

# State Prescription Drug Program Mandate Levels and Opioid Dispensing Rates and Adverse Substance Exposure Events

## Using Poison Control Center Data, 2019 - 2022

Patrick Walsh PhD MPH<sup>1</sup>, Daniel Maeng PhD<sup>1</sup>, Hugh Crean PhD<sup>1</sup>

<sup>1</sup>Department of Psychiatry, University of Rochester Medical Center

### INTRODUCTION

The objective of this study is to evaluate state Prescription Drug Monitoring Program (PDMP) mandate level and opioid dispensing rate associations with controlled substance exposure, specifically opioid-related and intentional events. Assessing broad approaches to opioid access, exposure, and adverse events is imperative to addressing local health system challenges and rural community needs. Higher mandate levels and decreased dispensing rates are expected to be related to lower rates of substance exposure.

### METHOD

A retrospective analysis was performed of secondary data from the National Poison Data System of American Association of Poison Control Centers (PCC) for the years 2019-2022. State population estimates were used to generate quarter year PCC call rates for controlled substances, opioid-related exposures, and intentional opioid-related exposures (suspected suicide, abuse, misuse), and state-level opioid dispensing rates (per 100,000 population). Rates were examined by the extensiveness of PDMP mandates related to controlled substances and generalized linear mixed models were fitted to evaluate exposure rates over time. **Controlled substance exposure calls** (opioids [including synthetic], cocaine, methamphetamine, benzodiazepine, other narcotics) to PCCs received 10/1/19 to 9/30/22 from all 50 states and the District of Columbia were included. The deidentified data comprised patient demographic, event related substance use, medical outcomes, reason for exposure, and circumstances. **The extensiveness of state mandates** was assessed with data from the Prescription Drug Monitoring Program Training and Technical Assistance Center (TTAC). Extensiveness was ranked on mandated controlled substance prescriber and dispenser PDMP enrollment and PDMP use. **Opioid dispensing rates** were obtained from Centers for Disease Control and Prevention data.

### RESULTS

Exposures call rates decreased from 2019 to 2022. The call rate decrease was highest for states with higher levels of mandates by 2022 for PDMP enrollment and PDMP use for prescribers and dispensers. Also, for this group of states, opioid-related exposure call rates decreased during the study period as well as for intentional opioid-related exposures. The opioid dispensing rate decreased overall and for each state for the study period, with similar decreases by PDMP mandate level.

#### Average state rate change, 2019-2022\*

State PDMP mandate level, by 2022**	Controlled substance call rate (by Q, per 100K)		Opioid-related call rate (by Q, per 100K)		Intentional opioid-related call rate (by Q, per 100K)		Dispensing rate, controlled substance (by Q, per 100p)	
	2019	Change by 2022	2019	Change by 2022	2019	Change by 2022	2019	Change by 2022
4	9.41	-1.43	3.74	-0.43	2.60	-0.58	12.15	-1.98
3	8.41	-0.86	3.31	0.02	2.10	0.05	12.11	-1.81
2	10.48	0.04	4.98	-0.21	3.79	-0.10	13.67	-1.94
1 or 0	8.09	-0.40	2.71	0.34	1.72	0.30	12.37	-1.87

\*rate by quarter year, negative change is decrease.

\*\*2022 states by mandate level: 4, n = 17; 3, n = 19; 2, n = 9; 1 or 0, n = 6.

### CONCLUSION

Findings from this study suggest that encouraging provider engagement with PDMPs may be useful in reducing adverse opioid events. Prescription opioid access may be lower with persistent dispensing rate decreases across states. However, reducing the rates of opioid-related adverse events, intentional and unintentional, has not been consistent over time or

### CONCLUSION (continued)

location. Pharmacy and prescribing providers need to collaborate with healthcare delivery policy makers to promote full engagement with available state PDMP resources. This collaboration and the partnering of state-wide and local objectives is particularly important for rural communities with limited resources and insufficient healthcare system infrastructure to address opioid exposure. Beyond limiting opioid prescriptions, providers must support the efforts and objectives of PDMPs and state-controlled substance initiatives to mitigate opioid prescribing and access risks and confront related, and resilient, controlled substance use morbidity and mortality concerns.

### DISCLOSURE

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