Community Advisory Council (CAC) Agenda - MINUTES
General Membership Meeting
HCPSS Board Room B
8 January 2020, 7:00 pm

7:00 p.m. Call to Order/Welcome
Pratima Lele

• Approval of Agenda – *motioned, seconded, and approved*
• Approval of December 11 Minutes
• Reminder of CAC Guidelines/By-Laws/Civility

7:15 p.m. Speaker Topic: Start School Later
Pratima Lele

• Presented by: Colonel Brian Robertson, Chief of the Sleep Disorder Center at Walter Reed National Military Medical Center
  ○ *Copy of the presentation appended at the end of the minutes and sent out via Google Forum*

• Questions submitted in advance and Burning Questions to be included
  ○ *Questions and discussion on past studies that CAC has conducted.*
  ○ *Discussion on less sleep associated (also sleep apnea and allergies) with ADD and other Executive function symptoms.*
  ○ *Discussion on less sports injuries due to more sleep and improved athletic performance.*
  ○ *Discussion on mealtimes? Nutrition and sleep; less sleep == more BMI*

8:15 p.m BOE Board Member Update
TBD – Jen Mallo

Jen Mallo  BOE updates Feb 23 2017 was the last discussion school start and dismissal, BOE did vote that no school would begin before 8am or after 9:15 am then it was modified to 9:25 then walked back 2 months later due to budget concerns.

Operating Budget is being released tomorrow (1/09); expect a lean budget due to lack of county funds. Looks at it being close to MOI. County can only give what was gotten last year per pupil plus increase in enrollment based on last years numbers. Close to 800 kids behind in MOI. Health deficit is at 39M trying to pay it down and BOE has asked CC if any savings can be passed on to pay deficit, that topic hasn’t been taken up by CC yet. Negotiated agreement complicates this discussion in adding new because it is already a difficult discussion because we do not have enough money to cover the services we have come to expect. Decision by the BOE as to what services can be continued. First public hearing is: Jan 16th @7pm sign up online. Opportunity to give a 3 min testimony to describe the operating budget programs that are important to you. Work session next week before the public testimony as well as after the public testimony (not the same day as public testimony). Jan 28th work session. Public hearing Jan 28th,
work session Jan 30th, work session Feb 5th, and an inclement weather day of Feb 6th. Vote is Feb 13th also the formal adoption of the CIP as well.

8:30 p.m. Policy Updates

Jennifer Lastova

- Policy Committee Updates Reports to the BOE will be happening while budget work is happening as well. There are approval, discussion and actions for several policies. Upcoming BOE Meetings where policies are presented listed below.

THURSDAY JANUARY 9, 2020 BOE MEETING

4 pm session: Policy 4030 School Activity Funds report; Policy 8090 Non-School-Hour Curricular Programs Charter (2-year review) report; Policy 9010 Attendance report.

7pm session: Presentation of the Superintendent’s Proposed FY21 Operating Budget (with Public Hearings for Operating Budget scheduled for 1/16/20 AND 1/28/20 at 7pm sessions)

THURSDAY, FEBRUARY 13, 2020 BOE MEETING

3 pm – BOE Adoption of FY 2021 Operating & Capital Budgets and FY 2022-2026 Capital Improvement Program

4pm session: Policy 1080 Education Equity report; Policy 8050 Teaching Controversial Issues action; Policy 3040 Technology Security report

7pm session: Policy 4030 School Activity Funds public hearing; Policy 9010 Attendance public hearing

Equity policy is drafted and ready to be presented and the MD state guidelines have been Equity of Excellence is the report name. <link to publication sent via Google Forum>. This policy committee is also looking at the implementation of this policy as well. <Pratima- sent out the regs via Google Forum>

8:45 p.m Burning Questions

- Review answers from prior meeting
- Review of questions submitted

8:50 p.m. New Business

Pratima Lele

- CAC Board Election Timeline
  - Volunteers Needed for the Nominating Committee – please send an email to cac.hocoboe@gmail.com if you are interested in being a member of the committee. If more than 3 members volunteer, the membership will have an opportunity at the February meeting of selecting the committee members.
  - March – the nominating committee will present a slate of no more than 2 nominees per office
April – CAC Board Elections will take place. Only current members may vote.

- February 12 Meeting Topic: Diversity, Equity and Inclusion presented by Dr. Kevin Gilbert
- Vote in new members
  - Dawn, Amy, Carter, Heather D, Tim, Elizabeth, Alisa, Cynthia, Alberto, Ye, James, Laura, Xinning

9:00 p.m. Adjournment

Pratima Lele
School Start Times and Teen Sleep: What we can do about it

Brian Robertson MD
Sleep Medicine, Walter Reed National Military Medical Center
Sleep Pressure and Circadian Alerting System
Circadian Changes

- Biological clock is delayed during adolescent development
- Phase preference (chronotype) is later (more Owl-like)
- Internal day is longer

Result: late nights are favored (so, too, late mornings)

Carskadon & Acebo, 2005; Crowley et al, 2011; Roenneberg et al., 2004; Crowley et al., 2018
Sleepy—go to bed

Not sleepy—stay up late

Standard phase

Delayed sleep phase

Time of day

6 PM 9 PM 12 AM 3 AM 6 AM 9 AM Noon

Wake up

Wake up

NITE*OWL
MMWR

Zzzzzz.... SLEEPY KIDS

MOST STUDENTS NEED MORE SLEEP

KIDS 6–12 YEARS NEED
9 TO 12 HOURS

TEENS 13–18 YEARS NEED
8 TO 10 HOURS

6 OUT OF 10 MIDDLE SCHOOLERS DON’T GET ENOUGH SLEEP

7 OUT OF 10 HIGH SCHOOLERS DON’T GET ENOUGH SLEEP
Adolescents’ (ages 10-21) “Real World” Sleep Schedules

- Report less sleep than younger children.
- Report markedly delayed bed and rise times, especially weekends.
- School-night sleep duration declines over adolescent years, weekend sleep changes less.
- Report different school vs. weekend-night schedules, known as social jetlag.
- Report school rise times based on school start times and commute times.
- Size of school-night-to-weekend discrepancy & insufficient sleep tied to poor academic performance, depressed mood, other negative outcomes.
Sleep and Sleep Behaviors Deteriorate...

- BT & RT misaligned with school start times.
- Erratic school vs. weekend sleep patterns.
- Jet Lag effect every Monday morning!

Result: Total Sleep Duration declines!
# 2014 Youth Risk Behavior Survey Results

Maryland High School Survey
Summary Tables - Weighted Data

<table>
<thead>
<tr>
<th>QN88: Percentage of students who had 8 or more hours of sleep (on an average school night)</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>95% confidence interval</td>
<td>N</td>
<td>Percentage</td>
</tr>
<tr>
<td>Total</td>
<td>23.8</td>
<td>(23.2 - 24.5)</td>
<td>52,135</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 or younger</td>
<td>28.4</td>
<td>(27.6 - 29.2)</td>
<td>26,002</td>
</tr>
<tr>
<td>16 or 17</td>
<td>19.6</td>
<td>(18.8 - 20.5)</td>
<td>24,152</td>
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<tr>
<td>18 or older</td>
<td>19.0</td>
<td>(17.1 - 21.2)</td>
<td>1,889</td>
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<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th</td>
<td>32.0</td>
<td>(31.0 - 33.0)</td>
<td>14,414</td>
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<tr>
<td>10th</td>
<td>24.7</td>
<td>(23.8 - 25.6)</td>
<td>13,175</td>
</tr>
<tr>
<td>11th</td>
<td>20.4</td>
<td>(19.5 - 21.4)</td>
<td>12,727</td>
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<tr>
<td>12th</td>
<td>17.2</td>
<td>(16.2 - 18.3)</td>
<td>11,100</td>
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<tr>
<td>Race/Ethnicity</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Black*</td>
<td>21.9</td>
<td>(20.9 - 22.9)</td>
<td>11,047</td>
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<tr>
<td>Hispanic/Latino</td>
<td>23.8</td>
<td>(21.9 - 25.8)</td>
<td>5,618</td>
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<tr>
<td>White*</td>
<td>26.6</td>
<td>(25.8 - 27.4)</td>
<td>27,302</td>
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<tr>
<td>All other races*</td>
<td>18.1</td>
<td>(16.4 - 19.9)</td>
<td>3,581</td>
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<tr>
<td>Multiple races*</td>
<td>21.4</td>
<td>(19.9 - 23.0)</td>
<td>2,969</td>
</tr>
</tbody>
</table>

Note: 3,461 students were excluded from this analysis.
The Perfect Storm

- Caffeine & Other Drugs
  - Bioregulatory pressure
  - Psychosocial pressure

- Adolescence

- Sleep pressure rise slowed
  - Circadian phase delay

- School start time
  - Societal pressure

- Bedtime autonomy
  - Academic pressure
  - Screen time
  - Social networking

- Late to bed
  - Early to rise

- Short and ill-timed sleep

Crowley, Wolfson et al., 2018
Consequences!

- Excessive Daytime sleepiness
- Learning and attention deficits
- Mood instability
- Substance use/abuse
- Suicides
- Motor vehicle accidents
- Weight gain, colds, other health concerns
Sleep Prepares for & Enhances Learning

Information acquisition

Consolidation/stabilization/strengthening/filtering

Information retrieval
Health and Safety

LIKELIHOOD OF DRIVING DROWSY BY AGE

71%  
18-29

52%  
30-64

19%  
65+

Source: National Sleep Foundation
Insufficient Sleep and Suicide

- Over 60 studies report associations between chronic insufficient sleep and suicide.

- “Unlike other suicide risk factors, sleep complaints may be particularly amenable to treatment.” (pg 1)

Benefits of Later School Start Times!!!!!

- Review of 38+ Studies revealed:
  - Increased TST by 40-60 min, later WTs, consistent BTs, fewer sleep problems, etc.
  - Increased attendance
  - Reduced tardiness
  - Reduced drop-out rates
  - Improved standardized test scores
  - Improved GPAs
  - Increased or stable engagement in extracurricular activities/sports
  - Improved Mood!
  - Decreased daytime sleepiness
  - Decreased health center visits
  - Improved family well-being (decreased family conflict)
  - Decreased sleep-driver accidents
  - Benefits far exceed costs in real dollars by ratio of 6:1 as early as 2 years out

Wheaton et al., 2016; Jacob & Rockoff, 2011; Bowers & Moyer, 2017; Hafner et al., 2017; Wolfson et al., 2007; Wahlstrom, ’01, ’14; Wolfson et al., ’07; Owens et al., ’10, Sleep Health special issue, ’17, etc.
Middle School Start Times and Sleep

**Method:**
- N = 205 7th & 8th graders
  - Early (7:15 am) vs. late (8:37 am) start public schools
  - 18% low income families

**Key Results:**
- School L sleeping 51 min. longer on school nights due to rising 71 min. later.
- 36% School L reported obtained 9+ hours sleep on school nights vs. 18% School E.
- School L reported significantly less daytime sleepiness.
- School E tardy 4 X more often than School L.
- 8th graders at School E lower grades than School L.
- Findings replicated fall and spring!
Distribution of School-night Total Sleep: Early versus Late Starting Middle Schools

![Graph showing the distribution of school-night total sleep times for School L and School E. The graph displays the percentage of students in each sleep duration category: < 5 hr, 5 - 6 hr, 6 - 7 hr, 7 - 8 hr, 8 - 9 hr, > 9 hr. The graph indicates that School E has a higher percentage of students sleeping more than 9 hours compared to School L.](image-url)
Summary
Adolescents’ Sleep with Delayed School Start Times

• Additional hour sleep per night, on average
• Bedtimes remain the same
• More morning sleep = increased REM sleep (memory, learning, consolidation)
• Even 30 minute delay leads to positive outcomes

Wolfson et al., ’07, Wahlstrom ‘14, ’16,
Sleep Health Special Issue, ‘17
Putting bad sleeping habits to rest
Thank You! Questions?