2024 Annual Report

South Carolina Prescription Monitoring Program

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2006

Legislation passed

- Legislation was passed mandating SC PMP.

February 2008

SCRIPTS Launched

- SC PMP was launched.

January 2014

Legislation passed

- Legislation was passed requiring dispensers to upload their dispensations daily to SC PMP.

November 2014

Revised Pain Management Guidlines

- Joint Revised Pain Management Guidelines Approved by the SC State Medical Board, SC Board of Dentistry, and SC Board of Nursing consider registration and utilization of SC PMP "mandatory for prescribers to provide safe, adequate pain treatment."

December 2014

State Plan to Prevent and Treat Prescription Drug Abuse

- The Governor's Prescription Drug Abuse Prevention Council released the State Plan to Prevent and Treat Prescription Drug Abuse.

September 2015

First integrations

- First two integrations of SC PMP into Emergency Departments' electronic health records were completed.

November 2015

Online registration

- SC PMP switched vendors and started online registration for users, registration of delegate accounts, and online password resets.

May 2017

Mandated prescriber use of PMP

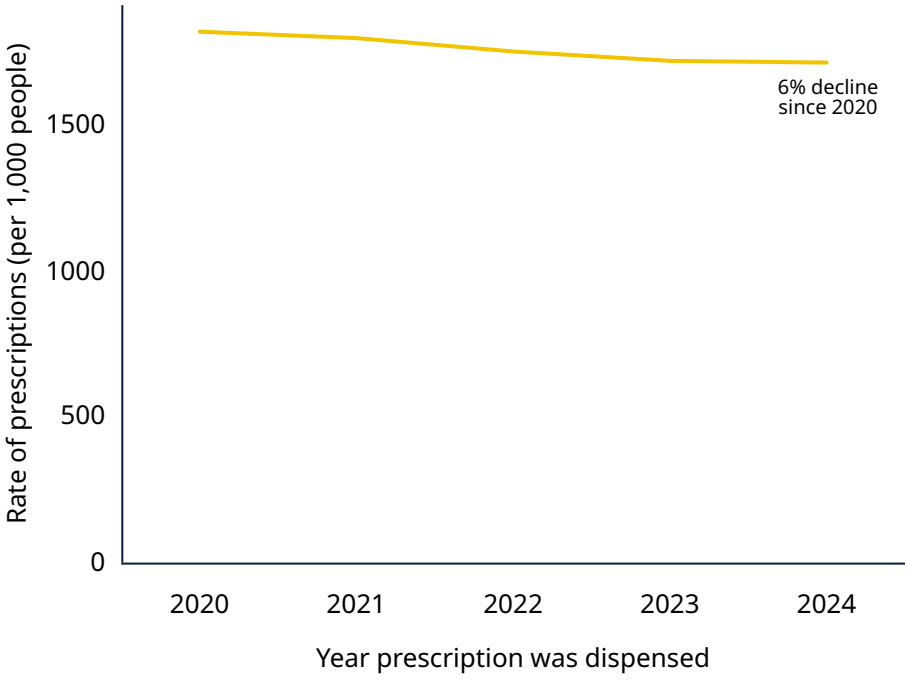
- Mandated that prescribers must check the PMP prior to issuing any CII prescriptions greater than a 5-day supply. (S.C. Code Ann. § 44-53-1645)

I. Executive Summary

The South Carolina Prescription Monitoring Program (SC PMP) became fully operational on February 1, 2008. The purpose of the SC PMP is intended to improve the state's ability to identify and stop the diversion of prescription drugs in an efficient and cost-effective manner that will not impede the appropriate medical utilization of licit controlled substances. This summary highlights (1) prescription trends, (2) trends in prescriber and pharmacist SC PMP utilization, (3) prescription trends by prescriber specialty, (4) prescription trends among in-state and out-of-state prescribers, and (5) opioid antidote administration trends. The full report provides details regarding the dispensing patterns in SC by drug schedule.

In 2024, SC dispensed a total of 9,402,218 controlled substance prescriptions, representing an approximate 6% decline in the overall dispensing rate since 2020 (Figure 1). A closer look at prescribing trends by drug category between 2020 and 2024 (Figure 2) shows a significant shift: both benzodiazepine and opioid prescription rates dropped by about 14%, while the stimulant prescription rate rose by 16%. Of particular note, from 2022 through 2024, dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate consistently ranked as the most frequently dispensed controlled substance in the state. For further details on the characteristics of these prescriptions, see Table 1.

Figure 1. Rate of controlled substances dispensed, 2020 - 2024



August 2017

Quarterly prescriber reports

- Sent out first round of quarterly prescriber report cards of approximately 8,000 prescribers.

January 2018

First OERT meeting

- First meeting of the Opioid Emergency Response Team (OERT) that marked the launch of a multi-lateral strategy aimed at coordinating rapid and effective responses to opioid-related public health emergencies.

May 2018

NarxCare began

- Limited initial opioid prescriptions for acute pain management or postoperative pain management to not exceed a seven-day supply, except when clinically indicated. (S.C. Code Ann. § 44-53-360)
- PMP began using NarxCare for prescribers and pharmacists to use for clinical decision support.

November 2018

Mandated prescriber reports

- Mandated quarterly prescriber report cards to provide a set of metrics of which included patient risk categories. (S.C. Code Ann. § 44-53-1655)

March 2020

First Meeting for Overdose Response Team

- The Overdose Response Team began weekly meetings with multiple jurisdictions, aimed at delivering immediate and coordinated responses to drug overdoses.

April 2020

Clinical alerts began

- Performed targeted education efforts to veterinarians regarding dispensation reporting requirements.
- Turned on clinical alerts to alert prescribers of potential risks including polypharmacy, multiple prescriber episodes, daily MME > 90, and overlapping opioid and benzodiazepine prescriptions.

May 2020

Interactive prescriber reports

- Prescriber reports are interactive when viewed in the SC PMP Aware portal.

Figure 2. Rate of controlled substances dispensed by drug class, 2020 - 2024

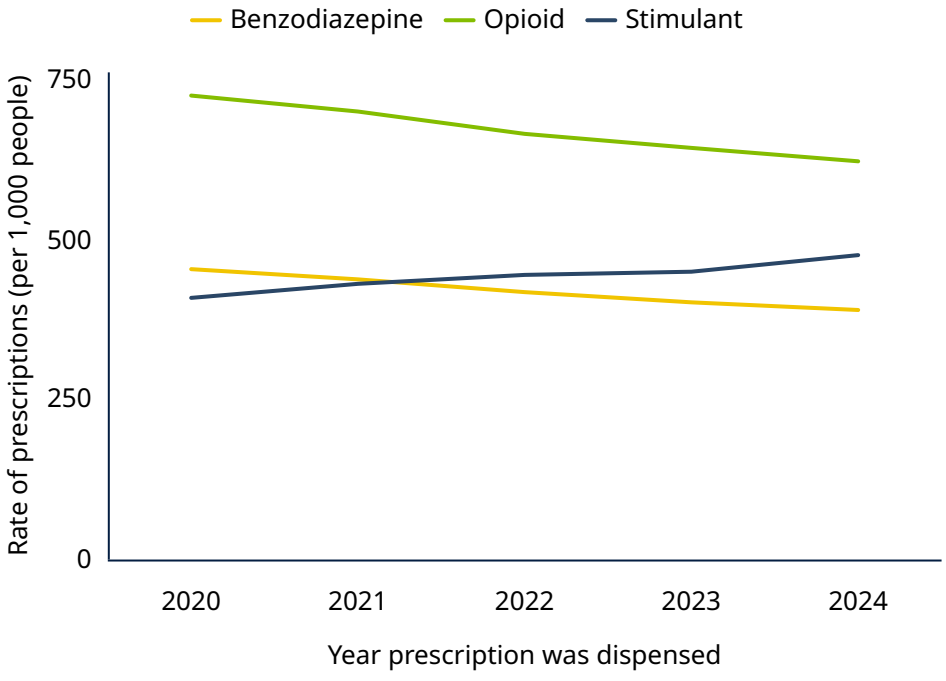


Table 1. Characteristics of controlled substance prescriptions dispensed in SC, 2020 - 2024

Characteristics	2020	2021	2022	2023	2024
Rate of Controlled Substance Prescriptions (per 1,000 people)	1,822	1,800	1,754	1,722	1,716
Number of Controlled Substance Prescriptions	9,352,394	9,346,294	9,264,872	9,254,128	9,402,218
Prescription Quantity[1]	462,876,451	453,309,254	442,491,578	434,146,495	434,739,629
Number of Unique Prescribers[2]	67,973	68,293	68,373	67,521	67,483
Number of Unique Pharmacies[3]	1,810	1,716	1,726	1,676	1,661

[1] Prescription quantity only includes controlled substances that were capsules or tablets.

[2] Number of unique prescribers is defined as the number of individual prescribers that prescribed a controlled substance that was dispensed in SC. This number is derived based on the number of unique prescriber DEA numbers. A single prescriber can have multiple DEA numbers.

[3] The number of unique pharmacies is defined as the number of individual pharmacies that dispensed a controlled substance prescription in SC. This number is derived based on the number of unique pharmacy DEA numbers.

December 2020

Interstate data sharing

- SCRIPTS users can access data from 44 other state PMPs, plus the District of Columbia, Puerto Rico and the Military Health System.

January 2021

Opioid antidote administrations and electronic prescribing

- Healthcare facilities and first responders are required to report opioid antidote administrations to DHEC. (S.C. Code Ann. § 44-130-60 & S.C. Code Ann. § 44-130-80)
- All controlled substances must be sent via electronic prescribing. (S.C. Code Ann. § 44-53-360)

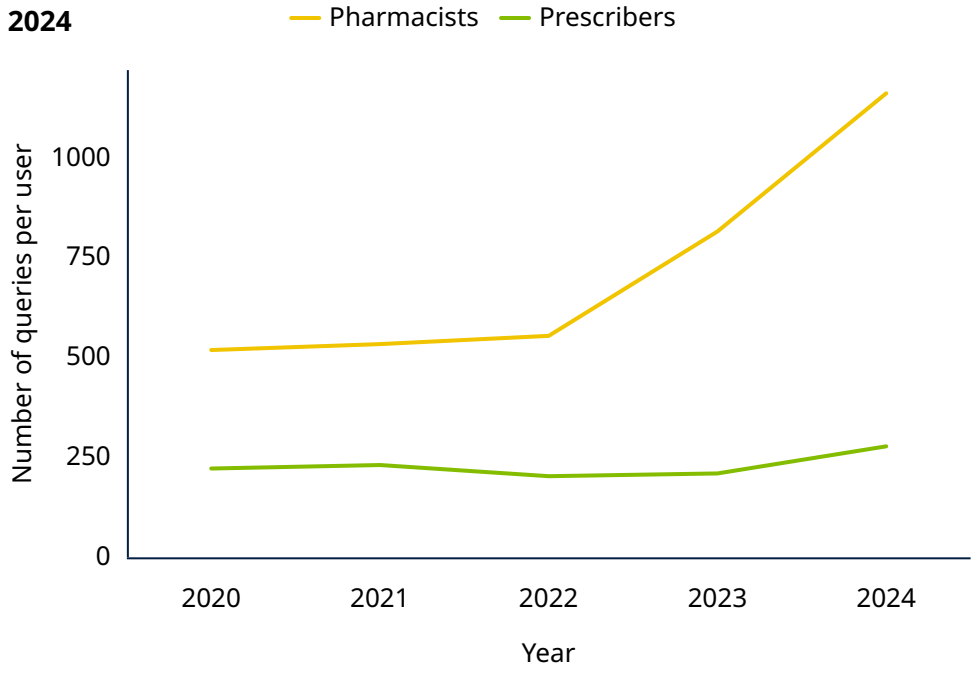
March 2024

Telehealth and Telemedicine Modernization Act

- SC passed the "South Carolina Telehealth and Telemedicine Modernization Act" which governs all licensees providing services via telehealth except for additional or more specific standards provided in the licensees' respective practice act.

Between 2020 and 2024, the total number of pharmacists and prescribers in SC grew by approximately 45%. During this same period, the usage of the SC PMP substantially increased, with queries per prescriber rising by 17% and queries per pharmacist increasing by an impressive 94% (Figure 3). This significant growth in SC PMP engagement is likely the result of ongoing education initiatives and targeted educational letter campaigns that have successfully raised awareness and encouraged more consistent use of the program among healthcare professionals.

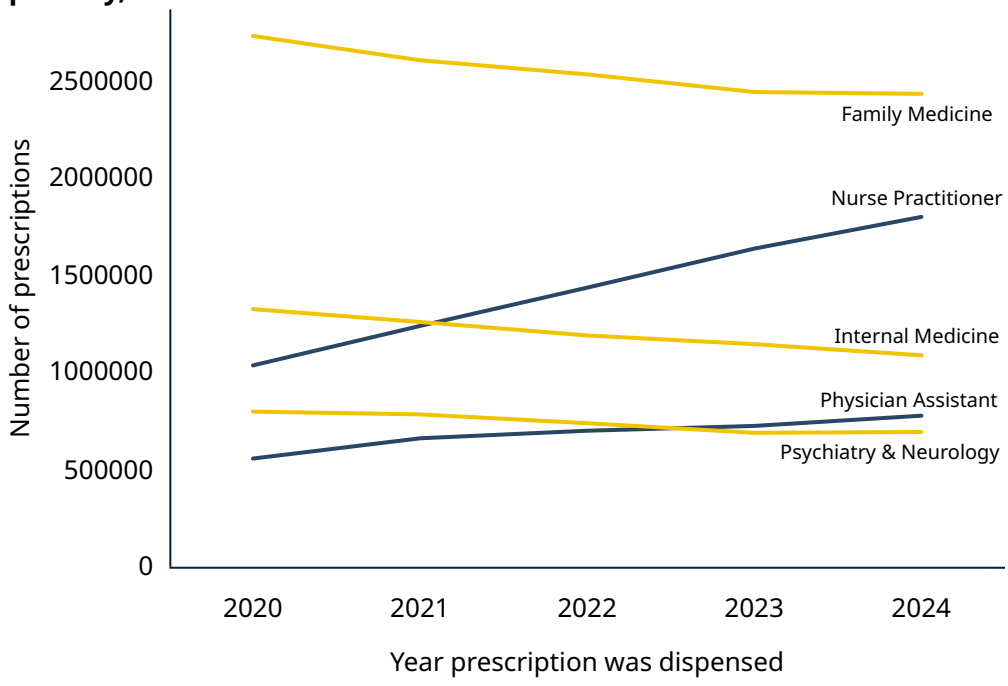
Figure 3. Number of prescriber and pharmacist queries[1] per user, 2020 - 2024



[1] A PMP query is defined as an active PMP user that retrieves a patient report that either does not return a result or returns a patient's dispensation history.

Family medicine continues to lead as the top physician specialty prescribing controlled substances in SC (Figure 4). Among the top five prescriber specialties, the overall number of controlled substances prescribed has declined across all groups since 2020, with the exception of nurse practitioners and physician assistants. Nurse practitioners have increased their prescribing by 54%, while physician assistants have seen a 33% increase. Despite these increases, both specialties have shown a reduction in average daily Morphine Milligram Equivalents (MME) per prescription since 2020—an 11% decrease for nurse practitioners and a 13% decrease for physician assistants. In 2024, the top five controlled substances prescribed by nurse practitioners were dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate, alprazolam, clonazepam, tramadol, and lorazepam, with Schedule IV prescriptions comprising the majority of prescriptions dispensed. In contrast, physician assistants predominantly prescribed Schedule II medications, with their top five being hydrocodone bitartrate/acetaminophen, dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate, oxycodone HCl/acetaminophen, oxycodone HCl, and tramadol HCl.

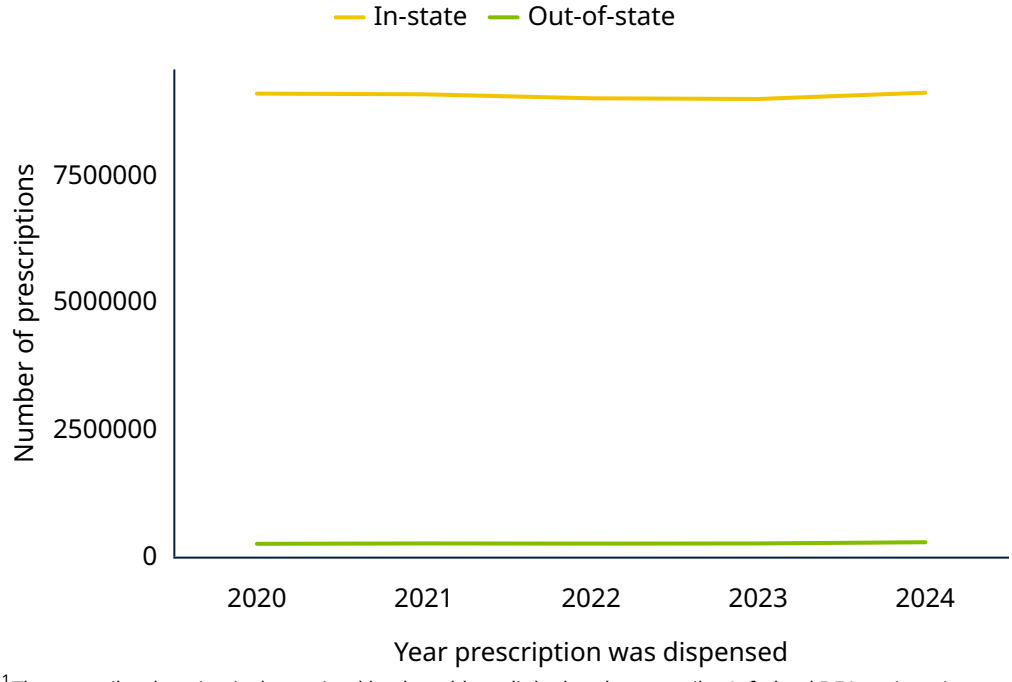
Figure 4. Number of controlled substance prescriptions by prescriber specialty,[1] 2020 - 2024



[1] This graph only depicts the top 5 specialties in 2024 and does not represent all prescriber specialties that have prescribed controlled substances in SC. Prescriber specialty is self-reported by the user and may not reflect their board-certified healthcare specialty. The blue line indicates an increase in the number of prescriptions from 2020, while the yellow line indicates a decrease.

In March 2020, the Drug Enforcement Administration (DEA) implemented temporary exceptions for telemedicine providers to help prevent disruptions in patient care during the COVID-19 Public Health Emergency (DEA, 2023). These exceptions permitted providers to prescribe controlled substances through telemedicine without requiring in-person evaluations. This policy has since been extended through December 31, 2025 (Federal Register, 2024). Following this regulatory shift, SC has seen an overall increase in the number of controlled substances dispensed from both in-state and out-of-state prescribers. Notably, the increase has been significantly higher among out-of-state prescribers, with a 13% increase compared to a 0.2% increase among in-state prescribers between 2020 and 2024 (Figure 5).

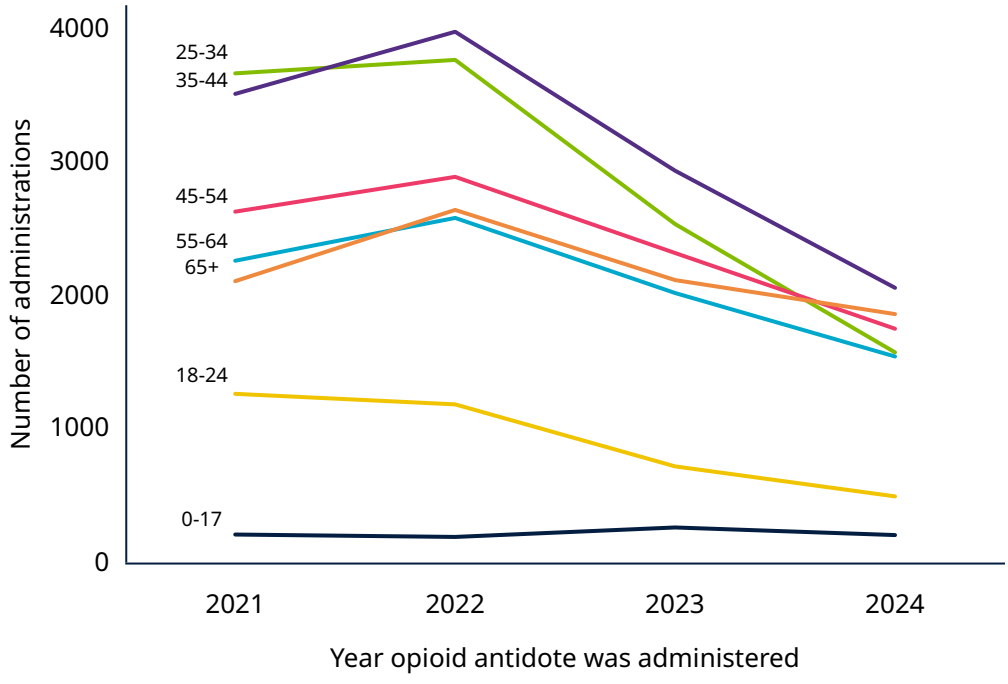
Figure 5. Number of dispensed controlled substance prescriptions by prescriber location,[1] 2020 - 2024



[1] The prescriber location is determined by the address linked to the prescriber's federal DEA registration number.

Beginning January 1, 2021, healthcare facilities and first responders in SC were mandated to report all opioid antidote administrations to the South Carolina Department of Public Health (DPH), formerly known as the South Carolina Department of Health and Environmental Control (DHEC). That year, a total of 15,663 opioid antidote administrations were reported. Since then, the state has seen a steady decline in these administrations, with the number dropping to 9,503 in 2024. This decline may be partly due to a number of factors that increased the availability of naloxone to the residents of SC, including the introduction of the co-prescribing law in 2021. The average age of individuals receiving an opioid antidote in 2024 was 49. Notably, the most significant reduction occurred among the 18 to 24 year old age group, which experienced a 61% decrease since 2021 (Figure 6). Additionally, there was a decline in opioid antidote administrations for every county in SC from 2021 to 2024, with the exception of Allendale, Cherokee, McCormick, York, and Williamsburg counties.

Figure 6. Number of opioid antidote administrations by age group, 2021 - 2024



II. Introduction

In 2006, the SC PMP, known as South Carolina Reporting & Identification Prescription Tracking System (SCRIPTS), was mandated by the SC General Assembly. S.C. Code Ann. § 44-53-1640 requires in-state and nonresident SC licensed dispensers to submit daily dispensation data on Schedule II - IV controlled substances to DPH. For details on the information required for each dispensation, please see Table 2.

Table 2. Required prescription information

Category	Domain Fields
Dispenser data	• Dispenser DEA number
Prescriber data	• Prescriber DEA number
Patient data	• Name • Address • Date of birth
Prescription data	• NDC code • Prescription number • Date the prescription was issued by prescriber • Date the prescription was dispensed • If the prescription was a refill or new prescription • Quantity dispensed • Estimated days of supply

The SC PMP continues to serve as a critical tool in addressing the misuse of controlled substances and promoting improved public health outcomes. This state-operated database captures patient-specific prescription information at the point of dispensation, offering real-time data access to prescribers and pharmacists. By providing timely and accurate information, the SC PMP supports safer prescribing practices and enhances clinical decision-making (Centers for Disease Control and Prevention, 2021). This report specifically focuses on the dispensation of Schedule II-IV controlled substances in SC and includes a special edition on dextroamphetamine sulf-saccharate/amphetamine sulf-asparate and ketamine. Drug classifications were determined using Lexicomp, while the scheduling of substances was based on criteria established by the U.S. Food and Drug Administration (FDA) and the DEA (FDA, 2022; United States Drug Enforcement Administration, 2022; Wolters Kluwer, 2024).

III. Schedule II

3.1 Overview

Schedule II (CII) prescriptions are classified by the DEA as substances with a "high potential for abuse, with use potentially leading to severe psychological and physical dependence" (United States Drug Enforcement Administration, 2022). In 2024, the most commonly dispensed CII prescriptions in SC included dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate, hydrocodone bitartrate/acetaminophen, oxycodone HCl/acetaminophen, oxycodone HCl, and methylphenidate HCl. From 2020 to 2024, the overall rate of dispensed CII prescriptions experienced a slight decline of 0.22%, dropping from 831 to 829 prescriptions per 1,000 residents (Figure 7). Notably, this modest decrease is attributed entirely to a 14% reduction in opioid dispensations, while CII stimulant prescriptions rose by 20% over the same period. Additionally, the average quantity of dispensed CII prescriptions decreased by 7% between 2020 and 2024 (Figure 8).

Figure 7. Rate of dispensed CII prescriptions, 2020 - 2024

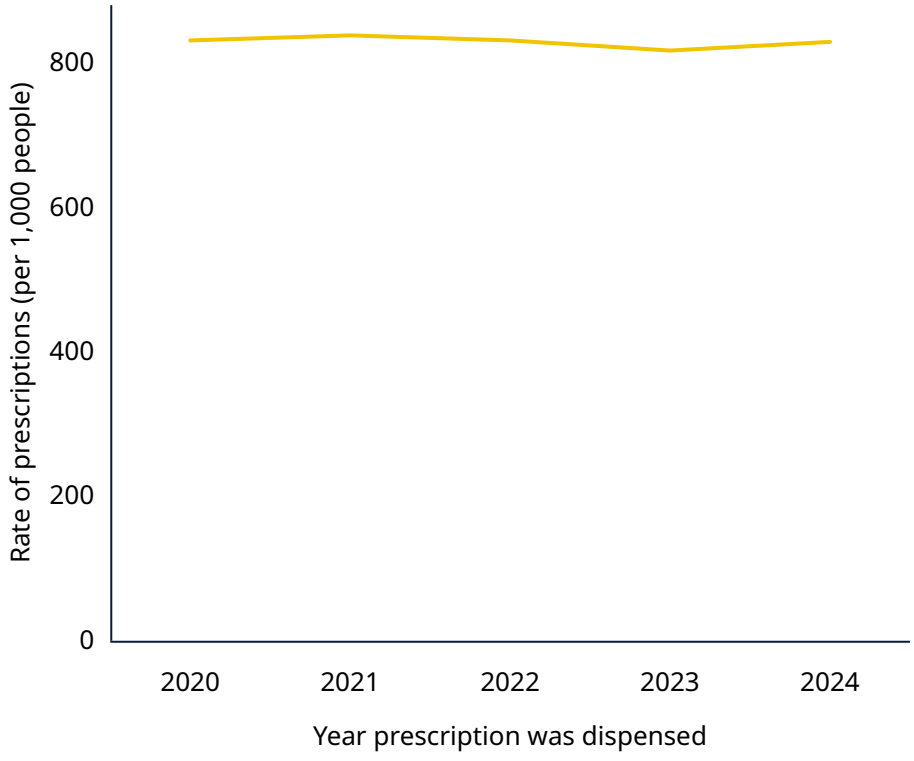
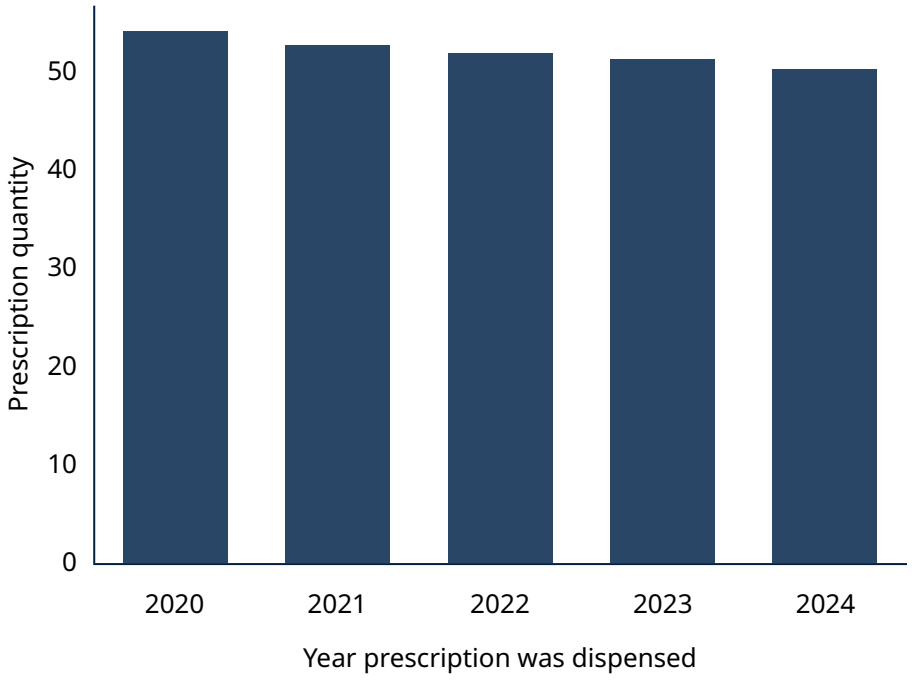


Figure 8. Average prescription quantity[1] dispensed for CII prescriptions, 2020 - 2024

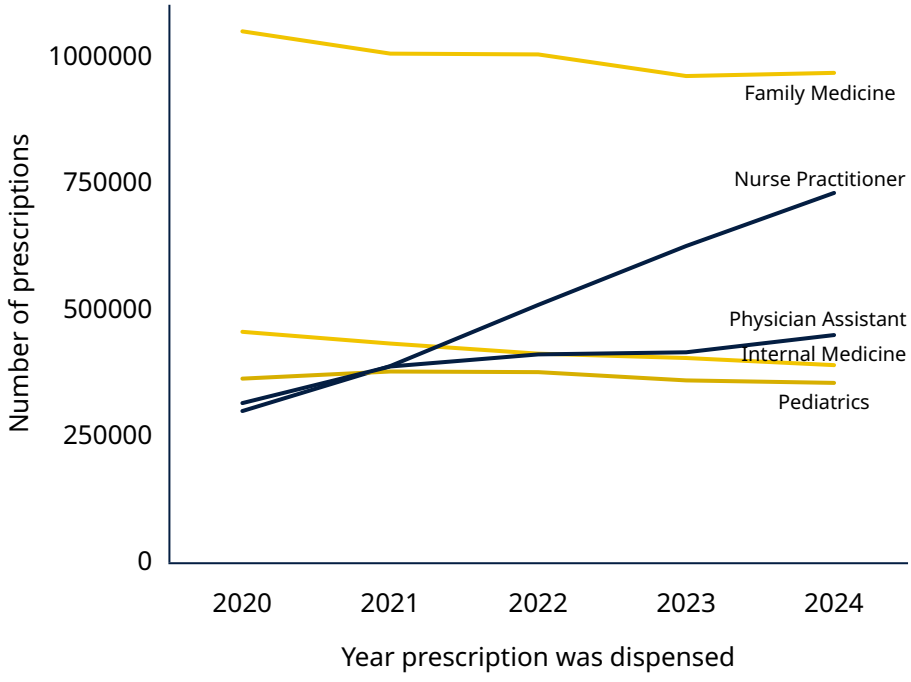


[1] Prescription quantity is defined as a CII prescription in a capsule or tablet form.

3.2 Prescriber Specialty

In 2024, the top five specialties prescribing CII medications were family medicine, nurse practitioners, physician assistants, internal medicine, and pediatrics (Figure 9). Family medicine remains the leading prescriber specialty; however, there has been an 8% decrease in the total number of CII prescriptions dispensed by this prescriber specialty. In contrast, nurse practitioners and physician assistants have seen substantial increases in CII prescribing activity, with nurse practitioners increasing by 144% and physician assistants by 43% since 2020. Despite these increases in prescription volume, the average daily MME has continued to decline across all prescriber specialties. Notably, family medicine and pediatrics have shown the most significant reductions in average daily MME, both dropping by approximately 20% since 2020.

Figure 9. Number of CII prescriptions by prescriber specialty,[1] 2020 - 2024

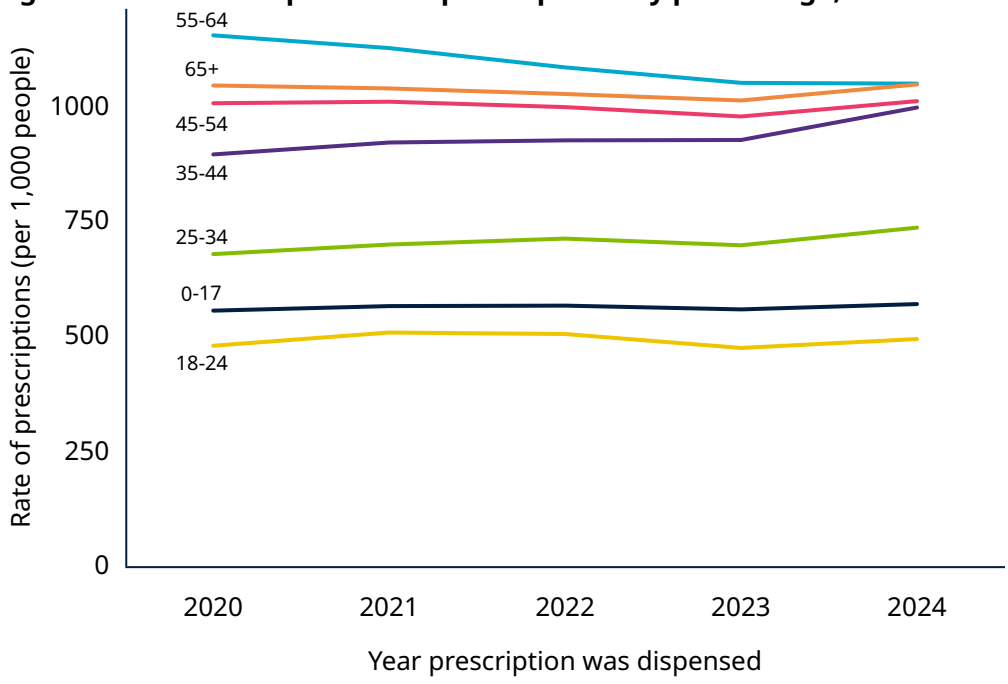


[1] This graph only depicts the top 5 specialties in 2024 and does not represent all prescriber specialties that prescribed CII prescriptions in SC. Prescriber specialty is self-reported by the user and may not reflect their board-certified healthcare specialty. The blue line indicates an increase in the number of prescriptions from 2020, while the yellow line indicates a decrease.

3.3 Patient Demographics

In 2024, the average age of patients dispensed CII prescriptions in SC was 46 years, with the highest prescription rate observed among individuals aged 55 to 64. Although most age groups—including those aged 0 to 54 and 65 and older—saw an increase in CII prescriptions compared to 2020, the 55 to 64 age group experienced a decrease in dispensing rates (Figure 10). The most significant rise occurred among individuals aged 35 to 44, who saw an 11% increase in dispensed prescriptions since 2020. The most commonly dispensed CII prescription varied by age group: methylphenidate HCl was most common among those aged 0 to 17, dextroamphetamine sulf-saccharate/amphetamine sulf-aspartate was most frequently prescribed to individuals aged 18 to 54, and hydrocodone bitartrate/acetaminophen was the top prescription among those aged 55 and older. Gender differences were also notable, with females receiving CII prescriptions at a higher rate than males—2,105 per 1,000 females compared to 1,688 per 1,000 males. Between 2020 and 2024, the dispensing rate for females increased by 4%, while the rate for males declined by 2%.

Figure 10. Rate of dispensed CII prescriptions by patient age[1], 2020 - 2024



[1] Age may be self-reported from the patient to the pharmacist. Please note that if age was unknown, it was not included in this analysis.

3.4 Geographic Location (Patient County)

In 2024, the rate of CII prescriptions surpassed the state's rate in Abbeville, Greenville, and Greenwood counties while this was not the case in 2020 (Figures 11 and 12). The counties with the highest CII prescription rates in 2024 were Darlington, Pickens, Union, Lexington, and Oconee after adjusting for age and population. Of the 46 counties in SC, 29 experienced a decrease in their prescription rates from 2020 to 2024. However, 2 counties experienced notable increases, Abbeville and Greenwood counties, each reporting over a 10% increase in the rate of CII prescriptions during the corresponding time period.

Figure 11. Rate of CII prescriptions per 1,000 people by patient county for 2020

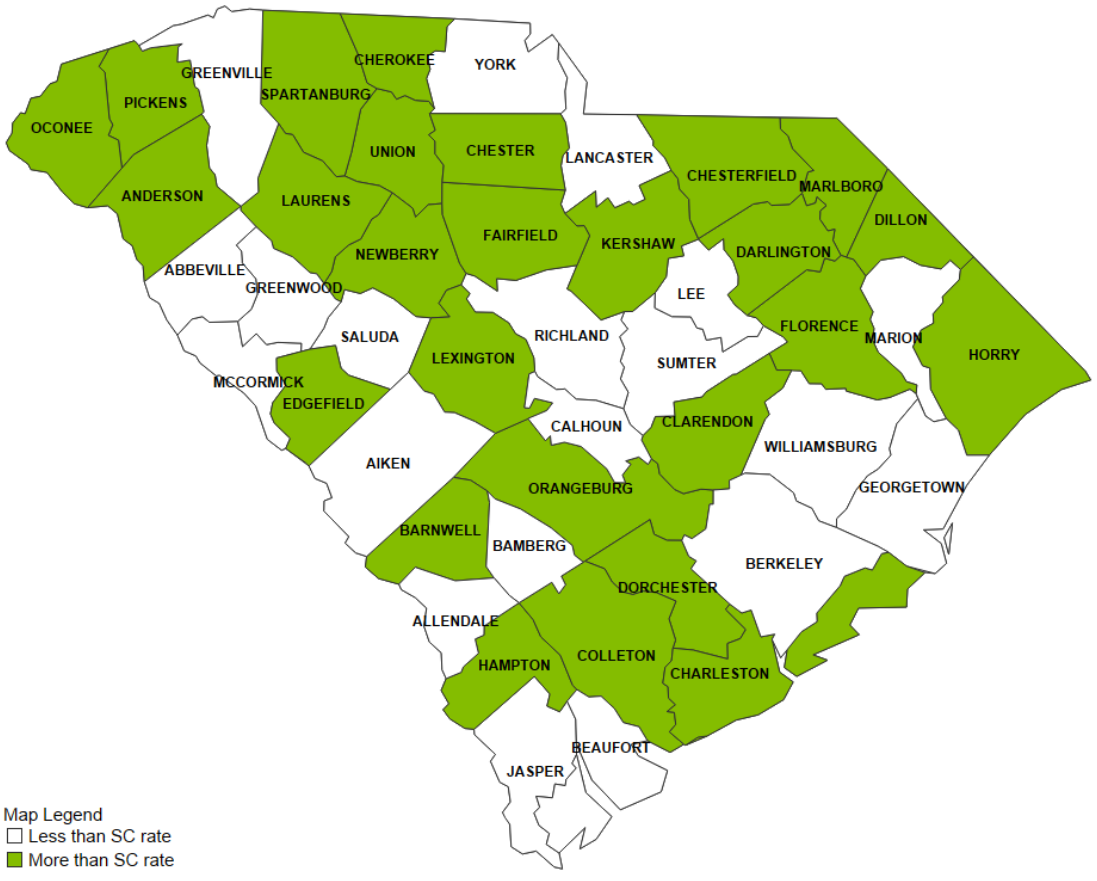
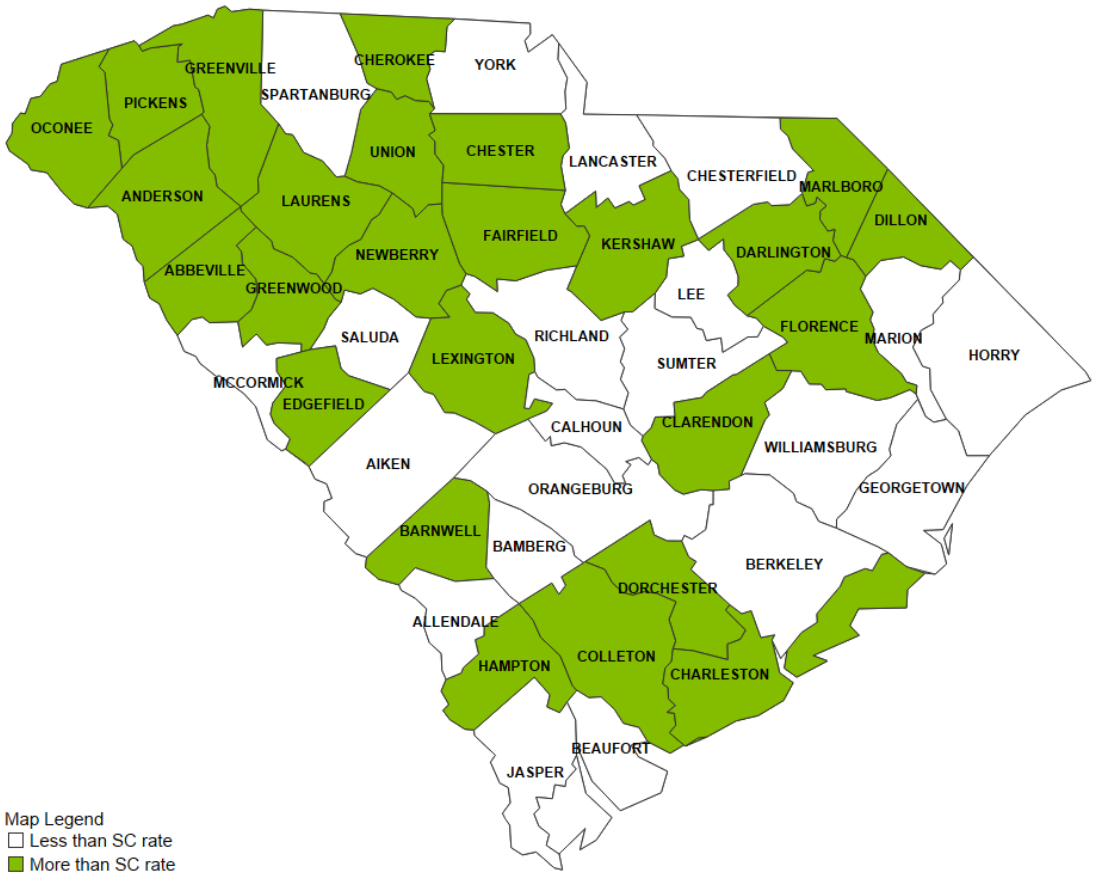


Figure 12. Rate of CII prescriptions per 1,000 people by patient county for 2024



IV. Schedule III

4.1 Overview

Schedule III (CIII) prescriptions are defined by the DEA as substances with a "moderate to low potential for physical and psychological dependence" (United States Drug Enforcement Administration, 2022). In 2024, the most commonly dispensed CIII prescriptions in SC included testosterone cypionate, buprenorphine HCl/naloxone HCl, testosterone micronized, buprenorphine HCl, and acetaminophen with codeine phosphate. Historically, buprenorphine, commonly prescribed for opioid use disorder (OUD), has been the most frequently dispensed CIII medication in the state (Donnelly, Samantha; et al, 2024). However, in 2024, there was a slight decline of 0.72% in the dispensing rate of buprenorphine used for OUD. Between 2020 and 2024, the dispensing rate of CIII prescriptions increased by 6%, rising from 134 to 142 prescriptions per 1,000 people (Figure 13). This rise appears to be driven largely by a 39% increase in testosterone cypionate prescriptions. Over the same period, the average quantity of dispensed CIII prescriptions increased by 11% (Figure 14), indicating a broader upward trend in both the frequency and volume of CIII medications being prescribed and dispensed.

Figure 13. Rate of dispensed CIII prescriptions, 2020 - 2024

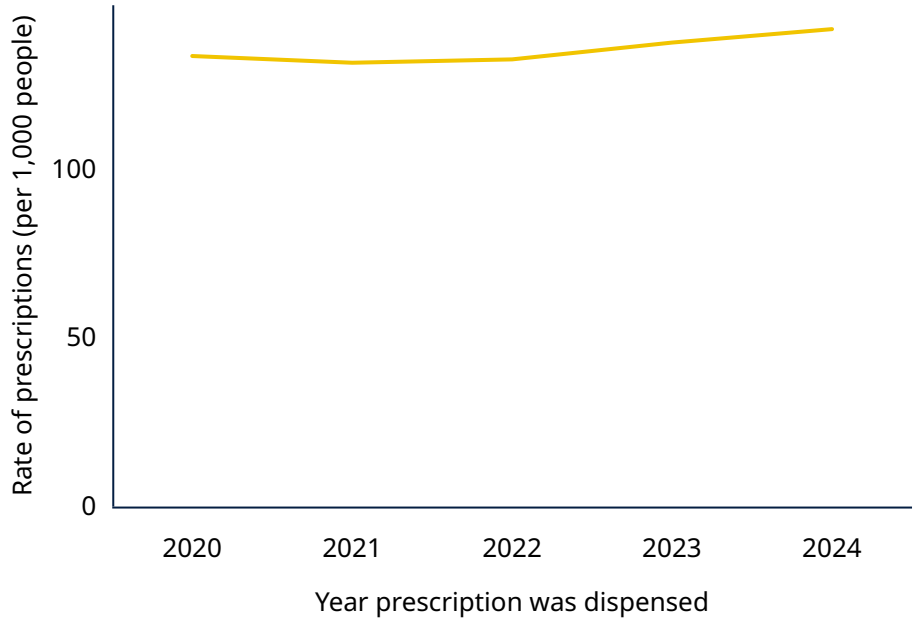
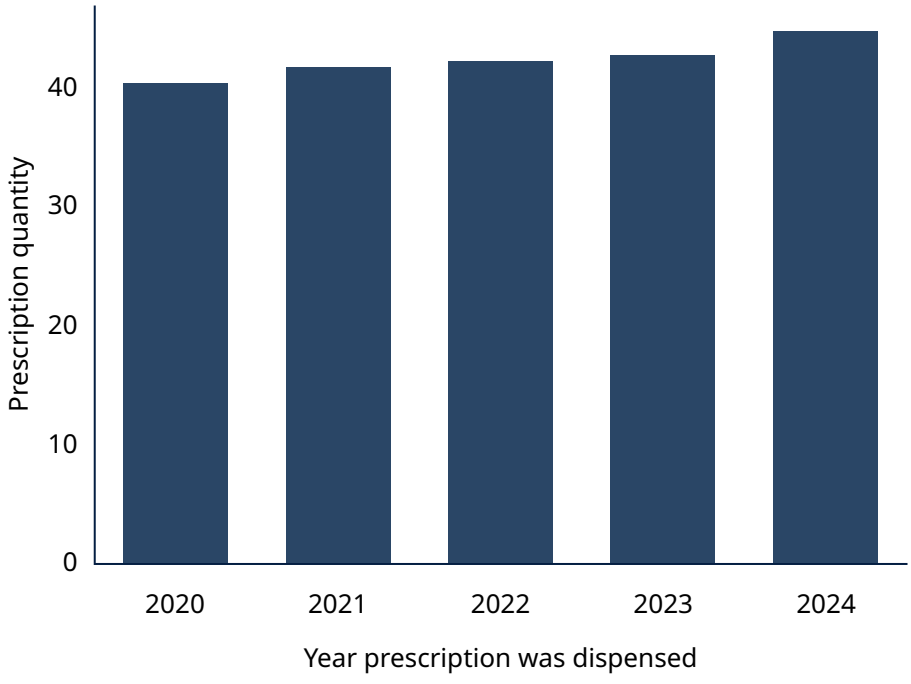


Figure 14. Average prescription quantity[1] dispensed for CIII prescriptions, 2020 - 2024

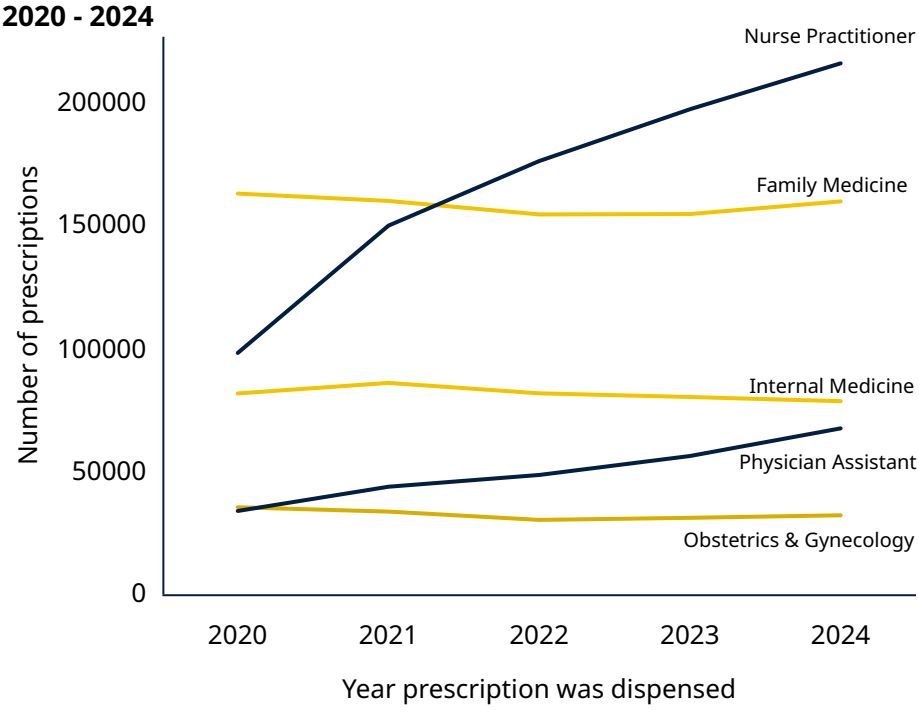


[1] Prescription quantity is defined as a CIII prescription in a capsule or tablet form.

4.2 Prescriber Specialty

In SC, the top five prescriber specialties prescribing CIII medications in 2024 were nurse practitioners, family medicine, internal medicine, physician assistants, and obstetrics and gynecology (Figure 15). As of 2022, nurse practitioners became the leading prescribers of CIII prescriptions dispensed in SC. While most of the top five specialties have shown a decline in the number of prescriptions, nurse practitioners and physician assistants have seen significant increases—120% and 99%, respectively, since 2020. In 2024, testosterone cypionate was the most frequently prescribed CIII medication among family medicine and internal medicine providers, whereas buprenorphine HCl/naloxone HCl was most commonly prescribed by nurse practitioners, physician assistants, and obstetrics and gynecology. Despite the rise in prescriptions among certain specialties, the average daily MME has declined across all five specialties, with the most substantial decrease observed within obstetrics and gynecology.

Figure 15. Number of CIII prescriptions by prescriber specialty,[1] 2020 - 2024

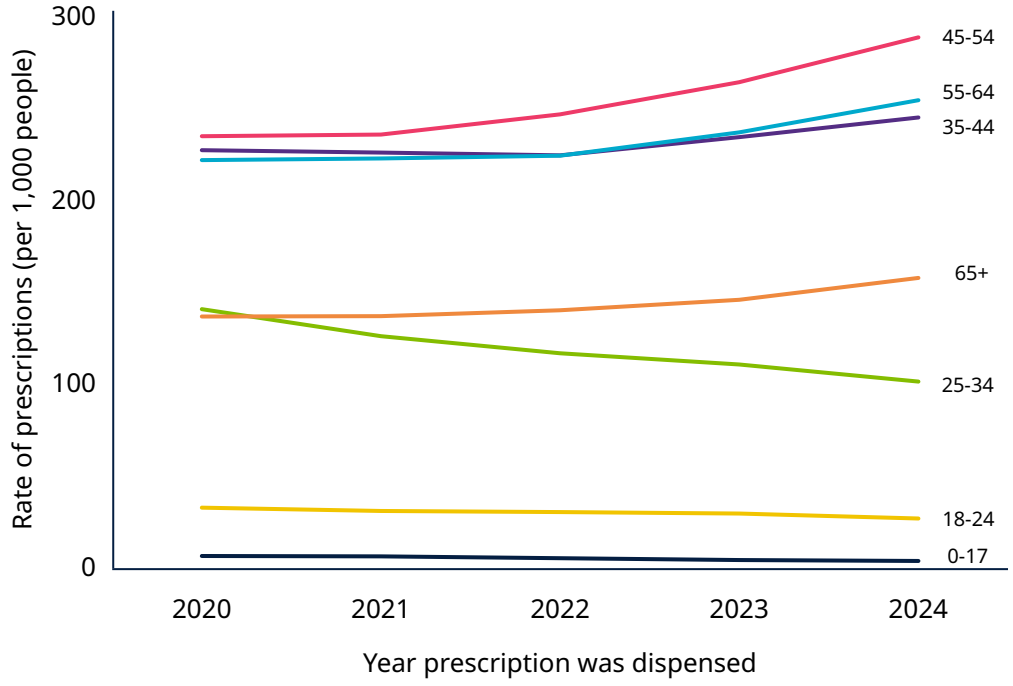


[1] This graph only depicts the top 5 specialties in 2024 and does not represent all prescriber specialties that prescribed CIII prescriptions in SC. Prescriber specialty is self-reported by the user and may not reflect their board-certified healthcare specialty. The blue line indicates an increase in the number of prescriptions from 2020, while the yellow line indicates a decrease.

4.3 Patient Demographics

In 2024, the average age of patients dispensed CIII prescriptions in SC was 52 years, with the highest prescription rate observed among individuals aged 45 to 54. Compared to 2020, patients aged 35 and older received more CIII prescriptions, while dispensing rates declined for individuals aged 0 to 34 (Figure 16). The most significant increase occurred among those aged 45 to 54, with a 23% rise in prescriptions since 2020. Variation in top prescriptions dispensed in 2024 by age group was also evident: buprenorphine HCl was most common among those aged 0 to 17, testosterone cypionate was most frequently dispensed to individuals aged 18 to 24 and 45 and older, and buprenorphine HCl/naloxone HCl was the top prescription among those aged 25 to 44. Gender differences were pronounced, with males receiving CIII prescriptions at a significantly higher rate—402 per 1,000 males versus 251 per 1,000 females. From 2020 to 2024, the dispensing rate for males increased by 15%, while the rate for females declined by 2%. In 2024, the top CIII prescription for females was buprenorphine HCl/naloxone HCl, while for males, it was testosterone micronized.

Figure 16. Rate of dispensed CIII prescriptions by patient age[1], 2020 - 2024



[1] Age may be self-reported from the patient to the pharmacist. Please note that if age was unknown, it was not included in this analysis.

4.4 Geographic Location (Patient County)

In 2024, Beaufort County's prescription rate surpassed the state's rate, a change from 2020 when it fell below the rate for SC (Figures 17 and 18). In 2020, 23 counties had rates higher than the state rate, but by 2024, that number dropped to 18 counties. The highest CIII prescription rates in 2024 were observed in Union, Dillon, Florence, Darlington, and Cherokee counties after adjusting for age and population. While 18 of SC's 46 counties experienced a decline in prescription rates over this time period, several counties—namely Cherokee, Marlboro, Oconee, and Beaufort—saw significant increases, each reporting a rise of over 20% in CIII prescription rates.

Figure 17. Rate of CIII prescriptions per 1,000 people by patient county for 2020

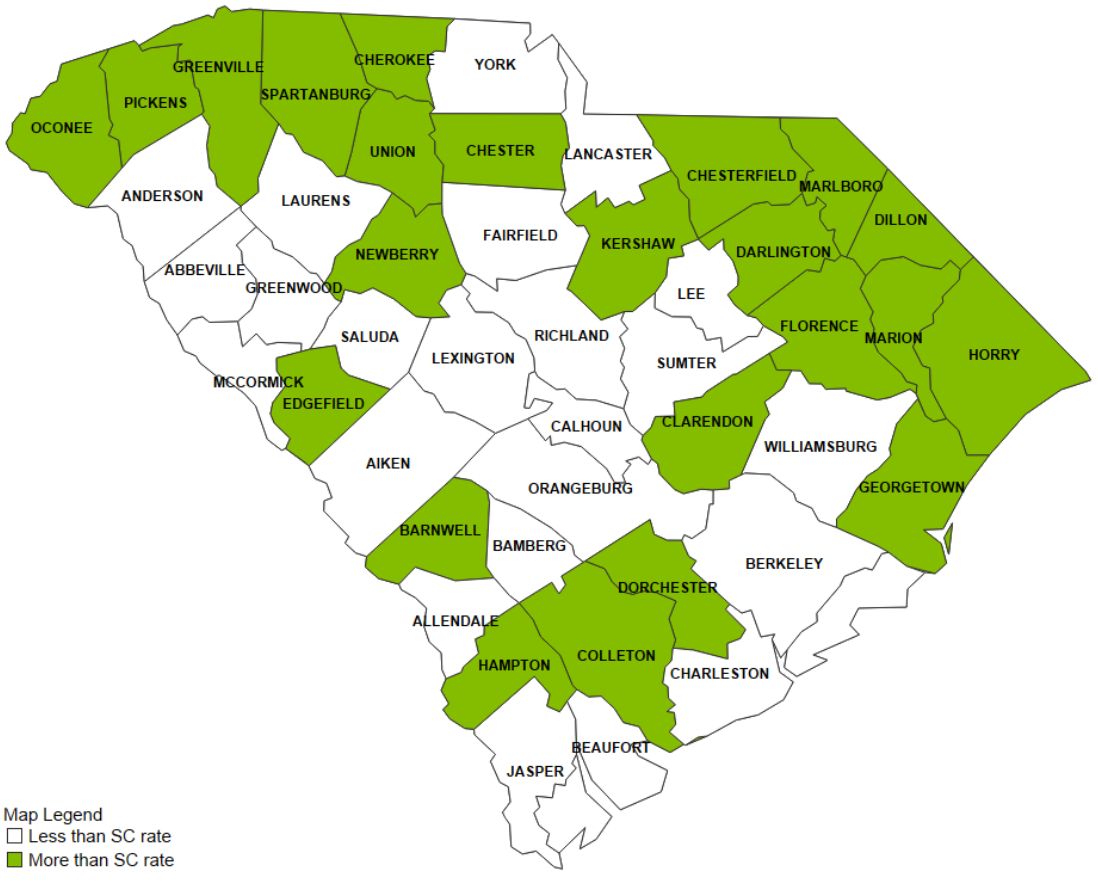
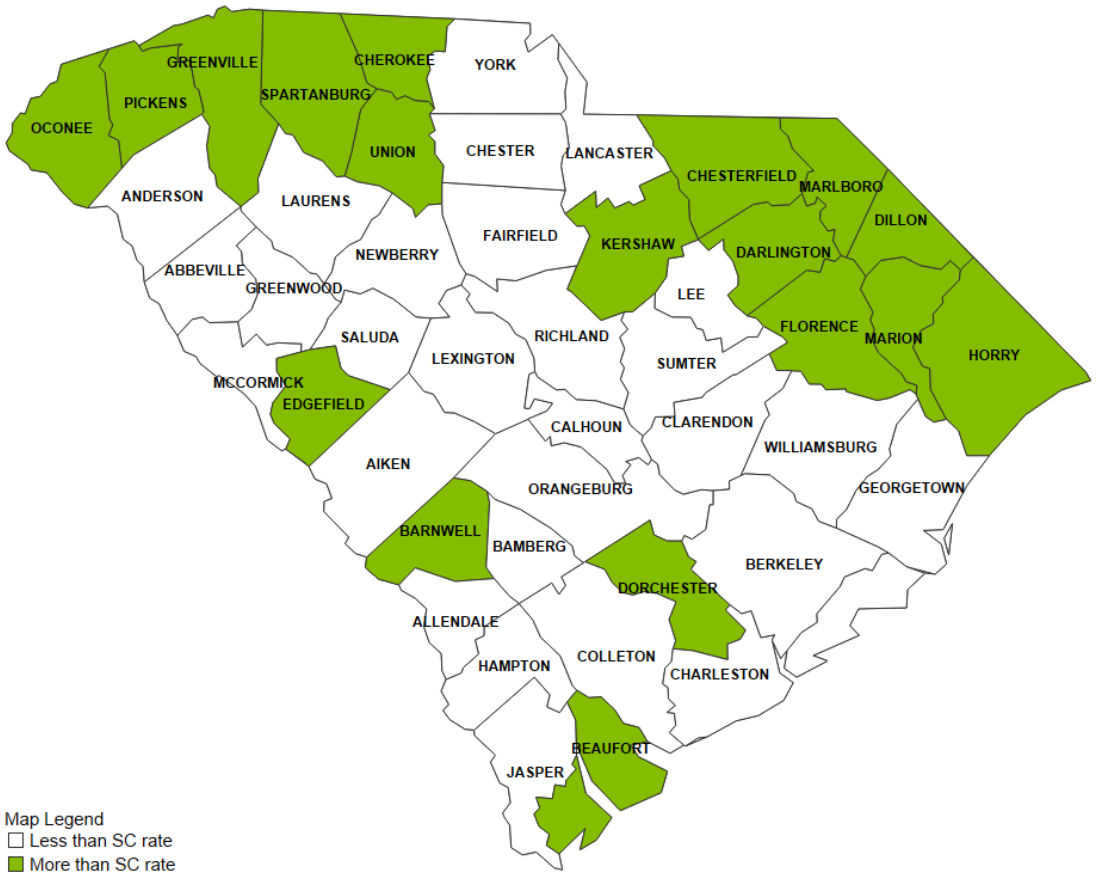


Figure 18. Rate of CIII prescriptions per 1,000 people by patient county for 2024



V. Schedule IV

5.1 Overview

Schedule IV (CIV) prescriptions are classified as substances with a “low potential for abuse and low risk of dependence” (United States Drug Enforcement Administration, 2022). In 2024, the most commonly dispensed CIV prescriptions in SC were tramadol HCl, alprazolam, zolpidem tartrate, lorazepam, and clonazepam. Between 2020 and 2024, the overall rate of dispensed CIV prescriptions declined by 13%, dropping from 858 to 745 prescriptions per 1,000 people (Figure 19). The average quantity of CIV prescriptions dispensed also fell by 5% during the same period (Figure 20), reflecting a broader trend of reduced CIV medication use across the state.

Figure 19. Rate of dispensed CIV prescriptions, 2020 - 2024

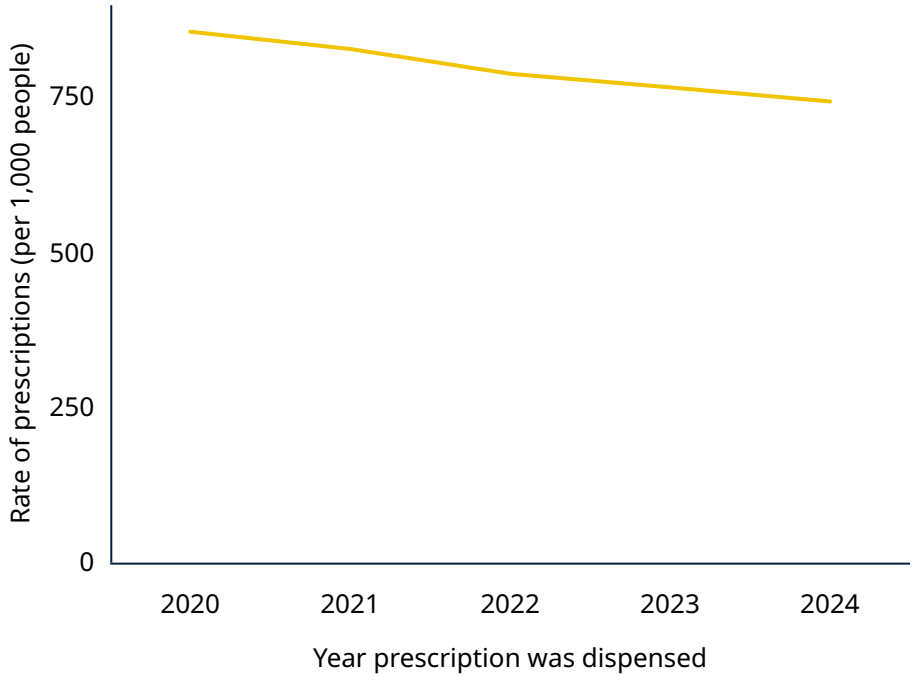
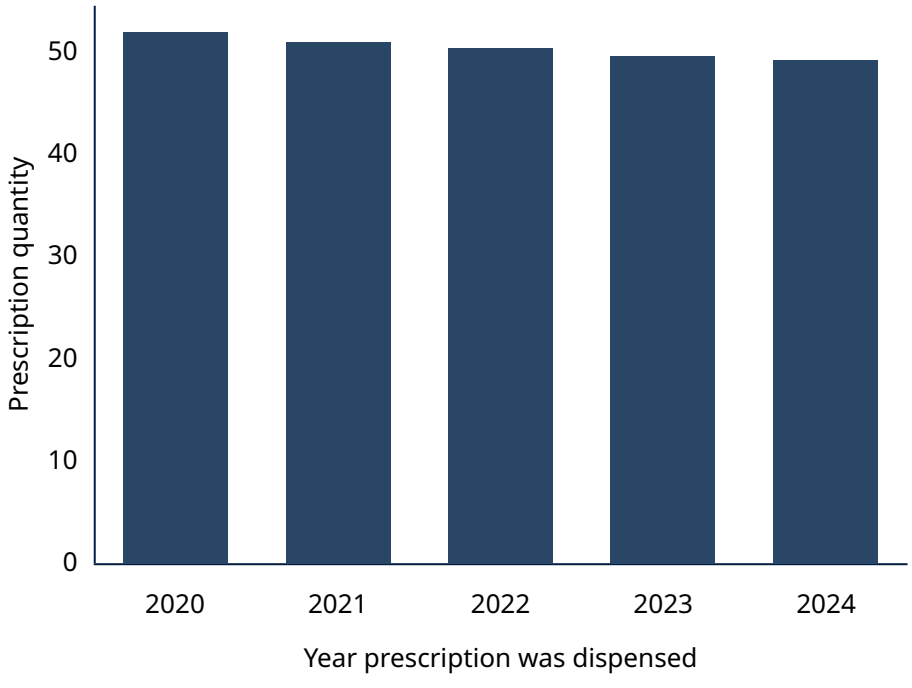


Figure 20. Average prescription quantity[1] dispensed for CIV prescriptions, 2020 - 2024

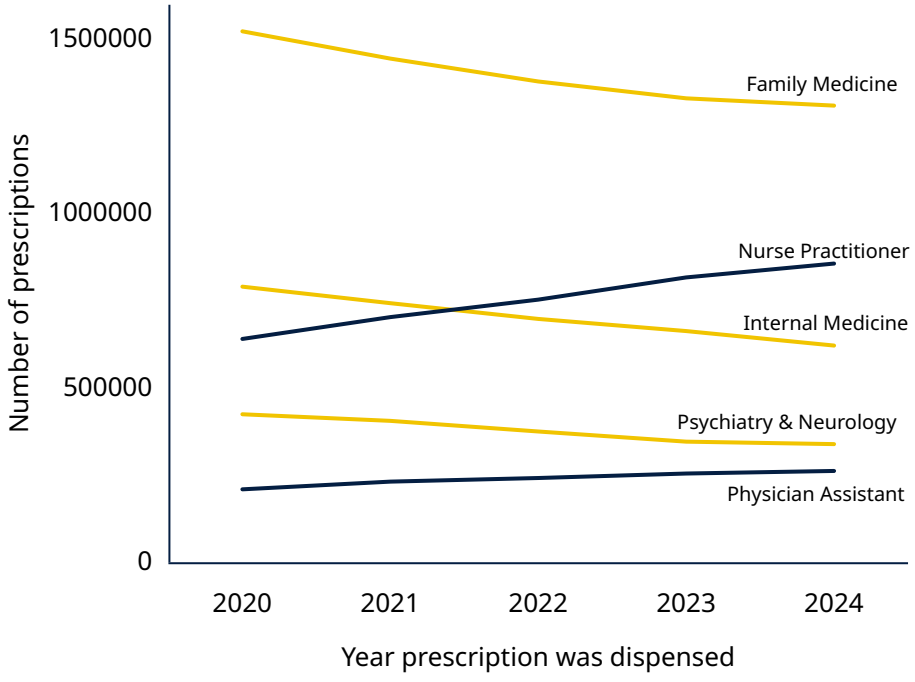


[1] Prescription quantity is defined as a CIV prescription in a capsule or tablet form.

5.2 Prescriber Specialty

In SC, the top five prescriber specialties prescribing CIV medications in 2024 were family medicine, nurse practitioners, internal medicine, psychiatry and neurology, and physician assistants (Figure 21). Family medicine remains the leading specialty for CIV prescriptions in the state. While most of these top specialties have experienced a decline in the number of prescriptions, nurse practitioners and physician assistants have seen notable increases—34% and 25%, respectively, since 2020. In 2024, alprazolam was the most frequently prescribed CIV medication among family medicine providers and nurse practitioners, while zolpidem tartrate was most commonly prescribed medication by internal medicine providers. Tramadol HCl was the top CIV prescription for both physician assistants and psychiatry and neurology. Despite the increase in prescriptions within certain specialties, the average daily MME has declined across all five specialties, with the most significant decrease observed among nurse practitioners.

Figure 21. Number of CIV prescriptions by prescriber specialty,[1] 2020 - 2024

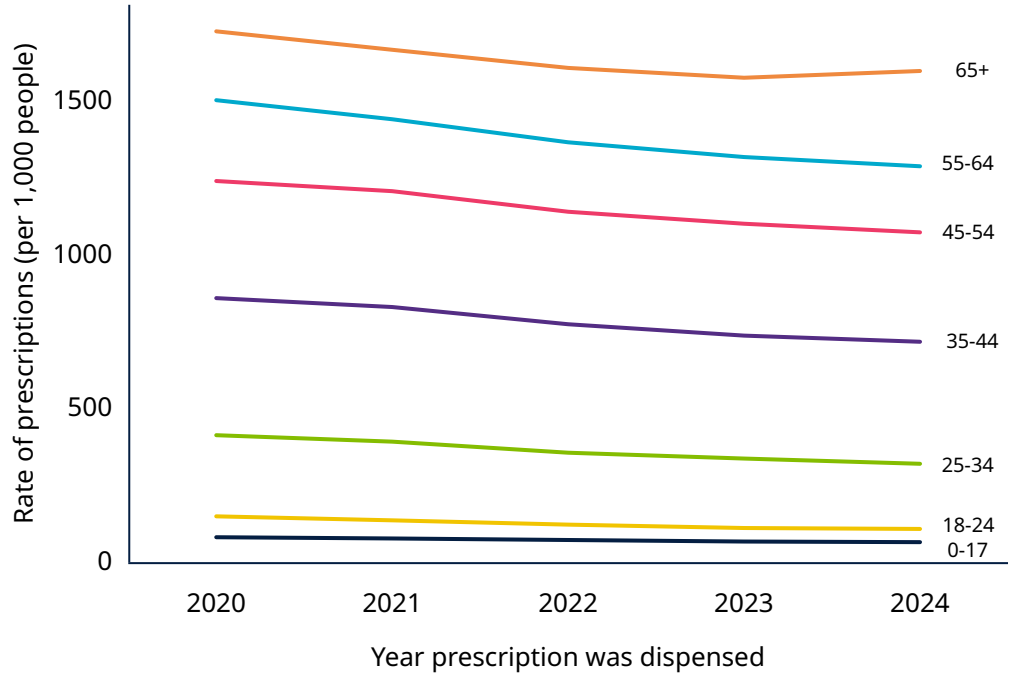


[1] This graph only depicts the top 5 specialties in 2024 and does not represent all prescriber specialties that prescribed CIV prescriptions in SC. Prescriber specialty is self-reported by the user and may not reflect their board-certified healthcare specialty. The blue line indicates an increase in the number of prescriptions from 2020, while the yellow line indicates a decrease.

5.3 Patient Demographics

In 2024, the average age of patients dispensed CIV prescriptions in SC was 59 years, with the highest prescription rate recorded among individuals aged 65 and older. Overall, the number of CIV prescriptions dispensed declined from 2020 to 2024 (Figure 22), with the most significant decrease observed among individuals aged 18 to 24, who saw a 28% reduction in dispensed prescriptions during this period. The top CIV prescription varied by age group in 2024: phenobarbital was most commonly dispensed to those aged 0 to 17, clonazepam to individuals aged 18 to 34, alprazolam to those aged 35 to 64, and tramadol HCl to individuals aged 65 and older. Notably, females received CIV prescriptions at a much higher rate than males—2,275 per 1,000 females compared to 1,135 per 1,000 males. From 2020 to 2024, the dispensing rate for females decreased by 11%, while the rate for males experienced a slightly larger decline of 13%. In 2024, the top CIV prescription for females was alprazolam, while for males, it was tramadol HCl.

Figure 22. Rate of dispensed CIV prescriptions by patient age,[1] 2020 - 2024



[1] Age may be self-reported from the patient to the pharmacist. Please note that if age was unknown, it was not included in this analysis.

5.4 Geographic Location (Patient County)

In 2024, Spartanburg County's prescription rate exceeded the state's rate, reversing the trend from 2020 when it was lower than the state rate (Figures 23 and 24). During the same period, Marlboro and Dillon counties, which had higher prescription rates than the state in 2020, saw their rates fall below the state rate by 2024. Notably, in 2024, the highest CIV prescription rates were found in Pickens, Lexington, Darlington, Florence, and Kershaw counties after adjusting for age and population. Overall, 45 out of SC's 46 counties experienced a decline in prescription rates from 2020 to 2024, with Marlboro County being the sole exception, seeing a 5% increase during this period.

Figure 23. Rate of CIV prescriptions per 1,000 people by patient county for 2020

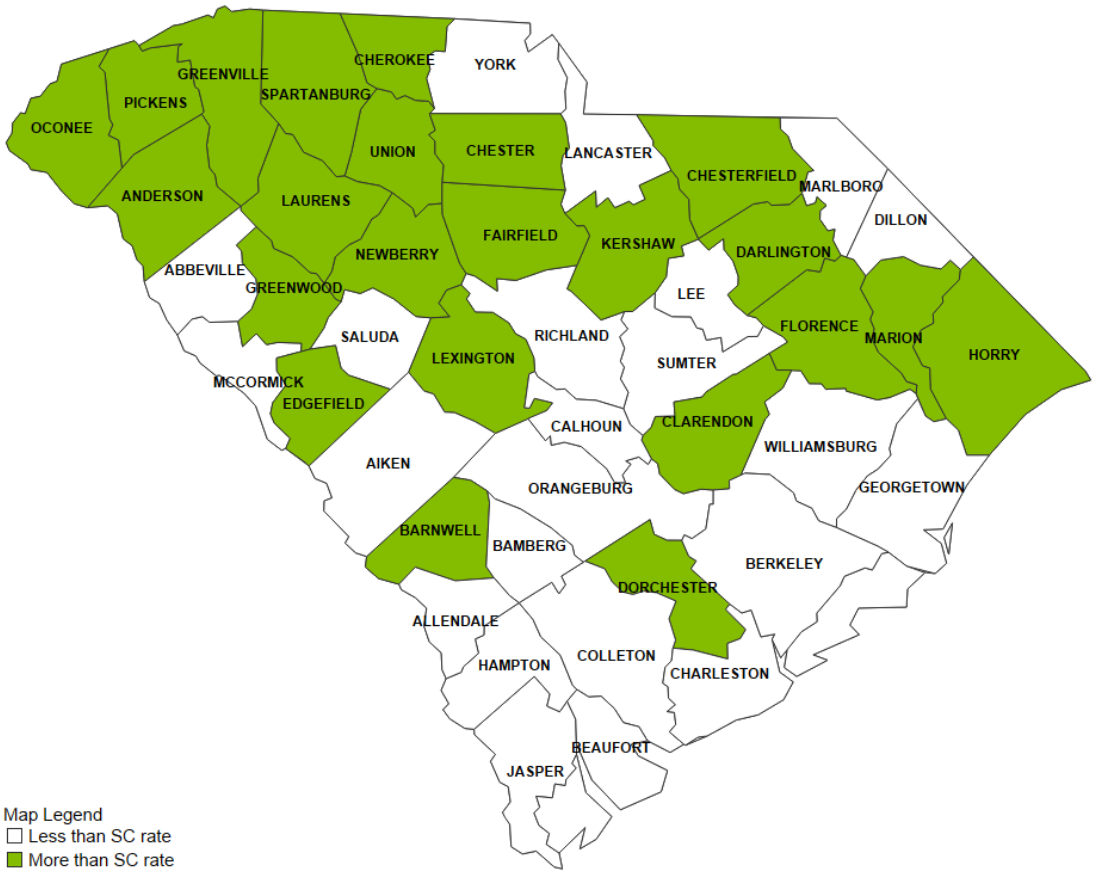
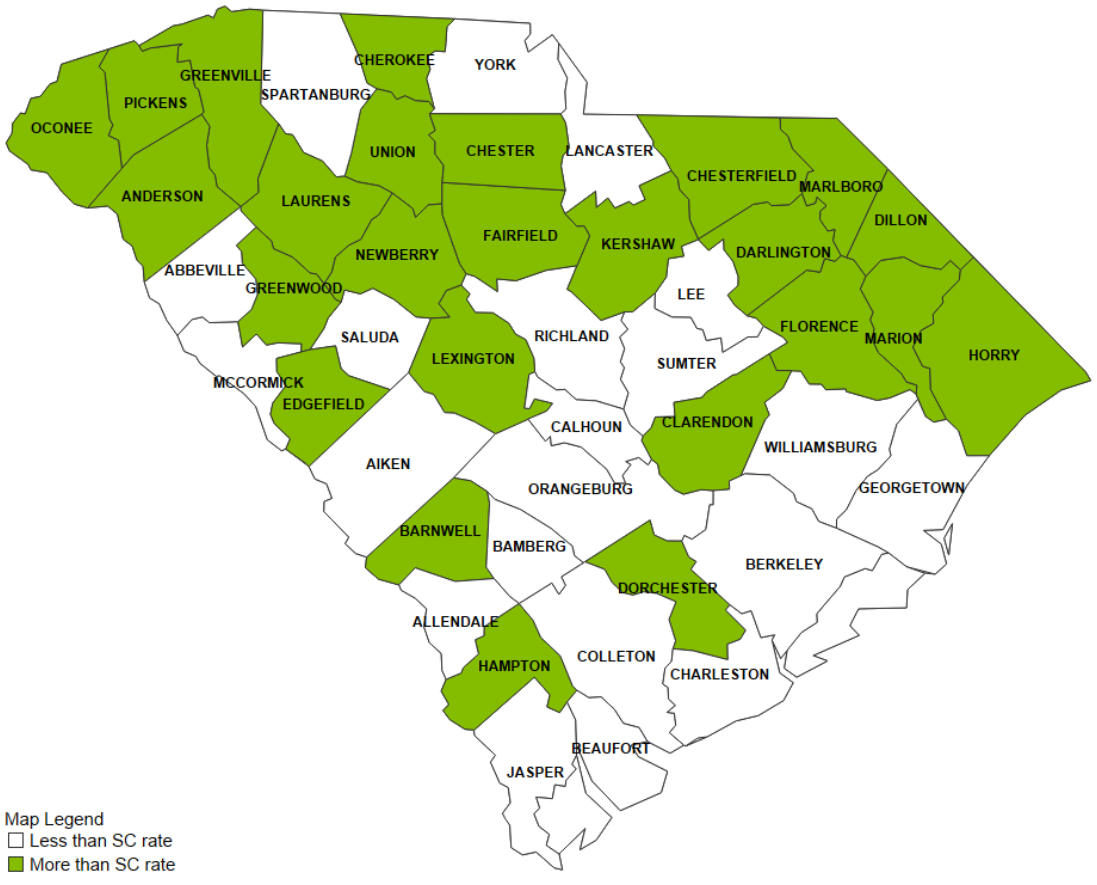


Figure 24. Rate of CIV prescriptions per 1,000 people by patient county for 2024



VI. Stimulants

6.1 Overview

Stimulants are a class of medications commonly prescribed to enhance alertness, attention, and energy, particularly for individuals diagnosed with attention-deficit hyperactivity disorder (ADHD) or narcolepsy (NIDA, 2018). In SC, the most frequently dispensed prescription in 2024 was dextroamphetamine sulf-saccharate/amphetamine sulf-asparate—more widely recognized by brand names such as Adderall, Adderall XR, or Mydayis. For clarity and consistency, this report refers to the medication as dextroamphetamine/amphetamine. From 2020 to 2024, the rate of dispensed dextroamphetamine/amphetamine prescriptions in the state rose by 26%, increasing from 191 to 241 prescriptions per 1,000 people (Figure 25).

Figure 25. Rate of dispensed dextroamphetamine/amphetamine prescriptions, 2020 - 2024

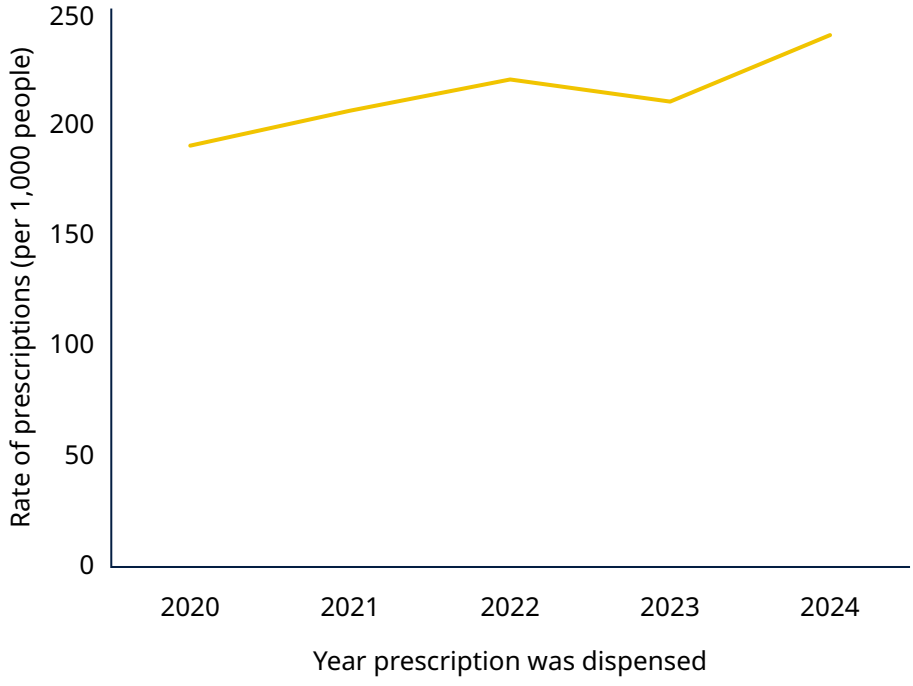
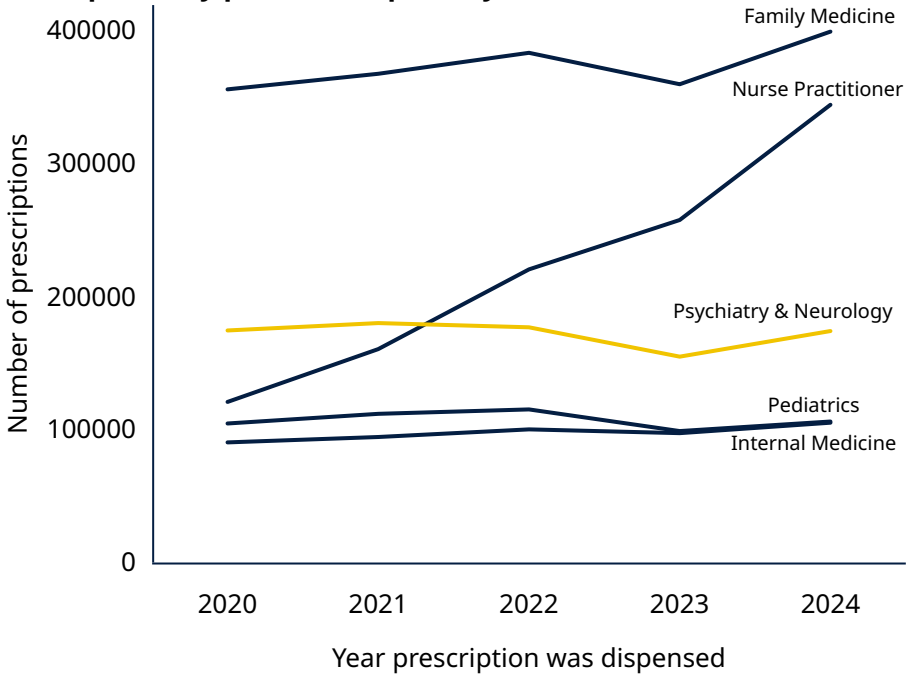


Figure 26. Number of dextroamphetamine/amphetamine prescriptions by prescriber specialty,[1] 2020 - 2024



[1] This graph only depicts the top 5 specialties in 2024 and does not represent all prescriber specialties that prescribed dextroamphetamine/amphetamine prescriptions in SC. Prescriber specialty is self-reported by the user and may not reflect their board-certified healthcare specialty. The blue line indicates an increase in the number of prescriptions from 2020, while the yellow line indicates a decrease.

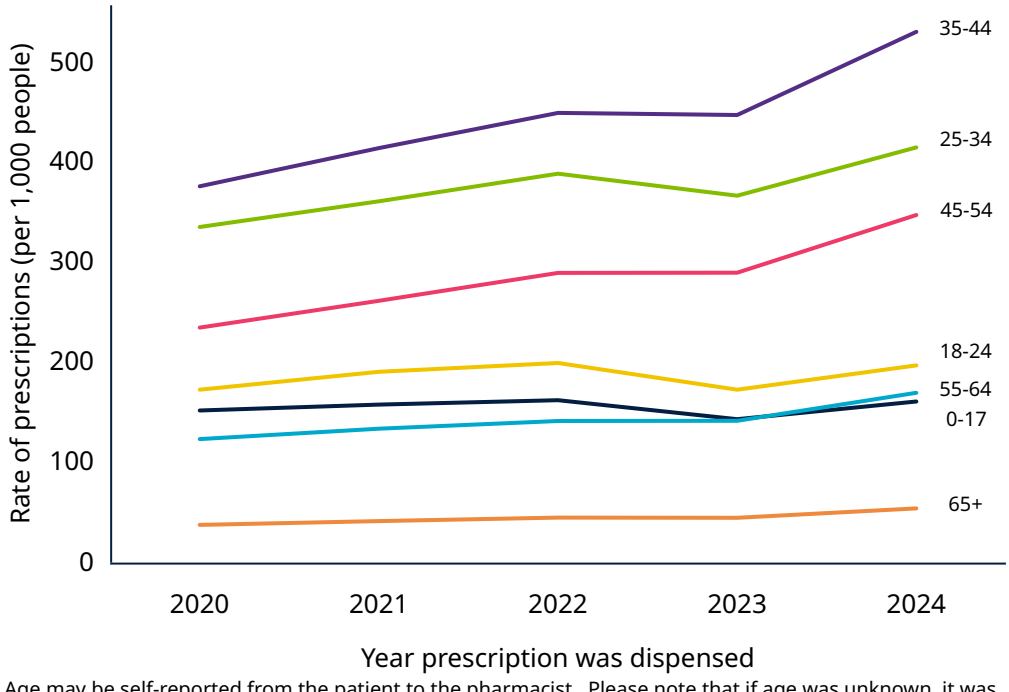
6.2 Prescriber specialty

In 2024, the top five prescriber specialties prescribing dextroamphetamine/amphetamine medications in SC were family medicine, nurse practitioners, psychiatry and neurology, pediatrics, and internal medicine, with family medicine continuing to lead in prescription volume (Figure 26). Most of these specialties have seen an increase in dextroamphetamine/amphetamine prescriptions over recent years, with the exception of psychiatry and neurology. Nurse practitioners have experienced the steepest rise, with a 185% increase in prescriptions since 2020, highlighting a significant shift in prescribing patterns within this group.

6.3 Patient Demographics

In 2024, the average age of patients receiving dextroamphetamine/amphetamine prescriptions was 37 years, reflecting a broader trend of increased prescription rates across all age groups compared to 2020. Notably, patients aged 35 to 44 received the highest number of prescriptions, with the 45 to 54 age group seeing the most significant growth—a 48% increase since 2020. In terms of gender, more females were dispensed dextroamphetamine/amphetamine prescriptions than males in 2024, with 633 prescriptions per 1,000 females compared to 460 per 1,000 males. However, prescription rates were further modified by age; among those aged 0 to 17, more males received prescriptions than females, whereas the trend reversed for individuals aged 18 and older, with more females than males receiving prescriptions. Between 2020 and 2024, prescription rates increased by 34% for females and 20% for males, indicating a significant rise in use among both genders.

Figure 27. Rate of dispensed dextroamphetamine/amphetamine prescriptions by patient age[1], 2020 - 2024



[1] Age may be self-reported from the patient to the pharmacist. Please note that if age was unknown, it was not included in this analysis.

6.4 Geographic Location (Patient County)

In 2020, Edgefield, Newberry, and Orangeburg counties had dextroamphetamine/amphetamine prescription rates that exceeded the state rate; however, by 2024, this was no longer the case (Figure 28 and 29). The highest prescription rates in 2024, after adjusting for age and population, were observed in Charleston, Lexington, Pickens, Oconee, and Kershaw counties. Overall, only 2 of SC's 46 counties experienced a decline in prescription rates between 2020 and 2024, reflecting a widespread upward trend across the state. Notably, Abbeville, Anderson, Cherokee, Greenwood, Marlboro, Pickens, and Sumter counties each saw their rates increase by more than 40% during this period.

Figure 28. Rate of dextroamphetamine/amphetamine prescriptions per 1,000 people by patient county for 2020

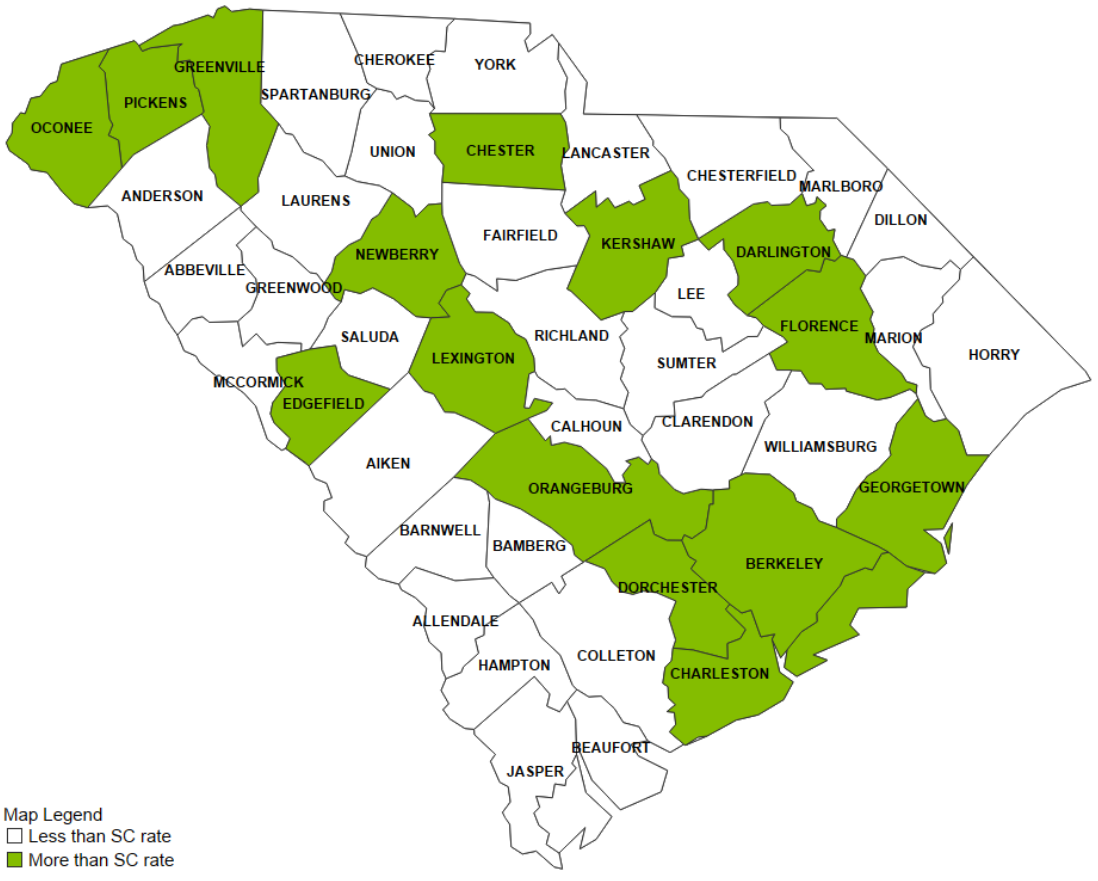
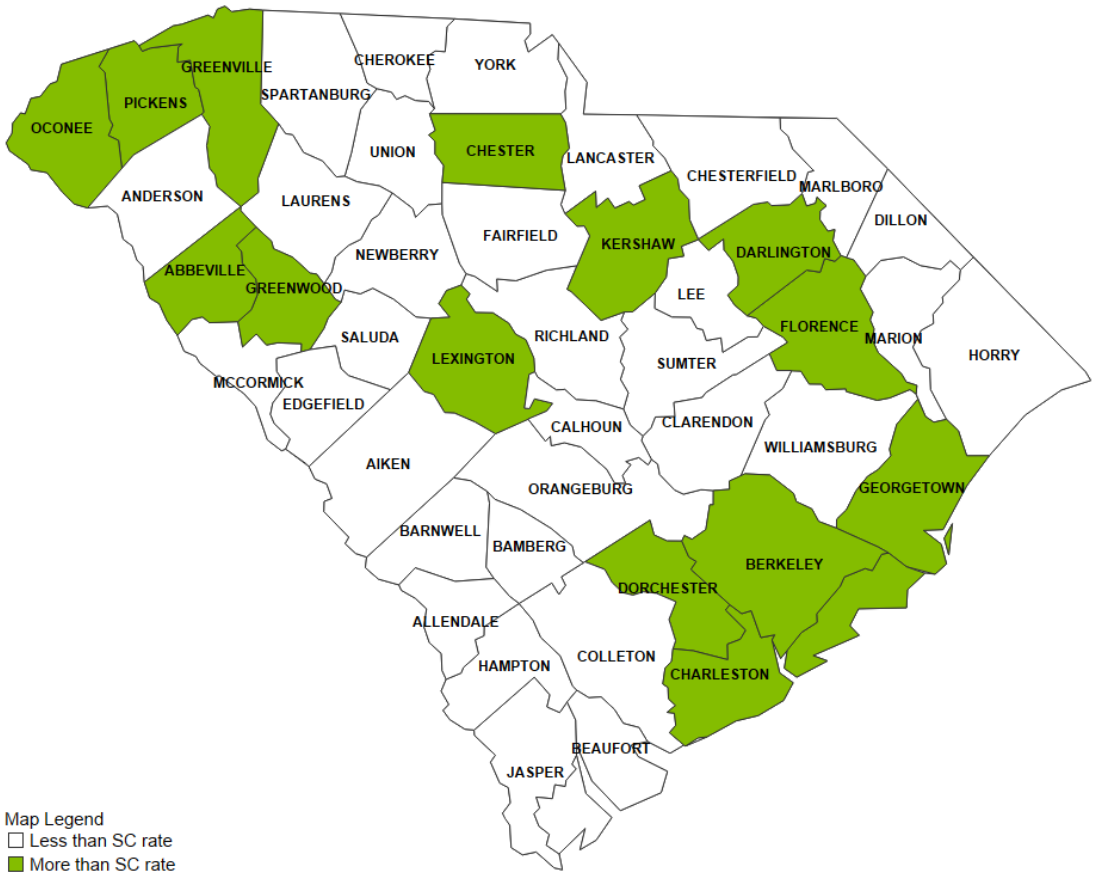


Figure 29. Rate of dextroamphetamine/amphetamine prescriptions per 1,000 people by patient county for 2024



VII. Ketamine

7.1 Overview

Ketamine and esketamine hydrochloride, classified as CIII, are primarily used in the treatment of major depressive disorder, with ketamine hydrochloride also indicated for analgesia (Wolters Kluwer, 2024). In 2022, the U.S. Food and Drug Administration (FDA) issued a risk alert highlighting concerns over the potential misuse of these medications (U.S. Food & Drug Administration, 2023). Among all controlled substances in SC, ketamine has shown the most rapid increase in dispensation rate. For the purposes of this report, the term "ketamine" refers collectively to both ketamine and esketamine hydrochloride, and only includes prescriptions dispensed from pharmacies—not infusions administered in clinical settings. From 2020 to 2024, the rate of dispensed ketamine prescriptions surged by 120%, rising from 1.4 to 3.2 per 1,000 people (Figure 30), marking a significant uptick in its utilization across the state.

Figure 30. Rate of dispensed ketamine prescriptions, 2020 - 2024

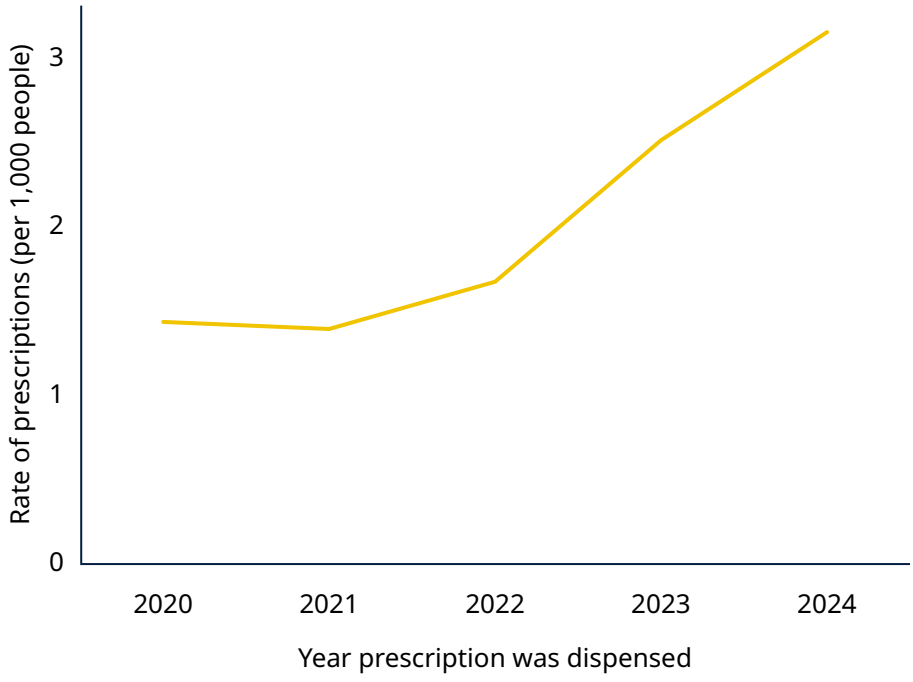
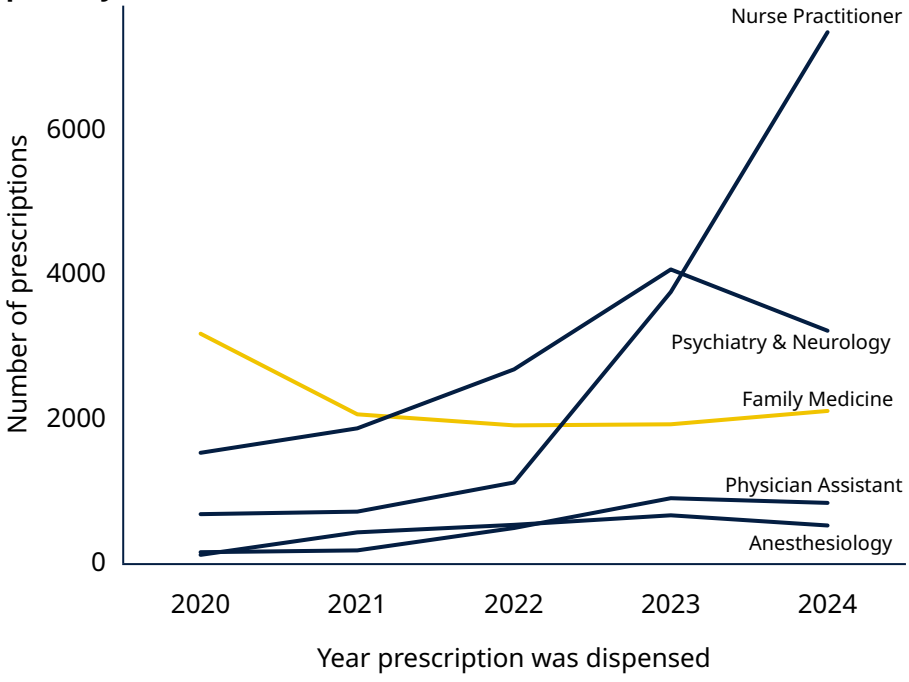


Figure 31. Number of ketamine prescriptions by prescriber specialty,[1] 2020 - 2024



[1] This graph only depicts the top 5 specialties in 2024 and does not represent all prescriber specialties that prescribed dextroamphetamine/amphetamine prescriptions in SC. Prescriber specialty is self-reported by the user and may not reflect their board-certified healthcare specialty. The blue line indicates an increase in the number of prescriptions from 2020, while the yellow line indicates a decrease.

7.2 Prescriber specialty

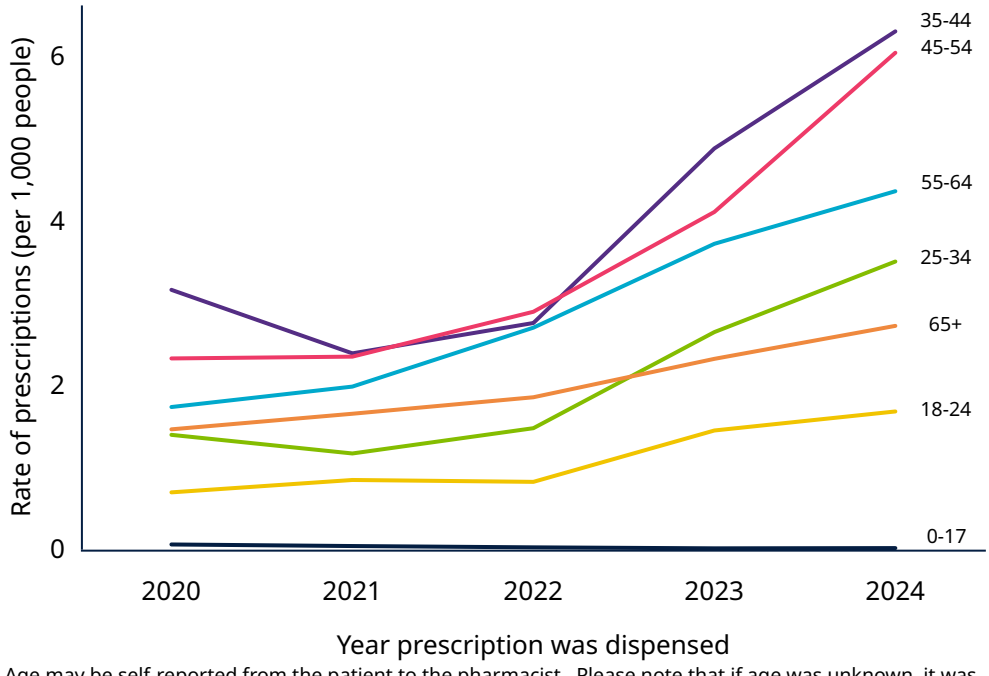
In 2024, the top five prescriber specialties prescribing ketamine in SC were nurse practitioners, psychiatry and neurology, family medicine, physician assistants, and anesthesiology. Nurse practitioners led in ketamine prescription volume as of 2024 (Figure 31). While most of these specialties have seen an increase in ketamine prescriptions, family medicine has seen a decline. Notably, nurse practitioners have experienced a 985% increase in ketamine prescriptions since 2020, signaling a dramatic shift in their prescribing practices. This surge in

prescriptions is also mirrored by a significant rise in the number of nurse practitioners utilizing SC's PMP, which has increased by 66% from 1,621 to 3,210 since 2020, highlighting their expanding involvement in controlled substance management. Additionally, this specialty trend was also observed in a recent DEA report that indicated a significant increase in ketamine prescriptions by nurse practitioners (IQVIA Government Solutions, 2024).

7.3 Patient Demographics

In 2024, the average age of patients receiving ketamine prescriptions in SC was 48 years. Prescription rates increased among those 18 and older compared to 2020, with individuals aged 35 to 44 receiving the highest number of prescriptions (Figure 32). The most significant growth occurred in the 45 to 54 age group, which experienced a 160% increase in ketamine prescriptions since 2020. Gender differences were also notable, as more females were dispensed ketamine than males, with rates of 9 prescriptions per 1,000 females compared to 5 prescriptions per 1,000 males. Between 2020 and 2024, the prescription rate for females rose by 141%, while males saw an increase of 102%.

Figure 32. Rate of dispensed ketamine prescriptions by patient age[1], 2020 - 2024

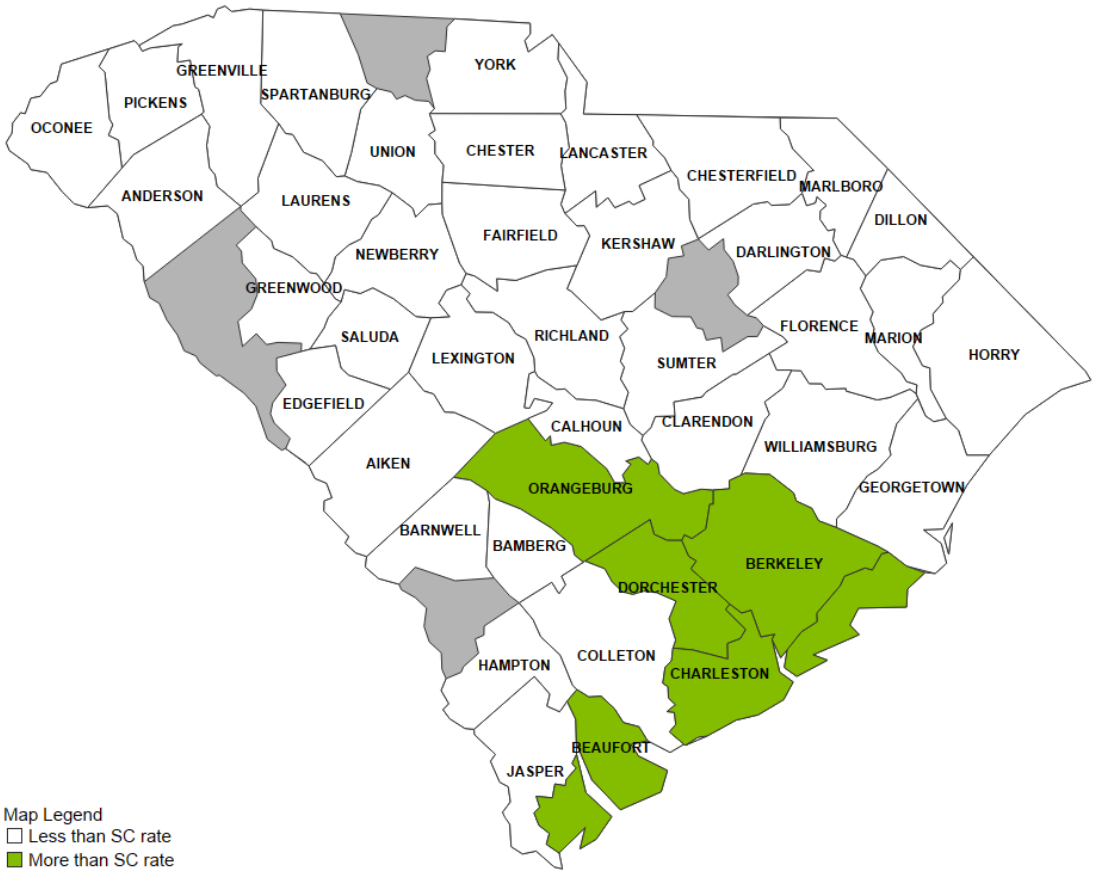


[1] Age may be self-reported from the patient to the pharmacist. Please note that if age was unknown, it was not included in this analysis.

7.4 Geographic Location (Patient County)

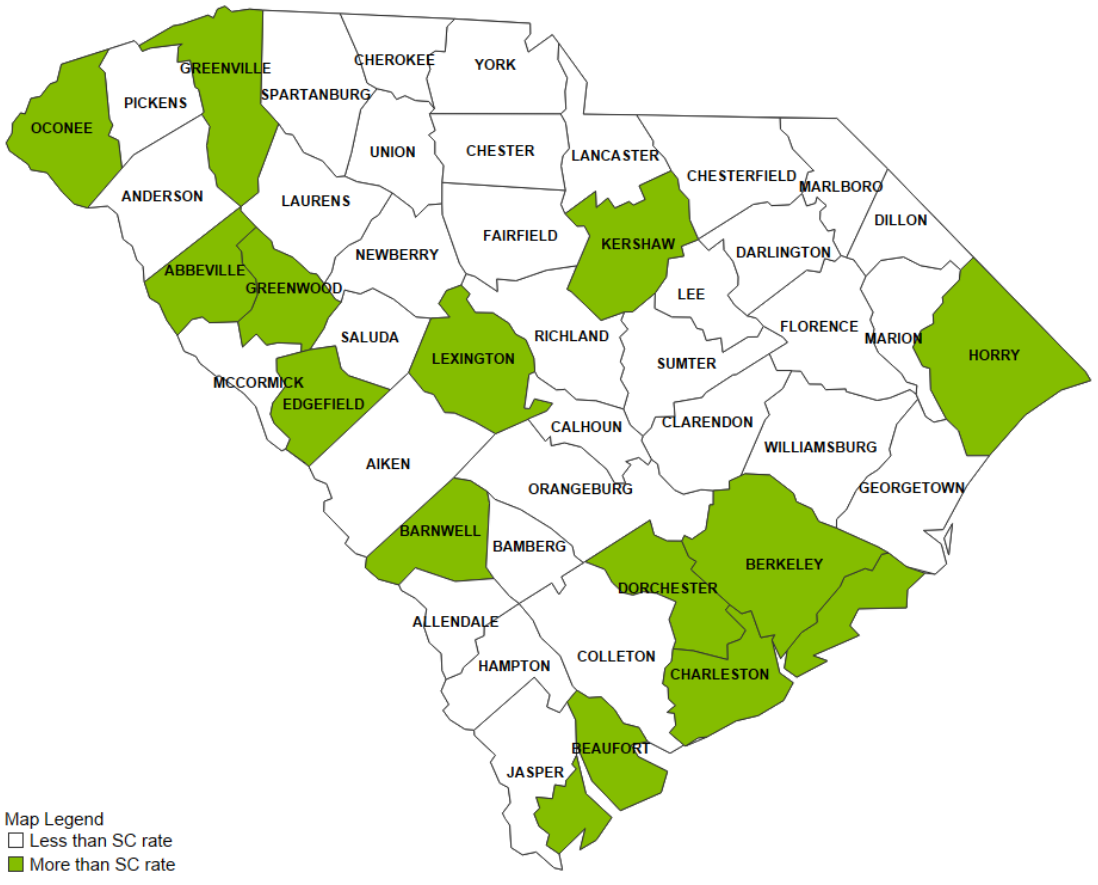
In 2024, ketamine prescription rates in Abbeville, Barnwell, Edgefield, Greenville, Greenwood, Horry, Kershaw, Lexington, and Oconee counties surpassed the state rate—an increase not observed in 2020 (Figures 33 and 34). After adjusting for age and population, the highest prescription rates were recorded in Charleston, Oconee, Dorchester, Greenwood, and Lexington counties. This marks a notable shift in the geographic distribution of ketamine use across SC. Overall, only 3 of the state's 46 counties experienced a decline in prescription rates from 2020 to 2024, indicating a broad and consistent rise in ketamine dispensations. Particularly striking were the increases in Barnwell, Fairfield, and Greenwood counties, each of which saw prescription rates climb by more than 1,000% during this time period.

Figure 33. Rate of ketamine prescriptions per 1,000 people by patient county for 2020[1]



[1] Grey indicates that ketamine dispensations were not reported.

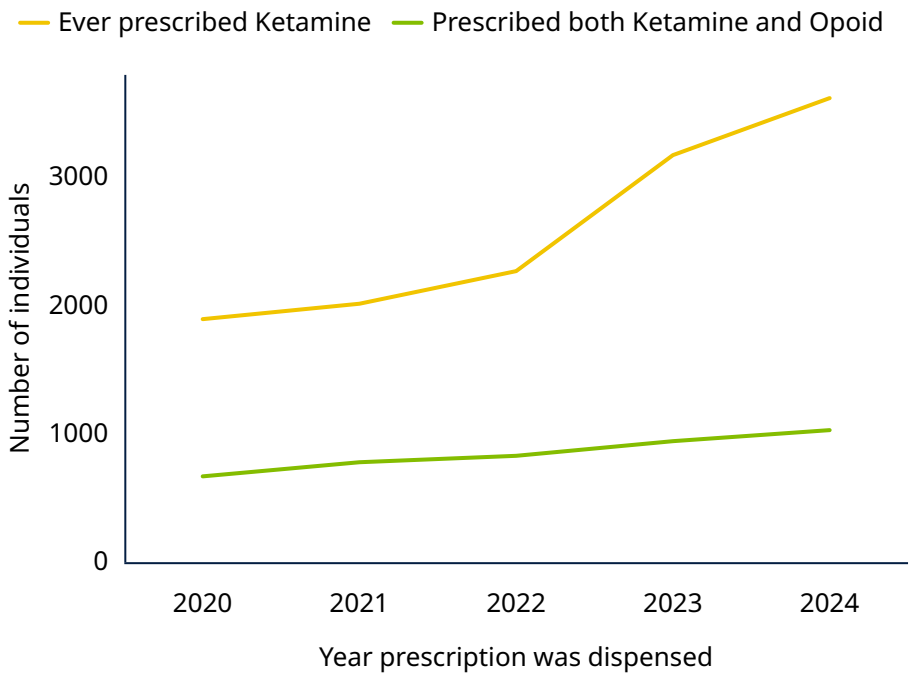
Figure 34. Rate of ketamine prescriptions per 1,000 people by patient county for 2024



7.5 Co-Prescribing

Ketamine, originally developed and marketed as an anesthetic, has seen a significant expansion in off-label applications, particularly for conditions such as depression, anxiety, post-traumatic stress disorder, and chronic pain (Rogers, 2024). In the context of chronic pain management, ketamine is frequently administered either alone or in conjunction with opioids to enhance analgesic effects (Rosenbaum, S.; et al., 2025). However, this combination requires careful oversight due to the heightened risk of severe adverse effects, including sedation, respiratory depression, coma, and even death (Rosenbaum, S.; et al., 2025). This analysis specifically excludes esketamine to focus solely on ketamine's role in chronic pain treatment. For the purpose of this evaluation, individuals were considered to have been co-prescribed ketamine and opioids if both medications were dispensed within the same calendar month. Since 2020, SC has had a 63% increase in ketamine prescriptions, accompanied by a 42% rise in the co-prescribing of ketamine and opioids. In 2024 alone, nearly 28% of patients prescribed ketamine were also dispensed an opioid prescription. While it cannot be determined with certainty that these prescriptions are specifically intended for chronic pain management, the data clearly indicates a significant shift in co-prescribing patterns within SC.

Figure 35. Number of individuals co-prescribed ketamine and opioids, 2020 - 2024



VIII. Summary

The latest Drug Overdose Death Report shows a 6% decrease in drug overdose deaths in SC from 2022 to 2023, marking the first decline since 2014 (South Carolina Department of Public Health, 2025). While this is a positive trend, there is still significant work to be done in addressing the ongoing opioid overdose epidemic. The SC PMP remains an essential tool in both clinical practice and public health surveillance, helping to reduce drug diversion, hospital admissions, substance use disorders, and mortality rates (Puac-Polanco et al., 2020). The effectiveness of the SC PMP is evident in the year-over-year increases in its utilization and the overall decline in opioid antidote administrations. Looking ahead to 2025, the SC PMP staff are committed to expanding the program further, continuing to collaborate with stakeholders to drive action using real time data, and continuing to drive positive trends in data outcomes and patient outcomes.

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