



## **Programs & Services Committee Report**

### **City of Newton** **In City Council**

**Wednesday, October 4, 2017**

Present: Councilors Rice (Chair), Leary, Sangiolo, Auchincloss, Baker and Kalis

Absent: Councilors Hess-Mahan and Schwartz

City Staff: Karyn Dean (Committee Clerk)

**#296-17      Mayor's appointment of Ethan Tieger to the Newton Commonwealth Foundation**  
ETHAN TIEGER, 43 Algonquin Road, Chestnut Hill, appointed as a member of the NEWTON COMMONWEALTH FOUNDATION for a term to expire December 31, 2020. (60 DAYS 11/17/17) 09/08/17 @ 9:11 AM]

**Action:      Programs & Services Approved 5-0 (Councilor Baker not voting)**

**Note:** Mr. Tieger joined the Committee. He explained that he had spoken with Councilor Baker, who had been one of his law professors, about wanting to get more involved in local government. Councilor Baker has been a big proponent of the Commonwealth Golf Course over the years and suggested the Foundation might be a good fit. Mr. Tieger lives on Algonquin Road and has played the course a few times. He would like to see it preserved and maintained. Councilor Baker was instrumental in getting the conservation restriction on the course and it is important to see it remain an open space asset for the City and its residents.

A Councilor asked if the golf course used leaf blowers and/or pesticides. Mr. Tieger was not sure of that, but believed Sterling Management runs the maintenance of the course. He would look into those issues and report that information to the Committee. The Councilor asked that any leaf blower use comply with the City's ordinance. There is an Integrated Pest Management group within the City and that could be a good resource on the pesticide issue.

The Committee voted to approve Mr. Tieger's appointment 5-0.

*The Committee approved the following re-appointments without discussion:*

**#265-17      Mayor's re-appointment of Bethel Charkoudian to the Parks & Recreation Comm**  
BETHEL CHARKOUDIAN, 18 Maple Avenue, Newton, re-appointed as the Ward 1 member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]

**Action:      Programs & Services Approved 5-0 (Councilor Baker not voting)**

- #266-17**      **Mayor's re-appointment of Arthur Magni to the Parks & Recreation Commission**  
ARTHUR MAGNI, 107 Mount Vernon Street, Newton, re-appointed as the Ward 2 member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #267-17**      **Mayor's re-appointment of Peter Kastner to the Parks & Recreation Commission**  
PETER KASTNER, 49 Woodbine Street, Newton, re-appointed as the Ward 4 member of the PARKS & RECREATION COMMISSION for a term to expire October 31, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #268-17**      **Mayor's re-appointment of Byron Dunker to the Parks & Recreation Commission**  
BYRON DUNKER, 10 Southwick Road, Newton, re-appointed as the Ward 5 member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #269-17**      **Mayor's re-appointment of Andrew Stern to the Parks & Recreation Commission**  
ANDREW STERN, 56 Tyler Terrace, Newton, re-appointed as the Ward 6 member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #270-17**      **Mayor's re-appointment of Richard Tucker to the Parks & Recreation Commission**  
RICHARD TUCKER, 23 Woodman Road, Newton, re-appointed as the Ward 7 member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #271-17**      **Mayor's re-appointment of Patrick Palmer to the Parks & Recreation Commission**  
PATRICK PALMER, 37 Arapahoe Road, Newton, re-appointed as an alternate member of the PARKS & RECREATION COMMISSION for a term to expire October 31, 2019. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #272-17**      **Mayor's re-appointment of Jack Neville to the Parks & Recreation Commission**  
JACK NEVILLE, 68 High Street, Newton, re-appointed as an alternate member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2020. (60 DAYS 11/4/17) [08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**

- #273-17**      **Mayor's re-appointment of Michael Clarke to the Parks & Recreation Commission**  
MICHAEL CLARKE, 1115 Beacon Street, #9, Newton, re-appointed as an alternate member of the PARKS & RECREATION COMMISSION for a term to expire September 30, 2019. (60 DAYS 11/4/17)[08/09/17 @ 11:18 AM]  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #274-17**      **Mayor's re-appointment of Sam Figler to the Parks & Recreation Commission**  
SAM FIGLER, 63 Summer Street, Newton, re-appointed as an alternate member of the PARKS & RECREATION COMMISSION for a term to expire October 31, 2018. (60 DAYS 11/4/17) 08/09/17 @ 11:18 AM  
**Action:**      **Programs & Services Approved 5-0 (Councilor Baker not voting)**
- #246-17**      **Citizens Petition requesting a resolution supporting later high school start time**  
JEFFREY PONTIFF ET AL. submitting a petition, pursuant to Section 10, Section 2 of the City of Newton Charter, requesting a Resolution from the City Council acknowledging the scientifically documented benefits of a later school time and supporting the Newton Public Schools to take action to delay high school start times. (90 days: [11/12/17) 07/28/17 @ 1:30 PM]  
**Action:**      **Programs & Services Approved 6-0**

**Note:** Councilor Rice explained that this item was submitted as a 50-citizen petition, which requires a public hearing. He invited Jeffrey Pontiff to present to the Committee. Mr. Pontiff said that Newton's highest priority should be the children. Dr. Christopher Landrigan will be making a presentation explaining how early high school start times threaten children's health, education and well-being. Dr. Landrigan is well qualified as he is the Research Director at Boston Children's Hospital in Patient Pediatrics Service, Director of Sleep and Patient Safety Program at Brigham and Women's Hospital and Associate Professor of Medicine and Pediatrics at Harvard Medical School. He has published numerous sleep research papers in leading peer-reviewed journals.

The petitioners are asking the City Council to express support for the Newton Public Schools to take action to delay high school start times. The petition is worded intentionally to avoid jurisdiction issues, is not an ordinance or even a request to the School Committee. It is simply a way to ensure that the City government understands this public health issue and collectively mobilizes for the benefit of our children. Moving to a later high school start time has broad public support. Over 8,000 students, parents and teachers filled out surveys and the response was dramatic. The number of respondents who agreed or strongly agreed with the later start time was 4 times greater than those who disagreed or strongly disagreed. These results are not masking dissension between subgroups - all groups were likely to agree with a later start time.

Moving towards a healthy start time will take unity. The community is behind it and the School Committee is gearing up for it. The petitioners are asking the Council to recognize the benefits and voice their support.

Dr. Christopher Landrigan, 164 Oliver Road in Newton addressed the Committee. He noted that he has two children in high school in Newton. He provided a PowerPoint which is attached to this report.

Dr. Landrigan explained that humans have a biologic human circadian pacemaker in the hypothalamus, which drives a host of processes from timing of hormone output to body temperature, alertness, performance and many cognitive and neurologic functions. A host of studies has shown there is a biologically programmed delay in that rhythm in adolescence, such that adolescents biologically tend to want to wake up two hours later than either adults or younger children. As they reach their twenties, it reverts to the rhythm they had as children. It is difficult for adolescents to fall asleep before 11pm and wake up early. It is not a social phenomenon as it is experienced by adolescent animals as well.

Current Newton high school start times, which require a typical wake-up time of 6am, are equivalent to adults waking at 4am every day. The consequence of teens constantly fighting with their own biologic rhythms is that they have relatively short amounts of sleep during the week, while sleeping late on weekends to “catch up” causes a “jet lag” effect. It is as if they are travelling to a different time zone every weekend on top of being chronically sleep deprived over the course of the week.

Adolescents have lost the most sleep over the past 100 years compared to any other age group. A very small fraction of teens get the amount of sleep necessary to function and perform well. There are wide effects from sleep deprivation on learning and performance academically as well as risks from drowsy driving, sports injuries, attention, planning and risk taking behaviors, obesity and other long term health risks. Please refer to presentation for details on all of these risks.

- Biologically, the drive to sleep is strong in adolescents, so they can fall asleep even in the middle of a critical activity such as driving.
- One of the first areas of the brain to experience impairment with sleep deprivation is the frontal and pre-frontal cortex, which is the part of the brain responsible for judgment. This is manifest by the finding that there are increased odds of risky behavior at an extreme level in teens who are sleep deprived.
- A study showed that babies who were sleep deprived were much more likely to be obese at 3 years of age than those who were better rested.
- As years go by, sleep deprivation is also a risk for a host of cancers to the point that the World Health Organization has determined that shift-work (working at night on a regular basis) is a presumed carcinogen. There is the same level of evidence behind that finding as there is for ultraviolet light causing skin cancer.

There have been many studies that show when school start times are delayed, adolescents tend to sleep better and there are a host of beneficial downstream consequences as well. This is because these times are more in line with the biologic sleep drives of teenagers. Trying to work against this results in substantially less sleep times.

The risk of adolescent car crash risk is much lower as well from later school start times. Motor vehicles crashes are the leading cause of death in teens so this can be substantially impacted. Car crashes were decreased by 70% with delay from 7:35 to 8:55 start time.

A large study funded by the Centers for Disease Control showed that there is a very important relationship between start times and academic performance. Grades were increased as well as attendance, and tardiness was reduced.

Dr. Landrigan noted that there can be impacts on parents, teachers, sports schedules, bus schedules, traffic patterns and all the costs associated with these issues. Many municipalities, however, have figured out ways to make it work and perhaps more importantly, economic studies have suggested that projected increased future earnings of these students more than counterbalance the costs.

A tremendous amount of information has been gathered over the past 30 years that demonstrate the adverse effects of sleep deprivation on adolescents. When aligning the biologic clock with what children are asked to do socially, performance across a range of very critical outcomes improves very substantially.

#### Committee Questions/Comments

A Committee member asked when “adolescence” starts and ends. Dr. Landrigan said the shift in rhythm begins to happen in 7<sup>th</sup> grade through 12<sup>th</sup> grade. It begins to return to earlier levels in the twenties. It was asked if middle school start times should shift as well. Dr. Landrigan said this change should be considered systemically, however middle schools in Newton do start later so it has been less of an issue.

It was asked if the shift in sleep has anything to do with screens and the blue light they emit. Dr. Landrigan said that animal studies show that this biological shift in rhythm is not related to blue light or screens. However, sleep deprivation is affected by those things and studies have shown that blue light does have an impact. There are many things that are happening now that are different than 30 years ago that affect sleep, but in isolation, the impact of school start times is a very potent intervention to counterbalance sleep deprivation even if it doesn’t impact every variable.

A Councilor asked why the School Committee has not been approached on this issue and why the petitioners are coming to the City Council. Mr. Pontiff explained that the petition is written broadly for broad support. The School Committee has been working on the issue for a long time and it is daunting work. The whole community will have to be involved in the effort, so the petitioners felt it was important for the Council to support it. There are choices that need to be made about school days that go later, or a school year that goes later. There are also costs involved.

A Councilor appreciated the continued efforts and leadership of the petitioners. Dr. Landrigan agreed that there are many issues to work through, and insofar as attention can be kept on the topic, it can be negotiated to a good result.

It was asked if the teacher's rhythms might be affected by the switch in time. Dr. Landrigan said that the school end times would not be late enough to affect adult circadian rhythms. All these challenges are being considered, and are negotiable, and they have been successfully figured out in other communities.

A Committee member asked what the costs might be to implement these changes. Mr. Pontiff replied that there are some scenarios that require no costs at all. The scenario that people are talking about the most, would cost approximately \$750K per year in transportation costs. There would need to be two sets of buses going at the same time in order to get grade school and high school students to school. If the high school started at 9:00, which all evidence points to as the best time, that cost problem would be solved, however, that is not getting much support.

The Sports schedules have been discussed in School Committee meetings. They have reported that Newton has spoken to other schools in the league and they were told it could be worked out without much difficulty. Traffic issues did not seem to be problematic. People make driving decisions every day based on where and when they know traffic will be.

#### Public Comment

*Kathy Winters, 41 Amherst Road* said that the numbers are big as far as the number of affected students. This is a public health issue because this is 4,000 out of 90,000 residents of the City. The American Academy of Pediatrics is calling this a chronic sleep deprivation epidemic. While this is up to the School Committee to figure out the details, it would be good to have support from all areas of government to provide relief for a significant sector of the population.

*Elise Pearson, 21 Larkin Road* has a first grader in Burr School. She appreciates the public health aspect of this. She reminded the Committee that some of those sleepy teens are driving on the same roads as other residents and children, so this is personal for everyone. As a parent, she received an email from the Supt of Schools detailing many aspects of this issue. She said she would email that to committee members. The American Academy of Pediatrics and the American Academy of Sleep Medicine both endorse a later sleep time.

*Cyrus Vagher, 42 Fairfield Street* said he graduated from Newton North in 2015. He remembers many mornings getting up late and missing classes. It did not affect him as much as other people but it did have an effect. There were definitely a lot of car accidents near Newton North in the mornings.

*Sonny Chandler, 60 Palm Street* said he is an ER physician. In 2008 one of his favorite nurses' son was driving to hockey practice at 5:30am and fell asleep at the wheel. He struck a chain-link fence and lost an eye and luckily not his life. He was being recruited by many colleges for his golfing talent and it changed his life. He is successful now but Dr. Chandler visited him in the ICU when he was intubated and it unclear if there would be brain damage. He has seen the burden of substance abuse and psychiatric illnesses going up year by year and affected more adolescents. He feels this is a public health issue and this change should be made.

Councilor Sangiolo suggested asking the Commissioner of Health and Human Services, Deb Youngblood, if she would sign onto the Resolution as well, in order to get more broad support from the City.

Councilor Sangiolo moved to approve the Resolution and the Committee voted in favor.

**#247-17      Citizens Petition requesting measures limiting City Council action to city issues**  
JANET STERMAN ET AL. submitting a petition, pursuant to Section 2 of the City of Newton Charter, for the City to adopt measures so that all new matters taken under discussion by the City Council pertain solely to the operation of the City; that all matters presented to the City Council pertaining to the operation of the Commonwealth of Massachusetts be referred to state Representatives and Senators representing the City of Newton; and that all matters pertaining to the operation of the United States federal government be referred to the United States Representatives and Senators representing Massachusetts. (90 days: 11/12/17) [07/31/17 @ 10:10 AM]

**Action:      Hearing Continued; Programs & Services Held 6-0**

**Note:** Councilor Rice opened the public hearing. He explained that because there had originally been another item scheduled for this evening, which had the potential for a lengthy discussion, he had informed the petitioners that the public hearing would be opened, but continued to October 18<sup>th</sup>. (The other item was ultimately removed from the agenda however.) The Committee voted to continue the public hearing and reschedule for October 18.

The Committee voted to hold the item.

Meeting adjourned.

**Respectfully Submitted,**  
**John B. Rice, Chair**

# School Start Times

## Adolescent Sleep, Performance, and Safety

City Hall  
Newton, MA  
October 4, 2017

**Christopher P. Landrigan, MD, MPH**

Research Director, Boston Children's Hospital Inpatient Pediatrics Service  
Director, Sleep and Patient Safety Program, Brigham and Women's Hospital  
Associate Professor of Medicine and Pediatrics, Harvard Medical School



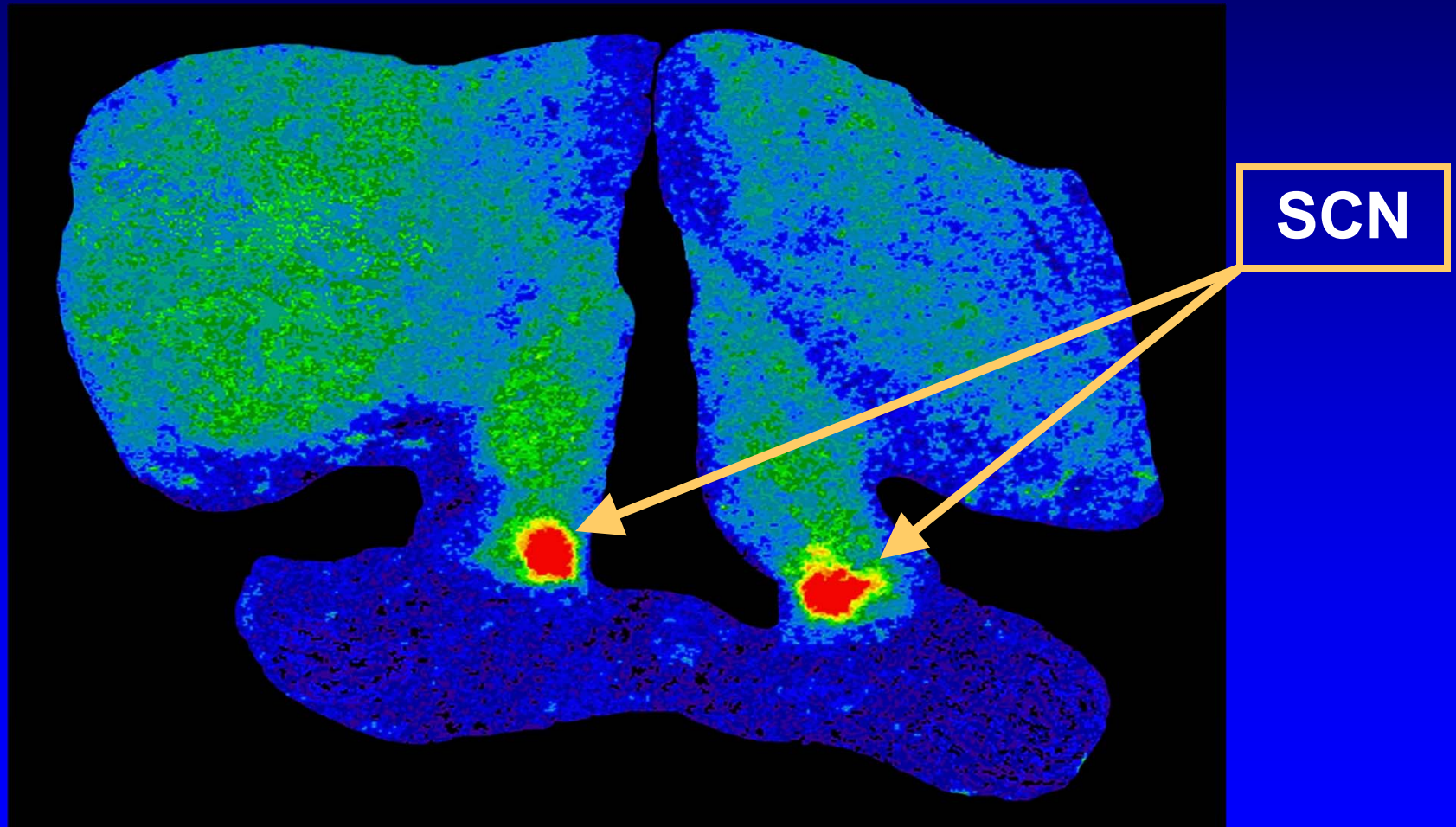


# Overview

- Biology of Adolescent Sleep
- Population Rates of Sleep Deprivation
- Effects of Sleep Deprivation on Adolescents
- Delaying School Start Times – the Data

# Biology of Adolescent Rhythms:

## Human Circadian Pacemaker in Suprachiasmatic Nucleus (SCN) of Hypothalamus



Courtesy of D. Weaver, Univ Massachusetts Medical School, Worcester, MA

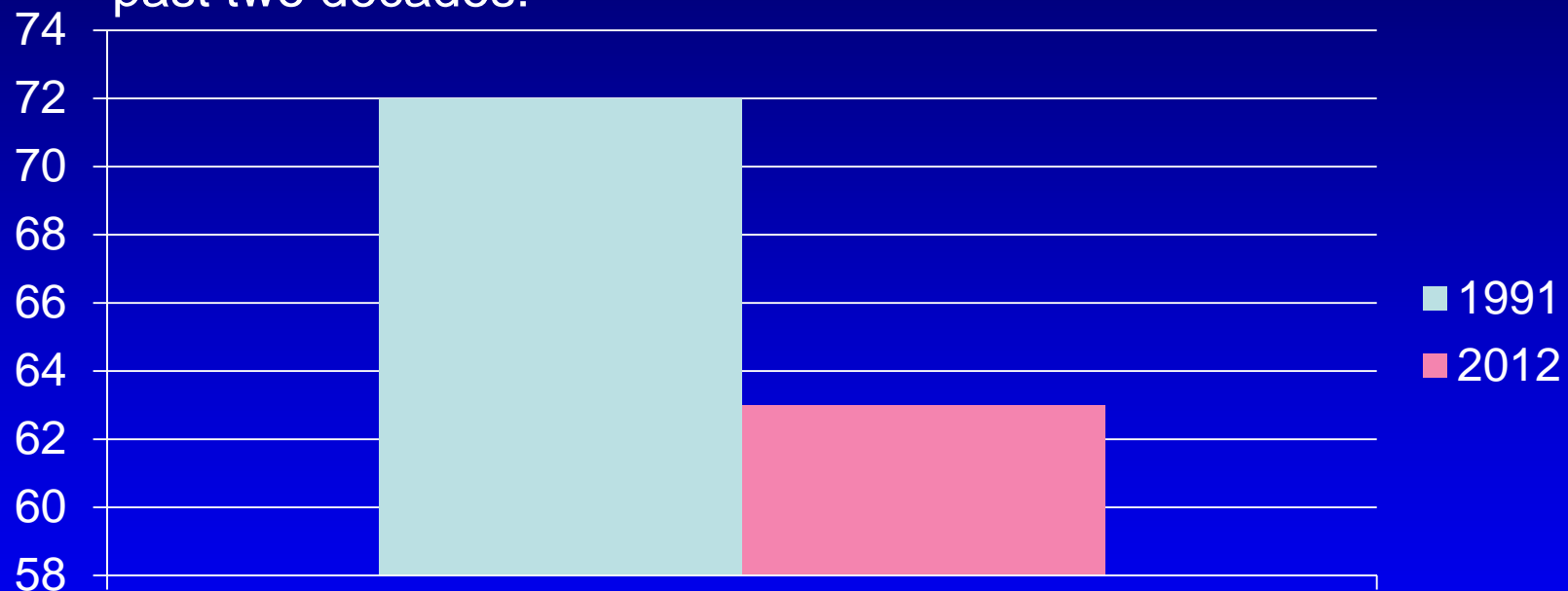
# Adolescent Circadian Rhythms and Sleep Schedules

- *2 hour* circadian phase delay
  - Difficult to fall asleep before 11pm
  - Difficult to wake up early
  - Easy to stay up late and sleep in
  - Adolescent animals experience it too!
- School start times
  - 7:40am NSHS; 7:50am NNHS
  - Typical wake time around 6am (to make 7am bus)
    - *This is equivalent to adults waking at 4am every day*
  - Weekend “Jet Lag”



# Historical Changes

- Americans' sleep has decreased by over an hour since 1942 (7.9 vs. 6.8 hours per night)
- Teens especially have experienced significant sleep loss in past two decades:



% of teens who obtain 7 or more hours of sleep per night  
*Keyes K et al, Pediatrics 2015*

- In Newton** (n=344 survey respondents, *NS School Council Survey 2015*), **only 20%** of students reported getting >7h sleep per night during school week
  - 89% reported their lack of sleep affected academic performance

# Why does it Matter?

## What Does the Science Tell Us?

- Drowsy driving
- Sports injuries
- Learning
- Attention
- Planning and Risk Taking Behaviors
- Health
  - Obesity
  - Long term health risks

# 100 Car Study: Non-commercial drivers

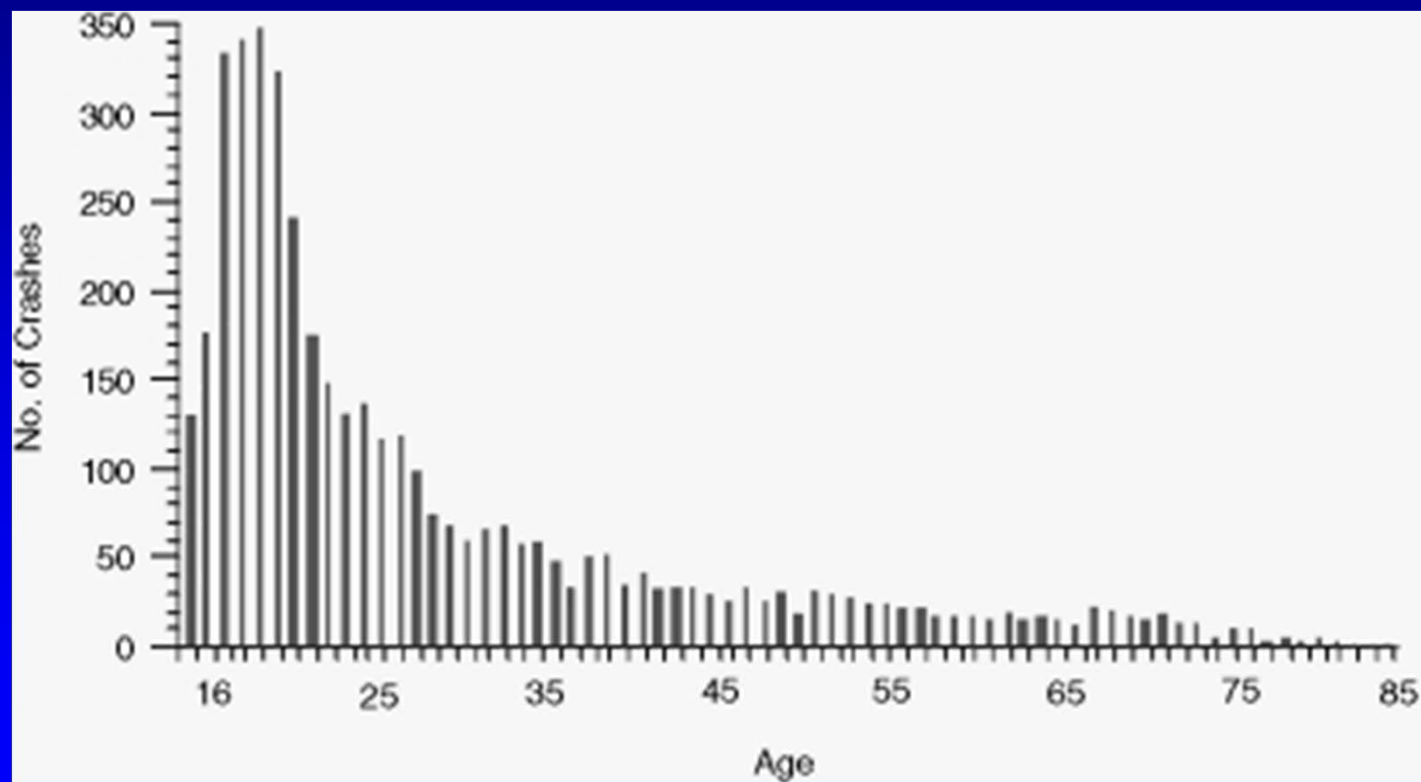
*Virginia Tech and NHTSA*

- Naturalistic study of 100 cars for one year
- 82 crashes, 761 near-crashes
- Fatigue contributing cause in: **22% of all MVCs** & 16% of all near-crashes
- Suggests could be **as many as 8,000 fatigue-related fatal crashes** in U.S. each year
- Determinants of fatigue and countermeasures largely unexplored in field setting



# Distribution of Fall Asleep Crashes by Age

- Data on 4333 fall asleep (not intoxicated) crashes from NC Highway Traffic Research Center

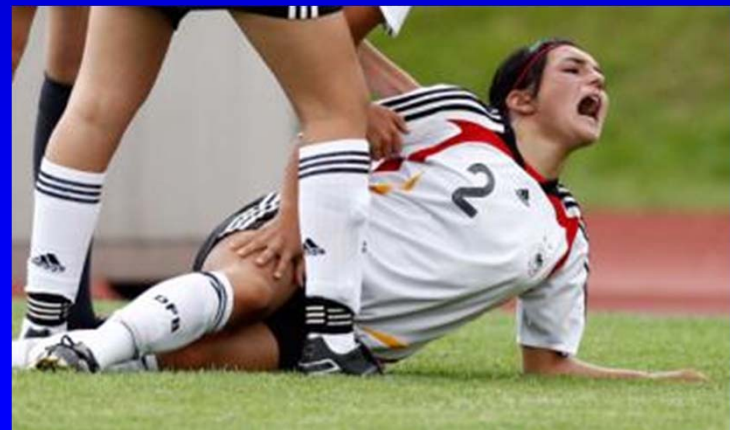


Pack et al, Accid Anal Prev 1995;27(6):769-75



# Chronic Sleep Deprivation and Adolescent Sports Injuries

- Study of 160 athletes, grades 7-12
- Hours of sleep per night was the #1 predictor of sports injury
  - Athletes getting <8h sleep 1.7 times as likely to suffer sports injury vs. those sleeping  $\geq 8$  hours





# Sleep and Academic Performance

- Among U.S. adolescents (ages 13-19 y), those with lower average grades (Cs and lower) went to bed significantly later and received on average 3 h less sleep per week than those reporting higher grades (Bs and higher).

**Wolfson AR, Carskadon MA. Child Dev 1998;69:875-87**

**Shochat T, Cohen-Zion M, Tzischinsky O. Sleep Med Rev 2014; 18: 75-87**

# Sleep and Risky Behaviors

- Reduced daily sleep associated with increased risk (**OR of 1.4-3.6**) of:
  - Smoking
  - Marijuana / drug use Alcohol use
  - Sexual activity and unprotected sexual activity
  - Physical violence
  - Theft
  - Truancy
  - Suicidal ideation

O'Brien EM, Mindell JA. Behav Sleep Med 2005;3:113e33.

Pasch KE, Latimer LA, Cance JD, Moe SG, Lytle LA. J Youth Adolesc 2012;1e13.

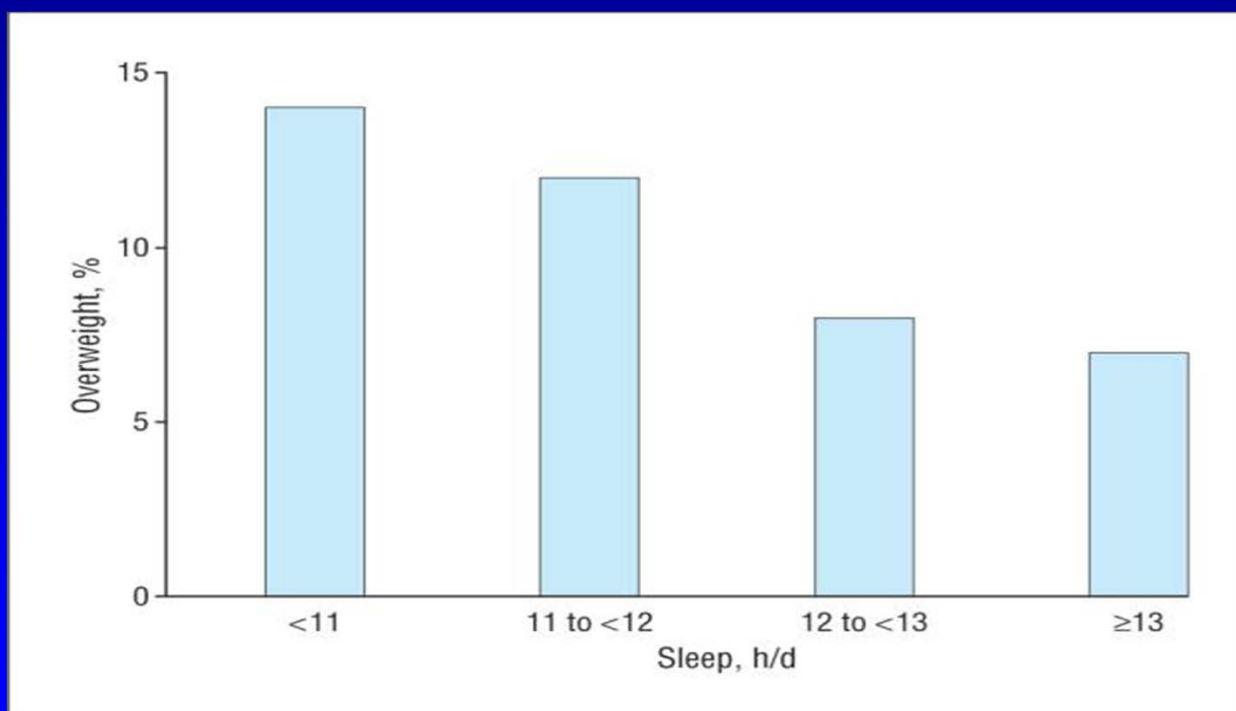
Lam LT, Yang L. Am J Epidemiol 2007;166:1053e8.

McKnight-Eily LR, Eaton DK, Lowry R, Croft JB, Presley-Cantrell L, Perry GS. Prev Med 2011;53:271e3.

Yen CF, King BH, Tang TC. Psychiatry Res 2010;179:69e74.

# Short sleep duration in infancy and risk of childhood overweight

- Prospective study of 915 children evaluated at 6 months, 1 year, 2 years, 3 years
  - Sleep at 6 month correlated with weight at 3 years



Taveras EM, et al. Arch Pediatr Adolesc Med. 2008 Apr;162(4):305-11

# Studies Demonstrating a Significant Risk for Cancer Among Shift Workers

Type of Cancer	Odds Ratio	95% CI	Reference
<b>Breast cancer</b>			
Night shift ≥0.5 year	1.5*	1.3 – 1.7	1
Night shift >6 years	1.7*	1.3 – 1.7	
“Graveyard shift” (any)	1.6*	1.0 – 2.5	2
Shift work ≥5.7 hours/week	2.3*	1.0 – 5.3	
Rotating nights; ≥30 years	1.36*	1.04 – 1.78	3
Rotating shift work: >20 years	1.79*	1.06 – 3.01	4
<b>Prostate cancer</b>			
Rotating shift work	3.0*	1.2 – 7.7	5

\* $P < 0.05$  vs comparator group.

Hansen J. *Epidemiology*. 2001;12:74-77; Davis S, et al. *J Natl Cancer Inst*. 2001;93:1557-1562; Schernhammer ES, et al. *J Natl Cancer Inst*. 2001;93:1563-68. Schernhammer ES, *Epidemiology* 2006;17:108-111; Kubo T, et al. *Am J Epidemiol*. 2006;164:549-555.

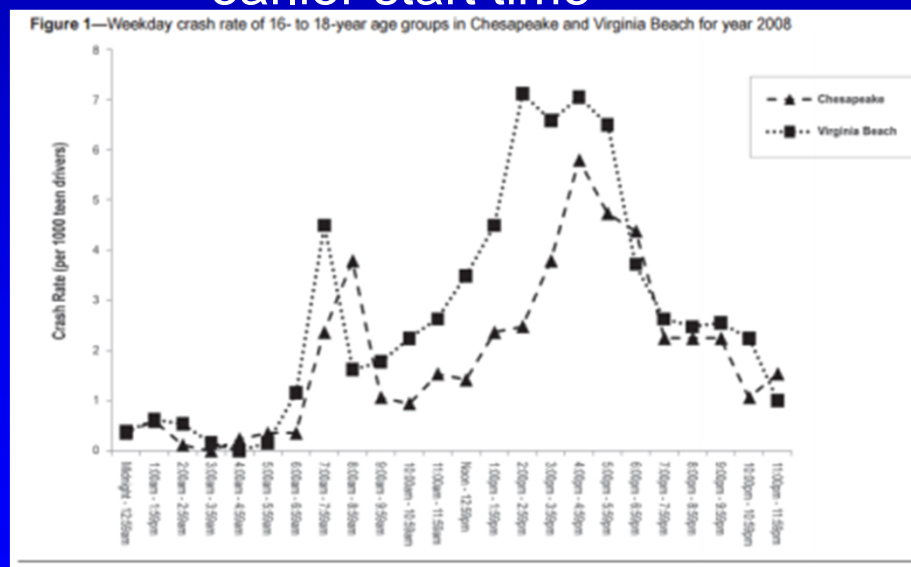
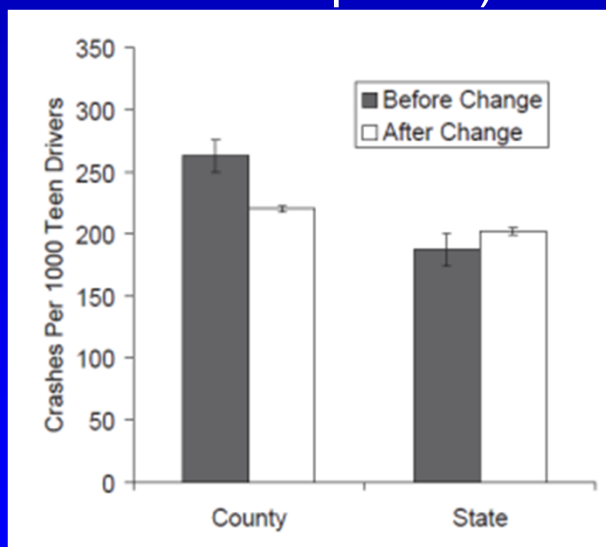
# Relationship Between School Start Times and Sleep Duration

School Start Time	7:30 AM	7:35 AM	8:00 AM	8:00 AM	8:05 AM	8:20 AM	8:35 AM	8:35 AM	8:35 AM	8:55 AM
School Year	2010-2011	2011-2012	2011-2012	2010-2011	2011-2012	2010-2011	2010-2011	2010-2011	2010-2011	2012-2013
District & State	Boulder Valley School District, CO	Teton County Schools, WY	Boulder Valley School District, CO	Mahtomedi School District, MN	Boulder Valley School District, CO	St. Louis Park High School, MN	South Washington Co., MN	South Washington Co., MN	South Washington Co., MN	Teton County Schools, WY
School	Fairview High School	Jackson Hole High School	Boulder High School	Mahtomedi High School	Fairview High School	St. Louis Park High School	Woodbury High School	East Ridge High School	Park High School	Jackson Hole High School
Sample Size	333	446	1379	884	1353	902	1249	960	1407	459
Sleep $\geq$ 8 hours/night	33.6%	44.2%	44.5%	49.7%	42.5%	49.8%	57.0%	58.9%	60.0%	66.2%

Wahlstrom KL et al, Examining the Impact of Later High School Start Times on the Health and Performance of High School Students: A Multi-Site Study (Final Report, U Minnesota, Feb 2014)

# Effect of Delaying School Start Time on Car Crash Risk

- Lexington, KY
- 7:30→8:30am school start time delay
- Average teen crash rate dropped 16.5% (vs. 7.8% risk in rest of state over same time period)
- Virginia Beach and Chesapeake, VA
- 7:25am vs. 8:45am school start time
- Average teen crash rate 41% higher in VB, with earlier start time



Danner F and Phillips B. J Clin Sleep Med 2008; 4: 533-5  
 Vorona RD et al, J Clin Sleep Med 2011; 7: 145-51

# Effect of Delaying School Start Time on Adolescent Sleep, Academic Performance and Safety (CDC Study)

- Study of 9000 students in eight high schools across three states
- 60% of students obtained 8 hours of sleep per night after delay to school start time >8:30am
- Later start times associated with:
  - Increased grades (5/6 schools)
  - Increased attendance
  - Reduced tardiness
  - Decreased car crashes (**by 70% with delay from 7:35 to 8:55 start time**)

Wahlstrom KL et al, Examining the Impact of Later High School Start Times on the Health and Performance of High School Students: A Multi-Site Study (Final Report, U Minnesota, Feb 2014)

# Challenges of Delaying Start Times

- Sports schedules
  - Delays can create challenges with darkness, need for lights, coordination with other schools
- Buses
  - Coordinating with middle and elementary schools
- Traffic patterns
- Cost
  - However, economic studies suggest costs (buses, lights for sports) more than counterbalanced by projected increased future earnings (Shapiro IZA World of Labor 2015)



# Summary

- Adolescents' biology pushes them to stay up late, wake up late
- Most school start times are not currently aligned with this biological imperative
- Mismatch leads to sleep deprivation
- Sleep deprivation degrades academic performance, increases car crash and health risks, increases depression, and increases risk-taking behaviors
- Delaying school start times is challenging, but has been found to improve students' sleep, health, performance, and safety

CITY OF NEWTON

IN CITY COUNCIL

October 16, 2017

RESOLUTION

TO SUPPORT A LATER HIGH SCHOOL START TIME

BE IT RESOLVED:

WHEREAS, the City Council acknowledges the scientifically documented benefits of a later high school start time; and

WHEREAS, the City Council recognizes the paramount importance of the health and well-being of children;

THEREFORE, BE IT RESOLVED, that the NEWTON CITY COUNCIL supports the Newton Public Schools in taking action to delay high school start times.

Under Suspension of Rules  
Readings Waived and Approved  
yeas   nays

(SGD) DAVID A. OLSON  
City Clerk