

HB 476 Opponent Testimony Presented by Julie Racine, PhD. Nationwide Children's Hospital House Transportation and Public Safety Committee November 28, 2018

Chairman Green, Vice Chairman Patton, Ranking Minority Member Strahorn, and members of the House Transportation and Public Safety Committee, thank you for the opportunity to testify today in opposition to House Bill 476. My name is Julie Racine, PhD. and I am the Director of the Visual Electrophysiology Clinic and the Save Our Sight Ohio Amblyope Registry Program Director at Nationwide Children's Hospital.

Amblyopia (am-blē-'ō-pē-ə) sometimes referred to as "lazy eye," is a neuro-developmental disorder of the visual cortex that occurs when binocular visual experience is disrupted during early childhood (Williams 2008, Jefferi 2015, Solebo 2015). Amblyopia is an invisible eye disorder characterized by impaired vision in an eye that otherwise appears normal. In amblyopia, visual stimulation either fails to transmit or is poorly transmitted from the optic nerve to the brain for a continuous period of time. It can also occur when the brain "turns off" the visual processing of one eye to prevent double-vision, for example in strabismus (i.e. crossed-eyes). Amblyopia normally affects only one eye in most patients. However, it is possible, albeit rare, to be amblyopic in both eyes (Birch 2013, Gunton 2013). Not only does amblyopia result in decreased visual acuity, it can also have a negative effect on one's quality of life including impact on family, social interaction, school work, activities, feelings and behaviors (Webber 2008, Carlton 2011, Chen 2016).

Fortunately, amblyopia is a treatable condition. The most common treatment is patching. Patching requires the covering of the good eye, forcing the brain to recognize images from the amblyopic eye and correct itself. About 70% of the costs associated with treating amblyopia involves costs associated with eye patches (Konig 2004).

Amblyopia is the leading cause of visual impairment in the pediatric population in the United States and affects about 2%-3% of Ohio's children (MEPED 2008, Friedman 2009, Giordano 2009, Gunton 2013). Based on a mean birth of 142,721 per year in Ohio (derived from the Ohio Public Health Data Warehouse on residential live births by county of residence from 2006 to 2015; http://publicapps.odh.ohio.gov/EDW/DataBrowser/Browse/OhioLiveBirths), the incidence of amblyopia in Ohio is approximately 2,855 children per year (i.e.: based on a 2% incidence).

As I mentioned earlier, in addition to being the Director of the Visual Electrophysiology Clinic, I am also the Save Our Sight Ohio Amblyope Registry Program Director. The Ohio Amblyope Registry (OAR) is responsible not just for outreach and education but for the actual treatment and cure of amblyopia in children all across our state. The OAR is the first and only statewide program designed to serve the needs of children diagnosed with amblyopia and their families.

The direct sight-saving services provided through the OAR are currently generated from a \$1 or more voluntary Save Our Sight checkoff for license plate renewals. As one of the grantees of Save Our Sight, Nationwide Children's Hospital uses this revenue to provide free eye patches, education and compliance materials as well as support the OAR's staff of three. Every child, regardless of their household income, is eligible to receive treatment through the fund. Since 2000, the OAR is responsible for saving the eyesight of more than 26,000 children across Ohio.



As written, HB 476 puts our important work and treatment of children at risk by disrupting a revenue stream that has been in place since 1998. We know from others experience that adding multiple checkoffs to any one form shrinks the overall effectiveness of each beneficiary.

Working at a children's hospital, I know and have seen the excellent work and outcomes that both the Save Our Sight and Second Chance Trust fund provide to their constituencies. Having said that, I do not believe it is proper to put money ahead of our children's healthcare needs. I would encourage our legislators to explore other funding sources for the Second Chance Trust fund.

Thank you for your time and attention to this important matter.

Julie Racine, PhD Dir. Visual Electrophysiology/ Ohio Amblyope Registry Program Director Department of Ophthalmology Nationwide Children's Hospital, 700 Children's Drive, Columbus, Ohio, 43205 Phone: (614) 722-6128, Fax: (614) 722-6119 E-mail: Julie.Racine@Nationwidechildrens.org



References

Birch Eileen E. Amblyopia and binocular vision. 2013. Progress in Retinal and Eye Research. 33, 67-84

Carlton J., Kaltenthaler E. 2011. Amblyopia and quality of life: a systematic review. Eye. 25, 403-413.

Chen Y., Chen X., Chen J., Zheng J., Xu J., Xinping Y. 2016. Longitudinal impact on Quality of life for school-age childrens with amblyuopia treatment: perspective from Children. Current Eye Research. 41, 208-214.

Friedman D.S., Repka M.X., Katz J., Giordano L., Ibironke J., Hawse P., Tielsch J.M. 2009. Prevalence of amblyopia and strabismus in white and African American children aged 6 through 71 months the Baltimore Pediatric Eye Disease Study. Ophthalmology 116, 2128-2134.

Giordano L., Friedman D.S., Repka M.X., Katz J., Ibironke J., Hawes P., Tielsch J.M. 2009. Prevalence of refractive error among preschool children in an urban population: the Baltimore Pediatric Eye Disease Study. Ophthalmology 116, 739-746.

Gunton KB. 2013. Advances in amblyopia: What have we learned from PEDIG trials? Pediatrics. 131, 540-547.

Jefferi J.M., Connor A.J., Clarke M.P. 2015. Amblyopia. BMJ. 351, 1-9. Loudon S.E., Polling J.R., Simonsz H.J. 2002. A preliminary report about the relation between visual acuity increase and compliance in patching therapy for amblyopia. Strabismus 10, 79-82.

Loudon S.E., Polling J.R., Simonsz H.J. 2003. Electronically measured compliance with occlusion therapy for amblyopia is related to visual acuity increase. Graefes Arch. Clin. Exp. Ophthalmol. 241, 176-180.

Multi-Ethnic Pediatric Eye Disease Study. 2008. Prevalence of amblyopia and strabismus in African American and Hispanic children ages 6 to 72 months the multi-ethnic pediatric eye disease study. Ophthalmology 115, 1229-1236.

Solebo AL, Cumberland PM, Rahi JS. 2015. Whole-population vision screening in children aged 4-5 years to detect amblyopia. Lancet. 385, 2308.

Webber A.L., Wood J.M., Gole G.A., Brown B. 2008. Effect of amblyopia on selfesteem in children. Optom. Vis. Sci. 85, 1074-1081.

Williams C, Northstone K, Howard M, et al., 2008. Prevalence and risk factors for common vision problems in children: data from the ALSPAC study. Br J Ophthalmol. 92, 959-964.