33 Education and Health Vol.33 No.2, 2015

Stacy Simera is an independently licensed social worker and certified substance abuse professional in the United States. She provides mental health counselling to children and adults, is an adjunct instructor at Start State College, serves as Chair of the Sleep Committee for the Ohio Adolescent Health Partnership, serves on the Executive Board of the national non-profit Start School Later, and was named Ohio's 2014 Social Worker of the Year by the National Association of Social Workers.

For communication, please email: ssimera@aol.com

Stacy Simera

Still Sleepless in America: The paradox of local control in education

Adolescent sleep loss is a growing concern around the world, and one of the more complicated barriers to addressing this public health issue in America is the paradox of local control.

Experts across the US, most notably the American Academy of Pediatrics, have called for middle and high school start times after 8:30am. Other US groups to support later start times include the American Academy of Child and Adolescent Psychiatry, the National Association of School Nurses, the Society of Pediatric Nurses, and the National Education Association as well as myriad state and local organizations.

There is a body of evidence linking early school start times with chronic adolescent sleep deprivation. Chronic sleep loss is linked with a host of concerns including diabetes, heart disease, more aggressive forms of cancer, car crashes, depression, suicide, substance abuse, aggression, poorer academic functioning, and more.

In regards to academic success, the nonpartisan Education Commission of the States released a policy brief last year titled 'Later Education Start Times in Adolescence: Time for concluded: Change' that "Few, any, educational interventions strongly are so supported by research evidence from so many different disciplines and experts in the field." (Kelley and Lee, 2014, pg 3)

Why, then, do schools in the US continue to run at unhealthy hours when the support is so strong and the science is so overwhelming?

Education and Health ran an editorial in 2012 titled "Sleepless in America: School Start Times" that featured examples of two Americans who were using the evidence to promote healthy school start times: California attorney Dennis

Nolan who created the website SchoolStartTime.org, and me. I have been working to raise awareness in Ohio since 2009, and now serve as chair of the Sleep Committee for the Ohio Adolescent Health Partnership and serve on the Executive Board of the national non-profit Start School Later.

Editor David McGeorge contacted me and asked if I could write this follow-up to the 2012 editorial, updating the rest of the world about the progress in Ohio and the US in protecting adolescent sleep. My initial response was that the news is not entirely positive. Awareness is raised, and some communities have acted, but unfortunately the great majority of schools in America have failed to respond to the science. Some schools, in fact, have chosen to shift to even earlier start times - primarily to accommodate bus scheduling.

This article is meant to shed light on the limitations of local control in a key public health issue that exists not only in the United States, but in other countries around the world. A documentary crew from EBS TV in Korea came to visit me last year to talk about the topic, and I heard the same stories of Korean teen sleep and stress that I hear in my own Ohio counselling practice.

Transportation: The tail that wags the dog

Transportation is an oft-cited barrier to adopting school schedules that are healthiest for the students. Former school superintendent, and now professor at Fredonia State College, Dr. Charles Stoddard famously stated: "The tail of transportation wags the dog of the educational system" (Creel, 2010).

34 Education and Health Vol.33 No.2, 2015

Health professionals are very concerned about this trend. Research consistently shows that adolescents experience a later shift in sleep cycle and need adequate sleep for health, yet we have consistently inched school start times earlier and earlier to accommodate bus schedules. Florida, for example, boasts some of the earliest bus runs in the country - including 5:05am bus pick-ups in Orange County (Maxwell, 2015).

Florida state representative Matt Gaetz proposed a state-wide bill in 2013 prohibiting high school start times before 8am, saying: "If local school districts are so caught up in the bus schedule they cannot see the forest for the trees, I think the state has the responsibility to set guidelines. At what point does the bus ride become more important than what happens at the school?" (Trimble, 2013) The bill failed, with some people arguing that the state should not impose upon 'local control'.

In America we often value local control to the point where public health is compromised and where 'control', paradoxically, is limited or lost. My state of Ohio is an example of good intentions gone bad.

Ohio: A case study of the paradox of local control

Ohio, with a population of about 11.5 million, is considered a microcosm of the United States – representing nearly all types of US industry, religions, ethnicities, political views, and geography. Ohio is also the epitome of 'local control' in education – with over 600 sovereign public school districts with its own superintendent and school board. Such localized control could lead one to assume that change is therefore easier, however it is often the opposite – and primarily due to transportation issues.

If an Ohio student chooses to attend a private or STEM school instead of his/her local public school, the public school must, in most instances, provide the student with transportation to the school of choice. Public schools also often band together to create vocational schools 'compacts' in which 5 to 15 local schools send select students to a different facility to learn a trade while completing high school. In addition, the scheduling of athletic events or other extraactivities requires a cooperation between schools in the same athletic conference.

Thus if a public school wishes to adopt later start times without cooperation from nearby schools, the resulting upheaval in transportation schedules can be daunting and possibly create an economic burden if the school must create separate bus runs for literally one or two STEM or charter school students. Because of localized control, neighbouring schools are not answerable to each other, and regional attempts at change can be thwarted by one stubborn school board. Local control has become, in this instance, the reason that local school boards have limited control over their ability to act on the recommendations of the nation's pediatricians. Local control becomes 'local lack of control'.

This paradox, and of course the overwhelming scientific evidence, is why many experts are calling for the states to step in to set healthy boundaries for school start times.

Legislation: Protecting children by setting healthy parameters

State and federal regulations to protect children are common - such as seat belt usage, graduated driver's licenses, school lunch requirements, and child labor laws. The lack of state and federal intervention on school start times, therefore, baffles most experts.

In America we pride ourselves on our child labour laws, yet look the other way when children rise in the 4 or 5 o'clock hour and walk to school or the bus stop in the dark. Given the approximately 90-minute later shift in sleep cycle experienced during puberty, and given that adolescents require approximately 90 minutes more sleep than adults - a compulsory wake time of 5am for teens is biochemically similar to a compulsory wake time of 2am for all adults something few Americans would tolerate. In recent decades, for example, changes to the regulations surrounding the work schedules of air traffic controllers, pilots, train conductors, truck drivers, and naval submarine crews have been made to further protect the sleep of working adults.

Many people have stated that early school start times 'prepare kids for the real world' – however when it comes to sleep, American adults appear to have better protection than children.

Children will also be better prepared for the 'real world' if they can make it through puberty intact. Davis et al (2013) found that 14 and 15

35 Education and Health Vol.33 No.2, 2015

year olds who were sleep-restricted experienced 50% more 'hits' and 'close calls' in virtual crosswalk situations. Milewski et al (2013) found that teens who obtained less than 8 hours of sleep per night experienced 68% more sports injuries than their peers who slept more. And Walhstrom et al (2014) found that teen drivers in school districts that adopted later school start times experienced 65% and 70% fewer car crashes. Space limits me from citing the research on the links between chronic sleep disruption and diabetes, multiple sclerosis, depression, and other conditions that limit our American goals of life, liberty, and the pursuit of happiness. To sum: later school start times can literally save lives.

Local Success: The dog CAN wag the tail

I must give credit to the communities in America who have overcome the barriers of local control, examples of which can be found on the <u>'Success Stories'</u> portion of the Start School Later website. One of the more notable is the Fairfax Public School District in Virginia. Fairfax runs the largest bus fleet in the nation and the school board recently voted to start school later in the coming 2015/2016 school year - proving that the dog can 'wag the tail' and adults can prioritize student health and learning over the daunting task of revising bus schedules. Fairfax contracted with Children's National Medical Center to study the issue, and the consultants created a **Blueprint** for Change which has generously been made publicly available.

Hundreds of schools in nearly every state in the nation have adopted later start times, but those are merely drops in the bucket. Out of the over 600 public school districts in Ohio, the following schools have adjusted starting times for adolescents due on the research, or will do so in the coming school year: Hudson, Kenston, Dublin, Northridge, Perrysburg, Westlake, and Hamilton City. We can do better.

Zzz's to A's Act: Calling for a federal study

At the national level US Congresswoman Zoe Lofgren has introduced the Zzz's to A's Act that would require the US Secretary of Education to conduct a study of the issue. However just the idea of a federal study has some members of Congress declining to support the bill, citing concerns about infringing on local control. I

commend Representative Lofgren and the bill's co-sponsors (including Ohio Representatives Tim Ryan and Joyce Beatty) for prioritizing child health. Unfortunately the Zzz's to A's Act is currently stagnant, with little expectation for success. Its opponents often point out that American education is in the hands of the states – to which health experts reply: "Then our states must do the right thing."

A Call to State Legislators: Be the hero

In September of 2014 the Aurora Sentinal in Colorado penned an editorial 'The school bell should toll later for better test scores', with the first sentence acknowledging the core issue: "The importance of local control of schools is one of the most critical components of a successful public school system, but there are times when only the state can fix a pervasive problem."

The editorial staff outlined the research and the need for state-level action, and ended the piece with this compelling plea: "All the state needs is a few state legislators ready to step up and be the hero. We're ready to take names."

I and my colleagues in the US and around the world echo that plea: Lawmakers – stand up for child health, safety, and learning. Stand up and introduce and support legislation requiring developmentally-appropriate school start times. Stand up and be the hero. Then sit back and watch our children excel.

References:

Creel, J. (2010) Get up! Sleepy teens roam school halls while debate goes on about changing start times. Buffalo News; 8 April 2010 [Accessed 11 May 2015] Available at:

http://www.buffalonews.com/article/20100408/LIFE04/304089899

Davis L, Avis K, Schwebel DC. (2013) *The Effects of Acute Sleep Restriction on Adolescents' Pedestrian Safety in a Virtual Environment.*Society for Adolescent Health and Medicine Vol 53, Issue 6, pp 785-790. http://dx.doi.org/10.1016/j.jadohealth.2013.07.008

Kelley, P and Lee, C. (2014) Later Education Start Times in Adolescence: Time for Change. Policy Brief by the Education Commission of the States. Available at: http://www.ecs.org/clearinghouse/01/12/19/11219.pdf

Maxwell, S (2015) 5 a.m. bus rides, 6:30 walks to school? All too early. Orlando Sentinal; 18 April 2015. [Accessed 11 May 2015] Available at: http://www.orlandosentinel.com/opinion/os-school-start-times-scott-maxwell-20150418-column.html

Milewski, MD, Pace, JL, Ibrahim, DA, Greg Bishop, G, Barzdukas, A. and. Skaggs, DL. (2014) Chronic lack of sleep is associated with increased sports injuries in adolescent athletes. J Pediatr Orthop. March; 34(2): 129-33. doi: 10.1097/BPO.000000000000151

Trimble, L. (2013) Lawmaker pitches plan to start high school later in the morning. Daytona Beach News Journal; 2 Nov 2013. [Accessed 11 May 2015] Available at: http://www.news-journalonline.com/article/20131102/NEWS/131109901

Wahlstrom, Kyla; Dretzke, Beverly; Gordon, Molly; Peterson, Kristin; Edwards, Katherine; Gdula, Julie. (2014). Examining the Impact of Later High School Start Times on the Health and Academic Performance of High School Students: A Multi-Site Study. [Accessed 11 May 2015] Available via the University of Minnesota Digital Conservancy: http://hdl.handle.net/11299/162769