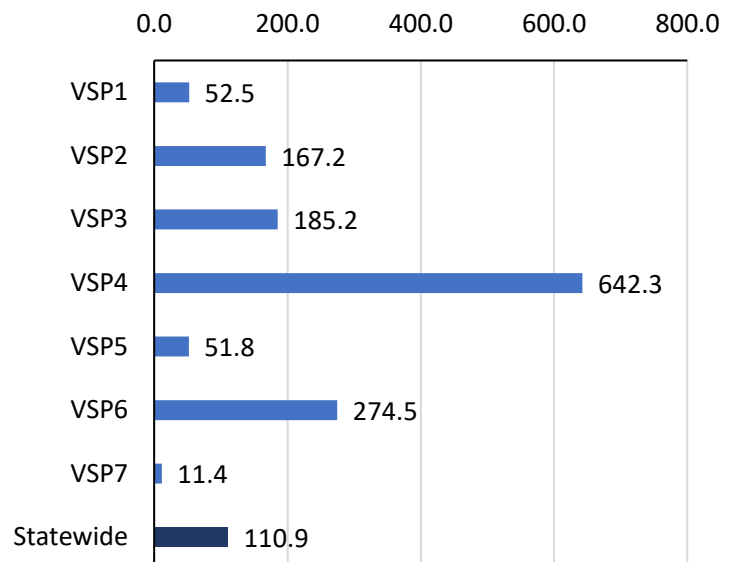
After increasing every year between 2012 and 2019 – more than an eightfold overall during that time – methamphetamine submissions remained flat between 2019 and 2020, and dropped 2% in 2021. The large percentage increase between 2012 and 2019 was due in part to the relatively low number of submissions in 2012. However, methamphetamine submissions have increased substantially faster than other drugs. In 2012, methamphetamine represented only 2% of total submissions statewide, vs. 25% in 2021.

Both the highest number and the highest rate of methamphetamine submissions in 2021 were from VSP 4.

Statewide, the rate of methamphetamine submissions in 2021 was 110.9 per 100,000 population. This was up 159% from 2016.

The maps on the following page present the changing pattern of methamphetamine submission rates, by Virginia Court District.

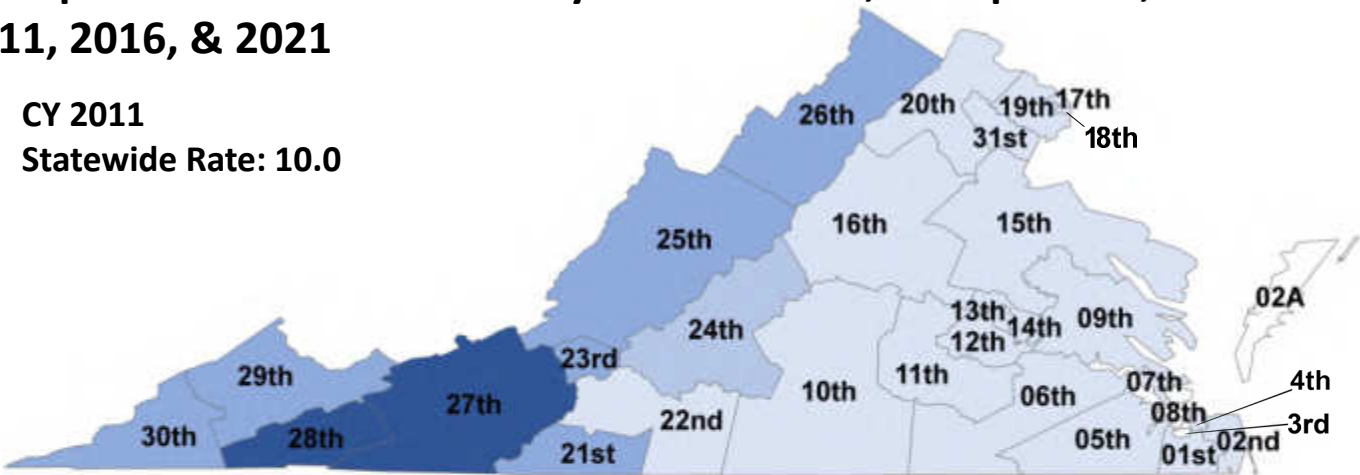
2021 Methamphetamine Submissions  
Rate per 100,000



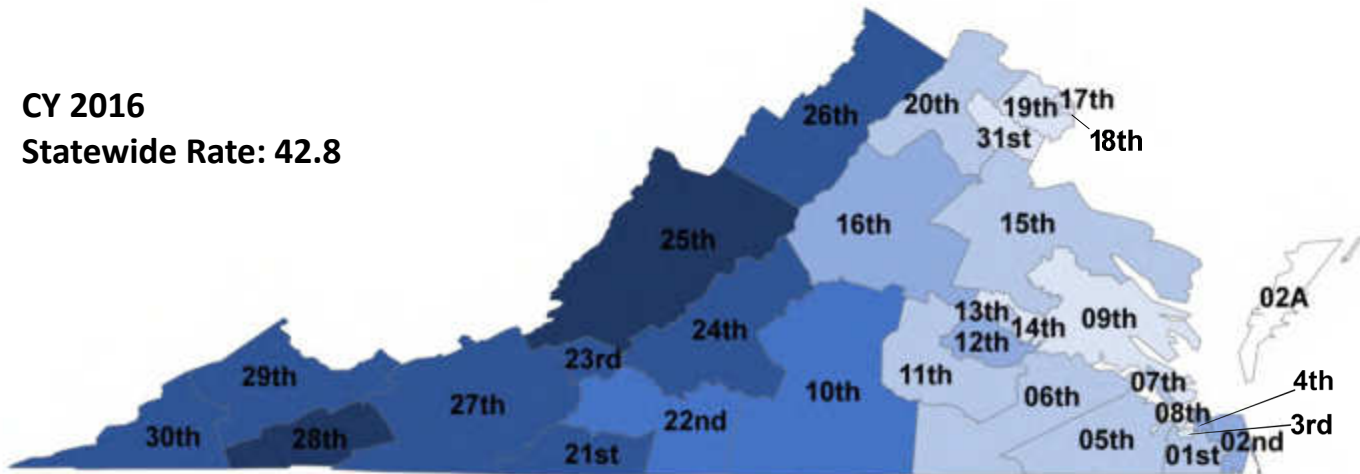
# Methamphetamine

## Methamphetamine Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

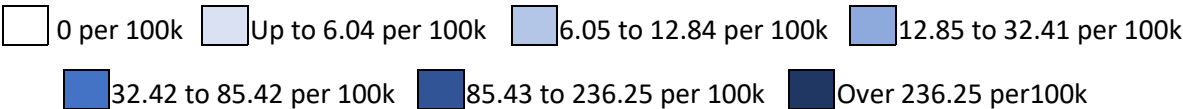
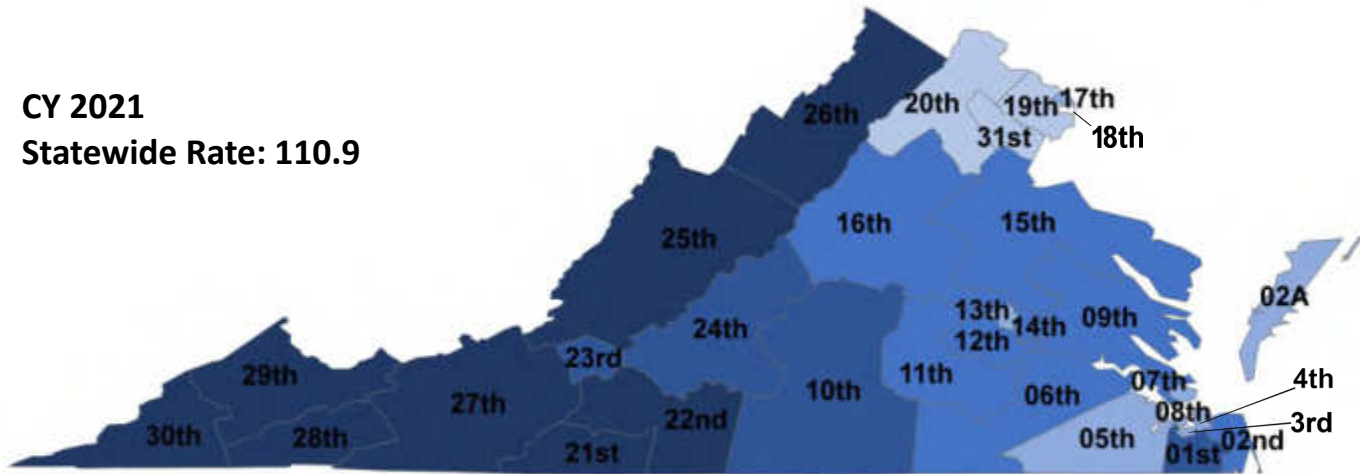
CY 2011  
Statewide Rate: 10.0



CY 2016  
Statewide Rate: 42.8

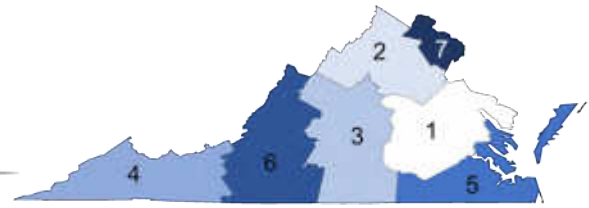


CY 2021  
Statewide Rate: 110.9

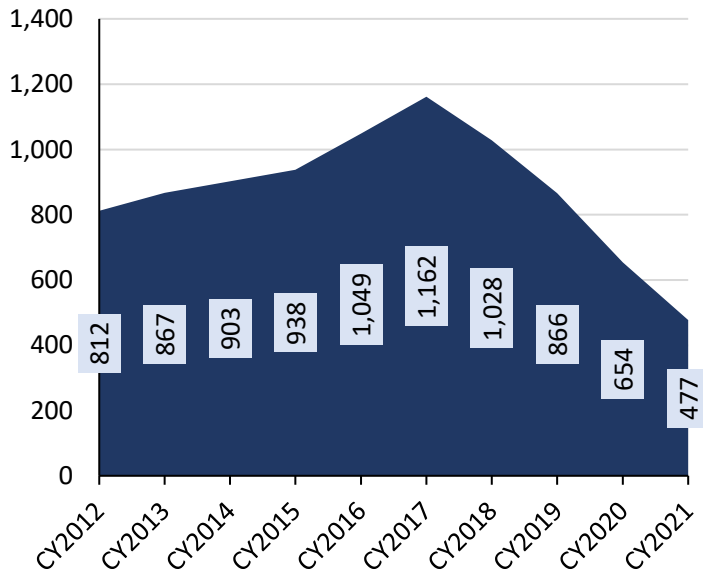




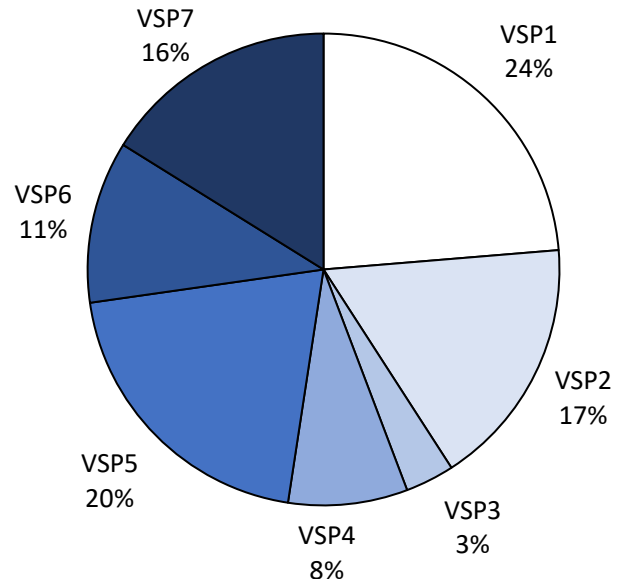
# Prescription Stimulants



Prescription Stimulant Submissions  
CY2012-2021



2021 Prescription Stimulant Submissions  
Percentage Distribution Across Regions



Prescription Stimulants Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
Amphetamine	1,996	2,564	1,643
Methylphenidate	483	410	221
Lisdexamfetamine	308	336	153
Other	76	69	52

\*Sum of individual substances will not match the total, as some cases involved more than one prescription stimulant.

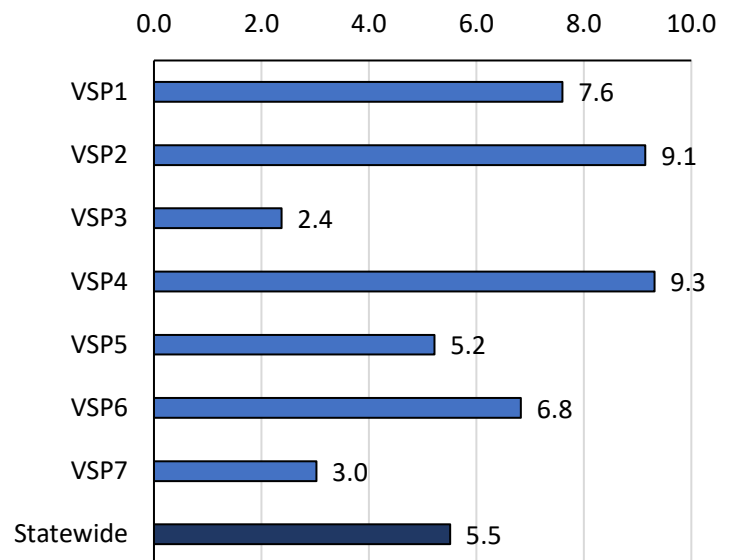
Prescription stimulants are submitted to DFS less frequently than the illicit stimulants cocaine and methamphetamine, representing only 1% of total drug submissions in 2021.

After increasing 43% between CY 2012 and 2017, prescription stimulant submissions dropped each year between 2018 and 2021. Between 2020 and 2021, prescription stimulant submissions dropped 27% to the lowest level in a decade.

The most common prescription stimulant identified in substances submitted to DFS is amphetamine, frequently prescribed for attention deficit/hyperactivity disorder. Detailed 10-year trends on individual prescription stimulants are provided in Appendix B.

The largest number of prescription stimulant submissions in 2021 were from VSP 1 and VSP 5, but the Division with the highest rate of submissions per 100,000 population was VSP 4.

2021 Prescription Stimulant Submissions  
Rate per 100,000

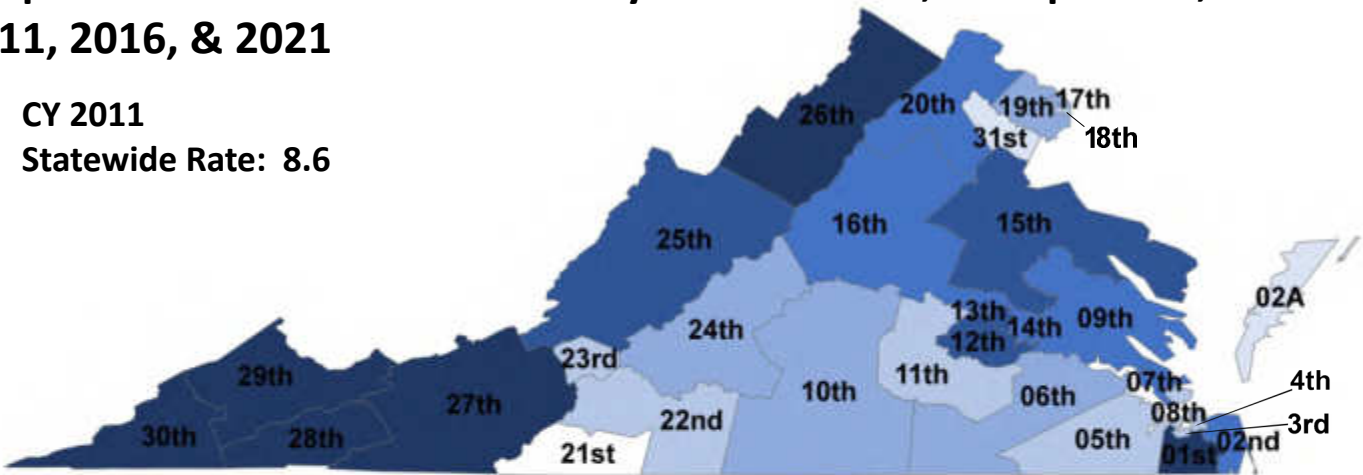


Statewide, the rate of prescription stimulant submissions in 2021 was 5.5 per 100,000. This was down 36% from 2016. The maps on the following page present the changing pattern of prescription stimulant submission rates, by Virginia Court District.

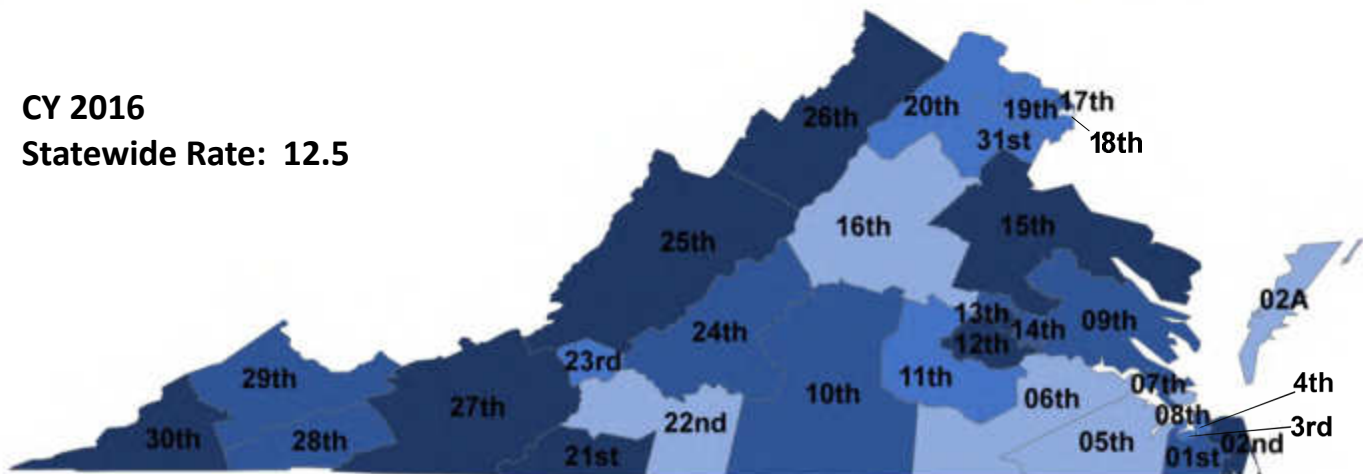
# Prescription Stimulants

## Prescription Stimulant Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

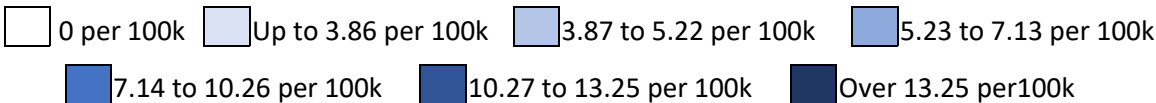
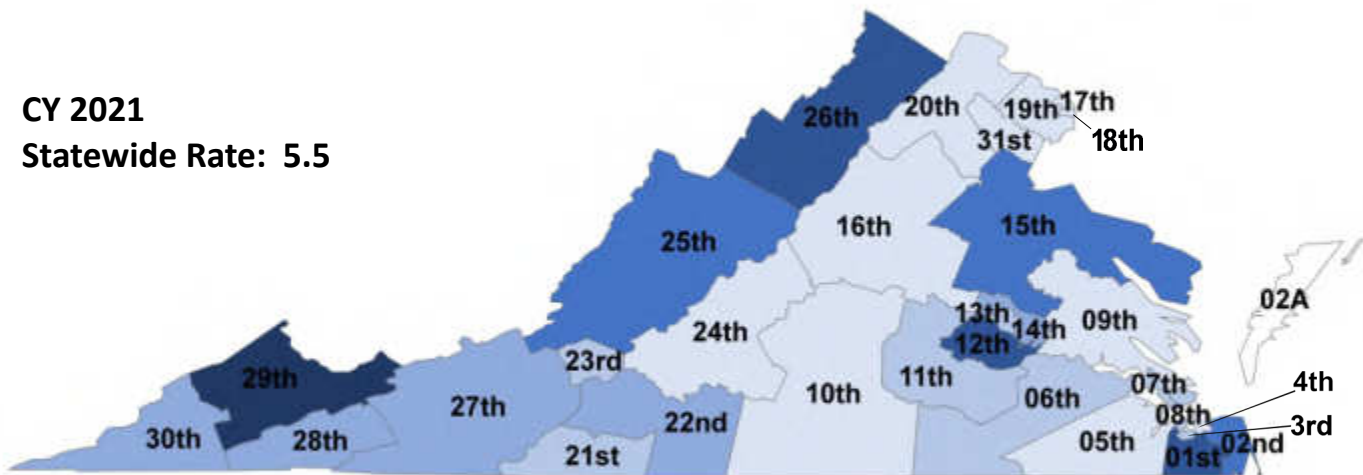
CY 2011  
Statewide Rate: 8.6



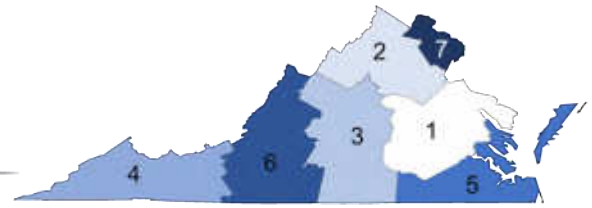
CY 2016  
Statewide Rate: 12.5



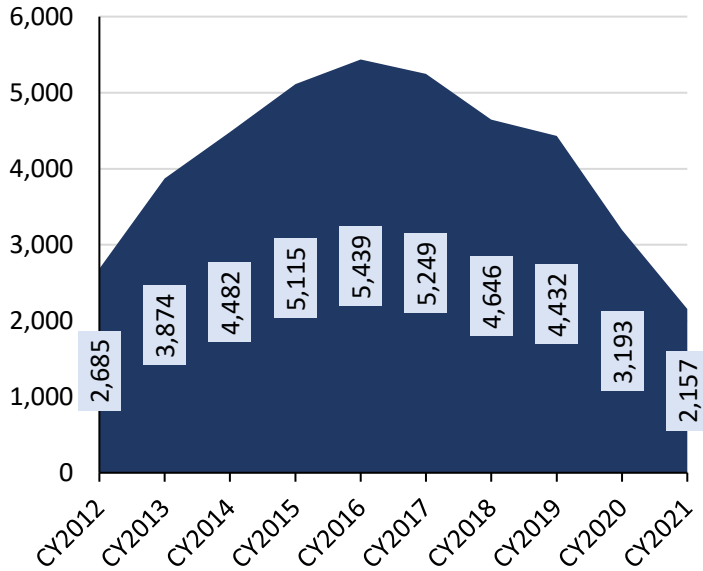
CY 2021  
Statewide Rate: 5.5



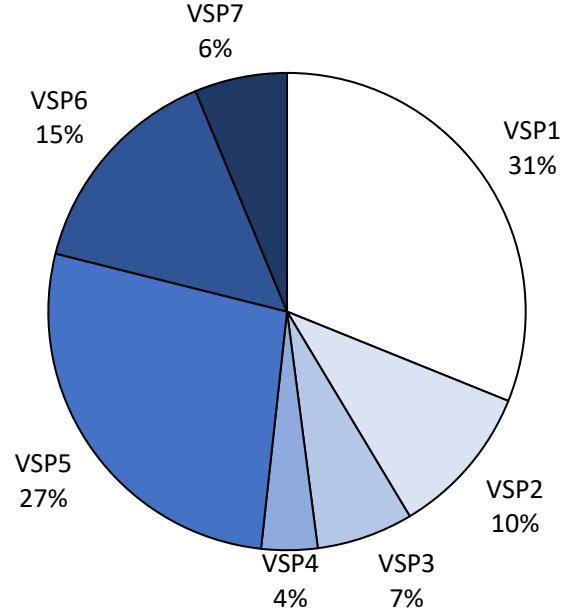
# Heroin



Heroin Submissions  
CY2012-2021



2021 Heroin Submissions  
Percentage Distribution Across Regions



Heroin submissions to DFS represented 6% of total drug submissions in 2021.

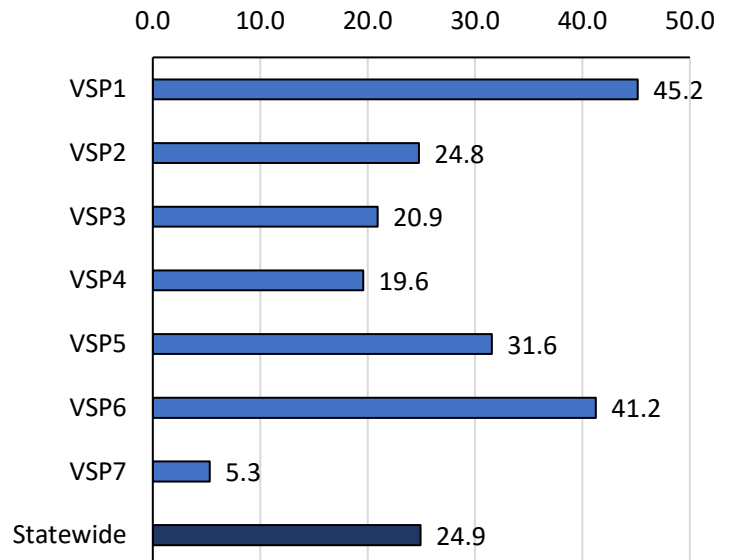
After increasing 103% between 2012 and 2016, heroin submissions dropped steadily each year from 2016 to 2021. Heroin submissions dropped 32% between 2020 and 2021, to the lowest level in a decade.

Both the highest number and the highest rate of heroin submissions in 2021 were from VSP 1.

Statewide, the rate of heroin submissions in 2021 was 24.9. This was down 61% from 2016.

The maps on the following page present the changing pattern of heroin submission rates, by Virginia Court District.

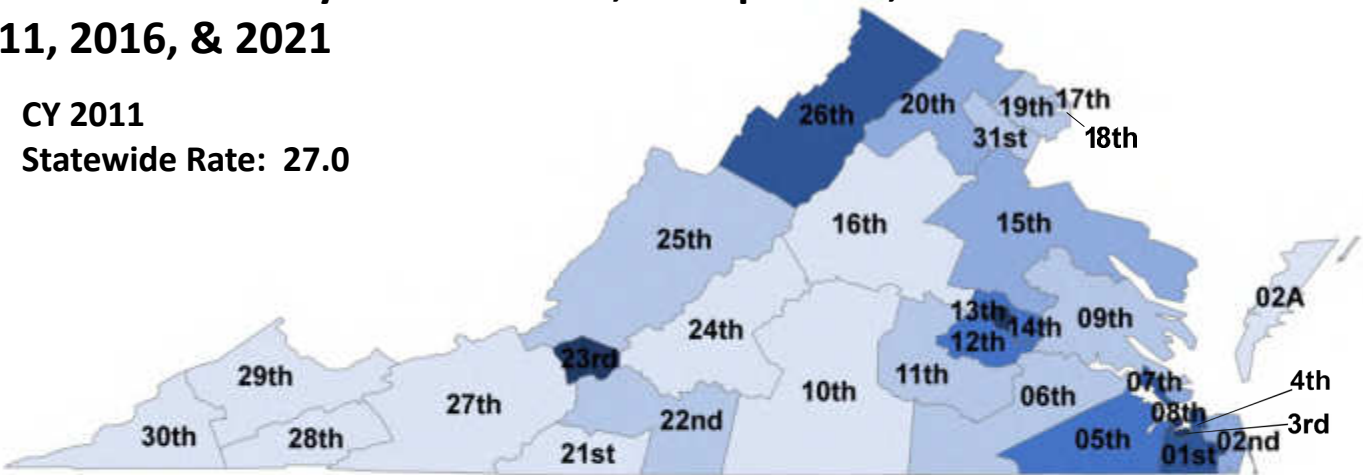
2021 Heroin Submissions  
Rate per 100,000



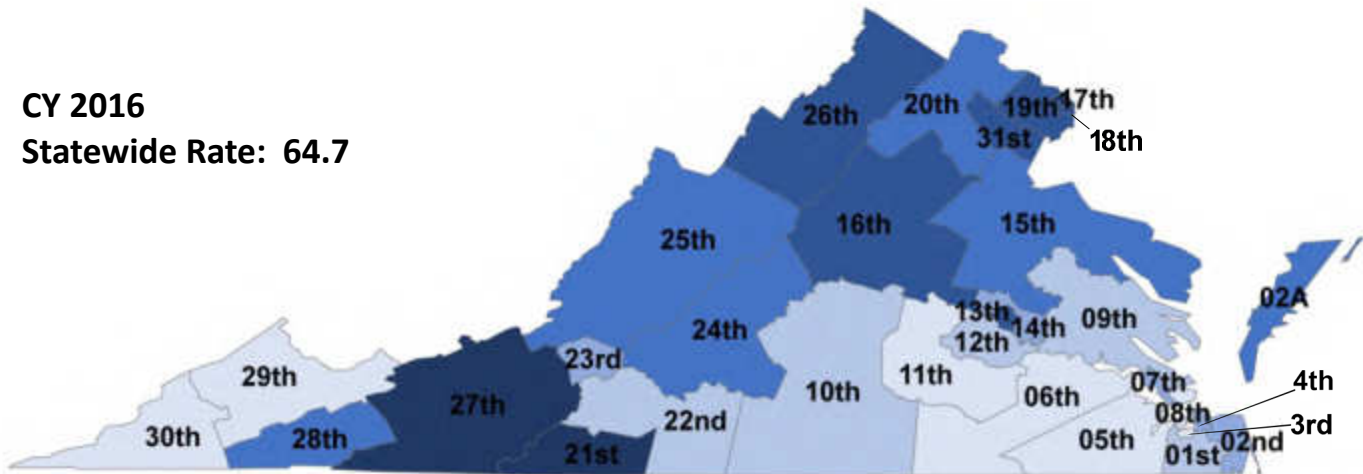
# Heroin

## Heroin Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

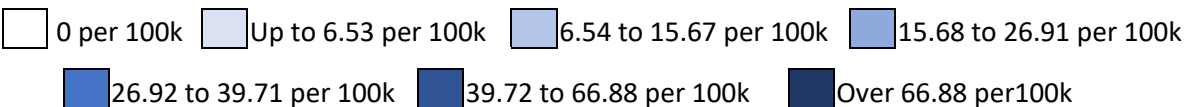
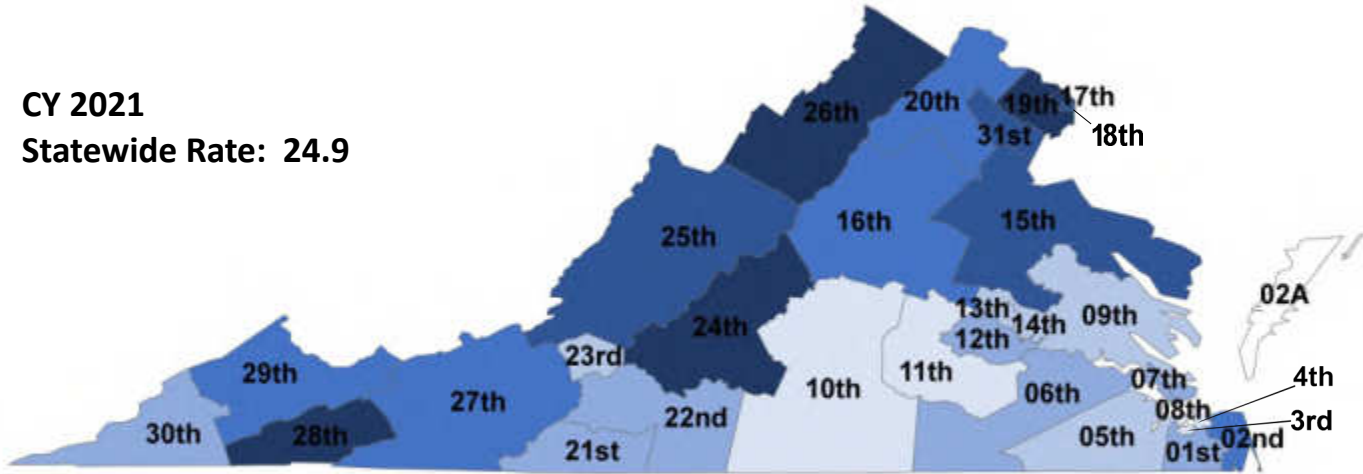
CY 2011  
Statewide Rate: 27.0



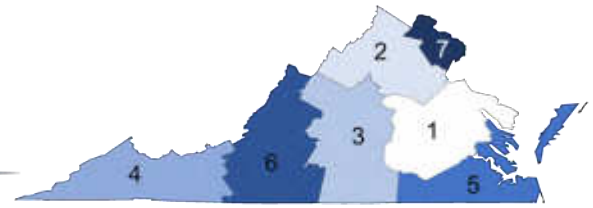
CY 2016  
Statewide Rate: 64.7



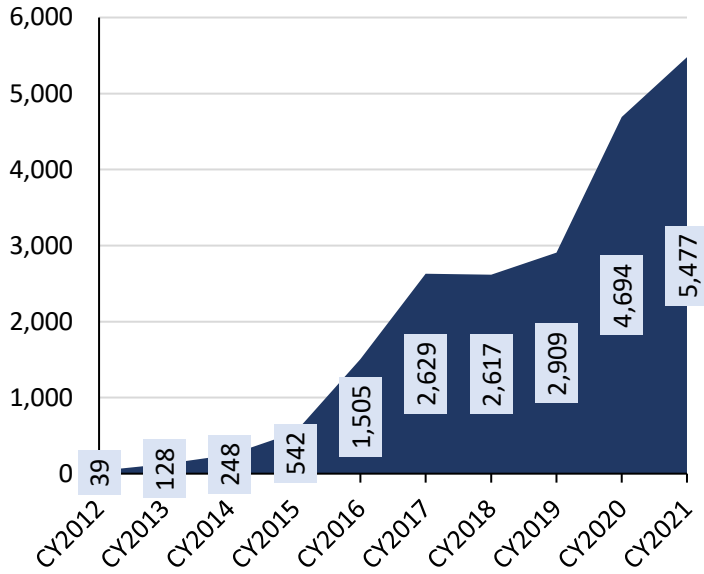
CY 2021  
Statewide Rate: 24.9



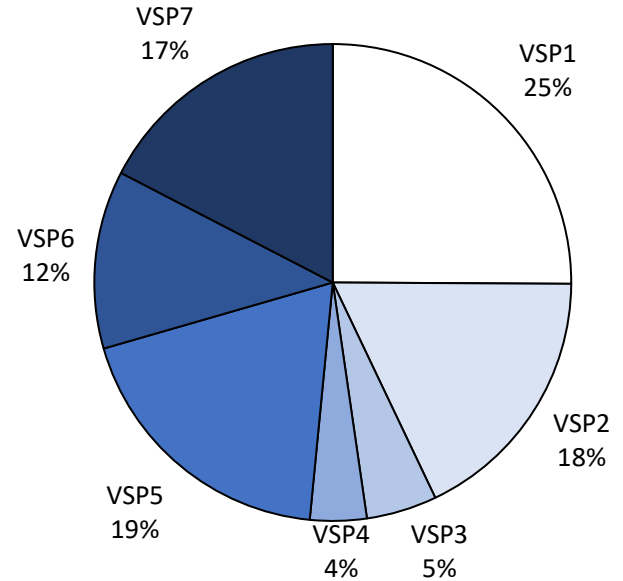
# Illicit Synthetic Opioids



Illicit Synthetic Opioid Submissions  
CY2012-2021



2021 Illicit Synthetic Opioid Submissions  
Percentage Distribution Across Regions



Illicit Synthetic Opioids Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
Fentanyl	697	5,253	12,800
<b>Fentanyl Analogs</b>			
Para-Fluorofentanyl	0	1	486
Acetyl Fentanyl	45	182	439
FIBF	0	591	39
Furanyl Fentanyl	0	794	2
Fentanyl Analog - Other	1	219	77
<b>Other</b>			
Other	186	359	220

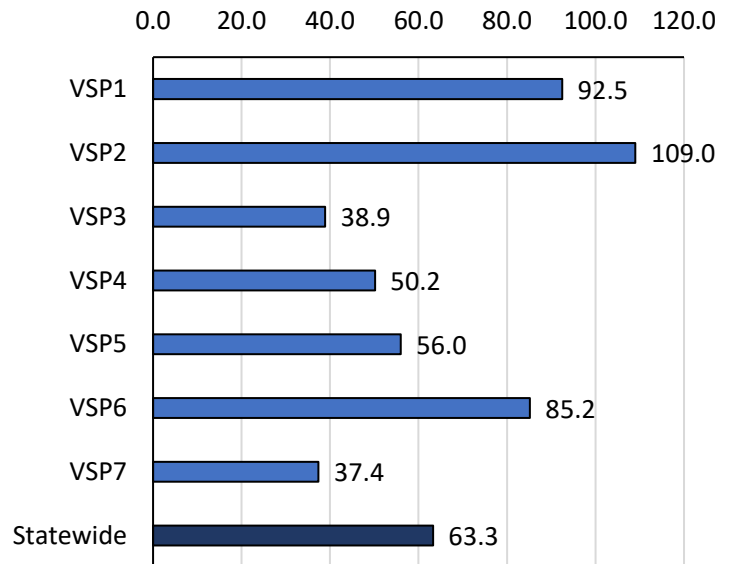
\*Sum of individual substances will not match the total, as some cases involved more than one illicit synthetic opioid.

Illicit synthetic opioids have become the most frequently submitted category of opioid drugs submitted to DFS, surpassing both heroin and prescription opioids. In 2021, illicit synthetic opioids represented 14% of total drug submissions.

Illicit synthetic opioid submissions have increased steadily every year since 2011, excepting 2018, which was essentially unchanged from 2017. Submissions increased 17% between 2020 and 2021, to the highest level on record.

The most common illicit synthetic opioid identified in substances submitted to DFS is illicitly produced fentanyl. Fentanyl is also available as a prescription medication; prescription fentanyl submissions are counted with other prescription opioids. Detailed 10-year trends on individual illicit synthetic opioids are provided

2021 Illicit Synthetic Opioid Submissions  
Rate per 100,000



in Appendix B.

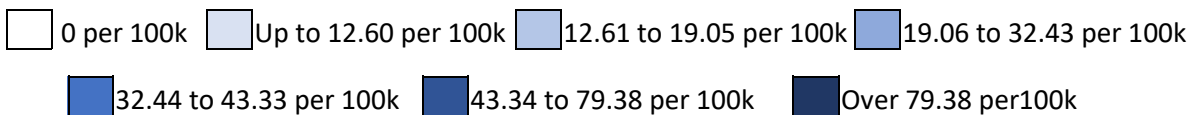
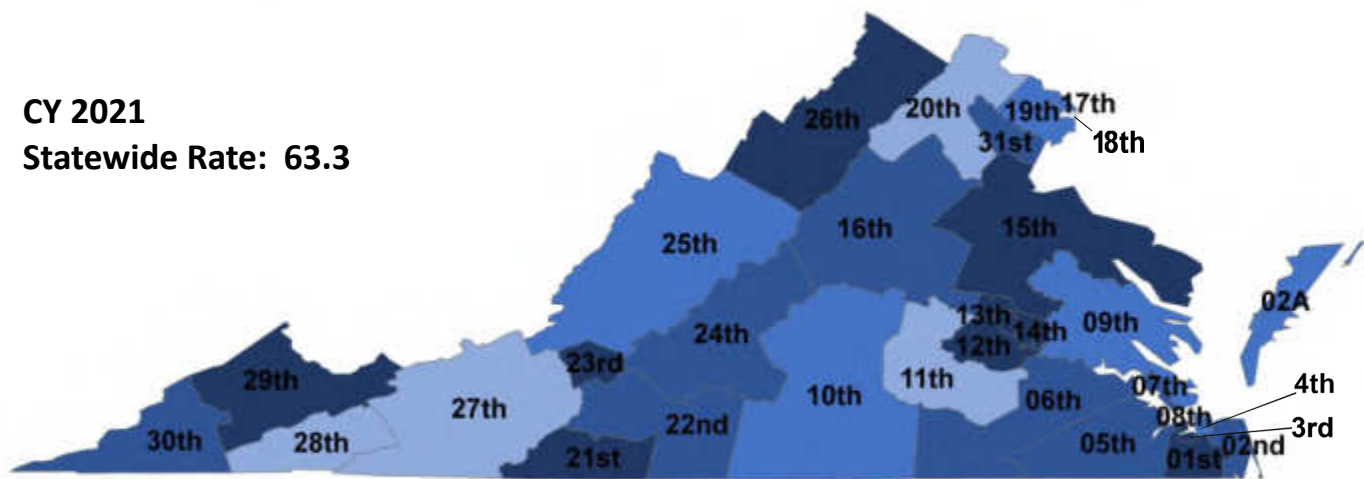
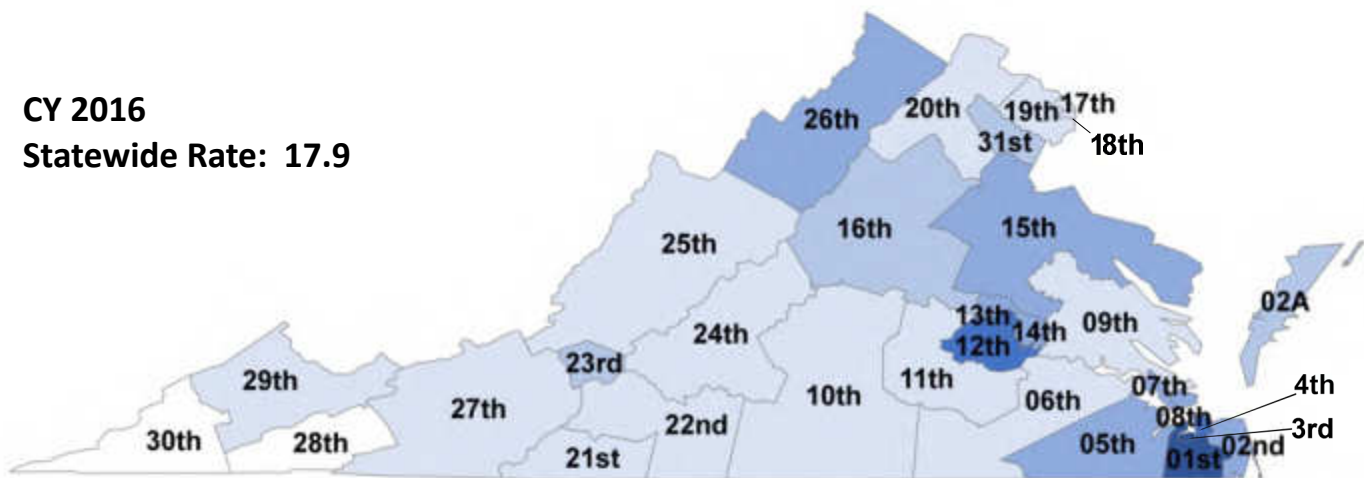
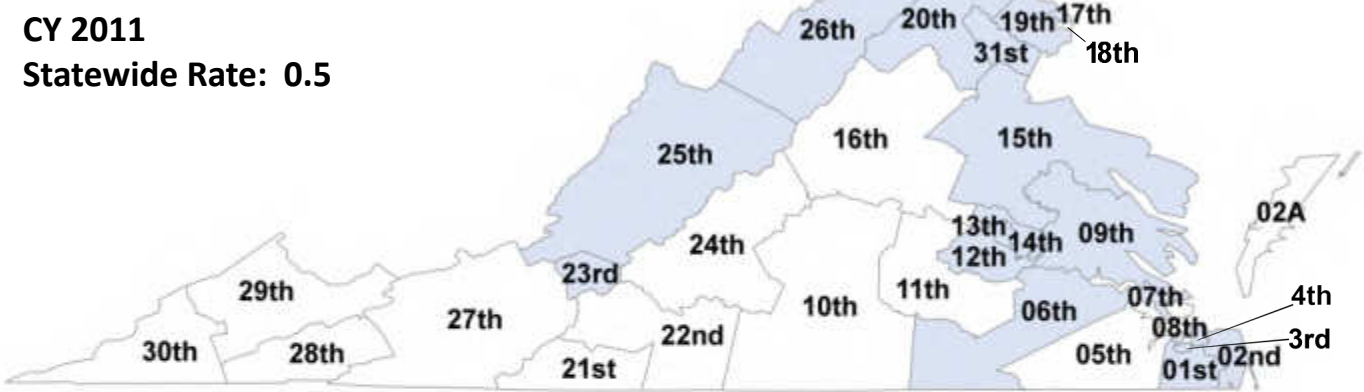
The largest number of illicit synthetic opioid submissions in 2021 were from VSP 1, but the Division with the highest rate of submissions per 100,000 population was VSP 2.

Statewide, the rate of illicit synthetic opioid submissions in 2021 was 63.3 per 100,000. This was up 254% from 2016. The maps on the following page present the changing pattern of illicit synthetic opioid submission rates, by Virginia Court District.



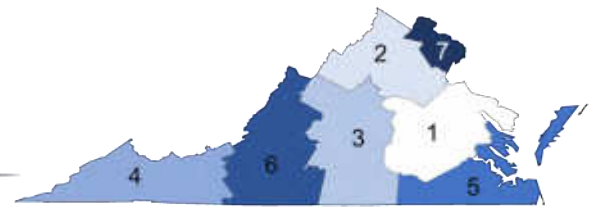
# Illicit Synthetic Opioids

Illicit Synthetic Opioid Submissions by Court District, Rate per 100,000  
CY 2011, 2016, & 2021

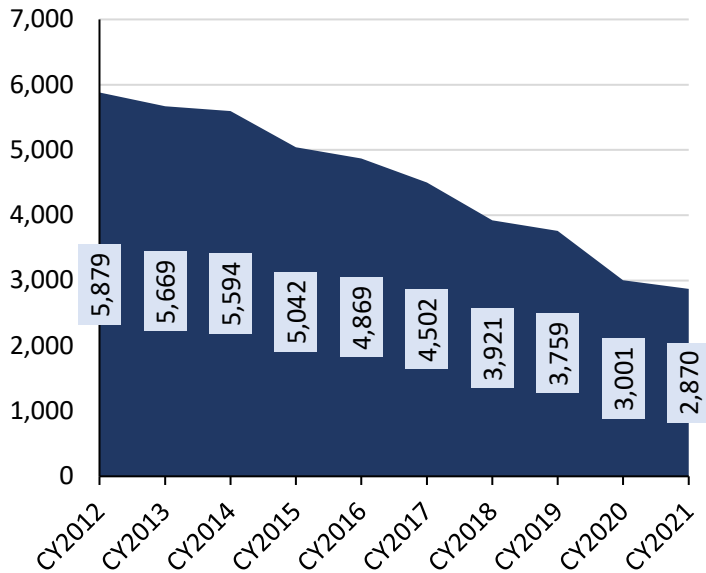




# Prescription Opioids



Prescription Opioid Submissions  
CY2012-2021



Prescription Opioids Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
Buprenorphine	3,170	4,058	4,325
Oxycodone	6,417	4,630	2,559
Tramadol	598	780	1,312
Hydrocodone	4,124	2,428	1,064
Methadone	832	571	345
Morphine	1,180	739	307
Hydromorphone	1,092	657	216
Codeine	265	251	153
Other	538	530	146

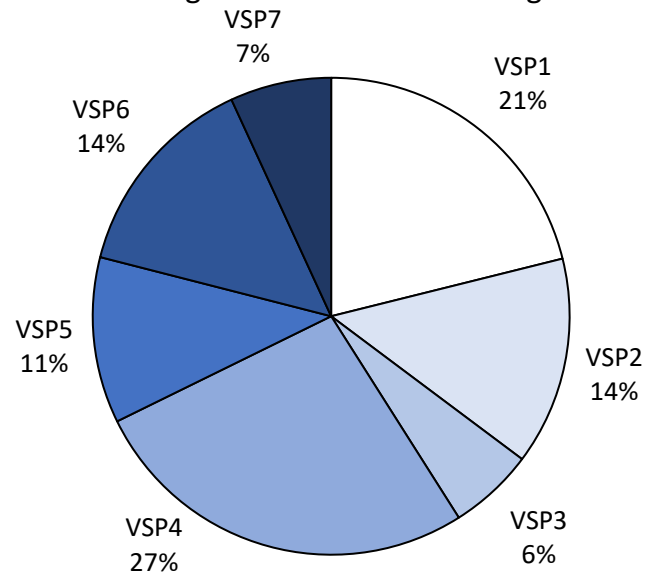
\*Sum of individual substances will not match the total, as some cases involved more than one prescription opioid.

Prescription opioid submissions to DFS represented 7% of total drug submissions in 2021. Prescription opioid submissions have decreased steadily since 2012. Submissions decreased 4% between 2020 and 2021, to the lowest level in over a decade.

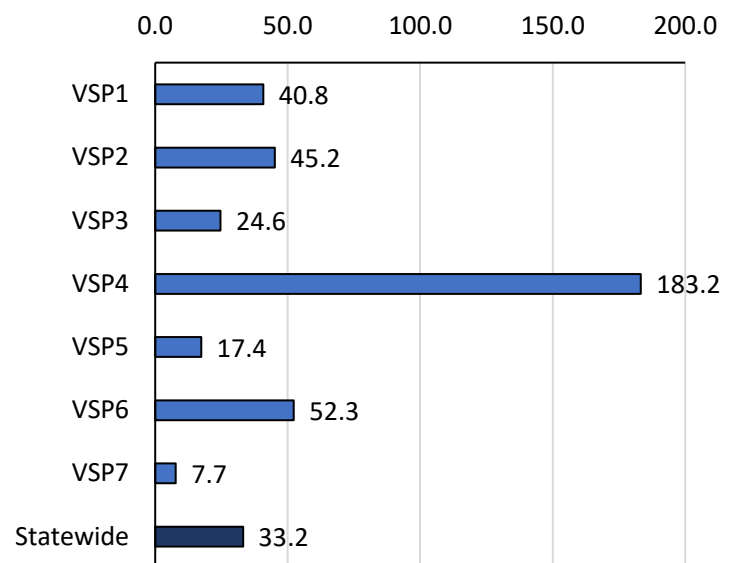
The most common prescription opioid identified in substances submitted to DFS in recent years is buprenorphine, which is frequently used in medically-assisted treatment for individuals addicted to opioids. This represents a change in trends among prescription opioid submissions, which were previously dominated by oxycodone and hydrocodone. Detailed 10-year trends on individual prescription opioids are provided in Appendix B.

Tramadol has recently become the third most frequently identified prescription opioid in DFS submissions, but this is misleading. In recent years, there has been a substantial increase in illicitly

2021 Prescription Opioid Submissions  
Percentage Distribution Across Regions



2021 Prescription Opioid Submissions  
Rate per 100,000



produced tramadol. At the time of this report, there is no simple way to distinguish illicitly-produced tramadol from the prescription version in the data, and so they are all counted as prescription opioids. This may change in future reports.

Both the highest number and the highest rate of prescription opioid submissions in 2021 were from VSP 4.

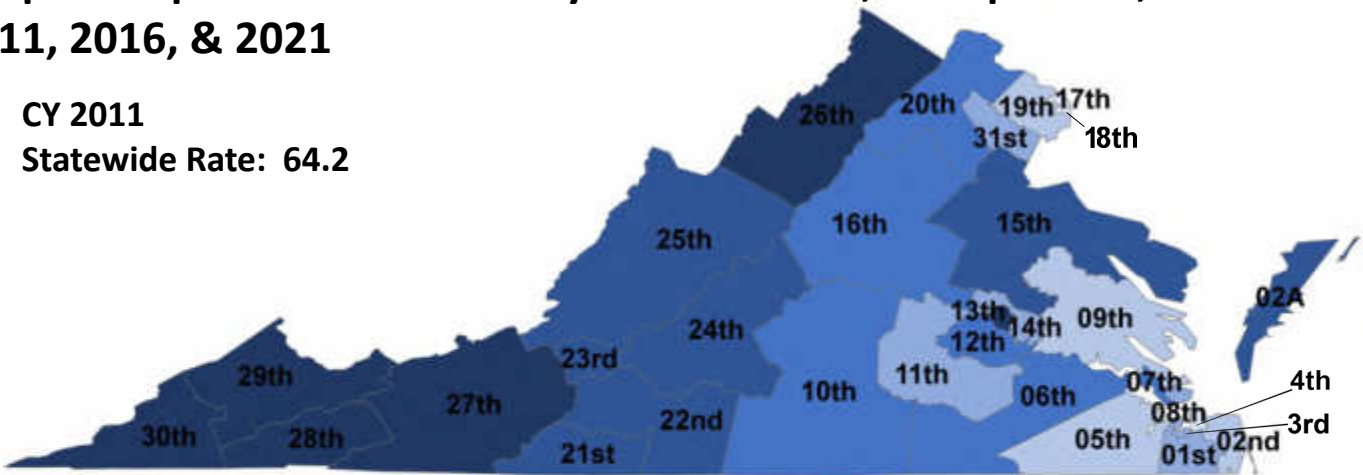
Statewide, the rate of prescription opioid submissions in 2021 was 33.2 per 100,000. This was down 43% from 2016.

The maps on the following page present the changing pattern of prescription opioid submission rates, by Virginia Court District.

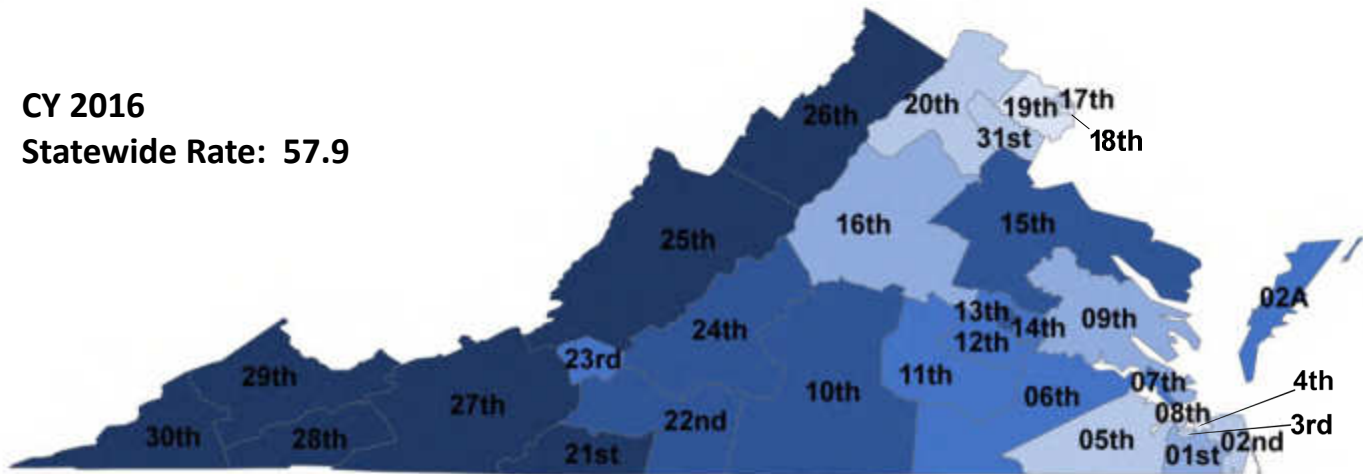
# Prescription Opioids

## Prescription Opioid Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

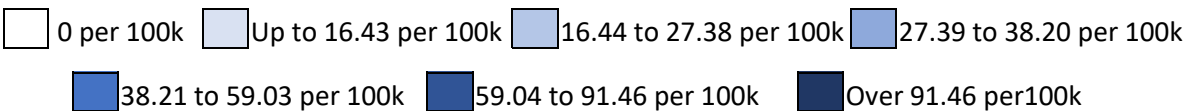
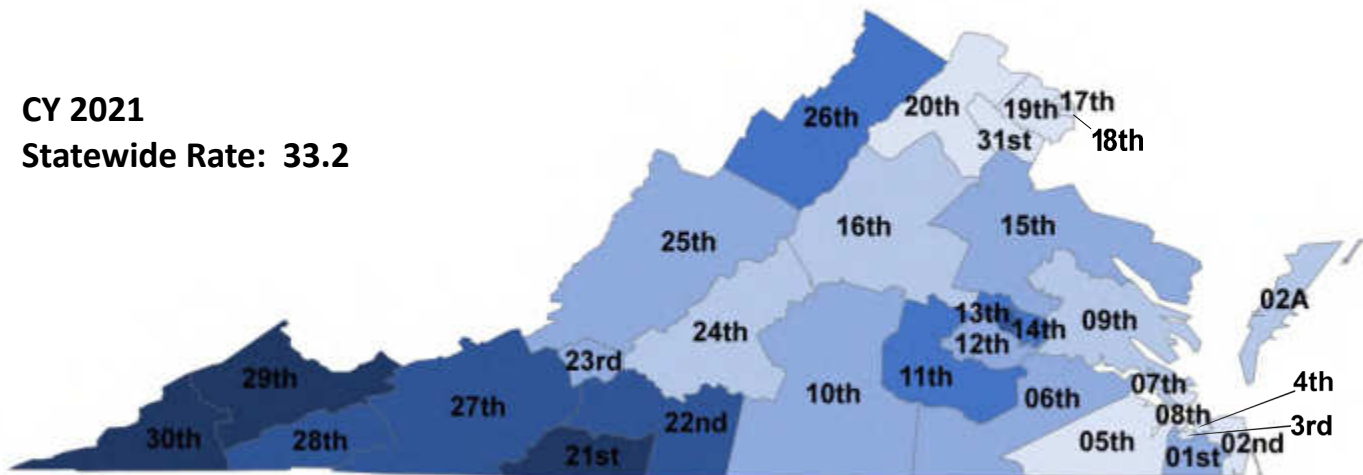
CY 2011  
Statewide Rate: 64.2



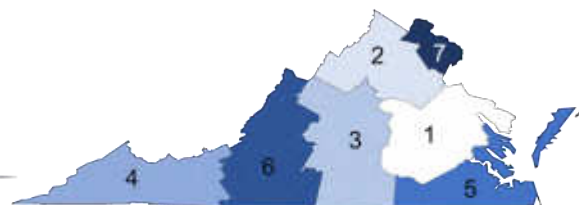
CY 2016  
Statewide Rate: 57.9



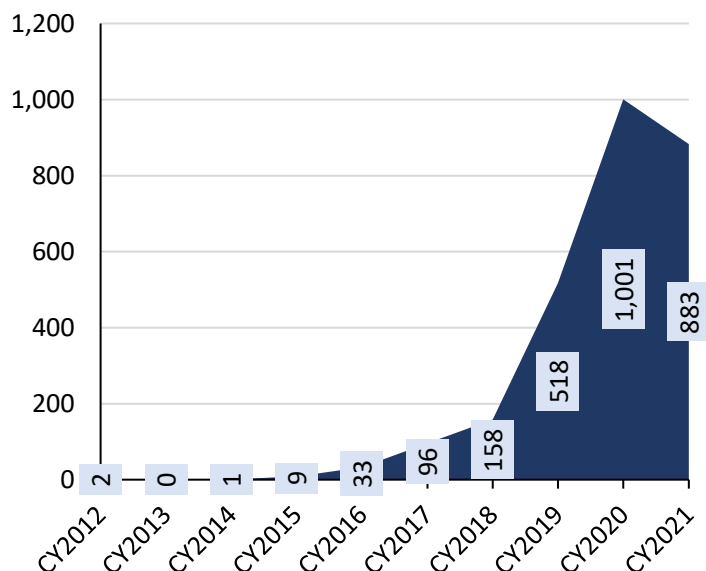
CY 2021  
Statewide Rate: 33.2



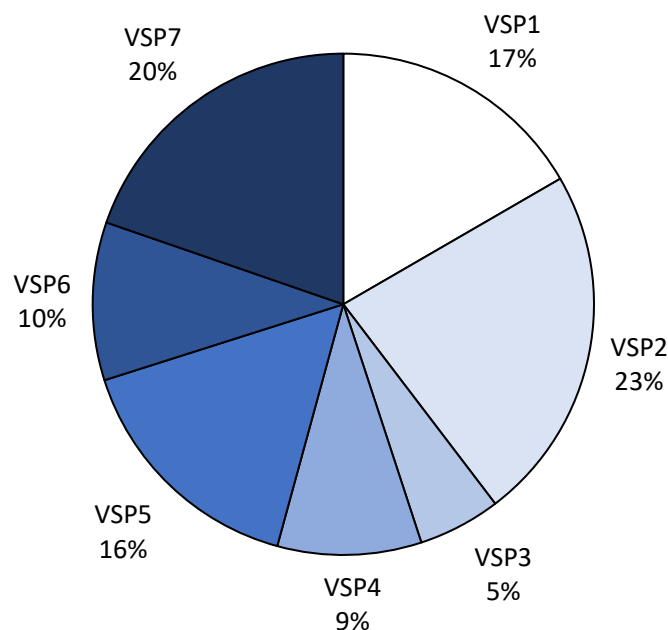
# Illicit Benzodiazepines



Illicit Benzodiazepine Submissions  
CY2012-2021



2021 Illicit Benzodiazepine Submissions  
Percentage Distribution Across Regions



Illicit Benzodiazepines Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
Etizolam	8	167	1,273
Clonazepam	0	68	671
Flualprazolam	0	7	457
Other	2	49	136

\*Sum of individual substances will not match the total, as some cases involved more than one illicit benzodiazepine.

In 2020, for the first time, illicit benzodiazepines were submitted to DFS more frequently than prescription benzodiazepines. This continued in 2021. Illicit benzodiazepines represented 2% of total drug submissions in 2021.

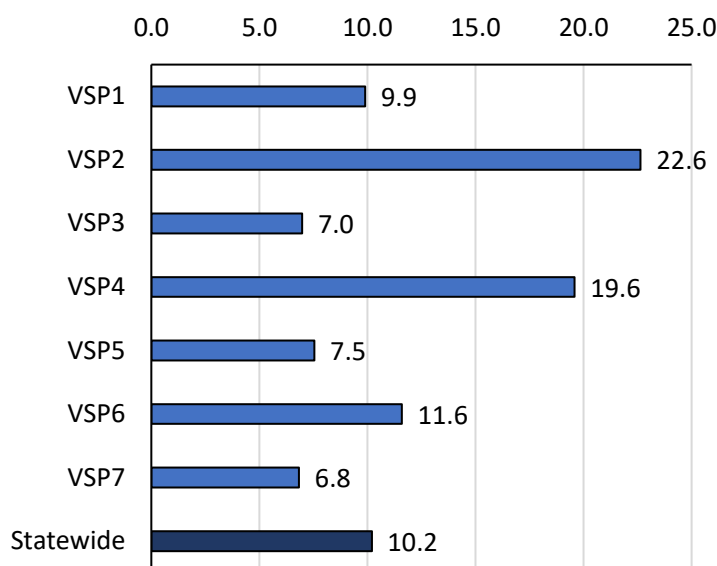
Illicit benzodiazepine submissions had increased sharply in recent years. Between 2017 and 2020, submissions increased tenfold. In 2021, that trend reversed, dropping 12% from 2020.

The most common illicit benzodiazepine identified in substances submitted to DFS is etizolam. Detailed 10-year trends on individual illicit benzodiazepines are provided in Appendix B.

Both the highest number and the highest rate of illicit benzodiazepine submissions in 2021 were from VSP 2.

Statewide, the rate of illicit benzodiazepine submissions in 2021 was 10.2 per 100,000. The rate in 2016 was 0.4.

2021 Illicit Benzodiazepine Submissions  
Rate per 100,000

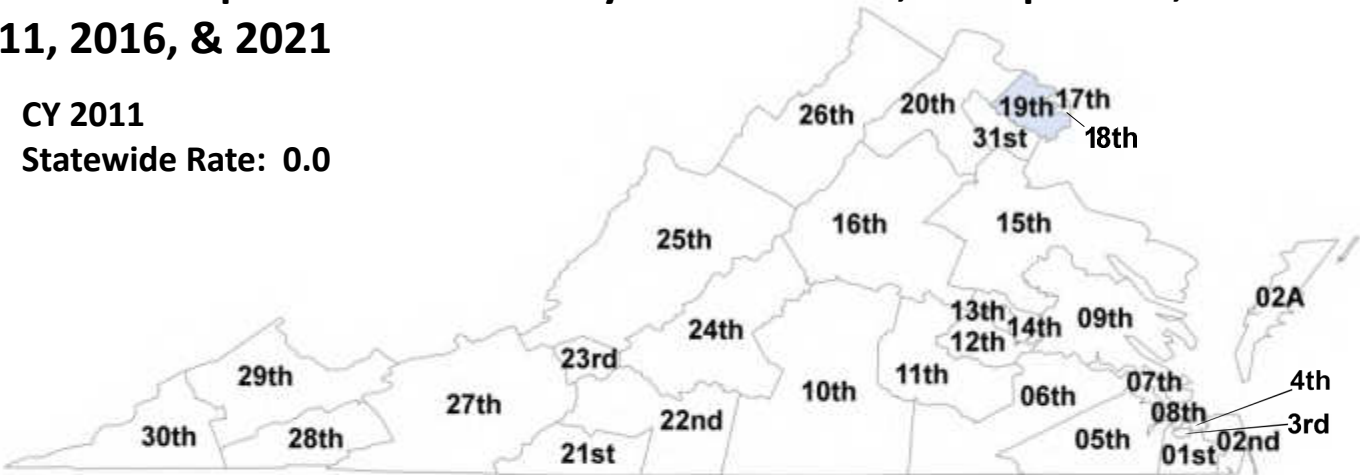


The maps on the following page present the changing pattern of illicit benzodiazepine submission rates, by Virginia Court District.

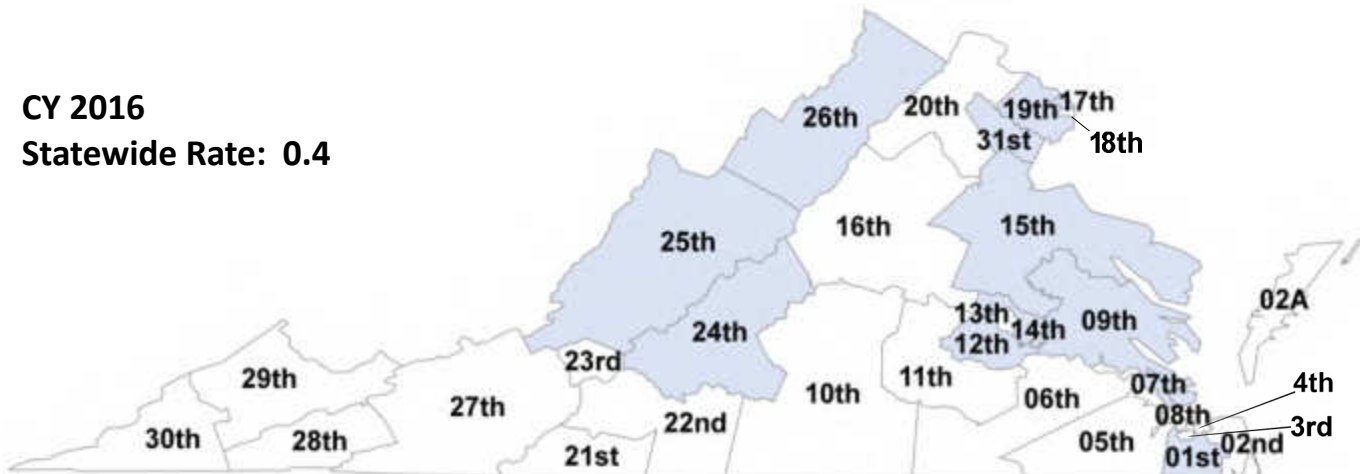
# Illicit Benzodiazepines

## Illicit Benzodiazepine Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

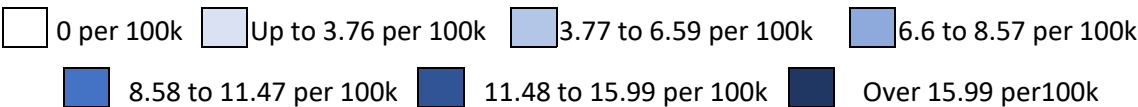
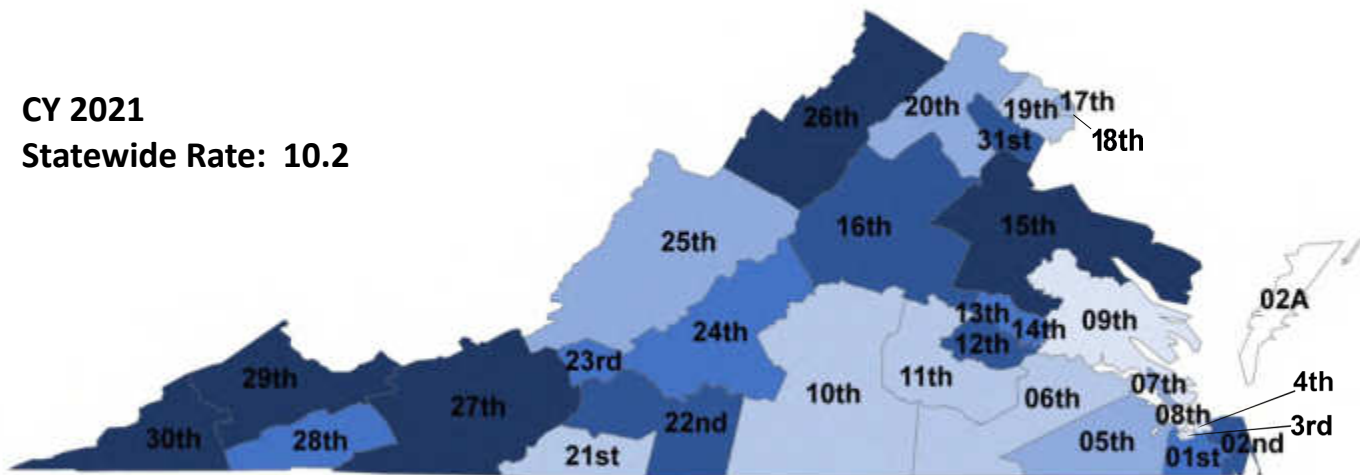
CY 2011  
Statewide Rate: 0.0



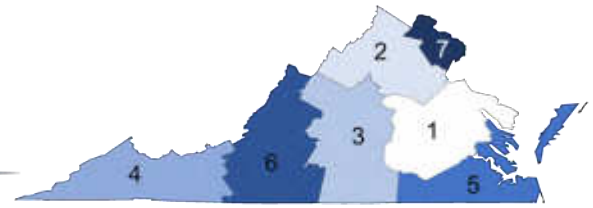
CY 2016  
Statewide Rate: 0.4



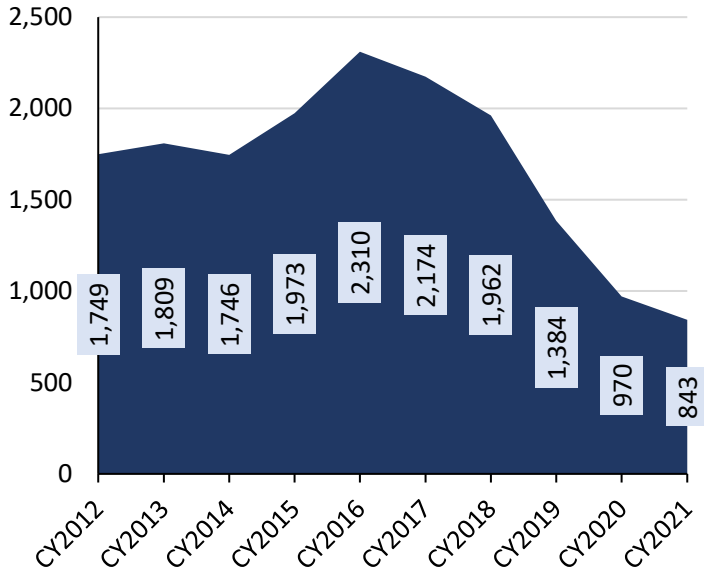
CY 2021  
Statewide Rate: 10.2



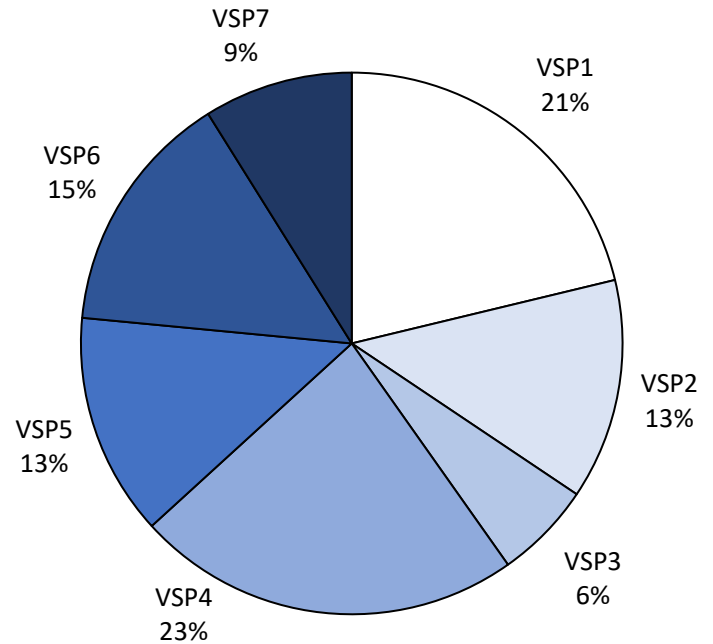
# Prescription Benzodiazepines



Prescription Benzodiazepine Submissions  
CY2012-2021



2021 Prescription Benzodiazepine Submissions  
Percentage Distribution Across Regions



Prescription Benzodiazepines Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
Alprazolam (Xanax)	3,620	4,703	2,092
Clonazepam (Klonopin)	1,464	1,372	895
Diazepam (Valium)	659	558	327
Lorazepam (Ativan)	315	311	172
Other	74	51	30

\*Sum of individual substances will not match the total, as some cases involved more than one prescription benzodiazepine.

Submissions of prescription benzodiazepines in 2021 were slightly below submissions of the illicit versions. In 2021, prescription benzodiazepine submissions represented 2% of total submissions.

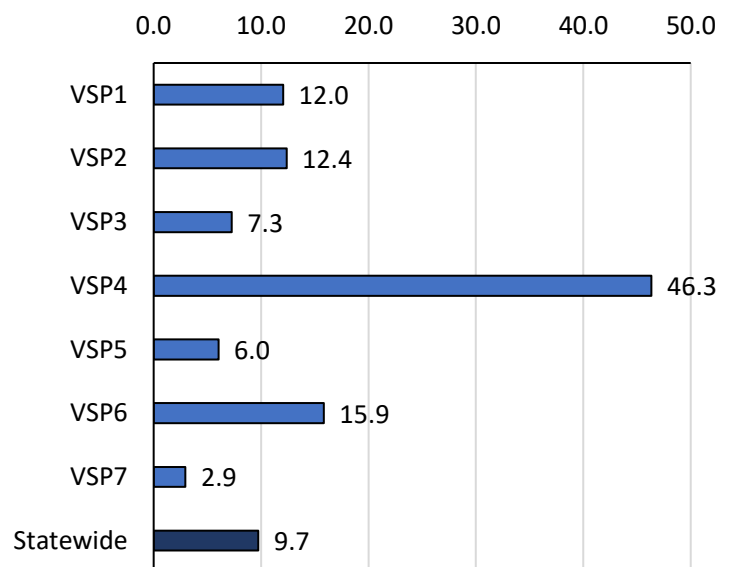
Prescription benzodiazepine submissions have decreased sharply in recent years. Submissions decreased 58% between 2016 and 2020, and decreased another 13% in 2021.

The most common prescription benzodiazepine identified in substances submitted to DFS is alprazolam. Detailed 10-year trends on individual prescription benzodiazepines are provided in Appendix B.

Both the highest number and the highest rate of prescription benzodiazepine submissions in 2021 were from VSP 4.

Statewide, the rate of prescription benzodiazepine submissions in 2021 was 9.7 per 100,000. This was down 65% from 2016.

2021 Prescription Benzodiazepine  
Submissions Rate per 100,000

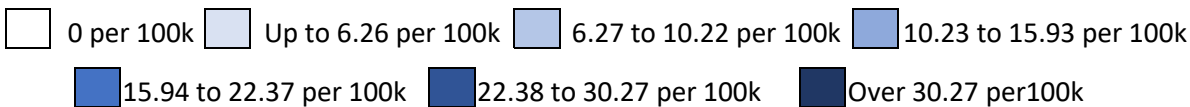
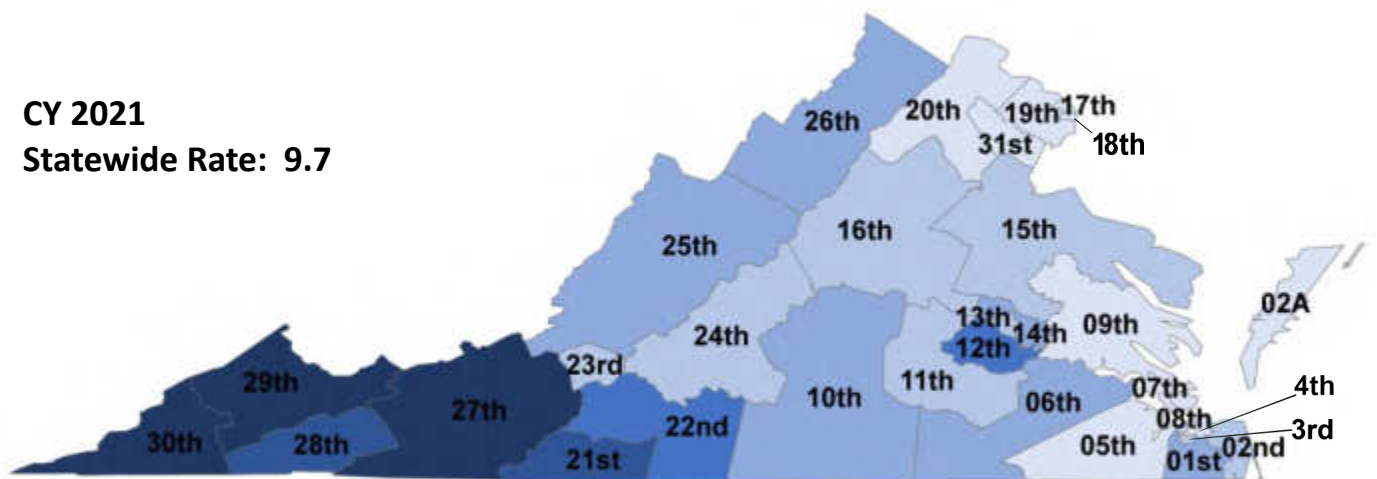
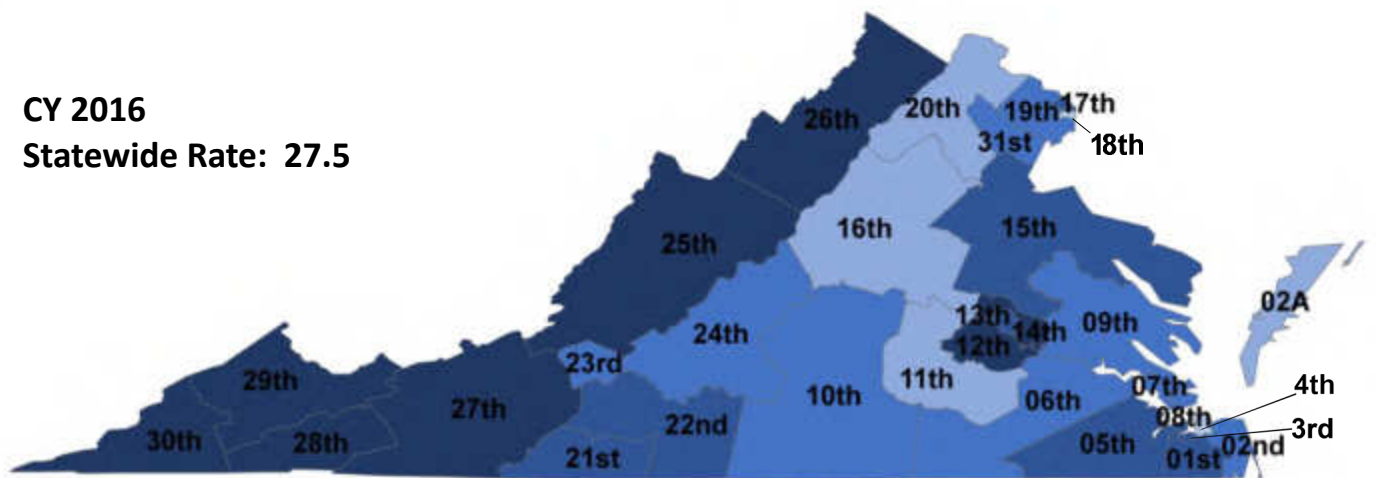
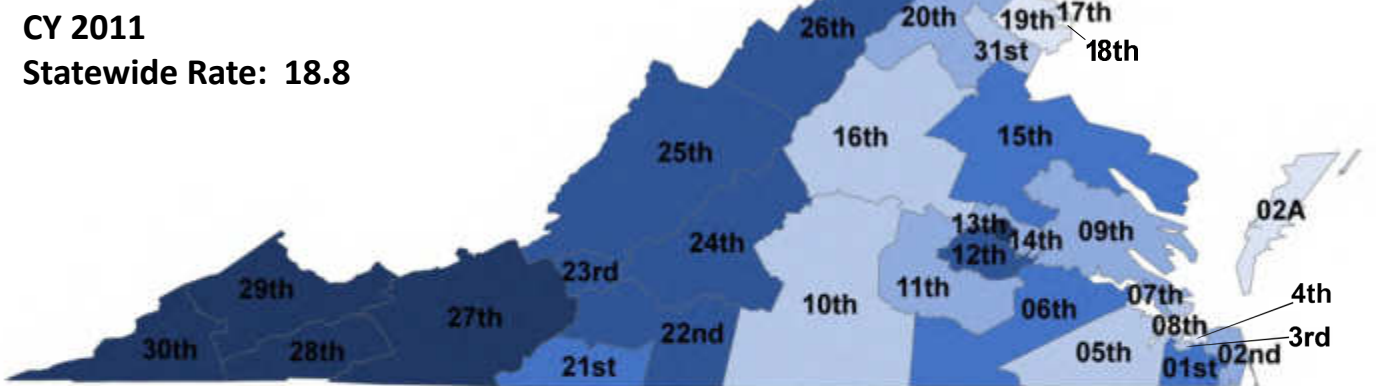


The maps on the following page present the changing pattern of prescription benzodiazepine submission rates, by Virginia Court District.



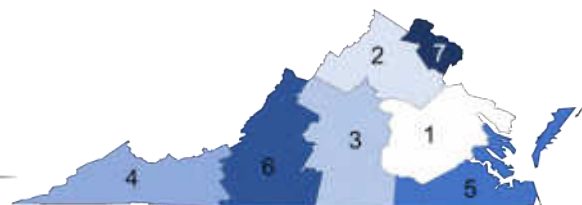
# Prescription Benzodiazepines

## Prescription Benzodiazepine Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

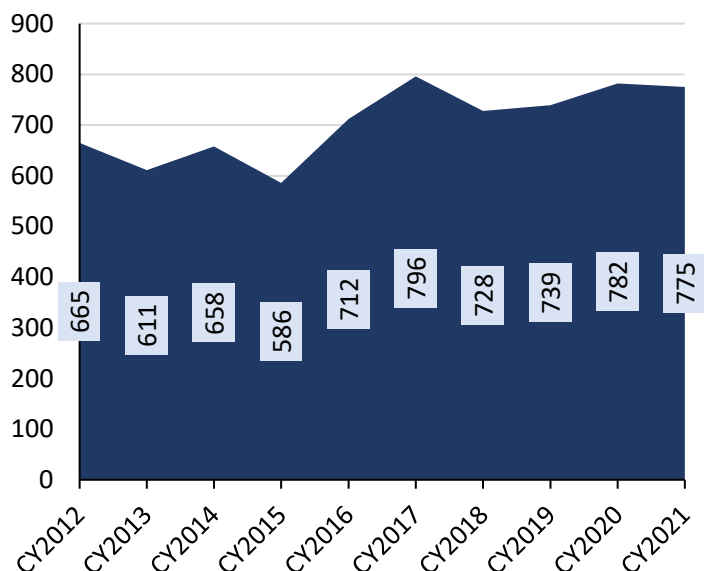




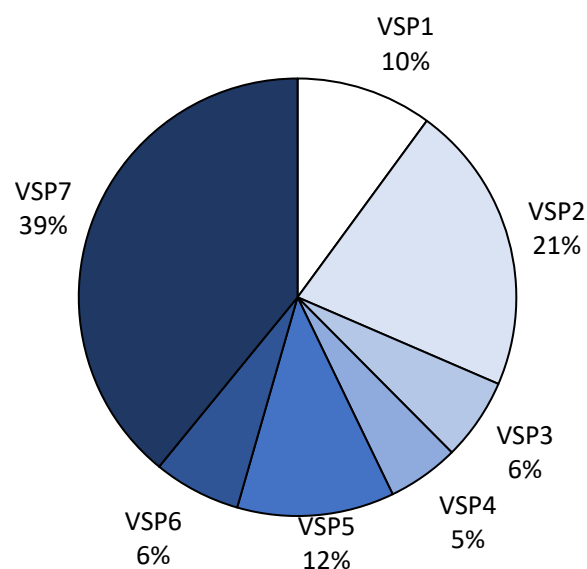
# Hallucinogenic Substances



Hallucinogenic Substance Submissions  
CY2012-2021



2021 Hallucinogenic Substance Submissions  
Percentage Distribution Across Regions



Hallucinogenic Substances Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
LSD & Analogs	301	881	735
Psilocyn-Psilocybin (mushrooms)	363	487	675
PCP & Analogs	522	553	603
Ketamine & Analogs	163	175	202
Tryptamines	160	123	134
Benzylpiperazine (BZP)	86	15	1
Other	449	254	228

\*Sum of individual substances will not match the total, as some cases involved more than one hallucinogenic substance.

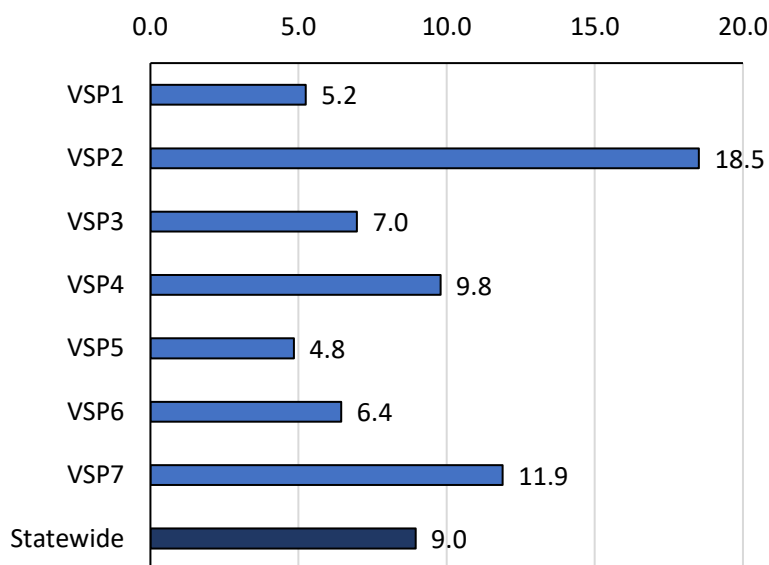
Hallucinogenic substance submissions to DFS represented 2% of total drug submissions in 2021.

Hallucinogenic substance submissions have not demonstrated a consistent trend over time. Submissions decreased 1% between 2020 and 2021.

The most common hallucinogenic substance category identified in submissions to DFS in the past several years is LSD & LSD analogs, and the second most common is Psilocyn-Psilocybin (mushrooms). Detailed 10-year trends on individual hallucinogenic substances are provided in Appendix B.

The largest number of hallucinogenic substance submissions in 2021 were from VSP 7, but the Division with the highest rate of submissions per 100,000 population was VSP 2.

2021 Hallucinogenic Substance Submissions,  
Rate per 100,000



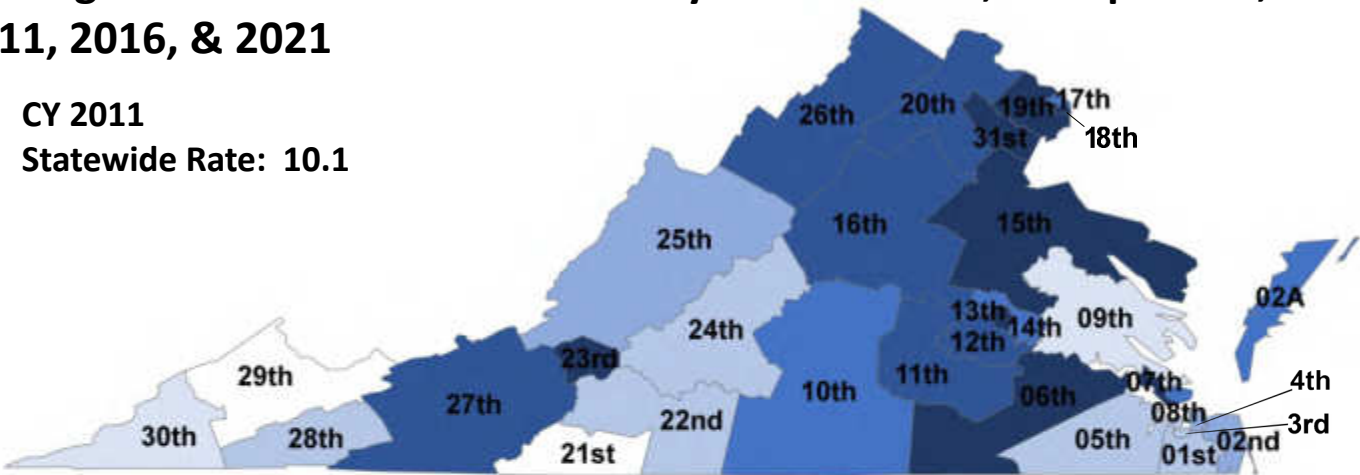
Statewide, the rate of hallucinogenic substance submissions in 2021 was 9.0 per 100,000, up 6% from 2016.

The maps on the following page present the changing pattern of hallucinogenic substance submission rates, by Virginia Court District.

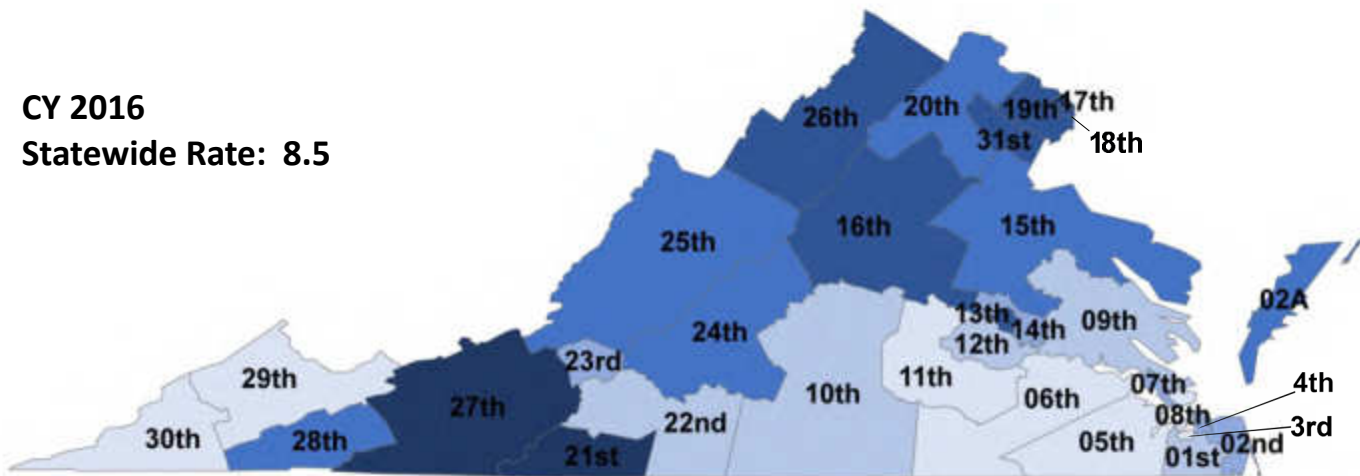
# Hallucinogenic Substances

## Hallucinogenic Substance Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

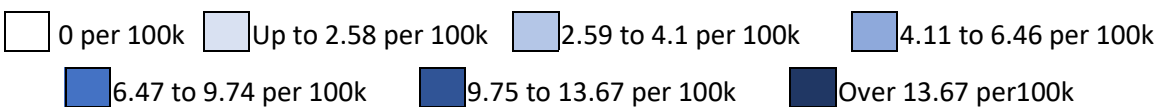
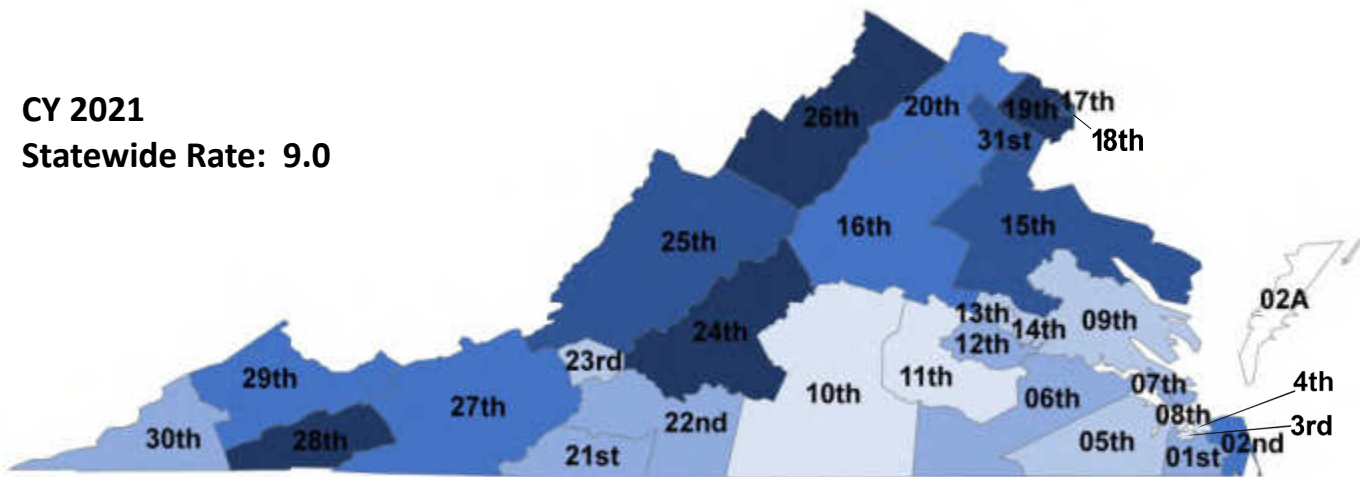
CY 2011  
Statewide Rate: 10.1



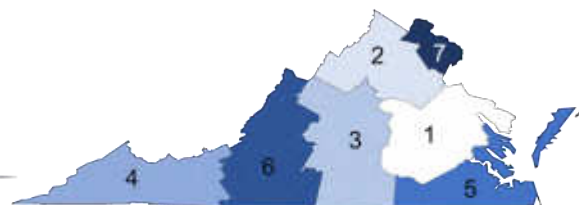
CY 2016  
Statewide Rate: 8.5



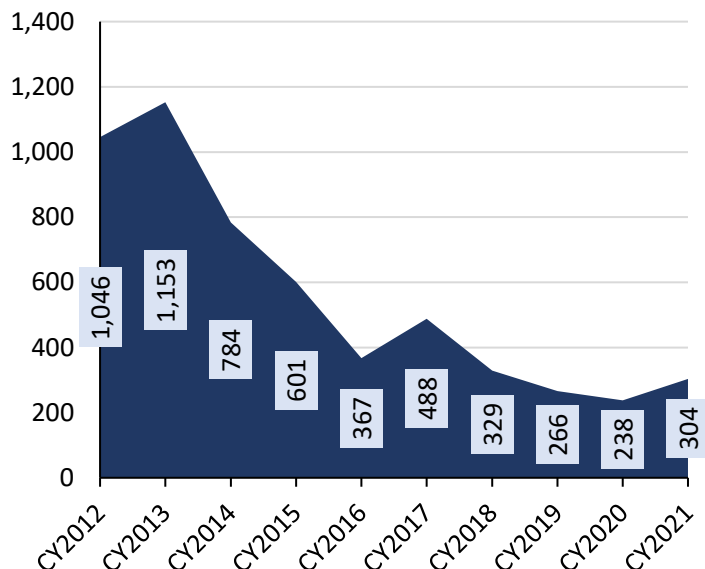
CY 2021  
Statewide Rate: 9.0



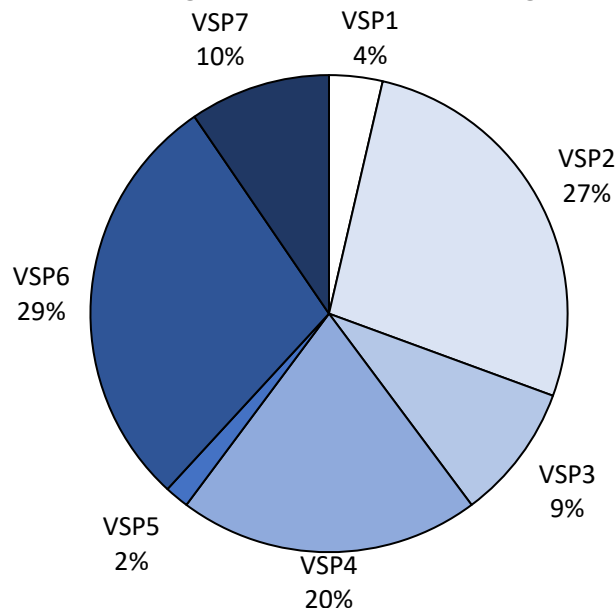
# Cannabimimetic Agents



Cannabimimetic Agent Submissions  
CY2012-2021



2021 Cannabimimetic Agent Submissions  
Percentage Distribution Across Regions



Cannabimimetic Agents Identified\*

Substance Identified	CY2013-15	CY2016-18	CY2019-21
Indazole carboxamides	706	1,048	571
Indole carboxamides	10	3	275
Alkoylindoles	1,029	51	14
Benzoylindoles	9	0	1
Indole carboxylates	259	47	0
Naphthoylindoles	68	8	0
Phenylacetylindoles	9	1	0
Other or unclear	823	80	20

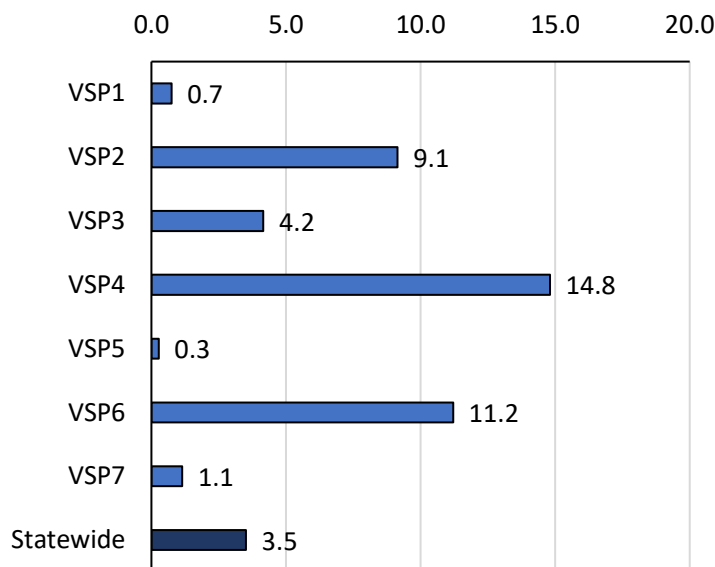
\*Sum of individual substances will not match the total, as some cases involved more than one cannabimimetic agent.

Cannabimimetic agent submissions to DFS represented 1% of total drug submissions in 2021.

Cannabimimetic agent submissions peaked in 2013, and dropped consistently in later years, with the exception of 2017. In 2021, however, submissions increased 28%.

The types of cannabimimetic agents that are most prevalent among submissions has varied substantially over time. Alkoylindoles (e.g., UR-144) were the most common during the peak years of cannabimimetic agent submissions, but indazole carboxamides (e.g., AMB-FUBINACA) have been the most common in recent years. In some cases, cannabimimetic agents were identified prior to being expressly proscribed in the Code of Virginia. In those cases, the specific type of cannabimimetic agent may be unclear in the record. Detailed 10-year trends on individual cannabimimetic agents are provided in

2021 Cannabimimetic Agent Submissions  
Rate per 100,000



## Appendix B.

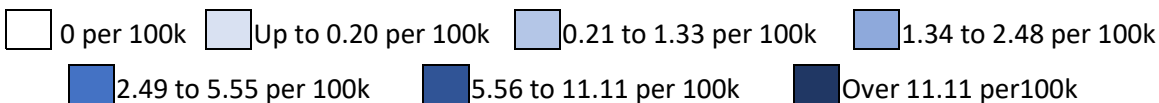
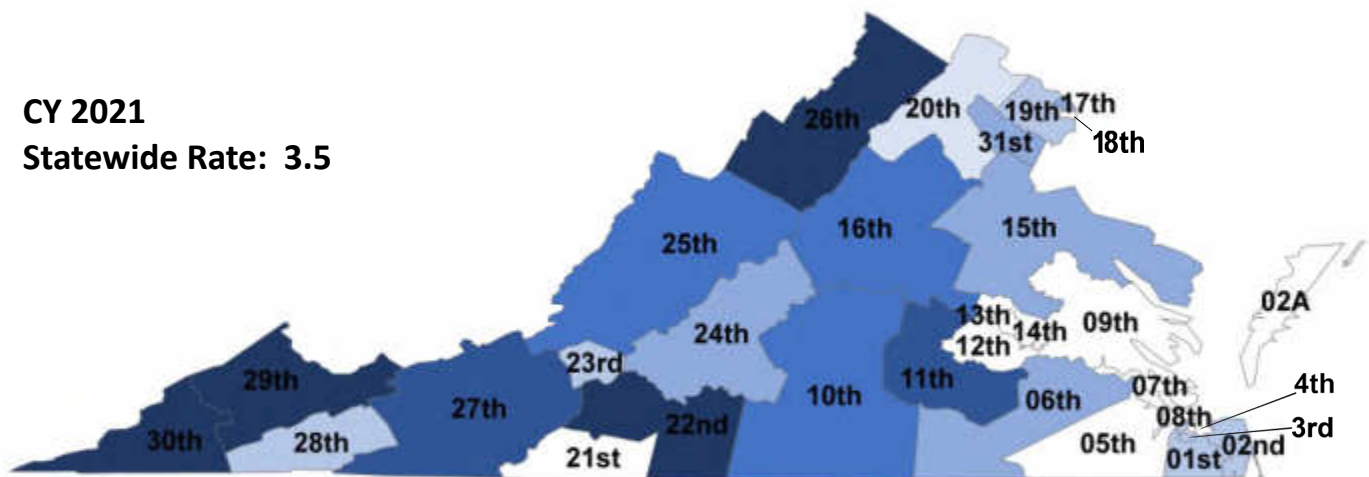
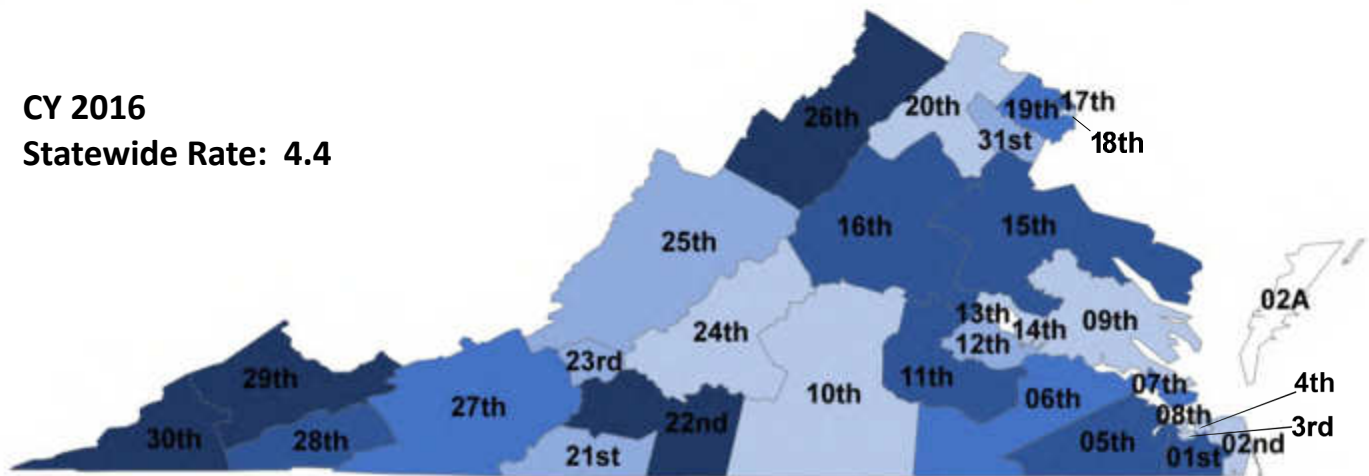
The largest number of cannabimimetic agent submissions in 2021 were from VSP 6, but the Division with the highest rate of submissions per 100,000 population was VSP 4.

Statewide, the rate of cannabimimetic agent submissions in 2021 was 3.5 per 100,000, down 19% from 2016.

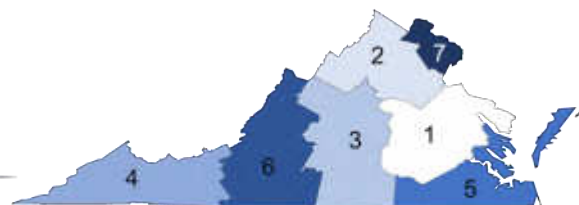
The maps on the following page present the changing pattern of cannabimimetic agent submission rates, by Virginia Court District.

# Cannabimimetic Agents

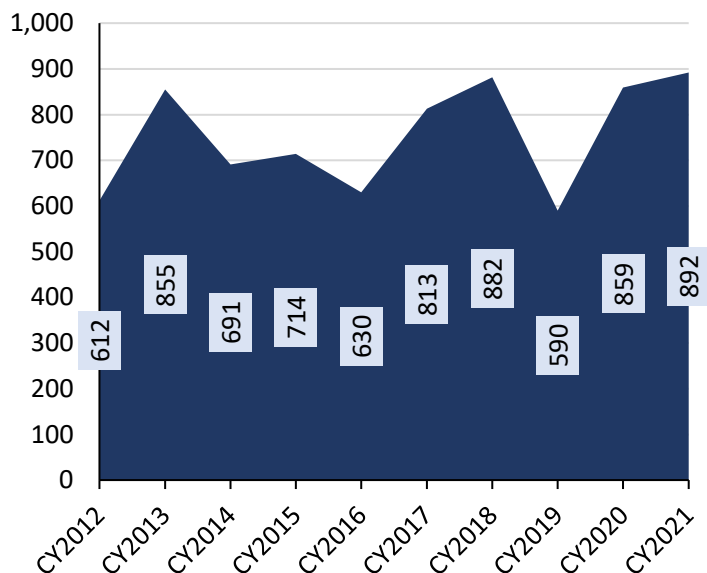
Cannabimimetic Agent Submissions by Court District, Rate per 100,000  
CY 2011, 2016, & 2021



# Other Designer Drugs



Other Designer Drug Submissions  
CY2012-2021



Designer Drugs Identified\*

Substance Identified	CY2012-14	CY2015-17	CY2018-21
<b>Synthetic Cathinone</b>			
Eutylone	0	0	950
N-ethylpentylone	0	437	701
Dibutylone	3	393	46
Ethylone	220	537	10
Alpha-PVP	287	97	1
MDPV	225	8	2
Methylone	984	32	3
Other	192	125	126
<b>Substituted Amphetamine</b>			
MDMA (Ecstasy)	407	507	476
Other	76	149	115

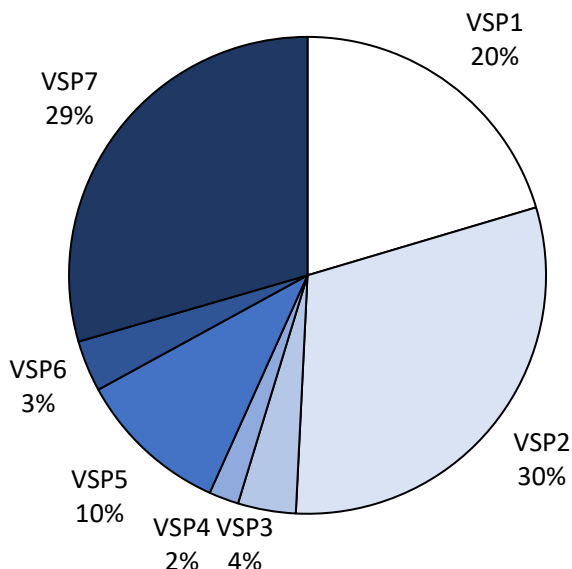
\*Sum of individual substances will not match the total, as some cases involved more than one designer drug.

The frequency of designer drug submissions, and the type submitted, has not displayed a consistent trend. In 2021, designer drugs represented 2% of total submissions.

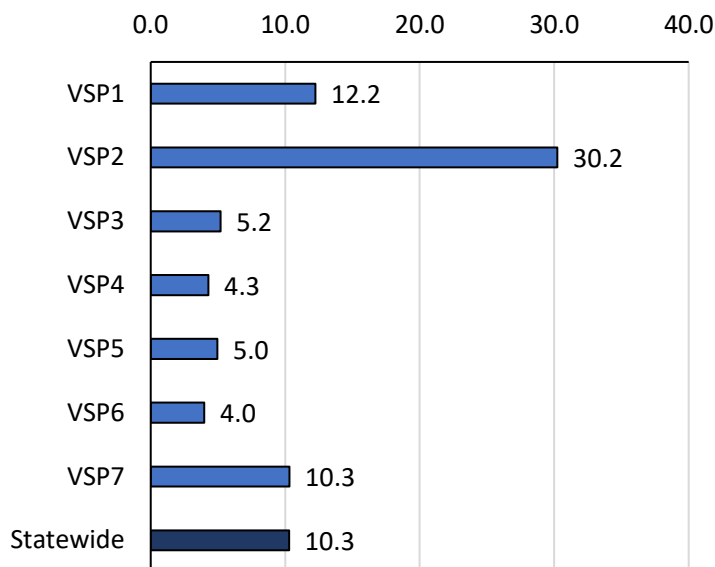
Designer drug submissions increased 4% between 2020 and 2021.

The types of designer drugs that are most prevalent among submissions has varied substantially over time. Eutylone was the most frequently submitted designer drug in 2021, but prior to 2018, there were no submissions of eutylone. Detailed 10-year trends on

2021 Designer Drug Submissions  
Percentage Distribution Across Regions



2021 Designer Drug Submissions  
Rate per 100,000



individual designer drugs are provided in Appendix B.

Both the largest number and the highest rate of designer drug submissions in 2021 were from VSP 2.

Statewide, the rate of designer drug submissions in 2021 was 10.3 per 100,000, up 38% from 2016.

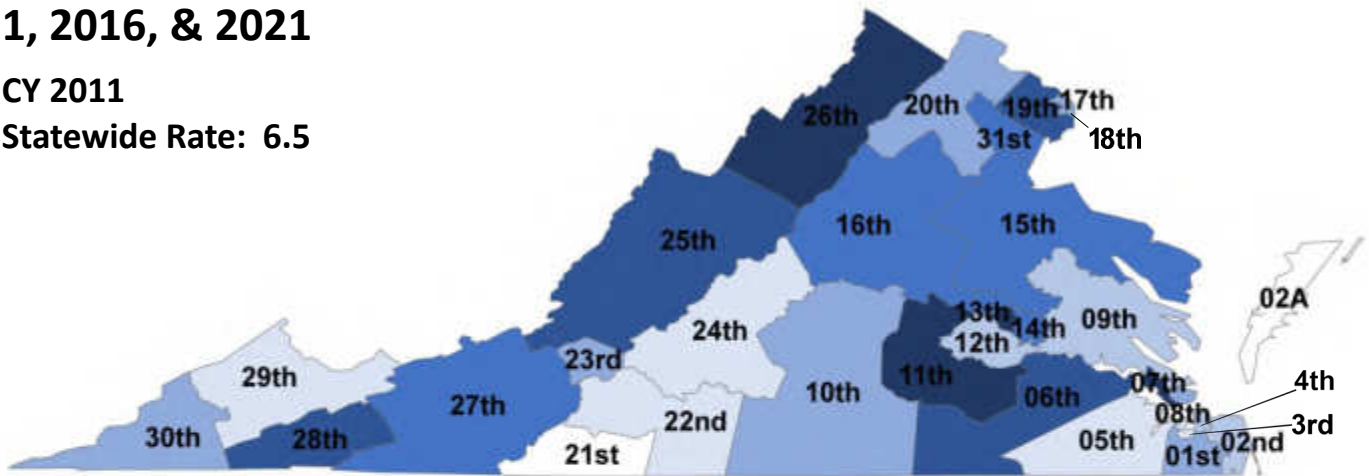
The maps on the following page present the changing pattern of designer drug submission rates, by Virginia Court District.



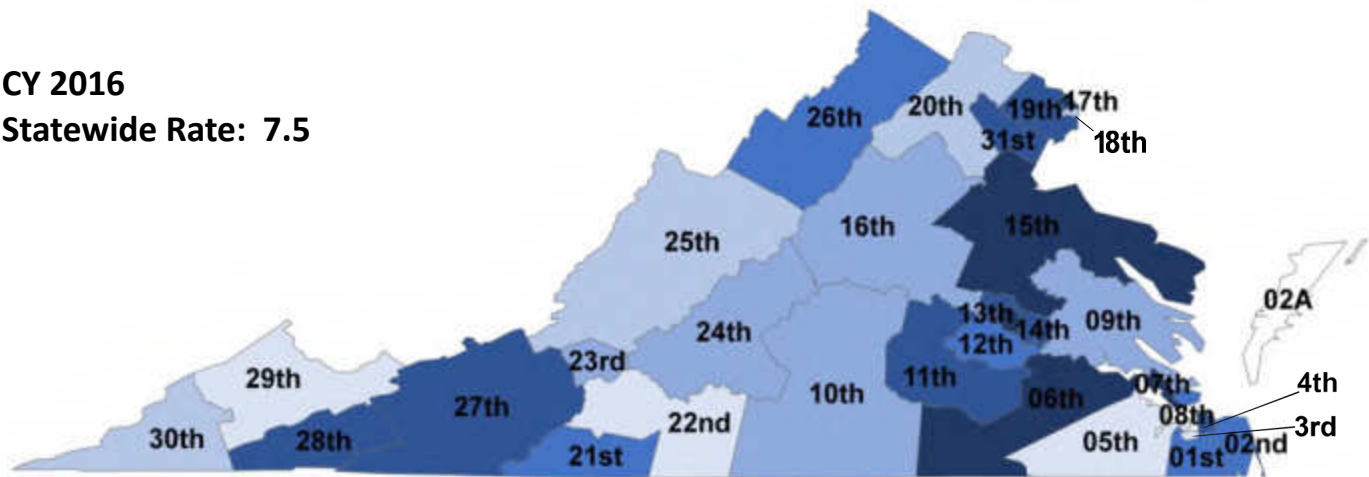
# Other Designer Drugs

## Other Designer Drug Submissions by Court District, Rate per 100,000 CY 2011, 2016, & 2021

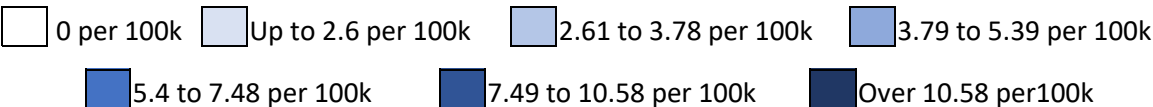
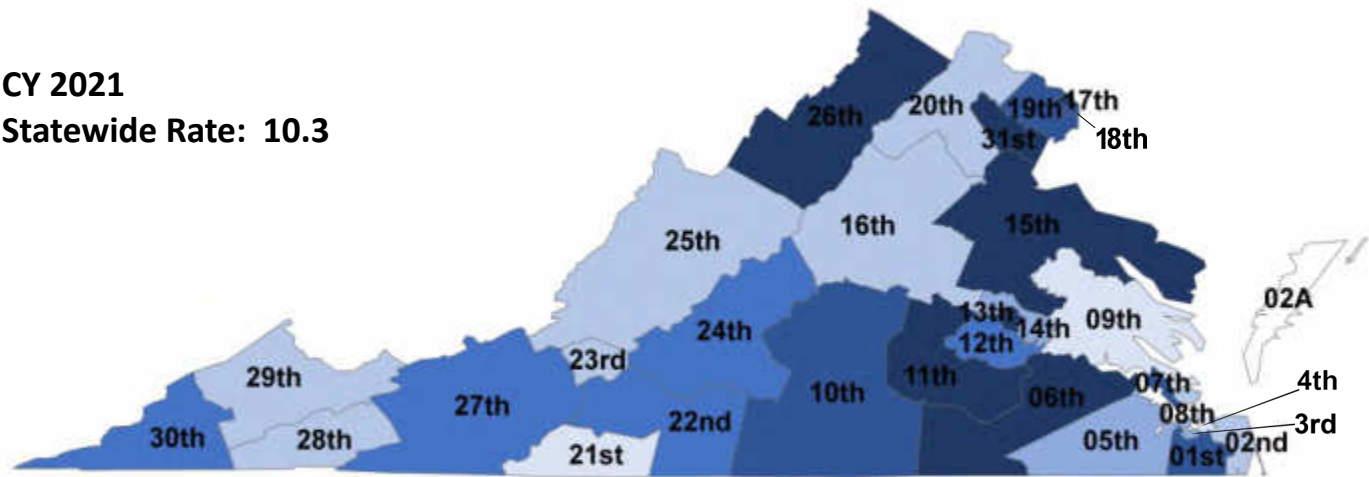
CY 2011  
Statewide Rate: 6.5



CY 2016  
Statewide Rate: 7.5



CY 2021  
Statewide Rate: 10.3





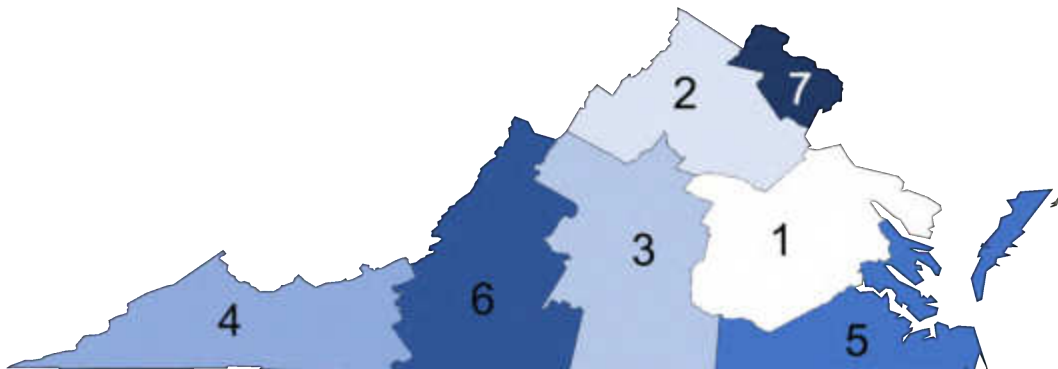
# Appendix A

## Regional Trends—Number of Submissions

Cocaine										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	2,136	1,884	2,049	1,985	2,096	2,601	2,928	3,068	2,334	2,201
VSP2	727	636	537	612	752	1,009	1,087	948	805	776
VSP3	1,194	964	933	817	769	874	764	703	469	387
VSP4	201	163	159	123	195	155	144	134	85	79
VSP5	1,910	1,615	1,499	1,647	1,910	2,439	2,432	2,387	1,841	1,660
VSP6	1,309	1,105	898	922	813	947	943	851	529	486
VSP7	1,094	934	869	950	1,114	1,351	1,457	1,438	951	991

Methamphetamine										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	28	30	61	83	110	172	301	531	751	780
VSP2	106	215	234	314	425	664	848	1,177	1,403	1,499
VSP3	117	181	230	295	684	1,059	1,298	1,468	1,426	1,248
VSP4	399	527	530	678	1,174	1,585	2,463	3,111	2,812	2,689
VSP5	77	80	72	103	193	253	400	705	847	962
VSP6	268	351	398	645	911	1,353	2,170	2,529	2,323	2,130
VSP7	30	53	82	95	100	158	220	248	220	290

Prescription Stimulants										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	133	155	176	177	200	233	184	155	161	113
VSP2	106	135	135	139	164	165	153	133	110	82
VSP3	68	61	66	69	76	79	69	53	33	16
VSP4	65	63	77	71	74	93	81	75	51	39
VSP5	208	171	179	173	194	235	211	202	160	97
VSP6	96	109	113	116	123	140	112	100	57	53
VSP7	136	173	157	193	218	217	218	148	82	77



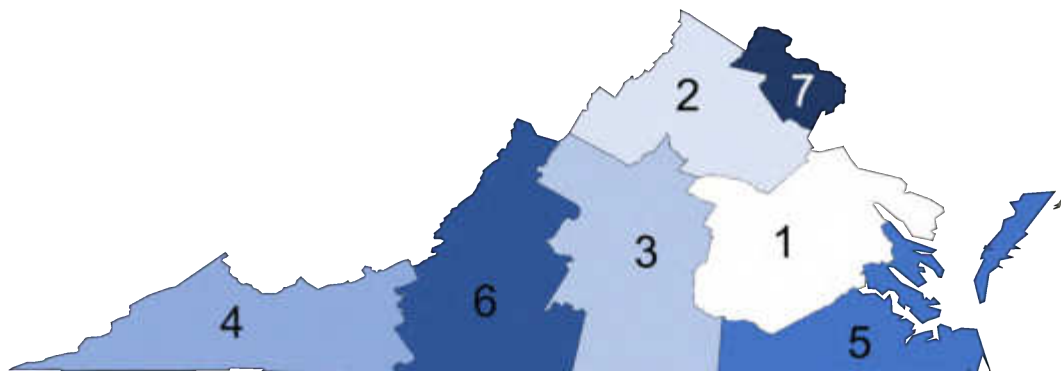
# Appendix A

## Regional Trends—Number of Submissions

Heroin										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	840	1,156	1,522	1,620	1,670	1,668	1,381	1,423	947	671
VSP2	418	773	847	958	1,037	841	623	523	355	222
VSP3	34	97	132	214	238	282	253	246	192	141
VSP4	16	28	38	46	58	63	46	82	132	82
VSP5	744	896	1,015	1,170	1,250	1,261	1,065	1,044	777	586
VSP6	233	424	388	366	413	532	787	773	560	320
VSP7	400	500	539	741	773	602	491	341	230	135

Illicit Synthetic Opioids										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	8	16	71	118	367	753	669	770	1,275	1,374
VSP2	6	27	49	112	248	444	572	558	891	977
VSP3	5	3	11	15	29	113	101	118	226	262
VSP4	1	2	7	4	11	23	24	33	126	210
VSP5	11	47	43	218	535	661	570	725	936	1,040
VSP6	2	7	16	25	49	193	225	240	595	661
VSP7	6	26	51	50	266	442	456	465	645	953

Prescription Opioids										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	827	861	854	781	792	735	695	754	576	606
VSP2	1,096	859	808	768	762	593	519	467	456	405
VSP3	435	446	404	317	369	278	248	271	196	166
VSP4	1,557	1,627	1,876	1,580	1,376	1,264	1,052	1,007	813	767
VSP5	556	501	450	507	535	513	390	421	344	323
VSP6	802	788	717	646	647	732	665	499	420	406
VSP7	606	587	485	443	388	386	352	339	196	197

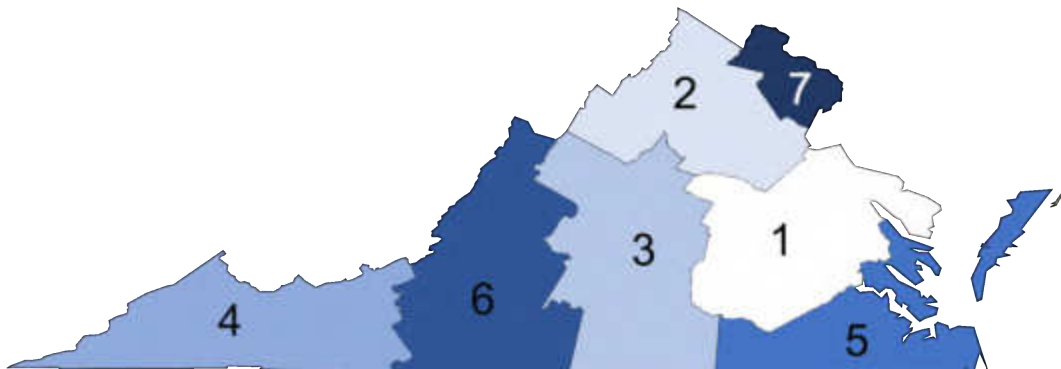


# Appendix A

## Regional Trends—Number of Submissions

Illicit Benzodiazepines										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	0	0	0	1	2	16	25	64	150	147
VSP2	0	0	0	1	5	10	33	124	244	203
VSP3	0	0	0	0	4	7	10	37	67	47
VSP4	1	0	0	1	0	4	18	36	60	82
VSP5	0	0	0	3	4	16	16	63	119	140
VSP6	0	0	0	0	0	5	6	26	54	90
VSP7	1	0	1	3	18	38	50	168	307	174

Prescription Benzodiazepines										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	322	385	339	363	405	378	346	240	202	179
VSP2	217	206	206	238	267	272	253	163	117	111
VSP3	91	109	87	80	106	118	102	88	37	49
VSP4	433	443	444	442	440	392	342	301	235	194
VSP5	239	205	229	273	364	331	245	179	141	112
VSP6	264	281	252	237	240	289	287	222	129	123
VSP7	183	180	189	340	488	393	387	190	109	75



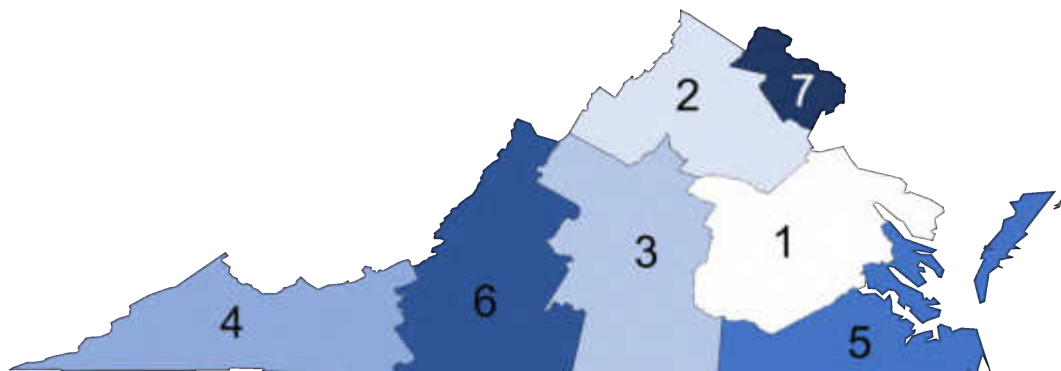
# Appendix A

## Regional Trends—Number of Submissions

Hallucinogenic Substances										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	96	78	66	93	80	90	80	73	110	78
VSP2	102	100	118	88	89	128	107	118	158	166
VSP3	42	27	40	39	55	44	63	55	65	47
VSP4	15	15	19	17	26	37	24	32	47	41
VSP5	80	68	95	70	75	86	84	95	89	90
VSP6	64	74	59	56	76	122	80	68	45	50
VSP7	266	249	261	223	310	289	290	298	268	303

Cannabimimetic Agents										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	246	238	71	80	65	36	8	11	4	11
VSP2	150	118	134	132	63	104	46	37	56	82
VSP3	42	40	31	42	10	14	14	14	13	28
VSP4	117	148	142	124	92	45	9	15	20	62
VSP5	292	347	179	57	46	36	16	19	15	5
VSP6	73	53	40	86	33	95	106	76	70	87
VSP7	126	209	187	80	58	158	130	94	60	29

Other Designer Drugs										
VSP	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
VSP1	117	176	134	138	129	205	228	117	219	182
VSP2	75	95	87	86	78	108	159	99	225	271
VSP3	29	32	27	28	27	49	39	36	37	35
VSP4	19	59	103	62	20	26	14	28	22	18
VSP5	103	127	115	135	116	133	131	105	128	92
VSP6	36	65	35	37	45	67	46	39	45	31
VSP7	232	301	190	228	215	225	265	166	183	263



# Appendix B – Ten-Year Trends, Statewide

Stimulants	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
Cocaine	8,571	7,301	6,944	7,056	7,649	9,376	9,755	9,529	7,014	6,580
Methamphetamine	1,025	1,437	1,607	2,213	3,597	5,244	7,700	9,771	9,782	9,598
<b>Prescription Stimulants</b>										
Amphetamine	584	621	681	694	799	935	830	686	553	404
Lisdexamfetamine	82	106	90	112	135	112	89	75	46	32
Methylphenidate	154	165	157	161	149	138	123	112	66	43
Other	32	26	27	23	18	29	22	20	12	20
Opioids	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
Heroin	2,685	3,874	4,482	5,115	5,439	5,249	4,646	4,432	3,193	2,157
<b>Illicit Synthetic Opioids</b>										
Fentanyl	10	83	185	429	1,189	1,709	2,355	2,823	4,645	5,332
Fentanyl Analog - p-Fluorofentanyl	0	0	0	0	1	0	0	0	24	462
Fentanyl Analog - Acetyl Fentanyl	0	0	3	42	28	12	142	276	98	65
Fentanyl Analog - FIBF	0	0	0	0	22	381	188	29	7	3
Fentanyl Analog - Furanyl Fentanyl	0	0	0	0	229	541	24	1	0	1
Fentanyl Analog - Other	0	0	0	1	12	122	85	47	26	4
Other	29	45	61	80	103	187	69	82	61	77
<b>Prescription Opioids</b>										
Buprenorphine	704	813	1,050	1,307	1,224	1,395	1,439	1,600	1,385	1,340
Codeine	117	110	75	80	97	88	66	67	48	38
Hydrocodone	1,740	1,600	1,425	1,099	983	847	598	495	325	244
Hydromorphone	419	418	392	282	296	197	164	93	52	71
Methadone	343	337	275	220	227	191	153	137	111	97
Morphine	491	445	410	325	303	261	175	155	80	72
Other	252	169	180	189	224	183	123	81	36	29
Oxycodone	2,461	2,332	2,222	1,863	1,796	1,556	1,278	1,166	766	627
Tramadol	164	166	207	225	256	249	275	307	414	591

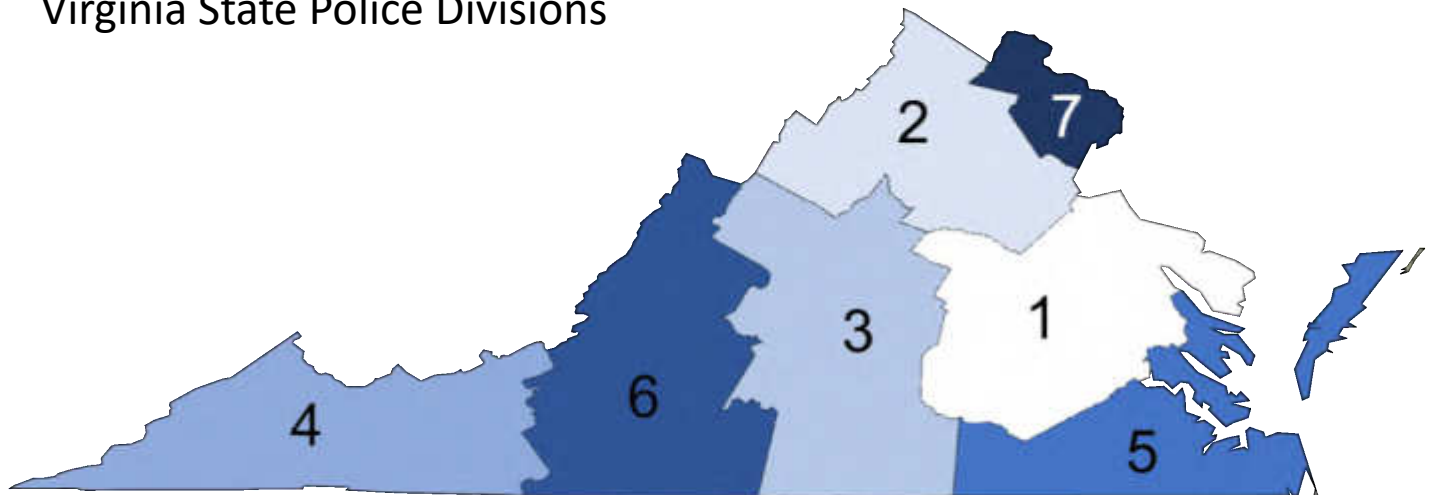
# Appendix B – Ten-Year Trends, Statewide

Benzodiazepines	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
<b>Illicit Benzodiazepines</b>										
Clonazepam	0	0	0	0	5	8	55	50	221	400
Etizolam	0	0	1	7	27	61	79	354	544	375
Flualprazolam	0	0	0	0	0	0	7	111	265	81
Other	2	0	0	2	1	31	17	25	29	82
<b>Prescription Benzodiazepines</b>										
Alprazolam (Xanax)	1,093	1,142	1,140	1,338	1,730	1,548	1,425	932	626	534
Clonazepam (Klonopin)	433	502	469	493	472	478	422	362	284	249
Diazepam (Valium)	281	233	204	222	200	190	168	146	99	82
Lorazepam (Ativan)	121	99	112	104	101	115	95	88	37	47
Other	35	31	22	21	18	21	12	12	11	7
<b>Hallucinogenic Substances</b>										
Benzylpiperazine (BZP)	126	44	25	17	13	2	0	1	0	0
Ketamine & analogs	43	59	46	58	54	64	57	66	74	62
LSD & analogs	44	55	104	142	263	358	260	239	270	226
Other	111	166	168	115	98	51	105	95	60	73
PCP & analogs	175	188	186	148	187	181	185	194	217	192
Psilocyn-Psilocybin (mushrooms)	110	109	130	124	135	179	173	199	188	288
Tryptamines	134	53	62	45	39	39	45	60	38	36
<b>Cannabimimetic Agents</b>										
Alkoylindoles	169	444	387	198	33	9	9	6	8	0
Benzoylindoles	11	5	2	2	0	0	0	0	0	1
Indazole carboxamides	3	56	260	390	257	470	321	132	143	296
Indole carboxamides	0	9	0	1	0	0	3	165	106	4
Indole carboxylates	0	107	108	44	45	1	1	0	0	0
Naphthoylindoles	396	42	18	8	2	6	0	0	0	0
Other or unclear	537	603	172	48	61	13	6	9	6	5
Phenylacetylindoles	26	4	3	2	1	0	0	0	0	0
<b>Other Designer Drugs</b>										
<b>Substituted Amphetamines</b>										
MDMA (Ecstasy)	94	173	140	133	173	201	170	204	102	77
Other	24	22	30	22	45	82	36	56	23	15
<b>Synthetic Cathinones</b>										
Alpha-PVP	55	100	132	77	17	3	1	0	0	1
Dibutylone	0	0	3	2	224	167	44	2	0	0
Ethylone	0	0	220	467	57	13	7	3	0	0
Eutylone	0	0	0	0	0	0	3	239	708	772
MDPV	166	44	15	4	3	1	0	2	0	0
Methylone	281	528	175	14	15	3	2	1	0	0
N-ethylpentylone	0	0	0	0	83	354	627	66	8	2
Other	82	83	27	29	59	37	20	55	51	52



# Appendix C – Virginia Regions

## Virginia State Police Divisions



<u>Division 1</u>	<u>Division 2</u>	<u>Division 3</u>	<u>Division 4</u>	<u>Division 5</u>	<u>Division 6</u>	<u>Division 7</u>
Amelia County	Clarke County	Albemarle County	Bland County	Accomack County	Alleghany County	Arlington County
Caroline County	Culpeper County	Amherst County	Buchanan County	Brunswick County	Bath County	Fairfax County
Charles City County	Fauquier County	Appomattox County	Carroll County	Gloucester County	Bedford County	Loudoun County
Chesterfield County	Frederick County	Augusta County	Dickenson County	Greensville County	Botetourt County	Prince William County
Dinwiddie County	Madison County	Buckingham County	Giles County	Isle of Wight County	Craig County	Alexandria City
Essex County	Orange County	Campbell County	Grayson County	James City County	Floyd County	Fairfax City
Goochland County	Page County	Charlotte County	Lee County	Mathews County	Franklin County	Falls Church City
Hanover County	Rappahannock County	Cumberland County	Pulaski County	Middlesex County	Henry County	Manassas City
Henrico County	Rockingham County	Fluvanna County	Russell County	Northampton County	Highland County	Manassas Park City
King and Queen County	Shenandoah County	Greene County	Scott County	Southampton County	Montgomery County	
King George County	Spotsylvania County	Halifax County	Smyth County	Surry County	Patrick County	
King William County	Stafford County	Lunenburg County	Tazewell County	Sussex County	Pittsylvania County	
Lancaster County	Warren County	Mecklenburg County	Washington County	York County	Roanoke County	
Louisa County	Fredericksburg City	Nelson County	Wise County	Chesapeake City	Rockbridge County	
New Kent County	Harrisonburg City	Prince Edward County	Wythe County	Emporia City	Bedford City	
Northumberland County	Winchester City	Charlottesville City	Bristol City	Franklin City	Buena Vista City	
Nottoway County		Lynchburg City	Galax City	Hampton City	Danville City	
Powhatan County		Staunton City	Norton City	Newport News City	Lexington City	
Prince George County		Waynesboro City		Norfolk City	Martinsville City	
Richmond County				Poquoson City	Radford City	
Westmoreland County				Portsmouth City	Roanoke City	
Colonial Heights City				Suffolk City	Salem City	
Hopewell City				Virginia Beach City		
Petersburg City				Williamsburg City		
Richmond City						

## Appendix C – Virginia Regions

# Virginia Court Districts



District	Locality	District	Locality	District	Locality	District	Locality	District	Locality
1st	Chesapeake City	10th	Appomattox County	16th	Albemarle County	24th	Amherst County	27th	Bland County
2A	Accomack County		Buckingham County		Charlottesville City		Bedford City		Carroll County
	Northampton County		Charlotte County		Culpeper County		Bedford County		Floyd County
2nd	Virginia Beach City		Cumberland County		Fluvanna County		Campbell County		Galax City
3rd	Portsmouth City		Halifax County		Goochland County		Lynchburg City		Giles County
4th	Norfolk City		Lunenburg County		Greene County		Nelson County		Grayson County
5th	Franklin City		Mecklenburg County		Louisa County	25th	Alleghany County		Montgomery County
	Isle of Wight County		Prince Edward County		Madison County		Augusta County		Pulaski County
	Southampton County	11th	Amelia County		Orange County		Bath County		Radford City
	Suffolk City		Dinwiddie County	17th	Arlington County		Botetourt County		Wythe County
6th	Brunswick County		Nottoway County		Falls Church City		Buena Vista City	28th	Bristol City
	Emporia City		Petersburg City	18th	Alexandria City		Clifton Forge		Smyth County
	Greensville County		Powhatan County	19th	Fairfax City		Covington City		Washington County
	Hopewell City	12th	Chesterfield County		Fairfax County		Craig County	29th	Buchanan County
	Prince George County		Colonial Heights City	20th	Fauquier County		Highland County		Dickenson County
	Surry County	13th	Richmond City		Loudoun County		Lexington City		Russell County
	Sussex County	14th	Henrico County		Rappahannock County		Rockbridge County		Tazewell County
7th	Newport News City	15th	Caroline County	21st	Henry County		Staunton City	30th	Lee County
8th	Hampton City		Essex County		Martinsville City		Waynesboro City		Norton City
9th	Charles City County		Fredericksburg City		Patrick County	26th	Clarke County		Scott County
	Gloucester County		Hanover County	22nd	Danville City		Frederick County		Wise County
	James City County		King George County		Franklin County		Harrisonburg City	31st	Manassas City
	King and Queen County		Lancaster County		Pittsylvania County		Page County		Manassas Park City
	King William County		Northumberland County	23rd	Roanoke City		Rockingham County		Prince William County
	Mathews County		Richmond County		Roanoke County		Shenandoah County		
	Middlesex County		Spotsylvania County		Salem City		Warren County		
	New Kent County		Stafford County				Winchester City		
	Poquoson City		Westmoreland County						
	Williamsburg City								
	York County								