NEW RESEARCH

COMMENTARY

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# High School Start Times and Death on the Road

Commentary on Vorona et al. Adolescent crash rates and school start times in two central Virginia counties, 2009-2011: a follow-up study to a southeastern Virginia study, 2007-2008. *J Clin Sleep Med* 2014;10:1169-1177.

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C leepiness is an important cause of car crashes, and this risk S is disproportionately prevalent and deadly in teens. More than half of fall-asleep crashes occur in drivers 25 years and younger.<sup>1</sup> Per mile driven, teen drivers ages 16 to 19 are three times more likely than drivers aged 20 and older to be in a fatal crash.<sup>2</sup> In this issue of the Journal of Clinical Sleep Medicine, Vorona et al. extend our knowledge about one important, modifiable factor contributing to teen crash and potential injury and death on the road.<sup>3</sup> They compared crash data between students who attended high school in Chesterfield County in Virginia with an earlier school start and their counterparts in Henrico County, which had a later start time, and found a higher crash rate for teens (but not adults) in the county with the earlier crash rate. These findings reinforce, replicate and extend longitudinally their previous work.<sup>4</sup> These findings also support our findings that crash rates among 16-18 year olds fell in Fayette Co, KY, following a delay in high school start times by 1 hour, while they rose in the rest of the state.<sup>5</sup>

As sleep specialists, we are familiar with the adolescent "phase delay" which pushes back sleep onset timing by approximately two hours, resulting in an optimal sleep time for most teens of 11 p.m. to 8 a.m.<sup>6</sup> And we also know about recommendations that teens get about 9 hours of sleep.<sup>6,7</sup> The reality is far from this ideal. A poll conducted by the National Sleep Foundation in 2006 showed that 75% of 12th graders reported less than 8 hours of sleep, compared to 16% of the 6th graders.<sup>8</sup>

High school start times are an important determinant of teen sleep duration; in our study,<sup>5</sup> teens not only were less likely to crash, but also actually reported getting more sleep after high school start times were delayed. Thus, one of the few modifiable risk factors for the chronic sleep deprivation of teens is high school start times. The data are now reaching critical mass. On Aug 25 of this year, the American Academy of Pediatrics issued a statement establishing their new policy recommendation that middle and high schools delay the start of class to 8:30 a.m. or later,<sup>7</sup> based on solid data.<sup>9</sup>

This is a public health problem of some importance. Because we are sleep experts, we can seize the bully pulpit, in our local communities. Armed with data, a local sleep physician can make a tremendous impact by attending a single school board meeting. Other effective strategies are being available to media and collaboration with like-minded people (a child psychiatrist and the school legal counsel were helpful in Fayette County, KY).

But beware. The issue of high school start times is complex, personal, and extremely local. There are inevitable roadblocks and valid concerns that arise whenever the issue of delaying high school start times comes up. These include concerns of parents of younger kids that their children will have to wait for school buses in the dark, complaints by athletic coaches that after-school practice will end later than they want, and attempted end-runs by teachers, parents, or staff who decide to schedule electives or extra-curricular activities *before* the start of the regular school day. It's not our job to solve these inevitable issues. Because we are clinicians and experts, we need to stick to the facts and their public health implications. And you don't have to be a sleep expert to have a stake in this issue. You could just be a parent. Or a driver.

### CITATION

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## **DISCLOSURE STATEMENT**

The authors have indicated no financial conflicts of interest.