MEMORANDUM November 6, 2015

TO: School Board Members

FROM: Terry B. Grier, Ed.D.
Superintendent of Schools

SUBJECT: **VISION PARTNERSHIP, 2014–2015**

CONTACT: Carla Stevens, 713-556-6700

The Houston Independent School District (HISD)'s campus-based vision screening program is designed to identify students who experience vision impairments, communicate the potential needs to students and their parents/guardians, and provide service alternatives for students to receive vision care, including services that are offered free of charge. Through a partnership between HDHHS and the Houston Independent School District (HISD) that began in 2009, vision examinations, consultations, and fittings for corrective eyewear are provided at no cost to students during special clinic events that are held throughout the school year. Services are provided through HISD, OneSight and See to Succeed (known as Kids Vision Partnership), and various community organizations. The services are led by the Houston Department of Health and Human Services and supported by the Houston Health Foundation.

Key findings are as follows:

- Campus-based vision screenings were provided to 92,894 students in all grade levels in 2013–2014 and to 92,443 students in 2014–2015. In 2013–2014 and 2014–2015, respectively, 11.9 percent and 10.9 percent of the screened students failed their vision screenings.
- From 2009–2010 to 2014–2015, an estimated 21,359 HISD students received services through the Vision Partnership program. A total of 4,282 HISD students were identified as recipients of program services during the 2014–2015 school year, an increase of 42.8 percent from 2,999 participants in 2013–2014.
- A total of 141 (50.2 percent) of HISD's 281 schools had students who participated in the Vision Partnership program, 24 more schools than the 117 schools that participated in 2013–2014.
- The primary obstacles to vision correction for students included nurses with insufficient time to coordinate timely vision care activities, nurses' difficulty in readily identifying students with unresolved vision needs due to inadequate documentation and limitations of the Chancery vision screening database, intricate logistics, parents/guardians not returning signed parental/guardian consent forms, and students' absence on the days of the clinics.
- Overall, the greatest challenge to program participation in 2014–2015 was the ongoing identification of and follow-up with the parents of students who needed vision correction in a timely manner to support their educational needs.

Should you have any further questions, please contact Carla Stevens in Research and Accountability at 713-556-6700.

Terry B. Grier
TBG

Attachment
cc: Superintendent's Direct Reports
Chief School Officers
Gwendolyn Johnson
Susan Kaler

HOUSTON INDEPENDENT SCHOOL DISTRICT

RESEARCH

Educational Program Report

VISION PARTNERSHIP
2014 - 2015

HISD | Research and Accountability

ANALYZING DATA, MEASURING PERFORMANCE.

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VISION PARTNERSHIP
2014–2015

EXECUTIVE SUMMARY

Program Description

The Houston Independent School District (HISD)'s campus-based vision screening program is designed to identify students who experience vision impairments, communicate the potential needs to students and their parents/guardians, and provide service alternatives for students to receive vision care, including services that are offered free of charge. Through a partnership between the Houston Department of Health and Human Services (HDHHS) and the Houston Independent School District (HISD) that began in 2009, vision examinations, consultations, and fittings for corrective eyewear are provided at no cost to students during special clinic events that are held throughout the school year. Services are provided through HISD, OneSight and See to Succeed (known as Kids Vision Partnership), and various community organizations. The services are led by the Houston Department of Health and Human Services and supported by the Houston Health Foundation.

Vision health may enable students to fully engage in the academic opportunities the district offers. As a supplement to the district's vision health services that are offered through campus-based vision screenings, the goal of the Vision Partnership is to enhance HISD students' achievement by ensuring that their basic vision and vision-related health needs are met. This report provides information on the district's campus-based vision screenings, participants' academic performance, as well as three aspects of the Vision Partnership program: student participation, barriers to program participation, and the academic performance of students served by the program. Due to limitations of the student-level participation and service data, this report is strictly descriptive and is not intended to be used to make causal inferences of the program's effectiveness at improving student performance in academic achievement.

Highlights

- School-level data for 223 schools in 2013–2014 and 228 schools in 2014–2015, showed campus-based initial vision screenings were provided to 92,894 students in 2013–2014 and to 92,443 students in 2014–2015. In 2013–2014 and 2014–2015, respectively, 11.9 percent and 10.9 percent of the screened students failed their vision screenings.
- Of the students who failed vision screenings, 96.5 percent were referred to a specialist in 2013–2014 and 96.9 percent were referred in 2014–2015.
- Of the 10,686 and 9,764 students who were screened and referred to a vision specialist for evaluation and treatment in 2013–2014 and 2014–2015, 63.0 percent and 65.6 percent, respectively, were treated.
- From 2009–2010 to 2014–2015, an estimated 21,359 HISD students received services through the Vision Partnership program. A total of 4,282 HISD students were identified as recipients of program services during the 2014–2015 school year, an increase of 42.8 percent from 2,999 participants in 2013–2014.
- In 2014–2015, 141 (50.2 percent) of HISD's 281 schools had students who participated in the Vision Partnership program, 24 more schools than the 117 schools that participated in 2013–2014.

- The group of Vision Partnership participants was comprised of notably larger proportions of female, Hispanic/Latino, economically disadvantaged, and LEP students than the general population of HISD students.
- The primary obstacles to vision correction for students included nurses with insufficient time to coordinate timely vision care activities, nurses' difficulty in readily identifying students with unresolved vision needs due to inadequate documentation and limitations of the Chancery vision screening database, intricate logistics, parents/guardians not returning signed parental/guardian consent forms, and students' absence on the days of the clinics.
- Overall, the greatest challenge to program participation in 2014–2015 was the ongoing identification of and follow-up with the parents/guardians of students who needed vision correction in a timely manner to support their educational needs.

Recommendations

- Provide administrative support for school nurses (or identified support staff). This should include the validation of student identification numbers for service providers and data-entry for students' vision health information for all campus screenings, vision clinic examination results, student-receipt or non-receipt of services and corrective lenses, reasons for students' unresolved vision needs, service providers, and all related vision services – with data-entry within one week following each activity. This data will improve (1) the capacity of nurses and program administrators to utilize up-to-date student information to monitor the extent to which students' vision needs are resolved, (2) the alignment between school-level reports made to the state and the student-level Chancery and HDHHS reports, and (3) the capacity to assess program participation and program impact.
- Improve communication among campus administrators, counselors, teachers, nurses, and parents/guardians regarding the academic and life-long consequences of students' poor vision health, vision care services available to students in the district, and the necessary parental and student actions for student participation in the district's vision-related services. This should include careful attention to the language used in printed materials to make it accessible to all recipients.
- Further maximize the benefits of the program for students by exploring strategies to ensure that students in need are able to receive corrective eyewear and eyewear fitting during the first semester of the school year, and timely repair and replacement of corrective lenses as needed.

Administrative Response

The value of good vision in children and its relationship to academic performance cannot be under stated, and is grounded in the fact that a state-mandated school vision screening protocol has existed for more than 50 years. Similar to other health issues, early identification of a vision deficit may play a key role in reducing later academic gaps.

Community partnerships, such as the Vision Partnership examined in this report, along with Eye Care for Kids, Christian Community Services Center, and the University of Houston's School of Optometry, provide cost effective and efficient ways to reduce vision deficits as a barrier to learning by removing cost and transportation as obstacles to accessing these vital services.

Having less-than optimal vision can contribute to students being fatigued and avoiding tasks that require good vision. In addition, behaviors such as turning the head to see, covering one eye, losing place while

reading, and avoidance of reading tasks can be demoralizing and may impact school attendance, particularly as students get older and vision problems increase.

While limitations of the report are noted, the recommendations included reflect reasonable expectations that can improve future program outcomes and data analysis. It is imperative that we continue to strive to achieve the quality of data necessary to inform program delivery through development of a “toolkit” that provides strategies for program implementation and replication, as well as for effectively evaluating student outcomes. Students such as those identified in this report depend on us to continue to contribute to improving the quality of their lives.

A review of this report also reminds us that no single source of care can be expected to be effective for all families. Therefore, it is important to help families become informed consumers of vision care resources by teaching them how to use their vision insurance and other ways to access local assets. Such actions help to establish “insurance literacy” and independence, as families are highly mobile across and within communities.

Health and Medical Services is grateful for the support of the Department of Research and Accountability and we look forward to working collaboratively with the Houston Department of Health and Human Services to implement steps to improve data collection and program management.

Introduction

Consideration of educationally relevant disparities in students' health is an important element of a comprehensive strategy for closing achievement gaps (Basch, 2011). A critical component of a strong foundation for academic achievement is healthy vision. Impaired vision reduces one's abilities to read, concentrate, and process information. Poor vision may impede academic motivation and academic success. The causal pathways through which health needs obstruct students' motivation and ability to learn are sensory perception, cognition, engagement with school, absenteeism, and dropping out. In fact, vision is among seven educationally relevant health disparities selected by school leaders as strategic priorities using three criteria: (1) prevalence and extent of health disparities negatively affecting urban and minority youth, (2) evidence of causal effects on educational outcomes, and (3) feasibility of implementing proven or promising policies and programs to address health concerns (Basch, 2011).

The Vision Partnership program aligns with the district's Strategic Direction Core Initiative 3, "Rigorous Instructional Standards and Supports." The goal of the Vision Partnership is to enhance student achievement by ensuring that the basic vision and vision-related health needs of HISD's students are met. This enables students to fully engage in the academic opportunities the district offers. The Vision Partnership alliance between the Houston Department of Health and Human Services (HDHHS) and the One Sight Foundation addresses the vision and vision-related health needs of students who need but cannot afford eye care services. Vision screenings, consultations, and fittings for corrective eyewear were provided at no cost to students or their families during special examinations that were held throughout the school year at multiple clinics in non-academic community locations. Since 2009, these services have been provided through HISD, OneSight and See to Succeed (known as Kids Vision Partnership), and various community organizations, led by the HDHHS and supported by the Houston Health Foundation.

At the beginning of each school year, students enrolled in HISD schools are screened by HISD nurses for vision impairments. When the need for vision correction is apparent, the district's nurses and health care professionals make student-referrals to specialists for eye examinations, which are followed by professional treatment when needed. The Vision Partnership is one of the programs that provide an avenue for students who are identified as needing vision correction to receive eye care and corrective eyewear free of charge. Beginning with the 2011–2012 school year, HISD has paid the cost of students' transportation to the clinic sites rather than requiring schools to do so out of their campus budgets, as previously required. Student participants have received comprehensive vision examinations that have included tests for disease, acuity, color blindness, depth perception, and muscle balance.

The purpose of this report is to provide information on student participation in Vision Partnership program, as well as student participation in HISD campus-based vision screenings. Barriers to students receiving vision correction and the academic performance of students who received corrective eyewear after they received campus-based vision screenings or were served by the Vision Partnership program are also provided in this report. However, due to limitations of the student-level data regarding program services, this report is strictly descriptive and is not intended to be used to make causal inferences of the program's effectiveness at improving student achievement.

Methods

Data Collection and Analysis

- Multiple sources of data were used to evaluate this program. Campus-level data on 2014–2015 nurse staffing and the participation and results of students whose vision was examined during 2013–2014 and 2014–2015 campus-based vision screenings were obtained from the HISD Manager of Medical and Health Services. These data were based on campus nurses' submissions for the Texas Department of State Health Services (TDSHS) Child Health Reporting System report.

- The 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey provided additional campus-level data.

- HISD Chancery Student Information System (Chancery) Ad Hoc Student Health Vision Test Results were obtained from the HISD IBM Cognos database for 2014–2015. A total of 83,951 unduplicated students' records were retrieved and 1,934 records had data sufficient for this analysis. For analyses of campus-based screening outcomes, Chancery Vision Screening data that included "Result" (i.e., "fail" "pass," or "pass and complete" outcome) and "Solution" (i.e., "glasses," "contacts," "no correction required", or "N/A" regarding plan for vision correction) were used. Default, inconsistent, or missing "Result" or "Solution" data were found for 82,017 students whose data were not utilized for this report.

- For the 2014–2015 school year HDHHS submitted more than 4,510 unduplicated records for Vision Partnership participants from HISD schools. Of these, 4,282 students' information was found in the HISD Chancery database and their records were retained for this analysis.

- For analyses of Vision Partnership outcomes, data from HDHHS "NEELGL" (student needed glasses based on examination following campus-based screening) was used in conjunction with HISD Vision Test Results "Solution" (final outcome of vision care). However, data between the two datasets were often incompatible.

- The actual numbers of Vision Partnership participants who received eyewear through the Vision Partnership could not be determined.

- HISD vision screening data were more often missing for students whose "Result" was "Failed" or whose data showed "NO" for "NEEDGL." Therefore, datasets for many of the students who did not need vision correction were incomplete, while data were more often available for students who needed vision correction. This deficit precluded the ability to compare differences in outcomes between program participants who needed vision correction and program participants who did not need vision correction.

- Student achievement results in this report include only those students whose data showed they needed and received vision correction through any source. Generally, these students were identified participants of the campus-based screenings and/or the Vision Partnership who received vision correction and for whom sufficient data were available for vision-related services, vision examination solutions, and at least one 2014–2015 State of Texas Assessments of Academic Readiness (STAAR) or STAAR End of Course (EOC) examination.

- Demographic and academic outcome data were retrieved through the district's Chancery, Public Education Information Management System (PEIMS), STAAR, and STAAR EOC databases. School counts and school levels were obtained from the HISD School Information database for 2014–2015.

- The proportions of participating students who met the Level II Satisfactory (Phase-in 1) performance standards on STAAR reading, mathematics, writing, social studies, and science and STAAR EOC Algebra I, English I, English II, Biology, and U.S. History in 2014–2015 were assessed. In this analysis of students' academic performance, districtwide student performance was used only as a context to consider the performance of program participants. Participating students were not matched to their peers districtwide because unidentified program participants were among the districtwide population, which precluded the mutual exclusivity between the groups.

- Due to limitations of the Chancery and HDHHS student-level participation and service outcome data, this report is strictly descriptive and is not intended to be used to make causal inferences of the program's effectiveness at improving student performance in academic achievement.

- Districtwide results were obtained from the 2015 Texas Education Agency - Pearson Summary Reports, May 2015 student-level data file, the Spring 2015 STAAR Grades 3–8 Results: Phase-In Standards report, and the 2014–2015 STAAR EOC Results: Phase-In Standards report. Student-level achievement results were obtained from the HISD IBM Cognos STAAR Test and STAAR EOC Test databases.

- Student performance indicators for students who participated in the campus-based vision screenings and received vision correction were analyzed. In addition, the performance of students who participated in the Vision Partnership and received vision correction was analyzed. Some Vision Partnership participants were documented in the Chancery Vision Screening database as students who received vision screenings on their campuses. The 2014–2015 STAAR (n=1,790) and STAAR EOC results (n=126) were assessed for screened students who received vision correction. In addition, 2014–2015 STAAR (n=1,213) and STAAR EOC results (n=37) were assessed for Vision Partnership participants who received vision correction.

- Insights regarding program services, program participation, and impediments to program involvement were provided through interviews with the HISD Manager of Medical and Health Services and through the 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey), administered to 252 HISD campus-based nurses from May 14, 2015 through May 22, 2015.

- Out of 252 campus-based nurses across 70 campuses, a total of 73 (29.0 percent) responded to the 2014–2015 Nurse Survey. Of the respondents, 58 nurses (79.5 percent) were on campuses that participated in the 2014–2015 Vision Partnership program.

- In early May 2015, HISD campus nurses identified 1,951 students who had not resolved their vision needs (according to district records), either by not returning signed consent forms or by returning signed consent forms, but not participating in 2014–2015 vision clinics. The parents/guardians of 269 (13.8 percent) of the identified students were contacted and 134 (49.8 percent) completed a parent/guardian survey for students enrolled in 46 HISD schools. The parents/guardians verbally completed 137 parent/guardian surveys through HDHHS telephone

outreach efforts that were conducted by HISD's Medical and Health Services staff. Three parents/guardians completed multiple surveys for different children. The survey primarily addressed parents'/guardians' adherence (or lack of adherence) to vision screening or examination recommendations. Fifty-three (39.6 percent) of the parents/guardians provided reasons their students did not attend vision clinics as recommended.

Data Limitations

- Fewer than one-third of the nurses who were invited to participate in the survey completed it, limiting feedback for nurses' experiences and insights.

- Fewer than 15 percent of the parents/guardians of students identified as needing vision care follow-up in May 2015 responded to the parent/guardian survey, limiting data on parental/guardian adherence to vision recommendations for their students.

- Student-level data to identify the 2013–2014 and 2014–2015 participants of campus-based vision screenings and the results of their screenings as reported to the TDSHS were not sufficient to assess participants' academic achievement.

- Sufficient data for this analysis were available for a small portion of screened students. Chancery data used for this analysis were insufficient to identify each participant of campus-based screenings and whether or not the student needed and received corrective eyewear. The providers of students' corrective eyewear were also not identified in the data. The deficiencies precluded performance analysis of students who received corrective eyewear in comparison to students who did not. Missing and inconsistent data disallowed the selection of a comparison sample of students to match with the students who had complete and consistent datasets.

- The Vision Partnership administrator reported the HDHHS data did not indicate which Vision Partnership participants who needed corrective eyewear received glasses or contact lenses through the program. This precluded performance analyses for Vision Partnership students who received their corrective eyewear when compared to students who did not.

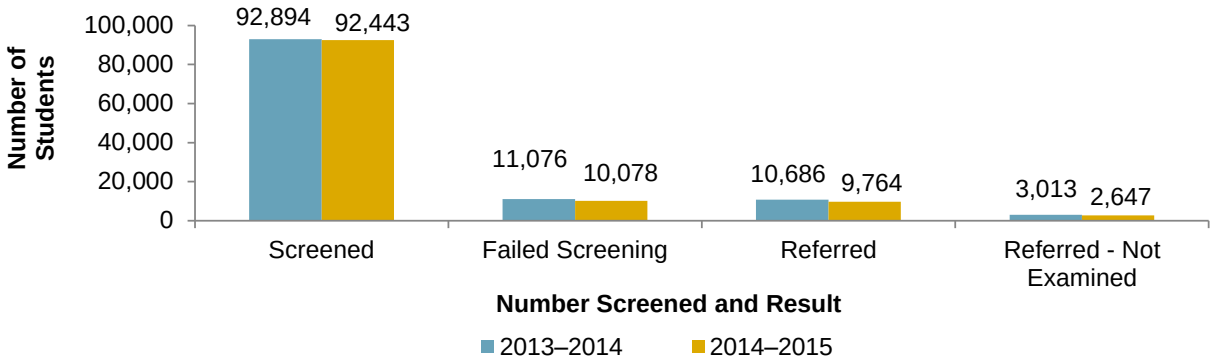
Results

- A total of 45.7 percent ($45,682) of the $100,000 2014–2015 program budget was used to provide transportation to Vision Partnership Clinics and corrective eyewear for eligible students. The 2013–2014 and 2014–2015 budgets were equal. However, a greater portion of the budget was expended in 2014–2015, when compared to 35.8 percent ($35,820) in 2013–2014. In addition, a clerk was hired in 2014–2015 to assist and follow-up with parent/guardian consent forms, phone calls, and data entry.

How many students participated in the HISD campus-based vision screenings in 2013–2014 and 2014–2015?

- School-level data reported to the Texas Department of State Health Services (TDSHS) for 223 schools in 2013–2014 and 228 schools in 2014–2015, showed campus-based vision screenings were provided to 92,894 students in 2013–2014 and to 92,443 students in 2014–2015, a decrease of 0.5 percent (**Figure 1**, page 8).

Figure 1. Number of students screened during campus-based vision screenings and results of the screenings as reported to TDSHS, 2013–2014 and 2014–2015



Source: Texas Department of State Health Services (TDSHS) Child Health Reporting System, 2014–2015.

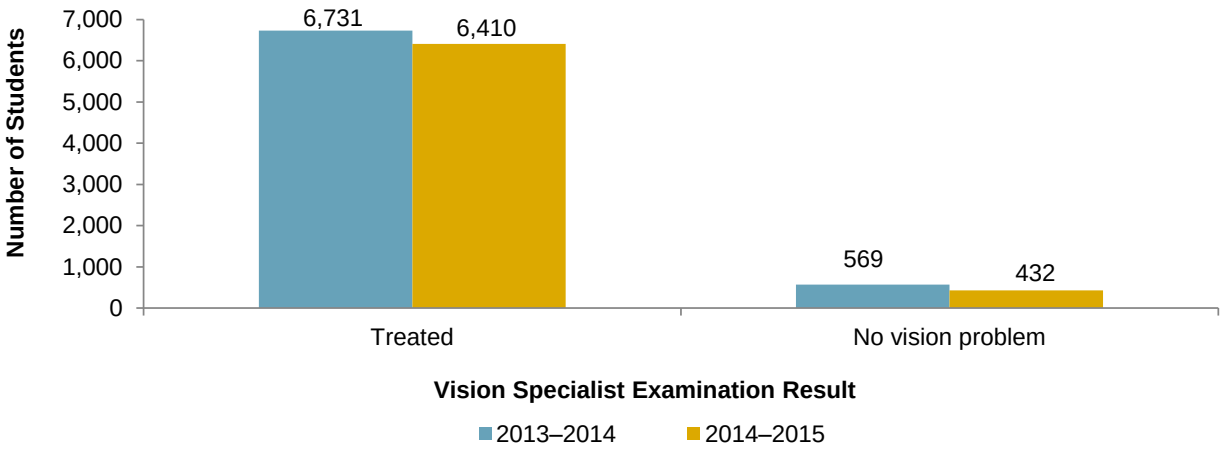
- Reports for 2013–2014 and 2014–2015 indicated 11.9 percent and 10.9 percent of the screened students failed the vision screening in the respective years. Of the students who failed their screenings, 96.5 percent in 2013–2014 and 96.9 percent of the students in 2014–2015 were referred to a specialist (Figure 1).

- Of the referred students, 28.2 percent in 2013–2014 and 27.1 percent in 2014–2015 were not documented as being examined by a specialist during the academic year.

- Figure 1 and **Figure 2** (page 9) reveal that of the 10,686 and 9,764 students who were referred to a vision specialist for evaluation and treatment in 2013–2014 and 2014–2015, respectively, a greater proportion of students were treated for vision impairments in 2014–2015 (65.6 percent) than in 2013–2014 (63.0 percent).

- In addition, Figure 2 (page 9) shows 7.8 percent of the 7,300 students who were documented as examined in 2013–2014 and 6.3 percent of the 6,842 students examined in 2014–2015 were examined by a vision specialist and were found to have no vision problem. This shows the degree of accuracy of the campus-based screenings in determining students' need for vision care by a specialist was high in 2013–2014 and improved in 2014–2015.

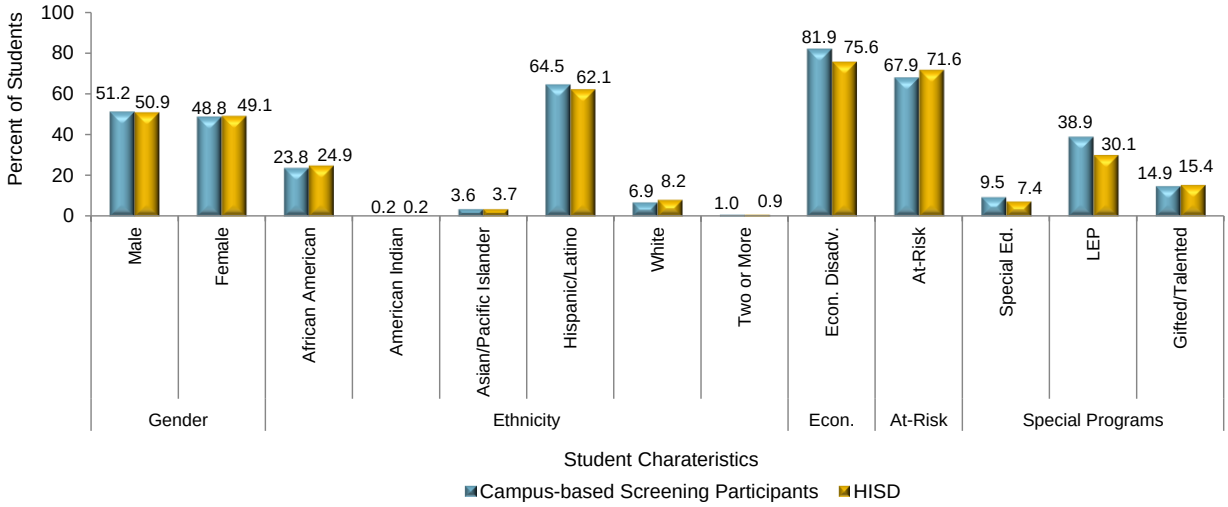
Figure 2. Number of students with reports of treatment or of no vision problem following campus-based vision screenings as reported to TDSHS, 2013–2014 and 2014–2015



Source: Texas Department of State Health Services (TDSHS) Child Health Reporting System, 2014–2015.

- Demographic data were available for 83,951 participants of campus-based screenings. **Figure 3** shows the demographic characteristics of these students were very similar to those of their peers across the district (i.e., equal to or less than 1.0 percentage point difference) in the following characteristics: male/female, American Indian, Asian/Pacific Islander, students of two or more races, and gifted/talented students. The most notable differences between the groups included greater proportions of economic disadvantaged and LEP students among the students who participated in campus-based screenings (**Table 1**, page 30).

Figure 3. Demographic characteristics of students who participated in campus-based screenings and their peers districtwide, 2014–2015

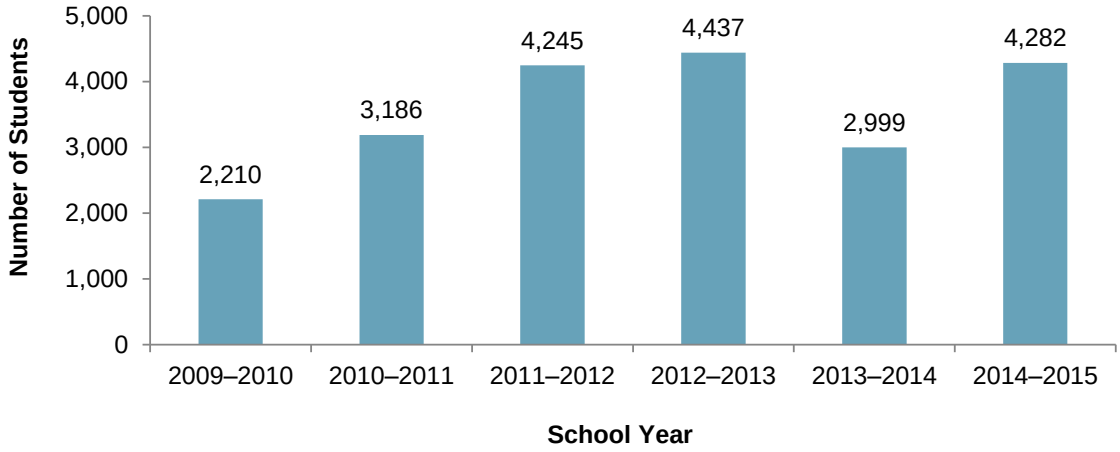


Source: Chancery, July 27, 2015; PEIMS 2014–2015.

How many HISD students and schools participated in a Vision Partnership Clinic?

- During the six years of program implementation, from 2009–2010 to 2014–2015, Vision Partnership Clinics provided examinations and/or treatments to at least 21,359 HISD students. Program participation increased 93.8 percent from 2,210 in 2009–2010 to 4,282 in 2014–2015. Also notable was an increase of 42.8 percent from the 2,999 participants in 2013–2014 to 4,282 in 2014–2015 (**Figure 4**).

Figure 4. Vision Partnership participants, 2009–2010 to 2014–2015

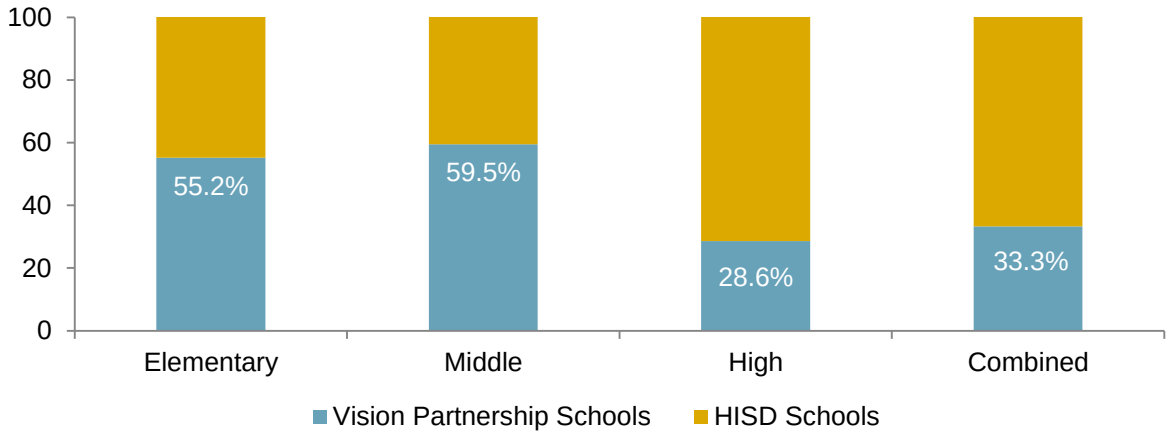


Note: Participants refers to students who were examined at a Vision Partnership Clinic and who may or may not have received vision correcting eyewear through a Vision Partnership provider.
Source: Department of Research and Accountability, February 2015.

- **Figure 5** (page 11) shows the academic levels of HISD schools with students who participated in at least one 2014–2015 Vision Partnership Clinic. In 2014–2015, 141 (50.2 percent) of HISD's 281 schools had students who participated in the Vision Partnership program, 24 more schools than the 117 schools (41.8 percent) that participated in 2013–2014 (Department of Research and Accountability, February 2015).

- The number of participating schools decreased as the academic level increased. The highest participation rate was among middle schools (22 out of 37), followed by elementary schools (100 out of 181), combined schools (7 out of 21), and high schools (12 out of 42) in 2014–2015.

Figure 5. Campus participation in Vision Partnership Clinics and the percentage of participating HISD schools by school level, 2014–2015

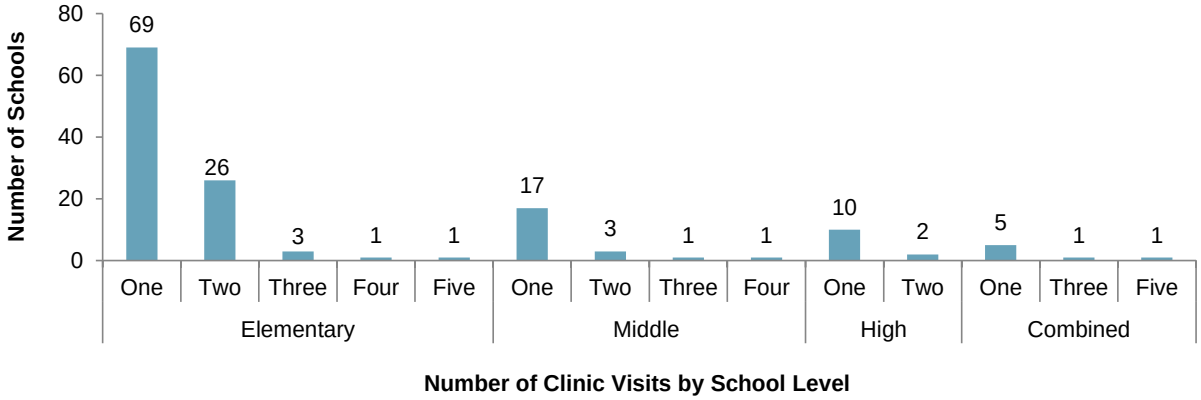


Source: HDHHS 2014–2015 Vision Partnership Clinic data; HISD School Information 2014–2015 data.

- HISD students from 141 schools participated in a total of 196 visits to Vision Partnership Clinics in 2014–2015, comprising one to five visits per school. This constituted a 42.2 percent decrease in clinic visits when compared to 339 visits to Vision Partnership Clinics in 2013–2014, which also comprised one to five visits per school (Department of Research and Accountability, February 2015).

- The number of clinic visits conducted by schools is shown by school level in **Figure 6**. Most of the 141 schools participated in one clinic (n=101 or 71.6 percent), with elementary schools comprising 68.3 percent of those schools (**Table 2**, page 31–32).

Figure 6. Number of campuses by the number of Vision Partnership Clinic visits and school level, 2014–2015



Source: HDHHS 2014–2015 Vision Partnership Clinic data; HISD School Information 2014–2015 data.

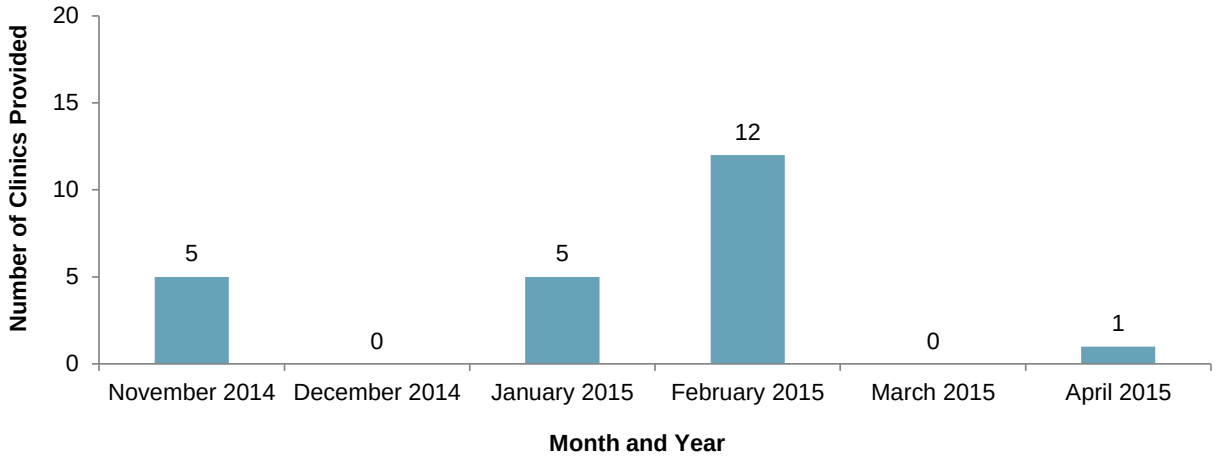
- A total of 31 schools (22.0 percent) participated in two clinics and 83.9 percent of those schools were elementary campuses. Five schools (3.5 percent) participated in three clinics, with elementary schools comprising 60.0 percent of these schools. One elementary and one middle school campus (1.4 percent) participated in four clinic visits, and one elementary and one combined school (1.4 percent) participated in five clinics (Figure 6).

- Opportunities for students to attend Vision Partnership Clinics were provided during five of the nine months of the 2014–2015 school year, as compared to four of the nine months of the 2013–2014 school year. **Figure 7** shows the month and year during which 23 Vision Partnership Clinics were scheduled for students' eye examinations and vision correction.

- Five clinic dates were provided during the fall semester and 18 clinic dates were offered during the spring semester for a total of 23 clinics offered during the 2014–2015 school year (Figure 7).

- This represented a 34.3 percent decrease from the 35 clinic dates provided during the 2013–2014 school year (15 dates in the fall and 20 dates in the spring), with 10 fewer clinic dates provided in the fall 2014 and two fewer clinic dates in spring of 2015 when compared to last year (Department of Research and Accountability, February 2015).

Figure 7. Number of Vision Partnership clinics provided by month and year, 2014–2015

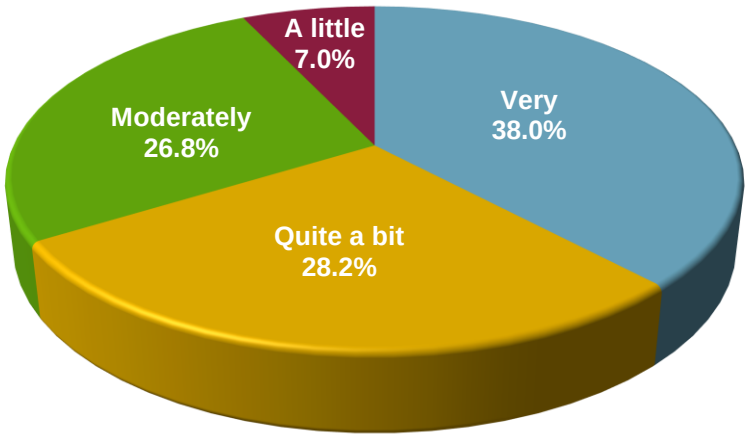


Source: HDHHS 2014–2015 Vision Partnership Clinic data.

- 2014–2015 Nurse Survey data for 71 of the 73 respondents revealed nurses' familiarity with the Vision Partnership program differed notably, but most responding nurses had at least a moderate level of familiarity (**Figure 8** and **Figure 9**, page 13). About two-thirds of the nurse respondents reported they were "quite a bit" or "very" familiar with the program, more than one-fourth reported being "moderately," familiar, and 7.0 percent reported being "a little" familiar, while none of the nurses reported they were "not at all" familiar with Vision Partnership.

- Nurses' familiarity with the program was greater among nurses on campuses where the program was implemented as compared to nurses on campuses where the program was not implemented (Figure 9, page 13). Of the responding nurses, 58 (81.7 percent) stated their campuses participated in the program in 2014–2015 and 13 (18.3 percent) stated their campuses did not participate.

Figure 8. 2014–2015 Nurse Survey responses to "How familiar are you with the Vision Partnership program?"

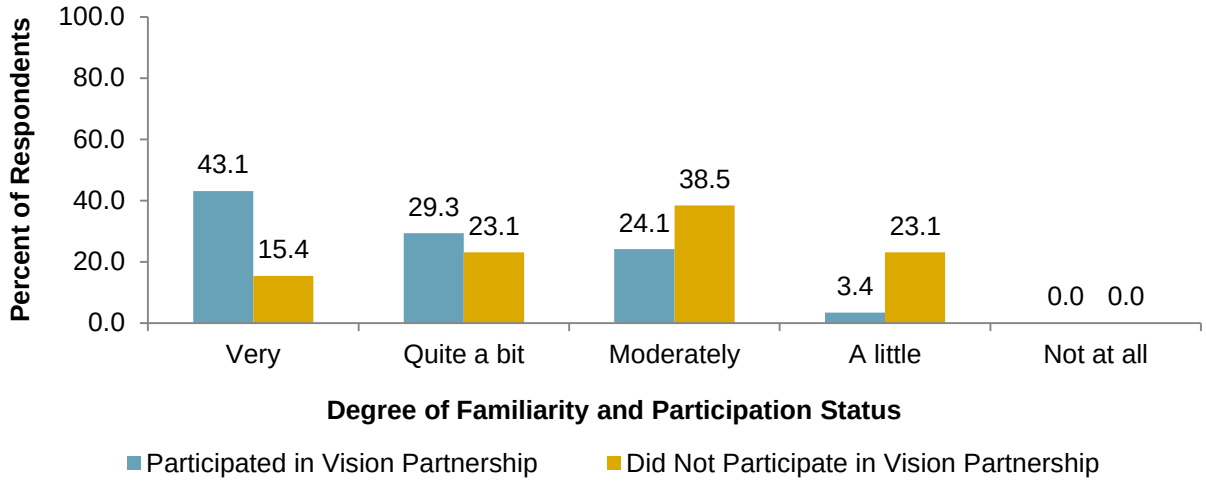


Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey), n= 73 respondents.

- Of the 58 nurses on participating campuses, 42 (72.4 percent) reported they were "very" or "quite a bit" familiar with the program and 14 nurses (24.1 percent) reported they were "moderately" familiar with the program, and two nurses (3.4 percent) said they were "a little" familiar with the Vision Partnership program (Figure 9).

- A different trend emerged among 13 nurses on campuses that did not participate in the program. A total of five nurses (38.5 percent) indicated they were "quite a bit" or "very" familiar with the program, while another five nurses (38.5 percent) reported being "moderately" familiar and three nurses (23.1 percent) said they were "a little" familiar with the program.

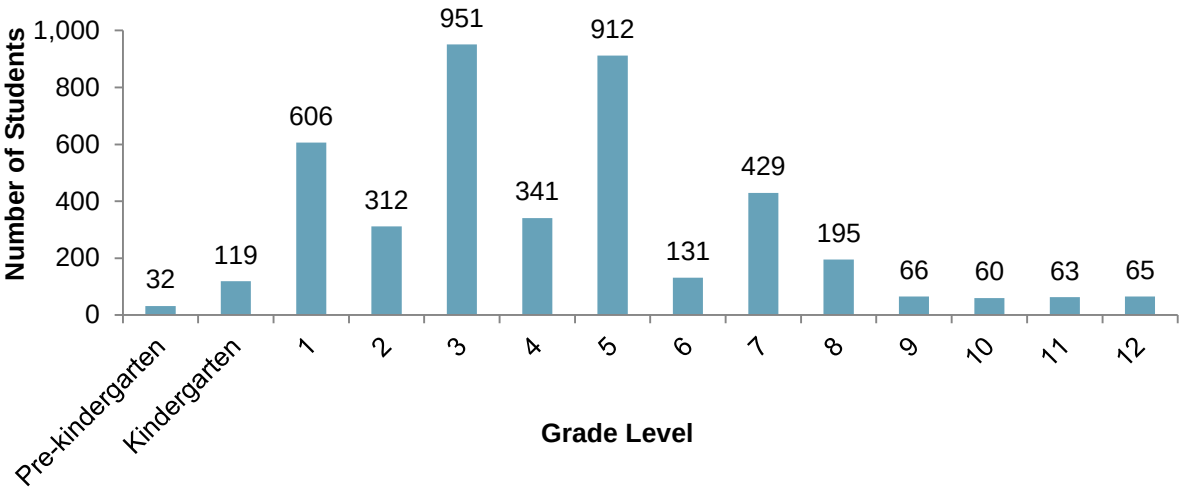
Figure 9. Status of campus participation in Vision Partnership by nurses' reported degree of familiarity with the program, 2014–2015



Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- **Figure 10** shows the number of identified Vision Partnership Clinics participants in 2014–2015 by grade level (n=4,282). The largest groups were 3rd and 5th grade students and the smallest groups were pre-kindergarten and high school students. A total of 76.4 percent of participants were elementary (pre-kindergarten to grade 5), 17.6 percent were middle (grades 6–8), and 5.9 percent were high school (grades 9–12) students (**Table 3**, page 32).

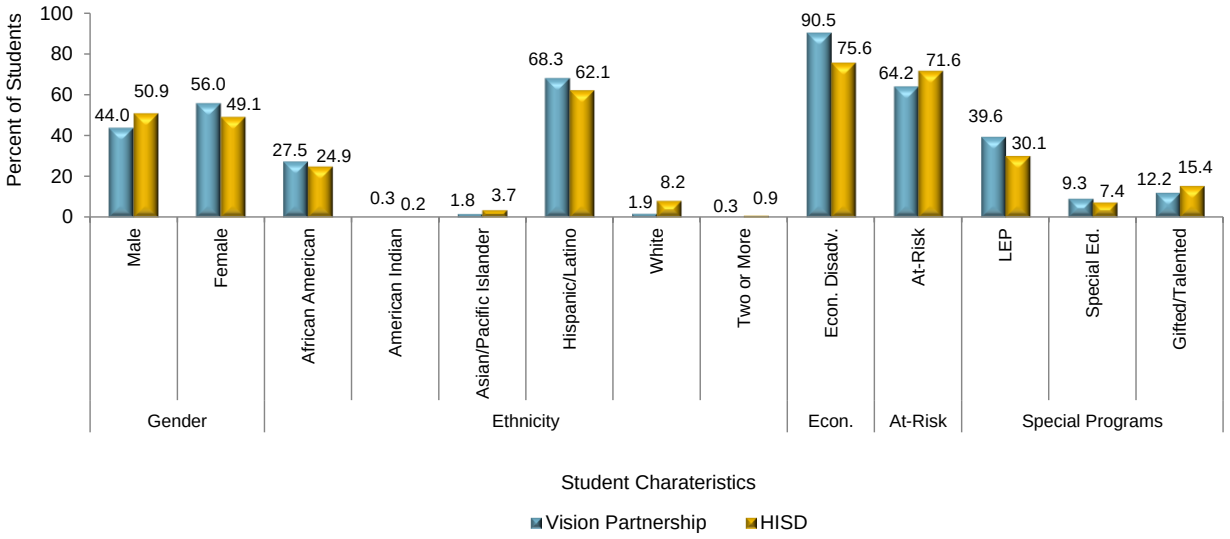
Figure 10. Number of Vision Partnership participants by grade level, 2014–2015



Source: Source: HDHHS 2014–2015 Vision Partnership Clinic data; Chancery, July 27, 2015.

- The demographic characteristics of Vision Partnership Clinic participants and of all students across the district 2014–2015 are presented in **Figure 11** and Table 1, page 30. Vision Partnership participants comprised notably larger proportions (i.e., difference is equal to or greater than 5.0 percentage points) of female, Hispanic/Latino, economically disadvantaged, and LEP students than the general population of HISD students, while proportions of male, White and at-risk students were notably larger among HISD students districtwide.

Figure 11. Demographic characteristics of Vision Partnership participants, 2014–2015



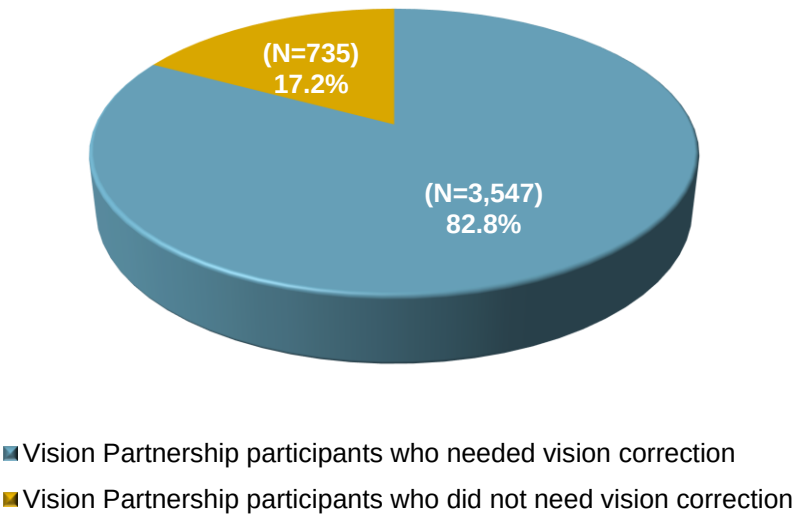
Source: HDHHS 2014–2015 Vision Partnership data; Chancery, July 27, 2015; PEIMS 2014–2015; and 2014–2015 HISD District and School Profiles.

- Proportions of Vision Partnership participants and their peers across the district were comparable (i.e., equal to or less than 1.0 percentage point difference) among students with the following characteristics: American Indian, and two or more races. More moderate proportional differences between program participants and students across the district included the following characteristics (from smallest to largest difference): Asian/Pacific Islander, special education, African American, and gifted/talented students (Figure 11, page 13).

- Of the 4,282 students who were identified through vision screenings on their campuses as needing vision correction and who were examined at Vision Partnership Clinics during the 2014–2015 school year, 3,547 (or 82.8 percent) of them needed some form of vision correction (**Figure 12**). This indicated a lower rate of confirmation of need when compared to 2,680 (or 89.4 percent of the 2,999) students for whom confirmations of need for vision correction were made at Vision Partnership Clinics in 2013–2014.

- Neither the district nor the service providers obtained documentation to confirm whether or not and when students who needed vision correction received corrective eyewear.

Figure 12. Number and percent of Vision Partnership participants who were examined and who needed and who did not need vision correction, 2014–2015



Source: HDHHS 2014–2015 Vision Partnership data

What were other sources of students' vision correction in 2014–2015?

- Nurse Survey respondents indicated the following sources were used in addition to the Vision Partnership to obtain vision correction services for students: Eye Care for Kids, Christian Community Services Center (CCSC), University of Houston Optometry, and parental/guardian selected sources to address their child's vision needs.

What were the challenges for students to receive vision correction in 2014–2015?

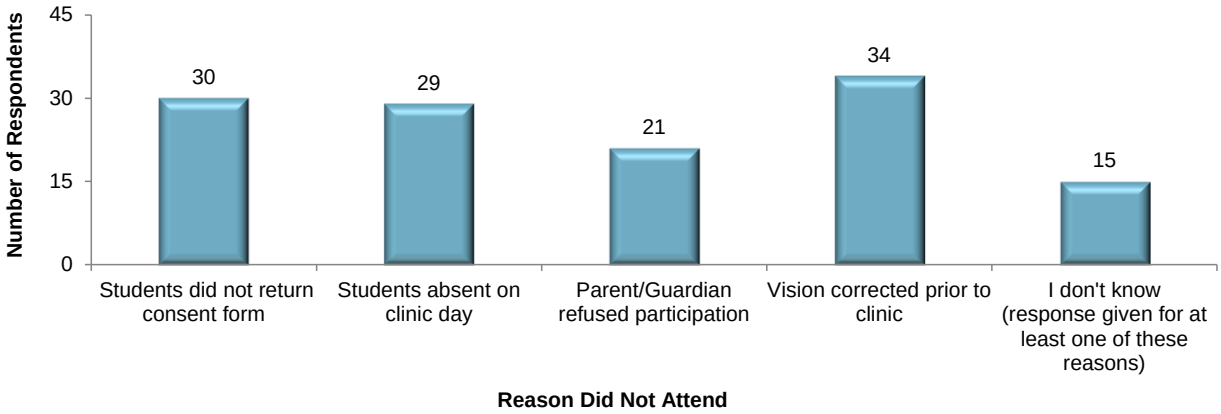
- Results from the 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey), communication with HDHHS Vision Partnership administrators, and interviews

with the Manager of Medical and Health Services yielded the following insights regarding impediments to ensuring that students received vision correction.

- Nurses were unable to access the current school year's or any single year's Chancery vision screening data. This made it difficult to readily identify students who did not pass a vision screening in 2014–2015 (or previously, in 2013–2014) and to identify students who continued to need outreach, follow-up examination, and/or corrective eyewear.
- The responsibilities of campus-based nurses are extensive. Nurses' survey responses indicated some of them struggled with paperwork completion, transportation logistics, or finding adequate time and staff to assist with the varied tasks to coordinate student participation in campus-based vision screenings or the Vision Partnership, especially with students for whom multiple contacts were necessary to secure their vision correction.
- Some nurses stated they were not on their campuses enough time to coordinate vision care activities in a timely manner, especially for students to obtain corrective eyewear during the fall semester. This claim was grounded in the following staffing counts: Of the 252 campus-based nurses at 283 HISD schools, 207 (82.1 percent) served as the sole, full-time nurse. Four nurses (two on each of two campuses) shared the responsibilities of two full-time nurses and three nurses divided the nursing responsibilities at two campuses among them. Most reflective of the problem was the 22 part-time nurses (8.7 percent) who served as the sole nurse to address the needs of all students on their campuses.

- **Figure 13** shows duplicated 2014–2015 Nurse Survey responses for 54 (93.1 percent) of the 58 nurses who reported that their campuses participated in the Vision Partnership program. The results indicate some students missed Vision Partnership clinic opportunities primarily because they did not return signed parental/guardian consent forms for various reasons (30 or 55.6 percent), vision correction was obtained from another source prior to the vision clinic event (34 or 63.0 percent), and because students were absent on the day of the clinic (29 or 53.7 percent). In addition, seven nurses (13.0 percent) said some students transferred out of the school prior to the clinic event. (See **Table 4**, page 33 for additional details.)

Figure 13. Number of Nurse Survey responses by the reasons students who were referred to Vision Partnership Clinics did not attend, 2014–2015



Note: Some nurses provided multiple responses.

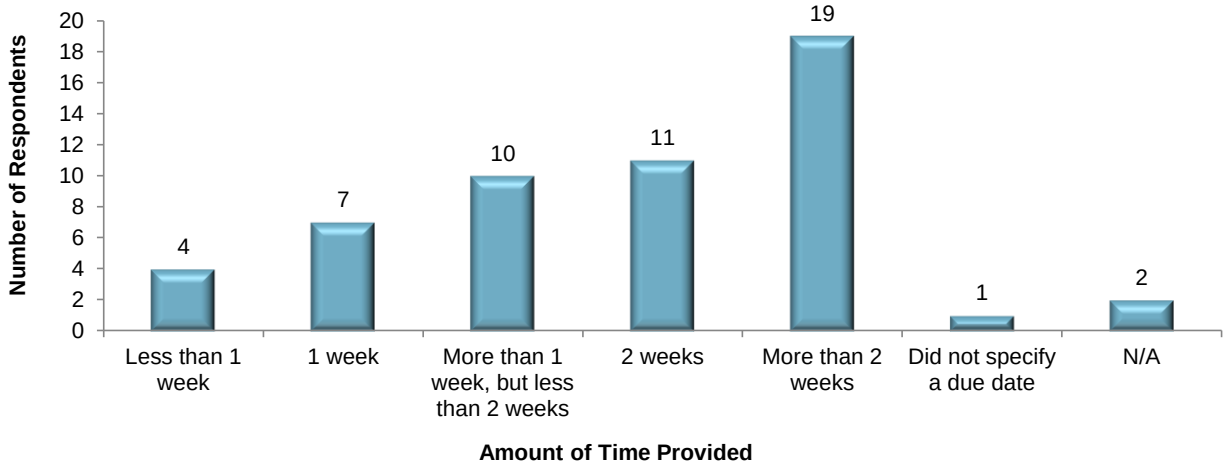
Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- Nurses also indicated students missed Vision Partnership clinics because parents/guardians refused their children's participation in vision care opportunities (21 or 38.9 percent). Nurses also suggested parents/guardians refused participation because they did not believe the corrective eyewear would really be free, parents/guardians did not see good vision as a priority, parents/guardians were unmotivated to complete the paperwork, and nurses had problems contacting the parents/guardians (Figure 13, page 15).

- Nurses reported they encountered parents/guardians who said they would handle their children's vision needs, parents/guardians who did not want their children to ride the bus to the clinic, students who arrived to school late and missed the buses to the clinic, students not wanting to wear corrective eyewear, a student who chose to attend a field trip rather than visit the clinic, and children who were in urgent need of vision correction and received glasses from a different service provider. Nurses also reported that children under the age of six did not qualify for the Vision Partnership program and parents/guardians chose the services of other providers for other reasons.

- The 2014–2015 Nurse Survey responses showed the allotted time for students to return signed parent/guardian consent forms for Vision Partnership participation. Of the 54 nurses who participated in the program and responded to the item, 30 or 55.6 percent stated students on their campuses were allowed two or more weeks to return their signed consent forms; 17 or 31.5 percent said they allowed at least one week, but less than two weeks; and 4 or 7.4 percent said students were given less than one week to return signed consent forms. Only one nurse (1.9 percent) indicated no due date was specified (**Figure 14**).

Figure 14. Number of Nurse Survey respondents by the amount of time provided for students to return Vision Partnership consent forms, 2014–2015



Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

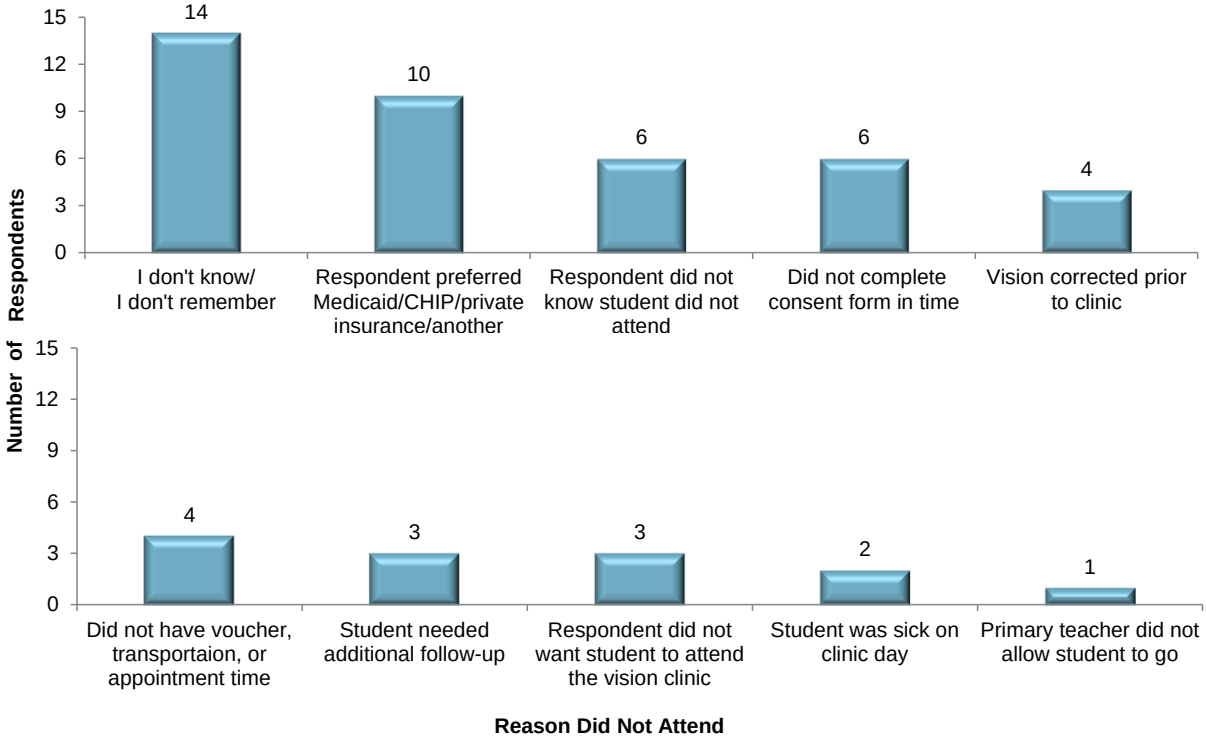
- Additional survey data revealed that 66.7 percent of nurses reminded approximately three-fourths or more of the parents/guardians to return consent forms. More specifically, 32 (59.3 percent) out of the 54 responding nurses reported they reminded "all" of the students' parents/guardians to return consent forms for student participation in the Vision Partnership program, while nine nurses (16.7 percent) said they reminded "about one-half" to "more than three-fourths but not all" of them. Another seven nurses (13.0 percent) stated they reminded from "less than one-fourth" to

"about one-fourth" of the parents/guardians and three nurses (5.6 percent) indicated they reminded "none" of the parents/guardians.

- **Figure 15** shows the reasons parents/guardians provided for their students not attending vision clinics. The results were similar to the reasons offered by campus nurses.

- Of the 53 parent/guardian survey respondents of students who received vouchers for participation in Vision Partnership clinics, but had not resolved their students' vision needs, the largest group of parents/guardians (14 or 26.4 percent) did not know or could not recall why their children did not attend a Vision Partnership clinic. In addition, 10 other parents/guardians (18.9 percent) reported they preferred a different service provider, six (11.3 percent) did not know their children had not attended a clinic, and six (11.3 percent) did not complete the consent form in a timely manner. Among the smaller groups of parents/guardians, four (7.5 percent each) indicated their children had received vision correction before the clinic event or had voucher, transportation, or scheduling complications. .

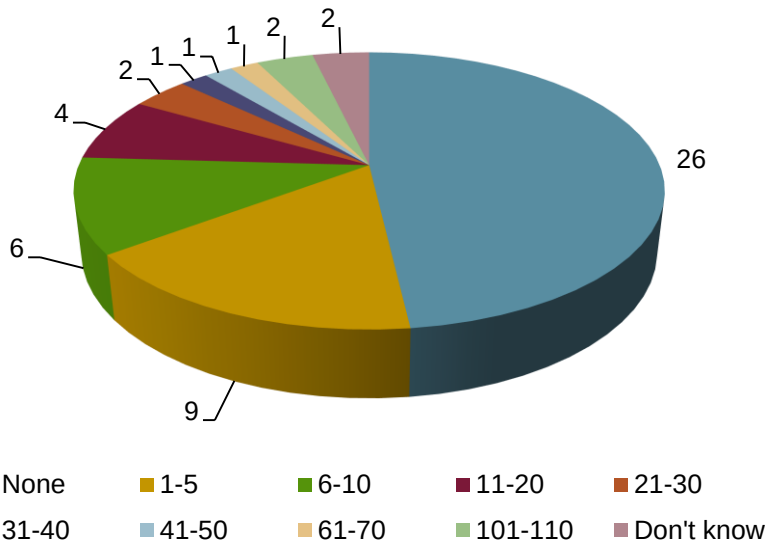
Figure 15. Number of Parent/Guardian Survey respondents by the reasons students who were referred to Vision Partnership Clinics did not attend, 2014–2015



Source: 2014–2015 Parent/Guardian Survey.

- **Figure 16** presents the number of Nurse Survey respondents and the number of students they reported were examined in the Vision Partnership clinics in 2014–2015, needed vision correction, and (for various reasons) still needed corrective eyewear in May 2015. The largest group of nurses, 26 out of 54, (48.1 percent) indicated this applied to "none" of their students, 15 (27.8 percent) said it applied to one to ten students, six (11.1 percent) said 11 to 30 students, two reported (3.7 percent) 31 to 50 students, one nurse (1.9 percent) stated 61 to 70 students, and two (3.7 percent) stated 101 to 110 students still needed corrective lenses following program participation. Over all, the results indicate that at least 466 students did not receive vision correction following program participation.

Figure 16. Number of Nurse Survey respondents by the estimated number of students examined at a Vision Partnership Clinic who needed vision correction and who still needed corrective eyewear, 2014–2015

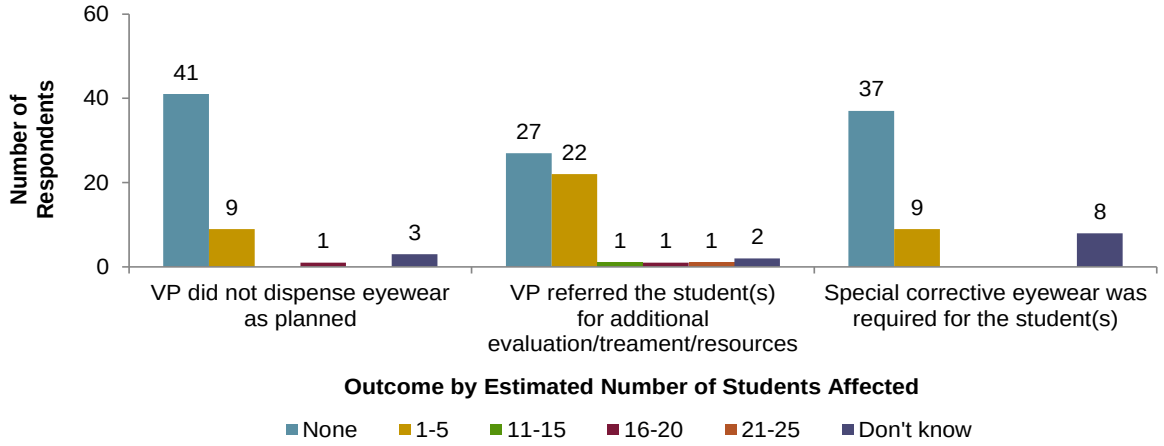


Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- **Figure 17** (page 20) presents three reasons nurse respondents gave for the 2014–2015 Vision Partnership participants not receiving corrective eyewear through the program and the number of students impacted by this. The largest group of 25 out of 54 Nurse Survey respondents (46.3) percent indicated that a total of at least 70 students were referred for additional services, 10 nurses (18.5 percent) said Vision Partnership did not dispense corrective eyewear to at least 25 students as planned, and nine nurses (16.7 percent) stated at least nine students on their campuses required special corrective lenses. Over all, the results indicate that at least 104 students did not receive corrective eyewear through the Vision Partnership following their participation in the program.

- According to nurse respondents, frame adjustments for corrective eyewear were made at the time of eyewear delivery to students. However, strategies to address the wearing of eyewear properly, frame adjustments after student use, eyewear durability, and ongoing eyewear repair have not been sufficiently implemented.

Figure 17. Number of Nurse Survey respondents by the estimated number of students who were examined at a Vision Partnership Clinic and needed corrective eyewear, but did not receive it, 2014–2015



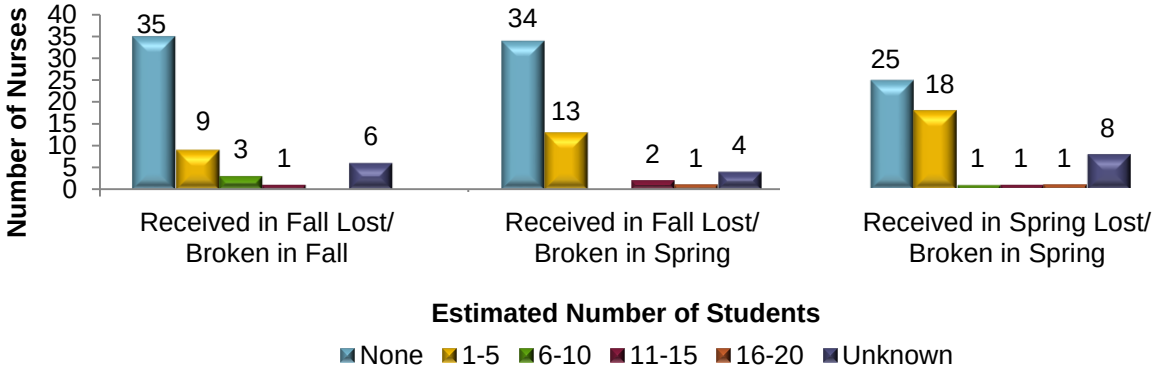
Note: Some nurses provided multiple responses.

Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- **Figure 18** presents nurses' survey responses regarding the number of students who received corrective eyewear and lost or broke it by the semester it was damaged. A total of 35 out of the 54 responding nurses (64.8 percent) reported "none" of the students who received eyewear in the fall also lost or broke them in the fall. A comparable number of respondents (34 or 63.0 percent) reported "none" for students who received eyewear in the fall and lost or broke it in the spring. Fewer nurses (25 or 46.3 percent) reported "none" of the students who received eyewear in the spring also lost or broke it in the spring.

- Nurses' responses regarding students who received eyewear in the fall semester showed at least 38 students needed replacement or repair during the fall in which they received corrective eyewear and at least 51 students needed eyewear replacement or repair in the spring semester. For students receiving eyewear in the spring semester, at least 51 students needed eyewear replacement or repair during the spring semester in which they received corrective eyewear.

Figure 18. Number of Nurse Survey respondents by the estimated number of students who received corrective eyewear and lost or broke it, by semester, 2014–2015



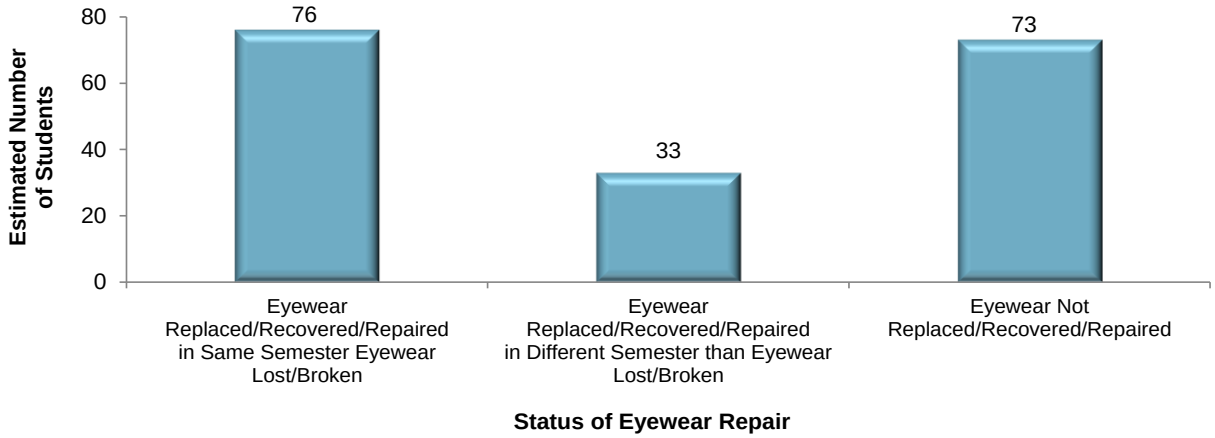
Note: Some nurses provided multiple responses.

Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- **Figure 19** shows the estimated number of students whose corrective eyewear was lost/broken and recovered/repaired in the same semester, lost/broken and recovered/repaired in different semesters, or lost/broken and not replaced/recovered/repaired. Nurses reported nearly equal numbers of students whose corrective eyewear was recovered or repaired in the same semester the students lost or broken it (n=76) and students whose corrective eyewear was not replaced/recovered/repaired (n=73) during the 2014–2015 school year. The nurses reported that less than one-half of the students who lost/broke it in the fall semester had their eyewear replaced, recovered, or repaired in a different semester (i.e., the spring semester).

- Throughout the year, eyewear for at least 109 students was replaced, repaired, or recovered while that was not the case for at least 73 students.

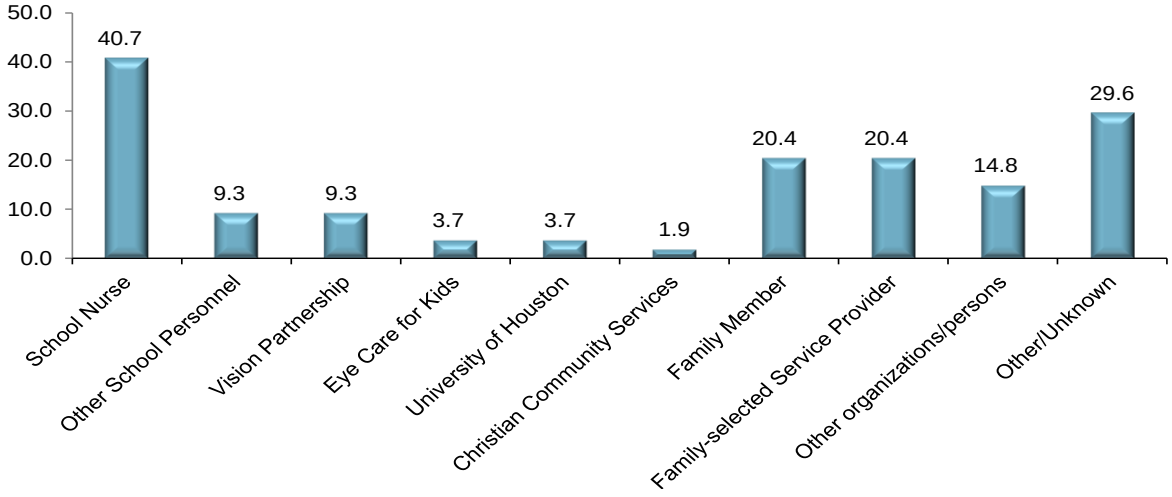
Figure 19. Estimated number of students who lost or broke their corrective eyewear by the status of their eyewear being replaced, recovered, or repaired in 2014–2015



Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- **Figure 20** (page 21) presents the sources 54 school nurses identified for providing eyewear repair for students. The largest number of nurses stated they had personally repaired students' eyewear (22 or 40.7 percent), followed by family members, family-selected providers (11 or 20.4 percent each), other organizations/persons such as Walmart and Fiesta eye centers (8 or 14.8 percent each), other school personnel, and Vision Partnership (5 or 9.3 percent each). Sixteen nurses (29.6 percent) stated they did not know the particular sources that had been utilized for the repair.

Figure 20. Percentage of Nurse Survey respondents by source used to repair students' corrective eyewear, 2014–2015



Note: Some nurses provided multiple responses.

Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey (Nurse Survey).

- Responses to the Nurse Survey regarding program improvements included:
  - provide screeners to help nurses (particularly part-time nurses) conduct vision screenings to identify problems early in the school year,
  - develop a collaborative relationship between school nurses and other community resources to provide mass vision screenings for students,
  - promote the program through HISD television and website and the local news channels,
  - provide parents/guardians with consent forms written at a lower reading level,
  - allow a minimum of a two-week period between invitations to attend scheduled clinic events and between deadlines to sign and return consent forms to provide more time to encourage parents to allow student participation,
  - provide assistance in contacting parents/guardians regarding the return of signed consent forms,
  - provide assistance in contacting parents/guardians regarding student participation in clinic events,
  - improve efficiency by allowing nurses to send HDHHS completed permission forms electronically rather than having to take them to the service center,
  - schedule schools for clinic events based on the number of participants to reduce wait-time,
  - allow nurses to monitor their students during the clinic events,
  - provide nurses with clinic examination results electronically,
  - provide specialty follow-up care at the time of the clinic events,
  - ensure that students receive eyewear with the correct prescription,
  - ensure all students who need glasses can get them,
  - ensure a shorter wait-time for eyewear delivery,
  - put in place clear resources and procedures for handling students' broken or lost eyewear and have nurses distribute the procedures to parents/guardians,
  - provide free resources for students who need additional services from a specialist or ophthalmologist,
  - increase the number of clinic events provided during the fall semester, and

- provide at least one additional clinic event during the spring semester to address the needs of all students who remain without vision correction.

- Some positive comments made by nurse survey respondents regarding the program included:
  - "Honestly, I have had nothing but success with your program. It is run like a well-oiled machine as kids go through the process."
  - "This program is excellent. Please keep up the good work."
  - "The city of Houston volunteers are terrific at organizing the children. I felt they handled them well."
  - "I do not have any problems with Vision Partnership. I think they are very organized and are doing a terrific job."
  - "I think the Vision Partnership is a great program and is very efficiently run."
  - "This was my first year participating with the Vision Partnership and I was impressed with how smoothly we were able to transition through the process."
  - "This program is doing an excellent job for the community that is in need. Thank you to all, especially the volunteers for doing an amazing job. God Bless!!!!!!!!"

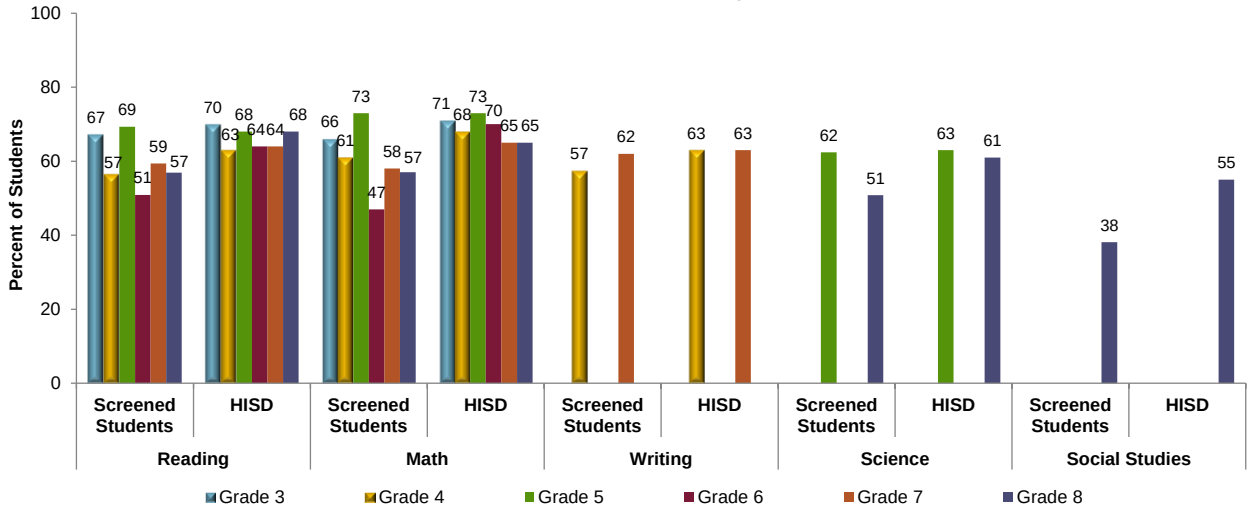
What was the 2014–2015 academic performance of HISD students who participated in campus-based vision screenings and received vision correction?

- The academic performance of the HISD students in grades 3–8 using 2015 STAAR data provides a context within which to consider the performance of program participants. Participating students were not matched to their peers districtwide because unidentified program participants were among the districtwide population. Therefore, the following performance results are not intended to be used to make causal inferences of the program's effectiveness at improving student performance in academic achievement.

- **Table 5** (page 33) contains demographic information on the district's grades 3–8 students who had 2015 STAAR data (n=91,324) and a subset of screened students who received vision correction and who had 2015 STAAR data (n=1,790). The proportions of Hispanic, economically disadvantaged, and LEP students among the screened students was notably larger (i.e., equal to or greater than a 5.0 percentage point difference) than the proportions of these students districtwide. However, the proportions of at-risk students were notably larger (i.e., equal to or greater than a 5.0 percentage point difference) among students districtwide than among the participants of campus-based vision screenings who received vision correction.

- **Figure 21** (page 24) shows the percentages of 2014–2015 grades 3–8 students districtwide and participants of campus-based screenings who received vision correction and who met the Level II Satisfactory (Phase-in 1) performance standards on the STAAR reading, mathematics, writing, science, and social studies exams. The identified vision-screened students who received vision correction met the passing standards at lower rates than did districtwide students at all grade levels and in all subjects except grade 5 reading and math in 2014–2015.

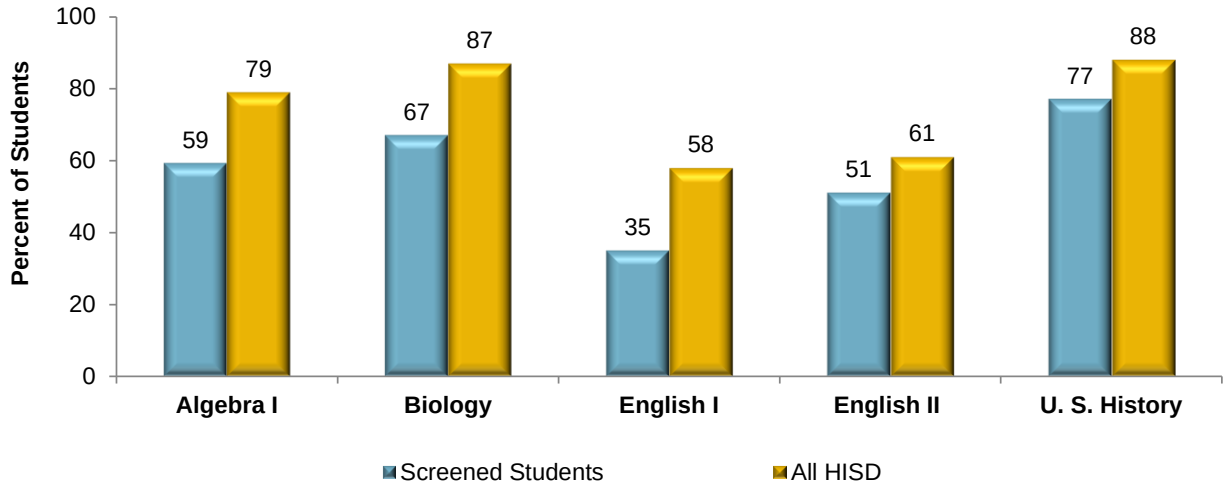
Figure 21. Grade level percentages of students who met the Level II Satisfactory (Phase-in 1) performance standards on the English and Spanish STAAR exams for identified students who received campus-based vision screenings, failed, and received vision correction through any source and all HISD students, 2014–2015



Source: TEA-Pearson Summary Reports, May 2015; IBM Cognos, STAAR Test, August 27, 2015

- The percentages of 2014–2015 students districtwide and identified students who participated in campus-based screenings, received corrective eyewear, and who met the Level II Satisfactory (Phase-in 1) performance standards on the English and Spanish versions of STAAR EOC Algebra I, Biology, English I, English II, and U. S. History examinations are presented in **Figure 22**. The vision-screened students who received vision correction met the performance standards on EOC assessments at rates that were lower than students districtwide.

Figure 22. Percentages of students who met the Level II Satisfactory (Phase-in 1) performance standards on STAAR EOC exams for identified students who received campus-based vision screenings, failed, and received vision correction through any source and all HISD students, 2014–2015



Source: TEA-Pearson Summary Reports, May 2015; IBM Cognos, STAAR EOC Test, August 27, 2015

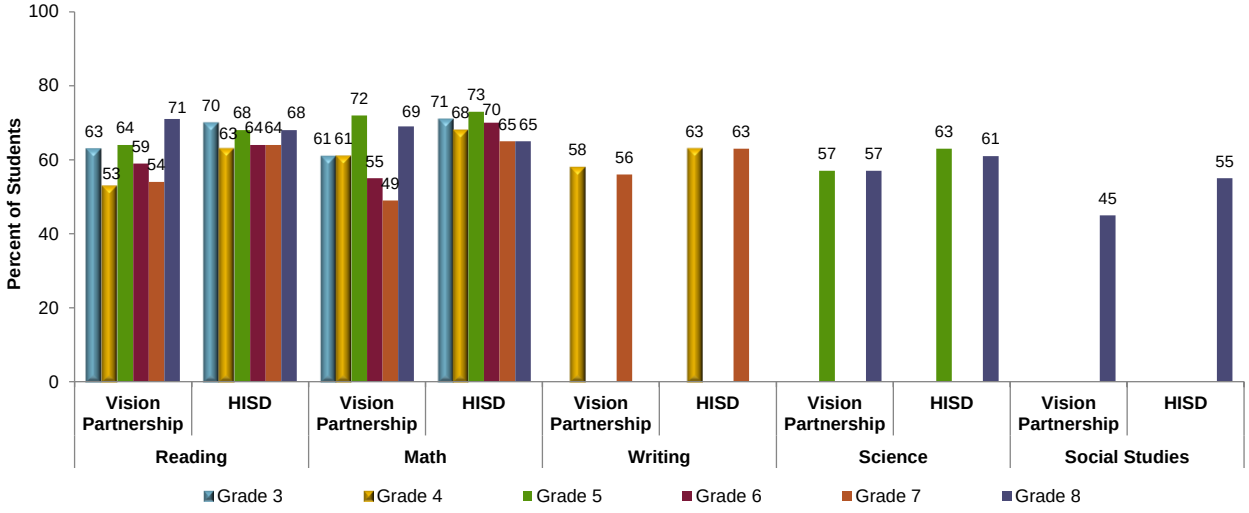
- **Table 6** (page 34) contains demographic information for HISD high school students (n=50,251) and a subset of screened students who received corrective eyewear (n=126) and had 2015 STAAR EOC data. The specific source(s) of the students' corrective eyewear were not available. The proportions of female, Hispanic, economically disadvantaged, and special education students were notably larger (i.e., equal to or greater than a 5.0 percentage point difference) among the screened students than among students districtwide. However, the proportions of male and gifted and talented students were notably larger (i.e., equal to or greater than a 5.0 percentage point difference) among the districtwide student group than among the screened students who received vision correction.

What was the 2014–2015 academic performance of HISD students who participated in the Vision Partnership and received vision correction?

- **Figure 23** shows the percentages of students who met the Phase-in 1 "satisfactory" performance standards on the STAAR reading, mathematics, writing, science, and social studies exams for grades 3–8 students districtwide and students in grades 3–8 who participated in the Vision Partnership program and received vision correction. The performance results are not intended to be used to make causal inferences of the program's effectiveness at improving student performance in academic achievement.

- The identified Vision Partnership participants who received vision correction met the passing standards at lower rates than did districtwide students at all grade levels and in all subjects except grade 8 reading and math in 2014–2015.

Figure 23. Grade level percentages of students who met the Level II Satisfactory (Phase-in 1) performance standards on the English and Spanish STAAR exams for identified students who received examinations and services through the Vision Partnership, and received vision correction through any source; and HISD students, 2014–2015



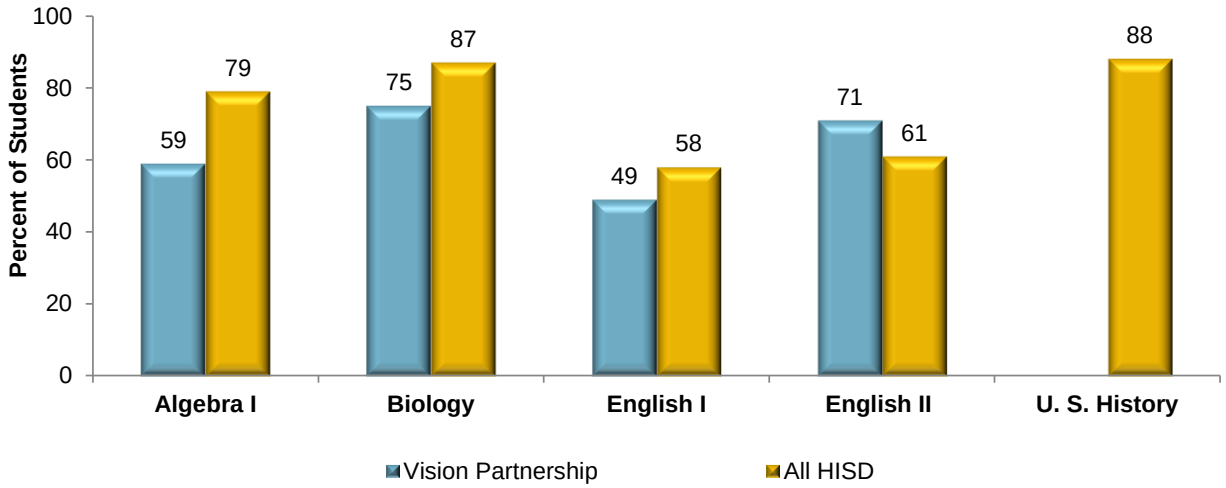
Source: TEA-Pearson Summary Reports, May 2015; IBM Cognos, STAAR Test, August 27, 2015

- **Table 5** (page 33) contains demographic information on the district's students in grades 3–8 who had 2015 STAAR data (n=91,324) and a subset of HISD students who participated in the Vision Partnership, received vision correction, and who had 2015 STAAR data (n=1,213). The proportions of female, Hispanic, economically disadvantaged, at-risk, and LEP students among the Vision Partnership participants were notably larger (i.e., equal to or greater than a 5.0

percentage point difference) than the proportions of these students districtwide. However, the proportions of male, white, and gifted and talented students were notably larger (i.e., equal to or greater than a 5.0 percentage point difference) among students districtwide than among Vision Partnership participants who received vision correction.

- **Figure 24** shows that Vision Partnership participants who received vision correction met passing standards on the EOC exams at lower rates than did students districtwide, with the exception of English II in 2014–2015. Results for U. S. History were not available for Vision Partnership participants.

Figure 24. Subject-specific rates of students who met the Level II Satisfactory (Phase-in 1) performance standards on STAAR EOC exams for identified students who received examinations and services through the Vision Partnership and who received vision correction through any source, and HISD students, 2014–2015



Note: Results for U. S. History were not available for Vision Partnership participants.
Source: TEA-Pearson Summary Reports, May 2015; IBM Cognos, STAAR EOC Test, August 27, 2015

- **Table 6** (page 34) contains demographic information for the district's high school students (n=50,251) and a subset of district students who attended Vision Partnership clinics, and received corrective eyewear (n=37). Students included in both groups had 2015 EOC STAAR data. The proportions of female, African American, economically disadvantaged, and special education students among the Vision Partnership participants were notably larger (i.e., equal to or greater than a 5.0 percentage point difference) than the proportions of students districtwide. However, the proportions of male, Hispanic and LEP students were notably larger (i.e., equal to or greater than a 5.0 percentage point difference) among the districtwide student group than among Vision Partnership participants who received vision correction.

Discussion

For most students, good vision is vital to their daily and long-term academic success. However, research on campus-based vision screening programs has found that a substantial portion of children experience vision-related problems and learning difficulties (Basch, 2010). Researchers have also estimated a rate of 20 percent of students who experience problems with their vision (Ferebee, 2004). Campus-based vision screening for school-aged learners is a crucial investment of time, energy, and money because children require an array of visual abilities to navigate and achieve excellence in school (American Optometric Association, 2014).

HISD's campus-based vision screenings and services provided through the Vision Partnership have provided important opportunities for students who needed eye care and vision correction to receive them at no cost to students and their families. The district's report to the Texas Department of State Health Services (TDSHS) Child Health Reporting System states that nearly 93,000 district students in 2013–2014 and almost 92,500 district students in 2014–2015 received campus-based vision screenings. Compared to research findings of 20 percent of students experiencing vision problems (Ferebee, 2004), the percentages of HISD's students who participated in campus-based vision screenings and failed their screenings due to vision problems have been lower over the last two years (i.e., 11.9 percent in 2013–2014 and 10.9 percent in 2014–2015 according to the campus-level TDSHS vision screening report data). These percentages are slightly more than one-half what may be reasonably expected. Over the last two years, school-level TDSHS data also indicated that between 7.8 percent and 6.3 percent of the examined students from 2013–2014 to 2014–2015 were examined by a vision specialist and were found to have no vision problem, which may bode well for the accuracy of campus-based screenings in determining students' need for care by a vision specialist.

As noted in the data limitations section of this report, poor data quality posed serious problems for effectively assessing HISD students' vision screening participation and outcomes, their utilization of vision care services, and performance outcomes. However, the value of the program to students whose families may otherwise be unable to meet their students' vision care needs is unquestionable. Nurses' comments and recommendations regarding the program support this conclusion.

In the last six school years, at least 21,359 HISD students have been served at Vision Partnership Clinics. Student participation increased 42.8 percent from 2,999 participants in 2013–2014 to 4,282 participants in 2014–2015. However, the increase in participation may be artificial, due to the inability to identify all Vision Partnership participants each year. In 2014–2015, students from only 50.2 percent of HISD's schools were documented participants in the Vision Partnership program. There were 23 clinic dates in 2014–2015 as compared to 35 clinic dates in 2013–2014, a decrease of 42.2 percent.

Various sources used in this report confirmed that a notable degree of non-adherence to vision screening and vision examination recommendations exists among students across the district. Despite the concerted efforts made by campus nurses, the Manager of Medical and Health Services, and the HDHHS to better provide vision screenings, vision consultations, follow-up and subsequent eye examinations, and corrective eyewear for students who were in need of them; un-served students and students' unresolved vision needs remain important, ongoing challenges. Unfortunately, school-level TDSHS data has also indicated that each year more than 25 percent of students who were screened, identified as needing vision care, and referred to a specialist for treatment did not receive the services.

In recent years, the primary obstacles to students receiving vision correction that have been identified by the Manager of Medical and Health Services and campus nurses have remained fairly constant. The obstacles identified include nurses not having enough time to coordinate vision care activities in a timely manner, nurses having difficulty in readily identifying students with unresolved vision needs (due to data

entry problems and other limitations of the Chancery Vision Screening data), intricate logistics, parents/guardians not returning signed parental/guardian consent forms, and students' absences on the days of the clinics. Other reported obstacles to vision correction for students included non-receipt of corrective eyewear, eyewear delivered late in the school year, and no avenues for expedient, high-quality eyewear repair or replacement. Heightened communication among school nurses, health services administration, and parents/guardians to share pertinent information and to explore best practices is likely to help ensure more students receive the prompt vision care they need.

Barriers may contribute to the non-adherence (Chu, et. al. 2015), including printed information about vision that may be written at inappropriate literacy levels (Muir and Lee, 2010). It may prove helpful to consider a review of the vision-related materials that are sent to parents/guardians as well as to consider the language used when speaking with parents/guardians. This is important in light of the ongoing problems with obtaining signed parent/guardian consent forms and nurses' suggestions regarding the addition of communications with parents/guardians about vision care clinics and the care of students' corrective eyewear.

It may be necessary for school leaders to adopt policies that require schools to provide effective follow-up with students who fail vision screenings or examinations and to ensure that corrective eyewear is obtained in a timely manner to support educational endeavors (Basch, 2011). The district may want to develop systems that improve communication among campus administrators, counselors, teachers, nurses and parents/guardians regarding high-priority strategies that ensure students' vision health needs are resolved early in the school year. Finally, it is imperative that the quality of HISD's and the Vision Partnership's vision-related data is improved to allow the data that are collected to be used effectively to inform program delivery and to assess student outcomes.

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Table 1. Demographic Characteristics of HISD Students, Screened Students (Campus-based), and Vision Partnership Participants, 2014–2015

	HISD (N=214,462)		Screened Students (N=83,951)		Vision Partnership (N=4,282)	
	N	%	N	%	N	%
Gender						
Male	109,055	50.9	42,994	51.2	1,884	44.0
Female	105,407	49.1	40,957	48.8	2,398	56.0
Total	**214,462**	**100.0**	**83,951**	**100.0**	**4,282**	**100.0**
Race/Ethnicity						
African American	53,369	24.9	20,013	23.8	1,178	27.5
American Indian	399	0.2	128	0.2	11	0.3
Asian/Pacific Islander	7,866	3.7	3,013	3.6	76	1.8
Hispanic/Latino	133,272	62.1	54,184	64.5	2,924	68.3
White	17,621	8.2	5,807	6.9	80	1.9
Two or more	1,935	0.9	806	1.0	13	0.3
Total	**214,462**	**100.0**	**83,951**	**100.0**	**4,282**	**100.0**
Economic Disadvantaged	162,116	75.6	68,741	81.9	3,874	90.5
At-Risk	153,526	71.6	57,032	67.9	2,750	64.2
Special Education	15,884	7.4	7,957	9.5	397	9.3
LEP	64,524	30.1	32,677	38.9	1,697	39.6
Gifted/Talented	33,061	15.4	12,521	14.9	522	12.2

Note: Percentages may not total 100 due to rounding.
Source: Chancery, July 27, 2015; PEIMS 2014–2015

Table 2: Vision Partnership Participants by School, 2014–2015

Elementary Schools (n=100)

School	Students	Clinic Visits	School	Students	Clinic Visits
Alcott ES	12	1	Ketelsen ES	29	1
Anderson ES	34	2	Law ES	9	2
Ashford ES	10	1	Lewis ES	40	2
Askew ES	51	1	Lockhart ES	11	1
Atherton ES	5	1	Looscan ES	12	2
Bell ES	44	3	Lovett ES	8	1
Benavidez ES	8	1	Lyons ES	77	2
Berry ES	30	1	Mading ES	3	1
Blackshear ES	10	1	Martinez ES	13	1
Bonner ES	58	1	McGowen ES	11	1
Braeburn ES	59	2	McNamara ES	50	2
Brookline ES	6	1	Mitchell ES	17	1
Bruce ES	39	2	Montgomery ES	13	1
Burbank ES	46	1	Moreno ES	1	1
Burnet ES	19	2	Oak Forest ES	10	2
Burrus ES	33	1	Oates ES	7	1
Cage ES	24	2	Osborne ES	10	1
Carrillo ES	27	1	Paige ES	7	1
Codwell ES	126	2	Patterson ES	25	1
Condit ES	5	1	Peck ES	35	1
Cook ES	33	1	Petersen ES	28	1
Crespo ES	65	3	Pleasantville ES	2	1
Crockett ES	33	2	Pugh ES	37	1
Davila ES	42	2	Robinson ES	23	2
DeAnda James ES	13	1	Rodriguez ES	54	2
DeChaumes ES	69	1	Roosevelt ES	66	1
Dogan ES	42	1	Rucker ES	22	1
Durham ES	11	1	Sanchez ES	16	1
Durkee ES	31	2	Scarborough ES	60	1
Eliot ES	9	1	School at St. George Place	7	1
Emerson ES	21	1	Scroggins ES	102	1
Energized for Excellence Academy ES	157	1	Seguin ES	10	1
Field ES	68	1	Shadowbriar ES	11	1
Fondren ES	6	1	Shadydale ES	41	3
Frost ES	7	1	Shearn ES	11	1
Gallegos ES	21	1	Sherman ES	95	4
Garden Villas ES	86	2	Sinclair ES	23	1
Gregg ES	19	1	Stevens ES	20	2
Grissom ES	20	1	Thompson ES	3	1
Gross ES	16	1	Tijerina ES	24	1
Harris R. P. ES	19	1	Tinsley ES	37	2
Hartsfield ES	37	2	Travis ES	8	1
Henderson J P ES	22	1	Valley West ES	35	2
Henderson NQ ES	14	1	Wainwright ES	35	5
Highland Heights ES	24	1	Walnut Bend ES	79	1
Hobby ES	70	2	Wesley ES	17	2
Isaacs ES	41	1	Whidby ES	83	2
Jefferson ES	11	1	White	22	1
Kelso ES	38	1	Whittier ES	9	1
Kennedy ES	33	2	Young ES	10	1
Total	–	–		**3,102**	**139**

Note: Four students participated in the program during their enrollment at one school and at a second school.
Source: HDHHS 2014–2015 Vision Partnership Clinic database; Chancery, July 27, 2015

Table 2: Vision Partnership Participants by School, 2014–2015 – continued

Middle Schools (n=23)			High Schools (n=12)		
School	**Students**	**Clinic Visits**	**School**	**Students**	**Clinic Visits**
Attucks MS	4	1	Bellaire HS	13	1
Black MS	47	4	Challenge Early College HS	51	1
Clifton MS	19	1	Energized for Excellence SW HS	1	1
Deady MS	47	2	Hope Academy	21	1
Dowling MS	21	1	Kashmere HS	17	1
Fleming MS	24	1	Middle College Fraga HS	30	2
Fonville Middle	10	1	Middle College Gulfton HS	4	1
Forest Brook MS	34	1	Milby H.S.	33	1
Grady MS	18	1	Sharpstown HS	40	2
Hartman Middle	30	1	Sterling HS	8	1
Hogg Middle	7	1	Westbury HS	6	1
Holland MS	28	3	Worthing HS	10	1
Johnston MS	50	2	**Total**	**234**	**14**
Key MS	33	1			
Marshall	46	1	**Combined Schools (n=7)**		
McReynolds MS	22	2	Long Academy	164	3
Ortiz MS	87	1	Pilgrim Academy	95	5
Pershing MS	8	1	The Rusk School	29	1
Stevenson MS	33	1	Young Women's College Preparatory Academy	2	1
Welch M.S.	22	1	Wharton K-8 Dual Language Academy	27	1
Westbriar MS	16	1	Wilson Montessori	7	1
Williams	1	1	Woodson K-8 Leadership Academy	19	1
Total	**607**	**30**	**Total**	**343**	**13**

Note: Four students participated in the program during their enrollment at one school and at a second school.
Source: HDHHS 2014–2015 Vision Partnership Clinic database; Chancery, July 27, 2015

Table 3. Vision Partnership Program Participation by Grade Level, 2014–2015

Grade Level	Number	Percent
Pre-kindergarten	32	0.7
Kindergarten	119	2.8
1	606	14.2
2	312	7.3
3	951	22.2
4	341	8.0
5	912	21.3
6	131	3.1
7	429	10.0
8	195	4.6
9	66	1.5
10	60	1.4
11	63	1.5
12	65	1.5
Total	**4,282**	**100.0**

Note: Percentages may not total 100 due to rounding.
Source: Chancery, July 27, 2015; PEIMS 2014–2015

Table 4. 2014–2015 Vision Partnership Campus Nurse Survey Responses for Reasons Students Were Referred and Did Not Attend Vision Partnership Clinics by the Estimated Number of Students Impacted

Response	Students did not return consent form		Students absent on clinic day		Parent/Guardian refused participation		Vision corrected prior to clinic date	
	N	%	N	%	N	%	N	%
None	20	34.5	23	39.7	27	46.6	17	29.3
1–5	8	13.8	29	50.0	19	32.8	26	44.8
6–10	9	15.5	0	0.0	1	1.7	2	3.4
11–15	2	3.4	0	0.0	0	0.0	3	5.2
16–20	5	8.6	0	0.0	0	0.0	2	3.4
21–25	5	8.6	0	0.0	1	1.7	1	1.7
26–50	1	1.7	0	0.0	0	0.0	0	0.0
More than 50	0	0.0	0	0.0	0	0.0	0	0.0
I don't know	4	6.9	2	3.4	6	10.3	3	5.2
Null	4	6.9	4	6.9	4	6.9	4	6.9
Total	**58**	**100.0**	**58**	**100.0**	**58**	**100.0**	**58**	**100.0**

Source: 2014–2015 Campus-based Vision Screenings and Vision Partnership Survey

Table 5. Characteristics of Students in Grades 3–8 for Whom STAAR Data Were Available: Districtwide Students and Campus-based Screening Participants and Vision Partnership Participants Who Received Vision Correction, 2014–205

	HISD Students Grades 3–8 (91,324)	Screened Students who received corrective eyewear (N=1,790)	Vision Partnership Participants who received corrective eyewear (N=1,213)
	%	%	%
Gender			
Male	51.2	55.5	42.6
Female	48.8	44.5	57.4
Total	**100.0**	**100.0**	**100.0**
Race/Ethnicity			
Asian/Pacific Islander	3.6	3.1	2.0
American Indian	0.2	0.1	0.2
African American	25.1	21.7	21.4
Hispanic/Latino	62.3	71.0	74.3
White	7.9	3.6	1.7
Two or more	0.9	0.4	0.3
Total	—	**100.0**	**100.0**
Economically Disadvantaged	78.0	86.9	90.4
At-Risk	62.5	55.7	77.1
Special Education	9.2	9.1	8.2
LEP	29.1	42.0	44.0
Gifted/Talented	19.1	16.2	12.9

Source: Chancery Extract May, 27, 2015
Note: Vision Partnership participants are a subset of HISD students. Percentages may not total 100 due to rounding.

Table 6. Characteristics of HISD Students for Whom STAAR EOC Data Were Available: Districtwide Students, Campus-based Screening Participants Who Received Vision Correction, and Vision Partnership Participants Who Received Vision Correction, 2014–2015

	HISD Students (50,251)	Screened Students who received corrective eyewear (N=126)	Vision Partnership Participants (N=37)
	%	%	%
Gender			
Male	50.4	42.1	40.5
Female	49.6	57.9	59.5
Total	**100.0**	**100.0**	**100.0**
Race/Ethnicity			
Asian/Pacific Islander	3.9	0.8	2.7
American Indian	0.2	–	–
African American	26.1	25.4	43.2
Hispanic/Latino	59.5	69.0	45.9
White	9.6	4.8	8.1
Two or more	0.7	–	–
Total	–	**100.0**	**100.0**
Economically Disadvantaged	72.3	87.3	83.8
At-Risk	69.0	65.9	73.0
Special Education	8.9	32.5	24.3
LEP	11.3	14.3	2.7
Gifted/Talented	15.7	10.3	10.8

Note: Vision Partnership participants are a subset of HISD students. **Percentages may not total 100 due to rounding.