



## FIRST 5 SANTA CRUZ COUNTY



## ANNUAL EVALUATION REPORT



July 1, 2023 - June 30, 2024

October 2024

## Acknowledgements

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First 5 Santa Cruz County would like to thank Nicole Young, of Optimal Solutions Consulting, who managed Santa Cruz County's Triple P - Positive Parenting Program for over 15 years, as well as her invaluable collaboration in the evaluation of this program.

In addition, First 5 Santa Cruz County would like to thank the staff and participants of the funded partner agencies, whose commitment to data collection has facilitated the gathering of the robust data included in this report.



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## VisionFirst

### Program Description

The American Optometric Association recommends that children should have their first comprehensive eye exam between the ages of 3 and 5, and their next eye examination should be when they start school, around 5 years of age.

*“Every experience a preschooler has is an opportunity for growth and development. They use their vision to guide other learning experiences.*

- *From ages 2 to 5, a child will be fine-tuning the visual abilities gained during infancy and developing new ones. ...*
- *They are developing the visually-guided eye-hand-body coordination, fine motor skills, and visual perceptual abilities necessary to learn to read and write. ...*
- *Steps taken at this age to help ensure vision is developing normally can provide a child with a good "head start" for school. ...*
- *The preschool years are a time for developing the visual abilities that a child will need in school and throughout his or her life.”<sup>22</sup>*

To help identify vision problems early in life, VisionFirst was developed in Santa Cruz County as a way to provide children as young as 6 months old with a simple instrument-based vision screening right in their child care setting. First 5 VisionFirst Outreach staff were trained to use the Spot Vision Screener, a handheld portable device designed to quickly and easily detect vision issues. The Spot Vision Screener detects potential vision problems, such as nearsightedness, farsightedness, blurred vision, unequal refractive power, eye misalignment, and unequal pupil size.

The Spot Vision Screener does not replace a complete eye examination by an optometrist. Rather, it only identifies a potential vision issue. Parents of children who are found to be “out of range” (showing a potential vision problem) are encouraged and assisted in following up with a full vision exam from an optometrist. At this appointment, the optometrist can determine if the child requires glasses, needs to be monitored, or requires regular eye exam follow-up care.



Following the completion of a successful pilot program in summer 2015, VisionFirst was integrated into First 5’s Santa Cruz Reading Corps program,<sup>23</sup> which increased the reach of the program. In 2016-17, VisionFirst was expanded to include all state-funded preschool programs in the County. In addition, because the Spot Vision Screener can provide screenings to children as young as 6 months old, First 5 piloted screenings in 19 infant and toddler classrooms.

<sup>22</sup> American Optometric Association, *Preschool Vision: 2 to 5 Years of Age*, [Retrieved 8/21/24 from <http://www.aoa.org/>], 2024.

<sup>23</sup> The Santa Cruz Reading Corps program was discontinued in 2020-2021 as California State Preschool programs were not open to in-person instruction due to the COVID-19 pandemic.

Since the start of the program, vision screenings have been completed in 51 state-funded preschool and infant/toddler classrooms, 10 Migrant Seasonal Head Start classrooms, 4 state migrant classrooms, 4 Early Head Start classrooms, 13 Head Start classrooms, and 3 private preschool and infant/toddler classrooms, providing screenings at a total of **85** different classrooms in Santa Cruz County.

For children who are shown to have a vision issue, First 5 VisionFirst Outreach staff help parents find local optometrists if they don't already have one, and also provide crucial information and resources to help parents encourage their children to wear their new glasses.

- The First 5 website includes an entire section about VisionFirst, and provides videos and read-aloud books about eyeglasses. Some answer key questions for children, such as, "How do you know if you need glasses?", and "How does an eye doctor check your eyes?" Other books help build children's confidence in wearing their glasses.
- All parents are given a flyer, "Tips to encourage your child to wear their glasses."

The VisionFirst program believes that the more activities and books about vision health and screenings teachers have in their classrooms, the more comfortable children will feel when getting their eyes checked and seeing others with glasses. To assist with this, First 5 developed a bilingual *VisionFirst Dramatic Play Kit* that is given to child care sites participating in the program.



A dramatic play set-up in a child care site

Due to the success of the VisionFirst program, some local partners (including Migrant & Seasonal Head Start, Early Head Start/Head Start sites, and Santa Cruz Community Health Centers) have purchased their own Spot Vision Screeners to provide on-going screening.



The following two images are examples of what the screening results look like using the Spot Vision Screener. The image on the left shows screening results that indicate that the child may have vision issues. The image on the right shows the screening results for the same child wearing glasses, which shows the vast improvement in his vision. This shows how the Spot Vision Screener camera can identify potential vision problems, and how easily these results can be shared with the child's parents for discussion.

### Screening results indicating vision issues

Vision screening does not replace a complete eye examination by an ophthalmologist or optometrist.

**Complete Eye Exam Recommended**

Vision Screening Summary

SUBJECT ID: \_\_\_\_\_

SCREENING: \_\_\_\_\_ GENDER: **M**

AGE: \_\_\_\_\_

FIRST NAME: \_\_\_\_\_

LAST NAME: \_\_\_\_\_

POTENTIAL CONDITION

• Astigmatism (Cyl)  
[cylinder focusing]

• Nearsightedness (Myopia)  
[near vision]

• Farsightedness (Hyperopia)  
[far vision]

• Amblyopia  
[lazy eye]

• Strabismic  
[crossed eyes]

• Anisometropia  
[unequal refractive error]

• Aniseikonia  
[unequal image size]

• Presbyopia  
[age-related near vision loss]

• Convergence Insufficiency  
[difficulty focusing on near objects]

• Accommodative Excess  
[over-focusing]

• Accommodative Dysfunction  
[difficulty focusing]

• Convergence Excess  
[over-convergence]

• Convergence Insufficiency  
[under-convergence]

• Latent Strabismus  
[hidden crossed eyes]

• Manifest Strabismus  
[obvious crossed eyes]

• Nystagmus  
[involuntary eye movements]

• Ptosis  
[drooping eyelid]

• Exotropia  
[outward turning eye]

• Esotropia  
[inward turning eye]

• Hypertropia  
[upward turning eye]

• Hypotropia  
[downward turning eye]

• Vertical Strabismus  
[vertical misalignment]

• Horizontal Strabismus  
[horizontal misalignment]

• Cyclovertical Strabismus  
[cyclovertical misalignment]

• Microphthalmia  
[small eye]

• Megalophthalmia  
[large eye]

• Corneal Abnormalities  
[corneal issues]

• Lenticular Abnormalities  
[lens issues]

• Vitreous Abnormalities  
[vitreous issues]

• Retinal Abnormalities  
[retina issues]

• Optic Nerve Abnormalities  
[optic nerve issues]

• Brain Abnormalities  
[brain issues]

• Other Abnormalities  
[other issues]

RIGHT EYE: **OUT OF RANGE** (Nearsightedness, Farsightedness, Astigmatism, Amblyopia, Strabismic, Anisometropia, Aniseikonia, Presbyopia, Convergence Insufficiency, Accommodative Excess, Accommodative Dysfunction, Convergence Excess, Convergence Insufficiency, Latent Strabismus, Manifest Strabismus, Nystagmus, Ptosis, Exotropia, Esotropia, Hypertropia, Hypotropia, Vertical Strabismus, Horizontal Strabismus, Cyclovertical Strabismus, Microphthalmia, Megalophthalmia, Corneal Abnormalities, Lenticular Abnormalities, Vitreous Abnormalities, Retinal Abnormalities, Optic Nerve Abnormalities, Brain Abnormalities, Other Abnormalities)

LEFT EYE: **OUT OF RANGE** (Nearsightedness, Farsightedness, Astigmatism, Amblyopia, Strabismic, Anisometropia, Aniseikonia, Presbyopia, Convergence Insufficiency, Accommodative Excess, Accommodative Dysfunction, Convergence Excess, Convergence Insufficiency, Latent Strabismus, Manifest Strabismus, Nystagmus, Ptosis, Exotropia, Esotropia, Hypertropia, Hypotropia, Vertical Strabismus, Horizontal Strabismus, Cyclovertical Strabismus, Microphthalmia, Megalophthalmia, Corneal Abnormalities, Lenticular Abnormalities, Vitreous Abnormalities, Retinal Abnormalities, Optic Nerve Abnormalities, Brain Abnormalities, Other Abnormalities)

BOTH EYES: **OUT OF RANGE** (Nearsightedness, Farsightedness, Astigmatism, Amblyopia, Strabismic, Anisometropia, Aniseikonia, Presbyopia, Convergence Insufficiency, Accommodative Excess, Accommodative Dysfunction, Convergence Excess, Convergence Insufficiency, Latent Strabismus, Manifest Strabismus, Nystagmus, Ptosis, Exotropia, Esotropia, Hypertropia, Hypotropia, Vertical Strabismus, Horizontal Strabismus, Cyclovertical Strabismus, Microphthalmia, Megalophthalmia, Corneal Abnormalities, Lenticular Abnormalities, Vitreous Abnormalities, Retinal Abnormalities, Optic Nerve Abnormalities, Brain Abnormalities, Other Abnormalities)

VisionFirst  
A program of FIRST5  
If you have questions, please call (831) 465-2709

### Screening results after receiving eyeglasses

Vision screening does not replace a complete eye examination by an ophthalmologist or optometrist.

**Screening Complete**

Vision Screening Summary

SUBJECT ID: \_\_\_\_\_

SCREENING: \_\_\_\_\_ GENDER: **M**

AGE: \_\_\_\_\_

FIRST NAME: \_\_\_\_\_

LAST NAME: \_\_\_\_\_

(Wearing Glasses)

POTENTIAL CONDITION

• Astigmatism (Cyl)  
[cylinder focusing]

• Nearsightedness (Myopia)  
[near vision]

• Farsightedness (Hyperopia)  
[far vision]

• Amblyopia  
[lazy eye]

• Strabismic  
[crossed eyes]

• Anisometropia  
[unequal refractive error]

• Aniseikonia  
[unequal image size]

• Presbyopia  
[age-related near vision loss]

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• Nystagmus  
[involuntary eye movements]

• Ptosis  
[drooping eyelid]

• Exotropia  
[outward turning eye]

• Esotropia  
[inward turning eye]

• Hypertropia  
[upward turning eye]

• Hypotropia  
[downward turning eye]

• Vertical Strabismus  
[vertical misalignment]

• Horizontal Strabismus  
[horizontal misalignment]

• Cyclovertical Strabismus  
[cyclovertical misalignment]

• Microphthalmia  
[small eye]

• Megalophthalmia  
[large eye]

• Corneal Abnormalities  
[corneal issues]

• Lenticular Abnormalities  
[lens issues]

• Vitreous Abnormalities  
[vitreous issues]

• Retinal Abnormalities  
[retina issues]

• Optic Nerve Abnormalities  
[optic nerve issues]

• Brain Abnormalities  
[brain issues]

• Other Abnormalities  
[other issues]

RIGHT EYE: **IN RANGE** (Nearsightedness, Farsightedness, Astigmatism, Amblyopia, Strabismic, Anisometropia, Aniseikonia, Presbyopia, Convergence Insufficiency, Accommodative Excess, Accommodative Dysfunction, Convergence Excess, Convergence Insufficiency, Latent Strabismus, Manifest Strabismus, Nystagmus, Ptosis, Exotropia, Esotropia, Hypertropia, Hypotropia, Vertical Strabismus, Horizontal Strabismus, Cyclovertical Strabismus, Microphthalmia, Megalophthalmia, Corneal Abnormalities, Lenticular Abnormalities, Vitreous Abnormalities, Retinal Abnormalities, Optic Nerve Abnormalities, Brain Abnormalities, Other Abnormalities)

LEFT EYE: **IN RANGE** (Nearsightedness, Farsightedness, Astigmatism, Amblyopia, Strabismic, Anisometropia, Aniseikonia, Presbyopia, Convergence Insufficiency, Accommodative Excess, Accommodative Dysfunction, Convergence Excess, Convergence Insufficiency, Latent Strabismus, Manifest Strabismus, Nystagmus, Ptosis, Exotropia, Esotropia, Hypertropia, Hypotropia, Vertical Strabismus, Horizontal Strabismus, Cyclovertical Strabismus, Microphthalmia, Megalophthalmia, Corneal Abnormalities, Lenticular Abnormalities, Vitreous Abnormalities, Retinal Abnormalities, Optic Nerve Abnormalities, Brain Abnormalities, Other Abnormalities)

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### One VisionFirst Story

Vision care for children is considered an "Essential Benefit" covered by most health plans. This year, only 4 of the 65 parents we spoke to indicated that their child had previously seen an eye doctor. For many parents, our conversation was the first time they heard of taking their child to an eye doctor.

Results generated by the Spot Vision Screener allow us to easily see when a child's vision screening is "out of range." This year, one child stood out for being significantly "out of range" in several areas, and he ended up receiving eyeglasses after a full vision exam with an optometrist.

What was truly striking was the father's reaction. He had never noticed anything odd about his son's eyesight, nor had his son complained of any pain. The father was taken aback when the results he received from us showed that his son was significantly "out of range," and when the eye doctor indicated that his son needed eyeglasses. As the father put it, "he must have needed them because it was never a problem to have him keep his eyeglasses on. He has been wearing them regularly since he got them."

This example is a stark reminder of the importance of regular eye exams, even when there are no apparent issues. Let's reinforce the message, "When You Think About Your Health, Don't Forget Your Eyes."

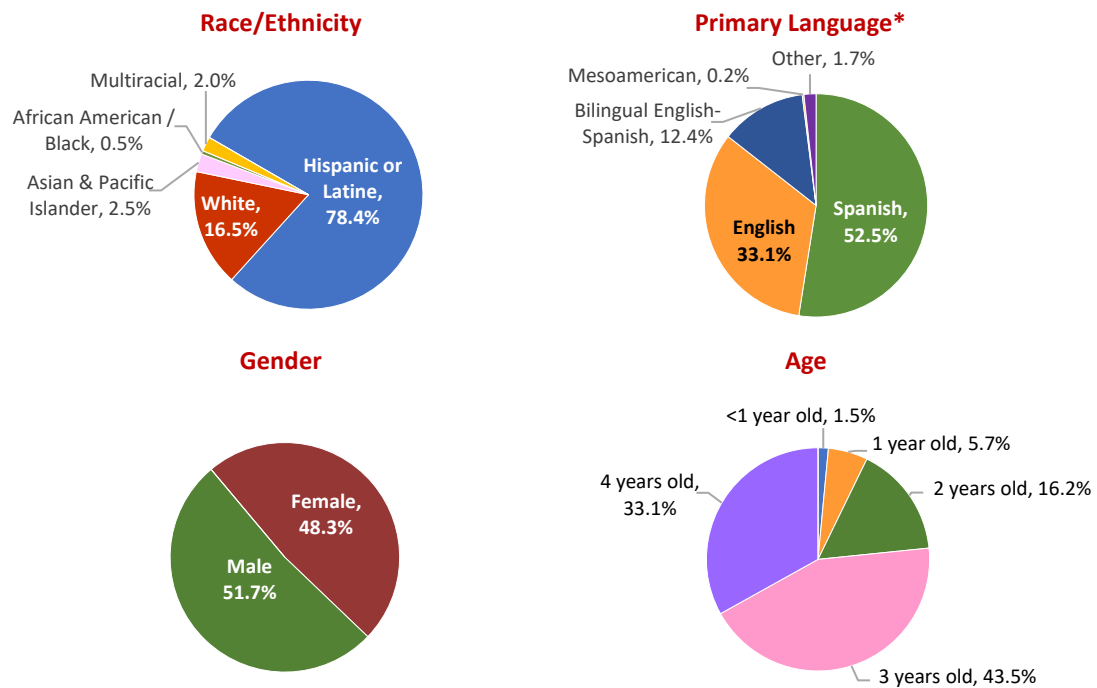
- First 5 VisionFirst program

## Population Served

	2023-2024
Children	402

Source: First 5 Santa Cruz County, VisionFirst records, 2024.

Figure 23: Demographics of Children (ages 0-5) participating in VisionFirst (2023-24)



Source: First 5 CCD database for July 1, 2023 – June 30, 2024.

Note: Clients with missing or unknown data for a demographic are excluded from that demographic's analysis.

\* "Other" language options may include Multilingual, Bilingual-Other, and other languages.

N=(Race)=393; (Language)=402; (Gender)=402; (Age)=402.

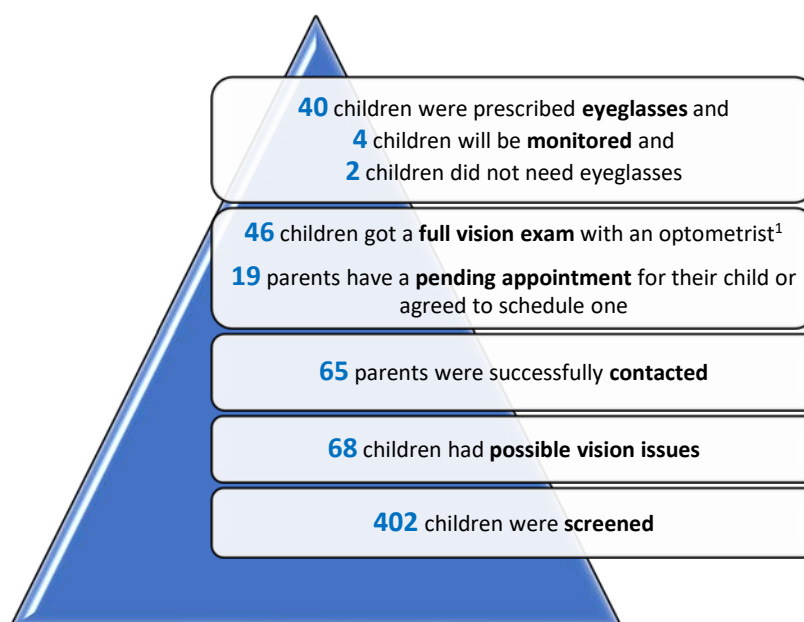
## Outcomes

VisionFirst helped identify children who might have vision problems, many of whom then had full vision exams at an optometrist. First 5 VisionFirst Outreach staff reported these screening results:

- Of the **402** children screened, **68** had possible vision problems identified (17% of all children screened).
- First 5 VisionFirst Outreach staff were able to contact the parents of **65** of these children about their children's results.
- 46** of these children have followed up with a full vision exam at an optometrist (to date).<sup>24</sup>
- Of those children who had a full vision exam, **40** were prescribed eyeglasses, **4** will continue to be monitored for possible vision issues, and **2** children did not need eyeglasses.

<sup>24</sup> These FY 2023-24 results are as of 9/9/24, in order to get as thorough a report as possible of the final outcomes for this cohort.

Figure 24: VisionFirst results – Santa Cruz County (2023-24)



Source: First 5 Santa Cruz County, VisionFirst records, 2024.

Note: These FY 2023-24 results are as of 9/9/24, in order to get as thorough a report as possible of the final outcomes for this cohort.

<sup>1</sup> Full vision exams were conducted either for the first time, or with the child's current optometrist.

### Local partner activities

The PVUSD Migrant and Seasonal Head Start (MSHS) program and Head Start, Early Head Start, and State Preschool sites have adopted this program and purchased their own Spot Vision Screener devices. In 2023-24 these sites conducted their own screenings and follow-up, and reported these significant results:

Figure 25: Local partners' vision screenings using the Spot Vision Screener (2023-24)

	NUMBER OF CHILDREN SCREENED	NUMBER OF CHILDREN WITH POSSIBLE VISION ISSUES	NUMBER OF CHILDREN WHO GOT A FULL VISION EXAM WITH AN OPTOMETRIST	RESULTS
PVUSD Migrant and Seasonal Head Start (MSHS) program	162	45	39	<ul style="list-style-type: none"> <li>22 were prescribed glasses</li> <li>17 will be monitored</li> </ul>
Head Start, Early Head Start, and State Preschool sites	225	31	26	<ul style="list-style-type: none"> <li>16 were prescribed glasses</li> <li>6 will be monitored</li> <li>4 did not need glasses</li> </ul>

The impact of the VisionFirst program—and at agencies that adopted this program—may be even greater, as it's likely that these efforts may also lead to families getting vision exams for their other children as well. Future work by the VisionFirst program will focus on continuing to provide these services to existing VisionFirst sites, expanding these screenings to additional child care sites, and helping more families follow up with full vision exams.