Prevalence of Attention Deficit Hyperactivity Disorder among Medicaid Recipients Less Than 20 Years of Age

**Background**

Attention Deficit Hyperactivity Disorder (ADHD) is a neurobehavioral disorder with symptoms that include an inability to focus and maintain attention, hyperactivity, and impulsivity. These outcomes in turn can decrease school performance among affected children.

**Methods**

We examined ADHD-related service and pharmacy claims among children aged 4–19 years enrolled in Medicaid between January 1, 2002 and December 31, 2005. An ADHD case was defined as an approved claim for International Classification of Diseases, 9th Revision (ICD-9) codes 314.x plus a claim for an ADHD-associated medication in the same calendar year. For evaluation of prevalence by rural vs. urban status, the urban area included Anchorage, Eagle River, Chugiak, Wasilla, Palmer, Fairbanks and Juneau.

**Results**

During the study period, 62,833 persons aged 4–19 years were continuously enrolled in Medicaid. For all evaluated years, the highest prevalence occurred among children aged 9–12 years, followed by those aged 13–17 years (Table).

<table>
<thead>
<tr>
<th>Age (yrs)</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>US 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>4–8</td>
<td>2.9%</td>
<td>2.9%</td>
<td>3.1%</td>
<td>3.1%</td>
<td>2.6%</td>
</tr>
<tr>
<td>9–12</td>
<td>5.5%</td>
<td>6.0%</td>
<td>6.1%</td>
<td>6.2%</td>
<td>6.2%</td>
</tr>
<tr>
<td>13–17</td>
<td>3.0%</td>
<td>3.5%</td>
<td>3.7%</td>
<td>3.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>18–19</td>
<td>6.8%</td>
<td>7.2%</td>
<td>7.6%</td>
<td>8.8%</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>3.6%</td>
<td>3.9%</td>
<td>4.1%</td>
<td>4.1%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

*Rural Alaska Native children had the lowest ADHD prevalences while urban Alaska Native children had the highest prevalences (Figure). No statistically significant change over time in prevalence occurred for any of the four evaluated groups.

**Discussion**

Alaska’s ADHD prevalence among Medicaid-enrolled children was approximately the same as the 2003 overall national average among children aged 4–17 years currently taking medication (2). ADHD prevalence in Alaska has remained static among the youngest children but has increased among other age groups evaluated, including a 125% increase among those aged 18–19 years. Rural Alaska Native children and to a lesser extent rural children in general had a low ADHD prevalence. Nationwide, lower prevalences of ADHD diagnosis and treatment are associated with lower maternal education, non-white race, and having a primary home language other than English (0.3% compared to 4.9% for English speakers). These findings may reflect true differences in ADHD prevalence or over or under diagnosis and treatment among some groups.

**Recommendations**

Health care providers caring for children should familiarize themselves with current ADHD diagnostic criteria and treatment recommendations. Resources include:

- The US Centers for Disease Control and Prevention (http://www.cdc.gov/ncbddd/adhd/)
- The National Resource Center on ADHD (http://www.help4adhd.org/)
- The American Academy of Pediatrics (http://www.aap.org/pubserv/adhdttoolkit/)

**References**


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