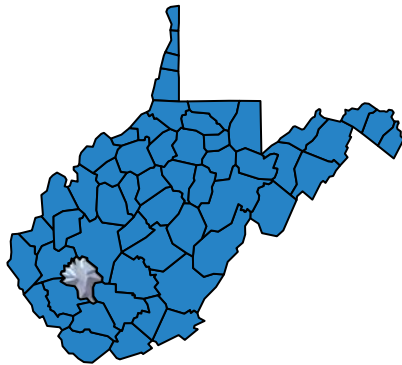


West Virginia Board of Pharmacy Prescription Opioid Indicators Report Boone County – 2021

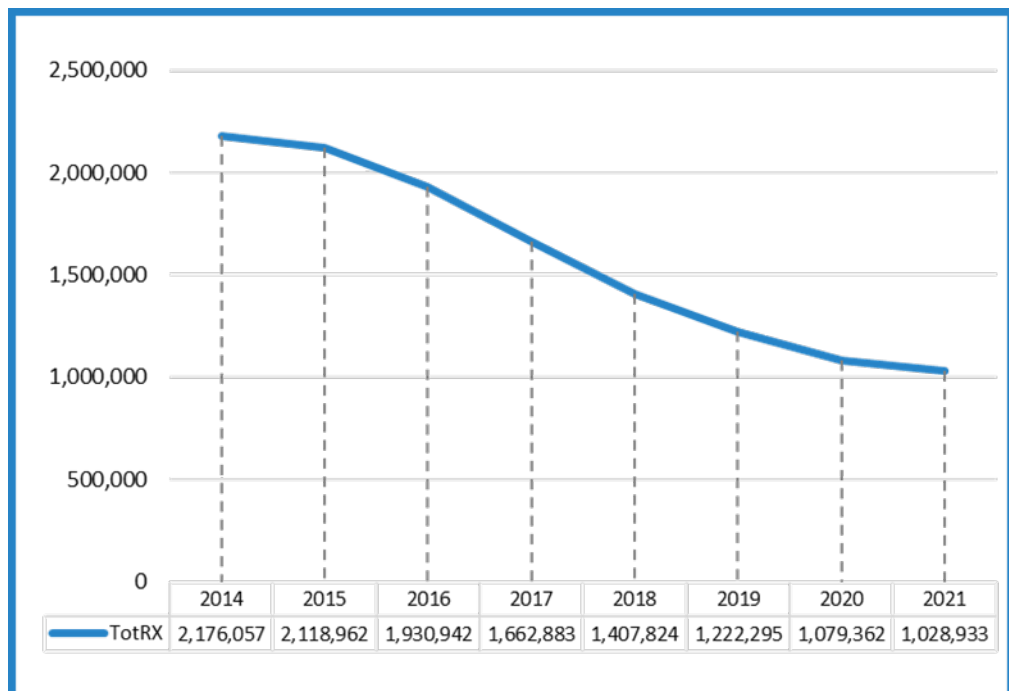


Within the West Virginia Department of Health and Human Resources' (DHHR) Bureau for Public Health, the West Virginia Violence and Injury Prevention Program (WV VIPP), in collaboration with the West Virginia Board of Pharmacy, under the direction of the Centers for Disease Control and Prevention (CDC), 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 West

Virginia Health Statistics Center shows that in 2020, more than 1,330 people died in association with drug misuse (including prescription and illicit drugs) with a rate of 82.01 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 **53% decrease** in opioid prescriptions in West Virginia.

Over **4 million** fewer doses were given in 2021 than in 2020.



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. Census data was used to obtain demographic information and population size.

Figure 1
Number of Opioid Analgesics Dispensed, Boone County, 2014-2021

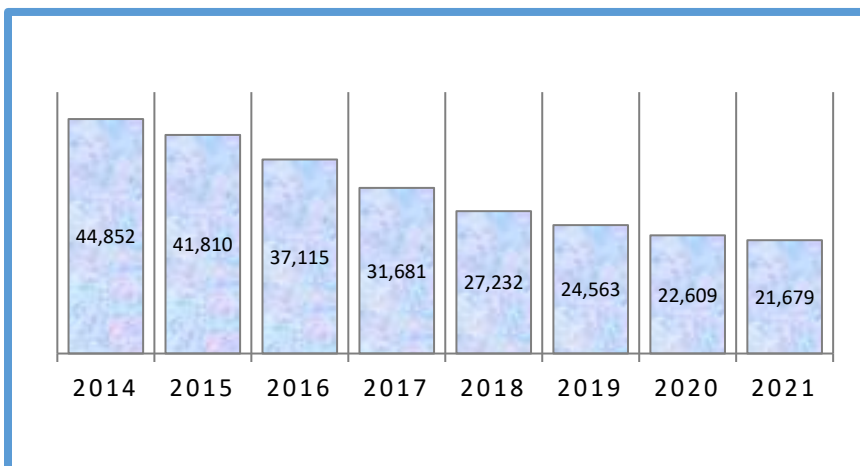
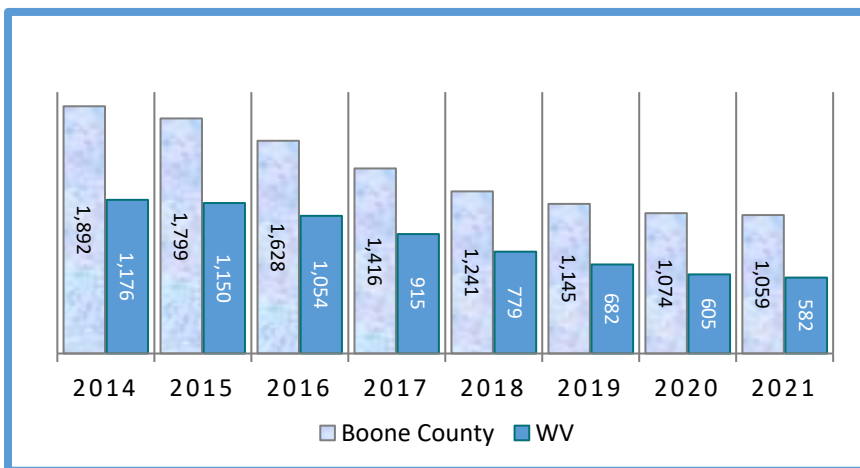


Figure 2
Rate of Opioid Analgesics per 1,000 Population in Boone County and WV, 2014-2021



Source: West Virginia Controlled Substance Monitoring Program

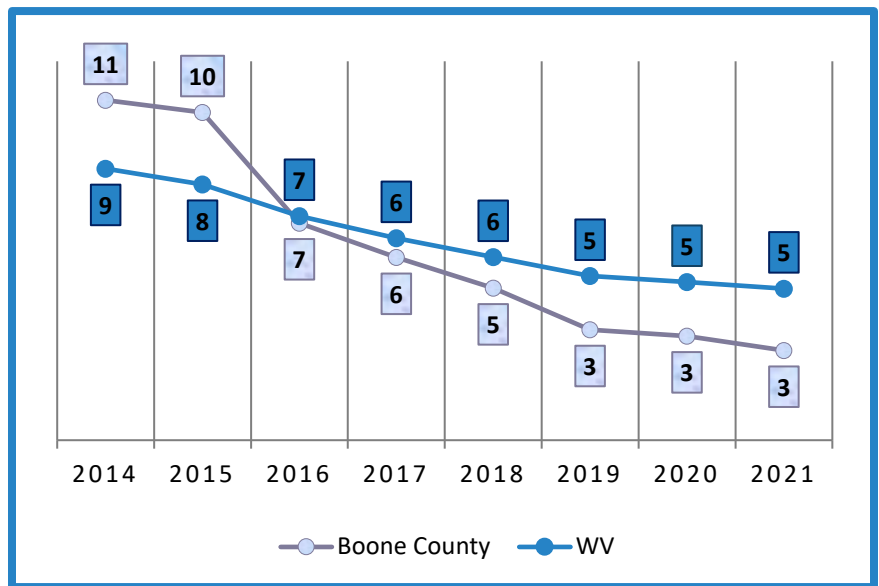
What Does This Mean?

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 2014-2021.

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 percent of patients with greater than an average daily dose of 90 MMEs in Boone County compared to the state during 2014-2021.

Figure 3
Percent of Patients
Receiving More than an
Average Daily Dose of 90
MME, Boone County and
WV, 2014-2021



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 2014-2021, Boone County's percent of patients receiving more than an average daily dose of 90 MMEs is 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 100,00 residents

This indicator shows the rate of patients who went to 5 or more prescribers and 5 or more pharmacies within a 6-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.

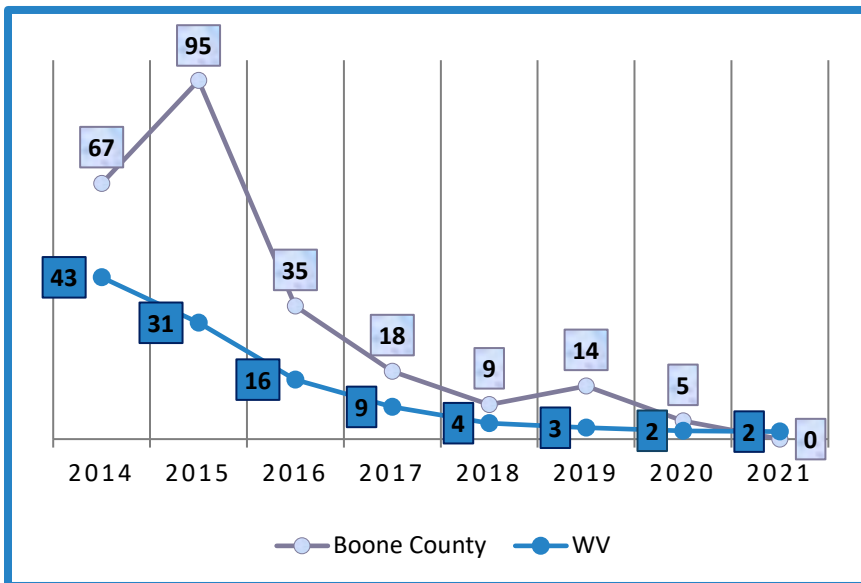


Figure 4
Rate of Multiple Provider Episodes (MPE) for Prescription Opioids per 100,000 Population, Boone County and WV, 2014-2021

Source: West Virginia Controlled Substance Monitoring Program

What Does This Mean?

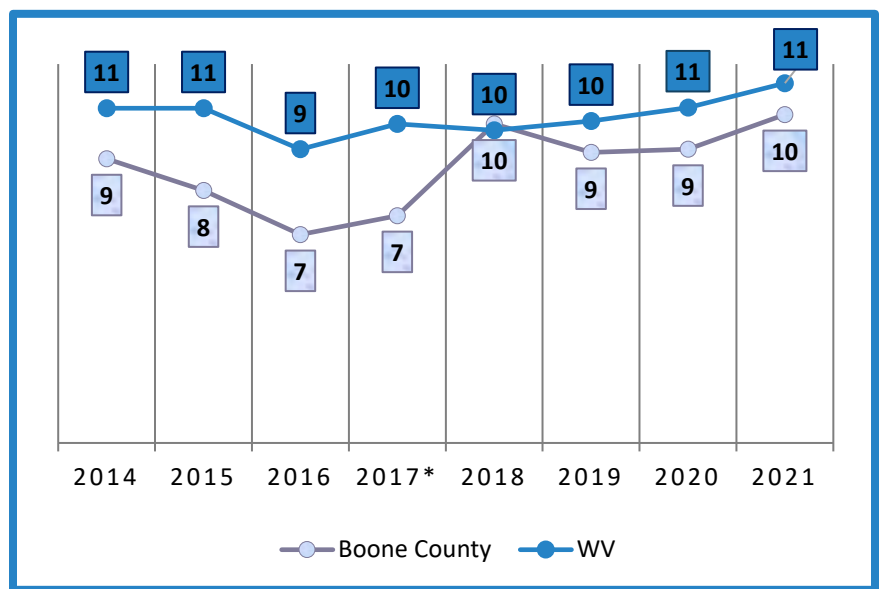
This indicator is important because provides valuable information on prescription filling behaviors. Patients who receive prescriptions from more than five doctors and who fill at more than five pharmacies are at greater risk of drug overdose. This indicator helps determine patients who may have drug-seeking habits (i.e., “doctor shopping”). From 2014-2021, West Virginia and Boone County have had a considerable decrease in the rate of patients who qualified as having an MPE. Boone County has had no cases of MPEs during the past year.

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

This indicator represents the percent 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 Patients Prescribed LA/ER Opioids among Opioid-Naive Patients, Boone County, 2014-2021



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 LA/ER. From 2014-2021, Boone County has had an increase in patients who were opioid-naïve prescribed LA/ER opioids.

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

This indicator shows the percent 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.

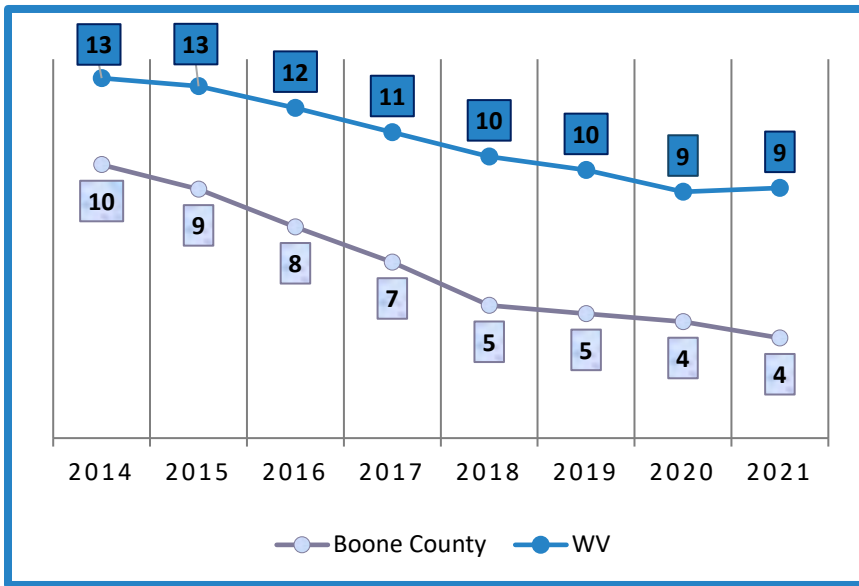


Figure 6
Percent of Patient Prescribed Days Overlap Between Opioid Analgesics, Boone County and WV, 2014-2021

Source: West Virginia Controlled Substance Monitoring Program

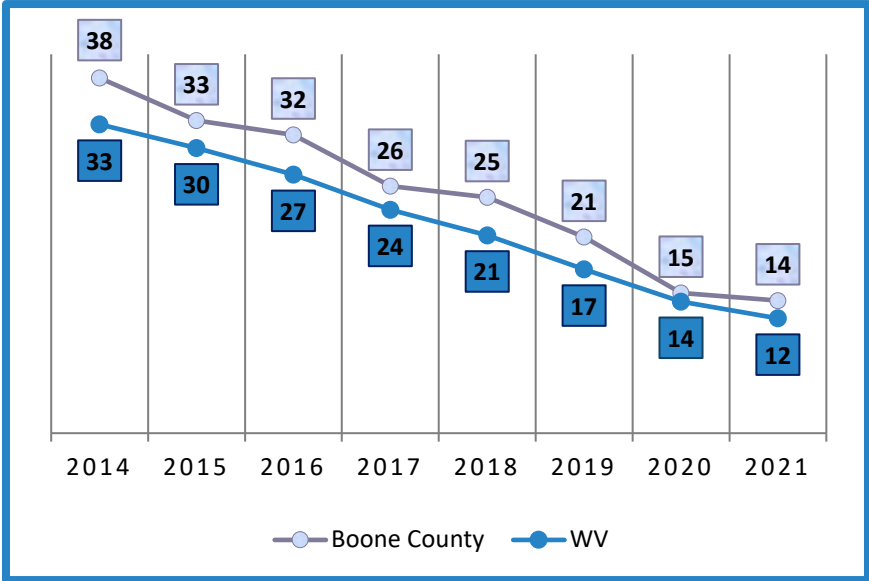
What Does This Mean?

This indicator represents the 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. During 2014-2021, Boone County had a lower percent 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 percent of patients who have an opioid and a benzodiazepine (i.e., 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.

Figure 7
Percent of Patient Prescribed Opioid Days that Overlap with Benzodiazepine Prescriptions, Boone County and WV, 2014-2021



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 2014-2021, Boone County had a higher percent 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

Patient County	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6
BARBOUR	37	18	24.5	47	42.5	21.5
BERKELEY	39	3	17	46	2	37.5
BOONE	1	51	24.5	39	54	3
BRAXTON	46	20	24.5	19	11	28
BROOKE	24	30	24.5	32	9	45.5
CABELL	11	48	24.5	26	32.5	14.5
CALHOUN	45	28	2	9	32.5	47
CLAY	6	27	5	35	16.5	52
DODDRIDGE	54	6	24.5	34	18	53
FAYETTE	16	36	24.5	23	40.5	31.5
GILMER	50	25	4	2	14.5	42.5
GRANT	27	54	24.5	29	10	17.5
GREENBRIER	15	11	24.5	20	32.5	23
HAMPSHIRE	32	4	24.5	51	4	50
HANCOCK	13	22	24.5	49	6	49
HARDY	49	34	24.5	33	8	51
HARRISON	12	16	20	52	24	9.5
JACKSON	43	55	8	41	40.5	31.5
JEFFERSON	41	2	18	48	3	40.5
KANAWHA	14	52	22	31	49	25
LEWIS	25	23	24.5	21.5	14.5	36
LINCOLN	4	37	11	53	30.5	2
LOGAN	3	45	14	42.5	50	4
MARION	31	41	24.5	10	46	34
MARSHALL	17	9	24.5	13	30.5	21.5
MASON	34	49	24.5	15	51	19.5
MCDOWELL	8	8	10	37	18.5	29.5
MERCER	28	12	19	18	23	14.5
MINERAL	36	24	24.5	30	5	16
MINGO	10	47	12	1	25	1
MONONGALIA	55	15	23	27	16.5	35
MONROE	53	14	24.5	7.5	26	13
MORGAN	19	1	24.5	45	1	42.5
NICHOLAS	7	33	24.5	54	21	17.5
OHIO	33	13	24.5	7.5	22	26
PENDLETON	38	5	24.5	40	7	5
PLEASANTS	44	32	3	6	53	48
POCAHONTAS	30	10	1	3	39	33
PRESTON	40	7	24.5	44	12	39
PUTNAM	35	50	13	42.5	46.5	9.5
RALEIGH	29	31	15	16	36.5	11.5
RANDOLPH	23	26	24.5	25	46.5	37.5
RITCHIE	22	42	24.5	14	55	24
ROANE	21	44	7	28	27	29.5
SUMMERS	9	29	24.5	21.5	32.5	6
TAYLOR	26	39	24.5	50	36.5	19.5
TUCKER	47	43	24.5	36	38	55
TYLER	48	46	6	4.5	44.5	42
UPSHUR	52	17	24.5	24	18.5	54
WAYNE	51	35	24.5	38	44.5	7
WEBSTER	2	19	24.5	55	13	40.5
WETZEL	18	53	9	4.5	52	11.5
WIRT	20	40	24.5	17	28.5	45.5
WOOD	42	38	21	11	42.5	27
WYOMING	5	21	16	12	28.5	8

*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 the same rank as another county and the average rank was returned.

Percent of Boone County residents with a controlled substance prescription

33%

Percent of West Virginia residents with a controlled substance prescription

23.1%

Percent of Boone County residents with an opioid prescription

22.3%

Percent of West Virginia residents with an opioid prescription

14.5%

Percent of Boone County residents with a benzodiazepine prescription

9.2%

Percent of West Virginia residents with a benzodiazepine prescription

6.9%

Source: West Virginia Controlled Substance Monitoring Program

To access the individual 2021 County Profile Reports, please follow the link below:

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

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

