

ADHD in Pregnancy: Prevalence and Demographic Changes from 2016-2025

Ryan Benoy

rbenoy@wisc.edu

University of Wisconsin School of Medicine and Public Health

William Park

University of Wisconsin School of Medicine and Public Health

Zachary Stowe

University of Wisconsin School of Medicine and Public Health

Short Report

Keywords:

Posted Date: October 23rd, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10781303/v1>

License:   This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Additional Declarations: Competing interest reported. Zachary N. Stowe has received research support from Glaxo SmithKline (GSK), Janssen, Pfizer, Wyeth, the National Institutes of Health (NIH) and The Center for Disease Control. He has served on speakers' bureaus and/or received honoraria from Eli Lilly, GSK, Pfizer and Wyeth. He has served on advisory boards for GSK, BMS and Reunion Neuroscience. He currently serves as the site principal investigator for a clinical trial sponsored by reunion Neuroscience. Neither he nor family members have ever held equity positions in biomedical or pharmaceutical corporations. Ryan Benoy currently serves as a site rate for a clinical trial sponsored by reunion Neuroscience. Neither he nor family members have ever held equity positions in biomedical or pharmaceutical corporations.

Abstract

Purpose

The current study sought to investigate the rate of ADHD diagnosis in pregnancy using a large electronic medical record database.

Methods

We examined the annual rate of ADHD diagnosis in pregnant women in the United States between 2016–2025 using the Epic Cosmos dataset. The yearly rate per 1000 pregnancies was further stratified by race, ethnicity, and maternal age.

Results

Over 30 million pregnancies were identified between 2016–2025. The rate of ADHD diagnosis rose exponentially over the 10-year period. Specifically, ADHD diagnoses increased from 8.48 per 1,000 pregnancies in 2016 to 34.78 per 1,000 pregnancies in 2025. The highest proportion of pregnant patients with ADHD among different races was in those identifying as white. Notably, the proportion of pregnant patients with ADHD who were aged 35 years or older doubled over this ten-year period.

Conclusions

The dramatic rise in ADHD diagnosis during pregnancy warrants close scrutiny to better characterize the impact of illness and treatment on obstetrical and neonatal outcomes. Additional research is needed to optimize treatment decisions for this rapidly growing population.

Introduction

Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder that has garnered considerable clinical attention as the diagnosis has steadily risen among adults, particularly among females of reproductive age in recent years (Chung et al. 2019 and Cui et al., 2026). Prior work has suggested ADHD in pregnancy is increasing in the United States, however, this study excluded individuals with co-morbid psychiatric conditions, potentially underestimating the prevalence of ADHD in pregnancy (Song et al. 2025). In addition, a more recent publication reported on a substantial rise in maternal ADHD in Ontario, Canada over a twenty year time span (Egsgaard et al. 2026). In this current study, we sought to further characterize the annual prevalence of maternal ADHD in the United States over the last decade in an effort to better understand this evolving clinical population.

Methods

The data used in this retrospective observational study comes from Epic Cosmos, a dataset created in collaboration with a community of health systems using Epic representing more than 304 million patient records from over 2,100 hospitals and 48,000 clinics as of May, 2026. The community represents patients from all 50 states, D.C., Canada, Lebanon, and Saudi Arabia. This study followed the STROBE reporting guidelines as applicable based on the data available.

We limited our study population to include only patients with a documented pregnancy event between 2016 and 2025 who received care in hospital systems in the United States. The Cosmos database was queried on May 22, 2026, and aggregate summary-level data were obtained. Attention-deficit/hyperactivity disorder was identified using ICD-10 code F90.* (all subtypes). Maternal age, race, and ethnicity at the beginning of the pregnancy were collected.

The proportion of pregnancies with a concurrent diagnosis of ADHD was calculated for each year and stratified by maternal age, race and ethnicity.

Results

A total of 30,300,253 pregnancies were identified for 2016–2025. As additional health care systems contributed data to the Cosmos database during the study period, the total number of pregnancies increased over time. Prevalence increased from 8.48 per 1,000 pregnancies in 2016 to 34.78 per 1,000 pregnancies in 2025, representing a more than 4-fold increase (Table 1). Prevalence varied by race, with the highest proportion observed among White patients (Fig. 1). The proportion of pregnant patients with ADHD who were aged 35 years or older also doubled over this ten-year period.

Discussion

In this cross-sectional analysis of more than 30 million pregnancies, we identified a greater than 400% rise in maternal ADHD diagnosis during pregnancy over a 10-year period from 2016 to 2025 in the United States. The considerably higher prevalence of maternal ADHD in our sample compared to the population analyzed by Song et al. (2025) suggests many pregnant women with a diagnosis of ADHD have also received additional psychiatric diagnoses. Our study also identified higher prevalence of ADHD in white and non-Latino groups, which is consistent with studies among non-puerperal populations (Chung et al. 2019). The doubling of pregnancies 35 years of age or older with a diagnosis of ADHD increases concerns for additive risk from this neuropsychiatric illness and its pharmacologic treatment, given the impact advanced maternal age has on obstetrical and neonatal outcomes (Hochler et al. 2023)

Maternal ADHD has been associated with negative neonatal and obstetrical outcomes (Amikam et al. 2024). However, it remains difficult to fully delineate the impact neuropsychiatric conditions have on pregnancy, neonatal, and obstetrical outcomes, given most studies are observational, retrospective, and require significant adjustments for potential confounding variables. The exponential rise in maternal ADHD over the last decade demonstrated by our novel data suggests potentially increasing phenotypic heterogeneity and likely increasing rates of psychiatric co-morbidity. This trend makes it difficult to

disentangle the impact the illness, psychiatric comorbidity, pharmacotherapy, and demographic factors including advanced maternal age, have on neonatal and obstetrical outcomes (Cohen et al. 2017 and Nörby et al. 2017).

This study has several limitations. First, our analyses are limited to aggregate summary-level data, therefore individual patients may have been counted more than once across subsequent pregnancies. Second, as with all electronic health record-based research, diagnostic misclassification is possible due to variability in clinical recognition and coding practices. Third, the absence of individual-level data limited more granular comparison across patient subgroups.

Despite these limitations, our findings indicate a substantial increase in ADHD diagnosis in pregnant women over the past decade and the underlying driver for this finding remains underexplored. It's possible that factors such as increased social awareness and broadening of symptom inclusion, that have been discussed as possible influences on the increase in ADHD diagnosis in non-pregnant populations, are contributing to this phenomenon in pregnancy (Abraham 2026 and Weber 2025). As recent studies would suggest, the increase in ADHD diagnosis in pregnancy in the United States is likely resulting in an increase in psychostimulant exposure in pregnancy (Egsgaard et al. 2026). While clinical data remains mixed, several studies have demonstrated neonatal and obstetrical risk associated with psychostimulant exposure during pregnancy (Cohen et al. 2017, Nörby et al. 2017, and Tuan et al. 2026). As more research into maternal ADHD is needed, it remains imperative that we do not overlook other potential contributors to attentional issues in pregnancy such as other medical conditions, psychiatric comorbidity, and cognitive changes associated with pregnancy when providing mental health treatment and evaluating the impact of ADHD on neonatal and obstetrical outcomes in future studies (Younis et al. 2025).

Declarations

Competing Interests

Zachary N. Stowe has received research support from Glaxo SmithKline (GSK), Janssen, Pfizer, Wyeth, the National Institutes of Health (NIH) and The Center for Disease Control. He has served on speakers' bureaus and/or received honoraria from Eli Lilly, GSK, Pfizer and Wyeth. He has served on advisory boards for GSK, BMS and Reunion Neuroscience. He currently serves as the site principal investigator for a clinical trial sponsored by reunion Neuroscience. Neither he nor family members have ever held equity positions in biomedical or pharmaceutical corporations. Ryan Benoy currently serves as a site rate for a clinical trial sponsored by reunion Neuroscience. Neither he nor family members have ever held equity positions in biomedical or pharmaceutical corporations.

Author Contribution

R.B. - wrote main manuscript text, collected and aggregated data, prepared figure 1 and table 1Z.S. - co-wrote main manuscript text, reviewed collected dataW.P. - reviewed and provided edits for manuscript, confirmed accuracy of methods for data collection, reviewed figure and table creation

Data Availability

All data used in this manuscript were obtained from the Epic Comsos Database - this database and the data we collected and analyzed can be accessed with permission from Epic Systems.

References

1. Amikam U, Badeghiesh A, Baghlaf H et al (2024) The association between attention deficit hyperactivity disorder and pregnancy, delivery and neonatal outcomes—an evaluation of a population database. *BMC Pregnancy Childbirth* 24:364. <https://doi.org/10.1186/s12884-024-06561-5>
2. Abraham Z (2026) When ADHD Goes Viral: Social Media and Misinformation. *Medscape*
3. Chung W, Jiang S-F, Paksarian D et al (2019) Trends in the Prevalence and Incidence of Attention-Deficit/Hyperactivity Disorder Among Adults and Children of Different Racial and Ethnic Groups. *JAMA Netw Open* 2:e1914344. <https://doi.org/10.1001/jamanetworkopen.2019.14344>
4. Cohen JM, Hernández-Díaz S, Bateman BT et al (2017) Placental Complications Associated With Psychostimulant Use in Pregnancy. *Obstet Gynecol* 130:1192–1201. <https://doi.org/10.1097/aog.0000000000002362>
5. Cui Z, Ambasta A, Thompson W et al (2026) DSM-5 Changes, COVID-19, and ADHD Diagnosis Rates in Individuals Younger Than 30 Years. *JAMA Netw Open* 9:e265775. <https://doi.org/10.1001/jamanetworkopen.2026.5775>
6. Egsgaard S, Brown H, Zipursky J et al (2026) Time Trends in Maternal Attention-Deficit/Hyperactivity Disorder and Medication Use in Pregnancy. *The Journal of Clinical Psychiatry*
7. Hochler H, Lipschuetz M, Suissa-Cohen Y et al (2023) The Impact of Advanced Maternal Age on Pregnancy Outcomes: A Retrospective Multicenter Study. *J Clin Med* 12:5696. <https://doi.org/10.3390/jcm12175696>
8. Nörby U, Winbladh B, Källén K (2017) Perinatal Outcomes After Treatment With ADHD Medication During Pregnancy. <https://doi.org/10.1542/peds.2017-0747>. *Pediatrics* 140:
9. Song BB, Agle ZW, Anderson ZS et al (2025) Trends, characteristics, and outcomes of pregnancy in women with attention-deficit hyperactivity disorder: A nationwide analysis. *Eur J Obstet Gynecol Reprod Biol* 306:226–232. <https://doi.org/10.1016/j.ejogrb.2025.01.034>
10. Tuan W, Sarkar N, Griffin P, Babinski DE (2026) Comparative Risks of Pregnancy Complications in Women Prescribed Psychostimulants or Atomoxetine During Pregnancy Following

Pre\u2010Pregnancy Stimulant Use. Psychiatric Res Clin Pract.
<https://doi.org/10.1176/appi.prcp.20250149>. 82:

11. Weber SR (2025) Commentary on Sources of Attention-Deficit/Hyperactivity Overdiagnosis Among U.S. Adults. Healthcare 13:2367. <https://doi.org/10.3390/healthcare13182367>

12. Younis J, Bleibel M, Masri JE et al (2025) Exploring the influence of pregnancy on cognitive function in women: a systematic review. BMC Pregnancy Childbirth 25:88. <https://doi.org/10.1186/s12884-025-07181-3>

Table 1

Table 1 is available in the Supplementary Files section.