Patterns in psychotropic and other select nervous system prescription utilization

Emerging trends in pharmacy shopping and related overdoses

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Overdose deaths due to psychotropic and select central nervous system drugs are increasing in the United States. Does a member's prescription fill behavior relate to their overdose risk?

Accidental overdose deaths due to psychotropic and select central nervous system (CNS) drugs (antiepileptic, sedative-hypnotic, and antiparkinsonian medications) have increased significantly over the past two decades of data collection. In our previous analysis on this topic, we demonstrated that the annual overdose death rate due to these drugs has increased 1,048% from 1999 to 2020 in the United States.[1]

One of several behaviors identified during the opioid crisis among patients prescribed opioids that may indicate greater potential for unsafe use includes "pharmacy shopping." This is when a patient visits more than one pharmacy to fill a prescription(s) in an effort to avoid existing guardrails that would limit the quantity or frequency of medications dispensed from using only one pharmacy. Patients who fill prescriptions at many pharmacies may be attempting to avoid guardrails or they may be doing so for other innocuous reasons like convenience, shortages in the supply of select medications, or affordability.

Oftentimes, "pharmacy shopping" is more common with "doctor-shopping," or visiting more than one doctor for the same prescription. A 2020 peer-reviewed study by the National Institutes of Health found that 12.6% of patients who self-reported severe shopping practices misused or abused opioids, compared to 7.8% of patients who did not self-report pharmacy and "doctor-shopping" practices. In the survey, 59.1% of patients in the severe shopping category indicated that they "visited several different pharmacies for convenience."[2]

Studies of self-reported data are subject to limitations due to a number of biases, including social desirability bias, where individuals may be more likely to respond in ways that they believe to be socially desirable. This NIH study addresses under-reporting by stratifying members into self-reported "social desirability" tertiles and assessing whether these tertiles were associated with self-reported outcomes.[2] The study also compared claims data of study participants against the claims data of non-participants. However, the study notes that social stigma may still play a role in underestimating behaviors of opioid abuse and misuse.

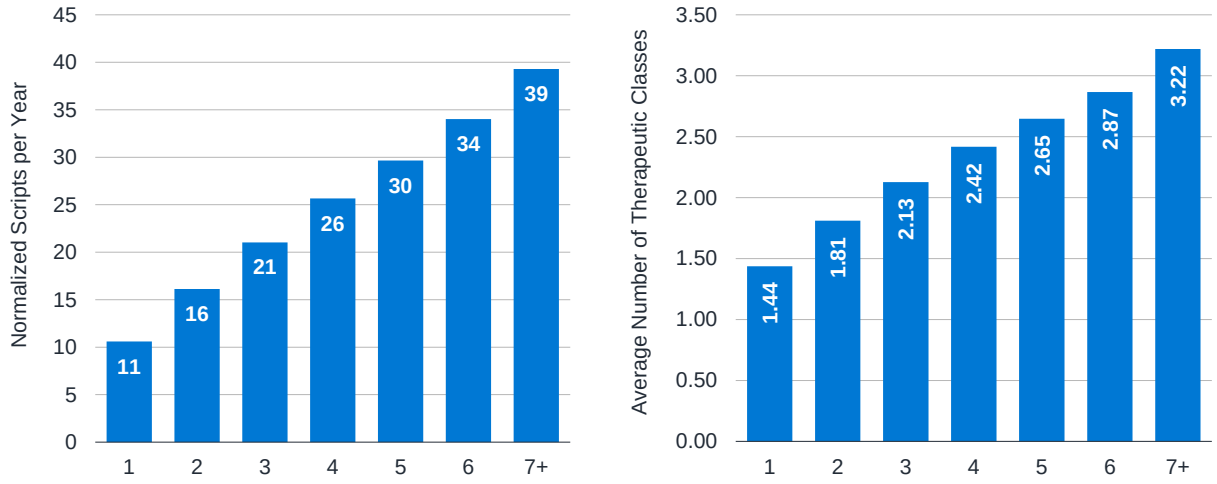
While the opioid crisis has received significant attention as a public health issue, overdose rates have been increasing for other types of drugs as well, and there is limited research into pharmacy shopping practices as it pertains to these medication classes, such as psychotropic and CNS drugs. We used data from Milliman's Consolidated Health Cost Guidelines™ Sources Database (CHSD) proprietary research database to analyze the prevalence of overdoses due to psychotropic and CNS drugs compared to the number of pharmacies where a member filled a prescription along with other characteristics of these overdoses.

Findings

Americans with commercial health insurance who fill prescriptions for psychotropic and/or CNS prescriptions at multiple pharmacies tend to fill more prescriptions.

Prescription drug claims were normalized to account for differences in days supply (see Methodology and Data Sources section for additional details). Psychotropic and CNS normalized scripts per member per year (PMPY) filled in 2021 increased as the number of pharmacies at which a member filled prescriptions for these drugs throughout the year increased. Members with psychotropic and CNS prescriptions at one pharmacy filled, on average, 11 normalized scripts PMPY in these therapeutic classes, whereas members with prescriptions at seven or more pharmacies filled, on average, 39 normalized scripts PMPY, over 3.5 times as many scripts (see Figure 1). Moreover, members with prescriptions at one pharmacy in 2021 averaged 1.44 different drug classes, and members with prescriptions at seven or more pharmacies filled prescriptions for on average over 2.2 times as many psychotropic and CNS classes, or 3.22 different psychotropic and CNS classes.

FIGURE 1: PSYCHOTROPIC AND CENTRAL NERVOUS SYSTEM NORMALIZED SCRIPTS PER MEMBER PER YEAR AND AVERAGE NUMBER OF THERAPEUTIC CLASSES BY THE NUMBER OF PHARMACIES WHERE MEMBERS FILLED A PRESCRIPTION, 2021, CHSD

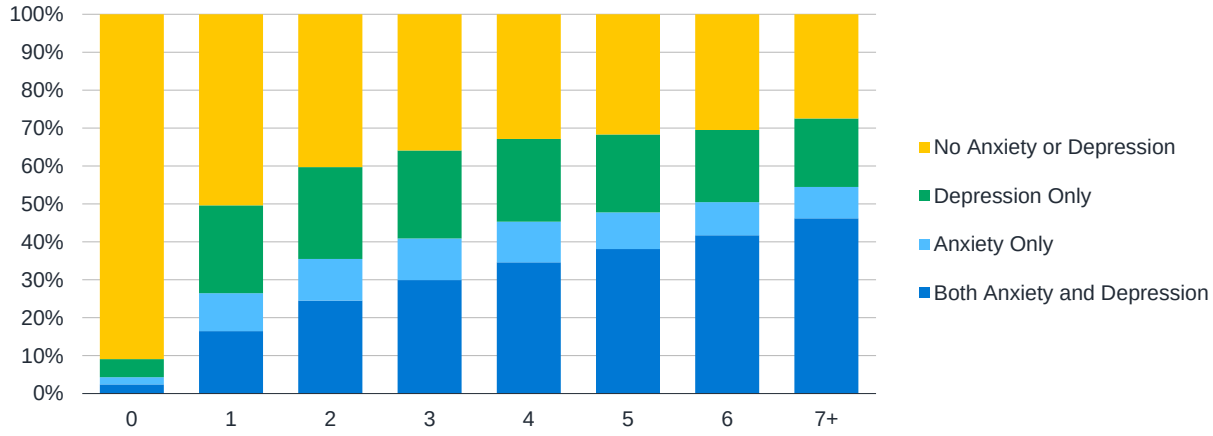


Together, these results suggest that those using more pharmacies may be associated with both a higher number of prescriptions, overall, as well as a greater variety of medication types, compared to those using fewer pharmacies.

Commercially insured members who fill prescriptions for psychotropic and/or CNS prescriptions at multiple pharmacies are more likely to have a recorded diagnosis of anxiety and/or depression.

Additionally, members who filled psychotropic and CNS prescriptions at multiple pharmacies in 2021 more frequently had a recorded diagnosis for anxiety and/or depression (see Methodology and Data Sources section for the definition of diagnoses). In particular, the percentage of members with a recorded diagnosis for both anxiety and depression was higher for members with fills at multiple pharmacies than those who only filled prescriptions at one pharmacy. Forty-six percent of members who filled prescriptions at seven or more pharmacies in 2021 were diagnosed with both anxiety and depression, compared to 16% of members who filled prescriptions at one pharmacy (see Figure 2).

FIGURE 2: PERCENT OF MEMBERS WITH RECORDED ANXIETY AND/OR DEPRESSION DIAGNOSES BY THE NUMBER OF PHARMACIES WHERE MEMBERS FILLED A PRESCRIPTION FOR PSYCHOTROPIC AND/OR CENTRAL NERVOUS SYSYTEM DRUG(S), 2021, CHSD

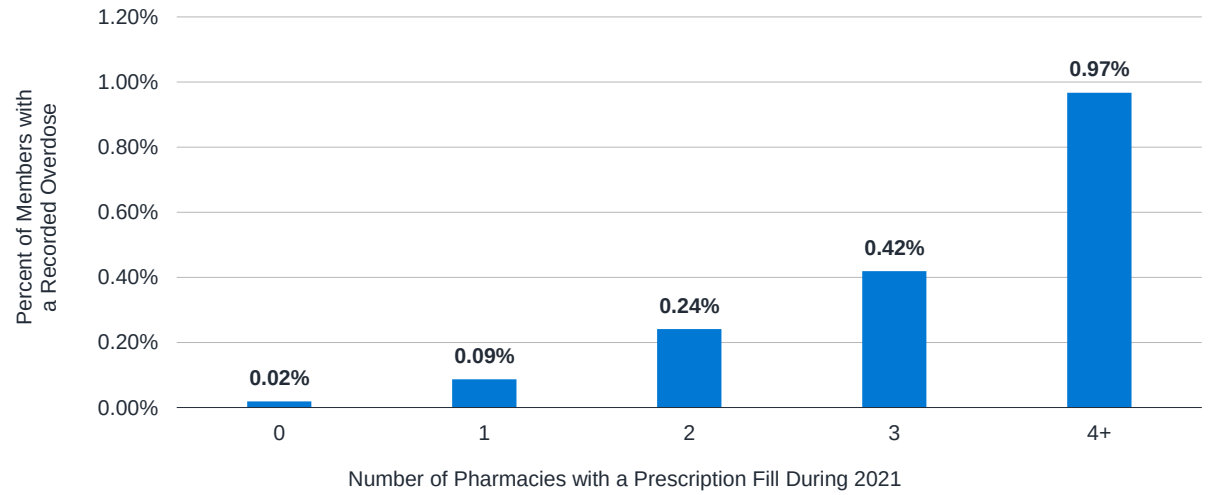


Although not a finding of causation, this observation may suggest that the use of more than one pharmacy may be associated with an increased likelihood of having a recorded diagnosis for anxiety, depression, or both, compared to those using only one pharmacy.

The frequency of overdose increased in 2021 as the number of pharmacies where commercially insured members filled prescriptions increased.

With each additional pharmacy where a member filled a prescription in 2021, the frequency of having a recorded diagnosis for overdose increased (Figure 3; see Methodology and Data Sources section for the definition of overdose rate). Members who filled prescriptions at two pharmacies had an overdose rate of 0.24%, 2.67 times more than members who filled prescriptions at a single pharmacy. Similarly, members who filled prescriptions at three pharmacies had an overdose rate of 0.42%, which was 1.75 times higher than members who filled prescriptions at two pharmacies, and members who filled prescriptions at four or more pharmacies had a recorded overdose at a rate of 0.97%, which was 2.31 times higher than members who filled prescriptions at three pharmacies. This suggests that those using multiple pharmacies (regardless of the cause for visiting multiple pharmacies) are more likely to have a recorded overdose than those using only one pharmacy.

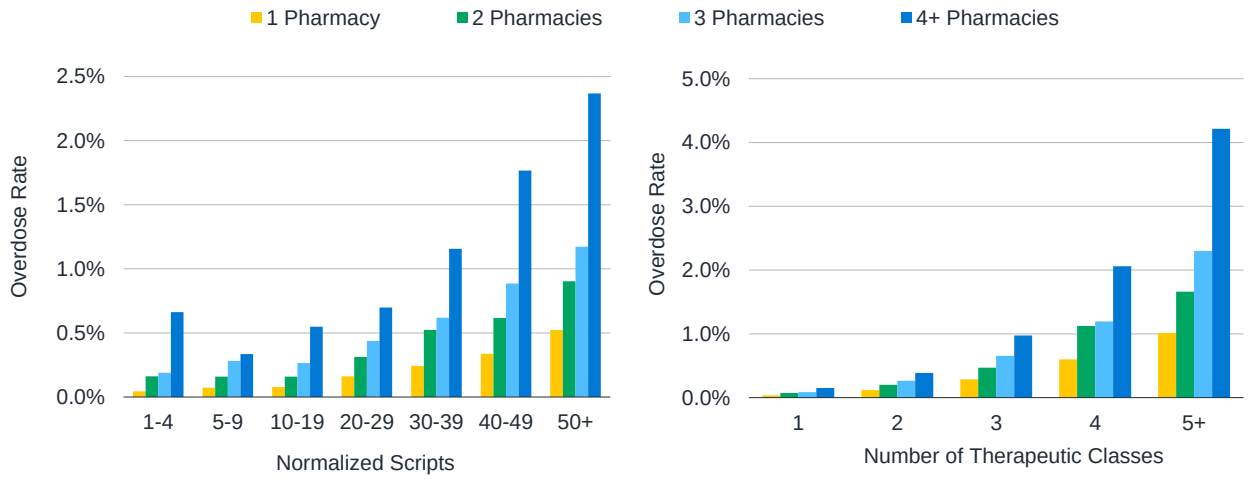
FIGURE 3: PERCENT OF MEMBERS WITH A RECORDED OVERDOSE DUE TO PSYCHOTROPIC AND SELECT CENTRAL NERVOUS SYSTEM DRUGS IN 2021 BY THE NUMBER OF PHARMACIES WHERE MEMBERS FILLED A PRESCRIPTION, 2021, CHSD



While members who filled prescriptions at multiple pharmacies had more script fills on average, the frequency of having a recorded overdose in 2021 was higher regardless of the number of scripts and the number of associated therapeutic classes that a member filled, as follows (Figure 4):

- Members who filled 19 or less scripts had a recorded overdose rate 8.5 times higher if they filled these scripts at four or more pharmacies than if they filled them at one (0.51% versus 0.06% recorded overdose rate, respectively).
- Members who filled more than 60 scripts had a recorded overdose rate 3.8 times higher if they filled these scripts at four or more pharmacies than if they filled them at one (2.47% versus 0.65% recorded overdose rate, respectively).
- Members who only filled one therapeutic class had 3.75 times higher a recorded overdose rate if they filled their prescription at four or more pharmacies than if they filled their prescription at one pharmacy (0.15% versus 0.04% recorded overdose rate, respectively).
- Members who filled five or more classes had 4.17 times higher a recorded overdose rate if they filled their prescriptions at four or more pharmacies than if they filled their prescriptions at one pharmacy (4.21% versus 1.01% recorded overdose rate, respectively).

FIGURE 4: PERCENT OF MEMBERS WITH A RECORDED DIAGNOSIS FOR OVERDOSE IN 2021 BY THE NUMBER OF PHARMACIES WHERE MEMBERS FILLED A PRESCRIPTION AND THE NUMBER OF NORMALIZED PSYCHOTROPIC OR CENTRAL NERVOUS SYSTEM SCRIPT FILLS AND THERAPEUTIC CLASSES FILLED, 2021, CHSD

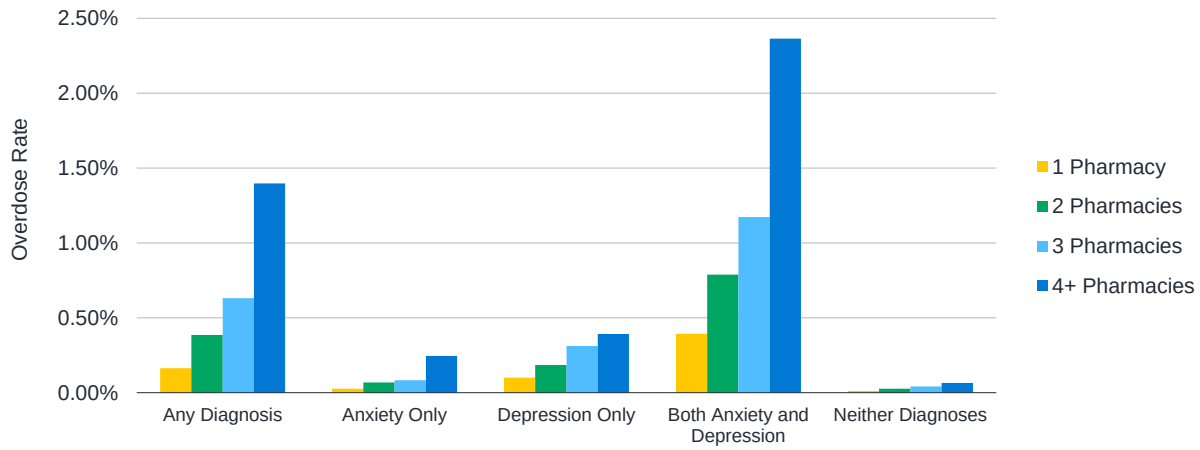


Total 2021 Normalized Scripts	Number of Pharmacies				Total
	1	2	3	4+	
1 – 19	0.06%	0.16%	0.27%	0.51%	0.08%
20 – 39	0.18%	0.38%	0.50%	0.87%	0.27%
40 – 59	0.36%	0.68%	0.91%	1.94%	0.60%
60 +	0.65%	1.01%	1.38%	2.47%	1.01%
Total	0.09%	0.24%	0.42%	0.97%	0.03%

Number of therapeutic classes	Number of Pharmacies				Total
	1	2	3	4+	
1	0.04%	0.07%	0.09%	0.15%	0.04%
2	0.12%	0.20%	0.26%	0.39%	0.15%
3	0.29%	0.47%	0.66%	0.97%	0.39%
4	0.60%	1.13%	1.20%	2.06%	0.90%
5+	1.01%	1.66%	2.30%	4.21%	1.69%

Additionally, while members who filled prescriptions at multiple pharmacies more frequently had a recorded anxiety or depression diagnosis, the recorded overdose rate increased when members filled at multiple pharmacies, regardless of diagnosis: members with any recorded anxiety or depression diagnosis had a recorded overdose rate 8.75 times higher in 2021 if they filled their prescriptions at four or more pharmacies than at one pharmacy (1.40% versus 0.16% overdose rate, respectively; see Figure 5).

FIGURE 5: PERCENT OF MEMBERS WITH A RECORDED OVERDOSE IN 2021 BY THE NUMBER OF PHARMACIES WHERE MEMBERS FILLED A PRESCRIPTION FOR PSYCHOTROPIC OR CENTRAL NERVOUS SYSTEM AND THE MEMBER'S DIAGNOSIS, 2021, CHSD



Diagnosis	Number of pharmacies					Total
	0	1	2	3	4+	
Any Diagnosis	0.17%	0.16%	0.39%	0.63%	1.40%	0.20%
Anxiety Only	0.03%	0.03%	0.07%	0.08%	0.25%	0.03%
Depression Only	0.10%	0.10%	0.19%	0.31%	0.39%	0.11%
Anxiety and Depression	0.50%	0.39%	0.79%	1.17%	2.36%	0.53%
Neither Diagnoses	0.00%	0.01%	0.03%	0.04%	0.06%	0.03%

These findings suggest that the increased risk of overdose from psychotropic and select CNS drugs for those using multiple pharmacies is not entirely explained by differences in the number of prescriptions, medication types, or diagnoses that these individuals experience.

Discussion

The research described herein is suggestive of a potential relationship between the number of pharmacies in which a member fills their prescriptions for psychotropic and/or CNS drugs and the frequency of a recorded diagnosis of overdose from these drugs. Our previous research found that in 2020, members had an increased frequency of a recorded overdose with an increase in prescriptions across multiple therapeutic classes and with a recorded diagnosis for depression and/or anxiety diagnosis (see callout for data summary).[1] Our current research found that in 2021, members who filled prescriptions at many pharmacies generally filled prescriptions in more therapeutic classes and more frequently had a recorded anxiety or depression diagnosis, and that members who filled prescriptions at many pharmacies filled more scripts on average. We also found that as the number of pharmacies where a member filled a prescription increased, the member's frequency of a recorded overdose in 2021 also increased regardless of the other risk factors that we analyzed.

- Members who filled prescriptions in 7+ classes for psychotropic and/or select CNS drugs had a 7.7% overdose rate, compared to an 0.046% overdose rate for members who filled prescriptions in only 1 class.[1]
- Members who filled prescriptions in 1-3 classes for psychotropic and/or select CNS drugs had a 0.5% recorded overdose rate if they had a recorded anxiety and depression diagnosis, a 0.1% recorded overdose rate if they were diagnosed with depression only, a 0.03% overdose rate if they were diagnosed with anxiety only, and a 0.015% recorded overdose rate if they had no recorded anxiety or depression diagnosis.[1]

There are many reasons why a member might fill prescriptions at more than one pharmacy. Members may live in or visit different locations over the course of the year or there may be multiple local pharmacies that are convenient to the member or there may be shortages in the supply of select medications at select pharmacies. Some patients with complex health needs may choose to use multiple pharmacies due to differences between pharmacies in the availability or acceptance of discounts, or in their effectiveness at navigating insurance coverage steps like prior authorization. Further, only some of the drug types studied in this analysis are controlled substances and many are not typically subject to any specific frequency or quantity limits designed to reduce the risk of misuse. Thus, the use of a high number of pharmacies is not necessarily indicative of an intent to avoid prescription drug guardrails. Regardless of the reason for individuals to fill prescriptions at many pharmacies, this behavior may still constitute a risk factor worth consideration.

There are several existing guardrails in place to prevent unsafe prescription use, including prescription drug monitoring programs (PDMPs), drug utilization review (DUR) by pharmacy benefit managers (PBMs) and through Medicaid lock-in programs, and legislative action for over-the-counter medication such as pseudoephedrine (see callout for additional detail on these). Because PDMPs are focused on controlled substances, they may not be effective at monitoring risky combinations or fill patterns of the medications we studied, many of which are not controlled substances. PBM DUR processes encompass all prescription drugs but can be focused on each fill of a controlled substance or drug in isolation. Medicaid lock-in programs identify at-risk patients' use of different pharmacies or different doctors for the same prescription need. Neither PDMPs nor over-the-counter measures are able to necessarily review an individual's entire prescription list, but pharmacy lock-in programs can view all claims for the individual under the program specifics. PDMPs can track prescription fills paid outside of insurance, allowing pharmacies and providers to see all prescriptions filled for the patient, regardless of how they were paid. Some states share PDMP data across bordering states with an intent to reduce patients filling prescriptions across state lines.

Relying on data feeds from multiple pharmacies allows the government to track all pseudoephedrine fills regardless of whether they were processed through insurance, but this process was only operationalized for a single drug. It is unclear whether federal or state governments currently have the infrastructure that would allow for different pharmacies to coordinate with each other on all prescriptions, and how this information would be linked to medical and diagnosis data to allow for proper evaluation of the patient's medication with respect to their other health risks and the prescription's relative benefit. Health information exchanges (HIEs) can accomplish this, but they may only have access to patients within a certain healthcare provider network and are typically opt-in.[3]

Our data excludes any fills where the member paid for the drug without insurance, either due to intentional desire on the part of the patient to not use insurance or because the patient lacks insurance. These prescription fills are also excluded from electronic medical records (EMRs) unless the patient chooses to report them, so doctors and pharmacists (and therefore PDMPs) would not have automatic access to these records. PBMs would also not have this data because they are not adjudicating these claims. In addition, our data does not reliably capture illicit drug use or excessive alcohol consumption, which can result in overdose deaths or cause harm when used in concert with certain prescription drugs. EMRs used to monitor prescription safety may also have incomplete, missing, or inaccurate data as well, as patients may not always disclose this information to their doctors. It is possible that substance use disorder may play a role in the overdose risk of members with or without a recorded anxiety and/or depression diagnosis.

Prescription labels also serve to protect the patient, as they can educate the patient on proper usage. They contain information on the correct dosage and also list warnings about adverse side effects when taken with alcohol or other substances, including other drugs. However, patients may not read these labels or may not understand them. A study published in the *Australian Prescriber* noted how almost half of the participants in a U.S. trial with 395 participants misunderstood dispensing instructions on five common medications.[9] Increased conversations and relationships between pharmacists and doctors and patients could promote safer use, both by expanding the patient's knowledge of the drugs they take and by giving providers the opportunity to evaluate the patient's entire records in more depth.

PRECEDENCE FOR DRUG MONITORING

As of this publication, all 50 states, the District of Columbia, and Guam use prescription drug monitoring programs (PDMPs). PDMPs oftentimes rely on electronic medical records (EMR), which allow doctors and pharmacists to access a patient's full pharmacy profile as maintained in the system based on insurance claims for and self-reported drugs. PDMPs can be non-mandated, utilize proactive reporting, or be mandated. In non-mandated PDMPs, the provider can access the database at their discretion, whereas proactive reporting sends providers unsolicited reports of patients with unsafe prescription combinations or doses, and mandated PDMPs require providers to review PDMP data before they prescribe a drug. Mandated and proactive reporting PDMP programs mainly focus on opioids and other controlled substances like benzodiazepines and stimulants.[4]

Many pharmacy benefit managers (PBMs) have drug utilization review (DUR) systems in place to ensure prescription safety, even when patients fill prescriptions across multiple states or at multiple pharmacies, or when patients fill prescriptions from multiple doctors. PBMs do not have access to the patient's medical data or to any prescriptions that may have been filled without using insurance.[5] PBMs may also implement management tactics like prior authorization or quantity limits in order to ensure safe prescribing patterns, but these tactics tend to target drugs individually as opposed to evaluating the member's prescriptions holistically.[6] PBMs or insurers are also required to track controlled substances like attention deficit hyperactivity disorder (ADHD) medications filled through insurance, similar to a PDMP.

Medicaid lock-in programs identify at-risk patients through claims data, or less frequently, through the referral of a medical provider. These patients are subsequently required to fill prescriptions from pre-designated pharmacies and prescribers. Typically, beneficiaries are restricted to using one prescriber, one pharmacy, or both to prevent provider or pharmacy shopping practices.[7]

The Combat Methamphetamine Epidemic Act of 2005 requires patients to present identification at the pharmacy counter when purchasing the over-the-counter cold medication pseudoephedrine, an ingredient sometimes used in the illegal production of the stimulant methamphetamine, adding their prescription fills to a national database that allows the government to track usage.[8]

FURTHER RESEARCH

The underlying cause for the apparent relationship between the use of multiple pharmacies and overdose due to psychotropic and select CNS drugs risk is not clear, and future research to better understand the nature of this association as well as how it might be mitigated could be impactful. The first priority is the role of other mental health therapy besides medication management, including coordination and oversight of mental healthcare as it relates to prescriptions and overdoses. Other health system characteristics to explore might include the number of doctors per member writing prescriptions as well as the mode through which the prescriptions are sought, i.e., in-office versus telehealth visits. Time-series analyses of changes in the proportion of members with mental health conditions and treatment (i.e., the percentage of members in therapy or filling psychiatric medications) over time may also help to better understand why psychotropic and CNS overdose deaths are increasing.

Second, additional patient-level characteristics that can be added to an analysis such as the one we conducted might include the length of time of medication use by drug compared to the number of scripts filled to determine if fills were concentrated into a certain time period. Retrospective clinical reviews of members' prescription fills to identify potentially dangerous prescription combinations might elucidate increased risk for a drug-related overdose as well. We could also segment members into more granular anxiety and depression diagnoses or research whether members with other recorded mental health or substance use disorder diagnoses are more likely to have a recorded overdose. The use of mental health-related services like therapy could also serve as another predictor of risk.

Third, in terms of pharmacy characteristics, other factors include geographic location and whether members who fill in multiple states experience overdoses at a higher rate in order to understand the implication for intra- versus inter-state program planning. Analyzing EMRs of members with overdose claims in tandem with claims data could provide a more holistic view of patients and the circumstances that may have contributed to overdoses. While our research focused only on the commercially insured population, the uninsured population (25.3 million Americans in 2023)[7] may also be vulnerable due to lack of PBM and payer oversight capabilities and sufficient research to assess their risk. Last, we could evaluate how direct-to-consumer advertising expenditures and methods correlate to the outcomes described above.

LIMITATIONS

Our research evaluated the frequency of overdose as determined by the presence of a recorded diagnosis code for members by the number of pharmacies at which they filled prescriptions for specified psychotropic and CNS drugs and other risk characteristics. Even though we evaluated the risk profile of members who filled prescriptions at multiple pharmacies, there may be other unmeasured, underlying risk factors for members who filled prescriptions at multiple pharmacies, such as illicit drug or alcohol use. We did not evaluate the presence of multiple risk factors at once (i.e., a recorded diagnosis and prescription fills in many therapeutic classes) along with filling prescriptions at many pharmacies. We also did not distinguish between the severity of anxiety or depression diagnoses. Additionally, specific combinations of psychotropic and CNS drugs may be more clinically risky than other combinations.

We identified several members with a recorded overdose without a recorded 2021 prescription fill. These members may have filled prescriptions without the use of insurance, they might have filled a prescription earlier than 2021, or this could represent a diversion of certain drugs from the intended use. Additionally, certain overdoses are captured in this analysis, such as overdoses from caffeine or ecstasy (ICD-10 CM codes T43.611 and T43.641, respectively). With our current data set, we have no way of knowing how the members who overdosed from prescription drugs obtained those drugs.

We also included subsequent encounter and sequela overdose codes in our data. Around 2% of members with a recorded overdose code in this study did not have a recorded overdose initial encounter in 2021. Additionally, our research required members to be continuously enrolled through all 12 months of 2021. This methodology may eliminate from analysis those members who died from an overdose but ensures consistency when analyzing potential overdose risk factors.

Methodology and data sources

DATA SOURCES

This study analyzed claims data for commercially insured members continuously enrolled from January 2021 through December 2021, in all 50 states, the District of Columbia, and U.S. territories, representing 75 million covered lives.

METHODOLOGY

We included data for commercially insured members in the CHSD continuously enrolled from January 2021 through December 2021 aged 64 years and younger and used the following system to identify those with overdoses, related prescriptions, and depression and anxiety diagnoses:

We classified members as having an overdose if they had at least one inpatient or emergency room claim with an ICD-10-CM diagnosis code of T42 (poisoning by, adverse effect of, and underdosing of antiepileptic, sedative-hypnotic, and antiparkinsonian drugs) and/or T43 (poisoning by, adverse effect of, and underdosing of tricyclic and tetracyclic antidepressants), excluding codes for underdosing, adverse events, and assault, regardless of whether they filled prescriptions for a drug in a therapeutic class related to these overdose codes.

We identified relevant therapeutic drug classes based on the World Health Organization's therapeutic class list associated with ICD-10 X61, "Intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified." We then performed a clinical review, utilizing Medi-Span Generic Product Identifiers (GPIs), to map National Drug Codes (NDCs) to the therapeutic class and subsequently identify members who filled relevant prescriptions (See Appendix 1 for more details on the therapeutic classes included in the analysis).

We only included pharmacies where the member filled a psychotropic or CNS medication. We counted normalized scripts using the following days supply thresholds:

Raw Script's Days Supply	Number of Normalized Scripts
1 to 45	1
46 to 75	2
76 to 105	3
106 to 135	4
> 135	5

We identified members with anxiety and depression diagnoses with at least one inpatient, outpatient, or professional claim with ICD-10-CM diagnosis codes F41, and F32 through F34, respectively, in any position.

The overdose rates we report indicate the frequency for which members experienced overdoses at least once in 2021 as opposed to the frequency of overdose claims in 2021.

Results were not normalized for age, sex, and regional differences, and the statistical significance of our findings was not evaluated.

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Appendix

APPENDIX 1: LIST OF INCLUDED DRUG CLASSES AND THEIR ASSOCIATED MEDI-SPAN GPI-6 AND THERAPEUTIC DRUGS

Drug Class	Medi-Span GPI-6	Therapeutic Drugs
Antianxiety Agents	579990, 572000, 571000	Alprazolam-Dietary Management Product, Diazepam-Dietary Management Product, Buspirone Hcl, Droperidol, Hydroxyzine Hcl, Hydroxyzine Pamoate, Meprobamate, Alprazolam, Chlordiazepoxide Hcl, Clorazepate Dipotassium, Diazepam, Lorazepam, Lorazepam-Dextrose, Lorazepam-Sodium Chloride, Oxazepam
Anticonvulsants	725500, 729960, 721000, 726000, 721200, 721700, 725000	Perampanel, Gabapentin-Dietary Management Product, Clobazam, Clonazepam, Diazepam (Anticonvulsant), Midazolam (Anticonvulsant), Brivaracetam, Cannabidiol, Eslicarbazepine Acetate, Ezogabine, Fenfluramine Hcl (Anticonvulsant), Gabapentin, Ganaxolone, Lacosamide, Lamotrigine, Levetiracetam, Levetiracetam In Sodium Chloride, Pregabalin, Primidone, Rufinamide, Stiripentol, Topiramate, Zonisamide, Cenobamate, Felbamate, Tiagabine Hcl, Vigabatrin, Divalproex Sodium, Valproate Sodium, Valproic Acid
Antidepressants	580300, 589999, 589990, 589980, 589985, 589987, 583000, 580600, 581000, 581100, 581600, 581200, 581800, 582000	Mirtazapine, Dextromethorphan Hydrobromide-Bupropion Hydrochloride, Bupropion Hcl-Dietary Management Product, Trazodone Hcl-Dietary Management Product, Citalopram & Dietary Management Product, Escitalopram Oxalate & L-Methylfolate-Vit B6-Vit B12-Vit D, Fluoxetine Hcl-Dietary Management Product, Amitriptyline Hcl & Dietary Management Product, Bupropion Hcl, Bupropion Hydrobromide, Maprotiline Hcl, Brexanolone, Isocarboxazid, Phenelzine Sulfate, Selegiline, Tranylcypromine Sulfate, Esketamine Hcl, Citalopram Hydrobromide, Escitalopram Oxalate, Fluoxetine Hcl, Fluvoxamine Maleate, Paroxetine Hcl, Paroxetine Mesylate, Sertraline Hcl, Nefazodone Hcl, Trazodone Hcl, Vilazodone Hcl, Vortioxetine Hbr, Desvenlafaxine, Desvenlafaxine Fumarate, Desvenlafaxine Succinate, Duloxetine Hcl, Levomilnacipran Hcl, Venlafaxine Besylate, Venlafaxine Hcl, Amitriptyline Hcl, Amoxapine, Clomipramine Hcl, Desipramine Hcl, Doxepin Hcl, Imipramine Hcl, Imipramine Pamoate, Nortriptyline Hcl, Protriptyline Hcl, Trimipramine Maleate
Antiparkinson and Related Therapy Agents	734010, 734030, 731000, 731520, 731530, 732000, 732099, 732030, 733000	Istradefylline, Carbidopa, Benztropine Mesylate, Biperiden Hcl, Procyclidine Hcl, Trihexyphenidyl Hcl, Tolcapone, Entacapone, Opicapone, Amantadine Hcl, Bromocriptine Mesylate, Levodopa, Pergolide Mesylate, Carbidopa-Levodopa, Carbidopa-Levodopa-Entacapone, Apomorphine Hydrochloride, Pramipexole Dihydrochloride, Ropinirole Hydrochloride, Rotigotine, Rasagiline Mesylate, Safinamide Mesylate, Selegiline Hcl
Barbiturates	601000	Amobarbital Sodium, Butabarbital Sodium, Mephobarbital, Pentobarbital Sodium, Phenobarbital, Phenobarbital Sodium, Secobarbital Sodium
Hydantoin derivatives	722000	Ethotoin, Fosphenytoin Sodium, Phenytoin, Phenytoin Sodium, Phenytoin Sodium Extended, Phenytoin Sodium Prompt
Iminostilbenes	726000	Carbamazepine, Oxcarbazepine
Neuroleptics	595000, 594000, 590700, 591000, 591550, 591520, 591530, 591540, 591570, 591600, 592000, 592500, 593000	Lithium, Lithium Carbonate, Lithium Citrate, Carbamazepine (Mood), Cariprazine Hcl, Lumateperone Tosylate, Lurasidone Hcl, Pimavanserin Tartrate, Ziprasidone Hcl, Ziprasidone Mesylate, Iloperidone, Paliperidone, Paliperidone Palmitate, Risperidone, Risperidone Microspheres, Haloperidol, Haloperidol Decanoate, Haloperidol Lactate, Asenapine, Asenapine Maleate, Clozapine, Quetiapine Fumarate, Loxapine, Loxapine Succinate, Olanzapine, Olanzapine Pamoate, Molindone Hcl, Chlorpromazine, Chlorpromazine Hcl, Fluphenazine Decanoate, Fluphenazine Hcl, Perphenazine, Prochlorperazine, Prochlorperazine Edisylate, Prochlorperazine Maleate, Thioridazine Hcl, Trifluoperazine Hcl, Aripiprazole, Aripiprazole Lauroxil, Aripiprazole With Sensor, Aripiprazole With Sensor, Strips, & Pod, Brexpiprazole, Thiothixene
Psychostimulants	611099, 611000, 614098, 614099, 614000	Amphetamine-Dextroamphetamine, Amphetamine, Amphetamine Sulfate, Dextroamphetamine, Dextroamphetamine Sulfate, Lisdexamfetamine Dimesylate, Methamphetamine Hcl, Serdexmethylphenidate Chloride-Dexmethylphenidate Hcl, Modafinil & Dietary Management Product, Armodafinil, Dexmethylphenidate Hcl, Methylphenidate, Methylphenidate Hcl, Modafinil
Succinimides	724000	Ethosuximide, Methsuximide

Drug Class	Medi-Span GPI-6	Therapeutic Drugs
Tranquillizers	603099, 603000, 609980, 609985, 609900, 604000, 602010, 602000, 602040, 602060, 605000, 602500	Acetaminophen-Aspirin-Diphenhydramine Citrate, Diphenhydramine Citrate-Aspirin, Diphenhydramine-Acetaminophen (Sleep), Ibuprofen-Diphenhydramine Citrate, Ibuprofen-Diphenhydramine Hcl, Naproxen Sodium-Diphenhydramine Hcl, Diphenhydramine Hcl (Sleep), Doxylamine Succinate (Sleep), Temazepam-Dietary Management Product, Zolpidem & Dietary Management Product, Midazolam-Ketamine Hcl-Ondansetron Hcl, Doxepin Hcl (Sleep), Estazolam, Flurazepam Hcl, Midazolam, Midazolam Hcl, Midazolam Hcl-Dextrose, Midazolam Hcl-Sodium Chloride, Midazolam-Sodium Chloride, Quazepam, Remimazolam Besylate, Temazepam, Triazolam, Chloral Hydrate, Paraldehyde, Eszopiclone, Zaleplon, Zolpidem Tartrate, Dexmedetomidine Hcl, Dexmedetomidine Hcl In Dextrose, Dexmedetomidine Hcl In Sodium Chloride, Daridorexant Hcl, Lemborexant, Suvorexant, Ramelteon, Tasimelteon

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