Later School Start
A regional idea for 2017-18
Overview of Presentation

• What the research says
• Lessons Learned from others
  • Jeremy Ray, Biddeford
• Desire for regional approach
• Q and A
The Reality

• “If you knew that in your child's school there was a toxic substance that reduced the capacity to learn, increased chances of a car crash and made it likely that 20 years from now he would be obese and suffer from hypertension, you'd do everything possible to get rid of that substance. Early start times are toxic.”

Dr. Judith Owens Director of Sleep Medicine
Children's National Medical Center Washington D.C.
The Research
Epidemic of Adolescent Sleep Deprivation

• CDC reports that 67% of middle and high school students do not get enough sleep during the school week.

• American Academy of Pediatricians have declared: Middle and High School should not start before 8:30am.

• 41 other civic and health organizations agree

• Parents and teachers witness the impact of overtired adolescents daily
Adolescent Sleep Patterns

Biological clocks shift during adolescence toward later bedtimes and later wake-up times.

Melatonin release is delayed in teens (start 11pm, end 8am)

Waking up a teen at 6am is the equivalent to waking an adult up at 4am.

This is a developmental condition, not a cultural phenomenon and it is specific to adolescents (everything shifts earlier for adults).

Carskadon, 2011
Wahlstrom et al, 2014
Adolescent Sleep Needs

- Teens need 8 – 10 hours of sleep per night, but less than 10% regularly get more than 8.5%.\(^1\) Average is 6.75.

- According to the Center for Disease Control\(^2\):
  - 40% of teens get less than 6 hours per night
  - 20% sleep in class

- Teens show pathological levels of sleepiness (comparable to narcolepsy patients)\(^3\)

\(^1\)O’Brien&Mindell, 2005
\(^2\)CDC, Youth Behavior Risk Survey, 2001
\(^3\)Carskadon et al; 1998
The adolescent sleep window is incompatible with an early start time.

They literally can’t fall asleep as early as they would need in order to get a proper night sleep with a 7:30am start time.

A 50-minute later start is the equivalent of improving teacher quality by one standard deviation.¹

¹Carrell et al, 2011
Impact of Sleep Loss

- Decreased cognitive function and poorer academic performance, especially in morning classes
- Increased risk of mental and physical health problems
- Increased risk of sports injury and car accidents
What is the evidence from other districts around the country?

- With later start times:
  - Bed times remain the same
  - Teens get an additional hour of sleep per night on average
  - More morning sleep = more REM sleep
  - Even a 30-minute delay results in improvement
  - Attendance rates increase, drop out rates decrease
  - Tardy rates decrease
  - Grades and Test Scores increase
  - Improvement in mood, family well being, and health
Guest Jeremy Ray, Superintendent Biddeford Schools

- Experience in Biddeford
- Lessons learned
- Impact of change
What would it mean for our region?

We would all “flip” our Elementary and Middle/High School start times.

Act as one due to MCST who would adjust their start time as well, benefiting all the island schools.

- **ELEMENTARY SCHOOLS**: 7:45 – 8:00 start
- **MIDDLE/HIGH SCHOOLS**: 8:30 – 8:45 start
- **MCST**: 9:00 – 9:15 start
- **Length of school day would remain the same**
<table>
<thead>
<tr>
<th>EARLY START TIME</th>
<th>LATER START TIME</th>
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</thead>
<tbody>
<tr>
<td>Rise and shine 6:00</td>
<td>Sleep 6:00</td>
</tr>
<tr>
<td>Be at the Bus Stop 6:45</td>
<td>Sleep 6:45</td>
</tr>
<tr>
<td>7:00 Rise and shine</td>
<td>Arrive at school 7:30</td>
</tr>
<tr>
<td>Arrive at school 7:30</td>
<td>Be at Bus Stop 7:45</td>
</tr>
<tr>
<td>Period 1 begins 7:45</td>
<td>Period 1 begins 8:45</td>
</tr>
<tr>
<td>School 8:30</td>
<td>School 8:30</td>
</tr>
<tr>
<td>School 12:30</td>
<td>Arrive at School 12:30</td>
</tr>
<tr>
<td>School ends 2:15 2:00</td>
<td>School ends 2:15 3:00</td>
</tr>
<tr>
<td>Sports Practice begins 3:00</td>
<td>Sports Practice Begins 3:00</td>
</tr>
<tr>
<td>Sports 4:00</td>
<td>Sports Practice Begins 4:00</td>
</tr>
<tr>
<td>Sports 4:30</td>
<td>Sports 4:30</td>
</tr>
<tr>
<td>Sports practice ends 5:00</td>
<td>Sports practice ends 5:00</td>
</tr>
<tr>
<td>Dinner with family 6:30</td>
<td>Dinner with family 6:30</td>
</tr>
<tr>
<td>7:00</td>
<td>7:00</td>
</tr>
<tr>
<td>Bed time = 7 hrs of sleep</td>
<td>Bed time = 8 hrs of sleep</td>
</tr>
<tr>
<td>11:00</td>
<td>11:00</td>
</tr>
</tbody>
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What are common concerns?

- **Impact on Athletic Schedule**
  - Likely miss more of last period for away games
  - Compare entire student body being “present” for period 1

- **Impact on child-care**
  - Small number of families would no longer be able to have older siblings for immediate after school care.
  - May need to put some Elementary after school care in place to help mitigate this impact.
Does a later start benefit students in the mid-coast region?

• Next Steps
  • Discussion with stakeholders
    • school board
    • Teachers, Administrators, Staff
    • Families
    • Partner Organizations (physicians, organizations, etc)
  • Investigating Athletic impact
  • Analyzing bus schedules
  • Holding public meetings for parents
  • Surveying Stakeholders
Questions and Answers?

- [http://www.startschoollater.net/](http://www.startschoollater.net/)
References


