# Stimulant Prescription Trends in the United States from 2012 – 2023

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IQVIA

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# Executive Summary

**What is already known about stimulant prescribing?**

Prescriptions for stimulants have steadily increased since 2012. Women and older patients experience the highest annual increase in prescription stimulants dispensed; in 2022, women surpassed men in dispensed prescriptions for stimulants. Overall, 90% of all dispensed medications used primarily to treat attention-deficit/hyperactivity disorder (ADHD) were for stimulants and 10% were for non-stimulant medications in 2022. Psychiatrists, pediatricians, and nurse practitioners continue to be the most common prescribers, and telehealth treatment modalities continue to be used in the post-COVID-19 period.

**What is added by this report?**

The increasing trend in stimulant prescriptions continued through 2023 with women and older patients continuing to have the highest rate of dispensing. Prescriptions written to people aged 41-70 years had the highest dose across age groups, while patients aged 0-10 years had the lowest dose, and doses at initiation were lower on average than continuing doses. We further explored telemedicine and its impact on stimulant prescribing. Stimulant prescribing associated with telemedicine remained unchanged from 2022 to 2023. More patients under the age of 40 years had new stimulant prescriptions that were associated with a telemedicine visit than those over 40 years, which has remained consistent since the peak in 2020. Also, interstate telemedicine (where the provider and patient are in different states) has remained relatively stable at ~12% since 2020.

**What are the implications for increased stimulant prescribing?**

While telemedicine prescribing of stimulants for ADHD has remained unchanged compared to last year it continues to be an area of interest given the misuse and abuse potential of these drugs. Younger patients may be more apt to use telemedicine for initiation and maintenance of stimulant treatment which may impact inappropriate prescribing, and diversion. Continued monitoring of trends around telemedicine prescribing is crucial as additional regulations are considered.

# Key Findings

**Trends by patient demographics and prescriber specialty**

- From 2012 to 2023, overall dispensing of stimulants in the US increased by 60%.
- In 2023, the most frequently prescribed stimulants were amphetamine/dextroamphetamine (49%), methylphenidate (22%), and lisdexamfetamine (19%).
- Stimulant prescribing increased more for female patients (+92%) compared to male patients (+36%) and by 2022-2023 more stimulant prescriptions were written for female patients overall.
- From 2012 to 2023, stimulant prescriptions increased the most for patients aged 31-40 (+240%), 41-50 (+164%), and 61-70 years (+161%). By 2023, patients aged 31-40 years represented the largest age group for stimulant prescriptions.
- Nurse practitioners prescribed more than 75% of stimulant prescriptions dispensed from 2012 to 2023. In 2023, nurse practitioners were the top prescribing specialty for stimulants.

**Trends in stimulant prescribing practices**

- In 2023, 94% of stimulant prescriptions were continuing, 4% were new (i.e., did not have another stimulant prescription dispensed in the last 12 months), and 2% were switch.
- In 2022 and 2023, the number of patients switching prescriptions to methylphenidate increased sharply, more than those switching to amphetamine/dextroamphetamine, which also increased.
- From 2012 to 2023, the average daily dose (ADD) of stimulants decreased by 7%. The ADD for continuing prescriptions was on average 39% higher than the dose at initiation.
- Prescriptions written to patients aged 41-70 years had the highest ADD at initiation across age groups and patients aged 0-10 years had the lowest ADD at initiation.
- Approximately 90% of prescriptions for medications used to treat ADHD were for stimulant therapies. The vast majority (80-90%) of prescription switches involved switching from stimulant to non-stimulant therapies.
- In 2023, 21% of all stimulant prescriptions were co-prescribed with another controlled substance. The most frequently co-prescribed therapies were benzodiazepines (35%) and SSRIs (27%).

**Continuing trends in telemedicine stimulant prescribing**

- After rising sharply in 2020 and declining from 2020 to 2022, stimulant prescriptions associated with a telemedicine visit remained unchanged from 2022 to 2023 (~6%).
- More patients under the age of 40 years had new stimulant prescriptions that were associated with a telemedicine visit than those over 40 years, with more telemedicine visits in the West region overall.
- Interstate telemedicine prescribing declined in 2020 and has remained stable at approximately 12% through 2023.

# Introduction

Prescription stimulants, such as methylphenidate (e.g., Ritalin) and amphetamine compounds (e.g., dextroamphetamine; Adderall), are approved by the US Food and Drug Administration (FDA) for the treatment of attention-deficit/hyperactivity disorder (ADHD). Due to their abuse/misuse potential, stimulants are Schedule II (i.e., controlled) medications subject to additional regulations and risk mitigation strategies. During the 2020 COVID-19 pandemic policies aimed at facilitating access to critical treatments by relaxing restrictions on telemedicine prescribing of controlled substances, and increasing mental health seeking behaviors, have been associated with a dramatic rise in stimulant prescribing both through telemedicine settings, and overall.[1, 2] While telemedicine prescribing may have increased access to critical treatments for ADHD, clinicians have also raised concerns about potential risks for diversion and misuse of stimulants prescribed in these settings.[3] As the prevalence of ADHD increases and more patients initiate stimulant treatment for ADHD each year, more patients are expected to receive long-term care with stimulants (by telemedicine or otherwise), potentially increasing opportunities for diversion and misuse.[4, 5]

In 2023, the DEA commissioned a report from IQVIA on prescription stimulant trends, with a specific focus on the impact of COVID-19-era telemedicine prescribing. This report found dispensing of stimulants in the US increased by >50% from 2012 to 2022, with the biggest increases occurring among the 31-40 and 71-80 age groups. From 2012 to 2021, male patients had more stimulant prescriptions dispensed than female patients, but by 2022 the number of stimulants dispensed to females were slightly higher than for males; prescriptions dispensed also increased faster among female patients. For the first time in 2022, nurse practitioners wrote the highest number of stimulant prescriptions, followed by psychiatrists. Use of telemedicine for stimulants increased from <1% in March 2020 to 10% in April 2020; by the end of 2022 the proportion of new stimulant prescriptions through telemedicine decreased to ~5% -- still above pre-COVID-19 levels.

This report expands on previous reports provided to DEA with additional data through the end of 2023, and further describes trends in dose at initiation and prescribing patterns from telemedicine. The findings presented in this report are descriptive and contextual, and do not include tests of statistical significance.

# Methods

## Data Sources

IQVIA used Longitudinal Prescription Claims (LRx), Open-Source Medical Claims (Dx), and Consumer data for this report. The primary data source used to capture prescription dispensing was LRx, with additional variables to capture potential indication and telemedicine visits from Dx, and patient race/ethnicity information from the Consumer database.

**Longitudinal Prescription (LRx) Database**

LRx data track patient prescriptions over time. IQVIA receives approximately 3.7 billion prescription claims for 250 million patients per year, with history back to January 2004. LRx captures approximately 94% of all raw prescription transactions from retail pharmacies across the US, 74% for traditional and specialty mail order pharmacies, and 75% for long-term care pharmacies. LRx data are received electronically from pharmacies, payors, software providers, and transactional clearinghouses. LRx data contain granular prescription-level information on the pharmaceutical product dispensed, prescription specifications (e.g., dose, duration, etc.), prescriber, payor, and geographical location of the patient. LRx data are longitudinally linked back to an anonymous patient token that can be linked to other patient-level data.

**Medical Claims (Dx) Database**

Dx data represent pre-adjudicated professional claims generated by office-based physicians and specialists and collected through practice management software and claims clearinghouses, or "switches". These data are sourced from CMS-1500 form-based or EDI 837p claim transactions, the standard reimbursement form for all non-cash claims. Medical claims contain patient-level diagnoses, procedures performed, tests ordered, and drugs prescribed during visits to US office-based healthcare professionals, ambulatory, and general healthcare sites, as well as hospitals and skilled nursing facilities. IQVIA receives more than 1.5 billion office-based medical claims per year, for more than 209 million patients per year. Approximately 96% of licensed physicians, documented by the AMA, are captured in the sample. Dx data can be linked to other patient-level data for a more comprehensive understanding of the patient experience and prescription utilization by indication.

**Consumer Database**

IQVIA Consumer database can append consumer demographic or behavioral data to individual patients or Health Care Professionals (HCP) to create *Patient as Consumer or Physician as Consumer* Profiles. The consumer data is updated daily as new information is gathered for each consumer, which then goes through a de-identification process and assigned the IQVIA token ID. There are approximately 200 million consumer demographics which can be matched to patients in IQVIA's real world data assets (such as LRx and Dx). The match rate is up to 50% and will vary across patient cohorts meeting different market definitions.

# Analysis

### Study Period and Stimulant Prescriptions

IQVIA defined the ADHD stimulant market as prescriptions dispensed from **January 2012** through **December 2023** for all products containing stimulant molecules:

- Amphetamine
- Dexmethylphenidate
- Dextroamphetamine
- Lisdexamfetamine
- Methamphetamine
- Methylphenidate
- Serdexmethylphenidate

For the full list of ADHD product definitions, please refer to Appendix 1 and Appendix 3.

Once the prescription claims for stimulants are selected, IQVIA ensures completeness of the data by applying pharmacy stability and patient eligibility requirements. All pharmacies used by the patient must have consistently supplied data to the LRx database for the relevant study period, which includes the selection, look-back, and look-forward periods. To meet the patient eligibility requirement, the patient must have at least one record of prescription activity in any market within the LRx database prior to the look-back period. The use of eligibility requirements is standard practice for ensuring continuous eligibility in custom longitudinal studies.

### Projection

While LRx captures approximately 94% of all raw prescription transactions across the US, IQVIA has developed a proprietary projection methodology to account for the remaining 6% of prescriptions that were not captured. Specifically, IQVIA uses data from its sales database, which captures data from more than 425 pharmaceutical wholesalers, chain distribution centers, specialty distributors, physician suppliers, re-packagers, mail service pharmacies as well as direct sales data from over 100 pharmaceutical manufacturers. IQVIA uses the sell-in data to size the locations of each pharmacy. Utilizing data from reporting pharmacies (i.e., pharmacies that report prescription data to IQVIA) located in proximity to the non-reporting pharmacies, IQVIA projects for the volume of the non-reporting pharmacies, and therefore projects to 100% of dispensing in the retail, mail, and long-term care channels.

Except for the Average Daily Dose (ADD) analysis, all the analyses detailed below used the described methodology to calculate the projected number of prescriptions dispensed and the projected number of patients.

### Patient Demographics

IQVIA calculated patient age using the patient's year of birth and the study year, and aggregated patients into 10-year age groups up to age 80 years (e.g. 0-10, 11-20…, 70-80), with all patients older than 80 years reported as 81+ years.

IQVIA defined patient sex as male or female. IQVIA sourced patient race/ethnicity from the Consumer data using the following categories: White, Black, Hispanic, Asian/Other, or Unspecified.

### Prescriber Specialties

IQVIA grouped specialties of the prescribers into IQVIA's standard clinical categories (2024). Please refer to Appendix 4 for the list for specialty categories used in this report.

### Average Daily Dose (ADD)

IQVIA assessed trends in ADD for stimulant medications from 2012 to 2023. IQVIA calculated daily dose for each prescription as (strength) *x* (quantity / days' supply). IQVIA defined ADD in a year as the total daily dose divided by the number of dispensed prescriptions.

### Treatment Categories via Source of Business (SOB)

To assess product switching behaviors, IQVIA grouped stimulant prescriptions into various treatment categories:

- **New Therapy Start (NTS):** The patient did not have any stimulant prescriptions dispensed during the prior 12 months
- **Continue**: The patient had at least one prescription dispensed for the index stimulant product group during the 12-month look-back from the index date
- **Add-On (AO):** The patient did not have a prescription dispensed for the index stimulant product group and met at least one of the two following criteria during the 12-month look-back from the index date:
  - Dispensed a stimulant that extended beyond the end of the days' supply of the current index prescription
  - Dispensed another stimulant in the same product group as the prior prescription, and met all three criteria below:
    - Within 30 days after the current index prescription;
    - Within 30 days of the days of the last day of the prior prescription;
    - At least 5 days of days' supply overlap between the current and prior prescription
- **Switch**: The patient did not have a prescription for the index stimulant group but had a prescription dispensed in at least one other stimulant group during the 12-month look-back for the index date

**Medications Containing Stimulant (Controlled) vs. Non-Stimulant (Non-Controlled) Substances**

To compare the use of stimulant and non-stimulant medications used to treat ADHD, IQVIA selected prescriptions dispensed from **January 2012** through **December 2023** for all products indicated for ADHD treatment that contain these selected molecules:

- Atomoxetine
- Clonidine
- Guanfacine
- Viloxazine

Using IQVIA's product reference files, IQVIA distinguished between branded and generic stimulant products using product indicators.

**Telemedicine**

IQVIA defined telemedicine visits in the Dx data that met any of the conditions below:

- Place of Service code = "02," indicating health services were provided or received through telecommunication technology
- Procedure Modifier code of "95," "GT," or "GQ," which all indicate telehealth services
- Procedure Code for Telemedicine/Telehealth (Appendix 5)

IQVIA used the following steps to identify whether new ADHD prescriptions were the result of a telemedicine visit:

- Identified index prescriptions (from LRx) with no prior prescription in the prior 12 months (i.e. new patients/prescriptions)
- For each new index prescription, looked back 14 days from the prescription fill date for telemedicine medical claims (from Dx data)
- Looked to see whether the new index prescription met one of the following criteria; if yes, then flag prescription as telemedicine:
    - If the Provider ID of the telemedicine medical claim (Dx) was the same as the Rendering Provider ID on the index prescription claim (Rx); or
    - If ADHD were listed as one of the diagnoses on the telemedicine medical claim (Dx)

For a complete list of telemedicine and telehealth codes, see Appendix 5.

**Co-Prescribing**

IQVIA assessed co-prescribing (i.e., the prescribing of two medications by the same provider at the same time) of several controlled substances:

- Codeine and codeine combination (USC5 02232 – includes most opioid molecules)
- Seizure disorder medications (USC5 20200)
- Selective Serotonin Reuptake Inhibitors (SSRIs) (USC5 64340)
- Benzodiazepines (USC5 64610)
- Non-barbiturate sedatives (USC5 67290)

Co-prescriptions must have met all the below criteria:

- A prescription for a controlled substance within 90 days before or 90 days after a stimulant prescription; and
- At least a 15-day overlap in supply between the controlled substance prescription and stimulant prescription; and
- The controlled substance prescription claim and the stimulant prescription claim had the same Provider ID

Co-prescribing was not mutually exclusive; one stimulant prescription may have multiple co-prescribed products.

**Potential Indication for Use**

For each new prescription, IQVIA looked back 12 months from the index prescription fill date to identify diagnoses of either ADHD or narcolepsy (see Appendix 6 for a complete list of diagnosis codes).

**Interstate Prescribing**

IQVIA defined intrastate (i.e., “same state”) prescriptions as those where the provider’s state and patient’s state were the same, and all those that differed as interstate; we analyzed telemedicine associated prescriptions separately.

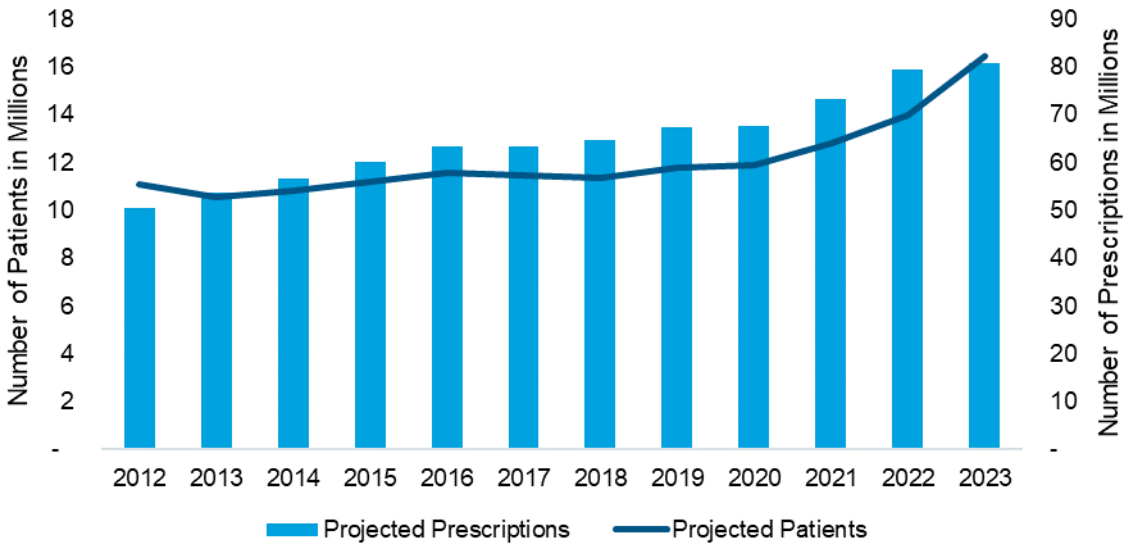
# Results

## Overall Trends in Stimulant Prescriptions and Patients

From 2012 to 2023 the projected number of stimulant prescriptions dispensed increased by **60%,** from 50.4 million in 2012 to 80.8 million in 2023 (Figure 1). In the last year (from 2022 to 2023) the number of prescriptions remained relatively stable, increasing by only 1.4%.

From 2012 to 2023, the projected number of patients who received a stimulant prescription increased by 48% from 11.1 million to 16.5 million. The number of patients increased by 18% between 2022 and 2023 – the largest year-over-year change observed during the study period. The number of prescriptions per patients rose steadily from 4.6 in 2012 to 5.7 in 2022, before declining by 13% to 4.9 in 2023.

**Figure 1. Projected Number of Stimulant Patients and Prescriptions (2012 - 2023)**




In 2023, the most frequently prescribed stimulants were amphetamine/dextroamphetamine (e.g., Adderall) (49%), methylphenidate (e.g., Concerta, Ritalin) (22%), and lisdexamfetamine (i.e., Vyvanse) (19%).

**Sex**

The number of prescriptions dispensed for both male and female patients increased from 2012 to 2023 (Table 1). The number of prescriptions increased by 92% (21.6 million in 2012 to 41.4 million in 2022) for female patients and 36% (28.9 million in 2012 to 39.3 million in 2022) for male patients. From 2012 to 2021 more stimulant prescriptions were written for male than female patients; however, in 2022 and 2023, more prescriptions were written for female patients.

**Age**

In 2012, 34% of stimulant prescriptions were written for patients aged 11-20 years (Table 1). The number of stimulant prescriptions for patients in this age group remained relatively stable even as the total number of stimulant prescriptions increased. From 2012 to 2023, stimulant prescriptions for patients aged 31-40 increased by 240%; at over 18 million, they are now the largest single age group for stimulants prescriptions. Prescriptions also increased for patients aged 41-50 (164%), 61-70

(161%), and 71-80 (516%). Over the same period, prescriptions for patients aged 0-10 years decreased by 19%, although there was a modest increase (~2%) in this group from 2022 to 2023. While all other groups increased, prescriptions among patients aged 11-20 (~2%) and 21-30 years (~4%) decreased from 2022 to 2023.

**Race/Ethnicity**

Race/ethnicity data were available for ~31% of stimulant prescriptions. Most prescriptions were written for White patients (90%) (Table 1). Prescriptions in all race/ethnicity groups increased from 2012 to 2023, with the largest increases observed for Asian/Other patients (94%). However, the increases in number of prescriptions for Black, Asian/Other, and Hispanic patients were relatively small.

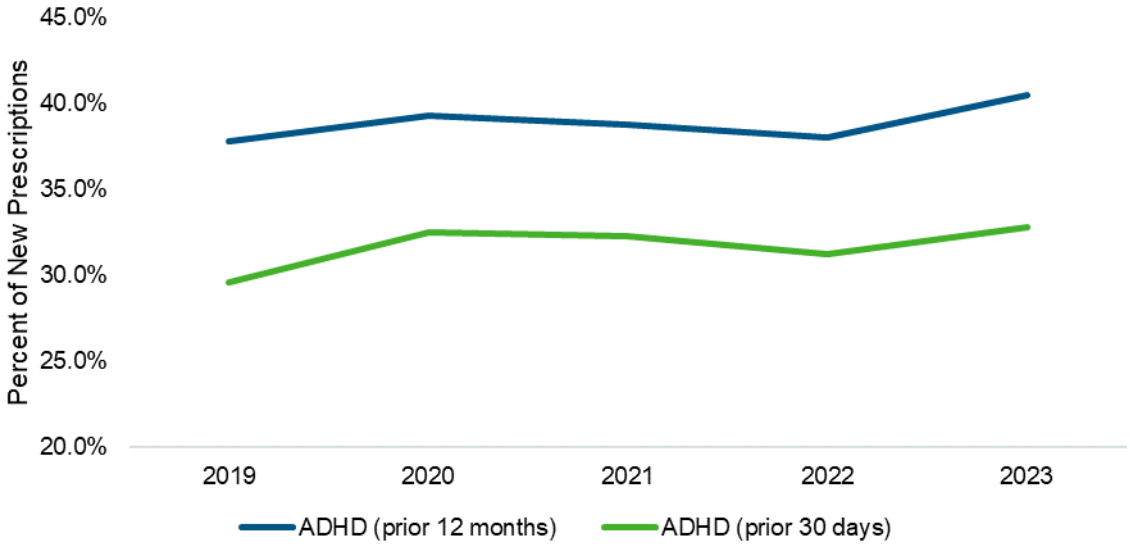
**Table 1. Patient Demographic Characteristics Associated with Dispensed Stimulant Prescriptions (2012 – 2023)**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Prescriptions | 50,445,946 | 53,728,661 | 56,622,294 | 60,188,348 | 63,493,937 | 63,487,133 | 64,742,449 | 67,374,895 | 67,693,262 | 73,391,404 | 79,624,137 | 80,762,153 |
| Sex | | | | | | | | | | | | |
| Female | 21,580,852 | 23,317,646 | 24,946,217 | 26,951,783 | 28,757,702 | 29,046,829 | 29,918,189 | 31,360,806 | 32,709,939 | 36,498,261 | 40,428,090 | 41,425,582 |
| Male | 28,865,094 | 30,411,014 | 31,676,077 | 33,236,565 | 34,736,236 | 34,440,304 | 34,824,259 | 36,014,089 | 34,983,323 | 36,893,143 | 39,196,047 | 39,336,570 |
| Age | | | | | | | | | | | | |
| 0-10 | 9,692,397 | 9,919,205 | 9,800,148 | 9,706,586 | 9,646,703 | 9,110,508 | 8,726,354 | 8,599,868 | 7,485,250 | 7,448,697 | 7,688,008 | 7,858,930 |
| 11-20 | 17,695,482 | 18,008,758 | 18,238,758 | 18,600,204 | 18,955,272 | 18,412,146 | 18,291,767 | 18,494,467 | 16,893,607 | 17,507,986 | 18,140,512 | 17,694,909 |
| 21-30 | 7,991,733 | 8,815,799 | 9,657,661 | 10,546,520 | 11,204,189 | 11,174,822 | 11,170,624 | 11,421,366 | 11,618,298 | 12,927,768 | 13,934,593 | 13,386,562 |
| 31-40 | 5,400,980 | 6,280,328 | 7,170,513 | 8,301,850 | 9,364,545 | 9,986,388 | 10,863,877 | 12,082,395 | 13,384,995 | 15,368,627 | 17,592,331 | 18,365,404 |
| 41-50 | 4,565,717 | 5,038,783 | 5,477,489 | 6,080,020 | 6,686,117 | 6,959,177 | 7,466,272 | 8,119,286 | 8,953,535 | 9,969,898 | 11,256,082 | 12,065,647 |
| 51-60 | 3,414,722 | 3,735,112 | 4,062,297 | 4,442,739 | 4,790,171 | 4,857,559 | 5,035,066 | 5,305,969 | 5,723,892 | 6,231,682 | 6,747,484 | 6,918,728 |
| 61-70 | 1,264,688 | 1,452,640 | 1,666,185 | 1,898,400 | 2,161,059 | 2,275,866 | 2,419,832 | 2,558,929 | 2,764,023 | 2,974,102 | 3,190,508 | 3,296,603 |
| 71-80 | 146,379 | 206,023 | 275,086 | 342,141 | 423,005 | 479,032 | 556,893 | 567,904 | 655,690 | 730,591 | 820,795 | 901,151 |
| 81+ | 273,849 | 272,013 | 274,157 | 269,887 | 262,877 | 231,634 | 211,764 | 224,712 | 213,973 | 232,052 | 253,824 | 274,219 |
| Race/Ethnicity | | | | | | | | | | | | |
| Black | 634,934 | 613,725 | 610,039 | 614,618 | 624,339 | 598,240 | 587,976 | 552,682 | 569,987 | 637,807 | 714,667 | 738,503 |
| Asian/Other | 230,965 | 238,451 | 259,527 | 280,161 | 304,521 | 311,558 | 320,350 | 315,378 | 330,860 | 387,433 | 441,447 | 447,502 |
| White | 15,193,380 | 15,644,491 | 16,239,758 | 16,946,942 | 17,660,125 | 17,471,228 | 17,600,394 | 16,877,927 | 17,721,809 | 19,521,071 | 21,348,334 | 21,544,176 |
| Hispanic | 939,698 | 932,587 | 957,162 | 993,197 | 1,043,690 | 1,014,919 | 1,019,623 | 1,041,877 | 1,119,809 | 1,270,759 | 1,425,459 | 1,432,520 |
| Unspecified | 33,446,970 | 36,299,406 | 38,555,808 | 41,353,429 | 43,861,262 | 44,091,189 | 45,214,105 | 48,587,031 | 47,950,797 | 51,574,333 | 55,694,231 | 56,599,451 |

### ADHD and Narcolepsy Diagnoses

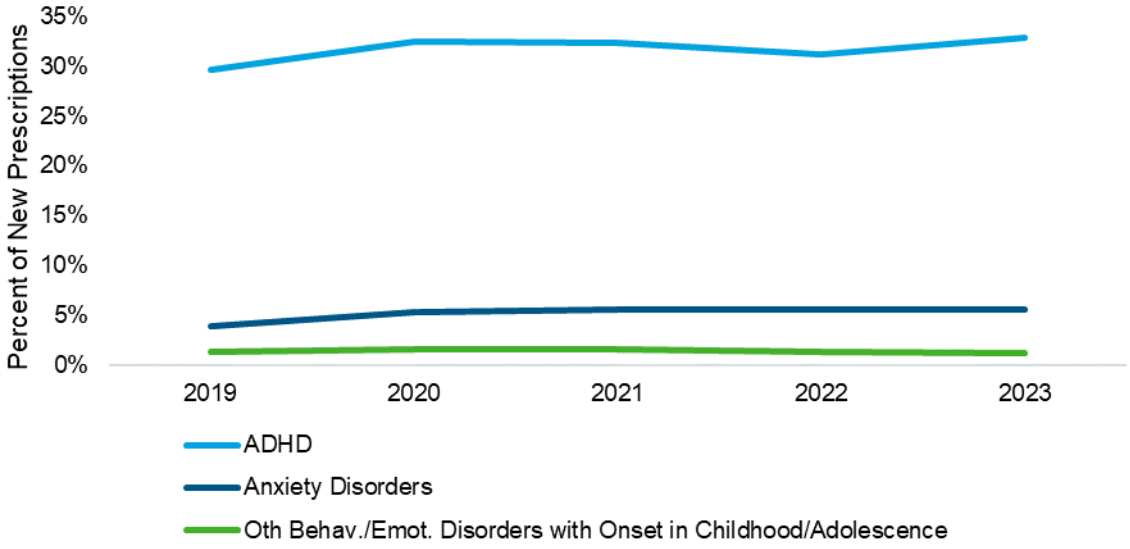
From 2019 to 2023, an average of 39% of new stimulant prescriptions had an associated ADHD diagnosis within the prior year and 32% had an ADHD diagnosis within the prior 30 days (Figure 2). Less than 0.1% of stimulant prescriptions were dispensed to patients who had a narcolepsy diagnosis in the prior 12 months.

**Figure 2. Percent of Projected New Prescriptions with a Prior ADHD Diagnosis (2019 – 2023)**




Less than 5% of new stimulant prescriptions were dispensed to patients whose most recent diagnosis (i.e., the diagnosis closest to their stimulant prescription date) was for an anxiety disorder or other behavioral/emotional disorder (Figure 3). Trends in the proportion of patients whose most recent diagnosis was for ADHD increased slightly from 2019 to 2023.

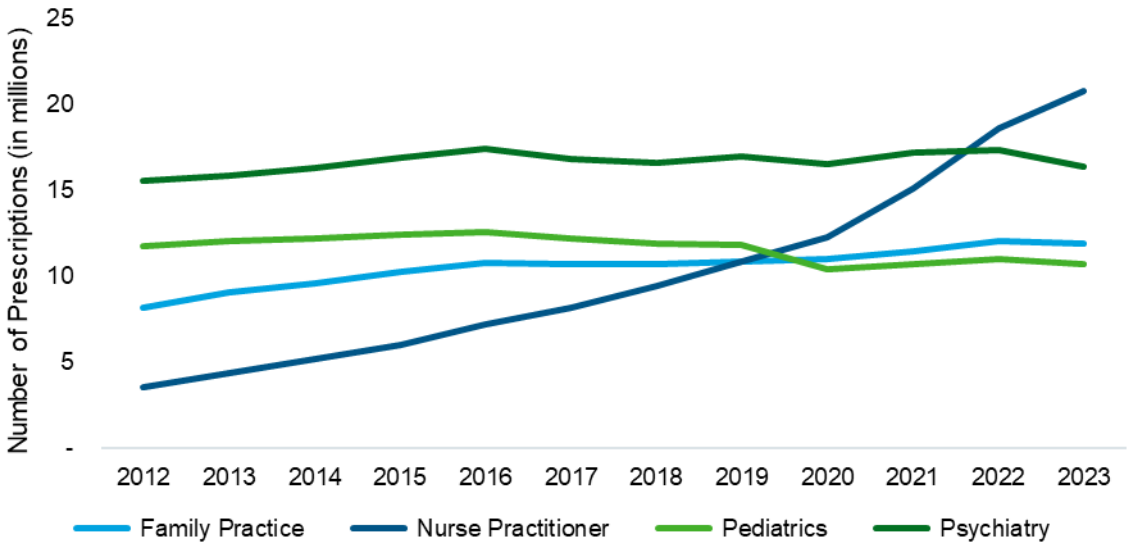
**Figure 3. Percent of Projected New Therapy Start Prescriptions by Most Recent Prior Diagnosis (2019 – 2023)**



**Prescriber Specialties**

Among provider specialties, psychiatry, pediatrics, family practice, and nurse practitioner prescribed more than 75% of the stimulant prescriptions dispensed from 2012 to 2023 (Figure 4). During this period, the number of dispensed stimulant prescriptions written by nurse practitioners increased by nearly five-fold (477%); by 2022, nurse practitioners were the top prescribing specialty for stimulants. In the last year there were somewhat modest declines in prescriptions written by family practice (~1%) and pediatric specialties (~2%), and ~6% decline by psychiatry.

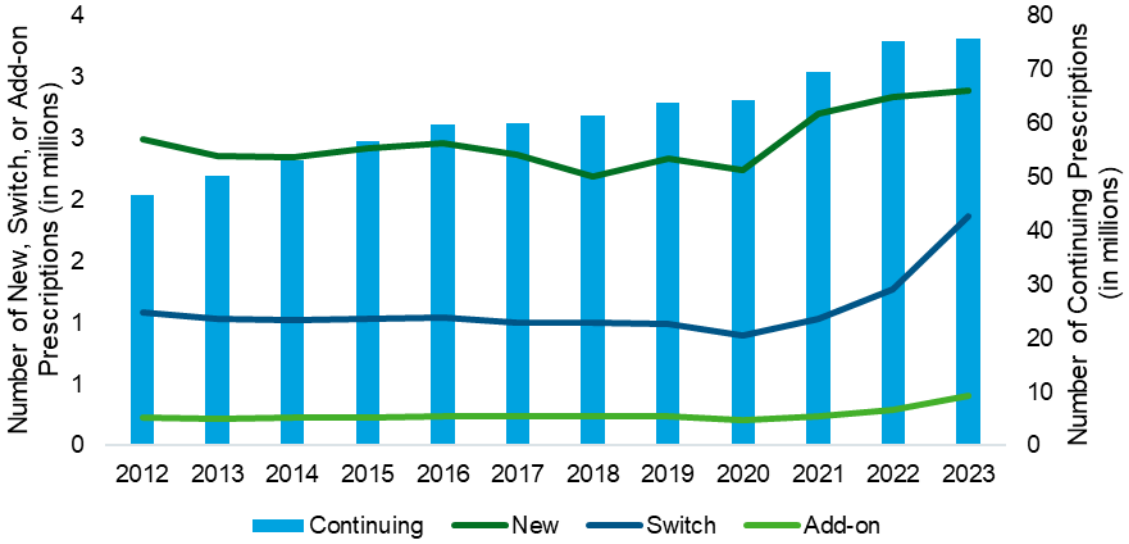
**Figure 4. Projected Stimulant Prescriptions by Top Prescriber Specialties (2012 – 2023)**



## Trends in Stimulant Prescribing Practices

In 2023, 94% of all stimulant prescriptions were classified as continuing, 4% as new, 2% as switch, and 0.5% as add-ons (Figure 5). There was a marked increase in switches (47%) and add-ons (38%) compared to the previous year, whereas a <2% increase in new prescriptions. From 2012 to 2023, switching and adding-on therapies were more common among patients aged <10 years (range 2.7-3.4% and 0.7-1.0%, respectively) and 11-20 years (range 1.8-2.7% and 0.4-0.6%, respectively) than any other age groups. New prescriptions were more common among older patients (age >71 years) until 2020 when it became roughly as common among patients aged 0-10 and 21-30 years.

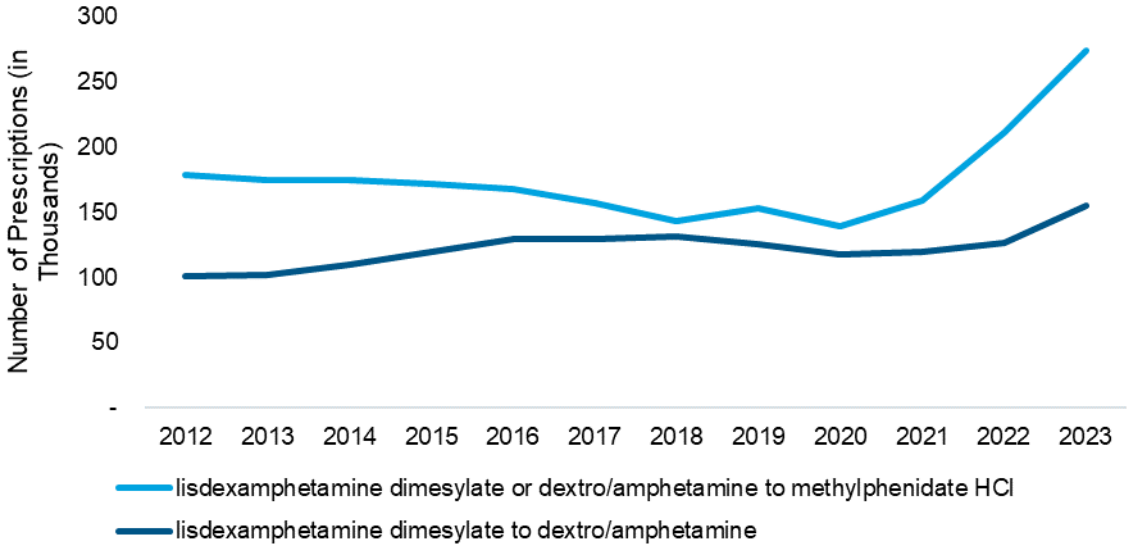
**Figure 5. Projected Stimulant Prescriptions by Treatment Categories (2012 – 2023)**




### Product Switching within Stimulant Market

In 2022 and 2023, the number of prescriptions switched from lisdexamphetamine to amphetamine/dextroamphetamine (e.g., Adderall) increased markedly, more than number of prescriptions switched from either lisdexapmhetamine or amphetamine/dextroamphetamine products to methylphenidate products (Figure 6). Compared to 2021, switching from lisdexamphetamine to amphetamine/dextroamphetamine increased by 73%, whereas only 30% switched from either lisdexapmhetamine or amphetamine/dextroamphetamine products to methylphenidate products.

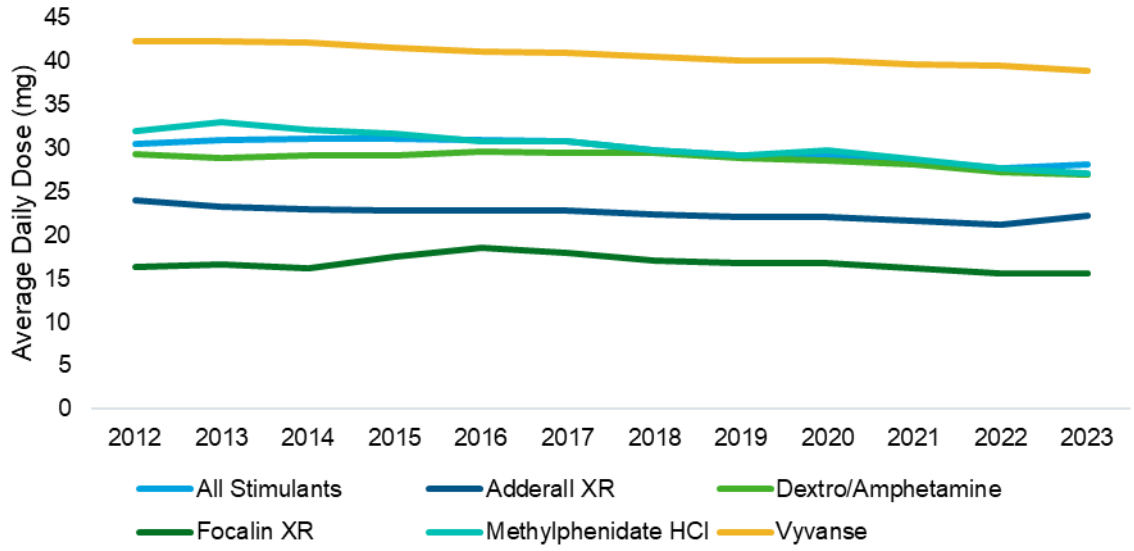
**Figure 6. Stimulant Prescription Switching (2012 – 2023)**




### Average Daily Dose (ADD)

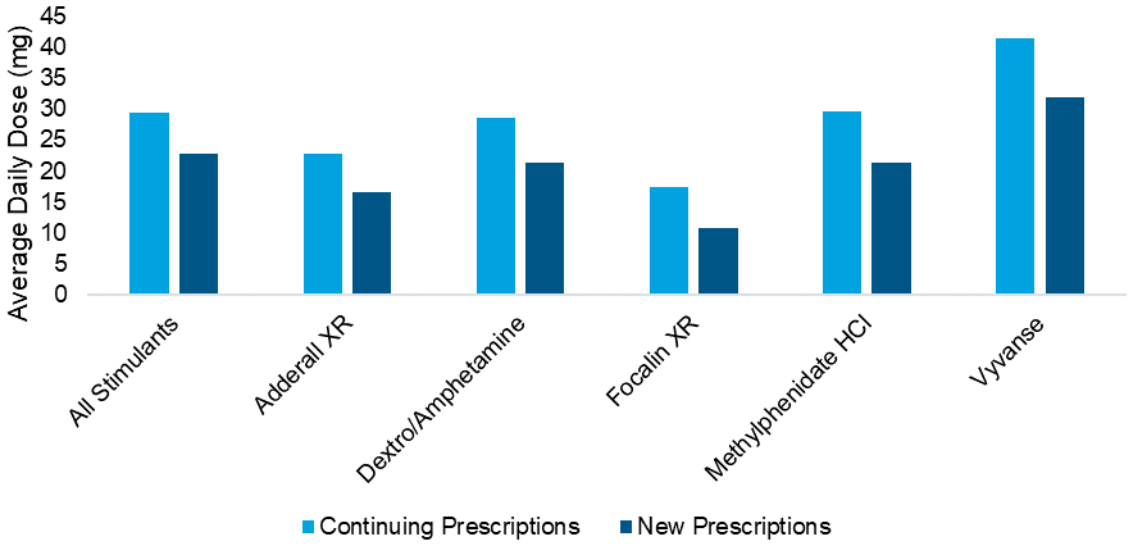
For all stimulant products there was a **7%** decline in ADD across the study period. There was also a decline in the ADD for the top five most dispensed stimulant products from 2012 to 2023 (Figure 7).

**Figure 7. Average Daily Dose (ADD) of Stimulant Prescriptions, (2019 – 2023)**




Consistently over time and across all products, the ADD for continuing prescriptions was 39% higher than the ADD for new prescriptions (i.e., dose at initiation) (Figure 8).

**Figure 8. Average Daily Dose (ADD) of Stimulant Prescriptions, by Continuing vs. New (2019 – 2023)**



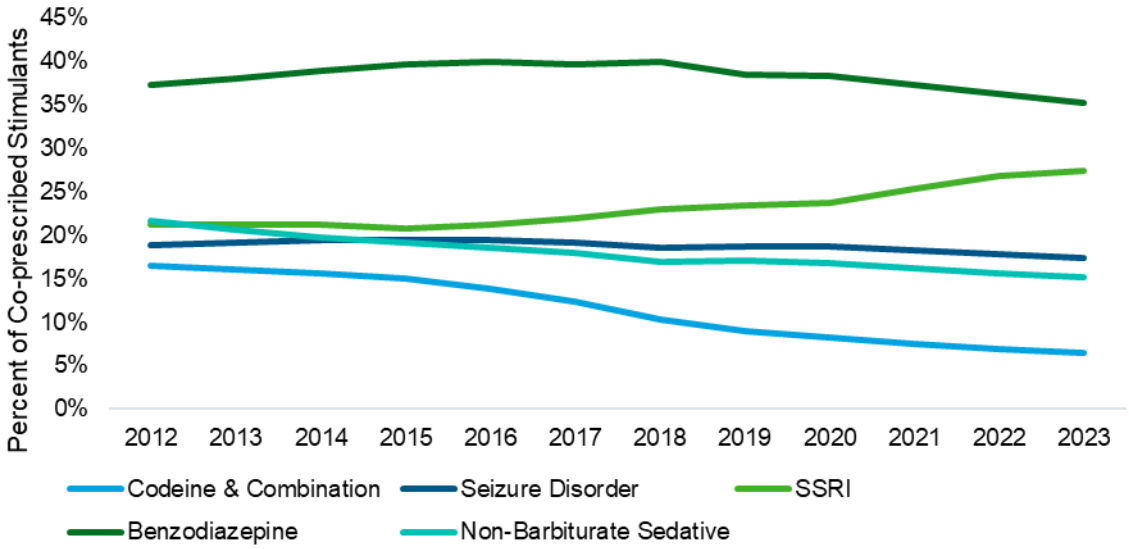

After stratifying by age, new prescriptions written to people aged 41-70 years had the highest ADD (i.e., dose at initiation) across all stimulants, while people aged 0-10 years had the lowest ADD. ADD at initiation for patients aged 21-70 years was mostly consistent across products (Appendix Figure 1).

**Co-Prescribing**

In 2023, 21% of all stimulant prescriptions were co-prescribed with another selected drugs. This represents a continued decline in co-prescribing of the selected drugs with stimulants from a peak of 23% in 2020. The proportion of co-prescribing increased from 19% in 2012 to 22% in 2017, with a slight decrease until 2019. Products containing methamphetamine (44%), dextroamphetamine/ dextroamphetamine sulfate (23-27%), and amphetamine/amphetamine sulfate/amphetamine-dextroamphetamine (16-25%) had the highest rate of co-prescribing. In addition, while co-prescribing with most stimulant medications either remained stable or declined from 2017 to 2023, co-prescribing with stimulants containing amphetamine have increased by 16%.

For stimulant prescriptions with co-prescriptions, the drugs most frequently co-prescribed with stimulants were benzodiazepines (35%), SSRIs (27%), medications for seizure disorders (17%), non-barbiturate sedatives (15%), and codeine/codeine combinations (7%) (Figure 9). The rate of co-prescribing for all the above groups declined from 2012 to 2023, except for SSRIs which have increased somewhat notably since 2020.

**Figure 9: Co-Prescribing with Stimulants by Drug Class (2012 – 2023)**




**Stimulant vs. Non-Stimulant Medications for ADHD**

From 2022 to 2023, prescriptions for non-stimulant ADHD medications increased by 17% (Table 2). Overall, approximately 90% of all prescriptions for medications used to treat ADHD were stimulants, and 10% were for non-stimulant medications in 2023 (Table 2). Prescriptions for therapies containing stimulants increased by 34% from 2012 to 2023 while prescriptions containing non-stimulant molecules more than doubled (+109%) over the same period. In 2023 the most frequently dispensed stimulant prescriptions were amphetamine/dextroamphetamine (51%) and methylphenidate (21%), while the most frequently dispensed non-stimulant prescriptions were guanfacine (46%) and atomoxetine (43%).

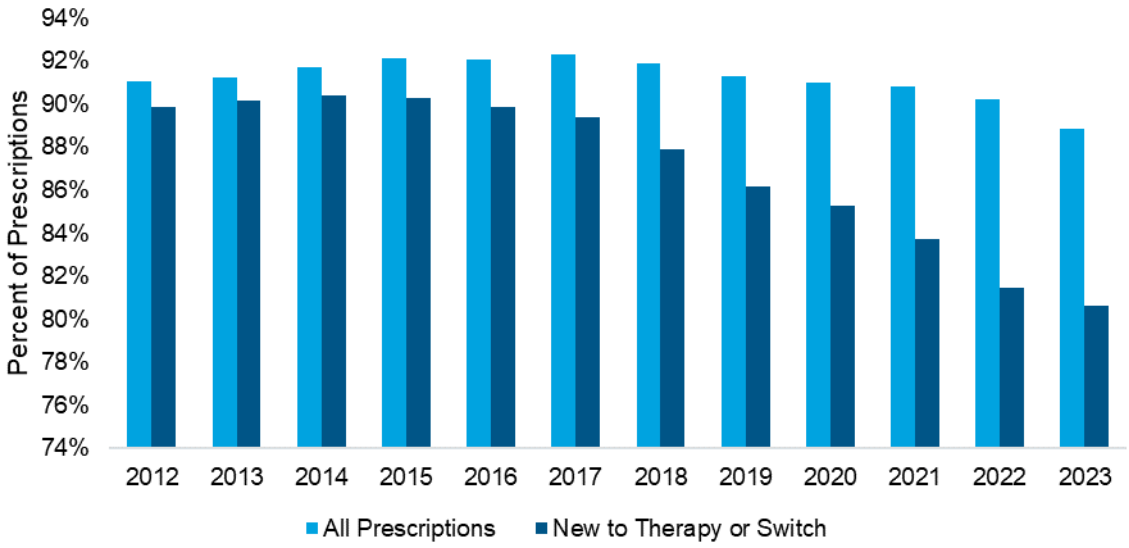
**Table 2: Dispensed Prescriptions for Stimulant and Non-stimulant ADHD Treatment Molecules from 2012 to 2023**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All ADHD Treatment Molecules | 55,392,763 | 58,885,747 | 61,728,729 | 65,346,461 | 68,937,015 | 68,765,672 | 70,469,359 | 73,790,465 | 74,374,895 | 80,776,996 | 88,246,388 | 90,882,336 |
| **Stimulants** | **50,445,947** | **53,728,661** | **56,622,296** | **60,188,347** | **63,493,939** | **63,487,134** | **64,742,449** | **67,374,893** | **67,693,255** | **73,380,849** | **79,624,134** | **80,762,153** |
| Amphetamine/ Dextroamphetamine | 21,187,383 | 23,552,936 | 25,858,983 | 28,513,613 | 30,880,983 | 31,782,478 | 33,358,137 | 35,325,787 | 37,019,895 | 40,901,001 | 44,613,679 | 41,306,232 |
| Methylphenidate HCl | 14,895,221 | 15,175,122 | 15,600,551 | 15,689,044 | 15,780,487 | 15,061,448 | 14,412,511 | 14,587,531 | 13,970,780 | 14,835,853 | 16,007,069 | 16,641,967 |
| Lisdexamfetamine Dimesylate | 9,084,740 | 9,662,494 | 10,070,051 | 10,859,310 | 11,621,538 | 11,416,971 | 11,348,741 | 11,613,957 | 11,228,130 | 11,774,361 | 12,508,565 | 15,003,427 |
| Dexmethylphenidate HCl | 3,940,547 | 4,074,100 | 3,847,401 | 3,913,517 | 4,071,564 | 3,991,043 | 4,142,464 | 4,384,091 | 4,133,639 | 4,474,663 | 4,988,664 | 5,647,559 |
| Dextroamphetamine Sulfate | 856,471 | 783,296 | 800,200 | 801,695 | 805,895 | 764,424 | 743,279 | 743,680 | 739,051 | 773,169 | 804,537 | 915,463 |
| Amphetamine | | | | | 37,945 | 223,183 | 368,460 | 349,144 | 289,625 | 307,028 | 309,365 | 461,363 |
| Methylphenidate | 467,553 | 467,815 | 432,667 | 358,353 | 186,040 | 127,052 | 259,897 | 271,609 | 227,792 | 228,345 | 217,409 | 234,101 |
| Serdexmethylphenidate Chloride - Dexmethylphenidate HCl | | | | | | | | | | 5,008 | 99,374 | 478,614 |
| Amphetamine Sulfate | | | | 41,170 | 98,925 | 111,065 | 100,114 | 90,694 | 76,182 | 73,558 | 68,797 | 67,135 |
| Methamphetamine HCl | 14,032 | 12,898 | 12,443 | 11,645 | 10,562 | 9,470 | 8,846 | 8,400 | 8,161 | 7,863 | 6,675 | 1,179 |
| **Non-Stimulants** | **4,946,816** | **5,157,086** | **5,106,434** | **5,158,114** | **5,443,077** | **5,278,539** | **5,726,910** | **6,415,573** | **6,681,639** | **7,396,148** | **8,622,254** | **10,120,183** |
| Guanfacine HCl (ADHD) | 2,324,769 | 2,513,095 | 2,517,386 | 2,540,676 | 2,784,167 | 2,833,565 | 3,118,545 | 3,601,000 | 3,715,627 | 3,913,957 | 4,197,557 | 4,652,787 |
| Atomoxetine HCl | 2,363,958 | 2,312,255 | 2,278,505 | 2,316,178 | 2,356,551 | 2,160,152 | 2,316,021 | 2,490,550 | 2,612,350 | 3,031,635 | 3,654,916 | 4,345,997 |
| Clonidine HCl (ADHD) | 258,089 | 331,736 | 310,543 | 301,260 | 302,359 | 284,822 | 292,344 | 324,023 | 353,662 | 400,567 | 459,880 | 535,091 |
| Viloxazine HCl (ADHD) | | | | | | | | | | 49,989 | 309,901 | 586,309 |

***Note: Counts are projected and due to rounding may not add up to total*

When restricted to new or switch prescriptions, the percentage of prescriptions for stimulants (as opposed to non-stimulants) decreased from 90% in 2012 to 81% in 2023 (Figure 10). From 2012 to 2023, the number of new prescriptions with non-stimulant therapies increased from 10% to 19%, increasing slightly each year after 2017. Overall, 80-90% of prescription switches involved switching from stimulant to non-stimulant therapies. At the same time, 12-16% of prescription switches were from non-stimulant to stimulant therapies.

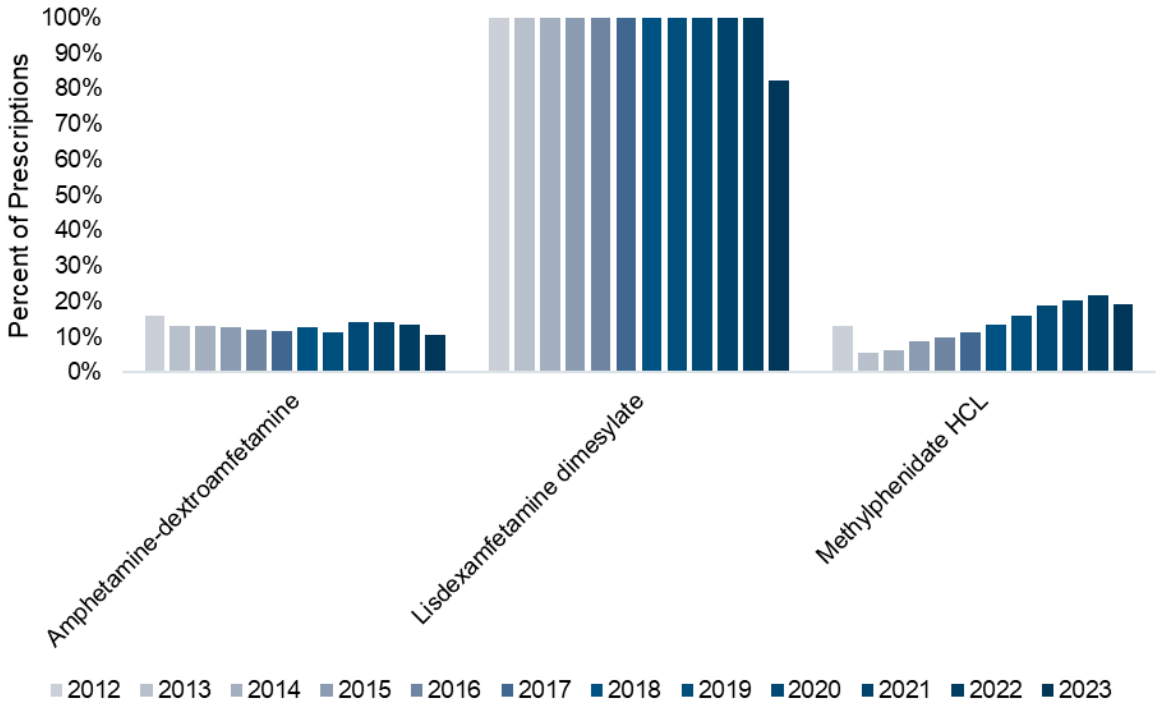
**Figure 10: Percentage of Prescriptions Containing Stimulants (2012 – 2023)**




### Branded vs. Generic Stimulants

Overall, the percentage of stimulant prescriptions dispensed for branded compared to generic products decreased by 25% from 2012 to 2023; the trend among new and switch stimulant prescriptions was similar. After generic formulations became available in 2023, 28% of prescriptions for lisdexamphetamine were written for generic products (Figure 11).

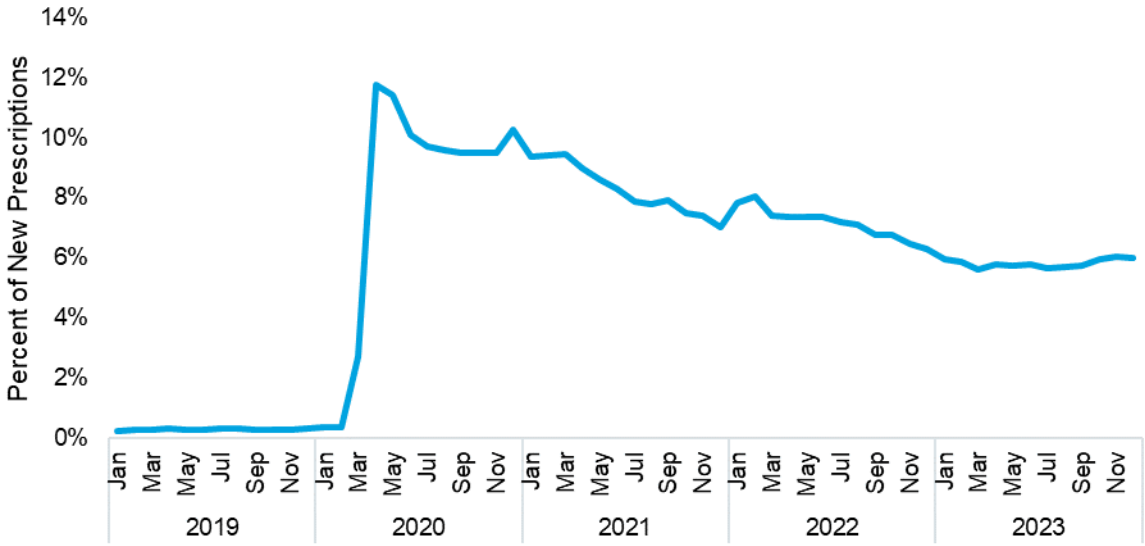
**Figure 11: Percentage of Top Three Stimulant Prescriptions, Dispensed for Branded Products (2012 – 2023)**




## Trends in Telemedicine Stimulant Prescribing

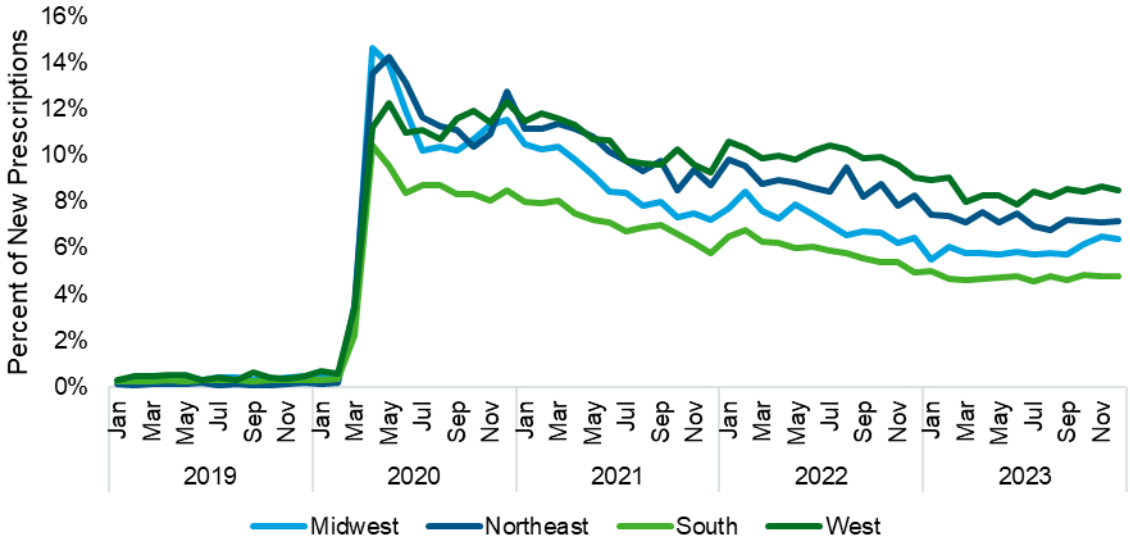
Prior to March 2020, the percentage of new stimulant prescriptions dispensed associated with telemedicine visits was ~0.3% per month. Telemedicine prescriptions increased significantly during the 2020 COVID-19 pandemic, rising to a high of over 10% in April 2020 (Figure 12). While telemedicine visits declined in 2021 and 2022 compared to 2020, they remained consistent at just under 6% of new prescriptions through 2023.

**Figure 12: Percent of New Stimulant Prescriptions Associated with Telemedicine Visits (2019 – 2023)**



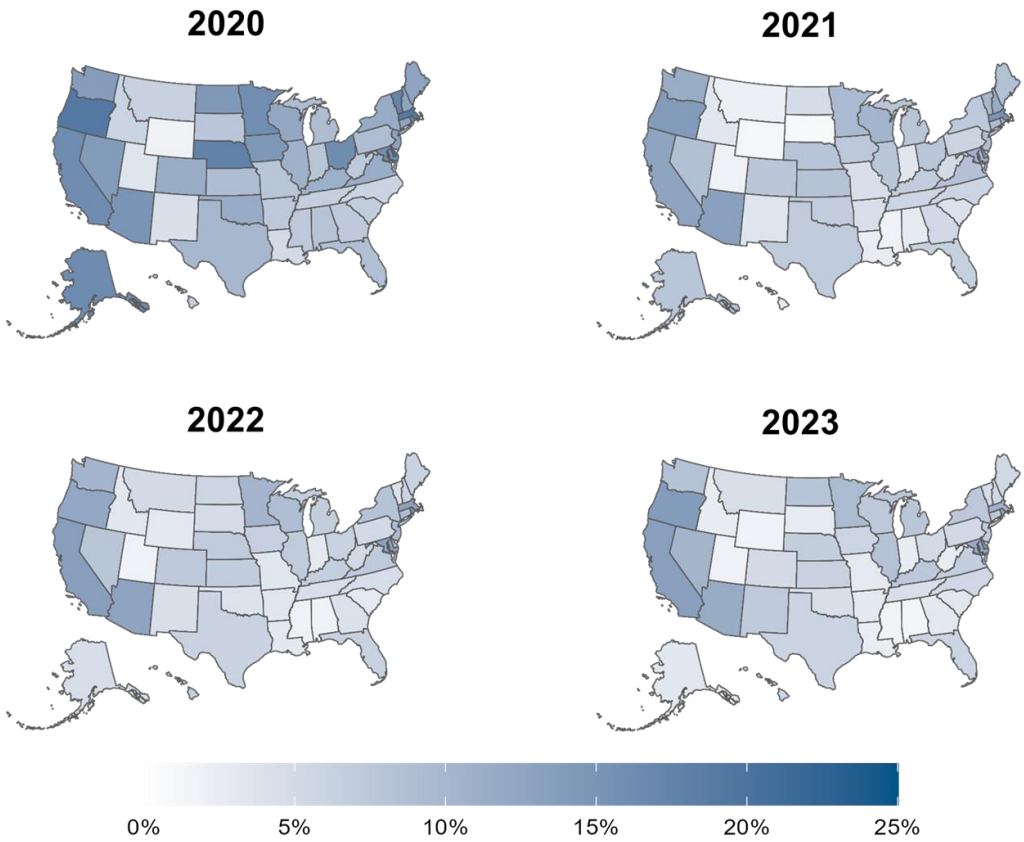
Between 2021 and 2023 new stimulant prescriptions associated with a telemedicine visit declined among all age groups (Appendix Figure 2). Patients aged 11-20, 21-30, and 31-40 years had the highest proportion of new stimulant prescriptions associated with a telemedicine visit during this period.

**Figure 13: Percentage of New Stimulant Prescriptions Associated with Telemedicine Visits, by Census Region (2019 – 2023)**



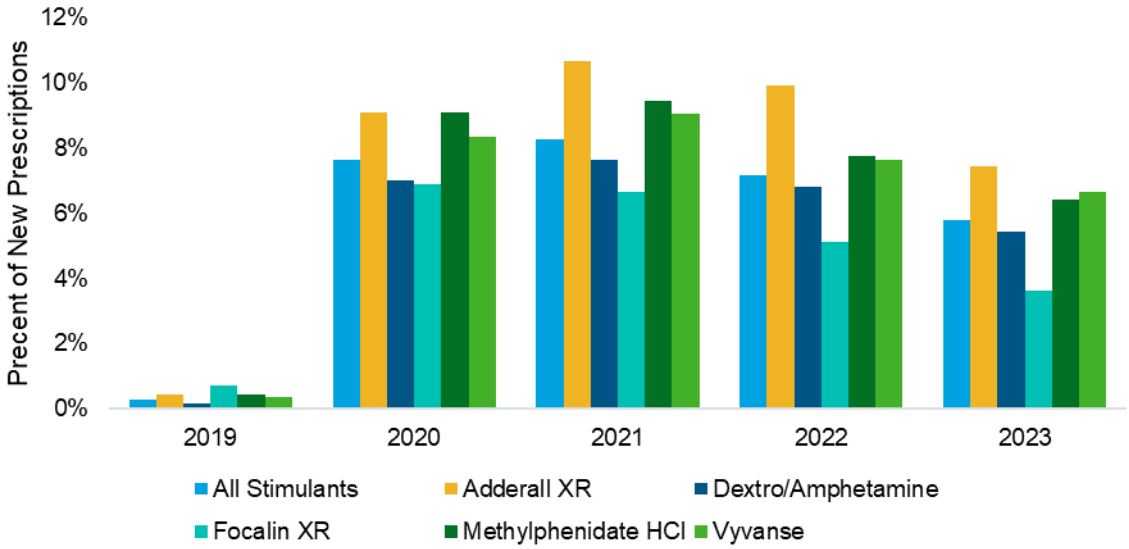

In 2023 the percentage of prescriptions associated with telemedicine visits were highest in the West and lowest in the South (Figure 13). States with the greatest increase in new prescriptions associated with telemedicine visits from 2019 to 2023 were Texas, followed by Florida, Ohio, New York, and Massachusetts. Conversely, states with the lowest increase in new prescriptions associated with telemedicine visits Wyoming, followed by Hawaii, Vermont, Montana, and Alaska.

**Figure 14. Percent of Stimulant Prescriptions Associated with a Telemedicine Visit by State (2023)**




When stratified by product, Adderall XR had the highest proportion of prescriptions associated with a telemedicine visit over time (Figure 15), followed by methylphenidate and Vyvanse.

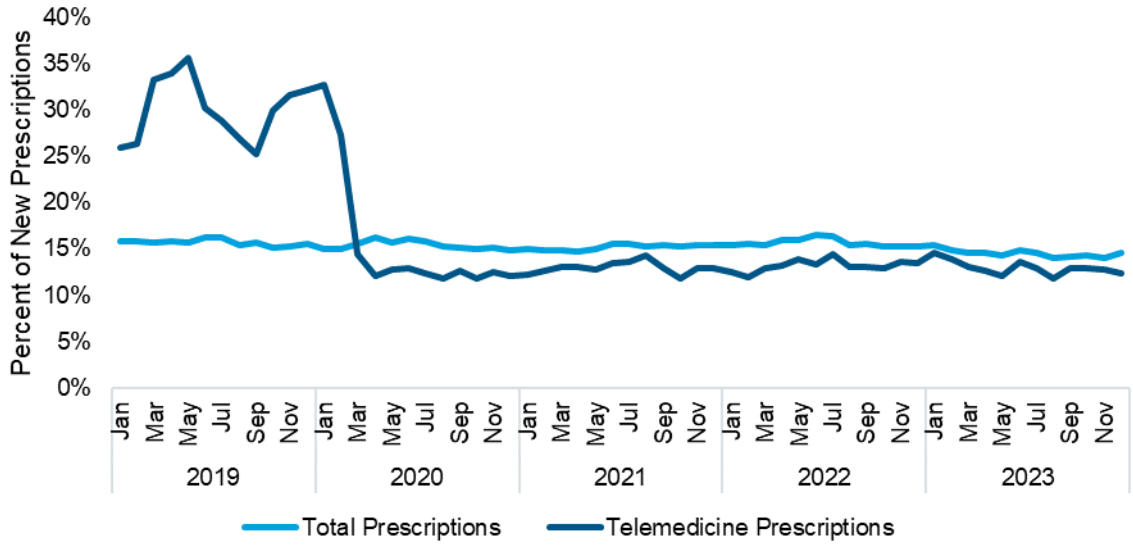
**Figure 15. Percent of New Stimulant Prescriptions Associated with a Telemedicine Visit, by Product (2019 - 2023)**



## Interstate Prescribing

IQVIA investigated interstate prescribing from 2019 through 2023. Among all stimulant prescriptions, 15% were written by providers who were in a different state than the patient. At its peak in 2019, 30% of telemedicine stimulant prescriptions were written by prescribers who were in a different state than the patient, but by April 2020 it was only 12% where it remained steady through 2023 (Figure 16).

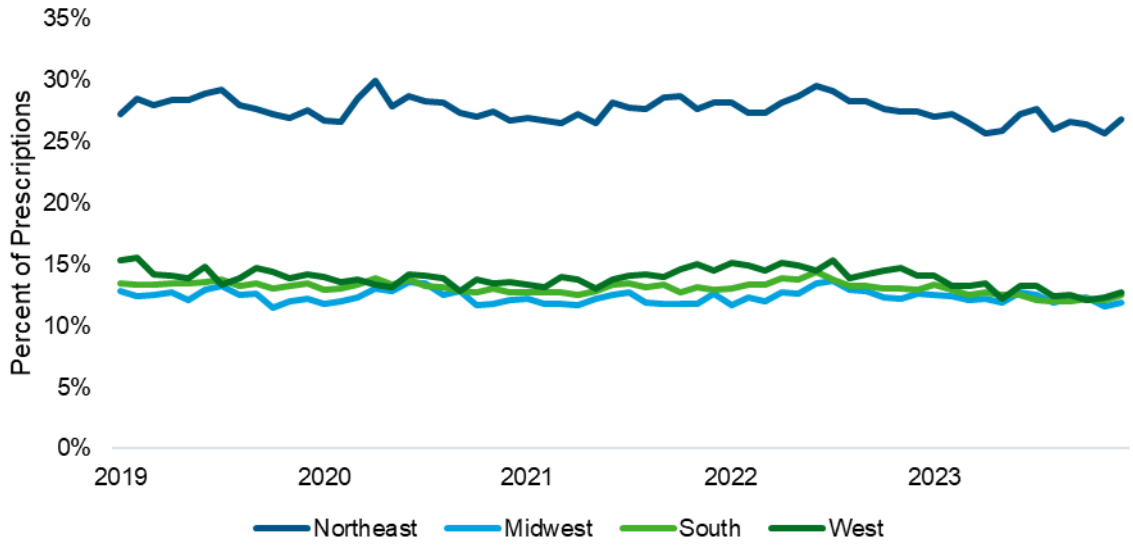
**Figure 16. Percent of New Stimulant Prescriptions Prescribed Interstate, Overall and Telemedicine (2019 - 2023)**




**Key**: Interstate prescriptions are defined as those written by providers locate in a different state as the patient

When stratified by region, nearly a third of stimulant prescriptions in the Northeast were prescribed interstate (28%; Figure 17). For the Midwest, South, and West regions, approximately 14% of stimulant prescriptions were prescribed interstate.

**Figure 17. Percent of Interstate Simulant Prescriptions by Region (2019 - 2023)**



# Discussion and Data Caveats

Overall, the results of this report were mostly consistent with findings from the prior report. IQVIA observed a continued rise in stimulant prescribing through 2023, consistent with trends observed from 2012 through 2022 and with the overall increase in ADHD diagnoses in the US.[4] The average number of prescriptions per patient rose steadily from 2012 to 2022 before declining in 2023, as the projected number of patients prescribed stimulants increased while the projected number of prescriptions remained relatively stable. The proportion of prescriptions written by nurse practitioners continued to rise (consistent with general trends in prescribing practices in the US), while prescribing by pediatricians and psychiatrists remained flat. Trends in the proportion of stimulant prescriptions written to female patients continued, with an even greater proportion of stimulant prescriptions being dispensed for female compared to male patients. The rate of co-prescribing for some notable controlled substances declined from 2012 to 2023, except for SSRIs, perhaps reflecting more dual therapy approaches or other clinical decisions.

In 2023 the proportion of stimulant prescriptions with an associated telemedicine visit remained stable, in contrast to prior years which saw a slow, steady decline. Interestingly, the proportion of interstate telemedicine prescriptions dropped in April 2020, while overall telemedicine visits increased in 2020 and has remained stable since, suggesting that the expansion of telemedicine after the COVID-19 pandemic declaration in March 2020 allowed more patients to be seen by an in-state provider via telemedicine. This may have been due to the expansion of telemedicine prescribing policies in response to the COVID-19 pandemic, which were codified permanently in many states, and at the federal level.[6] A higher proportion of patients under the age of 40 years had new stimulant prescriptions that were associated with a telemedicine visit (compared to the proportion of telemedicine visits among those over 40 years) and the percent of new stimulant prescriptions associated with telemedicine were highest for the west and northeast regions.

In addition to continuing trends, we observed several new trends related to dose. An in-depth analysis of the ADD for dispensed stimulants revealed that prescriptions written to adults aged 41-70 years were highest ADD overall and at initiation across stimulant products. This, combined with the growing proportion of stimulant prescriptions written for adults over 30 years old suggests fundamental shifts in the profile of patients being prescribed stimulants over the past decade. In addition, continuing prescriptions had higher ADDs compared to new prescriptions – suggesting that providers are setting initial prescription dosages lower and increasing dosage as time goes on (consistent with clinical prescribing guidance).

Overall, the proportion of medications prescribed for ADHD containing non-stimulant molecules has increased, with 80-90% of prescription switches involving a switch from a stimulant to a non-stimulant therapy. These data, combined with the sharp increase in prescription switching observed in 2021 and 2022 continued in 2023, suggesting that providers are increasingly likely to switch patient prescriptions (either to another stimulant-containing medication or to a non-stimulant medication) due to several potential factors (e.g. clinical experience, patient preference, or supply challenges).[7] Switching from lisdexamfetamine and amphetamine/dextroamphetamine to methylphenidate also increased after 2021, with the highest rate of increase in 2023. Adderall supply shortages in particular may have contributed to this shift.[8] The proportion of prescriptions for generic (versus branded) formulations of stimulants also continued to increase -- the nearly 10% change observed from 2022 to

2023 is greater than the year-over-year change observed in prior years, and partly attributable to the expanded availability of generic therapies for lisdexamfetamine dimesylate (i.e., Vyvanse).[9]

There are several considerations to keep in mind when interpreting the results of this report:

- LRx data does not include prescriptions dispensed in the inpatient settings.
- Dx data may not comprehensively capture telemedicine visits that occur in specific settings (e.g., some larger telemedicine platforms) resulting in an undercounting of some populations.
- Roughly 63% of patients with prescription data (from LRx) also had medical claims information (from Dx) available – this proportion may be impacted by dynamic changes in supplier data.
- The relatively low proportion of new stimulant prescriptions where a patient had a diagnosis of ADHD in the prior year may be in part due to the timing of claims processing – pharmacy claims are adjudicated and available more quickly, and thus may appear earlier in data than medical claims.
- Due to data supplier changes, IQVIA consumer data match rate was lower and therefore race and ethnicity information was only available for 31% of prescriptions dispensed.
- This report does not differentiate between legitimate medical use of included products and misuse/abuse by patients and/or their close contacts. While some of the prescriptions have the potential for abuse, the data in this report cannot be used to infer the intent of patients.

This report provides updated insights on stimulant prescription trends through 2023. Our findings suggest that while some post-COVID-19 stimulant trends, such as the use of telemedicine and interstate prescribing, have stabilized in the years, other trends, such as the increase in prescription stimulant dispensing to female and older patients, have continued to climb. Additional research may shed light on the factors influencing these population-specific trends. In addition, the findings of this report demonstrate an ongoing rise in prescription switching and an increase in the use of non-stimulant medications indicated for ADHD. Continued investigation into these trends will highlight how policy changes and increases in the availability of generic formulations impact stimulant accessibility and prescribing practices.

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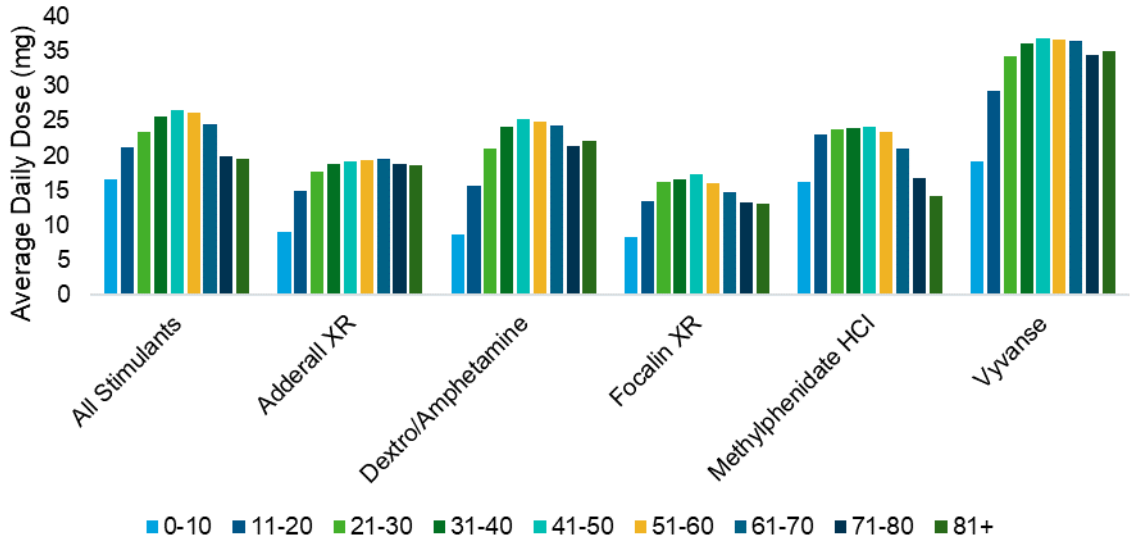
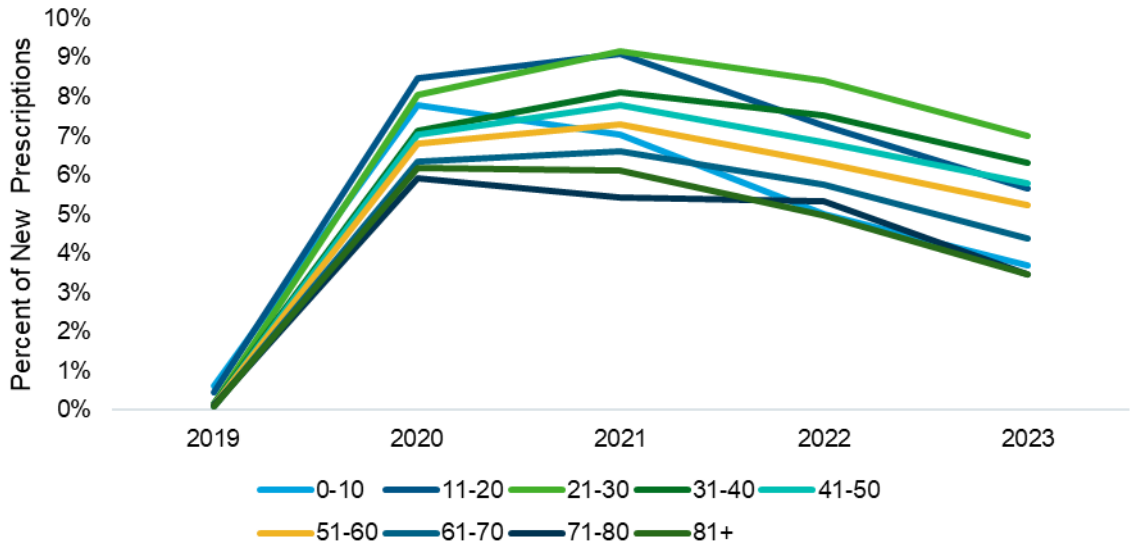
# Appendix 1. Additional Figures

**Appendix Figure 1. Average Daily Dose (ADD) of New Stimulant Prescriptions, by Age (2019 - 2023)**




**Appendix Figure 2. Percent of New Prescriptions Associated with Telemedicine by Age (2019 - 2023)**



# Appendix 2. Stimulant ADHD Products

| USC | Molecule name | Product name |
|---|---|---|
| 64500: Analeptics | Amphetamine | Adzenys ER |
| 64500: Analeptics | Amphetamine | Adzenys XR-ODT |
| 64500: Analeptics | Amphetamine | Amphetamine ER |
| 64500: Analeptics | Amphetamine | Dyanavel XR |
| 64500: Analeptics | Amphetamine Sulfate | Amphetamine Sulfate |
| 64500: Analeptics | Amphetamine Sulfate | Evekeo |
| 64500: Analeptics | Amphetamine Sulfate | Evekeo ODT |
| 64500: Analeptics | Amphetamine-Dextroamphetamine | Adderall |
| 64500: Analeptics | Amphetamine-Dextroamphetamine | Adderall XR |
| 64500: Analeptics | Amphetamine-Dextroamphetamine | Amphetamine Salt Combo |
| 64500: Analeptics | Amphetamine-Dextroamphetamine | Amphetamine/Dextroampheta |
| 64500: Analeptics | Amphetamine-Dextroamphetamine | Mydayis |
| 64500: Analeptics | Dexmethylphenidate HCL | Dexmethylphenidate HCL |
| 64500: Analeptics | Dexmethylphenidate HCL | Dexmethylphenidate HCL ER |
| 64500: Analeptics | Dexmethylphenidate HCL | Dexmethylphenidate Hydroc |
| 64500: Analeptics | Dexmethylphenidate HCL | Focalin |
| 64500: Analeptics | Dexmethylphenidate HCL | Focalin XR |
| 64500: Analeptics | Dextroamphetamine Sulfate | Dexedrine |
| 64500: Analeptics | Dextroamphetamine Sulfate | Dextroamphetamine Sulfate |
| 64500: Analeptics | Dextroamphetamine Sulfate | Dextrostat |
| 64500: Analeptics | Dextroamphetamine Sulfate | Liquadd |
| 64500: Analeptics | Dextroamphetamine Sulfate | Procentra |
| 64500: Analeptics | Dextroamphetamine Sulfate | Zenzedi |
| 64500: Analeptics | Lisdexamfetamine Dimesylate | Vyvanse |
| 64500: Analeptics | Methamphetamine HCL | Desoxyn |
| 64500: Analeptics | Methamphetamine HCL | Methamphetamine HCL |
| 64500: Analeptics | Methylphenidate | Cotempla XR-ODT |
| 64500: Analeptics | Methylphenidate | Daytrana |
| 64500: Analeptics | Methylphenidate | Methylphenidate |
| 64500: Analeptics | Methylphenidate HCL | Adhansia XR |
| 64500: Analeptics | Methylphenidate HCL | Aptensio XR |
| 64500: Analeptics | Methylphenidate HCL | Concerta |
| 64500: Analeptics | Methylphenidate HCL | Jornay PM |
| 64500: Analeptics | Methylphenidate HCL | Metadate CD |
| 64500: Analeptics | Methylphenidate HCL | Metadate ER |
| 64500: Analeptics | Methylphenidate HCL | Methylin |
| 64500: Analeptics | Methylphenidate HCL | Methylin Er |
| 64500: Analeptics | Methylphenidate HCL | Methylphenidate HCL |
| 64500: Analeptics | Methylphenidate HCL | Methylphenidate HCL CR |
| 64500: Analeptics | Methylphenidate HCL | Methylphenidate HCL ER |
| 64500: Analeptics | Methylphenidate HCL | Methylphenidate HCL SR |
| 64500: Analeptics | Methylphenidate HCL | Methylphenidate Hydrochlo |
| 64500: Analeptics | Methylphenidate HCL | Quillichew ER |
| 64500: Analeptics | Methylphenidate HCL | Quillivant XR |
| 64500: Analeptics | Methylphenidate HCL | Relexxii |
| 64500: Analeptics | Methylphenidate HCL | Ritalin |
| 64500: Analeptics | Methylphenidate HCL | Ritalin LA |
| 64500: Analeptics | Methylphenidate HCL | Ritalin SR |
| 64500: Analeptics | Serdexmethylphenidate Chloride-Dexmethylphenidate HCL | Azstarys |

# Appendix 3. Nonstimulant ADHD Products

| USC | Molecule name | Product name |
|---|---|---|
| 64700: Newer Generation Psychother Agents | Atomoxetine HCL | Atomoxetine |
| 64700: Newer Generation Psychother Agents | Atomoxetine HCL | Atomoxetine Hydrochloride |
| 64700: Newer Generation Psychother Agents | Atomoxetine HCL | Strattera |
| 64700: Newer Generation Psychother Agents | Clonidine HCL (ADHD) | Clonidine HCL ER |
| 64700: Newer Generation Psychother Agents | Clonidine HCL (ADHD) | Clonidine Hydrochloride |
| 64700: Newer Generation Psychother Agents | Clonidine HCL (ADHD) | Clonidine Hydrochloride E |
| 64700: Newer Generation Psychother Agents | Clonidine HCL (ADHD) | Kapvay |
| 64700: Newer Generation Psychother Agents | Clonidine HCL (ADHD) | Kapvay Dose Pack |
| 64700: Newer Generation Psychother Agents | Guanfacine HCL (ADHD) | Guanfacine ER |
| 64700: Newer Generation Psychother Agents | Guanfacine HCL (ADHD) | Guanfacine Hydrochloride |
| 64700: Newer Generation Psychother Agents | Guanfacine HCL (ADHD) | Intuniv |
| 64700: Newer Generation Psychother Agents | Viloxazine HCL (ADHD) | Qelbree |

# Appendix 4. Prescriber Specialty Categories

| | | |
|---|---|---|
| Addiction medicine | Hepatology | Otology |
| Allergy | Hospice & Palliative Med | Pain Medicine |
| Allergy/Immun, Diag Lab | Infectious Disease | Pathology |
| Anesthesiology | Intern Med-Diag Lab. Imm. | Pediatric Critical Care |
| Cardiology | Internal Med/Pediatrics | Pediatric Neurosurgery |
| Cardiothoracic Surgery | Internal Medicine | Pediatrics |
| Cardiovascular Surgery | Medical Microbiology | Pediatrics, Diag Lab Immu |
| Clinical Neurophysiol. | Naturopathic Doctor | Pharmacist |
| Clinical Pharmacology | Nephrology | Physical Medicine & Rehab |
| Colon & Rectal Surgery | Neurological Surgery | Physician Assistant |
| Critical Care Medicine | Neurology | Plastic Surgery |
| Dentistry | Neurosurg-Critical Care | Podiatry |
| Dermatological Immunology | Nuclear Medicine | Psychiatry |
| Dermatology | Nurse Practitioner | Psychology |
| Dermato-Pathology | Nutrition | Pulmonary Critical Care |
| Diagnostic Lab Immun. | Ob/Gyn-Critical Care | Pulmonary Diseases |
| Emergency Medicine | Obstetrics/Gynecology | Radiology |
| Endocrinology | Occupational Medicine | Rheumatology |
| Family Practice | Oncology | Sleep Medicine |
| Gastroenterology | Ophthalmology | Specialty Unspecified |
| Gen Preventive Medicine | Optometry | Sports Medicine |
| General Practice | Ortho Surg of Spine | Surgery, Critical Care |
| General Surgery | Orthopedic Surgery | Thoracic Surgery |
| Genetics | Osteopathic Medicine | Urology |
| Geriatric Psychiatry | Other | Veterinary Medicine |
| Geriatrics | Other Surgery | Unknown |
| Hematology | Otolaryngology | |

# Appendix 5. Telemedicine and Telehealth HCPCS Codes

| HCPCS | Description |
|---|---|
| G0406 | Follow-up inpatient consultation, limited, physicians typically spend 15 minutes communicating with the patient via telehealth |
| G0407 | Follow-up inpatient consultation, intermediate, physicians typically spend 25 minutes communicating with the patient via telehealth |
| G0408 | Follow-up inpatient consultation, complex, physicians typically spend 35 minutes communicating with the patient via telehealth |
| G0425 | Telehealth consultation, emergency department or initial inpatient, typically 30 minutes communicating with the patient via telehealth |
| G0426 | Telehealth consultation, emergency department or initial inpatient, typically 50 minutes communicating with the patient via telehealth |
| G0427 | Telehealth consultation, emergency department or initial inpatient, typically 70 minutes or more communicating with the patient via telehealth |
| G0459 | Inpatient telehealth pharmacologic management, including prescription, use, and review of medication with no more than minimal medical psychotherapy |
| G0508 | Telehealth consultation, critical care, initial, physicians typically spend 60 minutes communicating with the patient and providers via telehealth |
| G0509 | Telehealth consultation, critical care, subsequent, physicians typically spend 50 minutes communicating with the patient and providers via telehealth |
| G2012 | Brief communication technology-based service, e.g., virtual check-in, by a physician or other qualified health care professional who can report evaluation and management services, provided to an established patient, not originating from a related e/m service provided within the previous 7 days nor leading to an e/m service or procedure within the next 24 hours or soonest available appointment: 5-10 minutes of medical discussion |
| G9481 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved CMS innovation center demonstration project, which requires these 3 key components: a problem focused history; a problem focused examination; and straightforward medical decision making, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are self-limited or minor. Typically, 10 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9482 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved CMS innovation center demonstration project, which requires these 3 key components: an expanded problem focused history; an expanded problem focused examination; straightforward medical decision making, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of low to moderate severity. Typically, 20 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9483 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved CMS innovation center demonstration project, which requires these 3 key components: a detailed history; a detailed examination; medical decision making of low complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other |

| HCPCS | Description |
|---|---|
| | physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate severity. Typically, 30 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9484 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved CMS innovation center demonstration project, which requires these 3 key components: a comprehensive history; a comprehensive examination; medical decision making of moderate complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 45 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9485 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved CMS innovation center demonstration project, which requires these 3 key components: a comprehensive history; a comprehensive examination; medical decision making of high complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 60 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9486 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved CMS innovation center demonstration project, which requires at least 2 of the following<br>3 key components: a problem focused history; a problem focused examination; straightforward medical decision making, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are self-limited or minor. Typically, 10 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9487 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved CMS innovation center demonstration project, which requires at least 2 of the following<br>3 key components: an expanded problem focused history; an expanded problem focused examination; medical decision making of low complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of low to moderate severity. Typically, 15 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9488 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved CMS innovation center demonstration project, which requires at least 2 of the following<br>3 key components: a detailed history; a detailed examination; medical decision making of moderate complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 25 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |

| HCPCS | Description |
|---|---|
| G9489 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved COMS innovation center demonstration project, which requires at least 2 of the following<br>3 key components: a comprehensive history; a comprehensive examination; medical decision making of high complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 40 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9868 | Receipt and analysis of remote, asynchronous images for dermatologic and/or ophthalmologic evaluation, for use under the next generation ACO model, less than 10 minutes |
| G9869 | Receipt and analysis of remote, asynchronous images for dermatologic and/or ophthalmologic evaluation, for use under the next generation ACO model, 10-20 minutes |
| G9870 | Receipt and analysis of remote, asynchronous images for dermatologic and/or ophthalmologic evaluation, for use under the next generation ACO model, 20 or more minutes |
| G9978 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires these 3 key components: a problem focused history; a problem focused examination; and straightforward medical decision making, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are self-limited or minor. Typically, 10 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9979 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires these 3 key components: an expanded problem focused history; an expanded problem focused examination; straightforward medical decision making, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of low to moderate severity. Typically, 20 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9980 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires these 3 key components: a detailed history; a detailed examination; medical decision making of low complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate severity. Typically, 30 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9981 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires these 3 key components: a comprehensive history; a comprehensive examination; medical decision making of moderate complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided |

| HCPCS | Description |
|---|---|
| | consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 45 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9982 | Remote in-home visit for the evaluation and management of a new patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires these 3 key components: a comprehensive history; a comprehensive examination; medical decision making of high complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 60 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9983 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires at least 2 of the following 3 key components: a problem focused history; a problem focused examination; straightforward medical decision making, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are self-limited or minor. Typically, 10 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9984 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires at least 2 of the following 3 key components: an expanded problem focused history; an expanded problem focused examination; medical decision making of low complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of low to moderate severity. Typically, 15 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| G9985 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires at least 2 of the following 3 key components: a detailed history; a detailed examination; medical decision making of moderate complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 25 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |

| HCPCS | Description |
|---|---|
| G9986 | Remote in-home visit for the evaluation and management of an established patient for use only in a medicare-approved bundled payments for care improvement advanced (BPCI advanced) model episode of care, which requires at least 2 of the following 3 key components: a comprehensive history; a comprehensive examination; medical decision making of high complexity, furnished in real time using interactive audio and video technology. Counseling and coordination of care with other physicians, other qualified health care professionals or agencies are provided consistent with the nature of the problem(s) and the needs of the patient or the family or both. Usually, the presenting problem(s) are of moderate to high severity. Typically, 40 minutes are spent with the patient or family or both via real time, audio and video intercommunications technology |
| Q3014 | Telehealth originating site facility fee |
| T1014 | Telehealth transmission, per minute, professional services bill separately |

# Appendix 6. ADHD and Narcolepsy Diagnosis Codes

| ICD-10 | Description |
|---|---|
| F90 | Attention-deficit hyperactivity disorders |
| F90.0 | Attention-deficit hyperactivity disorder, predominantly inattentive type |
| F90.1 | Attention-deficit hyperactivity disorder, predominantly hyperactive type |
| F90.2 | Attention-deficit hyperactivity disorder, combined type |
| F90.8 | Attention-deficit hyperactivity disorder, other type |
| F90.9 | Attention-deficit hyperactivity disorder, unspecified type |
| G47.4 | Narcolepsy and cataplexy |
| G47.41 | Narcolepsy |
| G47.411 | Narcolepsy with cataplexy |
| G47.419 | Narcolepsy without cataplexy |
| G47.42 | Narcolepsy in conditions classified elsewhere |
| G47.421 | Narcolepsy in conditions classified elsewhere with cataplexy |
| G47.429 | Narcolepsy in conditions classified elsewhere without cataplexy |