

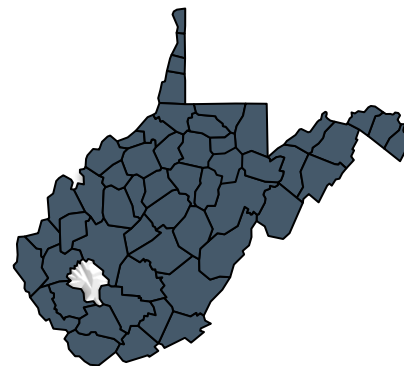
West Virginia Board of Pharmacy Prescription Opioid Indicators Report

A look at West Virginia Counties



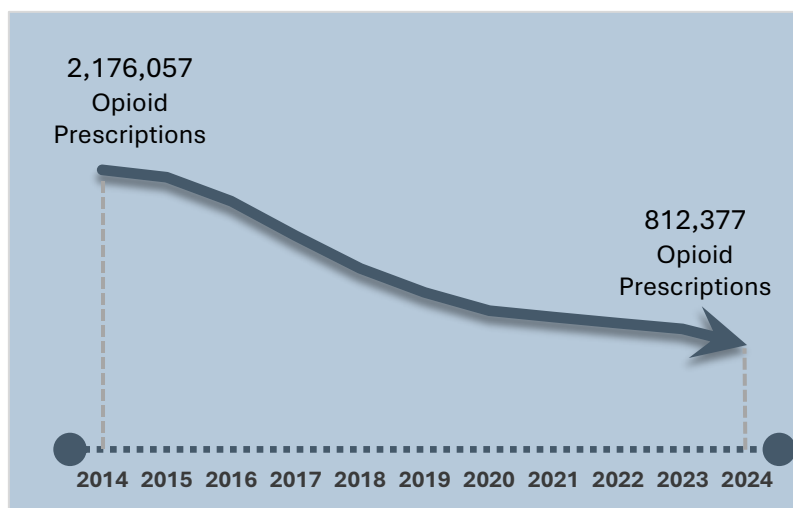
March 2025

Boone County 2024



Within the West Virginia Department of Health (DH) Bureau for Public Health, the West Virginia Violence and Injury Prevention Program (WV VIPP), in collaboration with the West Virginia Board of Pharmacy, under the direction of the Centers for Disease Control and Prevention (CDC), continues to address prescription drug misuse, diversion, and overdose within the state of West Virginia. Prescription drug overdose continues to be a major issue in West Virginia. Preliminary data from DH's Health Statistics Center shows that in 2023, more than 1,300 people died in association with drug misuse (including prescription and illicit drugs) with a rate of 81.9 per 100,000 population. This is over two and a half times the national average. To help combat this epidemic, CDC provided specific opioid prescribing indicators to identify high-risk areas within the state to allow for intervention and community education.

**Please note that this report shows the trends from 2018. To view trends from 2014, please check out the previous county profile reports [here](#).*



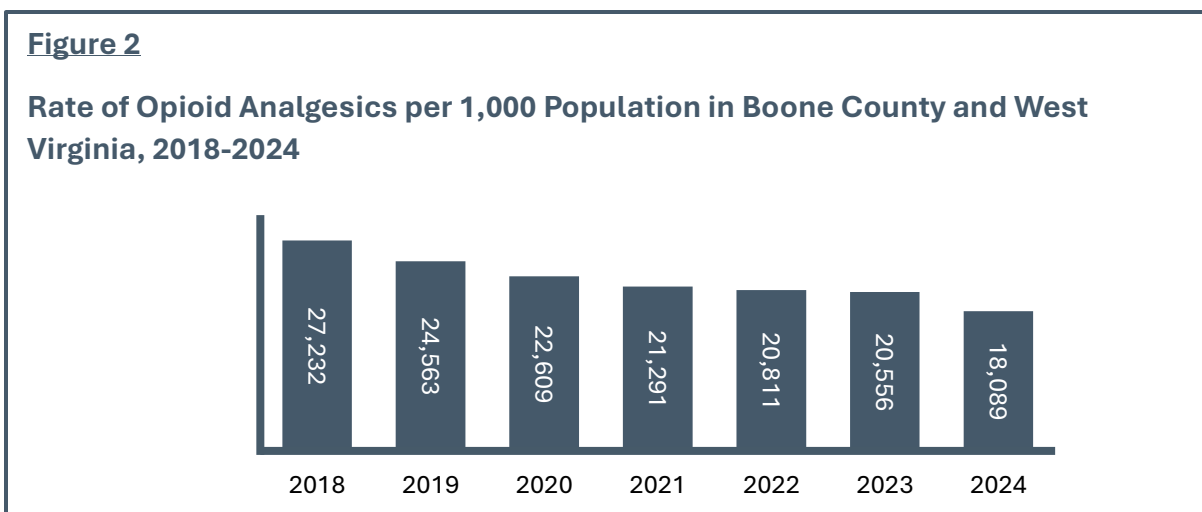
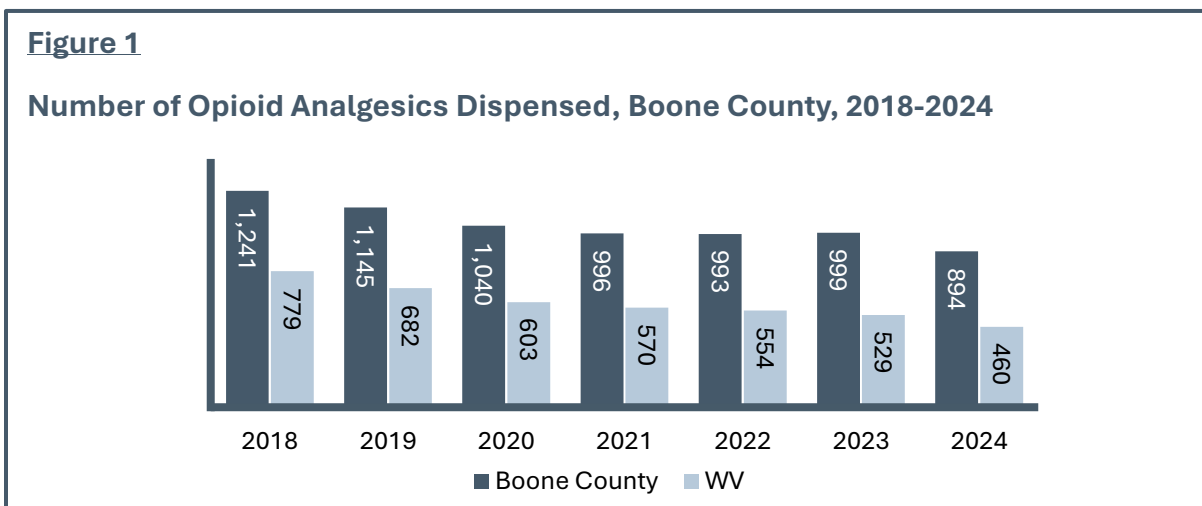
Since 2014, there has been a **63% decrease** in the number of opioids dispensed in West Virginia.

Nearly **10 million** fewer opioid doses were dispensed in 2024 than in 2023.

Source: West Virginia Controlled Substance Monitoring Program

Indicator 1: Number and rate of opioid analgesics per 1,000 state residents

This indicator includes all opioid prescriptions that are classified as Schedule II, III, IV, or V. The figures below show the total number of opioid prescriptions for Boone County and the rate per 1,000 population compared to the state. Population estimates were obtained from US Census data.



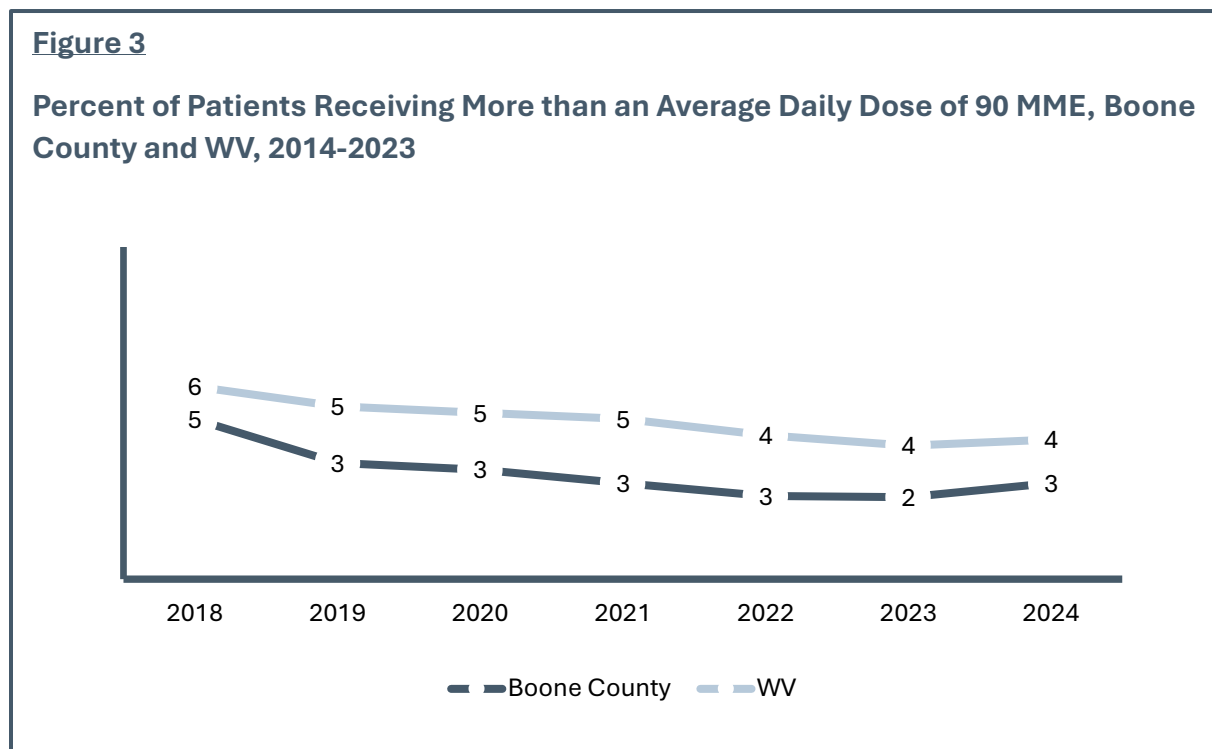
What does this mean?

This indicator is important because it provides information about prescription opioid use for each county. This data will help determine areas where high prescribing/dispensing are occurring around the state and allow for education on responsible opioid prescribing. High rates of opioid dispensing mean there are large quantities of opioids that are out in the community. There was an overall decrease in both the rate and number of opioids being prescribed in Boone County and in West Virginia from 2018-2024.

Indicator 2: Percent of patients receiving more than an average daily dose of 90 morphine milligram equivalents (MME)

This indicator shows the total average daily dose of MMEs that a patient is taking. It includes all opioid prescriptions that are classified as Schedule II, III, IV, or V. MMEs are used as a measure to describe the potency of an opioid. Calculating MMEs is important to determine which patients may be at risk for an overdose. The figure below shows the percentage of patients with greater than an average daily dose of 90 MMEs in Boone County compared to the state during 2014-2023.

**Note that the MME conversion factors for fentanyl, hydromorphone, methadone, and tramadol were updated in the 2022 Opioid Prescribing Guidelines in November 2022.*

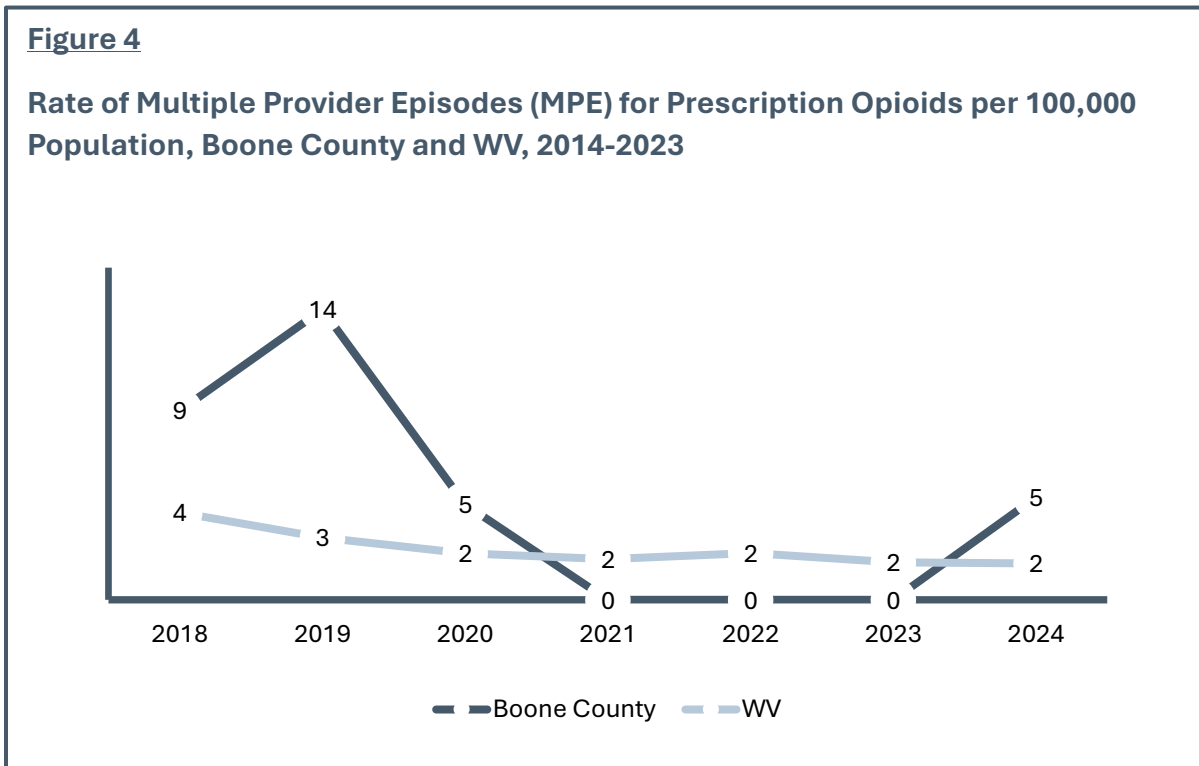


What does this mean?

This indicator is important because it provides information for prescribers about how much morphine equivalent drug the patient is receiving. MMEs help determine the amount of morphine an opioid dose is equal to when prescribed, often used as a gauge of the misuse and overdose potential of the amount of opioid that is being given at a particular time. It is also a useful tool to identify high-burden areas in the state, which is important for public health surveillance at the county level. From 2018-2024, Boone County's percentage of patients receiving more than an average daily dose of 90 MMEs was lower than the state average and has decreased over this time. However, the percentage increased in 2024.

Indicator 3: Rate of multiple provider episodes for prescription opioids (five or more prescribers and five or more pharmacies in a six month period) per 100,000 residents

This indicator shows the rate of patients who went to five or more prescribers and five or more pharmacies within a six month period, or multiple provider episode (MPE). The rate is calculated per 100,000 population. It includes all opioid prescriptions that are classified as Schedule II, III, IV, or V.

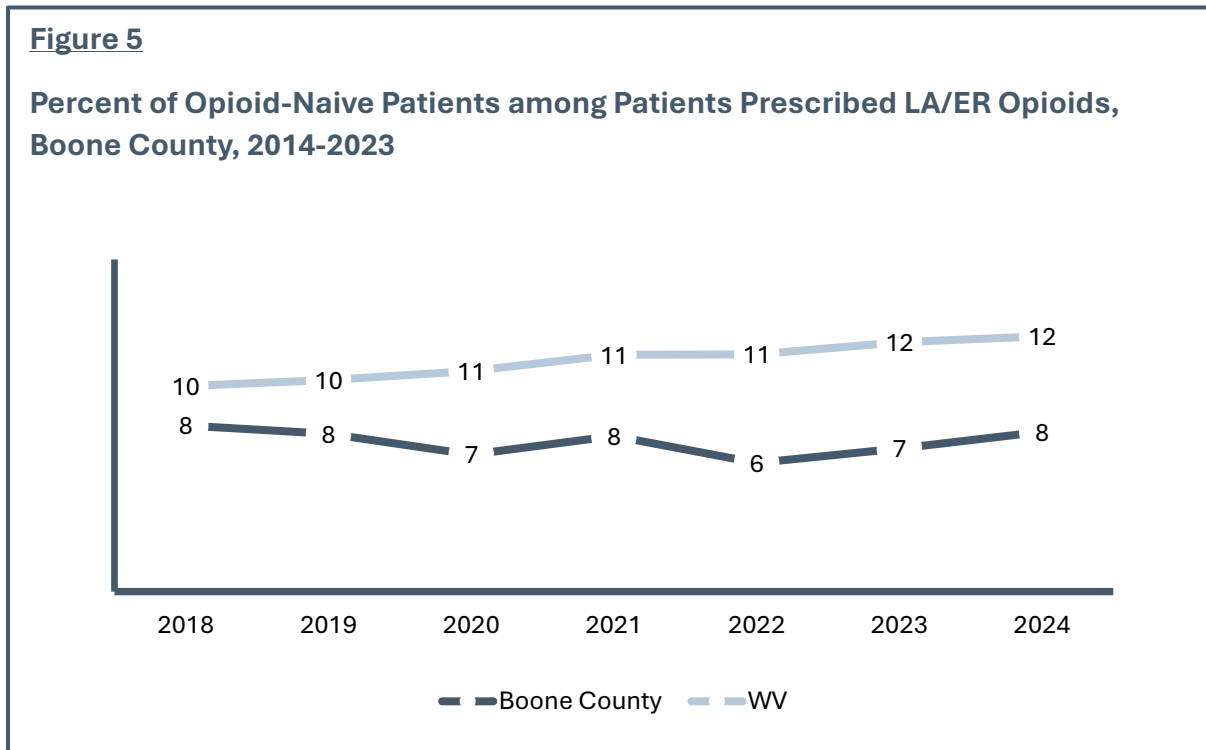


What does this mean?

This indicator is important because it provides valuable information on prescription filling behaviors. Patients who receive prescriptions from more than five doctors and who fill at more than five pharmacies are at greater risk of drug overdose. This indicator helps determine patients who may have drug-seeking habits (i.e., “doctor shopping”). From 2018-2024, West Virginia and Boone County have had a considerable decrease in the rate of patients who qualified as having an MPE. Boone County had a higher rate than the state in 2024.

Indicator 4: Percent of patients prescribed long-acting/extended-release opioids who were opioid-naïve

This indicator represents the percentage of patients with no prescribed opioid prescriptions in the previous 45 days who were prescribed at least one long acting/extended release (LA/ER) opioid, among all patients with LA/ER opioid prescriptions. It includes all opioid prescriptions that are classified as Schedule II, III, IV, or V.



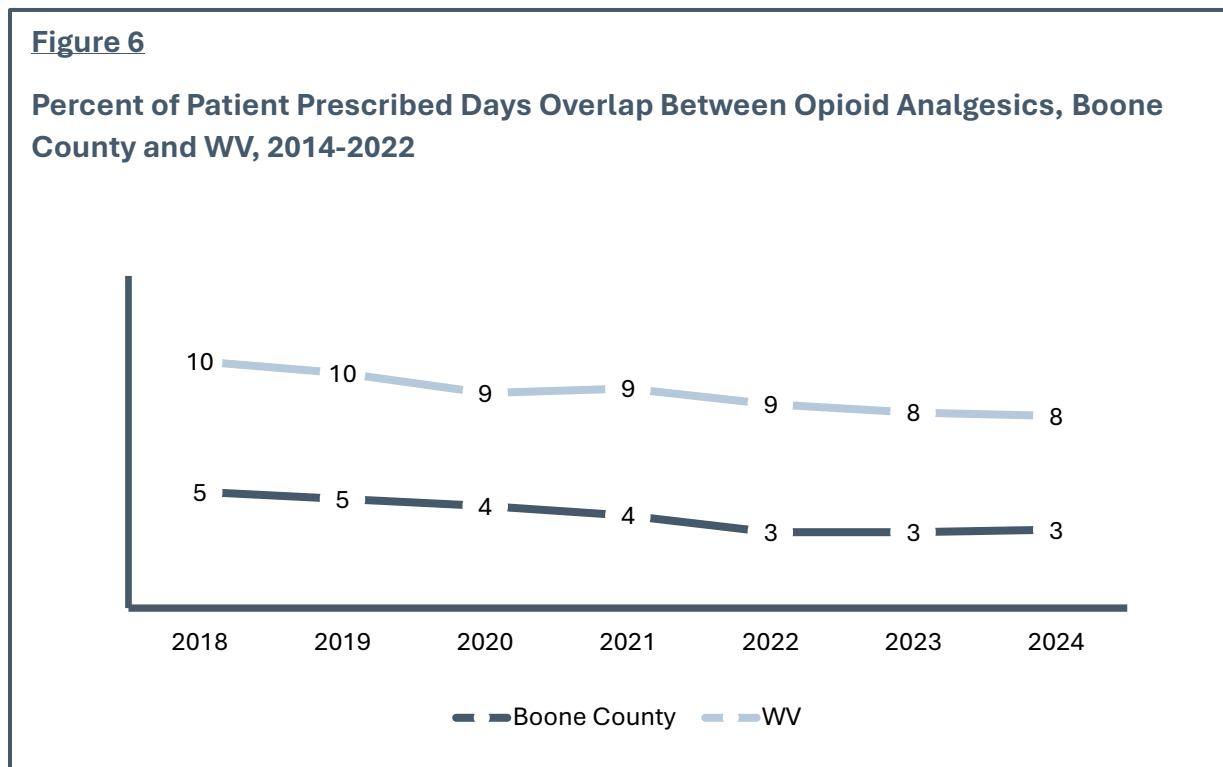
**Note that data for 2018 and 2019 may differ from previous reports as buprenorphine was excluded.*

What does this mean?

This indicator is important to understand because it provides information about individuals who are not accustomed to opioid medications, which may potentially increase the risk of opioid dependence, misuse, or overdose. CDC opioid prescribing guidelines recommend using immediate release (IR) opioids before taking long acting or extended-release opioids. From 2018-2024, Boone County had an overall decrease in patients who were opioid-naïve and prescribed LA/ER opioids while the state has seen a continual increase. Boone County saw an increase over that past three years.

Indicator 5: Percent of patient prescription days with overlapping opioid prescriptions

This indicator shows the percentage of days in which more than one prescribed opioid prescription during the same period was dispensed, among all prescription days. It includes all opioid prescriptions that are classified as Schedule II, III, IV, or V.

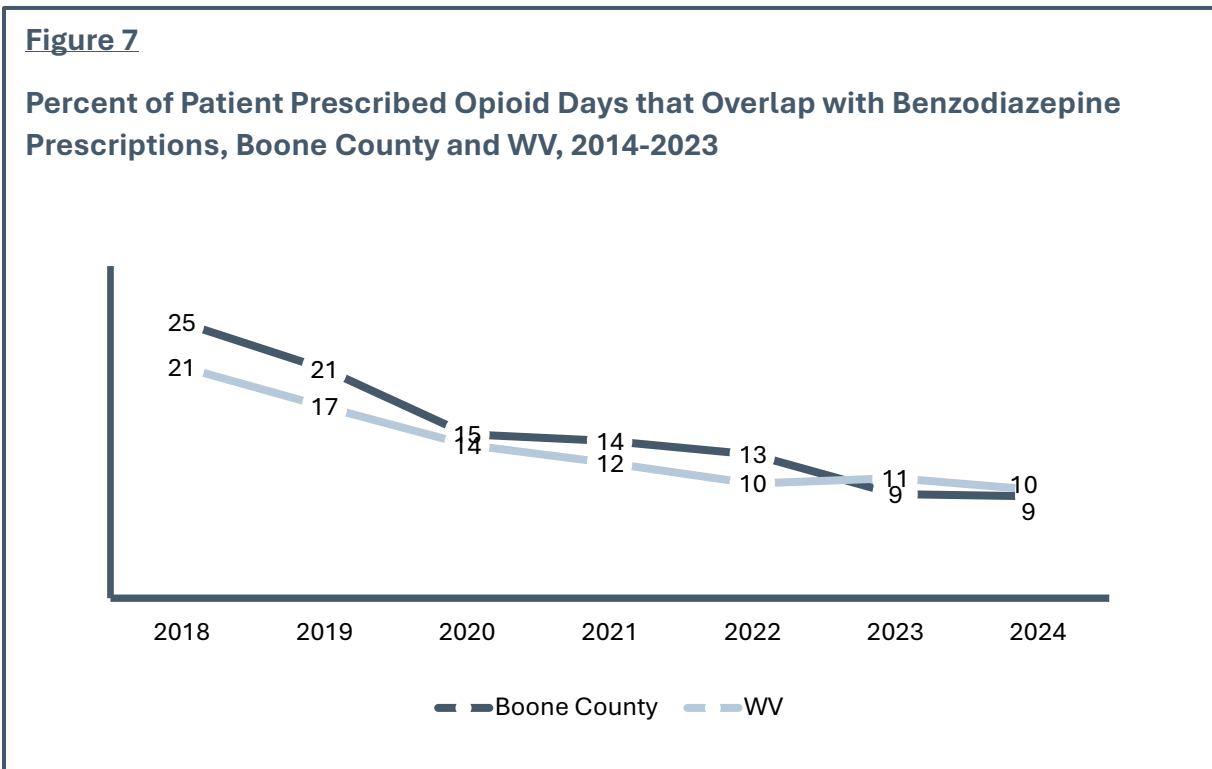


What does this mean?

This indicator represents patients who may potentially be using their opioid prescriptions not as prescribed or may show areas where drug diversion is occurring. Using multiple opioid prescriptions during the same period increases the risk for drug dependency and overdose. It is important to understand this because a considerable number of drug overdose deaths include more than one opioid. From 2018-2024, Boone County had a lower percentage of prescription overlap compared to the state average and saw a decrease during this time.

Indicator 6: Percent of patient prescription days with overlapping opioid and benzodiazepine prescriptions

This indicator represents the percentage of patients who had an opioid and a benzodiazepine (i.e., Alprazolam, Lorazepam, Diazepam) prescription on the same day among all opioid prescription days. It includes all opioid prescriptions that are classified as Schedule II, III, IV, or V and benzodiazepines.



What does this mean?

This indicator is important because it shows areas in the state where patients are using both opioids and benzodiazepine drugs at the same time. Taking an opioid with a benzodiazepine increases the risk for drug overdose and death, as both classes of medication depress the central nervous system. From 2018-2024, Boone County had a similar percentage of days where there was an overlapping opioid and benzodiazepine prescription than the state average. Additionally, there has been a steady decrease at both the county and state level since 2018.

County Rankings by Indicator

Patient County	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Barbour	22	14	14	40	15	18
Berkeley	45	8	11	47	3	41
Boone	1	49	3	16	53	6
Braxton	25	22	14	33	19	21
Brooke	46	25	4	36	8	30
Cabell	14	43	14	8	33	4
Calhoun	35	48	14	14	47	20
Clay	5	29	1	21	28	49
Doddridge	54	5	14	12	9	52
Fayette	17	35	14	16	29	44
Gilmer	53	19	14	52	29	47
Grant	12	38	14	55	11	12
Greenbrier	13	13	14	27	27	38
Hampshire	42	7	14	16	2	46
Hancock	38	27	14	10	5	53
Hardy	50	34	14	53	14	49
Harrison	11	26	14	30	23	21
Jackson	24	55	7	4	47	33
Jefferson	47	4	14	40	4	34
Kanawha	16	54	10	16	36	19
Lewis	18	36	14	45	12	34
Lincoln	3	41	14	23	35	6
Logan	2	50	9	15	52	2
Marion	32	33	2	36	39	21
Marshall	23	21	14	40	24	25
Mason	20	51	14	28	41	6
Mcdowell	15	3	14	48	34	27
Mercer	30	20	8	11	20	21
Mineral	31	23	6	33	6	38
Mingo	6	42	14	36	54	1
Monongalia	55	11	13	24	17	28
Monroe	52	17	14	2	41	28
Morgan	33	1	14	31	1	34
Nicholas	9	37	5	4	37	14
Ohio	44	12	14	40	13	16
Pendleton	40	6	14	29	7	9
Pleasants	48	28	14	21	51	14
Pocahontas	39	2	14	1	45	37
Preston	43	9	14	31	10	44
Putnam	34	52	14	7	29	30
Raleigh	28	30	12	40	37	16
Randolph	21	10	14	33	49	51
Ritchie	19	44	14	45	55	42
Roane	26	53	14	54	29	54
Summers	7	15	14	48	22	5
Taylor	27	46	14	50	24	40
Tucker	36	18	14	16	21	47
Tyler	41	31	14	12	49	32
Upshur	49	32	14	51	15	55
Wayne	51	39	14	6	41	10
Webster	4	24	14	26	18	25
Wetzel	29	47	14	3	41	13
Wirt	10	45	14	8	24	43
Wood	37	40	14	24	39	11
Wyoming	8	16	14	36	45	3

Percentage of Boone County residents with a controlled substance prescription

32.6%

Percentage of West Virginia residents with a controlled substance prescription

21.7%

Percentage of Boone County residents with an opioid prescription

20.2%

Percentage of West Virginia residents with an opioid prescription

13.0%

Percentage of Boone County residents with a benzodiazepine prescription

8.2%

Percentage of West Virginia residents with a benzodiazepine prescription

5.9%

*Each county is ranked from 1 to 55, where a rank of 1 is assigned to the county with the highest (worst) rate or percentage and a 55 to the county with the lowest (best) rate or percentage. Counties with a ".5" in the rank had an equivalent rank as another county and the average rank was returned.

To access the individual 2024 County Profile Reports, please follow the link below:

<https://dhhr.wv.gov/vip/county-reports/Pages/default.aspx>

Also, check out the interactive county profile dashboard [here](#).

Contact Information:

Nathan Wood, CSMP Epidemiologist

Phone: (304) 414-0789

Email: Nathan.G.Wood@wv.gov

Justin Lee, CSMP Epidemiologist

Phone: (304) 414-0537

Email: Justin.A.Lee@wv.gov

Mike Goff, Board of Pharmacy Executive Director

Phone: (304) 558-8411

Email: Michael.L.Goff@wv.gov

