Economic Burden of Attention-Deficit/Hyperactivity Disorder among Pediatric Patients in the United States.

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Abstract

OBJECTIVES:
To determine the adjusted incremental total costs (direct and indirect) for patients (aged 3-17 years) with attention-deficit/hyperactivity disorder (ADHD) and the differences in the adjusted incremental direct expenditures with respect to age groups (preschoolers, 0-5 years; children, 6-11 years; and adolescents, 12-17 years).

METHODS:
The 2011 Medical Expenditure Panel Survey was used as the data source. The ADHD cohort consisted of patients aged 0 to 17 years with a diagnosis of ADHD, whereas the non-ADHD cohort consisted of subjects in the same age range without a diagnosis of ADHD. The annual incremental total cost of ADHD is composed of the incremental direct expenditures and indirect costs. A two-part model with a logistic regression (first part) and a generalized linear model (second part) was used to estimate the incremental costs of ADHD while controlling for patient characteristics and access-to-care variables.

RESULTS:
The 2011 Medical Expenditure Panel Survey database included 9108 individuals aged 0 to 17 years, with 458 (5.0%) having an ADHD diagnosis. The ADHD cohort was 4.90 times more likely (95% confidence interval [CI] 2.97-8.08; P < 0.001) than the non-ADHD cohort to have an expenditure of at least $1, and among those with positive expenditures, the ADHD cohort had 58.4% higher expenditures than the non-ADHD cohort (P < 0.001). The estimated adjusted annual total incremental cost of ADHD was $949.24 (95% CI $593.30-$1305.18; P < 0.001). The adjusted annual incremental total direct expenditure for ADHD was higher among preschoolers ($989.34; 95% CI $402.70-$1575.98; P = 0.001) than among adolescents ($894.94; 95% CI $428.16-$1361.71; P < 0.001) or children ($682.71; 95% CI $347.94-$1017.48; P < 0.001).

CONCLUSIONS:
Early diagnosis and use of evidence-based treatments may address the substantial burden of ADHD.