



## REIMBURSEMENT GUIDE FOR INSTRUMENT-BASED VISION SCREENING

### What is Instrument-Based Vision Screening?

Instrument-based vision screening refers to vision screening using an automated device that can help identify vision conditions or risk factors that may cause decreased vision or amblyopia.<sup>1</sup> An instrument-based vision screener takes an image of the eyes to measure refractive error and ocular misalignments. It can be as quick and easy as taking a photo with a digital camera.<sup>1,2</sup> Other names for instrument-based vision screening include automated screening, autorefractometry, objective screening and photostereopsis.<sup>3</sup>

### Critical Importance of Eye Health for Children

Vision problems are common among children, with 19 million worldwide living with a vision disorder.<sup>2</sup> Oftentimes, vision disorders have no noticeable symptoms,<sup>3</sup> and as a result, children may not realize they see the world differently than others.<sup>4</sup>

Early detection and treatment of vision problems in childhood is critical, as 80% of vision disorders can be prevented or cured.<sup>2</sup> Unfortunately, according to the Centers for Disease Control and Prevention (CDC), only one in three children in the U.S. has received eye care services before the age of six.<sup>5</sup>

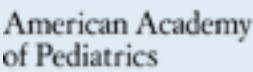
Uncorrected vision disorders can impact a child's cognitive, emotional, neurological and physical development, potentially resulting in behavior problems, interference with early literacy and learning, and even permanent vision loss.<sup>6</sup>

Among preschool children, less than 15% receive comprehensive eye examinations and less than 22% undergo vision screening.<sup>7</sup> The evaluation of the visual system can help detect conditions like strabismus and amblyopia that distort or suppress normal visual images.<sup>3</sup> Without early detection and treatment, these vision conditions may lead to permanent vision loss.<sup>3</sup>




## What are the national guidelines related to vision screening?

The American Academy of Pediatrics (AAP) is the most influential specialty medical society in this space and recommends that instrument-based screening may be used to assess risk at ages 12 months and 24 months, in addition to the well visits at three through five years of age.<sup>8</sup> Bright Futures is an initiative led by the AAP and aims to improve health outcomes for the nation's infants, children and adolescents by increasing the quality of primary and preventive care.



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According to the AAP, children ages four and five should be presented with visual acuity charts. Instruments can be used if the patient is uncooperative or has a diagnosis of developmental delay.



12 months      24 months      3 years      4 years      5 years

## What are the appropriate CPT® codes to report instrument-based ocular screening?

There are two CPT codes available to report instrument-based ocular screening:

- CPT code 99174 Instrument-based ocular screening (e.g., photoscreening, automated-refraction), bilateral; with remote analysis and report
- CPT code 99177 Instrument-based ocular screening (e.g., photoscreening, automated-refraction), bilateral; with on-site analysis

## What is the difference between CPT code 99174 and CPT code 99177?

Instrumentation and location of site are the elements that differentiate these two codes.

- CPT code 99174 describes the service where data is transmitted to a remote facility. The analysis and report are also compiled remotely.
- CPT code 99177 describes instrumentation that provides on-site, real-time analysis of the images. This does not require electronic transfer of data for analysis. The physician is able to receive an on-site reading and report.

## Will insurance companies cover claims for CPT code 99177?

These are Category-1 codes, which are permanent codes for clinically recognized and accepted services that are assigned values for payment.

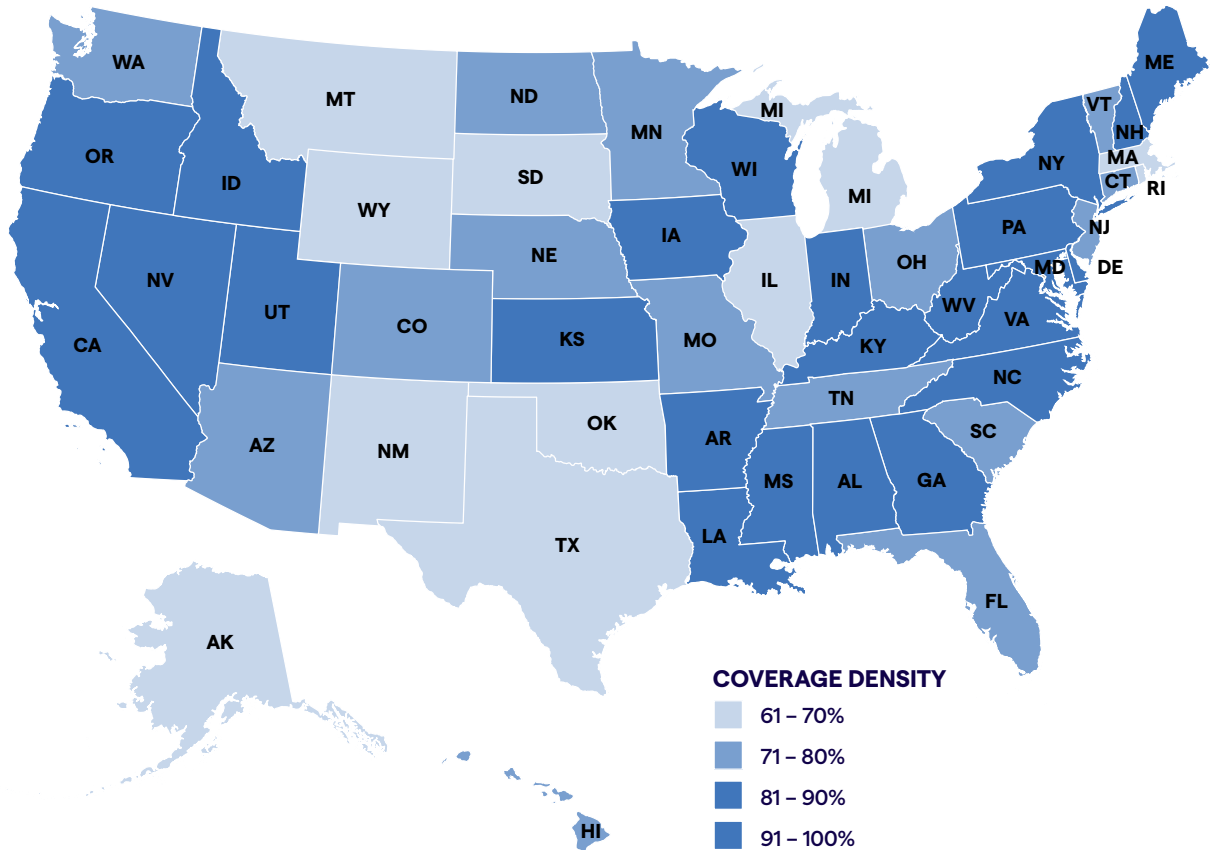
The U.S. Preventive Services Task Force (USPSTF) recommends instrument-based vision screening with a “B” level evidence rating, meaning there is high certainty that the net benefit is moderate and that the practice should provide this particular service.<sup>2</sup> The Affordable Care Act requires health plans to cover preventative services that have an “A” or “B” level evidence rating.<sup>2</sup>

## What is the proportion of claims paid for CPT code 99177?

In 2018, 82% of claims submitted were covered services. The proportion of paid claims rose 6% between 2017-2018.



### What is the National Commercial Coverage Landscape for CPT code 99177?



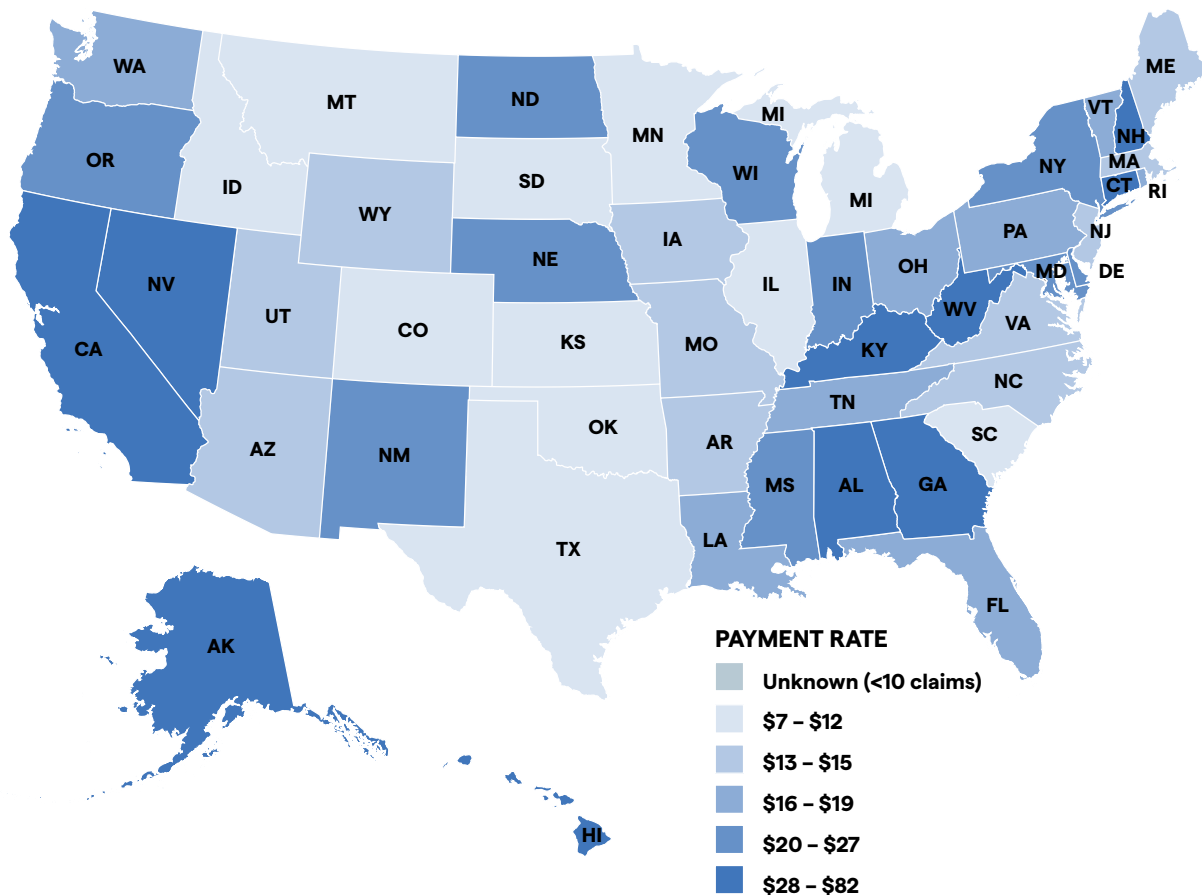
### Commercial Coverage Density By State

STATE	AL	AK	AR	AZ	CA	CO	CT	DC	FL	GA	HI	IA	ID	IL	IN	KS	KY
COV. DENSITY	97%	60%	81%	78%	82%	77%	73%	96%	71%	84%	78%	87%	84%	63%	92%	81%	86%
LA	MA	ME	MI	MD	MN	MS	MO	MT	NC	ND	NE	NH	NJ	NM	NV	NY	
91%	67%	81%	63%	89%	75%	91%	75%	60%	89%	79%	78%	92%	75%	68%	93%	89%	
OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WV	WY		
76%	62%	93%	88%	89%	78%	62%	80%	70%	83%	83%	75%	77%	92%	86%	62%		

<sup>9</sup>AIS Directory of Health Plans, 2017; National heatmap only considers sampled commercial payers in which covered ages are explicitly stated or where an understanding of covered ages can be inferred (n=16). Results are weighted by plan size and regional presence. Ages 1-5 are weighted evenly (e.g., 20% for each age covered).



## What is the National Commercial Payer Average for CPT code 99177?



### 2018 Commercial Payment Rate By State

STATE	AL	AK	AR	AZ	CA	CO	CT	DE	FL	GA	HI	IA	ID	IL	IN	KS	KY
PAYMENT RATE	\$28	\$33	\$13	\$13	\$34	\$12	\$30	\$24	\$16	\$37	\$82	\$14	\$10	\$12	\$21	\$10	\$34
LA	MA	ME	MI	MD	MN	MS	MO	MT	NC	ND	NE	NH	NJ	NM	NV	NY	
\$16	\$15	\$13	\$12	\$27	\$11	\$25	\$15	\$11	\$14	\$21	\$26	\$35	\$14	\$22	\$43	\$25	
OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WV	WY		
\$17	\$11	\$20	\$17	\$16	\$11	\$11	\$17	\$12	\$14	\$15	\$18	\$16	\$26	\$29	\$15		

\*Average listed is based on fewer than 10 services.

<sup>10</sup>Truven commercial claims data. Rates reflect payer payment for CPT code 99177 performed in the office setting.



## What age ranges are covered by CPT code 99177?

Covered ages vary by payer and individual plan. AAP is the most often cited specialty society in coverage policies. The 2016 AAP policy statement indicates instrument-based screening, if available, should be first attempted between 12 months and three years of age and at annual well-child visits until acuity can be tested directly.<sup>11</sup> Some plans may cite USPSTF guidelines as the basis for their coverage policy.

Children with a diagnosis of developmental delay (DDD) and who are unable to cooperate with standard visual acuity tests may be covered for instrument-based vision screening by individual plans. Payers predominantly require DDD for children ages four and five. Some commercial payers explicitly cover instrument-based vision screening for children with any diagnosis.

## Can I separately bill an evaluation and management (E&M) code and CPT 99177?

CMS' National Correct Coding Initiative (NCCI) provides payers with guidance on proper claims adjudication, particularly when certain codes are billed together. Per NCCI guidelines, CPT 99177 was separately payable with preventive E&M codes until an October 2017 update. The AAP successfully lobbied for NCCI to remove the update effective July 2018. Healthcare providers can appeal zero-dollar payment outcomes for claims on CPT code 99177.

## What is the deductible and total cost burden for patients if the claim is denied?

The average patient deductible for unpaid claims was \$2.87 in 2018. The reduced deductible amount (\$6.80 in 2017) suggests the average total patient cost share has decreased and will likely remain low.

For the same claims, deductible as a proportion of total patient cost share (inclusive of copay, coinsurance, etc.) decreased from 80% in 2017 to 47% in 2018.<sup>10</sup>

## Can providers collect payment from patients for non-covered services?

Each provider will have their own policies on collection of non-covered services. Providers must inform the patient that the services may not be covered. As part of this process, the provider should have the patient sign a waiver acknowledging the patient's financial responsibility.

## Is support available for payer advocacy?

The American Academy of Pediatrics (AAP) Payer Advocacy Advisory Committee (PAAC) has developed Issue Guidance sheets on emerging payment issues. These can be used by AAP chapters and members to address specific payer issues. Strategies and resources are provided on instrument-based vision screening and CPT 99177.<sup>8</sup>

## What is the average payback for instrument-based vision screeners?

Payback will vary based on patient volume, payer mix and local coverage policies. Many providers who invest in instrument-based vision screening technology see positive returns in approximately one year if reimbursement is available<sup>3</sup>—the national average for commercial coverage is \$19.25.<sup>10</sup>

In addition, the Americans with Disability Act offers federal tax advantages for the purchase of an instrument-based vision screener.<sup>3</sup>

Instrument-based vision screeners can be leased for as little as \$149/month.

For more information on average coverage rates in your region, visit [hillrom.com/svsinvestment](https://hillrom.com/svsinvestment) to request a Vision Screening Investment Analysis from a Hillrom consultant that includes the following:

- Return on Investment (ROI) Analysis based on pediatric patient flow
- Customized report of top-five payer payments by state
- Estimated pediatric vision screening exam coverage by age



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<sup>1</sup> American Association for Pediatric Ophthalmology and Strabismus. Pediatric Vision Screening: Guidelines for Effective and Efficient Vision Screening in Children.

<sup>2</sup> Children's Eye Foundation. <https://www.childrenseyefoundation.org/see/>. Accessed January 2, 2019.

<sup>3</sup> Children's Eye Foundation. A Practical Guide for Primary Care Physicians: Instrument-Based Vision Screening.

<sup>4</sup> Prevent Blindness Wisconsin. Children's Vision Screening. <https://wisconsin.preventblindness.org/vision-services-and-programs-childrenwisconsin>. Accessed January 2, 2019.

<sup>5</sup> Prevent Blindness Wisconsin. Our Vision for Children's Vision: A National Call to Action for the Advancement of Children's Vision and Eye Health. [https://wisconsin.preventblindness.org/sites/default/files/national/documents/OurVisionforChildren\\_2010\\_0.pdf](https://wisconsin.preventblindness.org/sites/default/files/national/documents/OurVisionforChildren_2010_0.pdf). Accessed January 2, 2019.

<sup>6</sup> National Association of School Nurses. Vision and Eye Health. <https://www.nasn.org/nasn-resources/practice-topics/vision-health>. Accessed January 2, 2019.

<sup>7</sup> Centers for Disease Control and Prevention. Keep an Eye on Your Vision Health. <https://www.cdc.gov/features/healthyvision/index.html>. Accessed January 3, 2019.

<sup>8</sup> <https://www.aap.org/en-us/professional-resources/practice-transformation/getting-paid/Pages/Payer-Advocacy-Issue-Guidance.aspx>

<sup>9</sup> AIS Directory of Health Plans. 2017; National heatmap only considers sampled commercial payers in which covered ages are explicitly stated or where an understanding of covered ages can be inferred (n=16). Results are weighted by plan size and regional presence. Ages 1-5 are weighted evenly (e.g., 20% for each age covered).

<sup>10</sup> Truven, Commercial Claims. 2016. Truven commercial claims data for services performed in the office setting

<sup>11</sup> Official Journal of the American Academy of Pediatrics. Eye Examination and Vision Screening in Infants, Children, and Young Adults. <http://pediatrics.aappublications.org/content/pediatrics/98/1/153.full.pdf>. Accessed January 2, 2019.

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