

Background

In 2023, the Centers for Disease Control and Prevention (CDC) reported 105,007 overdose deaths related to opioids in the US, resulting in an age-adjusted rate of 31.3 deaths per 100,000 standard population. The age-adjusted rate of drug overdose deaths quadrupled from 8.9 in 2003 to 32.6 in 2022. In 2018, the total annual cost of treating opioid use disorder (OUD) in the US was estimated at \$786 billion to society. Prescription drug monitoring programs (PDMPs) are implemented nationwide to improve prescribing practices and enhance patient safety. Previous research shows that PDMP robustness is associated with reduced mortality. Despite this, the financial and operational status of PDMPs remains underexplored. Integrating PDMP data into electronic health records (EHR) streamlines access to prescription history, enhancing provider engagement, controlled substance monitoring, and patient safety. Interstate data sharing represents a critical component of PDMPs, enabling the real-time electronic exchange of prescription data across states. PDMP annual expenditures encompassed initial implementation costs, ongoing operational and maintenance expenses, and program enhancements and interoperability improvements funding. The recent status of these features remained inadequately assessed.

Objective

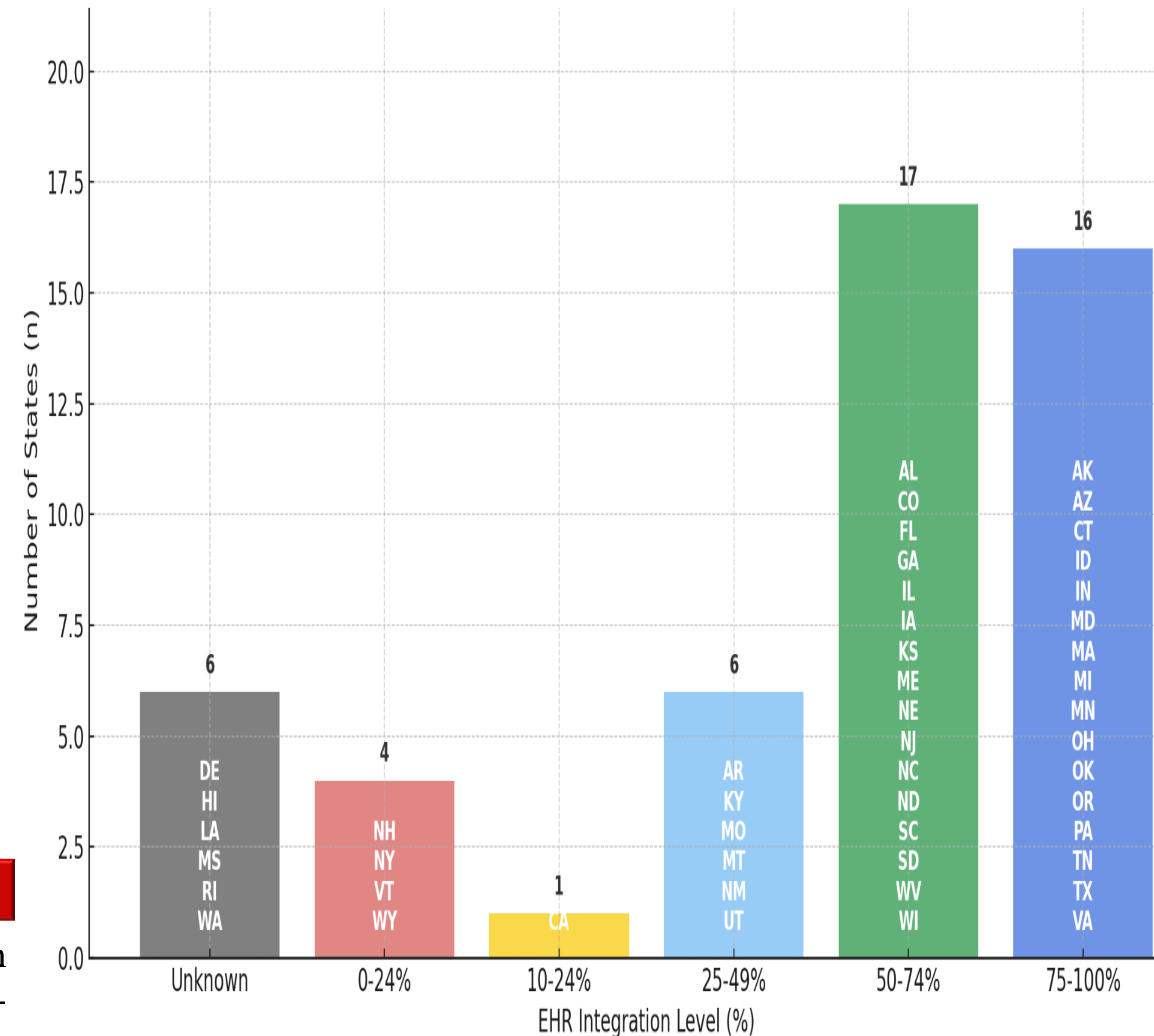
The primary objective of the study was to evaluate variability in PDMP features correlated with PDMP budgets, interstate data-sharing capabilities, and EHR integration levels.

Methods

Data were collected from the publicly available database PDMP Training and Technical Assistance Center (TTAC) in the fall of 2024. Data included operational annual budgets for state PDMPs, interstate data-sharing capabilities, and EHR integration levels. Descriptive statistics were used to characterize PDMP data, and Python was used to graphically examine the trends in EHR integration and interstate data sharing across all 50 states.

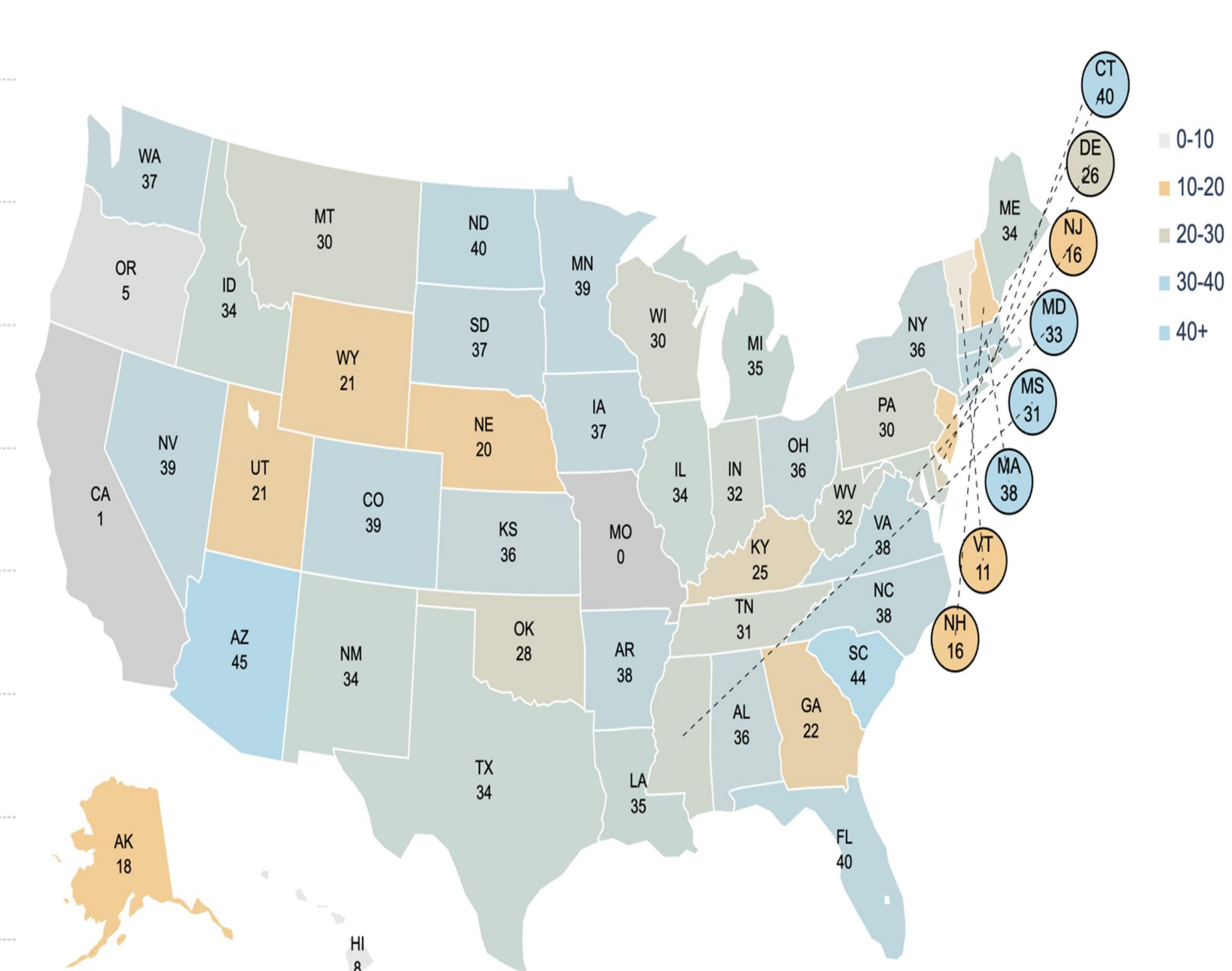
Results

Figure 1. Variation in Prescription Drug Monitoring Program Electronic Health Record Integration Levels (%) Among U.S. States 2024



Descriptive statistics of PDMP budgets across states revealed a mean (SD) of \$1,355,094 ($\pm 863,440.95$), indicating substantial budget variability. Washington allocated the highest budget (\$4.6 million) despite a smaller population (7.8 million), while New Jersey allocated (\$500,000), with 9.3 million people. While four states (NH, NY, VT, WY) reported the lowest levels (0–24%), with California having 10–24% EHR integration. Missouri and California emerged as outliers in interstate data sharing, with Missouri sharing data with no other state and California sharing exclusively with Oregon.

Figure 2. U.S. States with Interstate Data Sharing in Prescription Drug Monitoring Program 2024



Conclusions

PDMPs play a critical role in enhancing patient safety by promoting safer prescribing practices and improving the monitoring of controlled substance prescriptions. Substantial variability exists in PDMP funding, EHR integration levels, and interstate data-sharing capabilities. Efforts to enhance funding, promote seamless data integration, and strengthen interstate collaborations could improve PDMP effectiveness in reducing opioid-related harm and supporting better patient outcomes. Additionally, more research is needed to explore the optimal strategies for PDMP funding and interstate data sharing to ensure equitable and efficient implementation.