U.S. Population Prevalence of Prescription Psychiatric Medication Use Among Children and Adolescents, 2006-2023

Varying long-term trends and low overall prevalence characterize prescribing across four leading classes of psychiatric medications.

Timothy B. Creedon, PhD & Joel Dubenitz, PhD

KEY POINTS

- From 2006 to 2023, the annual prevalence of U.S. children and adolescents aged 3-17 years receiving SSRIs increased from 1.5% to 3.6%, while stimulant use remained relatively stable and both antipsychotic and mood stabilizer use showed slight decreases.
- Despite varying trends, the overall prevalence of psychiatric medication use across these four classes remained relatively low among youth, with no medication class exceeding 5.3% of the population aged 3-17 years.
- Adult prescription patterns differed notably from youth patterns, with consistent increases across all four medication classes, suggesting different clinical needs and treatment approaches between age groups.

BACKGROUND

Recent federal policy discussions have renewed focus on psychiatric medication use among children and adolescents. Psychiatric medications represent one evidence-based component within a spectrum of effective treatments for pediatric mental illness, alongside psychotherapy, family-based interventions, and school supports.[1, 2] Prior research has documented varying trends in psychotropic medication prescribing for youth over time, though comprehensive analyses, derived from a single, consistent source and examining multiple medication classes through recent years, have been limited.[3, 4] This Data Point report examines national trends in four major classes of psychiatric medications prescribed to U.S. children and adolescents aged 3-17 years from 2006 to 2023, providing current insights into prescribing patterns across different age groups.

METHODS

This study examined national trends in psychiatric medication use among U.S. children and adolescents aged 3-17 years from 2006 to 2023. We conducted a secondary analysis using data from IQVIA Total Patient Tracker (TPT) and the U.S. Census Bureau American Community Survey (ACS). The 2006-2023 period was the longest and most current period for which both data sources were available.

The TPT database provided prescription dispensing information from U.S. retail pharmacies, which served as our numerators. We identified four classes of psychiatric medications using Universal System of Classification (USC) codes: selective serotonin reuptake inhibitors (SSRIs; USC 64340), stimulants/analeptics (USC 64500),

antipsychotics (USC 64190), and mood stabilizers (USC 64400 and a subset of USC 20200). For each medication class, we counted unique individuals with one or more prescriptions dispensed within each calendar year. Population denominators were derived from ACS annual population estimates. We calculated the percentage of individuals receiving each medication class using the formula: (TPT count/ACS population)*100. All analyses were stratified by age group (3-17 years; 18+ years).

This approach allowed us to track longitudinal changes in medication utilization patterns across different psychiatric drug classes over the 18-year study period. Our focus was primarily on trends among children and adolescents (3-17 years) with adult population data provided for context. Our analysis was purely descriptive, without statistical hypothesis testing.

Limitations of this study include the inability to verify medication consumption, exclusion of medications dispensed outside retail pharmacies, lack of clinical indications or diagnoses associated with prescriptions, and the sampling error inherent in ACS survey-based population estimates used as denominators in our prevalence calculations.

RESULTS

Prescription patterns for psychiatric medications showed varying trends among U.S. children and adolescents from 2006 to 2023. SSRI use increased in the 3-17 age group from 1.5% in 2006 to 3.6% in 2023 (Figure 1). A large increase occurred after 2017 (from 2.6% to a peak of 3.8% in 2022, followed by a slight decrease to 3.6% in 2023).

Stimulant use among children and adolescents showed a different pattern (Figure 2), beginning at a higher level (5.0%) in 2006, peaking at 5.9% in 2011, and then stabilizing around 5.3% by 2023. In contrast, adult stimulant use grew consistently during this period (1.1% to 3.1%).

Antipsychotic prescriptions for youth narrowly oscillated around 1.2% throughout the study period (Figure 3), starting at 1.3% in 2006 and decreasing to 1.1% by 2023. This contrasted with the adult population, where antipsychotic use increased steadily from 1.9% to 3.0%.

Mood stabilizer use among children and adolescents also remained flat for most of the study period (Figure 4) but gradually reduced from 1.0% in 2006 to 0.8% in 2023. Meanwhile, adult usage increased from 1.7% to 2.6% over the same period.

By 2023, stimulants remained the most commonly prescribed psychiatric medication for youth (5.3%), followed by SSRIs (3.6%), antipsychotics (1.1%), and mood stabilizers (0.8%). For all medication classes except stimulants, prevalence was consistently higher in adults than children throughout the study period.

DISCUSSION

Our analysis reveals distinct national trends in prescription dispensing across four psychiatric medication classes for children and adolescents aged 3-17 years from 2006 to 2023. While SSRI use has increased among youth, particularly in recent years, stimulant prescribing has remained relatively stable after peaking in 2011. Notably, antipsychotic and mood stabilizer use among children has stayed the same or slightly decreased over time, contrasting with increased prescribing patterns observed in adults.

In addition to these trends, it is important to emphasize that the overall prevalence of psychiatric medication use among youth remains relatively low. For all four medication classes examined, population prevalence remains below 5.5% for 3- to 17-year-old children and adolescents, with stimulants being the most commonly prescribed at 5.3%.

The marked increase in SSRI prescriptions, particularly after 2019, aligns with previously documented rises in depression prevalence among young people throughout the 2010s and 2020s thus far.[5, 6] This trend may reflect multiple contributing factors, including increased exposure to social media, deteriorating patterns of healthful exercise, nutrition, and sleep, and the psychosocial impacts of the COVID-19 pandemic.[7-14]

The observed stabilization of stimulant prescribing for youth, juxtaposed with increasing use among adults, likely reflects growing awareness, detection, and treatment of adult ADHD in recent years.[15, 16] This shift in prescribing patterns merits further investigation.

Future research should also examine how these prescribing patterns vary across additional demographic dimensions, including narrower age stratifications within the 3-17 years age cohort, differences by sex, and interactions between age and sex. Furthermore, analyzing prescribing patterns by provider type and decomposing trends within each medication class (e.g., stimulant versus non-stimulant medications for ADHD; newer versus older antipsychotics) would provide valuable clinical insights.

Additionally, these medication trends should be examined alongside data on psychosocial treatment access and utilization using claims data from commercial insurance, Medicaid, and CHIP payers. Regional variations by state and rurality may also reveal important differences in psychiatric care delivery for children and adolescents.

CONCLUSION

This analysis demonstrates varying trends in psychiatric medication use among U.S. children and adolescents aged 3-17 years over nearly two decades. Importantly, the prevalence remains relatively low across all medication classes examined, with none exceeding 5.5% (about 1 in 20) of the youth population. The increase in SSRI prescribing potentially reflects growing mental health needs among youth. Meanwhile, the relative stability or decline in other medication classes may suggest evolving prescribing practices that warrant further investigation to ensure optimal mental health care delivery for young people in the U.S.

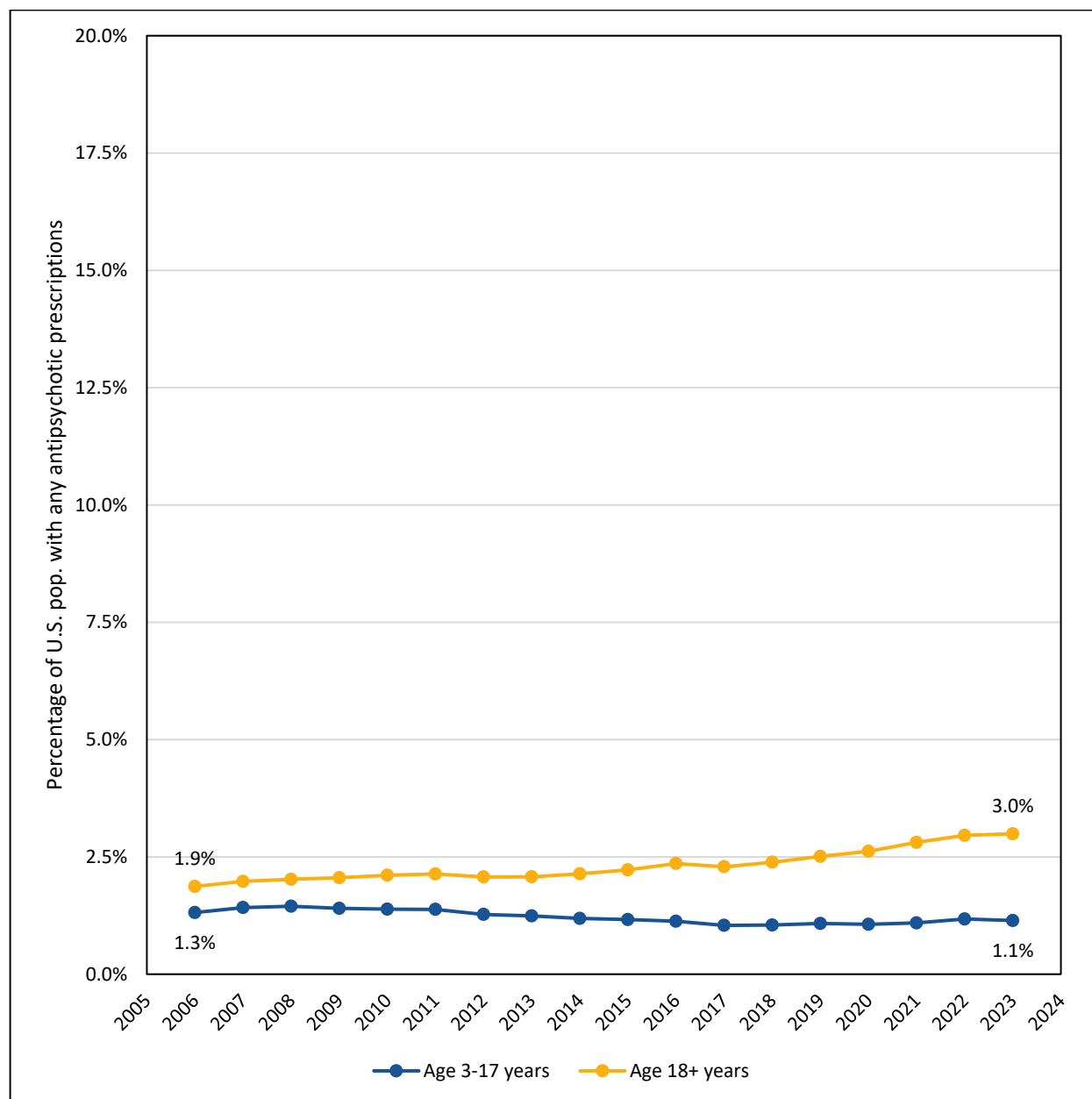**Figure 1.** *Annual Prevalence of SSRI Prescribing by Age Group, 2006-2023*
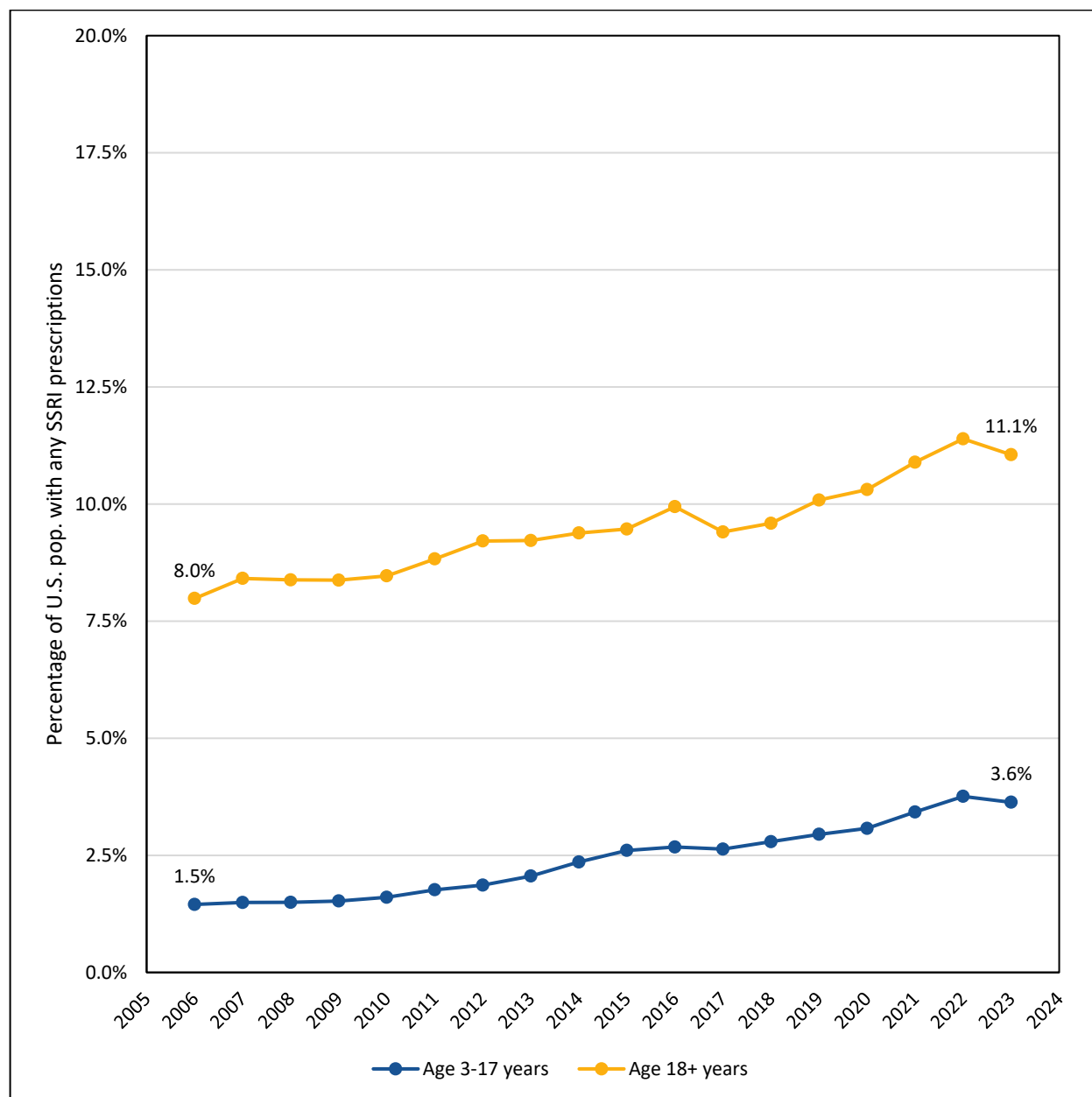
Notes: Data are from IQVIA Total Patient Tracker (TPT) and the U.S. Census Bureau America Community Survey (ACS). TPT data provided the numerators, i.e., the number of unique persons with one or more prescription selective serotonin reuptake inhibitors (SSRIs) dispensed from a U.S. retail pharmacy in each calendar year. SSRIs were identified with USC Class 64340. ACS data provided the denominators, i.e., the total number of people in the U.S. population in each calendar year. Percentages were calculated as (TPT/ACS)*100.

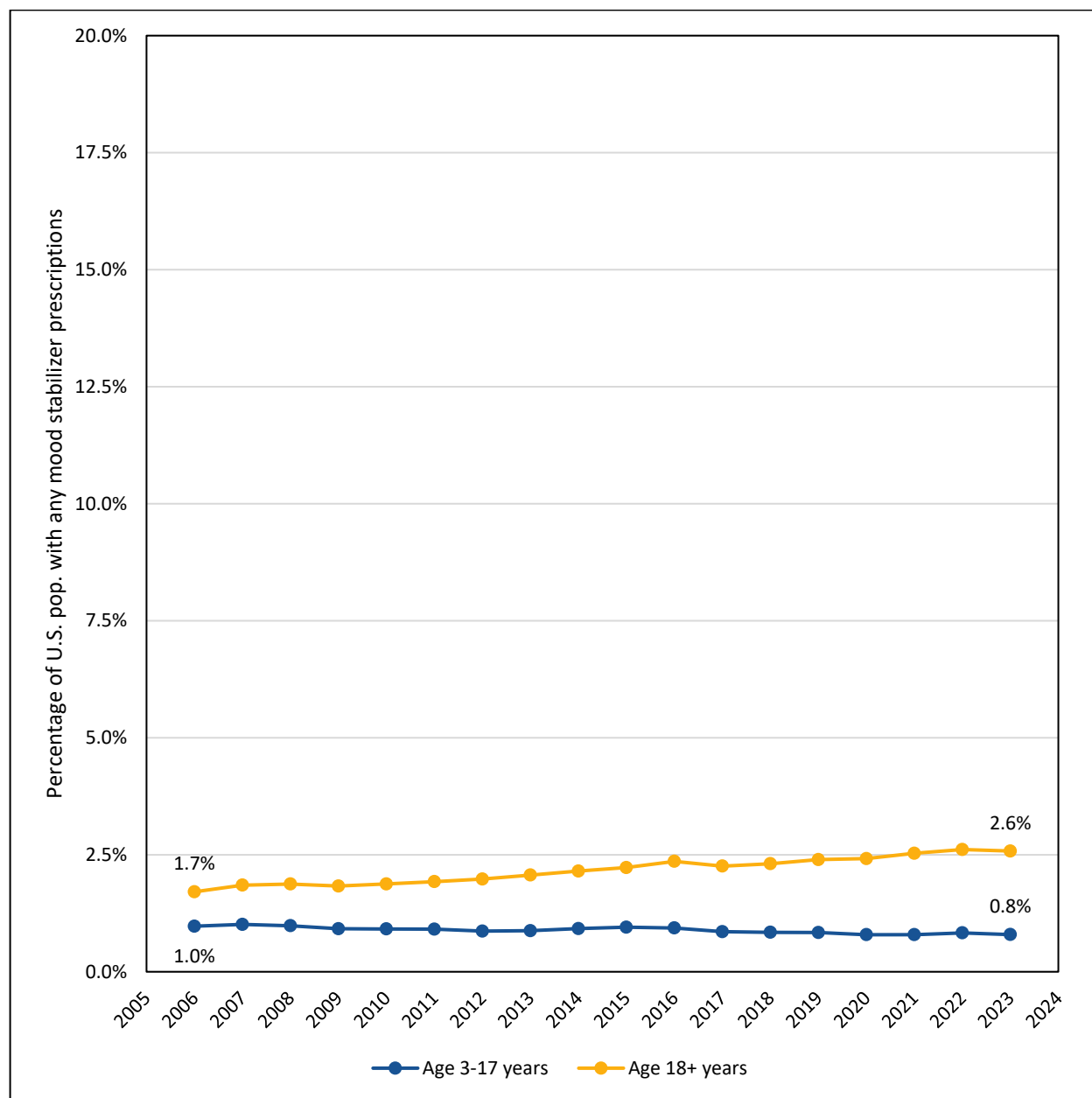***Figure 2.** Annual Prevalence of Stimulant Prescribing by Age Group, 2006-2023*
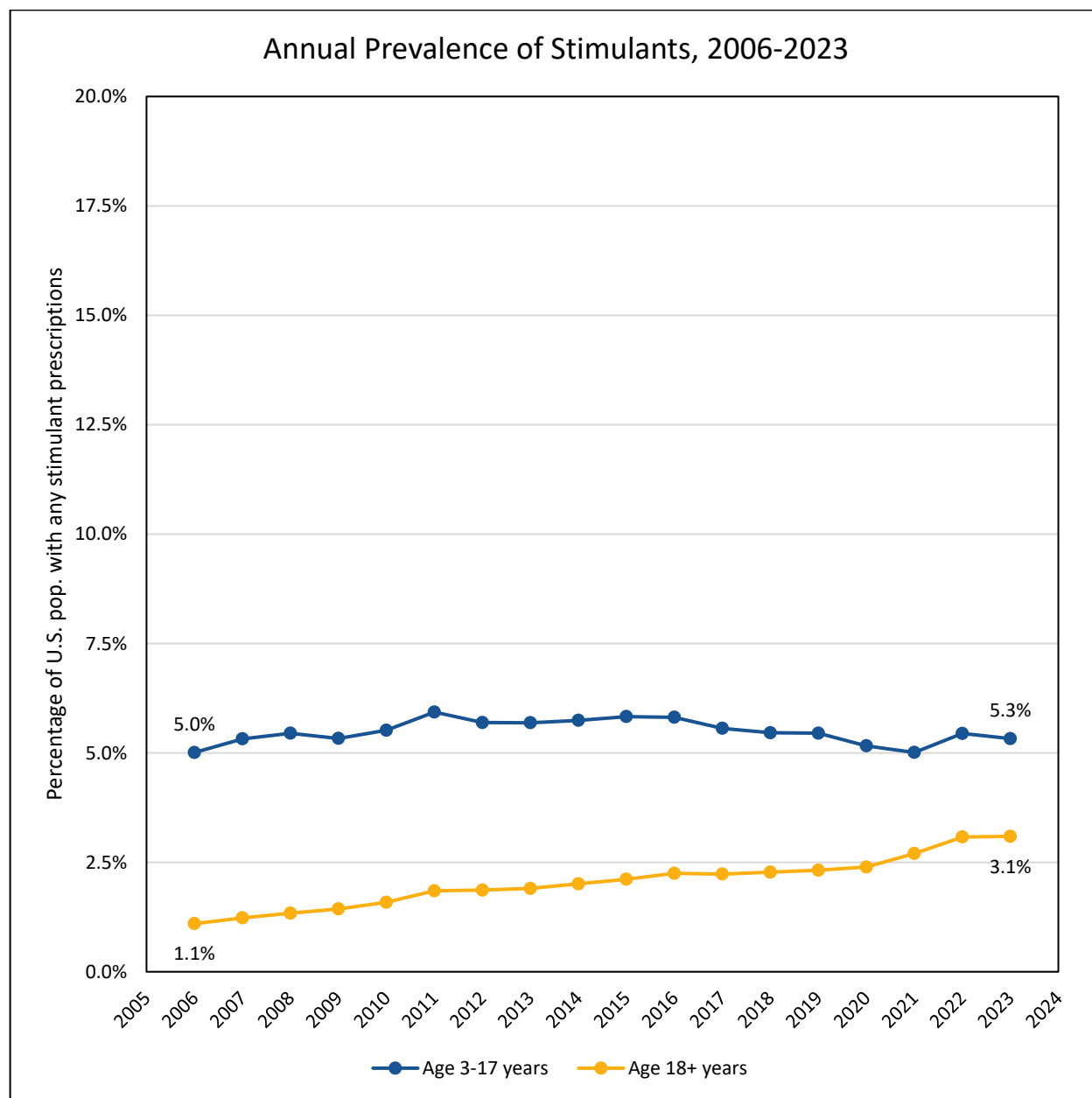
Notes: Data are from IQVIA Total Patient Tracker (TPT) and the U.S. Census Bureau America Community Survey (ACS). TPT data provided the numerators, i.e., the number of unique persons with one or more prescription analeptic/stimulant medications dispensed from a U.S. retail pharmacy in each calendar year. Analeptic/stimulant medications were identified with USC Class 64500. ACS data provided the denominators, i.e., the total number of people in the U.S. population in each calendar year. Percentages were calculated as (TPT/ACS)*100.

Figure 3. *Annual Prevalence of Antipsychotic Prescribing by Age Group, 2006-2023*

Notes: Data are from IQVIA Total Patient Tracker (TPT) and the U.S. Census Bureau America Community Survey (ACS). TPT data provided the numerators, i.e., the number of unique persons with one or more prescription antipsychotic medications dispensed from a U.S. retail pharmacy in each calendar year. Antipsychotic medications were identified with USC Class 64190. ACS data provided the denominators, i.e., the total number of people in the U.S. population in each calendar year. Percentages were calculated as (TPT/ACS)*100.

Figure 4. *Annual Prevalence of Mood Stabilizer Prescribing by Age Group, 2006-2023*

Notes: Data are from IQVIA Total Patient Tracker (TPT) and the U.S. Census Bureau America Community Survey (ACS). TPT data provided the numerators, i.e., the number of unique persons with one or more prescription mood stabilizer medications dispensed from a U.S. retail pharmacy in each calendar year. Mood stabilizer medications were identified with USC Class 64400 and a subset of Class 20200. ACS data provided the denominators, i.e., the total number of people in the U.S. population in a calendar year. Percentages were calculated as (TPT/ACS)*100.

REFERENCES

1. Cortese S, Purper-Ouakil D, Apter A, et al. Psychopharmacology in children and adolescents: unmet needs and opportunities. *Lancet Psychiatry*. Feb 2024;11(2):143-154. doi:10.1016/S2215-0366(23)00345-0

2. Hoagwood K, Burns BJ, Kiser L, Ringeisen H, Schoenwald SK. Evidence-based practice in child and adolescent mental health services. *Psychiatr Serv*. Sep 2001;52(9):1179-89. doi:10.1176/appi.ps.52.9.1179

3. Chua KP, Volerman A, Zhang J, Hua J, Conti RM. Antidepressant Dispensing to US Adolescents and Young Adults: 2016-2022. *Pediatrics*. Mar 1 2024;153(3)doi:10.1542/peds.2023-064245

4. Sanborn M, Ali MM, Creedon TB. National trends in psychotropic medication prescribing before and during the COVID-19 pandemic. *Psychiatry Res*. Jul 2023;325:115248. doi:10.1016/j.psychres.2023.115248

5. Counts NZ, Kreif N, Creedon TB, Bloom DE. Psychological distress in adolescence and later economic and health outcomes in the United States population: A retrospective and modeling study. *PLoS Med*. Jan 2025;22(1):e1004506. doi:10.1371/journal.pmed.1004506

6. Goodwin RD, Dierker LC, Wu M, Galea S, Hoven CW, Weinberger AH. Trends in U.S. Depression Prevalence From 2015 to 2020: The Widening Treatment Gap. *Am J Prev Med*. Nov 2022;63(5):726-733. doi:10.1016/j.amepre.2022.05.014

7. Valkenburg PM, Meier A, Beyens I. Social media use and its impact on adolescent mental health: An umbrella review of the evidence. *Curr Opin Psychol*. Apr 2022;44:58-68. doi:10.1016/j.copsyc.2021.08.017

8. Zhang J, Paksarian D, Lamers F, Hickie IB, He J, Merikangas KR. Sleep Patterns and Mental Health Correlates in US Adolescents. *J Pediatr*. Mar 2017;182:137-143. doi:10.1016/j.jpeds.2016.11.007

9. Twenge JM, Krizan Z, Hisler G. Decreases in self-reported sleep duration among U.S. adolescents 2009-2015 and association with new media screen time. *Sleep Med*. Nov 2017;39:47-53. doi:10.1016/j.sleep.2017.08.013

10. Masanovic B, Gardasevic J, Marques A, et al. Trends in Physical Fitness Among School-Aged Children and Adolescents: A Systematic Review. *Front Pediatr*. 2020;8:627529. doi:10.3389/fped.2020.627529

11. Belcher BR, Zink J, Azad A, Campbell CE, Chakravartti SP, Herting MM. The Roles of Physical Activity, Exercise, and Fitness in Promoting Resilience During Adolescence: Effects on Mental Well-Being and Brain Development. *Biol Psychiatry Cogn Neurosci Neuroimaging*. Feb 2021;6(2):225-237. doi:10.1016/j.bpsc.2020.08.005

12. O'Neil A, Quirk SE, Housden S, et al. Relationship between diet and mental health in children and adolescents: a systematic review. *Am J Public Health*. Oct 2014;104(10):e31-42. doi:10.2105/AJPH.2014.302110

13. Hu K, Staiano AE. Trends in Obesity Prevalence Among Children and Adolescents Aged 2 to 19 Years in the US From 2011 to 2020. *JAMA Pediatr*. Oct 1 2022;176(10):1037-1039. doi:10.1001/jamapediatrics.2022.2052

14. Orban E, Li LY, Gilbert M, et al. Mental health and quality of life in children and adolescents during the COVID-19 pandemic: a systematic review of longitudinal studies. *Front Public Health*. 2023;11:1275917. doi:10.3389/fpubh.2023.1275917

15. Kessler RC, Adler L, Barkley R, et al. The prevalence and correlates of adult ADHD in the United States: results from the National Comorbidity Survey Replication. *Am J Psychiatry*. Apr 2006;163(4):716-23. doi:10.1176/ajp.2006.163.4.716

16. Staley BS, Robinson LR, Claussen AH, et al. Attention-Deficit/Hyperactivity Disorder Diagnosis, Treatment, and Telehealth Use in Adults - National Center for Health Statistics Rapid Surveys System, United States, October-November 2023. *MMWR Morb Mortal Wkly Rep*. Oct 10 2024;73(40):890-895. doi:10.15585/mmwr.mm7340a1

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Assistant Secretary for Planning and Evaluation

200 Independence Avenue SW, Mailstop 447D
Washington, D.C. 20201

For more ASPE briefs and other publications, visit:
aspe.hhs.gov/reports

ABOUT THE AUTHORS
Timothy B. Creedon, PhD and Joel Dubenitz, PhD work in the Office of Behavioral Health, Disability, and Aging Policy in the Office of the Assistant Secretary for Planning and Evaluation.

DISCLOSURE
This communication was printed, published, or produced and disseminated at U.S. taxpayer expense.

_____

Subscribe to ASPE mailing list to receive email updates on new publications:
https://list.nih.gov/cgi-bin/wa.exe?SUBED1=ASPE-HEALTH-POLICY&A=1

For general questions or general information about ASPE:
aspe.hhs.gov/about