

MEMORANDUM

February 21, 2018

TO: Gwen Johnson
Manager, Health and Medical Services

FROM: Carla Stevens
Assistant Superintendent, Research and Accountability

SUBJECT: **VISION PARTNERSHIP, 2016–2017**

Attached is a copy of the Vision Partnership evaluation brief for 2016–2017. This report describes the student participation in campus-based screenings and Vision Partnership program, and the academic performance of students served by the program.

Key findings include:

- Campus-level data in 2016–2017 showed campus-based vision screenings were provided to 92,316 students; a 0.9 percent decrease from the previous school year (n = 93,154).
- A higher proportion of students enrolled in grade levels not required by the Texas Department of State Health Services to be screened, failed their campus-based vision screening when compared to the screening results of peers enrolled in mandatory grade levels.
- In 2016–2017, 116 HISD campuses participated in the Vision Partnership program; a retention rate of 90.6 percent from the previous school year (n = 128).
- According to the HISD Department of Health and Medical Services attendance records, 93.5 percent of the 3,578 who attended the Vision Partnership clinics needed corrective eyewear for some portion of the day. This rate was similar to the result presented in the 2015–2016 report (93.0 percent).
- Academic achievement data indicated that higher percentages of fourth- and seventh- grade students met the Approaches Grade Level Standard on the 2017 STAAR reading and mathematics assessments when compared to their performance on the 2016 STAAR assessments.

Further distribution of this report is at your discretion. Should you have any further questions, please contact me at 713-556-6700.

 CJS

Attachment

cc: Grenita Lathan
Mark Smith
Annvi Utter



EVALUATION REPORT

BUREAU OF PROGRAM EVALUATION

February 2018

Title I, Part A Vision Partnership, 2016–2017

By: Sara Spikes, PhD

During the 2016–2017 school year, the Vision Partnership program provided vision services to approximately 3,353 students enrolled in the Houston Independent School District. This evaluation brief describes HISD students' participation in campus-based screenings and the Vision Partnership, and the academic achievement of students served by the program in the 215–2016 school year. Students' academic achievement was measured on the 2016 and 2017 spring 3–8 STAAR reading and mathematics assessments. Results indicate that a higher proportion of students enrolled in grade levels not required by the Texas Department of State Health Services to be screened failed their campus-based vision screen when compared to the results of peers enrolled in mandatory grade levels. Academic achievement data indicated that higher percentages of fourth- and seventh- grade students met the Approaches Grade Level Standard on the 2017 STAAR reading and mathematics assessments when compared to their performance on the 2016 STAAR assessments.

Background

Researchers indicate that a critical component of a strong academic achievement foundation is healthy vision (Chu, Huang, Barnhardt, & Chen, 2015; Basch, 2011). However, vision impairments are the fourth most common disability in the United States and the most prevalent handicapping condition during childhood (American Optometric Association [AOA], 2017). Vision problems can affect a child's normal development, academic achievement, social interactions, and self-esteem (AOA, 2017). Findings from a nationally representative sample of more than 48,000 youth indicated that about one in five children experience a vision problem during their school years, with low-income and non-White youth at greater risk for having unmet vision needs (Basch, 2011). This is a particularly important consideration for the Houston Independent School District (HISD), as the majority of students enrolled in 2016–2017 (at least 75 percent) were identified as economically disadvantaged and an ethnic minority (Houston Independent School District [HISD], 2017a, p. 14).

“The total economic cost of vision loss and eye disorders among children younger than 18 years of age in 2012 was estimated to be \$5.9 billion” (Wittenborn, Zhang, Feagan, et al. as cited in AOA, 2017). Because children require an array of visual abilities to navigate

and achieve excellence in their daily lives, vision screening for school-age children continues to be a crucial investment of time, energy, and money (AOA cited in the Houston Independent School District [HISD], 2017b, p. 20). It is important to identify vision problems early and put in place corrective measures that will allow children the opportunity to see clearly (Centers for Disease Control and Prevention [CDC], 2017). The Vision Partnership initiative was developed as a concerted collaborative approach to eliminate health-related barriers to follow-up vision care for the most needy students; an important strategy to prevent the impact of vision-related learning problems on the educational outcomes of Houston-area students (HISD, 2017b).

Overview of the Vision Partnership Initiative

Vision Partnership, also known as ‘See to Succeed’, is an initiative that addresses the vision needs of school-aged children whose families cannot afford eyecare services. Funded by the Houston Health Foundation, Vision Partnership (VP) provides eye examinations, consultations, and fittings for corrective eyewear at no cost to students and their families at VP clinics throughout the Houston area. Led by the Houston Department of Health and Human Services (HDHHS), Vision Partnership includes community partners such as the Essilor Foundation (Kids Vision for Life), the

University of Houston, Walmart, San Jacinto College, the Berkeley Eye Center, as well as private and public schools including HISD (Houston Health Foundation, 2017). Since 2011, the Vision Partnership initiative has provided over 47,000 eye exams and more than 43,000 pairs of glasses to Houston-area students (Houston Health Foundation, 2017).

HISD and Vision Partnership

Identification of HISD students who may benefit from participating in the Vision Partnership initiative begins with a campus-based vision screening. The Texas Department of State Health Services (TDSHS) Vision and Hearing Screening Program requires that all children enrolled for the first time in any public or private school must be screened or have a professional examination for possible vision and hearing problems. Students who must be screened annually include: children who are four years old by September 1, and students enrolled in kindergarten, first, third, fifth, and seventh grades. Teachers and parents who suspect their students/children are experiencing vision problems may also recommend a child for a vision screening at the child’s enrolled campus.

HISD nurses, campus staff, and community partners conduct vision screenings that consist of a distance acuity test for the right and left eyes. Vision test devices used at HISD campuses primarily include Sloan, Snellen, Tumbling E, and HOTV, with the latter two tests primarily administered to young children or individuals who have communication impairments. When the need for vision correction is determined, the district’s nurses and health care professionals make student referrals to specialists for eye examinations, which are followed by professional treatment when needed. Regarding Vision Partnership participation, consent forms are sent home to the parents of students who either fail their campus-based vision screening or receive inconclusive results after re-screening by trained school staff.

Students who participate in the Vision Partnership initiative receive transportation and supervision by HISD staff, at no cost to their parents. Each child receives a comprehensive vision examination that includes tests that evaluate the structure, function, and health of the eyes (AOA, 2017). Students who are identified as needing glasses for any portion of the day are given the opportunity to select their own frames during their visit to the VP clinic. Once their prescriptions have been filled, glasses are later delivered to students at their respective campuses.

Purpose

The aim of this report was to answer the following questions:

1. How many HISD students participated in campus-based vision screenings in 2016–2017?
2. How many HISD students participated in the Vision Partnership initiative in 2016–2017?
3. What were the differences in academic performance among students who received eyewear in 2015–2016 through the Vision Partnership initiative for two academic years (2015–2017)?

Methods

Data Sources

Multiple data sources were used to evaluate students’ participation in the Vision Partnership program. **Table 1** shows the data sources used in this report at the district-, school-, and student-levels. Data regarding *Vision Partnership participants* were collected at each level.

District-level measures. Vision screening results during the 2015–2016 and 2016–2017 school years were obtained from the HISD Manager of Medical and Health Services. Reported by grade-level, these data were based on campus nurses’ submissions to the Texas Department of State Health Services (TDSHS) Vision and Hearing Screening Program Child Health Reporting System. District-level variables pertaining to demographic characteristics were also obtained from the *HISD District and School Profiles, 2016–2017* report (HISD, 2017a, p. 14).

School-level measures. Data regarding the number of HISD schools that participated in Vision Partnership and the number of corresponding clinic trips were collected, analyzed, and reported for the 2015–2016 and 2016–2017 school years. This information was collected by the HISD Department of Health and Medical Services.

Student-level measures. This report primarily used student information obtained from HISD data sources collected during the 2015–2016 and 2016–2017 school years (e.g., HISD Department of Health and Medical Services, HISD IBM Cognos Chancery, archival data and reports). Exceptions included the initial match of Houston Department of Health and Humans Services (HDHHS) close-out records (~3,578) to approximately 3,645 electronic student records logged by school nurses in 2016–2017. Electronic logs indicated the number of HISD students who returned signed consent forms in order to participate in the Vision Partnership initiative.

Data matched between the two sources rendered approximately 3,353 unduplicated records for the 2016–2017 school year; a decrease from the 4,007 unduplicated records rendered in 2015–2016.

Table 1. Dimensions, variables and sources evaluated in the HISD Vision Partnership report, 2016–2017		
Dimension	Variables	Source
District-level measures		
Campus-based vision screening participation and outcomes	<ul style="list-style-type: none"> Screened Failed screening Referred Treated No vision problem Mandatory 	TDSHS Vision and Hearing Screening Program Child Health Reporting System (2015-2017)
Demographic characteristics	<ul style="list-style-type: none"> Gender Race and ethnicity Economically-disadvantaged status Special education eligibility status English language learner At risk Grade 	TDSHS Vision and Hearing Screening Program Child Health Reporting System (2016-2017) HISD District and School Profiles, 2016–2017 report
Vision Partnership participants	<ul style="list-style-type: none"> Overall student count 	HISD Department of Health and Medical Services (2012–2017) Houston Department of Health and Human Services (2012–2017)
School-level measures		
Vision Partnership participants	<ul style="list-style-type: none"> School counts Clinic trips 	HISD Department of Health and Medical Services (2015–2017)
Student-level measures		
Vision Partnership participants	<ul style="list-style-type: none"> Student counts Health screen results Health screen vision solution 	HISD Department of Health and Medical Services (2013–2017, aggregate files) HISD Department of Health and Medical Services (2016–2017, electronic logs) HISD IBM Cognos Chancery (2015–2017) Houston Department of Health and Human Services (2015–2017)
Demographic characteristics	<ul style="list-style-type: none"> Gender Race and ethnicity Economically-disadvantaged status Special education eligibility status English language learner At risk Grade 	HISD IBM Cognos Chancery (2016–2017)
Academic Performance	<ul style="list-style-type: none"> Percent of students who met the Approaches Grade Level Standard 	HISD STAAR reading and mathematics 2016 and 2017 databases HISD IBM Cognos Chancery (2015–2016)

Demographic characteristics of HISD students who participated in the Vision Partnership initiative in this report are listed in Table 1. Regarding at-risk status, HISD defines at-risk students as individuals who have an increased likelihood of dropping out of school.

The *academic achievement* data of HISD students was measured and collected through the State of Texas Assessments of Academic Readiness assessment system (STAAR). During spring 2017, HISD third- through eighth-grade students were administered the STAAR 3–8 reading and mathematics assessments in accordance with state mandates. Spanish versions of the assessments, as well as accommodations for students with disabilities, were also available for students.

The vision health results were obtained from the 2015–2016 and 2016–2017 student cohorts from HISD IBM Cognos Chancery. Because student records could not confirm (a) when corrective eyewear was delivered to students, and (b) which students received corrective eyewear prior to taking the STAAR exams, performance analysis was not conducted for the 2016–2017 cohort. To address this limitation, the researcher compared the academic data of students who may have received glasses in the 2015–2016 school year, to their performance on the spring 2017 STAAR 3–8 assessments. However, because the majority of eighth graders were promoted to the ninth grade and transitioned to take the STAAR End-Of-Course assessments, this grade level was excluded from any further analysis.

Archival databases indicated 4,007 students participated in Vision Partnership during the 2015–2016 academic year. This database was merged with HISD Cognos Chancery 2015–2016 to render 2,618 students. Approximately 70 percent of these students (n = 1,829) were enrolled in third through seventh grades. Health screen results flagged as ‘Fail’ and health screen vision solutions that were flagged as ‘Glasses’ or ‘Contacts’ were used as filter variables to render a count of 598 students who were examined and received vision correction. This data file was merged with the HISD STAAR reading and mathematics 2016 and 2017 databases to render approximately 406 student records retained for performance analyses.

Additionally, qualitative data was captured from two school nurses who agreed to participate in an interview regarding their experiences and perspectives about the Vision Partnership initiative during the 2016–2017 school year. Because interview data was limited, caution was exercised during the interpretation of information provided.

Data analysis

Frequency analyses were used to determine the overall number of students who participated in the Vision Partnership initiative during the 2016–2017 school year.

Frequency analyses were also used to compare the percentages of the 2015–2016 student cohort who met the Approaches Grade Level standard on the 2016 and 2017 STAAR reading and mathematics assessments, by respective grade level. Because a number of students who participated in VP during 2015–2016 received their glasses within the same semester as the 2016 STAAR assessments, HISD researchers decided to consider an additional year of performance data specific to this cohort to identify any trends that may have emerged.

The 2016–2017 Campus-based Vision Screenings and Vision Partnership Interview was administered to school nurses who agreed to participate in this study. Content analysis was conducted on the qualitative responses provided during the interviews. Feedback collected on the survey are presented in the Results section of this report.

Data Limitations

HISD IBM Cognos Chancery databases either had inconsistent or missing data regarding students who were flagged as (a) Vision Partnership participants, (b) “Failed” their vision screen, or (c) needing “Glasses” or “Contacts”. The student information system also did not provide a method to record if a child received corrective eyewear. Therefore, datasets for many of the students who either did or did not need vision correction were incomplete. This deficit precluded the ability to compare differences in outcomes between program participants who received vision correction and program participants who did not need vision correction.

Disaggregate data obtained from HDHHS when collapsed did not match aggregate results also reported by the agency. As such, discrepancies in the number of students who participated in the Vision Partnership Initiative are apparent in this report.

According to the previous Vision Partnership, 2015–2016 report, twelve Vision Partnership participants took a total of 17 STAAR End-of-Course exams (HISD, 2017b). However, because preliminary analysis of this subgroup in 2016–2017 resulted in sample sizes of less than five Vision Partnership participants, follow-up of this student group in the areas of Algebra 1, Biology, English I, English II, and U.S. History was not conducted in this report.

Results

How many HISD students participated in campus-based vision screenings in 2016–2017?

According to **Figure 1**, data reported to the Texas Department of State Health Services (TDSHS) by the HISD Department of Health and Medical Services

showed that in 2016–2017, 92,316 HISD students in grades prekindergarten through twelfth received a vision screening at their campus; a 0.9 percent decrease from the previous school year (n = 93,154). Decreases in both the number of students who failed their campus-based vision screening and the numbers of students who received a referral for a comprehensive eye examination were also observed in 2016–2017 from the previous school year (see Figure 1).

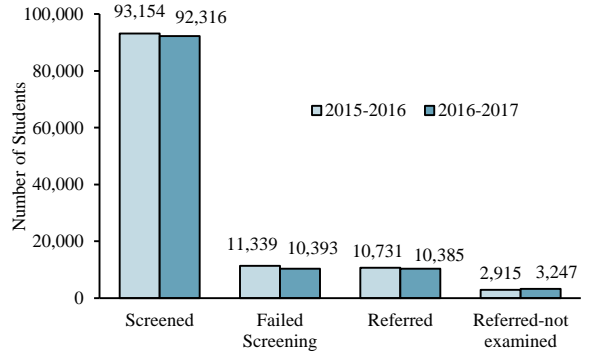


Figure 1. Number of students screened during campus-based vision screenings and results of the screenings as reported to the Texas Department of State Health Services Child Health Reporting System (TDSHS), 2015–2016 and 2016–2017.

Source: TDSHS Child Health Reporting System, 2016–2017; Vision Partnership, 2015–2016 report (HISD, 2017b).

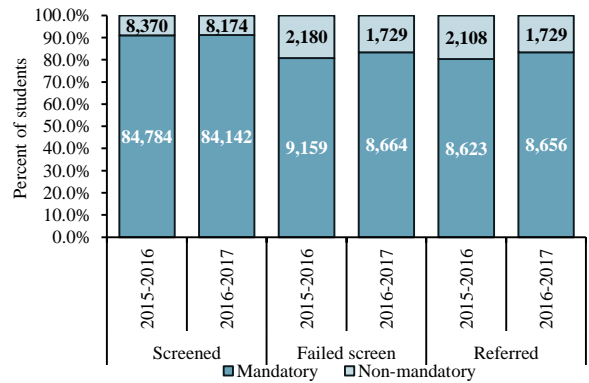


Figure 2. Number and percentage of students screened during campus-based vision screenings and results of the screenings based on mandatory grade-level status as reported to the Texas Department of State Health Services Child Health Reporting System (TDSHS), 2015–2016 and 2016–2017.

Source: TDSHS Child Health Reporting System, 2016–2017; Vision Partnership, 2015–2016 report (HISD, 2017b).

Results in **Figure 2** show that approximately 91.0 percent of students screened in both 2015–2016 and 2016–2017 were enrolled in grade levels that required mandatory vision screenings by law during the school year. Increases in both the proportions of students enrolled in mandatory grade levels who either failed their

campus-based vision screening (from 80.8 percent to 83.4 percent) or received a referral for a comprehensive eye examination (from 80.4 percent to 83.4 percent) were also observed in 2016–2017 from the previous school year (see Figure 2).

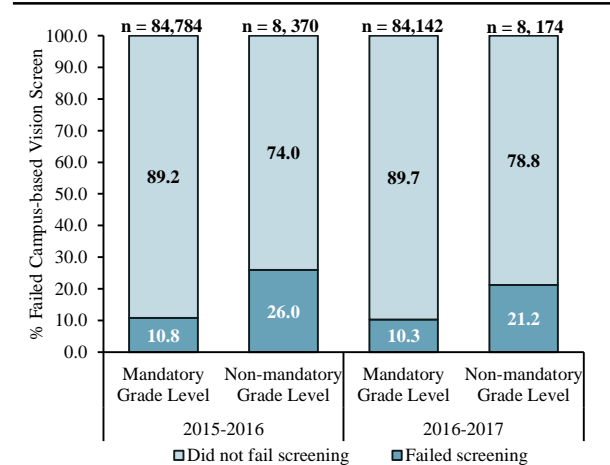


Figure 3. Proportion of students who failed their campus-based vision screen based on mandatory grade-level status as dictated by the Texas Department of State Health Services (TDSHS) Child Health Reporting System, 2015–2016 and 2016–2017.
Source: TDSHS Child Health Reporting System, 2016–2017.

However, **Figure 3** also shows that a higher proportion of students enrolled in grades that did not require mandatory vision screenings failed their campus-based vision screen when compared to peers enrolled in mandatory grade levels (26.0 percent vs. 10.8 percent, 2015–2016; 21.2 percent vs. 10.3 percent, 2016–2017). This finding was unsurprising as these students were more likely to have been referred by either a teacher or parent to get a campus-based vision screen.

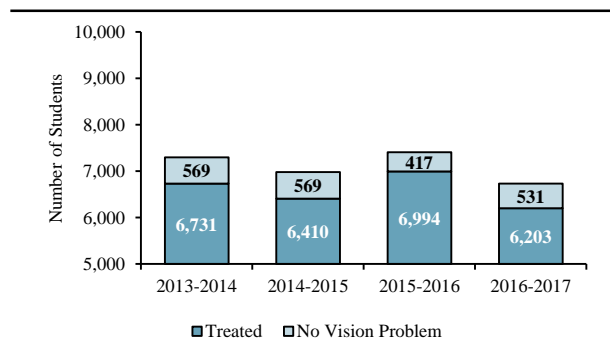


Figure 4. Number of students reported to have either received treatment or determined to not have a vision problem following campus-based vision screenings as reported to the Texas Department of State Health Services (TDSHS) Child Health Reporting System, 2013–2014 to 2016–2017.
Source: TDSHS Child Health Reporting System, 2016–2017; Vision Partnership report, 2015–2016 (HISD, 2017b).

Note. In 2016–2017, the students who transferred out of the district before the end of the year were removed from the number of students who were reported to receive treatment (n = 404).

Results in **Figure 4** show a decrease in both the number and proportion of HISD students who were treated by vision professionals in 2016–2017 (6,203 of 6,734; 92.1 percent) than in 2015–2016 (6,994 of 7,411; 94.3 percent) as reported to TDSHS. The 2016–2017 school year also had the lowest number of students (n = 6,734) who were seen by an eyecare professional following a campus-based vision screening in the Houston Independent School District.

How many HISD students participated in the Vision Partnership initiative in 2016–2017?

During 2016–2017, 116 HISD campuses participated in the Vision Partnership initiative; a retention rate of 90.6 percent from the previous school year (n = 128). Data reported by HISD’s Department of Health and Medical Services indicated that HISD participated in an estimated 132 visits to Vision Partnership clinics in 2016–2017 (see **Table 2**); a 10.8 percentage point decrease in clinic visits compared to 148 visits that occurred in 2015–2016 (HISD, 2017b, p. 12). Visits occurred during four designated timeframes: October 24–28, December 12–13, February 6–10, and February 27–March 3 (HISD Department of Health and Medical Services, 2017).

Total HISD Vision Clinic Trips		Total HISD Students Examined	
2015–2016	2016–2017	2015–2016	2016–2017
148	132	3,668	3,578

Source: HISD Health and Medical Services Vision Partnership Attendance data, 2016–2017; Vision Partnership, 2015–2016 report (HISD, January, 2017b).

Attendance records archived by the HISD Department of Health and Medical Services indicated that approximately 3,578 HISD students participated in the Vision Partnership initiative in the 2016–2017 school year; a 2.5 percent decrease from the previous school year (see **Figure 5**). Of these students, 3,346 (93.5 percent) were identified during their visit to a Vision Partnership clinic to need corrective eyewear for some portion of the day. This rate was similar to results from the 2015–2016 report year (93.0 percent, n = 3,413).

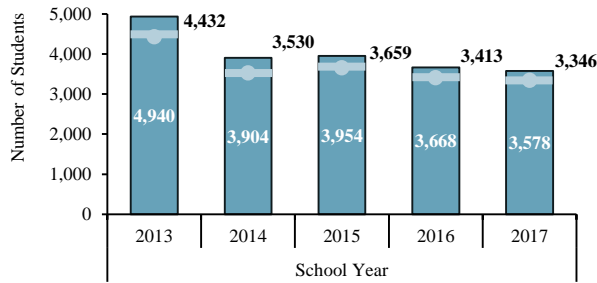


Figure 5. Number of students who were examined at a Vision Partnership clinic and determined to need vision correction, 2013–2014 to 2016–2017. Source: HISD Health and Medical Services Vision Partnership Attendance data, 2016–2017

Results shown in **Table 3** indicated that the percentage of demographic characteristics of HISD students and Vision Partnership students matched in the HDHHS/HISD Cognos Chancery files (n = 3,353; refer to Data Source section, p. 2-3) were relatively similar with regard to special education eligibility status. Similar trends were also noted among students identified as Hispanic or Other. An overrepresentation of students who were characterized as Female (56.8 percent), Black (31.6 percent), economically disadvantaged (90.3 percent), English Language Learners (ELL, 39.1 percent), or at risk (72.4 percent) was identified among

Demographic Characteristics	HISD		Vision Partnership participants		
	n	%	n	%	
Overall Sample	215,408	100.0	3,353	100.0	
Gender	Female	106,433	49.4	1,883	56.8
	Male	108,975	50.6	1,470	43.2
Race & Ethnicity	Asian	8,504	3.9	32	1.0
	Black	51,681	24.0	964	31.6
	Hispanic	133,979	62.2	2,270	64.9
	White	18,484	8.6	70	2.0
	Other	2,321	1.1	17	0.5
Economically disadvantaged ¹	166,108	77.1	3,027	90.3	
Gifted & Talented	32,533	15.1	382	11.4	
Special Education eligible	15,144	7.0	266	7.9	
English Language Learners	68,579	31.8	1,324	39.1	
At-Risk	145,354	67.5	2,429	72.4	

Source: HISD Cognos Chancery, Vision Screening Records 2016–2017; Houston Department of Health and Human Services Vision Partnership Participation data, 2016-2017; *HISD District and School Profiles, 2016–2017* report, p. 14.

Note. ¹Students identified as economically-disadvantaged qualify for free or reduced school lunch. Overrepresentation and underrepresentation of student participation in the Vision Partnership initiative is indicated by at least a +/-3.0 percentage-point difference from the HISD subgroup percent.

HISD students who participated in the Vision Partnership initiative during the 2016–2017 school year when compared to district-level percentages. An underrepresentation of students who were characterized as Male (43.2 percent), Asian (1.0 percent), White (2.0 percent), or Gifted and Talented (11.4 percent) was identified among students who participated in the Vision Partnership initiative in 2016–2017.

Results shown in **Table 4** indicate that the percentages of HISD and Vision Partnership students were relatively similar for students enrolled in second, fourth, sixth, seventh, and eighth grades. An overrepresentation of students who participated in Vision Partnership occurred among HISD students who were enrolled in the first (13.3 percent), third (19.0 percent), and fifth (19.3 percent), grades. An underrepresentation of students was observed among the following grade levels: kindergarten (3.1 percent), and ninth through twelfth grade students.

Grade Level	HISD		Vision Partnership participants	
	n	%	n	%
Overall Population	215,408	100.0	3,353	100.0
Prekindergarten	14,644	6.8	*	–
Kindergarten	16,535	7.7	106	3.1
First	17,948	8.3	448	13.3
Second	18,393	8.5	309	9.2
Third	18,082	8.4	638	19.0
Fourth	17,901	8.3	336	10.0
Fifth	16,666	7.7	650	19.3
Sixth	14,041	6.5	160	4.8
Seventh	13,543	6.3	265	7.9
Eighth	13,581	6.3	174	5.2
Ninth	16,679	7.7	106	3.2
Tenth	13,641	6.3	49	1.5
Eleventh	12,430	5.8	51	1.5
Twelfth	11,090	5.1	53	1.6

Source: HISD Cognos Chancery, Vision Screening Records 2016–2017; Houston Department of Health and Human Services Vision Partnership Participation data, 2016-2017; *HISD District and School Profiles, 2016–2017* report, p. 14.

Note. Overrepresentation and underrepresentation of student participation in the Vision Partnership initiative is indicated by at least a +/-3.0 percentage-point difference from the HISD subgroup percent.

*A student must be five years of age by September 1 to participate in VP.

What were the differences in academic performance among students who received eyewear in 2015–2016 through the Vision Partnership initiative for two academic years (2015–2017)?

The academic performance of the 2015–2016 HISD student cohort on the STAAR reading and mathematics assessments provides a context to consider the performance of program participants. Participating students were not matched to their districtwide peers 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. Percentage of the 2015–2016 Vision Partnership participants who met the 2016 and 2017 STAAR reading Approaches Grade Level Standards (combined English and Spanish)

2015–2016 Cohort by Grade level	# of students tested	STAAR Reading % met Approaches Grade Level Standard		
		2016 STAAR	2017 STAAR	Percentage Point Difference
Third grade	104	64%	59%	-5%
Fourth grade	40	75%	85%	+10%
Fifth grade	178	62%	49%	-13%
Sixth grade	42	48%	62%	+14%
Seventh grade	82	73%	76%	+3%

Tables 5 and 6 are comparisons of the passing rates of Vision Partnership participants who met the 2016 and 2017 STAAR 3–8 Approaches Grade Level standard in reading and mathematics at respective grade levels. Results shown in Table 5 (p. 6) indicate a higher proportion of fourth-, sixth-, and seventh-grade students of the 2015–2016 cohort met the Approaches Grade Level Standard on the 2017 STAAR reading assessments. Sixth-grade students experienced the highest percentage-point increase at 14 percentage points. Fifth-grade and third-grade students experienced a decrease in the proportion of students who passed the STAAR reading, with fifth graders experiencing the largest deficit (13 percentage points).

Table 6. Percentage of the 2015–2016 Vision Partnership participants who met the 2016 and 2017 STAAR mathematics Approaches Grade Level Standards (combined English and Spanish)

2015–2016 Cohort by Grade level	# of students tested	STAAR Mathematics % met Approaches Grade Level Standard		
		2016 STAAR	2017 STAAR	Percentage Point Difference
Third grade	123	68%	76%	+8%
Fourth grade	40	65%	68%	+3%
Fifth grade	178	80%	61%	-19%
Sixth grade	42	55%	50%	-5%
Seventh grade	65	60%	74%	+14%

With respect to Vision Partnership participants who met the Approaches Grade Level Standard on the 2016 and 2017 STAAR mathematics assessments (see Table 6), results indicate that a higher proportion of third-, fourth- and seventh-grade students of the 2015–2016 cohort met the Approaches Grade Level Standard on the 2017 STAAR mathematics assessments. Seventh-grade students experienced the highest percentage-point increase (14 percentage points). Fifth-grade and sixth-grade students experienced a decrease in the proportion of students who met the Approaches Grade Level standard the following year on the 2017 STAAR mathematics assessments, with fifth graders experiencing the largest deficit (19 percentage points).

Perspectives about the Vision Partnership

Similar to data collected from the previous report (HISD, 2017b), staff participants were generally satisfied with the Vision partnership, and anticipated continuing their participation through the next school year. However, insufficient time and staff to screen students and record data continues to be a concern voiced in interviews. Interview data also suggested an increase in the unmet needs of immigrant students, particularly among children of undocumented parents. Details in the interview suggest that because of recent changes in immigration law, undocumented parents may be too frightened to provide accurate information on VP consent forms, or follow-up with referrals with a health professional in fear of being tracked down, deported and separated from their children. As such, immigrant children were less likely, along with other underrepresented subgroups, to benefit from the Vision Partnership.

Conclusions

Good vision health is vital to childrens’ daily lives and their academic success. However, vision impairments continue to present barriers to children reaching their full potential, particularly among economically-disadvantaged and ethnic minority students (Basch, 2011). The Houston Independent School District’s alliance with the Vision Partnership initiative is paramount in eliminating a vision-related barrier that could impede children’s motivation and ability to learn (Morsey & Rothstein as cited in Houston Independent School District [HISD], 2017c). Although the number of schools that participated in VP during 2016–2017 (n = 116) decreased from the previous school year (n = 128), a negligible decrease (2.5 percent) in the overall VP participant count indicates an improvement in recruitment efforts among the 2016–2017 participating schools. It is recommended that the district continues to

support participating schools to improve school retention rates and students access to VP programming.

Results shown in Figure 3 indicated that a higher proportion of students enrolled in grade levels not required by Texas law to be screened (2nd, 4th, 6th, 8th through 12th grades) failed their campus-based vision screening when compared to peers enrolled in mandatory grade levels. These findings suggest that these students were more likely to either have a supporting adult (parent, teacher) or the self-advocacy skills to express their vision needs to relevant campus staff. Unfortunately, other students enrolled in non-mandatory grades may not possess the self-advocacy skills or receive external support to approach a campus staff about a vision screen. It is recommended that enhanced access to information regarding vision health and accessibility be made available to all HISD students and their families. The HISD Department of Health and Medical Services may also consider coordinating efforts with Vision Partnership to address the vision needs of HISD students who are enrolled at nonparticipating HISD campuses. This may include a renewed focus to increase recruitment efforts of nonparticipating campuses.

Furthermore, the enhancement of follow-up efforts is also recommended for students with vision needs. This will be particularly important for young students who may not be aware that they are experiencing a vision problem. Early vision health intervention during “the first six years of life are critical in the development of good eyesight” (AOA, 2017, p. 1), and will impact young children’s school readiness and their experiences with the world. Students with disabilities will also benefit from follow-up from both the school and the VP clinic as the impact of their condition may hinder their ability to either communicate their vision needs or participate fully during a vision examination. Follow-up with the families of students with disabilities will also provide them access to information regarding professionals who are trained to work with students with disabilities, as well receive information about which vision testing devices are appropriate for their child.

Performance data indicated that higher percentages of fourth- and seventh-grade students from the 2015–2016 cohort met the Approaches Grade Level Standard on both the 2017 STAAR reading and mathematics assessments, when compared to their performance on the STAAR assessments the previous year. Conversely, fifth grade students experienced declines in reading and mathematics on the STAAR exams. However, because only approximately eleven percent of 4,007 students were identified for inclusion in the performance analysis conducted for this study, caution should be exercised in the interpretation of these results and causal claims should not be made.

In conclusion, similar to information presented in the previous report (HISD, 2017b), insufficient time and

staff to screen students continues to be a concern voiced by participating staff. It is recommended that there is enhanced administrative support for school nurses to be provided sufficient assistance to conduct vision screenings, which is the starting point for students to be directed to receive Vision Partnership services. Inconsistencies in documentation at the school and organization levels continue to present challenges to perform both descriptive and causal analyses relative to the program’s impact on students’ achievement. It is recommended that HISD and members of the VP alliance coordinate efforts to streamline and triangulate documentation and define student variables, such as distinguishing students who need glasses from students who actually received their glasses. Efforts are currently underway between the HISD Department of Health and Medical Services and the University of Houston as they collaborate to address documentation concerns, and evaluate the VP in future reports.

References

- American Optometric Association. (2017). Evidence-based clinical practice guideline: Comprehensive pediatric eye and vision examination. Retrieved from <http://aoa.uberflip.com/i/807465-cpg-pediatric-eye-and-vision-examination>
- Basch, C. (2011). Healthier students are better learners: A missing link in school reforms to close the achievement gap. Equity matters: Research review No. 6. A Research Initiative of the Campaign for Educational Equity, Teachers College, Columbia University. Retrieved from http://www.equitycampaign.org/i/a/document/12557_EquityMattersVol6_Web03082010.pdf
- Centers for Disease Control and Prevention. (2017). Vision Health Initiative (VHI). Retrieved from <https://www.cdc.gov/visionhealth/home/index.html>
- Chu, R., Huang, K., Barnhardt, C., & Chen, A. (2015). The effect of an on-site vision examination on adherence to vision screening recommendation. *The Journal of School Nursing*, 31(2), 84-90. Retrieved from <https://www.houstontx.gov/health/KidsVision/2014-2015.pdf>
- Houston Health Foundation. (2017). Our programs: See to Succeed. Retrieved from <http://houstonhealthfoundation.org/our-programs>
- Houston Independent School District. (2017a). *District and school profiles 2016–2017*. Retrieved from http://www.houstonisd.org/cms/lib2/TX01001591/Centricity/domain/8269/districtdataanalysis/schoolprofiles/2016-2017/Complete%201617%20Profiles_102017.pdf

Houston Independent School District. (2017b). Vision Partnership, 2015–2016. Retrieved from http://www.houstonisd.org/cms/lib2/TX01001591/Centricity/domain/8269/pe_districtprograms/Vision%20Partnership%20Report%202015-16.pdf

Houston Independent School District. (2017c). *HISD Title I, Part A and Title II, Part A centralized programs, 2015–2016*. Retrieved from http://www.houstonisd.org/cms/lib2/TX01001591/Centricity/domain/8269/pe_federaltitleprograms/Title%20I%20Title%20II%20Centralized%20Programs%20Final%20Report_2015-2016-day-corrected.pdf

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