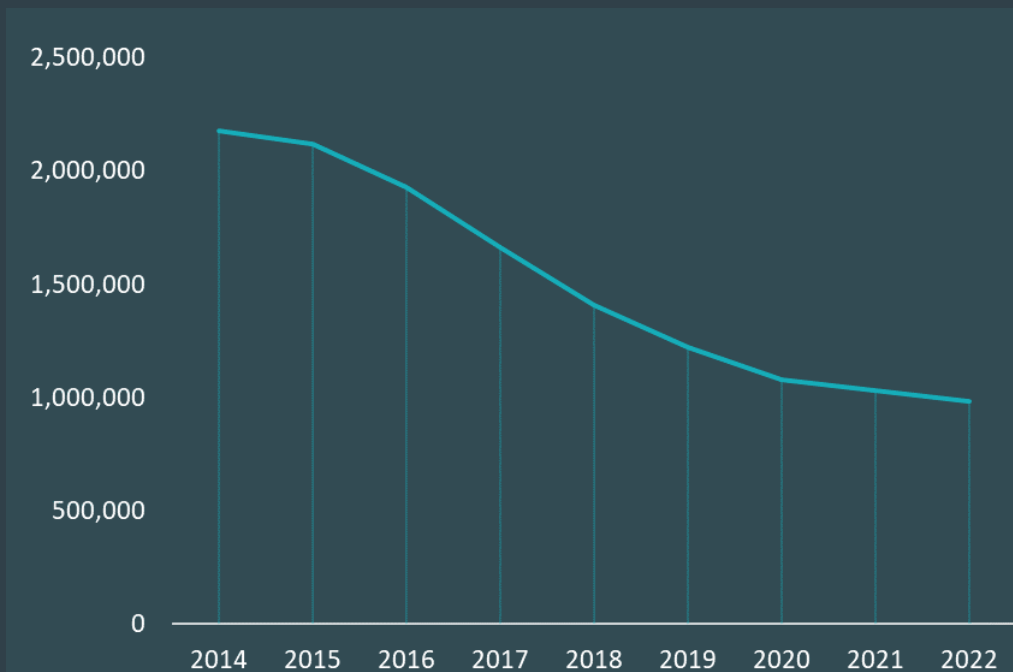


West Virginia Board of Pharmacy Prescription Opioid Indicators Report



Boone County – 2022

Within the West Virginia Department of Health and Human Resources' (DHHR) 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 work 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 DHHR's Health Statistics Center shows that in 2021, more than 1,530 people died in association with drug misuse (including prescription and illicit drugs) with a rate of 90.9 per 100,000 population. This is over two and a half times the national average. To help combat this epidemic, CDC provided specific indicators to identify high-risk areas within the state to allow for intervention and community education.



Since 2014, there has been a **55% decrease** in opioid prescriptions in West Virginia.

More than **3 million** fewer doses were dispensed in 2022 than in 2021.

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 U.S. Census data.

Figure 1

Number of Opioid Analgesics Dispensed, Boone County, 2014-2022

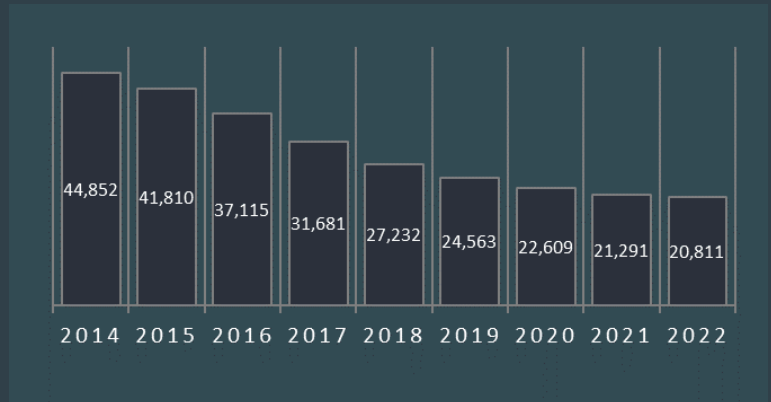
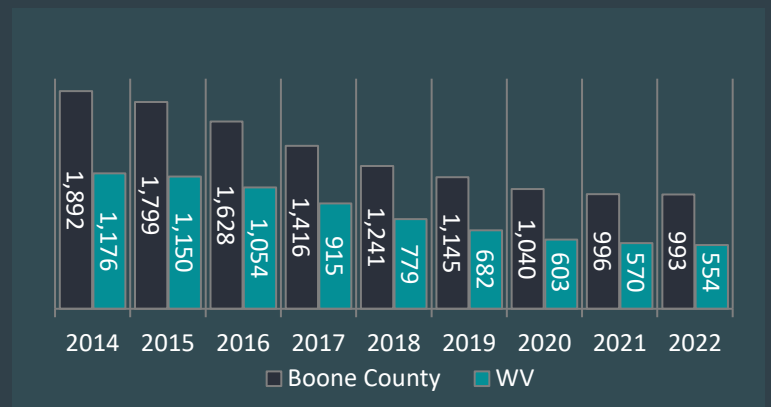


Figure 2

Rate of Opioid Analgesics per 1,000 Population in Boone County and West Virginia, 2014-2022



Source: West Virginia Controlled Substance Monitoring program

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. Positively, there was an overall decrease in both the rate and number of opioids being prescribed in Boone County and in West Virginia from 2014-2022.

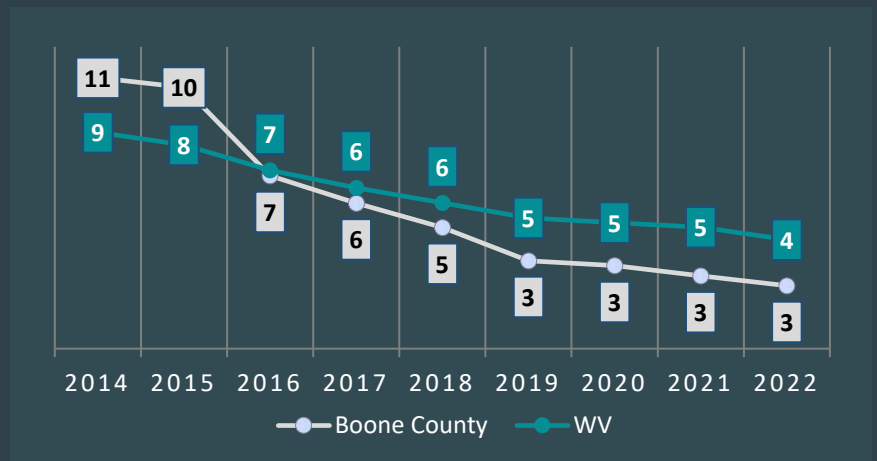
Indicator 2:

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 2014-2022.

Figure 3

Percent of Patients Receiving More than an Average Daily Dose of 90 MME, Boone County and WV, 2014-2022



Source: West Virginia Controlled Substance Monitoring program

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 2014-2022, Boone County's percentage of patients receiving more than an average daily dose of 90 MMEs is slightly lower than the state average and has decreased over this time.

Indicator 3:

Rate of multiple provider episodes for prescription opioids (5 or more prescribers and 5 or more pharmacies in a 6-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.

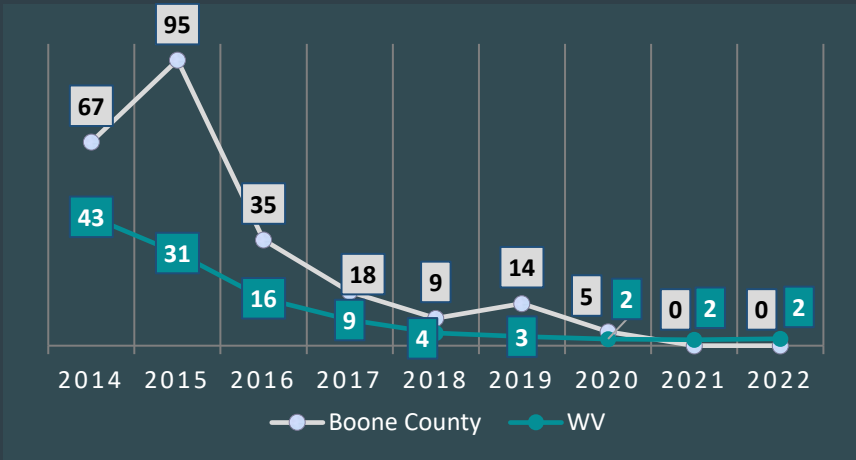


Figure 4
Rate of Multiple Provider Episodes (MPE) for Prescription Opioids per 100,000 Population, Boone County and WV, 2014-2022

Source: West Virginia Controlled Substance Monitoring program

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 2014-2022, West Virginia and Boone County have had a considerable decrease in the rate of patients who qualified as having an MPE.

Indicator 4:

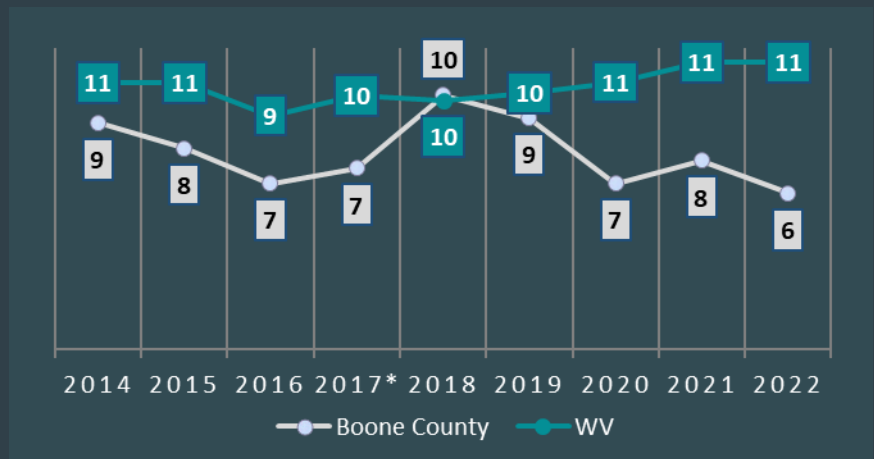
Percent of patients prescribed long-acting/extended-release opioids who were opioid-naïve

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 CDC changed the definition of “opioid-naïve” from 60 days to 45 days in 2017.

Figure 5

Percent of Opioid-Naive Patients among Patients Prescribed LA/ER Opioids, Boone County and WV, 2014-2022



Source: West Virginia Controlled Substance Monitoring program

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 2014-2022, Boone County has had an overall decrease in patients who were opioid-naïve and prescribed LA/ER opioids despite the increase during 2017 and 2018.

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 were dispensed, among all prescription days. It includes all opioid prescriptions that are classified as Schedule II, III, IV, or V.

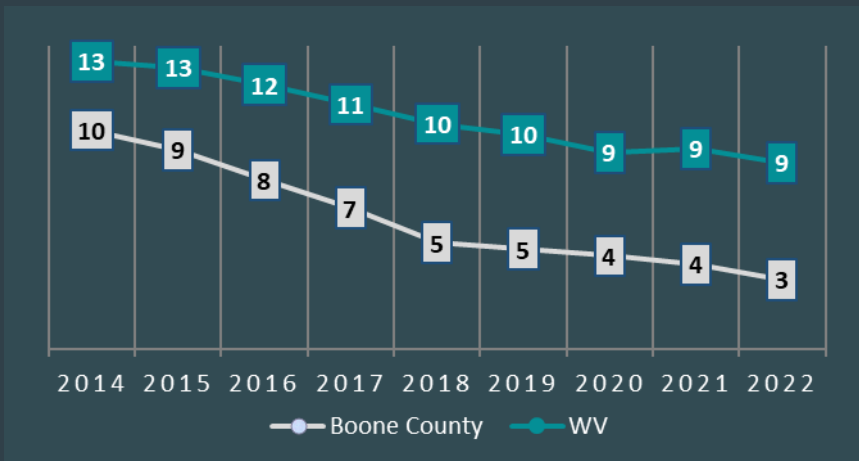


Figure 6

Percent of Patient Prescribed Days Overlap Between Opioid Analgesics, Boone County and WV, 2014-2022

Source: West Virginia Controlled Substance Monitoring program

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 2014-2022, Boone County had a lower percentage of prescription overlap compared to the state average. Additionally, there has been a steady decrease at both the county and state level since 2014.

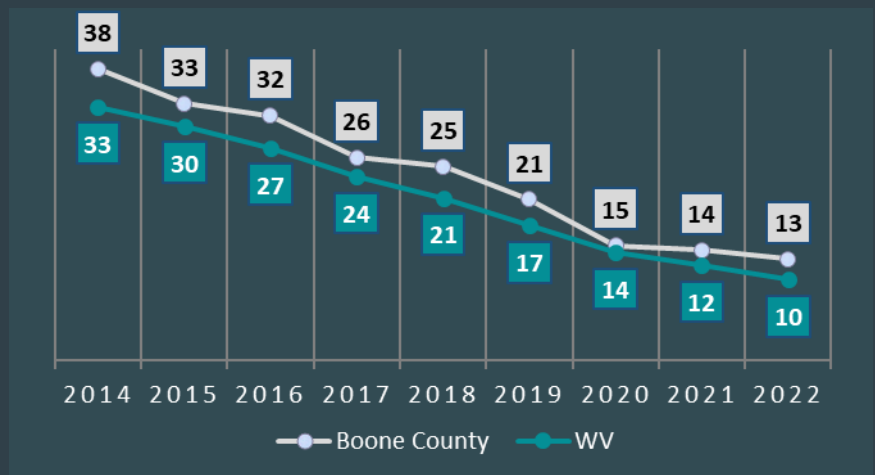
Indicator 6:

Percent of patient prescription days with overlapping opioid and benzodiazepine prescriptions

This indicator represents the percentage of patients who have 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.

Figure 7

Percent of Patient Prescribed Opioid Days that Overlap with Benzodiazepine Prescriptions, Boone County and WV, 2014-2022



Source: West Virginia Controlled Substance Monitoring program

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 2014-2022, Boone County had a higher 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 2014.

County Rankings by Indicator

*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.

Patient County	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6
BARBOUR	26	24	18	42	28	23
BERKELEY	44	4	18	44	2	35
BOONE	1	53	18	51	54	3
BRAXTON	38	17	18	48	12	34
BROOKE	30	28	18	45	6	31
CABELL	11	47	18	7	31	10
CALHOUN	28	45	18	11	28	23
CLAY	5	23	2	8	20	44
DODDRIDGE	54	8	18	27	17	38
FAYETTE	14	39	13	17	44	42
GILMER	49	10	18	1	10	49
GRANT	19	49	5	25	10	21
GREENBRIER	10	12	18	43	30	15
HAMPSHIRE	37	9	18	37	3	38
HANCOCK	15	22	18	39	3	51
HARDY	50	42	17	28	15	40
HARRISON	12	21	10	37	23	17
JACKSON	40	55	7	33	31	19
JEFFERSON	46	2	9	33	5	51
KANAWHA	17	54	14	22	44	27
LEWIS	31	26	18	52	13	45
LINCOLN	4	31	18	39	31	4
LOGAN	2	44	18	12	49	2
MARION	32	36	18	16	38	29
MARSHALL	20	18	15	9	23	31
MASON	29	52	18	5	51	5
MCDOWELL	18	7	18	50	19	26
MERCER	34	19	16	31	21	23
MINERAL	39	27	18	31	7	22
MINGO	13	40	18	6	53	1
MONONGALIA	55	15	11	28	23	31
MONROE	53	25	18	28	36	19
MORGAN	24	1	18	22	1	27
NICHOLAS	6	30	18	45	22	11
OHIO	41	13	18	25	16	14
PENDLETON	21	3	18	19	9	5
PLEASANTS	48	34	1	3	47	51
POCAHONTAS	27	6	18	55	38	42
PRESTON	45	5	6	35	14	46
PUTNAM	33	51	18	47	38	13
RALEIGH	35	37	12	39	43	15
RANDOLPH	25	11	7	24	46	50
RITCHIE	16	43	3	18	55	47
ROANE	22	48	18	13	26	37
SUMMERS	7	29	18	13	27	5
TAYLOR	36	33	18	53	35	12
TUCKER	42	32	18	15	48	54
TYLER	47	46	18	2	41	35
UPSHUR	52	16	18	19	18	55
WAYNE	51	35	18	4	36	9
WEBSTER	3	14	3	54	8	40
WETZEL	23	50	18	48	51	17
WIRT	8	41	18	9	31	47
WOOD	43	38	17	19	41	29
WYOMING	9	20	18	35	50	8

Percent of Boone County residents with a controlled substance prescription

31%

Percent of West Virginia residents with a controlled substance prescription

22.3%

Percent of Boone County residents with an opioid prescription

21%

Percent of West Virginia residents with an opioid prescription

14.1%

Percent of Boone County residents with a benzodiazepine prescription

7.9%

Percent of West Virginia residents with a benzodiazepine prescription

6%

To access the individual 2022 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:

Mike Goff, Board of Pharmacy Executive Director

Phone: (304) 558-8411

Email: Michael.L.Goff@wv.gov

Brandon Williams, CSMP Epidemiologist

Phone: (304) 414-0633

Email: Brandon.K.Williams@wv.gov

Nathan Wood, CSMP Epidemiologist

Phone: (304) 414-0789

Email: Nathan.G.Wood@wv.gov

