

For the Committee on Children and Families and Workforce Development

Testimony in Support of 2009 Assembly Bill 106, August 25, 2009

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I am testifying in support of Assembly Bill 106.

As a pediatrician in this community for over 30 years, I have cared for thousands of teenagers and young adults whose health and well-being were undermined by their use of alcohol, including getting injured while drunk, engaging in unprotected or unplanned sex, and experiencing an increase in clinical depression.

As a college health physician on the UW-Madison campus, I have been privileged to provide health care to intelligent, young people, most of whom manage to balance their academic and social needs fairly well. Yet, every day in clinic I see firsthand the health consequences of high-risk drinking in young students whose lives and bright futures are too often jeopardized by their inability to say "Enough. I'm done!" The part of the brain that controls judgment, the pre-frontal cortex, simply is not as developed as the thrill-seeking centers of the brain. These judgment cells need time to grow and develop the complicated pathways necessary for higher thinking, decision-making, self-control, and the ability to focus and weigh consequences of actions. At age 18 these cells are more developed than at age 14, but the maturing process is gradual, and they are definitely not fully mature until the early 20's or sometimes mid-20's.

Federally funded research in the past decade or so has revealed the neurobiology behind the age-old problems we've seen when teenagers drink alcohol. Dr. Aaron White, a Duke University researcher said a few years ago: "We definitely didn't know 5 or 10 years ago that alcohol affected the teen brain differently. Now there's a sense of urgency. It's the same place we were in when everyone realized what a bad thing it was for pregnant women to drink alcohol." His work and that of several other cutting edge studies are summarized in a well-researched New York Times article in July 2006, "The Grim Neurology of Teenage Drinking," which I am copying for the Committee. It makes the complex science of neurotransmitter research readily understandable. I am also leaving you some recent articles from the journal, *Pediatrics*.

In addition to these "judgment cells" being less developed at any point in adolescence, alcohol disrupts their cellular connections more than other areas other brain, so the judgment center becomes even more adversely affected. The part of the brain responsible for self-control and "putting on the brakes" is itself being suppressed. Furthermore, the earlier the drinking occurs, the more likely it is that the damage will be longer-term. This includes cognitive impairment in memory, visual, and spatial functioning. Recent studies have shown that nearly half of those

who begin drinking alcohol before age 14 become alcohol dependent at some time in their lives, compared with 9% of those who wait until age 21 to start drinking.

Condoning underage drinking with parents in bars and restaurants, despite the rationalizations of some who say it encourages responsible drinking, sends a confused and unhealthy message. It is bad public policy to allow children to drink in licensed premises. We must be more proactive in the state of Wisconsin with its dubious distinction of leading the country in binge drinking, daily drinking, DUIs, and drinking in pregnancy. These children, with their impressionable brain cells needing every bit of help, are exposed to the Wisconsin “culture of drinking” in countless and subtle ways day in and day out anyway. Exposing their neurons to the chemical influence of alcohol at an early age, in Wisconsin bars and taverns, only further distorts reality and increases their odds of abusing alcohol in their teenage and adult years.

The 2007 Wisconsin Youth Risk Behavior Survey revealed that 25.2% of high school seniors had driven a car one or more times in the past month when they had been drinking alcohol. That is one out of four--a sobering statistic! Interestingly, the minimum age to rent a car in this country is usually 25, sometimes 21, but not lower, despite the fact that teenagers can legally drive. The car rental industry, long before today’s neurobiological research, understood from accident data that the judgment centers in the adolescent brain need time and maturity before they are “ready for the keys”. We should ensure that these same teenagers have the time to mature before they are “ready to drink” in bars and public premises.

I support Assembly Bill 106, which restricts the consumption to age 18 and over. While 21 years of age is more in line with brain maturation, this current bill is a big step in a healthier direction.

Thank you for your consideration.

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