

State Stories for Children's Vision and Eye Health

MASSACHUSETTS: Photoscreening

Background

Under Massachusetts (MA) state law, children entering kindergarten must show, within 30 days, a pass on a Department of Public Health (DPH)-approved vision screening or proof of a comprehensive eye examination within the past 12 months. For preschoolers in a public school system, a vision screening is recommended by the DPH but not mandated, and private schools are currently exempt from any vision screening mandates.

Aim: To increase the early detection of vision disorders in children aged 3 to 5 by providing a system of vision screening through schools in low-income and underserved towns of Eastern Massachusetts.

Leadership and Expertise: Leadership was provided by the Department of Public Health; the School Health Director; Regional Nurse Consultants (responsible for the school nurses in the districts in Eastern Massachusetts); Children's Vision Massachusetts (CVMA), the organization that wrote the grant and provided technical assistance on methodology; and the School Health Corporation (the entity that provided the screening devices and operator training).

Strategies:

- **Training and Oversight.** The photo-screening devices were designated for use by three Regional Nurse Consultants (RNC) covering Eastern MA. Each RNC was responsible for facilitating their regions' operator training and transporting the device to their public and private preschool districts where needed. School nurses signed up for operator training and use of the device through a shared calendar. Outreach reminders were provided to school nurses in all districts through biweekly newsletters. A binder of materials traveled with the screening device and included a sign-in sheet; manufacturers' instructions for use; and vision information

Companion to *Children's Vision and Eye Health: A Snapshot of Current National Issues, 2nd edition*, which can be accessed at <https://preventblindness.org/wp-content/uploads/2020/07/Snapshot-Report-2020condensedF.pdf>. For more information contact info@preventblindness.org

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This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$300,000 with 5% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.

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from CVMA, including:

- » vision screening using photo-screening devices, and when to refer;
- » a list of vision disorders requiring a comprehensive eye examination (and therefore guidance to bypass screening and refer directly to an eye exam);
- » signs and symptoms of vision disorders in children;
- » what to do after a child does not pass a screening—for parents (in six languages)—to encourage follow-up to eye care;
- » a resource guide/list of MA eye care providers who treat children and accept Medicaid insurance;
- » online links to downloadable resources and information from CVMA website; and
- » a USB flash drive to download results.
- **Data Collection.** After each school nurse completed the screening, data was entered into a shared secure online document. The data included information from both the last school year and the current school year, and required:
 - » the number of preschoolers, aged 3 and 4 who had been vision screened;
 - » the number of vision-screened kindergartners had been vision screened (before the age of 5 but before their 6th birthday);
 - » the number of children who did not pass the screening;
 - » the time taken for vision screening the entire group at each school;
 - » the number of children receiving comprehensive eye examinations by the end of the school year; and
 - » additional anecdotal comments (optional but encouraged).

Successes:

• Successful Outreach

- » Greater numbers of children were vision screened earlier in the school year and additional preschools began screening.
- » State mandated screenings were completed earlier in the school year, which meant parents were informed of an earlier the screening and need for eye care when applicable, referral and children could receive needed treatment more quickly. With earlier screening dates, more time was potentially available for school nurses to attend to vision-related activities such as reinforcing the importance of follow-

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up with parents and eye care providers, as well as treatment adherence.

- » Due to a reduction in the screening time, more schools were able to participate in sharing the device.
- » Half of the school districts reported vision screening of children aged 3 to 4 for the first time.
- » Several private preschools that do not usually conduct vision screening accessed and used the photo-screener for the first time.

- **Impact on School Nurses**

- » Over 100 school nurses received new training and up-to-date information on vision screening during the first six months.
- » School nurses had direct access to up-to-date vision information and resources (via the binder).
- » School nurses were excited at having access to screening technology for this age group. Extremely shy children and those who could not speak English or follow instructions were easily screened.

- **Data Collection.** In response to the early data collection, the DPH has committed to ongoing collection, including data on vision care treatment and follow-up. Data collection has provided valuable information on the

system of care and highlights a direction of future focus—for the school as well as the state system. The previous year’s data showed poor follow-up on eye examinations compared with vision-screening failures, providing DPH the impetus to extend data collection and follow-up.

- **Sustainability.** As the device will be supported and serviced by a 5-year contract, thousands more children will have access to this method of vision screening throughout the coming years.

Challenges:

- **Data Entry.** For some nurses, data entry was problematic and as a grant-funded project, data collection was necessary within a short timeframe. For the school nurse, who had already entered data into the Electronic Medical Record, it was an additional daily task. As a result, some data was underreported or was not reported until the end of the school year.
- **Coordination of Services.** Vision screening was often done at the same time as other screenings, requiring coordination by several school staff. As the number of devices was limited (two per region) and transportation by the RNC was sometimes required over a large area, some schools were not willing to “wait” for the use of their region’s device.