

Opioid, Buprenorphine, Benzodiazepine, Naloxone, and Stimulant Prescriptions Dispensed to Rhode Island Residents, 2022–2025

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ABSTRACT

BACKGROUND: The Rhode Island Prescription Drug Monitoring Program (RI PDMP) captures dispensation records for controlled substance prescriptions in Schedules II–V and opioid antagonists dispensed in RI or to RI residents in other states.

METHODS: This report uses RI PDMP data from January 1, 2022 to December 31, 2025 to explore trends in opioid, buprenorphine, stimulant, benzodiazepine, and naloxone prescriptions dispensed to Rhode Island residents. Buprenorphine products were limited to those approved for the treatment of opioid use disorder (OUD). For the purposes of this report, buprenorphine products approved for pain management were categorized as opioids.

RESULTS: During this time, the number of dispensed opioids, naloxone, and buprenorphine prescriptions for OUD decreased 6%, 28%, and 11%, respectively, while the number of individuals dispensed these prescriptions decreased 5%, 28%, and 8%. Stimulant dispensations increased 16% while the number of individuals dispensed stimulants increased 19%. Benzodiazepine dispensations remained constant, but the number of individuals dispensed a benzodiazepine prescription decreased 3%. High-risk prescribing, such as individuals dispensed an opioid prescription with a ≥ 90 MME/day, decreased by 15%.

CONCLUSIONS: In a time of declining fatal overdoses, fewer RI residents are being dispensed high-risk opioid prescriptions, and buprenorphine for OUD, though the dispensing of stimulants has increased. Surveillance and analysis of dispensing of controlled substances should continue to include multiple agents in addition to opioids to understand evolving prescribing patterns and determine where provider education and regulatory changes can improve patient safety and public health.

KEYWORDS: Prescription Drug Monitoring Programs; Controlled Substances; Public Health Surveillance; Drug Overdose; Pharmacies

INTRODUCTION

The Rhode Island (RI) Prescription Drug Monitoring Program (PDMP) is a centralized system managed by the RI Department of Health (RIDOH) to monitor the dispensing of Schedule II–V controlled substances and opioid antagonists to RI residents through retail pharmacies in RI and in other states.¹ The RI PDMP was founded in 2012 and has undergone many changes attributable to updating regulations aimed to prevent drug-related harms and increase PDMP effectiveness. Providers such as prescribers and pharmacies with a Controlled Substance Registration (CSR) can consult dispensing records via the electronic RI PDMP to understand 1) their own overall prescribing practices, and 2) their patients' prescriptive histories. All 50 states, 4 U.S. territories, and military health systems have installed PDMPs to track prescribing. Though each PDMP has unique data collection and regulations, all are designed to provide timely dispensing data to reduce over-prescribing, high-risk prescribing and diversion, improve patient care, and inform policy.² While data is mixed, a number of studies report that PDMP implementation leads to decreased opioid dispensing (or slower increase), fewer opioid prescription shipments, decreased prescription opioid diversion, and fewer opioid-involved mortalities.³

Several notable events happened between 2022 and 2025 that had the potential to impact dispensation trends of controlled substances. In October 2022, the U.S. Food and Drug Administration (FDA) announced a shortage of immediate-release Adderall formulations, which led to shortages of other prescription stimulant drugs that continue to persist in 2026.^{4,5} In November 2022, the Centers for Disease Control and Prevention (CDC) updated the Clinical Practice Guideline for Prescribing Opioids for Pain.⁶ The revisions moved away from rigid dosing and duration limits established in their earlier 2016 guidance, to flexible, patient-centered recommendations to prevent limiting access to care and undertreatment of pain.⁷ In January 2023, the Consolidated Appropriations Act of 2023 was enacted by Congress, eliminating waiver requirements for buprenorphine prescribing and allowing telehealth visits for the initiation of controlled-substance prescriptions where not prohibited by state law.⁸ In March 2023, the FDA approved over the counter (OTC) naloxone, when previously pharmacy naloxone was

dispensed by prescription only.⁹ In June 2025, regulation changes allowed prescribers to prescribe up to a 90-day supply of non-opioid, non-narcotic Schedule II prescription drugs, when previously they were limited to 30-days.^{10,11}

Though there are numerous resources to view aggregate dispensing data from the RI PDMP, the last large report published on this data is roughly four years old, before many regulatory changes occurred. The aim of this report is to provide updated data on trends in controlled substance dispensations and determine potential impacts from changing prescribing guidelines, drug availability, and the regulatory environment.

METHODS

Records from the RI PDMP were used to identify all opioid, stimulant, benzodiazepine, and naloxone prescriptions dispensed by retail pharmacies to a RI resident between January 1, 2022 and December 31, 2025. Buprenorphine formulations used for pain management were excluded from buprenorphine counts and were instead included in the general opioid category. Buprenorphine products formulated for OUD treatment versus pain management were identified using the product's national drug code (NDC).¹ Excluded products included name brand and generic formulations of Belbuca®, Butrans®, and Buprenex®.

Methods are nearly identical to a previously published annual report.¹ In brief, demographic variables such as age and sex were reported by year for individuals dispensed opioids, stimulants, benzodiazepines, naloxone, and buprenorphine for OUD. User type (e.g., naive, non-naive, both) was reported for both opioid and stimulant patients. As described in Paiva et al (2023) and current state law,^{1,12} individuals dispensed an opioid/stimulant prescription for the first time or with no opioid/stimulant prescription dispensation in the previous 30 days were classified as naive users. Individuals with opioid/stimulant prescription dispensations in the previous 30 days were classified as non-naive. Individuals who met both criteria, such as those who received a naive prescription dispensation that year and subsequently received a prescription dispensation within 30 days, were classified as both. High-risk prescribing practices were defined in two ways: 1) patients who dispensed a total daily opioid dose of at least 90 morphine milligram equivalents (MME), and 2) patients who dispensed overlapping benzodiazepine and opioid prescriptions for one or more days that year based on the prescriptions' fill date and end date. Individuals with overlapping benzodiazepine and opioid prescription dispensations over two years (e.g., December 2022 to January 2023) were counted once for each of those years. Ethical approval was not applicable for this article.

RESULTS

Opioid Prescriptions

Between 2022 and 2025, there were 1,551,454 opioid prescriptions dispensed to RI residents from a retail pharmacy. Dispensations decreased 6% from 401,165 dispensations in 2022 to 375,129 in 2025. Oxycodone prescriptions made up 48% of all dispensations. Hydrocodone prescriptions made up 21% of dispensations in 2022 but decreased to 16% by 2025. Codeine prescription counts and proportion of total dispensations nearly halved by 2025 [4% in 2022 to 2% in 2025; **Table 1**].

During the study period, a total of 110,097 unique individuals were dispensed an opioid prescription, which decreased 5% from 106,112 in 2022 to 101,047 in 2025. Of the total opioid prescriptions dispensed, 57% were dispensed to females, and 43% were dispensed to males. The proportion of individuals aged 65 and older dispensed an opioid prescription made up the highest proportion among the age categories and increased 14% from 36% in 2022 to 41% in 2025 [**Table 2**]. Opioid-naïve individuals made up the highest proportion of individuals dispensed opioid prescriptions at 63% per year, while opioid non-naïve individuals made up 7%, and individuals who fit both opioid-naïve and non-naïve status made up 30% [**Table 2**]. Opioid non-naïve individuals showed similar demographic trends as overall opioid recipients, mostly female; however, a higher proportion of opioid non-naïve individuals were aged 55 or older compared to opioid-naïve individuals (76% vs 48%).

High-Risk Opioid Prescribing

In total, 6,206 individuals were dispensed an opioid prescription with a daily MME of 90 or higher, which decreased 15% from 5,743 individuals in 2022 to 4,889 individuals in 2025. Of these individuals, about half were female (51%), and 76% were aged 55 or older [**Table 2**]. There were 51,436 total individuals that were dispensed an overlapping benzodiazepine and opioid prescription during the study timeframe, a number which stayed consistent year by year. Females made up 63% of these individuals, and 77% of individuals were aged 55 and older [**Table 2**].

Buprenorphine

From 2022 to 2025, there were 302,421 buprenorphine prescriptions dispensed for OUD to 10,534 unique individuals. The number of buprenorphine prescriptions dispensed for OUD decreased 11% from 81,065 prescriptions in 2022 to 72,025 prescriptions in 2025. Likewise, the number of unique individuals dispensing these prescriptions decreased 8% from 7,359 in 2022 to 6,756 in 2025 [**Table 1**, **Table 3**]. Film formulations made up 67%, tablets made up 31%, and injection formulations made up 2% of all buprenorphine prescriptions dispensed in retail pharmacies for OUD. Buprenorphine and naloxone combination products made up 88% of all buprenorphine products dispensed for OUD, and

Table 1. Counts of Dispensed Opioid, Buprenorphine, Stimulant, and Benzodiazepine prescriptions to Rhode Island residents, stratified by product type, 2022–2025.^a

	2022 N (%)	2023 N (%)	2024 N (%)	2025 N (%)	Total N (%)
Opioids	401,165	393,073	382,087	375,129	1,551,454 (100)
Oxycodone	18,3160 (46)	190061 (48)	187588 (49)	185887 (50)	746,696 (48)
Hydrocodone	84,702 (21)	69412 (18)	64008 (17)	59311 (16)	277,433 (18)
Tramadol	62,890 (16)	61126 (16)	62035 (16)	59247 (16)	245,298 (16)
Morphine	30,693 (8)	32236 (8)	32749 (9)	31252 (8)	126,930 (8)
Codeine	14,541 (4)	12936 (3)	7659 (2)	7683 (2)	42,819 (3)
Hydromorphone	7,544 (2)	9214 (2)	8131 (2)	10153 (2)	35,042 (2)
Buprenorphine*	5,864 (2)	7332 (2)	10237 (3)	12373 (3)	35,806 (2)
Fentanyl	5,460 (1)	4616 (1)	4299 (1)	4199 (1)	18,574 (1)
Methadone*	4,484 (1)	4558 (1)	3930 (1)	3923 (1)	16,895 (1)
Tapentadol	1,033 (<1)	924 (<1)	828 (<1)	644 (<1)	3,429 (<1)
Opium	304 (<1)	226 (<1)	209 (<1)	161 (<1)	900 (<1)
Oxymorphone	279 (<1)	228 (<1)	184 (<1)	99 (<1)	790 (<1)
Butorphanol	138 (<1)	145 (<1)	169 (<1)	158 (<1)	610 (<1)
Buprenorphine	81,065	75,621	73,530	72,025	302,241 (100)
Bup. & Nalox.	72,926 (90)	66,845 (88)	63,706 (87)	61,722 (86)	265,199 (88)
Bup.	8,139 (10)	8,776 (12)	9,824 (13)	10,303 (14)	37,042 (12)
Stimulants	474,342	466,837	508,389	548,445	1,998,013 (100)
Amphetamine	292,119 (62)	253,373 (54)	292,472 (58)	312,341 (57)	1,150,305 (58)
Methylphenidate	77,628 (16)	82,919 (18)	87,483 (17)	91,592 (17)	339,622 (17)
Lisdexamfetamine	40,835 (9)	55,506 (12)	50,645 (10)	65,877 (12)	212,863 (11)
Phentermine	26,038 (6)	31,530 (7)	37,605 (7)	37,745 (7)	132,918 (7)
Dexmethylphenidate	17,931 (4)	23,307 (5)	20,292 (4)	21,620 (4)	83,150 (4)
Dextroamphetamine	7,537 (2)	8,277 (2)	8,315 (2)	8,016 (2)	32,145 (2)
Phendimetrazine	4,865 (1)	4,229 (1)	3,308 (1)	2,677 (1)	15,079 (1)
Modafinil	4,826 (<1)	5,157 (1)	5,600 (1)	5,872 (1)	21,455 (1)
Armodafinil	2,091 (<1)	2,072 (<1)	2,124 (<1)	0 (0)	6,287 (<1)
Solriamfetol	303 (<1)	333 (<1)	429 (<1)	410 (<1)	1,475 (<1)
Benzodiazepines	472,624	46,0257	449,072	445,128	1,827,081 (100)
Lorazepam	142,178 (30)	140,540 (31)	137,071 (31)	139,693 (31)	559,482 (31)
Clonazepam	145,383 (31)	141,094 (31)	137,464 (31)	134,052 (30)	566,993 (31)
Alprazolam	127,613 (27)	122,784 (27)	120,875 (27)	116,572 (26)	487,844 (27)
Diazepam	37,733 (8)	36,651 (8)	35,246 (8)	34,978 (8)	144,608 (8)
Temazepam	11,563 (3)	10,751 (2)	10,066 (2)	10,091 (2)	42,471 (2)
Triazolam	2,611 (1)	2,580 (1)	2,353 (1)	2,206 (1)	9,750 (1)
Clobazam	2,501 (1)	2,919 (1)	3,249 (1)	3,764 (1)	12,433 (1)
Clorazepate	1,203 (<1)	1,033 (<1)	834 (<1)	754 (<1)	3,824 (<1)
Chlordiazepoxide	781 (<1)	811 (<1)	741 (<1)	683 (<1)	3,006 (<1)
Midazolam	619 (<1)	727 (<1)	832 (<1)	2,048 (1)	4,226 (<1)
Oxazepam	329 (<1)	317 (<1)	271 (<1)	2,048 (1)	2,965 (<1)
Naloxone	14,501	18,115	15,794	10,470	58,880

^a Note: Products may not add to yearly total as products with totals < 400 are excluded from tables for brevity. Among the excluded are fenfluramine, methamphetamine, benzphetamine, clonidine & combination, estazolam, flurazepam, levorphanol, dihydrocodeine, meperidine, diethylpropion, and pentazocine.

*Only includes products formulated for pain.

Table 2. Number of Unique Rhode Island Residents Dispensed an Opioid Analgesic Prescription, 2022–2025.

	2022 N (%)	2023 N (%)	2024 N (%)	2025 N (%)	Total N (%)
Dispensed an opioid	106,112	104,935	102,121	101,047	110,097
Sex					
Female	61,269 (58)	60,752 (58)	59,205 (58)	58,639 (58)	63,245 (57)
Male	44,836 (42)	44,179 (42)	42,907 (42)	42,404 (42)	46,839 (43)
Unknown	7 (<1)	<5	9 (<1)	<5	13 (<1)
Median Age, Years [IQR]	58 [42,70]	59 [43,70]	60 [44,71]	60 [44,71]	57 [41,69]
Age Category					
<18	2,104 (2)	1,872 (2)	1,657 (2)	1,654 (2)	2,307 (2)
18–24	4,886 (5)	4,465 (4)	4,197 (4)	4,154 (4)	5,449 (5)
25–34	10,207 (10)	9,737 (9)	9,092 (9)	8,790 (9)	11,146 (10)
35–44	12,405 (12)	12,240 (12)	11,773 (12)	11,673 (12)	13,033 (12)
45–54	15,095 (14)	14,666 (14)	13,658 (13)	13,048 (13)	16,717 (15)
55–64	22,902 (22)	22,074 (21)	21,102 (21)	20,525 (20)	24,029 (22)
65+	38,513 (36)	39,881 (38)	40,642 (40)	41,203 (41)	37,416 (34)
User Type					
Naïve	65,655 (62)	65,148 (62)	62,980 (62)	62,345 (62)	179,409 (63)
Non-naïve	12,900 (12)	11,935 (11)	11,467 (11)	11,225 (11)	20,567 (7)
Both	27,557 (26)	27,852 (27)	27,666 (27)	27,477 (27)	86,217 (30)
High-Risk Opioid Prescribing					
Dispensed a daily MME≥90	5,743	5,435	5,245	4,889	6,206
Sex					
Female	2,984 (52)	2,844 (52)	2,703 (52)	2,527 (52)	3,158 (51)
Male	2,759 (48)	2,590 (48)	2,542 (49)	2,362 (48)	3,046 (49)
Unknown	0	<5	0	0	<5
Median Age, Years [IQR]	65 [56,76]	66 [57,76]	67 [57,77]	67 [58,77]	64 [55,74]
Age Category					
<18	8 (<1)	11 (<1)	10 (<1)	9 (<1)	13 (<1)
18–24	25 (<1)	27 (<1)	30 (<1)	35 (<1)	37 (1)
25–34	135 (2)	111 (2)	111 (2)	97 (2)	166 (3)
35–44	327 (6)	279 (5)	287 (6)	245 (5)	401 (6)
45–54	714 (12)	659 (12)	596 (11)	524 (11)	899 (14)
55–64	1,488 (26)	1,335 (25)	1,251 (24)	1,159 (24)	1,745 (28)
65+	3,046 (53)	3,013 (55)	2,960 (56)	2,820 (58)	2,945 (48)
Dispensed an overlapping benzodiazepine and opioid	13,918	13,618	13,631	13,548	51,436
Sex					
Female	8,908 (64)	8,558 (63)	8,672 (64)	8,581 (63)	32,432 (63)
Male	5,010 (36)	5,048 (37)	4,945 (36)	4,962 (37)	18,974 (37)
Unknown	0	23 (<1)	14 (<1)	5 (<1)	30 (<1)
Median Age, Years [IQR]	67 [55,80]	68 [55,80]	68 [55,81]	69 [56,91]	69 [56,81]
Age Category					
<18	143 (1)	136 (1)	150 (1)	144 (1)	563 (1)
18–24	151 (1)	184 (1)	169 (1)	161 (1)	656 (1)
25–34	522 (4)	484 (4)	479 (4)	445 (3)	1,813 (3)
35–44	1,048 (8)	959 (7)	990 (7)	915 (7)	3,630 (7)
45–54	1,565 (11)	1,523 (11)	1,400 (10)	1,366 (10)	5,327 (10)
55–64	2,742 (20)	2,532 (19)	2,432 (18)	2,453 (18)	9,253 (18)
65+	7,747 (56)	7,800 (57)	8,011 (59)	8,064 (60)	30,194 (59)

Table 3. Unique Rhode Island Residents Dispensed at least one Stimulant, Benzodiazepine, Naloxone, or Buprenorphine Prescription for Opioid Use Disorder Treatment, 2022–2025.

	2022 N (%)	2023 N (%)	2024 N (%)	2025 N (%)	Total N (%)
Dispensed Buprenorphine	7,359	7,347	7,035	6,756	10,534
Sex					
Female	2,816 (38)	2,796 (38)	2,716 (39)	2,575 (38)	4,027 (38)
Male	4,543 (62)	4,551 (62)	4,319 (61)	4,181 (62)	6,507 (62)
Median Age, Years [IQR]	45 [37,55]	46 [38,56]	47 [39,58]	48 [40,58]	44 [36,56]
Age Category					
<18	5 (<1)	<5	<5	<5	11 (<1)
18–24	111 (2)	108 (2)	75 (1)	60 (1)	243 (2)
25–34	1,194 (16)	1,034 (14)	873 (12)	692 (10)	1,843 (17)
35–44	2,267 (31)	2,253 (31)	2,090 (30)	1,944 (29)	3,181 (30)
45–54	1,777 (24)	1,797 (25)	1,744 (25)	1,735 (26)	2,353 (22)
55–64	1,429 (19)	1,468 (20)	1,476 (21)	1,476 (22)	1,979 (19)
65+	576 (8)	693 (9)	773 (11)	848 (13)	924 (9)
Dispensed Stimulants	56,429	60,193	63,928	67,402	102,395
Sex					
Female	32,442 (58)	35,231 (59)	37,952 (59)	40,120 (60)	61,400 (60)
Male	23,985 (43)	24,956 (42)	25,970 (41)	27,273 (41)	40,983 (40)
Unknown	<5	6 (<1)	6 (<1)	9 (<1)	12 (<1)
Median Age, Years [IQR]	33 [20,46]	34 [21,47]	35 [22,47]	35 [22,47]	34 [21,47]
Age Category					
<18	11,924 (21)	12,073 (20)	12,028 (19)	12,329 (18)	19,912 (19)
18–24	6,473 (12)	6,442 (11)	6,527 (10)	6,890 (10)	11,635 (11)
25–34	11,507 (20)	12,195 (20)	12,904 (20)	13,341 (20)	21,217 (21)
35–44	10,876 (19)	12,217 (20)	13,606 (21)	14,813 (22)	20,469 (20)
45–54	7,670 (14)	8,466 (14)	9,086 (14)	9,522 (14)	13,974 (14)
55–64	5,375 (10)	5,848 (10)	6,363 (10)	6,731 (10)	9,903 (10)
65+	2,604 (5)	2,952 (5)	3,414 (5)	3,776 (6)	5,285 (5)
User Type					
Naïve	8,199 (15)	9,514 (16)	10,103 (16)	9,945 (15)	37,761 (15)
Non-naïve	21,523 (38)	19,463 (32)	21,779 (34)	24,724 (37)	87,489 (35)
Both	26,707 (47)	31,216 (52)	32,049 (50)	32,733 (49)	122,705 (49)
Dispensed Benzodiazepines	94,313	93,011	91,464	91,219	180,434
Sex					
Female	63,318 (67)	62,293 (67)	61,206 (67)	60,955 (67)	117,936 (65)
Male	30,993 (33)	30,705 (33)	30,235 (33)	30,256 (33)	62,462 (35)
Unknown	<5	13 (<1)	23 (<1)	8 (<1)	36 (<1)
Median Age, Years [IQR]	58 [43,69]	58 [43,70]	59 [43,70]	59 [43,71]	57 [40,70]
Age Category					
<18	1,798 (2)	1,807 (2)	1,888 (2)	2,061 (2)	5,234 (3)
18–24	2,836 (3)	2,667 (3)	2,521 (3)	2,689 (3)	7,495 (4)
25–34	8,662 (9)	8,237 (9)	7,845 (9)	7,640 (8)	18,661 (10)
35–44	12,609 (13)	12,393 (13)	12,155 (12)	12,193 (13)	24,101 (13)
45–54	14,981 (16)	14,397 (16)	13,719 (15)	13,413 (15)	26,065 (14)
55–64	20,338 (22)	19,579 (21)	18,871 (21)	18,570 (20)	34,559 (19)
65+	33,089 (35)	33,931 (37)	34,465 (38)	34,653 (38)	64,319 (37)
Dispensed Naloxone	12,564	15,576	13,619	9,067	43,768
Sex					
Female	6,970 (56)	8,916 (57)	7,658 (56)	4,766 (53)	24,416 (56)
Male	5,593 (45)	6,658 (43)	5,961 (44)	4,300 (47)	19,349 (44)
Unknown	<5	<5	0 (0)	<5	<5
Median Age, Years [IQR]	52 [37,62]	54 [40,65]	55 [40,66]	51 [38,62]	53 [38,64]
Age Category					
<18	410 (3)	434 (3)	402 (3)	345 (4)	1,515 (3)
18–24	577 (5)	588 (4)	467 (3)	382 (4)	1,861 (4)
25–34	1,624 (13)	1,689 (11)	1,365 (10)	1,057 (12)	5,068 (12)
35–44	2,136 (17)	2,405 (15)	2,077 (15)	1,706 (19)	6,912 (16)
45–54	2,333 (19)	2,716 (17)	2,283 (17)	1,674 (19)	7,452 (17)
55–64	2,989 (24)	3,631 (23)	3,253 (24)	2,201 (24)	10,208 (23)
65+	2,495 (20)	4,113 (26)	3,772 (28)	1,702 (19)	10,752 (25)

buprenorphine products without naloxone made up 12% [Table 1]. Of individuals dispensed buprenorphine prescriptions for OUD, 62% were male, and 52% were between the ages 35 and 54 [Table 3].

Stimulant

A total of 1,999,013 stimulant prescriptions were dispensed to 102,395 unique individuals from 2022 to 2025. The number of stimulant prescriptions dispensed increased 16% from 474,342 in 2022 and 548,445 in 2025 [Table 1]. The number of individuals dispensed stimulant prescriptions also increased 19% from 56,429 in 2022 to 67,402 in 2025 [Table 3]. Amphetamine combination drugs made up 58% of all stimulants dispensed in this period, while methylphenidate made up 17% (Table 1). Females made up 60% of unique individuals dispensed a stimulant prescription, individuals aged younger than 18 years accounted for 19%, and individuals aged 25 to 44 years made up 41% [Table 3].

There were 37,761 stimulant naïve, 87,489 stimulant non-naïve, and 122,705 ‘combination’ individuals who fit both naïve and non-naïve status dispensed a stimulant prescription between 2022 and 2025. Of those dispensed a naïve stimulant prescription, 62% were females and 55% of individuals were aged 34 and younger [Table 3]. Of non-naïve stimulant users, the median age was slightly higher than that of naïve users (37 years vs 32 years).

Benzodiazepines

There were 1,827,081 total benzodiazepine prescriptions dispensed to 180,434 unique individuals between 2022 and 2025. The number of benzodiazepine prescriptions dispensed increased 6% from 472,624 in 2022 to 445,128 in 2025. Lorazepam and clonazepam each made up 31% of all benzodiazepines dispensed, and alprazolam made up 27% [Table 1]. The number of individuals dispensed benzodiazepines decreased 3% from 94,313 in 2022 to 91,219 in 2025. Females made up 65%, and individuals aged 55+ made up 56% of those dispensed benzodiazepines [Table 3].

Naloxone

A total of 58,880 naloxone prescriptions were dispensed to 43,768 unique individuals between 2022 and 2025. The number of naloxone prescriptions dispensed decreased 28% from 14,501 in 2022 to 10,470 in 2025 [Table 1]. The number of unique individuals dispensed a naloxone prescription also decreased 28% from 12,564 in 2022 to 9,067 in 2025 [Table 3]. Females made up 56%, and individuals aged 45 and older made up 65% of those dispensed naloxone [Table 3].

DISCUSSION

While many regulatory changes have been made to decrease barriers to access of non-illicit controlled substance, such as less rigid opioid prescribing guidelines, OTC naloxone,

telehealth prescribing, and elimination of buprenorphine prescribing waivers, the number of opioid, benzodiazepine, buprenorphine for OUD, and naloxone prescriptions dispensed and individuals receiving those prescriptions declined from 2022 to 2025. Additionally, despite the shortage, stimulant prescription dispensations, and the number of individuals receiving them, have been steadily increasing at least since 2017.¹

At the start of the overdose epidemic, most overdose fatalities involved prescription opioids. As such, when the opioid epidemic was first declared an official nationwide public health emergency, guidelines were put into place to reduce opioid prescribing to avoid irresponsible prescribing practices and unnecessary exposures to these highly addictive medications. These rigid guidelines and implementation of the RI PDMP likely attributed to the initial decline of opioid dispensations from 2017 to 2021.¹ Worries about these earlier guidelines causing legacy patients—individuals in long-term opioid therapy initiated under permissive prescribing practices at the start of the epidemic—to lose access to opioid medications, putting them at an unnecessary risk of physical danger and possible illicit use, began circulating.^{13,14} The CDC’s 2022 updated, and less-rigid, opioid prescribing guidelines advised prescribers to consider prescribing other pain-relief medications such as NSAIDs, when possible, to patients with acute pain, but to prescribe opioids to patients if the benefits outweigh potential risks.⁶ While the CDC’s recommendations have become more flexible, RI state regulations have not changed, and prescribers are required to follow 2016 guidelines. The continued decline in opioid prescribing is possibly due to adherence to early prescribing guidelines. However, RI has introduced legislation in 2026 to adopt the CDC’s 2022 guidelines, which may result in future stabilization of opioid prescription dispensations in the state.

While non-naïve opioid patients in RI are decreasing, they are decreasing by no more than 7% per year and, in recent years, are decreasing at about 2–3% each year. This may be a result of fewer individuals initiating opioids for the first time. In addition to this, compared to RI data from 2017–2021, oxycodone use has nearly doubled while hydrocodone use has halved.¹ Studies have found that among naïve patients, while oxycodone use is associated with an increased risk of overdose, hydrocodone use is associated with an increased risk of developing chronic use.¹⁵ While it is important to limit initiation of opioid medication to naïve individuals to avoid developing chronic use, it is equally important to consider patients on an individual basis and provide them with necessary care. This includes providing care to legacy patients and ensuring they have access to necessary medication.

The decrease in high MME opioid prescriptions is likely due to RI providers’ adherence to previous CDC prescribing guidelines. Unlike the original opioid prescribing guidelines,

the 2022 guidelines do not set rigid MME restrictions. Older adults (65+ years) consistently make up more than half of the individuals dispensed overlapping opioid and benzodiazepine prescriptions. This population is especially susceptible to falls and altered mental state when on these medications.^{16,17} As of 2018, it is required in RI that naloxone be co-prescribed with high-risk opioid prescriptions.¹ With the number of high-risk opioid prescriptions declining, naloxone prescriptions are also declining. This decline may also be attributed to the availability of over-the-counter options as of 2023, saturation of no-cost naloxone in the community due to increased community distribution, and the decrease in opioid overdoses resulting in the lack of urgency to carry naloxone.⁹ Efforts should continue to communicate the importance of having naloxone even if an individual does not knowingly use opioids, as overdoses caused by drugs contaminated with opioids can still be reversed with naloxone.

Despite the elimination of various barriers, buprenorphine dispensations decreased slightly over the study timeframe. However, this number has only decreased by about 4% since 2017.¹ Long-acting injectable buprenorphine medications, such as Sublocade® and Brixadi®, are becoming increasingly more popular due to convenience and lower chances of diversion and are only administered in-office by clinicians.^{18,19} On rare occasions, injectable buprenorphine is dispensed in retail pharmacies if a clinician lacks the product on-hand and instructs the patient to fill their prescription at a retail pharmacy and bring it to the office for administration. Though there are some injectable formulations recorded in the PDMP, we are unable to account for injectable buprenorphine formulations prescribed and dispensed in OTPs, which may have led to the number of buprenorphine prescriptions to be underestimated. It may also be that decreased buprenorphine dispensing is linked to a decrease in opioid usage or saturation of treatment among the RI population.

Previous studies show that stimulant prescribing has increased in RI since 2018 and continues to increase through 2025, much of which is dispensed to young children and adults aged 25–44.²⁰ Prior to 2020, the proportion of minors dispensed a stimulant prescription far outweighed the proportion of adults. However, since the COVID-19 pandemic, prescribing to adults and prescribing to stimulant naïve patients has increased, possibly due to an increase in attention-deficit/hyperactivity disorder (ADHD) diagnosed later in life, and popularization of stimulant prescriptions to facilitate weight loss.²¹ Similar trends are evident in nationwide data.²² Providers should continue to educate stimulant patients on the potential hypertensive and cardiac side effects of stimulant drugs, the risk of stimulant-use disorder, and symptoms of overamping. Future work should investigate the incidence of emergency room visits with stimulant overamping symptoms in response to the surge of stimulant prescribing.

Using RI PDMP data for this study is a great strength, as it is a comprehensive system that automatically registers prescribers and requires them to provide complete data on all controlled substances and opioid antagonists dispensed through retail pharmacies. This project is, however, subject to several limitations. First, the RI PDMP has limited demographic data for patients captured in its records and does not include race or ethnicity data. Second, the RI PDMP does not capture data on prescriptions prescribed and not dispensed. If a patient does not fill their prescription, the database does not record it. In addition to this, products not dispensed at a retail pharmacy, such as medication sold OTC, administered in OTPs, administered in the Department of Corrections, or administered in an emergency department or hospital are not captured.

While the decrease in opioid prescription dispensations is promising and could represent the many efforts taken to reduce opioid related injury, other substances such as stimulant dispensations are on the rise. Surveillance and efforts to investigate changes in the prescription landscape as it relates to the overdose epidemic should continue in efforts to further reduce the number of unintentional fatal overdoses each year.

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