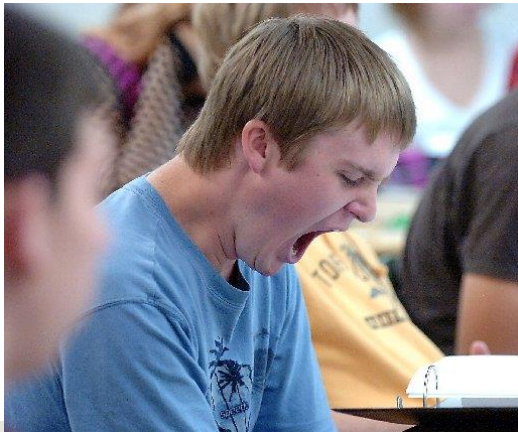


# School Start Time Working Group

Presentation for ORCSD School Board  
School Board Meeting  
April 15, 2015



# Presentation Outline



- Working group: participants and process
- What do we know about teen sleep and school start times?
- What has ORCSD already done?
- Common concerns and strategies to address them
- Working group recommendations to the Board

# Working Group (August 2014-April 2015)

- Superintendent asks ORMS and ORHS principals for informal working group
  - Response to Summer 2014 parent letter
  - Long-standing concern: Wellness Committee Letter from 2009. signed by MOH Wellness Committee Chair, members of the committee, and concerned teachers, parents, and counselors.
- Participation: open to all.
- Volunteers included parents with kids in both elementary schools, the middle school, and the high school.
- Monthly meetings (except December); posted and publicized

# Working Group Participants

- Rachel Higginbotham
- Jennifer Lyon
- Katie MacManes
- Jay Richard (principal, ORMS)
- Dee Dunbar-Hambucken
- Joe Hannon
- Astrid Wolf-O'Hern
- ChrisAnn Weichart
- Erin Hiley Sharp
- Jeannie Sowers
- Todd Allen (principal, ORHS)
- Mary Malone
- Ginger Johnson
- Susan Bullivant
- AND help from Lisa Huppe, Director of Transportation!!

# Working Group process

- Assessed current state of research and findings on adolescent sleep, educational attainment, and physical/emotional health.
- Reviewed prior work done by ORCSD in 2010/2011.
- Assessed what other districts have done– how did they address common concerns? What worked?
- Identified preliminary options for start times
- Coordinated with ORCSD transportation to explore possibilities

# Why do adolescents need to sleep?

- Release of growth hormones
- Memory storage
- Brain reorganizations (adolescence = second “critical period” of brain development)
- Immune activity
- Washing out of plaques

# Adolescents are sleep deprived

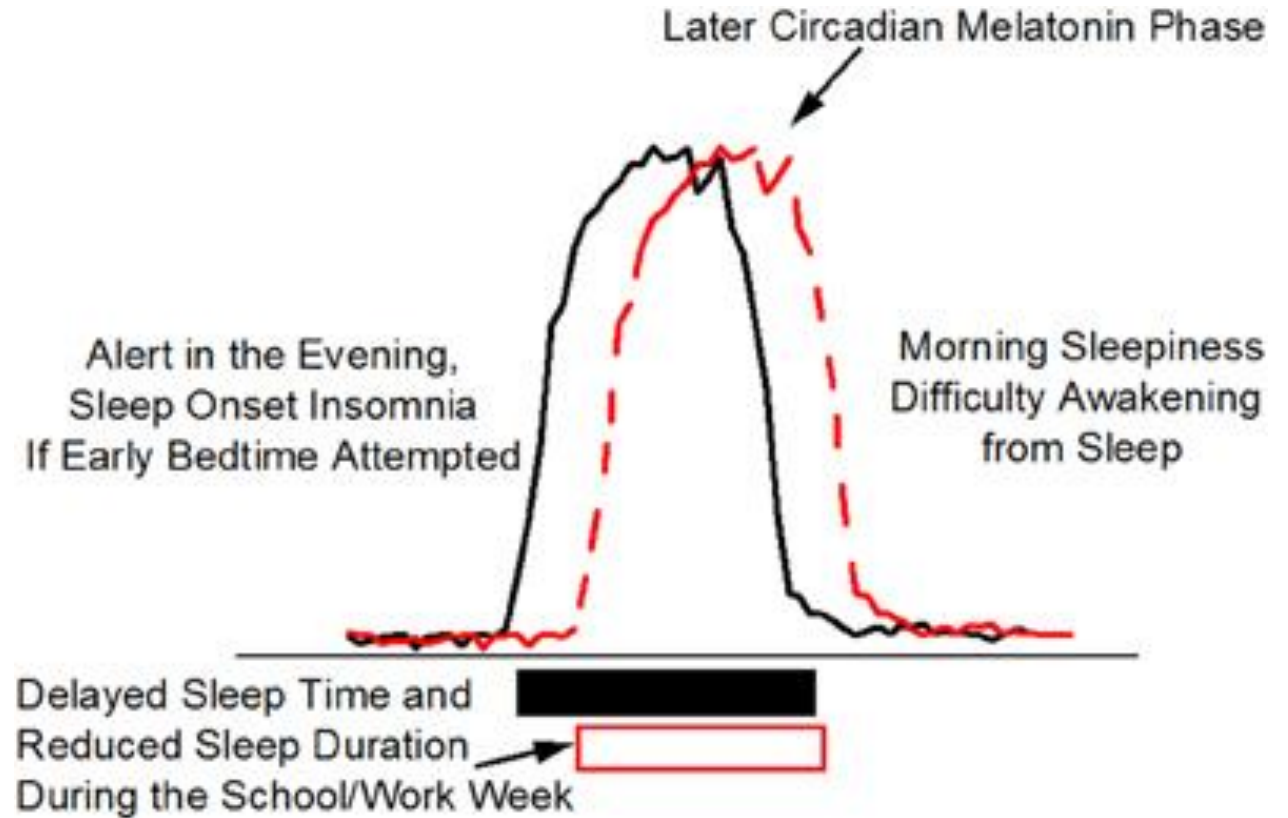
- 70% of teens found to be sleep deprived
- 40% of teens get 6 or fewer hours of sleep/night
- 20% sleep in class

(2011 Youth Risk Behavior Survey)



Question: Why are teens so sleep deprived?

Answer: It is developmental



*Delayed Phase Preference*



- Waking the average teen at 7 AM is like waking an average adult at 4 AM



- Sleep deprivation adversely affects school performance, emotional, and physical well-being.

# Why might parents not recognize the extent of the problem?

- On national sleep surveys, teens consistently report significant sleep deprivation.....

- But 71% of parents in one such survey thought that their teens were getting adequate sleep!

May be a large difference between how much sleep teens report-- and how much parents think they are getting.

Also, symptoms of sleep deprivation are often “written off” as symptoms of adolescence.

# Making the Sleep Problem worse: ORCSD starts earlier than the majority of schools nationally --AND earlier than it used to!

- ORMS AND ORHS start at 7:35 AM
- Median start-time nation-wide for middle schools is 8 AM.
- Only 20% of schools nation-wide start at 7:30 AM. --Source: U.S. Department of Education
- Todd Allen (ORHS) reports that ORCSD used to start at 8:05 up until the mid-1990's.

# Additional Costs to ORCSD of Early School Start Times

- Inefficiencies in transportation
  - Last efficiency study: buses at 40% capacity
  - Congestion with parent pick-up and drop-offs at schools
- Illness, tardiness, and absences
  - ORMS: random week: 15-30 students per day late to school.
  - ORHS: 19.7 students per day on average; on Fridays, average is 31/

# Recommended Intervention

■ *Start ORMS/ORHS later*

AMERICAN ACADEMY OF PEDIATRICS:

**“The evidence strongly implicates earlier school start times as a key modifiable contributor to insufficient sleep....Furthermore, a substantial body of research has now demonstrated that delaying school start times is an effective countermeasure to chronic sleep loss and has a wide range of potential benefits to students with regard to physical and mental health, safety, and academic achievement.”**



# Optimum start times

- Optimum start time for teens to get adequate sleep:  
8:30-9:00 AM
- Most schools in Europe start at 9 am, as do most schools in Texas, many in California.
- Schools in 43 states have pushed back school start times– NOT ONE reports going back to earlier start times!

# Does starting school later help? YES!

Example: Minneapolis Public Schools moved from 7:30- 8:30 AM

Longitudinal study of 12,000 students, Wahlstrom 2002.

- ▣ Decreased truancy and tardiness
- ▣ Decreased problem behavior
- ▣ Fewer trips to school nurse
- ▣ Improved attendance and improved alertness

# Benefits of Delayed School Start Times

- Minnesota study cont:
- Students reported 1 hour more per sleep per night on average
- Ate breakfast more frequently
- Completed homework during school hours, because they were more alert and more efficient.
- **92% of parents preferred later time after just 1 year despite earlier concerns**



# Benefits of Delayed School Start Times: Academic Achievement

Center for Applied Research and Educational Improvement, University of Minnesota--February 2014 study tracking 9,000 students in 8 public high schools in Minnesota, Colorado and Wyoming

(<http://www.scientificamerican.com/article/school-starts-too-early/> )

- ▣ Found better grades— **after one semester, when school began at 8:35 a.m. or later**, grades earned in math, English, science and social studies typically rose **a quarter step—for example, B to B+**.
- ▣ Similar findings from studies at UNC and the Air Force Academy.
- ▣ Some studies report higher standardized test scores.

# Benefits of Delayed School Start Times

Impacts on extracurricular activities:

- **Performance** in sports, music, and the arts improves with sleep.
- ORCSD middle and high school sports and practices meet in evenings, after school and before school
- Later school start time allows kids doing sports to get sleep they need.
  - E.G. instead of 6 AM practice, can move to 7 AM with later start time. Result: kids sleep longer.
  - If practice goes until 9 PM, students can sleep in longer in the morning.

# Benefits of Delayed School Start Times cont.

- Reduction in car accidents involving teens (car accidents around schools with later start times fell anywhere from 15-70% during the morning hours)
- Decreases in reports of depressive symptoms from teens
- Decreases in risk behaviors (reducing critical time of risk: 3-6 pm)



# Regional Examples: Other schools start later!

- Brattleboro Union High School, VT (moved from 7:45 to 8:45 in 2011/2012)
  - Reports less tardiness, more alertness, especially in first period  
([www.sentinelsource.com/news/local/brattleboro-happy-with-change-but-area-high-schools-don-t/article\\_d8301d61-b423-5eec-9b21-98aa14354dbd.html](http://www.sentinelsource.com/news/local/brattleboro-happy-with-change-but-area-high-schools-don-t/article_d8301d61-b423-5eec-9b21-98aa14354dbd.html)).
- South Burlington School District
  - Middle schools and high schools start at 8:30 AM
  - With a once monthly 'TLC' late start at 9:40 AM for SBHS.
- Portland, Maine, 3 middle schools: moved to 8:35-3:05.
- Portsmouth and Rochester have ad-hoc committees currently studying later school start times.

# What has ORCSD already done?

- 546 ORHS students surveyed in 2011-2012.
  - 61% of students surveyed supporting a later start time than current time
  - 55% reported being late at some point “due to difficulty waking up in the morning.”
  - 85% reported that they did not care for a younger sibling after school.
  - 71% reported that they did not work after school.
- When asked how their sleep might change if school started later:
  - 44% said they would go to sleep the same time and sleep later
  - 26% said they would go to sleep later
  - 22% said they didn't know
  - ONLY 8% reported that they would go to sleep and get up as early as they currently do!

# What has ORCSD already done?

Public forums:

- List of questions documented in letter from then-Superintendent Coulter.
- Concerns and questions identical to those raised in other districts across the country.
- Concerns can be proactively addressed in thinking of solutions.
- Lesson learned: public forums without proposing concrete solutions does not generate new feedback.

# Shared concerns and ways forward

- How can later start times work?
- Common approaches by school districts nation-wide:
  - One common start time for all schools
  - For tiered starts, move all start times at all schools later.
  - Flip elementary and middle/high times. (This is most commonly accompanied with a shift of all start times later to ensure that elementary children do not start too early)
  - Many case studies to consult in this process.

# Shared concerns and ways forward: After-school activities

- When will my child get out of school?
- How will a later start time impact after-school activities, work, or care for siblings?
- WG recommendations:
  - Look at length of school day and organization of school day along with start times.
    - Return length of school day to mid-1990's length?
    - Schedule study periods at end of day to accommodate early dismissal for away games for student-athletes?
    - PE credit for sports allowing for practice at the last period of the day?



# ORCSD Transportation system: constraints and opportunities

- ORCSD transportation system provides:
  - Door-to-door elementary school pick-ups.
  - Middle and high school are clustered pick-ups with some walking.
  - Kindergarten AM and PM
  - Pre-school program
  - Late buses, athletic buses, activity buses
- ORCSD bus system is not close to capacity, but data on actual ridership can be updated and improved.

# Working Group General Conclusions

- Early start times at ORMS and ORHS are detrimental to student health, academic performance, athletic and artistic achievements, and emotional wellbeing.
- The evidence that later school start times benefit adolescents is compelling and substantial.
- Change is difficult and requires leadership-- from the School Board, from district administrators, and from parents.
- Community outreach is important. Can be more constructive when focused on specific proposals, so that costs and benefits can be adequately shared and discussed.

# Working Group Specific Recommendations

- 1. Adopt later start times at ORMS and ORHS as a key priority for this year.
- 2. Authorize transportation study to see how bus schedules and later school start times can work and why ridership is so low right now.
- 3. Work in consultation with administration, teachers, staff, athletics, and other extracurricular providers to resolve any scheduling concerns.
- 4. Once a feasible option is complete, reach out to the community for feedback.

END OF PRESENTATION

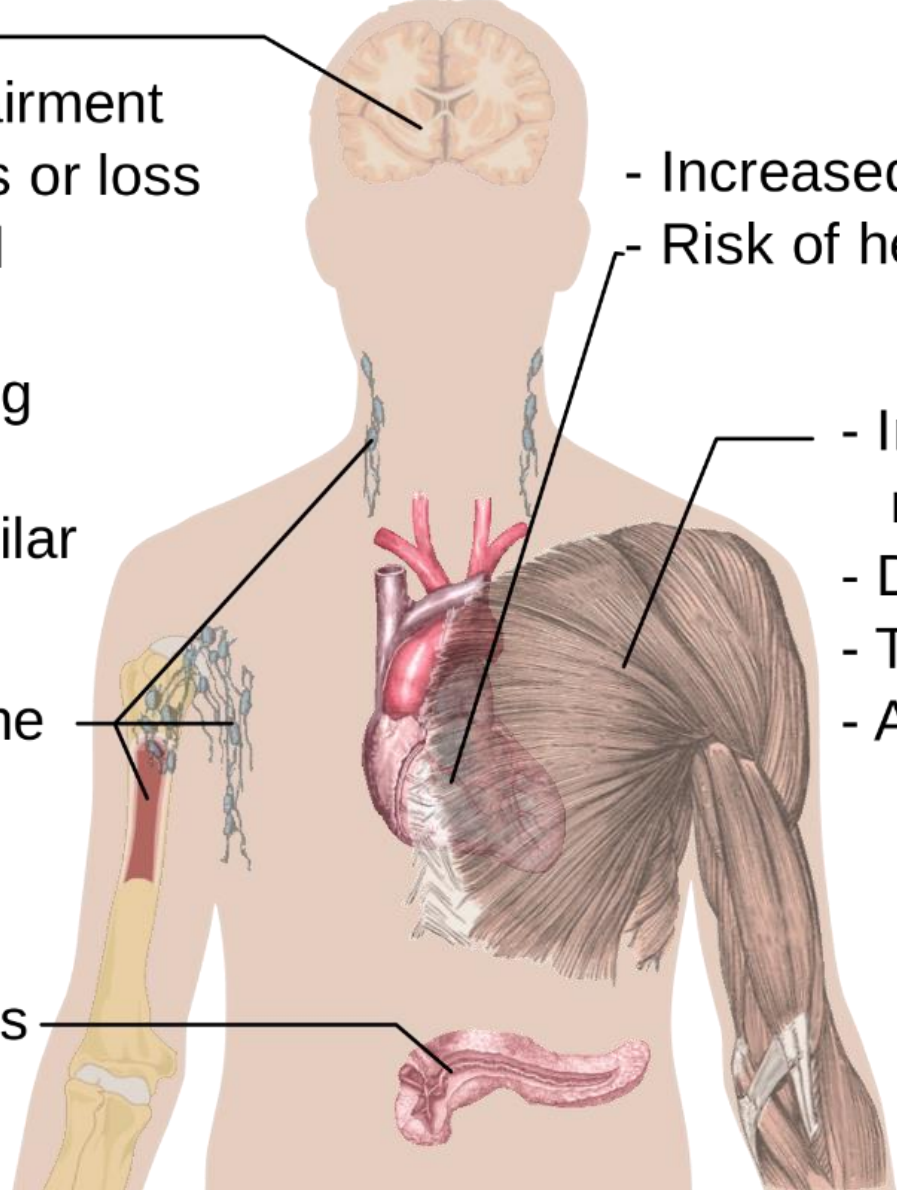
# Organizations Officially Endorsing Later School Start Times

- American Academy of Pediatrics (AAP)
- Centers for Disease Control and Prevention (CDC)
- US Secretary of Education
- National Education Association (NEA)
- Healthy People 2020
- National Sleep Foundation (NSF)



**Recommend middle and high schools delay the start of  
class to 8:30 a.m. or later**

# Effects of Sleep deprivation

- 
- The diagram shows a human silhouette with internal organs and muscles highlighted. Lines connect specific areas to the following list of effects:
- Irritability
  - Cognitive impairment
  - Memory lapses or loss
  - Impaired moral judgement
  - Severe yawning
  - Hallucinations
  - Symptoms similar to ADHD
  - Impaired immune system
  - Risk of diabetes Type 2
  - Increased heart rate variability
  - Risk of heart disease
  - Increased reaction time
  - Decreased accuracy
  - Tremors
  - Aches
  - Other:*
    - Growth suppression
    - Risk of obesity
    - Decreased temperature



# LACK OF SLEEP CAUSES PARTS OF YOUR BRAIN TO SLOW OR SHUT DOWN COMPLETELY.

