

Significant Legislative Rule Analysis

Chapter 246-760 WAC Rules Concerning Vision Screening

[September 8, 2016]

SECTION 1:

Describe the proposed rule, including a brief history of the issue, and explain why the proposed rule is needed.

RCW 28A.210.020 tasks the State Board of Health (Board) with adopting rules for auditory and visual screening. **In 2016, the Legislature passed SB 6245 amending RCW 28A.210.020, mandating near vision screening in addition to the existing distance vision screening requirement for schools.**

The Board is proposing amendments to Chapter 246-760 WAC to modernize existing vision screening rules which will include the requirement of evidence-based vision screening tools, and will incorporate standards for near vision screening.

The proposed rule changes:

- Add a definition section
- Identify a variety of Board-approved tools by age for both near and distance vision screening
- Allow for the use of instrument based screening
- Allow for optional vision screening beyond that which is required
- Provide guidance for referrals to community providers
- Outline the qualifications for screening personnel.

Overview / Background

According to Office of the Superintendent of Public Instruction (OSPI), there are approximately one million students in school in Washington State.ⁱ About 25% of these students have a vision issue that impacts their learning; national estimates indicate that one in five students (20% to 25% for Washington) have some kind of vision issue (Ferebee, 2004ⁱⁱ). According to the literature, low-income and minority children have a greater than average risk of under-diagnosis and under-treatment of vision problems (Ganz et al. 2006ⁱⁱⁱ, 2007^{iv}; Basch 2010^v). There is sufficient evidence indicating that a substantial proportion of youth are affected by vision problems, and research indicates that untreated vision problems can hamper the learning of essential academic skills and adversely influence educational outcomes (Basch, 2010^{vi}).

In Washington, it is estimated that upwards of 250,000 students may be identified as having a vision issue requiring further evaluation by a vision care professional. Poor vision and eye health in children severely affects their ability to learn. One study found that visual factors are better predictors of academic success than race or socioeconomic status (Vaughn et al., 2006). Several studies highlight the importance of vision and the elimination of vision problems as essential to children's performance in school.

Unidentified and untreated eye disorders in children can result in delayed reading and poor overall school performance. Since visual clues are key to how sighted children learn and function, impaired vision can affect all aspects of a child's development (e.g., emotional, neurologic, cognitive and physical) by potentially limiting the range and types of information

and experiences the child processes. As a result, children with vision impairments might have an increased risk for other impairments and disabilities as well (Abt, 2009^{vii}).

The Board conducted a Health Impact Review of House Bill 1865 (which requires schools to conduct near vision screening). The review found that evidence indicates that near vision screening in schools has potential to increase the number of students who have near vision problems to be detected and treated, which, in turn, has potential to improve educational, income, and health outcomes for these students.^{viii}

The economic research is non-existent as it pertains specifically to the benefits and costs of school-based vision screening. However, there are two studies that point to the costs of untreated eye disorders (Gantz et al, 2007 and Wittenborn et al 2013)^{ix}. It might be assumed some of these may be observed during a school-based vision screening necessitating a referral for further evaluation and treatment but this has not been called out in the literature. The two studies are as follows.

Gantz, Xuan and Hunter (2007) reported that visual impairments and other conditions of the eye are among the ten most frequent causes of disability in America^{x, xi} affecting about 80 million people per year (about one-third of the U.S. population).^{xii} The cost of treating these conditions is at least \$22.5 billion in direct medical costs and \$16.1 billion in indirect costs per year. It is estimated that approximately 25 per 1,000 children < 18 years old are blind or visually impaired.^{xiii, xiv} About 2% of children entering first grade, and about 15% of children entering high school are nearsighted.^{xv} Recognizing that visual impairments can lead to increased need for special educational, vocational, and social services, the Department of Health and Human Services has responded by publishing vision-related goals in the Healthy People 2020 Objectives, including two that are specifically for children: Objective V-1 (to increase the proportion of preschool children aged ≤ 5 years who receive vision screening) and Objective V-2 (to reduce blindness and visual impairment in children and adolescents aged ≤ 17 years).^{xvi}

In a 2013 article by Wittenborn et al^{xvii}, costs were identified for the economic burden of vision loss and eye disorders. According to the authors, the economic burden of vision loss and eye disorders among the United States population younger than 40 years was \$27.5 billion in 2012 (95% confidence interval, \$21.5-\$37.2 billion), including \$5.9 billion for children and \$21.6 billion for adults 18 to 39 years of age. Direct costs were \$14.5 billion, including \$7.3 billion in medical costs for diagnosed disorders, \$4.9 billion in refraction correction, \$0.5 billion in medical costs for undiagnosed vision loss, and \$1.8 billion in other direct costs. Indirect costs were \$13 billion, primarily because of \$12.2 billion in productivity losses. In addition, vision loss cost society 215,000 quality-adjusted life years (QALYs). QALY is a generic measure of disease burden, including both the quality and quantity of life lived and is used to assess the value of money of a medical intervention.

SECTION 2:

Is a Significant Analysis required for this rule?

Yes, the Department of Health (Department) and the Board evaluated the rule and determined it is a significant legislative rule under the definition provided in statute and requires a significant analysis that includes a cost/benefit analysis. However, it has been determined that no significant analysis is required for the following portions of the rule.

Table: Non-Significant Rule Identification

#	WAC Section	Section Title	Reason
1	WAC-246-760-001	Purpose of and application of auditory and visual screening standards for school districts	Does not meet definition of a legislatively significant rule
2	WAC-246-760-010	Definitions, abbreviations, and acronyms	Does not meet definition of a legislatively significant rule

SECTION 3:

Clearly state in detail the general goals and specific objectives of the statute that the rule implements.

The goal and specific objective of the statute that this rule implements is stated in RCW 28A.210.020:

“Every Board of school directors shall have the power, and it shall be its duty to provide for and require screening for the visual and auditory acuity of all children attending schools in their districts to ascertain which if any of such children have defects sufficient to retard them in their studies.” Additionally, RCW 28A.210.020 requires vision screening to be done in accordance with procedures and standards adopted by the Board.

The proposed rules meet the objectives by revising current procedures and standards for the following components of the vision screening program:

- schedule by grade for screening
- screening tools
- clinical criteria for referral
- process for referrals to community providers
- qualifications for screening personnel
- adds near vision as required by Senate Bill 6245

SECTION 4:

Explain how the department determined that the rule is needed to achieve these general goals and specific objectives. Analyze alternatives to rulemaking and the consequences of not adopting the rule.

This rule is needed to achieve the goal and objectives identified above and to align with RCW 28A.210.020 following the passage of SB 6245 which changed near vision screening from optional to mandatory. The proposed changes to this rule are necessary to guarantee that the Board is endorsing the use of evidence-based vision screening tools and to help ensure that all children in Washington receive quality vision screening no matter which school they attend so that they are able to learn without vision problems hampering their success.

Not adopting the proposed changes would lead to being out of compliance with the intent of the law and the amendments to the law resulting from the passage of SB 6245. Research indicates that, unidentified and untreated eye disorders in children can result in delayed reading and poor overall school performance. Since visual clues are key to how sighted children learn and function, impaired vision can affect all aspects of a child's development (e.g., emotional, neurologic, cognitive and physical) by potentially limiting the range and types of information and experiences the child processes. As a result, children with vision impairments might have an increased risk for other impairments and disabilities (Abt, 2009^{xviii}).

SECTION 5:

Explain how the department determined that the probable benefits of the rule are greater than the probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented.

1. WAC 246-760-020 Frequency for schools to screen children

Description of the proposed rule: The existing rule establishes the minimum testing schedule for schools to conduct auditory and distance and near vision screening of children in kindergarten; and grades one, two, three, five, and seven. The 2016 Bright Futures Periodicity Schedule (a collaboration between Bright Futures and the American Academy of Pediatrics), recommends that school-age children receive vision screening at 5, 6, 8, 10, 12, and 15 years of age. These ages correspond to kindergarten and grades one, three, five, seven, and ten for most students. The periodicity schedule also recommends that a pediatrician conduct a risk assessment and take appropriate action at every other age between 5 and 18.^{xix} The proposed rule therefore maintains the minimum testing schedule included in the current rule as it largely reflects the recommended schedule with one exception (requiring screening in second grade rather than tenth grade). This exception is in response to the evidence described above which highlights the adverse educational impacts of unidentified and untreated eye disorders in children, emphasizing the importance of early detection.

The amendments also add language allowing schools to perform vision screening in any other grade, to conduct other optional vision screenings, or both.

Cost/Benefit Analysis:

The benefits of this proposed rule is that it maintains the screening schedule required under the current rule which reflects Bright Futures and the American Academy of Pediatrics screening recommendations as outlined above, while explicitly allowing schools to conduct: vision screening in additional grades, other optional vision screenings, or both. This language increases the opportunities a school has to identify vision problems early that can negatively impact a student's learning.

There are no new compliance costs associated with this section. Costs of conducting vision screening are included in the analysis of WAC 246-760-070 below. There are no costs associated with allowing optional vision testing as this is permitted, but not required, as resources are available.

2. WAC 246-760-070 Required vision screening

Description of the proposed rule: This new section continues to require schools to conduct distance screening; however, in 2016 the legislature passed SB 6245 requiring schools to conduct near vision screening and this proposed rule change reflects this new requirement. This section also changes the process for schools to use when they screen students. Specifically schools 1) must use Board approved tools for required school based vision screening (referenced in WAC 246-740-071), 2) must use linguistically, developmentally, and age-appropriate tools and procedures, 3) must conduct vision screening according to individual tool's screening protocol and per the online guidance of the American Association for Pediatric Ophthalmology and Strabismus, and the National Association of School Nurses, and 4) may conduct optional screening. This section replaces existing WAC 246-760-072 which is being repealed.

Cost/Benefit Analysis:

The benefit of this proposed rule is the increased opportunity to detect vision disorders that may significantly impact a child's life skills, including the ability to learn.

With the introduction of SB 6245, the Office of Financial Management (OFM) prepared a fiscal note with input from OSPI. The following information comes from that fiscal note.

The bill's (SB 6245) requirement that visual acuity screening include near vision screening would cost districts statewide approximately \$1.9M in the first fiscal year and approximately \$1.8M per fiscal in subsequent years. OSPI estimates it would cost districts \$1,836,674 per year statewide in additional school district staffing costs to carry out the near vision screening requirement.

School nurses currently screen annually for far vision acuity for the approximately 490,652 students in grades K, 1, 2, 3, 5, and 7. This bill would add screening for near vision acuity. It would take about 5 minutes per student to conduct the additional screening. Total increase in school nurse compensation cost statewide would be \$1,836,674 annually (490,652 students/5

minutes per student = 12 students per hour). It would take 40,888 hours of staff time to conduct the additional screening for all students. The average school nurse compensation is \$44.92 per hour ($\$44.92 \times 40,888 \text{ hours} = \$1,836,689$). The proposed rule also allows for the use of other school personnel and volunteers to assist with vision screening. This could bring down the costs associated with screening.

In order to implement this rule, districts would need to purchase the necessary screening equipment, which includes near vision cards as well as updated far vision testing cards required by the proposed amendments to the rule. The Department and Board are recommending that schools purchase vision screening kits which have the Board endorsed screening tools for both near and distance vision. The cost of these kits are approximately \$65 and opportunities may exist for bulk purchasing. It is possible for schools to separately purchase the distance screening tools from the near vision tools if schools have already purchased distance screening tools.

The cost for the near vision cards is as follows; this information comes directly from the SB 6245 fiscal note.

- OSPI estimates 2 screening devices (cards) would be needed for every 500 students. The cards are approximately \$30 each.
- The one-time cost for the cards would be \$60,000 (approximately 500,000 students / 500 X \$30 X 2 = \$60,000).

The enrollment and staffing cost information used in these calculations can be found on OSPI's website: "Statewide Personnel Assignment Summary Profiles 2014-15" and "Summary of Head-Count Enrollment as reported on Form P223 for School Year Ending 2015.

Most schools will likely need to purchase the kits (which include both the near vision and the updated far vision testing cards for \$65) rather than just the near vision cards. It is important to note that the need for updated distance vision screening tools was not accounted for in the OFM estimates above. The near and distance vision kits currently available include the near vision cards needed to test all grades, but only include the distance vision tools required to screen 2nd, 3rd, 5th, and 7th grade students. Schools would therefore need to purchase the distance vision screening tools for kindergarten and 1st grade students separately. It would be more cost effective to purchase the kits for 2nd through 7th grade students but purchase the near and distance vision testing cards separately for Kindergarten and 1st grade students.

According to OPSI enrollment data from 331,354 students were enrolled in grades 2, 3, 5 and 7 in October of 2015^{xx}—at a cost of \$65 per kit, using the number of cards needed per 500 students as estimated by the fiscal note, the one-time costs for the kits would be approximately \$86,152 (approximately 331,354 students / 500 X \$65 X 2 = \$86,152).

The proposed rule requires the use of LEA vision test Single LEA Symbol (at 5 feet) or single optotype HOTV letter in these two grades. While there are a few purchase options available

that would meet this requirement, the most affordable tool is the HOTV Letter Book with 50% Spaced Bars for \$55. Using the assumption made in the fiscal note that two screening cards would be needed for every 500 students, and using OPSI enrollment data October of 2015 which indicate that 163,541 students were enrolled in kindergarten and first grade,^{xxi} then this would be an additional \$35,979 (approximately 163,541 students / 500 X \$55 X 2 = \$35,979) for the distance acuity tests needed for these two grades. For the near vision tests for kindergarten and first grade students, this would be an additional \$19,625 (163,541 students / 500 X \$30 X 2=\$19,625). This would be an approximate combined cost of \$141,756 (\$86,152 + \$35,979 + \$19,625 = \$141,756) for all grades. Vendors of vision screening equipment have also indicated a willingness to create a Washington State specific kit that would include all of the screening tools needed to meet the requirements of this rule for each grade which could be offered at a price lower than purchasing each screening tool individually.

While the proposed rule also allows for the use of instrument-based vision screening devices in lieu of the optotype-based tools, the use of these devices is not required and therefore allowing the use of these tools does not impact the implementation cost of the rule.

In addition, the proposed rule allows a school to waive the screening for any student who has proof of a comprehensive eye examination by a vision care professional in the previous 12 months. This may reduce the number of students a school must screen thereby reducing costs. However, it is not known what the costs of school nurse time or other schools staff's time will be to manage and track the proof of a comprehensive eye examination. In addition, it is unclear how many students will have their vision screening waived so the potential costs or cost savings cannot be calculated reliably at this time

Additionally information on tools will be presented in conjunction with the [School Nurse Organization of Washington](#) (SNOW) conferences as well as free OSPI-sponsored online webinars. The assumption is that school nurses who were already planning on attending the SNOW conference would use this as an opportunity for training and those who weren't attending could use OSPI-organized free on-line webinars. In addition, the National Association of School Nurses will offer an on-line e-book/guide on vision screening that can be purchased for around \$6 each; OSPI estimates about 1/3 or approximately 835 of schools might purchase these with a total cost of around \$5,000.00. The estimated average cost per school over the ten year lifespan of the tools is \$7.00 per year. It is also anticipated that OSPI will provide written guidance on vision screening tools and protocols.

3. WAC 246-760-071 Required vision screening tools

Description of the proposed rule: This new section creates a list of Board-approved, evidence based screening tools by school grade that may be used by schools for vision screening. The current rule requires the use of Snellen. The Snellen testing tools are not on the proposed list of screening tools and will no longer be permitted.

Cost/Benefit Analysis:

The cost estimate of requiring these tools is addressed in the analysis of WAC 246-760-070 above. The benefit of the rule is that the Board is proposing approving updated, evidence-based vision screening tools to help ensure that all children in Washington receive quality vision screening. It also increases the probability that students will receive consistent quality vision screening no matter which school they attend.

4. WAC 246-760-080 Vision Screening procedures

Description of the proposed rule: This new section incorporates the screening and referral processes from 246-760-090 and creates the overall structure of the vision screening procedures including initial screening, rescreening and referring students for further medical assessment.

Cost/Benefit Analysis: There are no new costs associated with this section. Schools are currently required to screen, rescreen and refer students. The benefit of this section is that it clarifies the required components of school vision screening, which will make it easier for school personnel to understand and comply with the school vision screening requirements.

5. WAC 246-760-100 Qualifications for the visual acuity screening personnel

Description of the proposed rule: This section includes qualifications required for people conducting the various tasks in the vision screening program. This section requires the school nurse, the school principal or his or her designee to be responsible for the supervision, reporting and referring of students. The new proposed rule does not allow students to assist in the vision screening program except in specific circumstances.

Cost/Benefit Analysis: There may be minimal costs associated with this section if some schools need to review their volunteer recruitment procedures. However, it is impossible to determine costs as we are not sure how widespread the use of students screeners are. The benefit of this section is that identifies the minimum qualifications of people administering the screening and the required skill set for the person the school assigns as the responsible party. This structure will enable schools to involve qualified staff and personnel in their vision screening program.

Cost Benefit Summary

As described above the proposed rules establish a process for schools to safely and efficiently conduct vision screening. The rules clearly identify minimum standards including the tools, procedures and staffing qualifications for schools to use when they screen, rescreen and refer students to a licensed vision care professional to receive a comprehensive eye examination. Although the rules do create some additional cost for schools to comply with the proposed rules, largely in requiring schools to use testing tools recognized by vision care professionals and industry.

As described above, evidence indicates that a substantial proportion of youth are affected by vision problems, and research indicates that untreated vision problems can hamper the learning of essential academic skills and adversely influence educational outcomes (Basch, 2010^{xxii}).

If we conduct our cost-benefit analysis for a school then the costs are very minimal, particularly considering the multiple years of using these screening tools. OSPI indicated that these tools will last approximately 10 years.

The useful life of a screening kit is, according to OSPI, about 10 years (number of years it can be used). Thus, according to the estimates above, the average annual costs of the tools are \$14,336 ([i.e., can be calculated by dividing the total one-time costs (\$143,336) by number of useful years (10 years) based on the OFM analysis above].

Changing this rule should result in children being screened with evidence-based screening tools. The hope is that children will be referred to a licensed vision care professional to receive a comprehensive eye examination when appropriate. The addition of near vision screening also has potential to increase the number of students who have near vision problems detected and treated. In the near term this can lead to improved educational outcomes for these students, and, in the long term, it also has the potential to improve their income and health outcomes.^{xxiii}

The benefits of a well-constructed, straightforward regulatory program that regulates vision testing in schools outweigh these costs. Therefore the total probable benefits of the rule outweigh the total probable costs.

SECTION 6:

Identify alternative versions of the rule that were considered, and explain how the department determined that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives state previously.

The current rule requires schools to use Snellen eye charts to test for far vision acuity. The Snellen was developed in 1862 and measures a person's visual performance against an objectively defined and repeatable reference standard. However, new evidence indicates that other tools are recommended over Snellen because they use standard size fonts and have a higher sensitivity and specificity for vision screening. The Board and Department considered keeping the Snellen eye charts to test as well as other tools and devices currently available to test for near and far vision acuity. The tools required in the proposed rule, which does not include the Snellen eye chart, are low-cost and are the current best practice screening tools. This rule provides comprehensive guidance to schools to conduct vision screening and for the mandatory distance and near vision screening as outlined in the statute. The proposed rule

content was reviewed by vision care experts as well as school nurses to insure that these proposed rule changes would meet the needs for vision screening in the school settings.

SECTION 7:

Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

The rule does not require those to whom it applies to take an action that violates requirements of federal or state law.

SECTION 8:

Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law.

The rule does not impose more stringent performance requirements on private entities. The rule only applies to public schools.

SECTION 9:

Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by an explicit state statute or by substantial evidence that the difference is necessary.

The rule does not differ from any federal regulations or statute applicable to the same activity.

SECTION 10:

Demonstrate that the rule has been coordinated, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

The Office of Superintendent of Public Instruction has authority over Chapter 392-172A WAC - Rules for the Provision of Special Education. As required by WAC 392-172A-03020(3)(e):

(3) Each school district must ensure that:

(e) The student is assessed in all areas related to the suspected disability, including, if appropriate, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities.

This provision requires a school to assess a student's vision, if appropriate, if they are eligible for special education. The Board's proposed vision screening rule does not interfere with or waive the need for a more comprehensive vision assessment required by Chapter 392-172A WAC for this special student population.

ⁱ Office of Superintendent of Public Instruction - Report Card. Accessed July 28, 2016

<http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=1&reportLevel=State&yrs=2014-15&year=2014-15>

ⁱⁱ Ferebee, A. (2004). Childhood vision: Public challenges and opportunities. A policy brief. Washington, DC: Center for Health and Health Care in Schools, School of Public Health, George Washington University Medical Center.

ⁱⁱⁱ Ganz, M., Xuan, Z., & Hunter, D.G. (2006). Prevalence and correlates of children's diagnosed eye and vision conditions. *Ophthalmology*, 113(12), 2298-2306.

^{iv} Ganz, M., Xuan, Z., & Hunter, D.G. (2007). Patterns of eye care use and expenditures among children with diagnosed eye conditions. *Journal of the American Association for Pediatric Ophthalmology and Strabismus*, 11(5), 480-487.

^v Basch, C. (2010). Healthier Students Are Better Learners: A Missing Link in School Reforms to Close the Achievement Gap. *Equity Matters: Research Review No. 6*. Teachers College, Columbia University.

^{vi} Ibid iv.

^{vii} Building a Comprehensive Child Vision Care System (2009). A report of the National Commission on Vision and Health. Prepared by Abt Associates. Accessed August 3, 2015.

http://www.visionandhealth.org/documents/child_vision_report.pdf

^{viii} Rotakhina, S., Hoff, C., Davis, M., Kahler, K. (2016) Health Impact Review of HB 1865: Concerning Visual Screening in Schools. Washington State Board of Health.

<http://sboh.wa.gov/Portals/7/Doc/HealthImpactReviews/HIR-2016-02-HB1865.pdf>.

^{ix} The economic burden of vision loss and eye disorders among the United States population younger than 40 years. [Wittenborn JS¹](#), [Zhang X](#), [Feagan CW](#), [Crouse WL](#), [Shrestha S](#), [Kemper AR](#), [Hoerger TJ](#), [Saaddine JB](#); [Vision Cost-Effectiveness Study Group](#). *Ophthalmology*. 2013 Sep; 120(9):1728-35. doi: 10.1016/j.ophtha.2013.01.068. Epub 2013 Apr 28.

^x U.S. Department of Health and Human Services Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office; 2000.

^{xi} Verbrugge LM, Patrick DL. Seven chronic conditions: Their impact on U.S. adults' activity levels and use of medical services. *American Journal of Public Health*. 1995; 85:173-182. [[PubMed](#)].

^{xii} Tielsch JM, Sommer A, Witt K, Katz J, Royall RM. Blindness and visual impairment in an American urban population. The Baltimore Eye Survey.[comment] *Archives of Ophthalmology*. 1990; 108: 286-290. [[PubMed](#)].

^{xiii} U.S. Department of Health and Human Services Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office; 2000.

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- ^{xiv} Centers for Disease Control and Prevention (CDC) Visual impairment and use of eye-care services and protective eyewear among children—United States, 2002. *Morbidity and Mortality Weekly Report*. 2005; 54:425–429. [\[PubMed\]](#)
- ^{xv} Zadnik K. The Glenn A. Fry Award Lecture (1995). Myopia development in childhood. *Optometry & Vision Science*. 1997;74 [\[PubMed\]](#)
- ^{xvi} U.S. Department of Health and Human Services Healthy People 2020 Framework. Retrieved 11/23/2015 <http://www.healthypeople.gov/>
- ^{xvii} The economic burden of vision loss and eye disorders among the United States population younger than 40 years. [Wittenborn JS¹, Zhang X, Feagan CW, Crouse WL, Shrestha S, Kemper AR, Hoerger TJ, Saaddine JB; Vision Cost-Effectiveness Study Group. *Ophthalmology*. 2013 Sep; 120\(9\):1728-35. doi: 10.1016/j.ophtha.2013.01.068. Epub 2013 Apr 28.](#)
- ^{xviii} Building a Comprehensive Child Vision Care System (2009). A report of the National Commission on Vision and Health. Prepared by Abt Associates. Accessed August 3, 2015. http://www.visionandhealth.org/documents/child_vision_report.pdf
- ^{xix} Bright Futures Periodicity Schedule (2016). Bright Futures and American Academy of Pediatrics. https://www.aap.org/en-us/Documents/periodicity_schedule.pdf
- ^{xx} Office of Superintendent of Public Instruction October 2015 Enrollment Report. <http://www.k12.wa.us/DataAdmin/default.aspx#download>
- ^{xxi} Ibid xx.
- ^{xxii} Ibid iv.
- ^{xxiii} Rotakhina, S., Hoff, C., Davis, M., Kahler, K. (2016) Health Impact Review of HB 1865: Concerning Visual Screening in Schools. Washington State Board of Health. <http://sboh.wa.gov/Portals/7/Doc/HealthImpactReviews/HIR-2016-02-HB1865.pdf>.