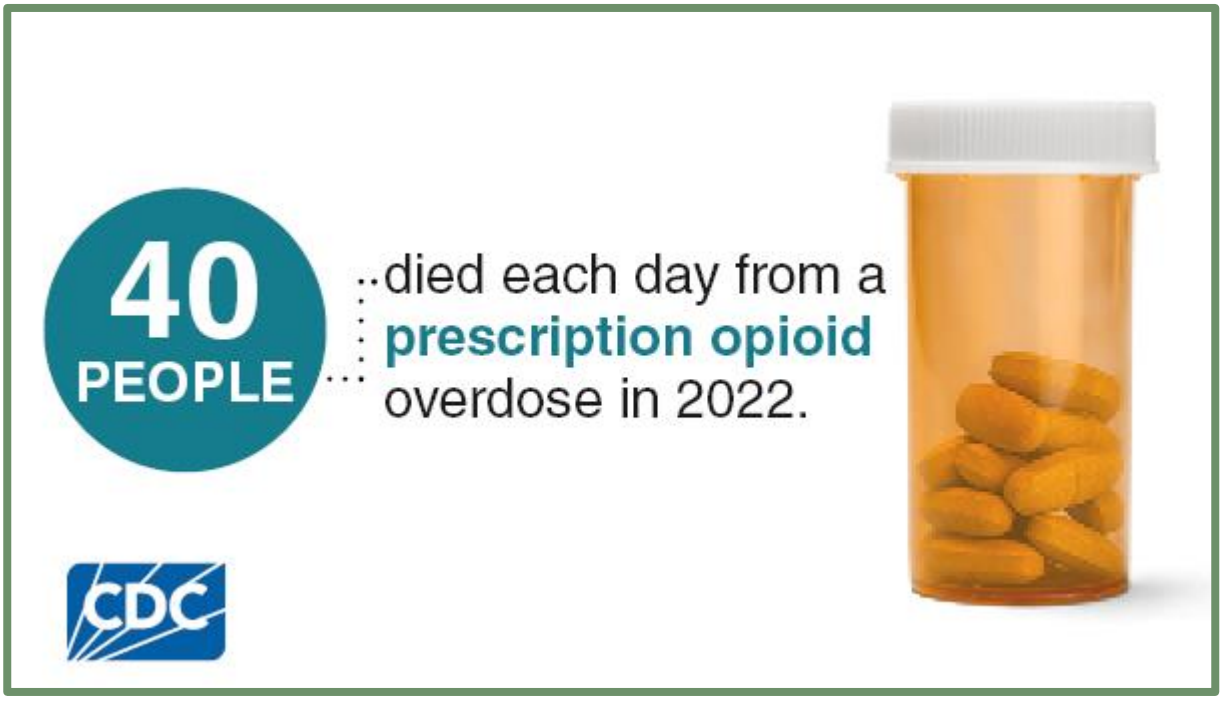
2025 Controlled Substance Prescribing in West Virginia: County Level Patient Data

Executive Summary

West Virginia remains one of the states hardest hit by the opioid epidemic and continues to face the nation's highest overdose burden. The West Virginia Board of Pharmacy (BOP), in collaboration with the West Virginia Department of Health, Office of Maternal, Child and Family Health, Violence and Injury Prevention Program (WV VIPP), has conducted surveillance using data collected from the Controlled Substance Monitoring Program (CSMP). The CSMP, which is the state's Prescription Drug Monitoring Program (PDMP), collects data on all controlled substances dispensed in West Virginia.

Despite being at the forefront of the opioid epidemic, West Virginia has made significant strides to reduce this burden through public health surveillance. WV VIPP received Centers for Disease Control and Prevention (CDC) funding through the Overdose Data to Action for States (OD2A-S) cooperative agreement in 2023. An activity under this grant is to improve PDMP infrastructure or information systems to support proactive reporting and data analysis, including enhancing reporting systems to increase frequency and quality of reporting. The CDC provided specific indicators to measure opioid prescribing behaviors during the previous cooperative agreement which continue to be used in the state. The BOP and WV VIPP were interested in modifying these indicators to establish state-specific measures. The results of this analysis were obtained using **2025 CSMP data**. To align with the CDC specific indicators, drugs that contain buprenorphine were not included. This document contains a description of the modified indicators and a justification for that modification.



Map Descriptions

Maps 1 and 2 Year Comparison

Compared to 2024, overall opioid doses prescribed decreased across all 55 counties with an average decrease of 11% in 2025.

The overall average day supply for opioid prescriptions decreased by 5% from 2024-2025 and the percentage changes ranged from a 16% decrease to a 5% increase at the county level.

Maps 1-2: Rate of opioid doses per 1,000 state residents and average day supply per county

This indicator was modified to evaluate the actual number of doses, or pills, that were distributed across the state. This information is presented as a rate per 1,000 population. It is important to look at the number of prescriptions being written, as the original indicator measures. However, there has been a recent push to write for fewer doses, which could lead to an increase in the number of total prescriptions written. Therefore, it is prudent to consider the total number of doses being dispensed to get a more accurate measure of opioid prescribing in the state.

Furthermore, the BOP and WV VIPP were interested in looking at the average day supply of opioids related to this indicator and sought to understand why there was a correlation between the number of doses being prescribed and the average day supply. In early 2018, the West Virginia Legislature passed Senate Bill 273 (SB 283), which limits the total number of days for which an opioid prescription can be written. Looking at the average day supply will help BOP and WV VIPP to determine if SB 273 has had an impact on opioid prescribing.

Map 3 Year Comparison

Compared to 2024, the percentage of patients receiving more than an average daily dose of 50 MMEs decreased by 8% in 2025. The percentage changed ranged from a 21% decrease to a 10% increase at the county level.

Map 3: Percent of patients receiving more than an average daily dose of 50 morphine milligram equivalents (MME)

This indicator was modified to present another measure of MME. The CDC recommends a dose <50 MME/day and no more than 90 MME/day. The odds of overdose increase from 1.9 to 4.6 when going from 50 to <100 MME/day.[1] It is important to assess this modified indicator to obtain an accurate picture of what counties are at increased risk of overdose. In November 2022, CDC published updated prescribing guidelines and made changes to some MME conversion factors. This resulted in an increase in MMEs overall.

[1] Dowell D, Ragan KR, Jones CM, Baldwin GT, Chou R. CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022. MMWR Recomm Rep 2022;71(No. RR-3):1–95. DOI: http://dx.doi.org/10.15585/mmwr.rr7103a1

Map Descriptions

Maps 4 and 5 Year Comparison

Compared to 2024, the rate of patients seeing three or more prescribers decreased overall in the state by 21% in 2025. The percentage changes ranged from a 32% decrease to a 72% increase.

The rate of patients that went to four or more pharmacies decreased by 41% across the state. The percentage changes for four or more pharmacies ranged from a 100% decrease to a 700% increase*.

*** Counties with small underlying counts may show large percentage swings year over year.**

Maps 4-5: Rate of multiple provider episodes for prescription opioids per 100,000 residents and with 3+ prescribers and with 4+ pharmacies

The BOP has provided unsolicited reporting of patients with eight or more prescribers and five or more pharmacies within a six-month period for the past few years and was interested in comparing this to the CDC guidelines which is five or more prescribers and five or more pharmacies within a six-month period. In December 2016, the WV DHHR, in collaboration with the BOP, produced a report of the 2016 overdose deaths. It was found that the decedents were three times more likely to have seen three or more prescribers and 70 times more likely to have used four or more pharmacies. The BOP and WV VIPP were interested in evaluating this measure for the overall CSMP population.

Map 6 Year Comparison

There was an overall increase in the percent of patients who were opioid-naïve from 2024 to 2025 with a 3% increase. The percentage changes ranged from a 46% decrease to an 80% increase among counties.

Map 6: Percent of opioid naive patients among patients prescribed long-acting/extended-release opioids

The CDC recommends the initial opioid prescription be short-acting/immediate release as a strategy to reduce the risk of overdose. The BOP and WV VIPP chose to review the percentage of patients prescribed long-acting opioids when said patients were opioid-naïve (i.e., no opioids in the previous 45 days). The percentage of patients who were opioid-naïve and prescribed short-acting opioids were also reviewed. Even at low doses of immediate release opioids, the potential for misuse and risk of overdose increases if the patient is not counseled on how to take the medication safely. However, it was determined that efforts should be focused on those patients who received long-acting opioids.

Map 7 Year Comparison

Compared to 2024, the percentage of patients who had an overlapping opioid and benzodiazepine prescription in 2025 decreased by 1%. The percentage changes ranged from a 50% decrease to a 47% increase among counties.

Map 7: Percent of patients with overlapping opioid and benzodiazepine prescriptions

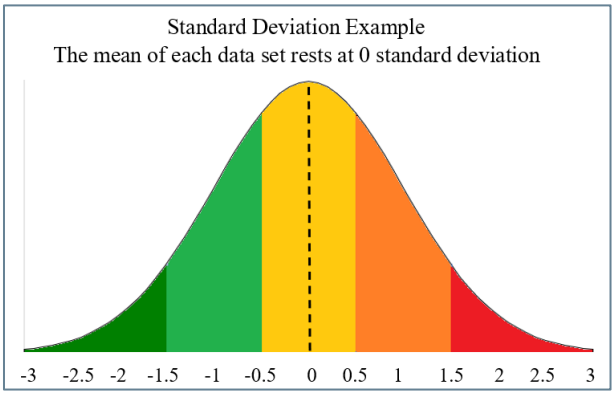
This indicator was modified to assess the percentage of patients who had overlapping opioid and benzodiazepine prescriptions. Overlapping opioids with benzodiazepines increases the risk of overdose. The BOP and WV VIPP wanted to determine the difference between overlapping days and distinct patients and whether the counties of interest were the same between the two.

Conclusion:

Modifying the CDC indicators to answer state-specific measures and questions is important to get a better picture of the prescribing patterns in the state. The results of these modified indicators are different from the CDC required indicators. This will provide opportunities to conduct further research/analysis on certain topics of interest, determine high-risk areas in the state, and provide appropriate prescriber education and intervention. These findings should inform targeted prescriber outreach, county-level surveillance prioritization, and coordination with enforcement, licensing, and public health partners in higher-risk areas.

Data Notes

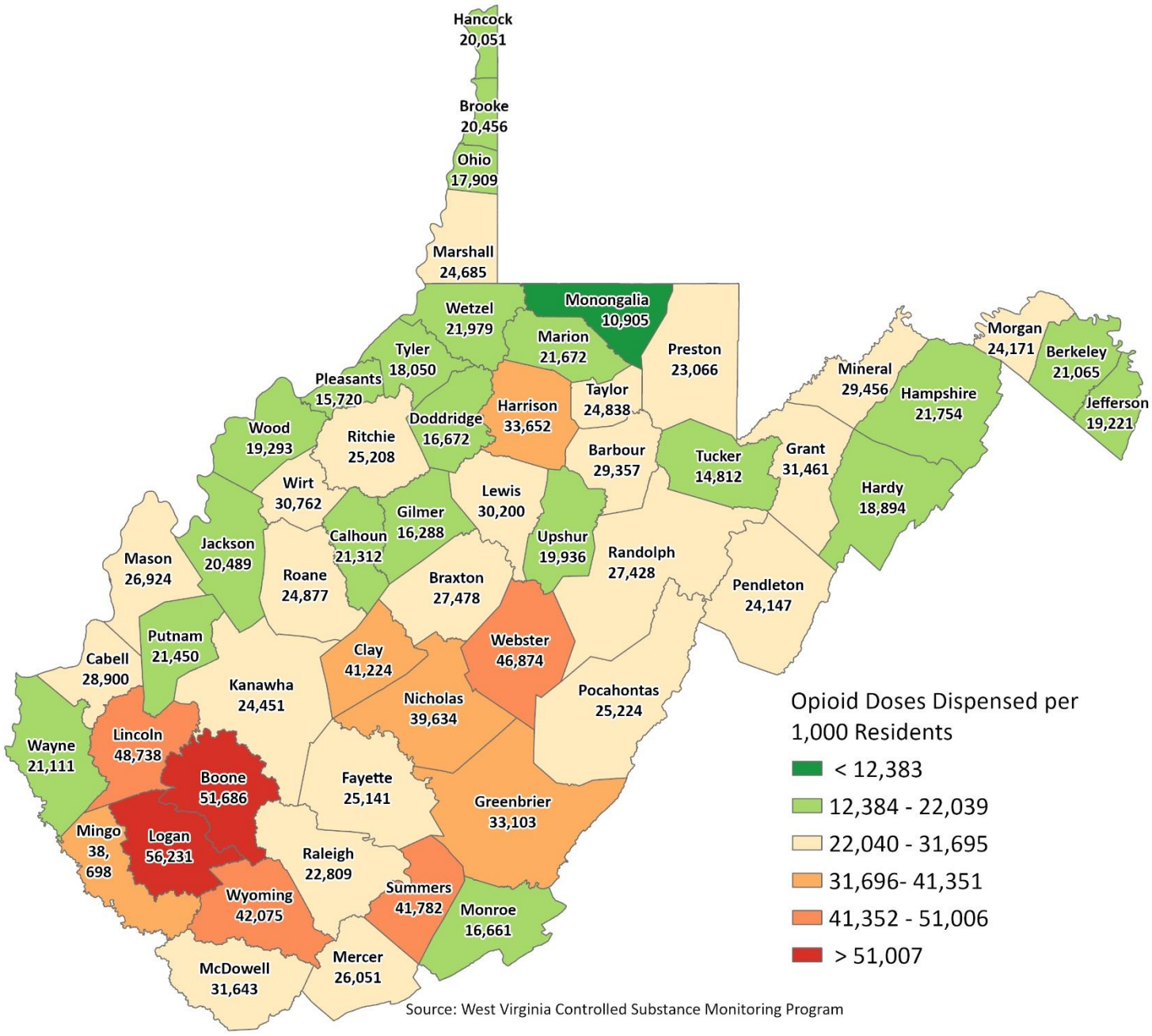
The same methodology was used to classify all data. Percent and Rate ranges are based on the standard deviation (SD) from the mean. The SD is a number used to describe the distribution of measurements. A small SD indicates that most of the measurements are close to the mean, and a large SD indicates that the measurements are more widely spaced from one another. The SDs were used for these indicators to provide information about how each county-specific indicator compared to the others in the rest of the state.



Dark green is < -1.5 SD from the mean, light green is -1.5 to -0.50 SD from the mean, yellow is -0.50 to 0.50 SD from the mean, Orange is 0.50 to 1.5 SD from the mean, and Red is > 1.5 SD from the mean.

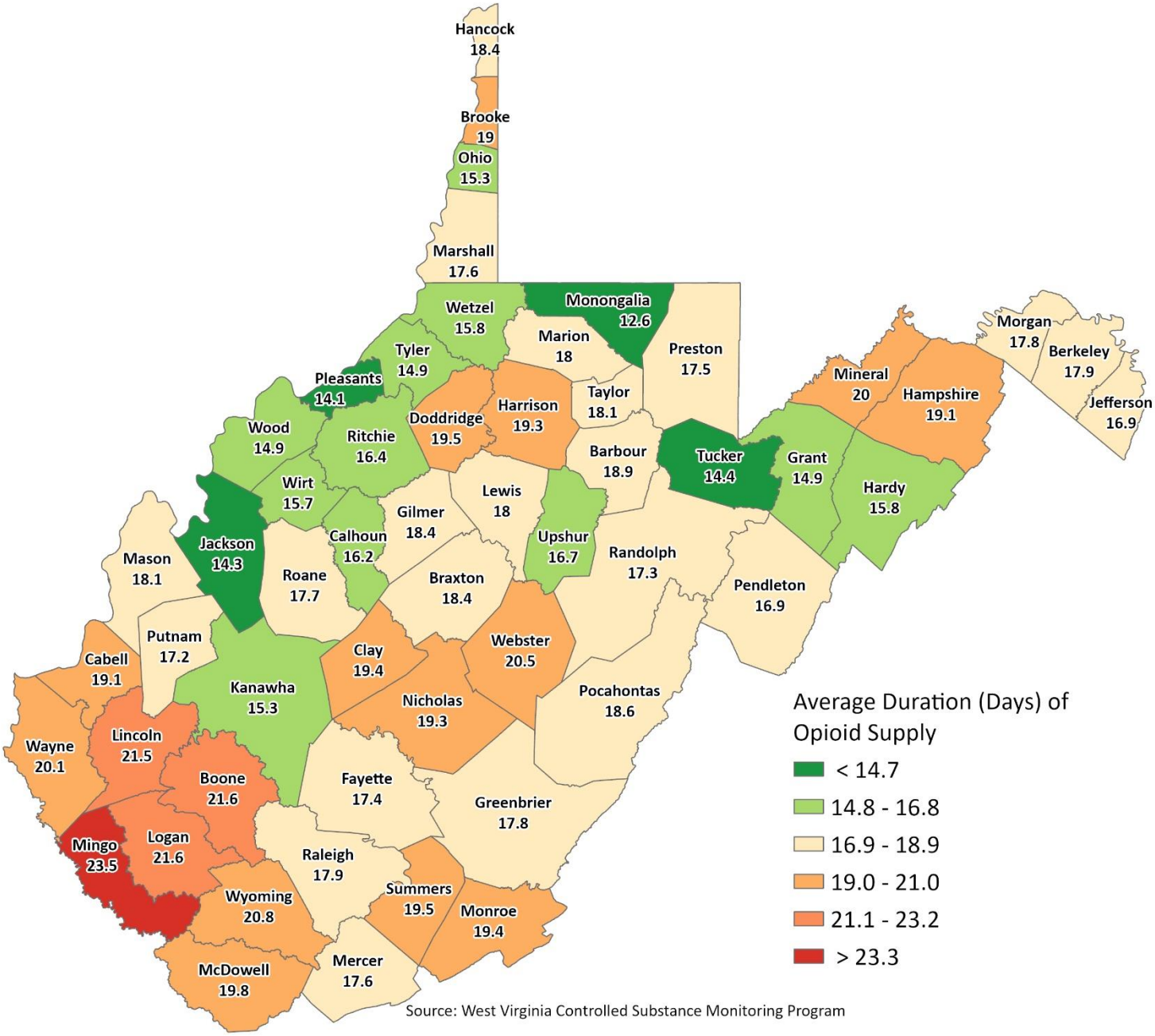
Map 1. Opioid Doses per 1,000 State Residents by County, West Virginia, 2025

Looking at the rate of opioid doses (i.e., pills) helps identify where high prescribing may be occurring across the state. The highest rates are shown in red and the lowest in green. There are substantially higher rates of opioid doses being prescribed and dispensed in the central and southwestern part of the state.



Map 2. Average Duration of Opioid Prescriptions in Days by County, West Virginia, 2025

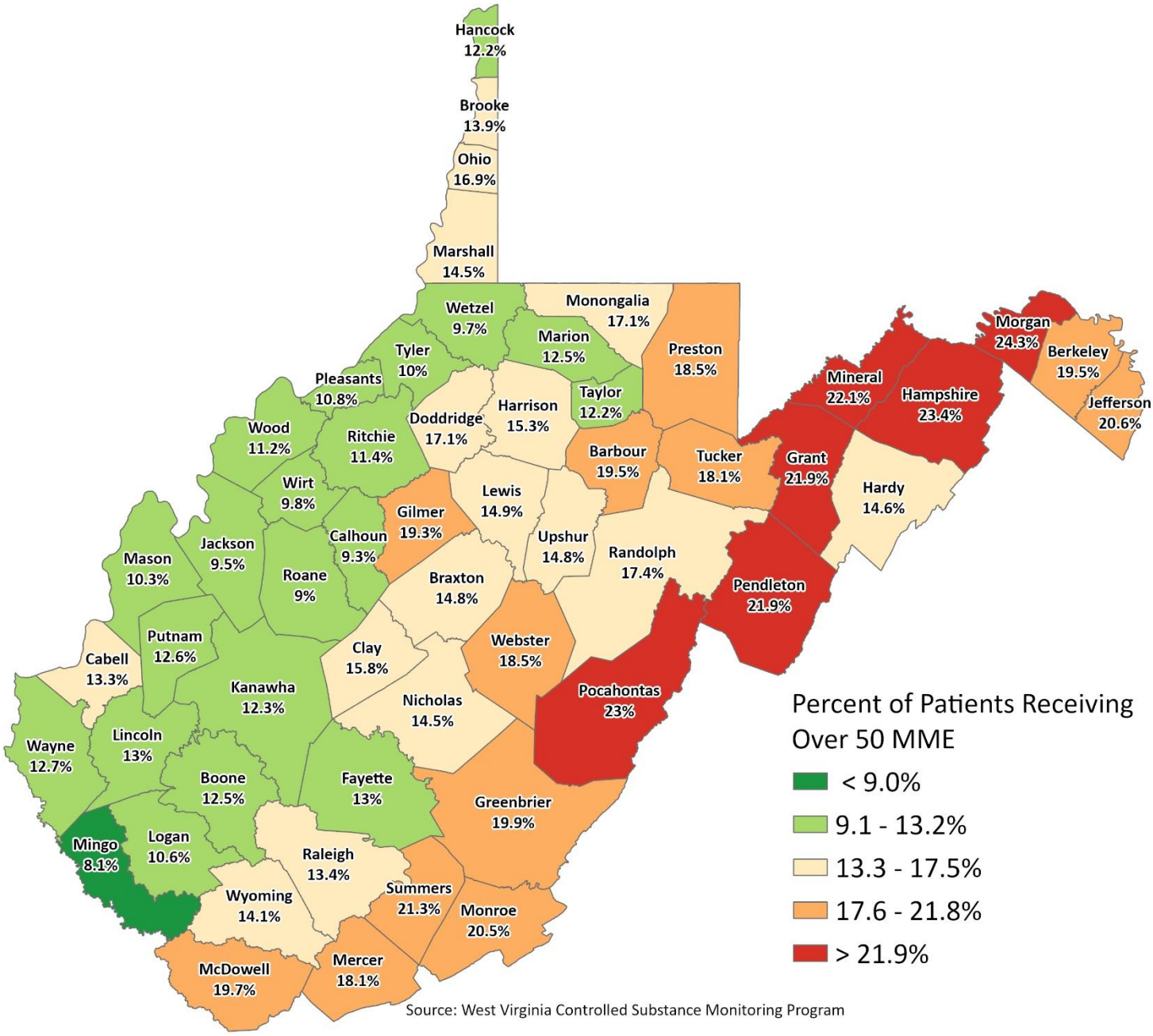
Looking at the average, or mean, day supply of a prescription helps identify where high prescribing or chronic opioid use may be occurring across the state. Current guidelines recommend short duration prescriptions (i.e., fewer pills). Senate Bill 273, passed in 2018, limits how many pills can be prescribed. This indicator will be used to see the impact of this legislation and see if prescribing practices have changed. The average duration of opioid prescriptions is highest in the southwestern part of the state.



Source: West Virginia Controlled Substance Monitoring Program

Map 3. Percent of Patients Receiving a High-Dose of Prescribed Opioids by County, West Virginia, 2025

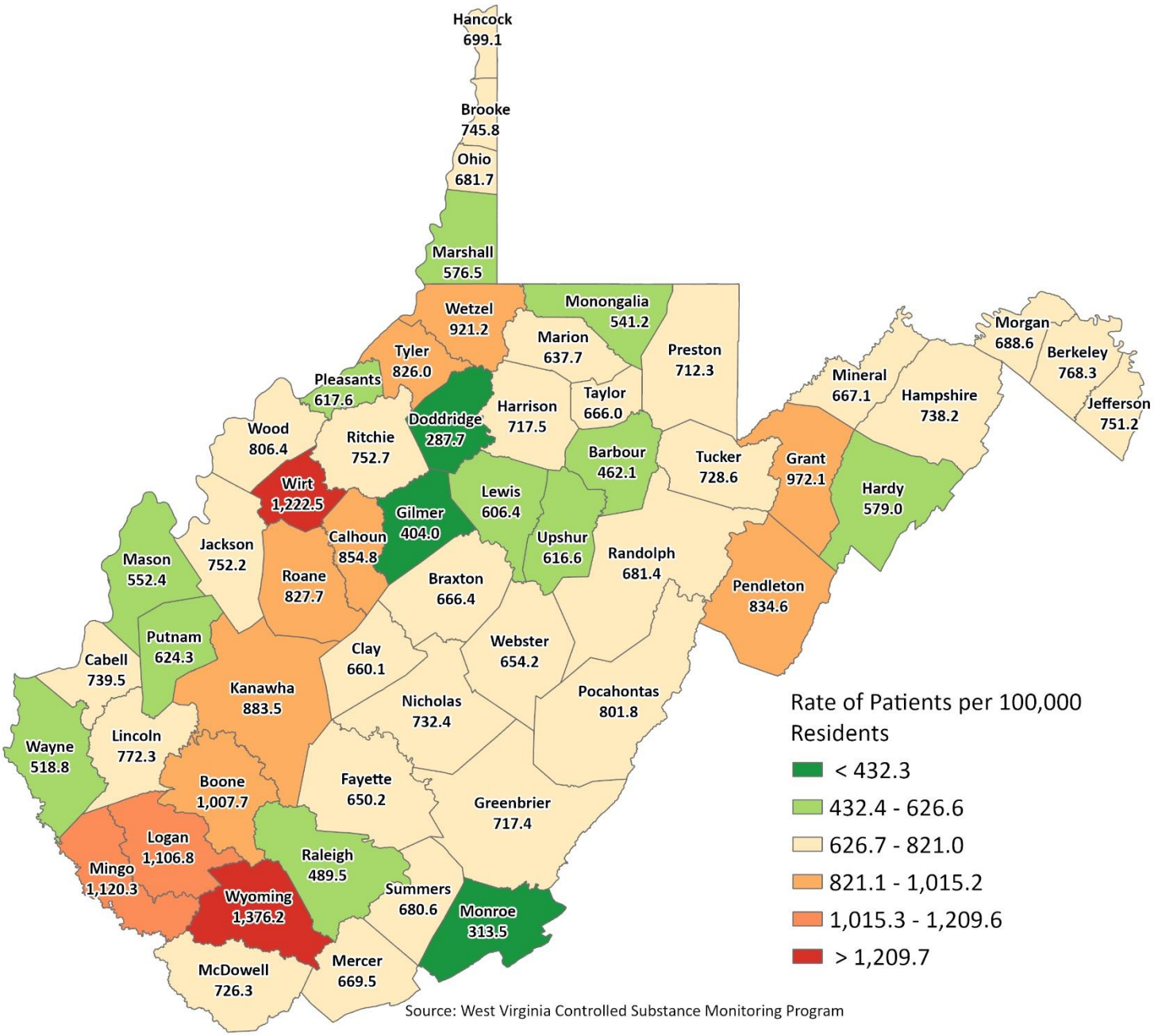
The average high-risk daily dose (i.e., ≥50 Morphine Milligram Equivalents (MME)) helps identify where high and possible problematic prescribing is occurring across the state. High-risk daily dose prescribing is most common in the northern and southeastern part of the state, with the highest percentage of patients being dispensed high-risk daily doses in the southeastern border and in the eastern panhandle.



Source: West Virginia Controlled Substance Monitoring Program

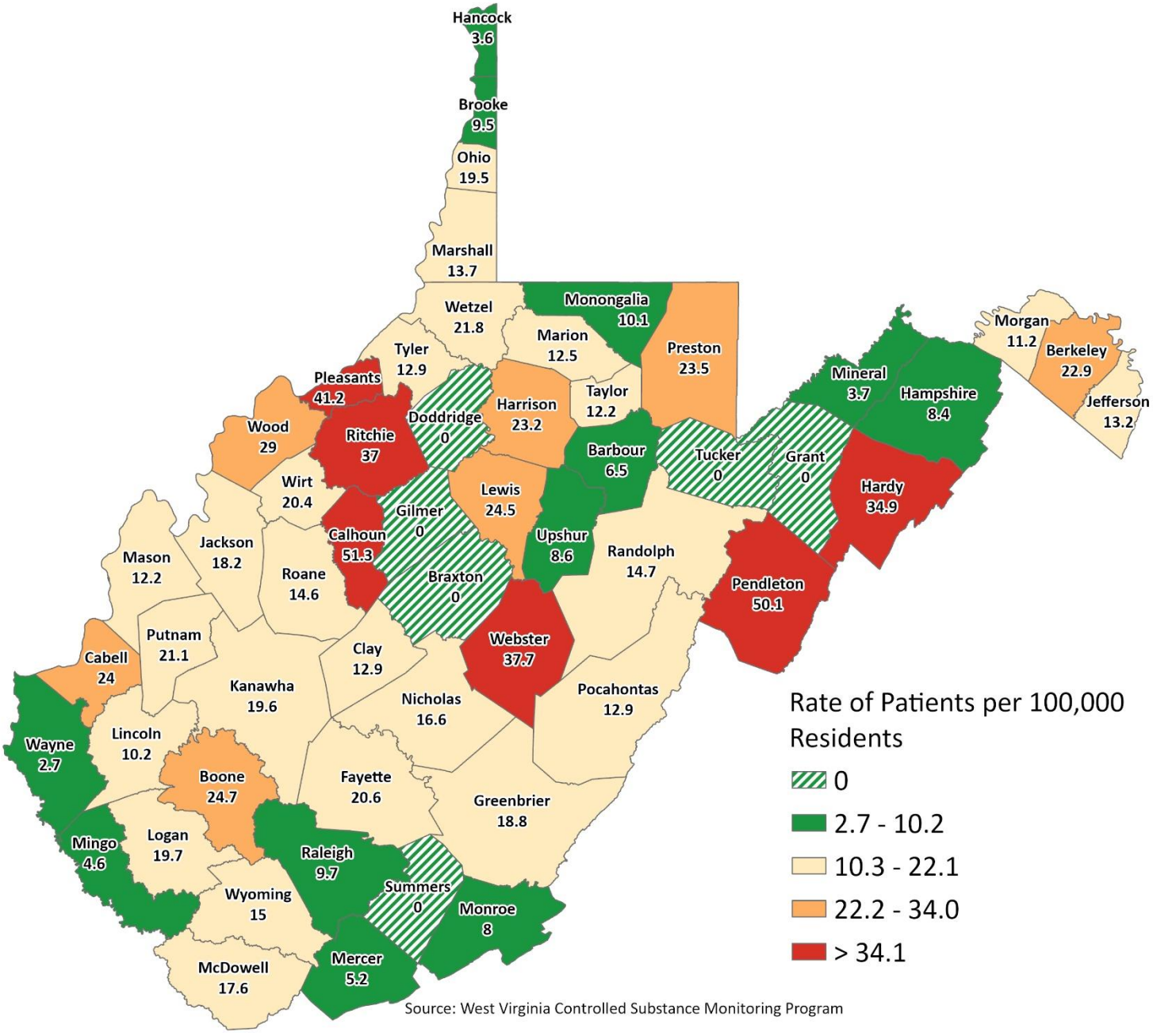
Map 4. Rate of Patients Who Saw Three or More Prescribers in a Six Month Period for Prescription Opioids per 100,000 Residents by County, West Virginia 2025

The multiple provider episodes (MPE) indicator helps to identify where possible "doctor shopping" activity is occurring. The 2016 West Virginia Overdose Fatality Analysis, available here, showed that decedents who saw three or more prescribers were three times more likely to overdose. This map shows the rate of patients with three or more prescribers.



Map 5. Rate of Patients Who Went to Four or More Pharmacies in a Six Month Period for Prescription Opioids per 100,000 Residents by County, West Virginia 2025

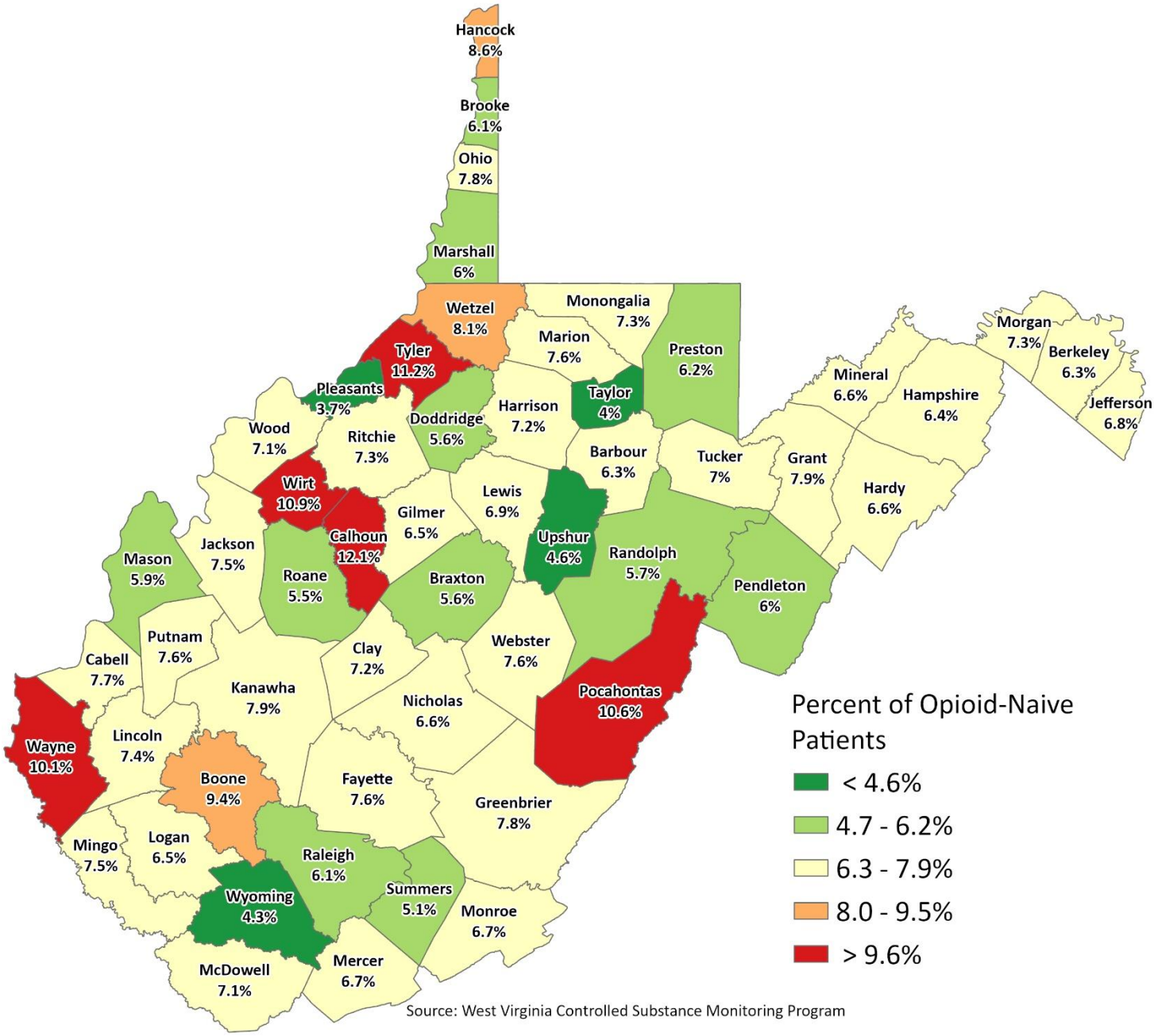
The multiple provider episodes (MPE) indicator helps to identify where possible "pharmacy shopping" activity is occurring. The 2016 West Virginia Overdose Fatality Analysis, available here, showed that decedents who went to four or more pharmacies were 70 times more likely to overdose. This map shows the rate of patients with four or more pharmacies.



Source: West Virginia Controlled Substance Monitoring Program

Map 6. Percent of Opioid-Naïve Patients Prescribed Long-Acting/Extended-Release Opioid by County, West Virginia, 2025

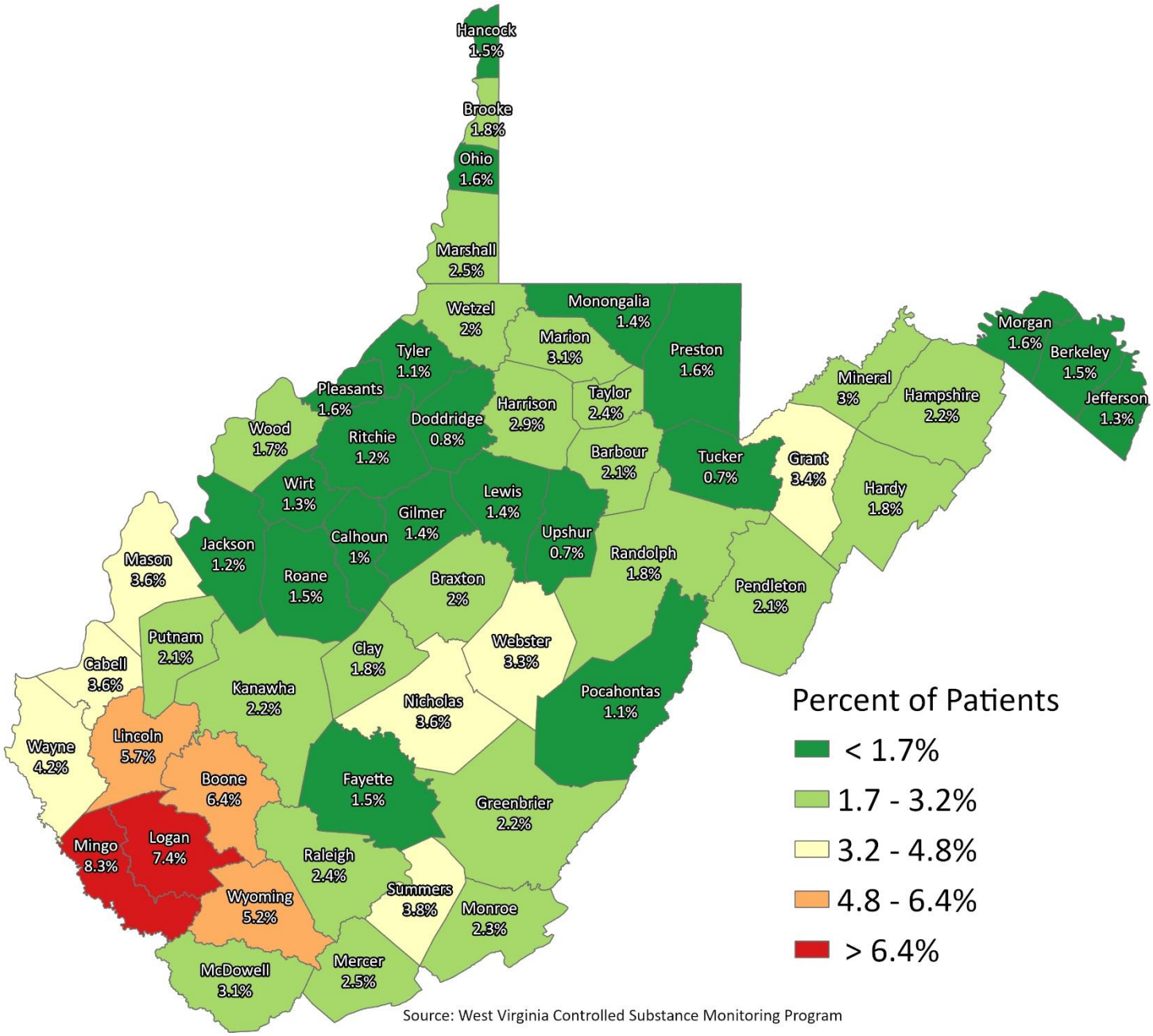
Looking at opioid-naïve patients (i.e., no opioids for 45 days) helps to identify areas in the state that are at greater risk of overdose. Patients who are opioid-naïve and are prescribed long-acting opioids are at greater risk of overdose. Different regions of the state had clusters of patients who were opioid-naïve and were prescribed a long-acting opioid.



Source: West Virginia Controlled Substance Monitoring Program

Map 7. Percent of Patients with Overlapping Opioid and Benzodiazepine Prescriptions by County, West Virginia, 2025

Looking at the percentage of patients with overlapping opioid and benzodiazepine prescriptions helps to identify areas in the state where possible problematic prescribing may be occurring. Patients with overlapping opioid and benzodiazepine prescriptions are at greater risk for overdose. There is a cluster in the southwestern region of the state where a higher percentage of patients have overlapping opioid and benzodiazepine prescriptions.



Source: West Virginia Controlled Substance Monitoring Program

For more information regarding this report or the West Virginia Board of Pharmacy's Controlled Substance Monitoring Program (CSMP), please see the contact information below.

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Additional Resources:

Click **here** for the 2024 modified indicator report.

Access to an interactive report will be available shortly.