Results from National Surveys, 2006-2017

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Background

- During the past 10 years, there has been an increase in educational curricula at all levels and clinical tools to address obesity.
- However, little is known about trends in pediatricians’ practices and attitudes regarding assessment and prevention of overweight and obesity over time.

Objective

- Examine trends from 2006 to 2017 in pediatricians’ practices and attitudes regarding assessment and prevention of overweight and obesity in children and adolescents 2 years and older.

Data and Methods

Data

- Randomly selected sample drawn from the AAP’s member database:
  - 2006 response rate=63%
  - 2010 response rate=58%
  - 2017 response rate=50%
- Analytic sample restricted to pediatricians who provide health supervision and are not residents (2006=655, 2010=743, 2017=533)

Sample Demographics (2017)

- Gender: Female 68%; Male 32%
- Age < 50 years: 52%
- Practice setting: Solo/one-physician:18%; Group practice/HMO: 64%; Medical school/hospital/health center: 18%
- At least half of time spent in general pediatrics: 95%
- Part-time: 28%
- Work area: Suburban: 47%; Urban, not inner city: 22%; Urban, inner city: 16%; Rural: 15%

Key Variables

- Survey year: 2006, 2010 (for some variables) and 2017
- Body Mass Index (BMI): calculating and plotting
- Discussion of healthy behaviors at well-child visits
- Attitudes on assessment and prevention

Analysis

- Chi-square analyses examined responses across survey years; unadjusted percentages are presented.
- Multivariable logistic regression examined the independent effect of survey year, controlling for gender, age, practice setting, time in general pediatrics, part-time, and work area; adjusted odds ratio (AOR) and 95% confidence intervals (CI) are presented.

Results: Trends in BMI Assessment

Fig. 1. Percent of pediatricians who calculate BMI at every well visit by survey year*

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2010</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI 37%</td>
<td>71%</td>
<td>96%</td>
<td></td>
</tr>
</tbody>
</table>

Results: Trends in Discussion of Healthy Behaviors

Table 1. Pediatricians who discuss topic with all patients, regardless of weight status, 2006 vs 2017

<table>
<thead>
<tr>
<th>Topic</th>
<th>Unadjusted Percent 2006</th>
<th>AOR 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating meals together as a family*</td>
<td>89</td>
<td>92</td>
</tr>
<tr>
<td>Being physically active</td>
<td>87</td>
<td>90</td>
</tr>
<tr>
<td>Amount of TV, computer, video game time*</td>
<td>76</td>
<td>88</td>
</tr>
<tr>
<td>Amount of sugar-sweetened beverages*</td>
<td>65</td>
<td>81</td>
</tr>
<tr>
<td>Eating meals together as a family*</td>
<td>51</td>
<td>68</td>
</tr>
<tr>
<td>Positive role modeling by parents for nutrition and activity*</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Parent and child roles in food selection</td>
<td>49</td>
<td>51</td>
</tr>
<tr>
<td>Frequency of eating fast food/eating out</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>Serving skim or 1% milk*</td>
<td>73</td>
<td>87</td>
</tr>
</tbody>
</table>

Results: Trends in BMI

Fig. 2. Percent of pediatricians who plot BMI on growth chart at every well visit by survey year*

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2010</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>36%</td>
<td>64%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Results: Trends in Attitudes on Prevention

Fig. 3. Percent of pediatricians who strongly agree or agree by survey year*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Unadjusted Percent 2006</th>
<th>AOR 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using BMI adds new information*</td>
<td>69%</td>
<td>39%</td>
</tr>
<tr>
<td>Simple nutrition and physical activity recommendations would help me</td>
<td>57%</td>
<td>66%</td>
</tr>
<tr>
<td>BMI does not work for all patients/body types*</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Families want me to discuss overweight/obesity</td>
<td>59%</td>
<td>63%</td>
</tr>
<tr>
<td>I have staff support for screening*</td>
<td>45%</td>
<td>60%</td>
</tr>
<tr>
<td>Families and patients are not familiar with BMI*</td>
<td>54%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Multivariable Results

BMI Assessment

- Pediatricians in 2017 (vs. 2006) were significantly more likely to report calculating (AOR 45.27, 95% CI 27.54-74.41) and plotting (AOR 34.36, 95% CI 22.33-52.87) BMI at every well visit.

Discussion of Healthy Behaviors

- Pediatricians in 2017 (vs. 2006) were significantly more likely to discuss overweight/obesity and discussion of healthy behaviors and BMI (p<.05 (Table 2)
- Pediatricians in 2017 (vs. 2006) were less likely to discuss using skim or 1% milk with all patients 2 years and older (AOR 0.31, 95% CI 0.24-0.40).

Attitudes on Assessment and Prevention

- Pediatricians in 2017 (vs. 2006) were significantly more likely to agree that:
  - BMI adds new information (AOR 1.52, 95% CI 1.15-2.02).
  - They have staff support for screening (AOR 1.84, 95% CI 1.44-2.36).
  - BMI does not work for all patients (AOR 3.00, 95% CI 2.33-3.87).

- Pediatricians in 2017 (vs. 2017) were less likely to agree that families and patients are not familiar with BMI (AOR 0.16, 95% CI 0.12-0.21).

Conclusion

- Nearly all pediatricians in 2017 are calculating and plotting BMI at every well child visit.
- While challenges remain, including only half of pediatricians in 2017 report discussing parent roles in healthy behaviors and eating out, the findings reflect a growing investment of pediatricians and pediatric practices in obesity assessment and prevention.

Limitations

- This analysis is based on self-report survey data, and is generalizable to the pediatrician members of the AAP that meet the sample restrictions applied in this analysis.

Acknowledgements

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- We are grateful to all of the pediatricians who participated in the Periodic Survey.