Introduction

Background
• Childhood obesity is an important problem and few population-based systems exist to monitor prevalence.
• Data abstracted from electronic medical records (EMR) has the potential to be used for this purpose in Canada.

Objectives
1. To describe the prevalence of childhood overweight and obesity, by age, and sex using data collected in the Electronic Medical Record Administrative data Linked Database (EMRALD) database in Ontario.
2. To determine the frequency of height and weight documentation in EMRs during well-child visits in children.

Methods

Study Design & Population
• Cross-sectional observational design
• Inclusion criteria: Children 0-19 years of age in EMRALD database who had at least one well-child visit from January 2010 to December 2011
• Abstracted height and weight from database

Data Analysis
• Baseline demographics of the population were described
• Descriptive analysis of frequency of well child visit and documented height and weight
• Using the most recent well child visit with both documented height and weight, we reported the proportion and 95% CIs of subjects defined as overweight, and obese, by age group and sex, using the WHO growth reference standards.1
  • Overweight = BMI z-score >1, Obese = BMI z-score >2

Results

Table 1: Socio-demographic characteristics of all children in EMRALD and all Ontario children

<table>
<thead>
<tr>
<th>Age Group</th>
<th>All Children in EMRALD</th>
<th>All Ontario Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>8,218 (24.6)</td>
<td>1,601,583 (51.3)</td>
</tr>
<tr>
<td>5-9</td>
<td>7,928 (24.2)</td>
<td>1,611,247 (48.7)</td>
</tr>
<tr>
<td>10-14</td>
<td>7,772 (24.4)</td>
<td>1,799,141 (52.0)</td>
</tr>
<tr>
<td>15-19</td>
<td>7,719 (25.2)</td>
<td>1,869,464 (57.6)</td>
</tr>
</tbody>
</table>

Discussion

• The rates of childhood overweight and obesity are high, and obesity rates are higher in 1-4, 5-9, and 10-14 year old boys, compared to girls
• Although documentation of height and weight at well child visits are high for all age groups, attendance at well-child visits are lower in older age groups
• EMR may be an important data source for surveillance for young children, who attend well child visits frequently

Conclusion

• Ontario and other provinces should consider investments in EMR data repositories for active surveillance of overweight and obesity and evaluation of population-based public health interventions in children.
• Methodological issues including low well child visit frequency in older age groups should be considered