HB 3000:

Supporting Vision Screenings in Oregon Schools

Oregon Department of Education

December 2013

www. ode.state.or.us

Resources for Administering Vision Screenings in Public Schools

Executive Summary

House Bill 3000 (2013) directed the Oregon Department of Education (ODE) to recommend the means for providing adequate resources for administering regular vision screenings in the public schools through grade 8 to the interim legislative committees on education no later than December 1, 2013.

This report provides background information on the need for regular school-based vision screening and the findings of a pilot project conducted in 2010 to identify an evidence-based, cost-effective method for identifying students with vision problems. The vision screening pilot project was conducted by the Oregon Lions Sight & Hearing Foundation (OLSHF) and reported to the legislature in February 2011:
http://www.ode.state.or.us/groups/supportstaff/hklb/schoolnurses/visionscreeningpilotprgm.pdf

Recommendations
Oregon Department of Education used recommendations from the pilot project report and current information about vision screening technology to form its recommendations. The overarching recommendation is to create public/private-nonprofit partnerships across the state to provide vision screening to every student at kindergarten, first, third and fifth grade. A statewide vision screening operation of this magnitude would have to include adequate resources to screen for vision problems in 197 school districts made up of 796 elementary schools serving about 165,000 students in grades kindergarten, first, third and fifth grade. The estimated total budget for implementation, including family follow up and postage for the first year would be $1,746,200 or $10.58 per student.

The break out of public/private-nonprofit partnership funding is yet to be determined. Funds for the public part of the public/private nonprofit partnership could come from the following sources:

- A Legislatively appropriated state grant-in-aid; or
- A new grant within the State School Fund.

Full Report:

http://www.ode.state.or.us/search/page/?id=397

Resources for Administering Vision Screenings in Public Schools

The Oregon Department of Education (ODE) respectfully submits the following report recommending the means for providing adequate resources for administering regular vision screenings in the public schools.

Background

The Oregon Legislature enacted House Bill 3000 in the 2013 regular session and among other vision screening requirements, directs ODE to submit to the interim legislative committees on education a report that recommends the means for providing adequate resources for administering regular vision screenings in the public schools of this state.

In 2010 the Oregon Department of Education, under the direction of the state Legislature (HB 3226) contracted with the Oregon Lions Sight & Hearing Foundation (OLSHF) to conduct a vision screening pilot program to meet a number of objectives, including recommending how to fund and implement a statewide program for providing Oregon students with vision screening. The final report was submitted to the Legislature in February 2011 and is the basis for this 2013 report. The following is the link to this report:
http://www.oregonlegislature.gov/citizen_engagement/Reports/2011_DOE_Vision%20screening%20Project.pdf

According to that Oregon Lions Sight & Hearing Foundation (OLSHF) report:

> "Vision problems can and do affect the physical, intellectual, social and emotional development of children. Early detection of vision problems can provide a child more opportunity for educational success. Because vision loss may impede normal development, the earlier vision impairments are diagnosed and treated, the more favorable the outlook for correction or improvement of the child's well-being. Experts estimate vision problems affect 25% of all school children in the United States."

The OLSHF report included a list of twelve recommendations and five different options for administering school based vision screening. These recommendations, options, and current information about vision screening technology were used by ODE in forming its funding recommendations.

NOTE: If families submit evidence that their children's vision has been screened prior to entering school, as required in House Bill 3000, fewer children may need to be screened in kindergarten or first grade. This will affect the estimated fiscal impact of these recommendations.

Recommendations
Some of the following recommendations go beyond the legislative directive for a report of how to fund vision screening in Oregon schools. Those recommendations are included because the scope of screening has a direct impact on the cost.

1. At a minimum, screen every student at kindergarten, first, third and fifth grades.

2. Use the most recent, effective and efficient vision screen technology available. Technology is changing so quickly that it is becoming cost efficient to invest in these tools. For example, at the time of the OLSHF report (2011) a photo screener was not recommended for school screenings because of its difficulty measuring the pupil when the child has dark irises or the lighting was too bright. In a recent meeting with OLSHF staff they reported that these difficulties have been overcome and they are finding the photo screener to be an accurate and cost effective option for school screenings. Currently the OLSHF is screening 1,000 children a day using the photo screener.

   Photo screeners (there are several brands) are very useful when screening pre-verbal children or children who are learning English. The device takes a picture of a child's eyes and detects possible vision issues and enables informed decision making about the need for follow-up diagnosis. It is objective and does not require the screener or child to do anything other than open their eyes and remain still.

3. Require a specific stereopsis screening (screening of how the eyes work together to create one image with depth perception).

4. Allow screening to occur anytime during the school year rather than just in the fall. Opening the screening "window" to a full school year will allow expensive screening equipment to be utilized throughout the calendar year rather than during a short time period in the fall. This should create flexibility and efficiency.

5. Create public/private-nonprofit partnerships to provide vision screening in the state. Currently there are several nonprofit organizations that provide vision screening and may be interested in such a partnership. This approach capitalizes on the work of nonprofit organizations that are able to attract and use volunteers to conduct screening and to generate private funds. ODE recommends that the public side of the partnership provide funding to private partners to secure the staff needed to conduct screenings, training of volunteers, and follow-up communication with the child's family. Private partners will provide the following services:
   a. Train staff and volunteers to conduct the screenings;
   b. Purchase and maintain screening equipment;
   c. Organize screening activities at schools;
   d. Conduct screenings;

e. Report screening results (numbers of children screened, numbers of children referred for further testing); and
f. Provide additional follow up services for referrals.

6. Require school districts to select private-nonprofit partners who are experienced in vision screening and have a proven track record of providing timely, accurate screening information.

Cost Estimates

Staff from OLSHF assisted ODE in calculating the approximate costs of funding annual vision screening of children in kindergarten, first, third and fifth grades. The following factors contributed to these calculations:

- There are approximately 165 instructional days during which vision screenings can take place.
- 796 elementary schools within 165 days mean that an average of no less than five schools would have screenings each school day throughout the school year. That's equivalent to an average of 1,000 students screened each school day.
- Screening would require approximately 16 distributed two-person teams each responsible for approximately 50 schools or 10,300 students.

Cost estimate detail:

- **$509,600** Capital equipment purchases (first year only; that amount would drop in year two). Each team will need a kit that includes:
  - 5 photo screening devices
  - 2 wireless printers and routers
  - 8 Stereopsis tests
  - 1 manual testing set up (eye charts, etc.);
  - Miscellaneous supplies such as printer ink, pens, etc.
  - Set of carrying cases, preferably with wheels, to transport and protect the equipment.

- **$475,200** Operational expense estimate that includes travel and insurance costs (current OLSHF budget is $2.88 operational expense per student and includes supplies and equipment maintenance, fuel and mileage reimbursement, per diem, liability insurance coverage, etc.).

- **$360,000** Labor expenses (roughly 28,000 hours for 32 part time field staff and 2,000 hours management and office support staff).

- **$49,500** for data management and form processing (based on $0.30 per student for printing a three part triplicate form as well as managing student results and generating summarized reports for schools and districts).

- **$276,000** Family Follow-up services (estimate 23,000 referrals and 1 hour per referral.

- **$75,900** Postage for 165,000 students (all families notified of results).

The estimated total budget for implementation, including family follow up and postage would be $1,746,200 or $10.58 per student for year one.

The break out of public/private-nonprofit partnership funding is yet to be determined. Funds for the public part of the public/private nonprofit partnership could come from the following sources:

- A Legislatively appropriated state grant-in-aid; or
- A new grant within the State School Fund.

Example

The following example is meant to illustrate the proposed public/private partnership. OLSHF was selected as the private partner in this example because of their work on the Vision Screening Pilot project and extensive experience in vision screening. Other private-nonprofit partners could include the Elks, Casey Eye Institute, and Children's Vision Foundation. This example also uses an Education Service District as the "public" part of the equation.

1. ODE grants Intermountain ESD funds to work with a private partner to provide vision screening at kindergarten, first, third and fifth grades in all schools in its area (Umatilla, Morrow, Union, Baker and Wallowa counties).
2. Intermountain ESD contracts with OLSHF to conduct the screenings.
3. OLSHF contributes to purchasing needed equipment and hire staff to recruit and train volunteers to conduct the screenings. Equipment is purchased and volunteers trained. Volunteers undergo required background checks required for all school volunteers.
4. Intermountain ESD communicates to school districts the availability of screening through OLSHF and provides each school with OLSHF contact information.
5. OLSHF staff contacts each school and schedules vision screening during the school year.
6. OLSHF works with school staff to obtain class rosters to enter into the Photo screener and conducts the Photo screening and the stereopsis screening.
7. OLSHF generates screening results for those children needing further follow-up.

In conclusion, early detection of vision problems can affect the physical, intellectual, social and emotional development of children. A cost effective approach to vision screening in public schools is to create public/private-nonprofit partnerships across the state to provide vision screening to every student at kindergarten, first, third and fifth grade.

Contact: Nancy Johnson-Dorn, Oregon Department of Education
Nancy.Johnson-Dorn@ode.state.or.us
(503) 947-5703