

CHAPTER 42

Vision (V)

Lead Agency

National Institutes of Health

Contents

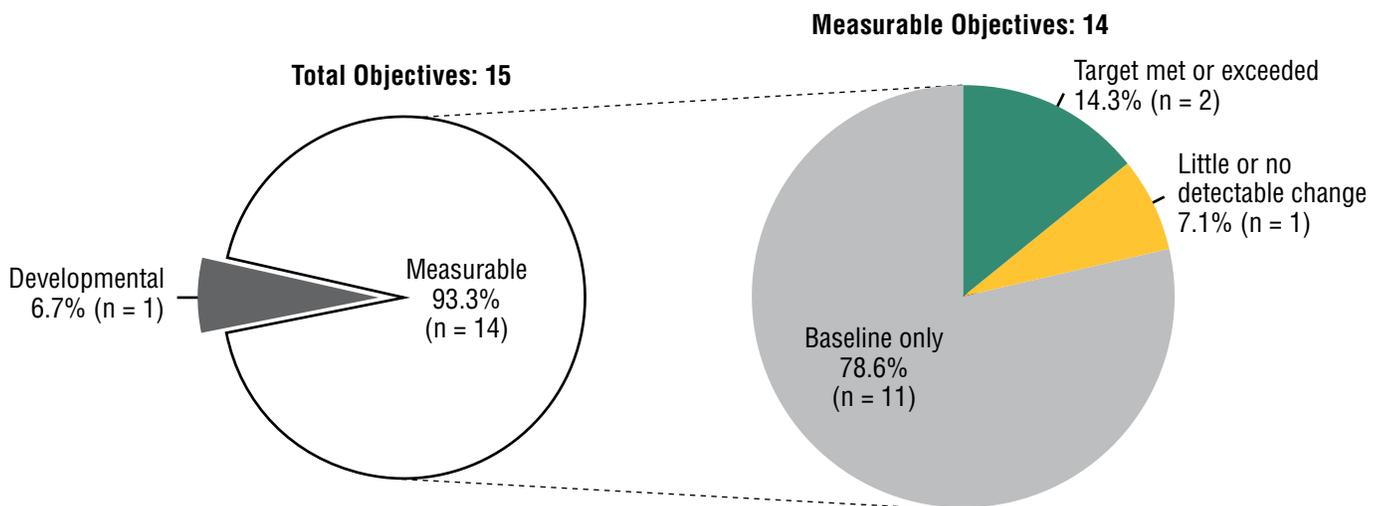
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Goal: Improve the visual health of the Nation through prevention, early detection, timely treatment, and rehabilitation.

This chapter includes objectives that monitor vision screening, visual impairment due to selected eye diseases, occupational eye injuries, the use of protective eyewear, and vision rehabilitation. The *Reader's Guide* provides a step-by-step explanation of the content of this chapter, including criteria for highlighting objectives in the Selected Findings.¹

Status of Objectives

Figure 42–1. Midcourse Status of the Vision Objectives



Of the 15 objectives in the Vision Topic Area, 1 was developmental² and 14 were measurable³ (Figure 42–1, Table 42–1). The midcourse status of the measurable objectives was as follows (Table 42–2):

- 2 objectives had met or exceeded their 2020 targets,⁴
- 1 objective had demonstrated little or no detectable change,⁵ and
- 11 objectives had baseline data only.⁶

Selected Findings

Vision Screening and Eye Examination

Data beyond the baseline were not available for the two objectives (V-1 and V-4) on vision screening and eye examination, so progress toward their 2020 targets could not be assessed (Table 42–2).

- The proportion of **preschool children aged 5 years and under who ever received vision screening (V-1)** was 40.1% in 2008 (Table 42–2).

» In 2008, the disparities by sex, race and ethnicity, family income, and geographic location in the proportion of preschool children aged 5 and under who ever received vision screening (V-1) were not statistically significant (Table 42–3).

- The age-adjusted proportion of **adults aged 18 and over who had received a dilated eye examination within the past 2 years (V-4)** was 55.0% in 2008 (Table 42–2).

» In 2008, there were statistically significant disparities by sex, education, family income, and geographic location in the age-adjusted proportion of adults aged 18 and over who had received a dilated eye examination within the past 2 years (Table 42–3, V-4). The disparity by race and ethnicity was not statistically significant.

Visual Impairment

One objective addressing visual impairment among children aged 17 years and under demonstrated little or no detectable change, and data beyond the baseline

were not available for the five objectives tracking visual impairment in adults, so progress toward their 2020 targets could not be assessed (Table 42–2).

- There was little or no detectable change in the rate of **blindness and visual impairment among children and adolescents aged 17 and under** (V-2) between 2008 and 2014 (28.2 and 26.1 per 1,000 population, respectively) (Table 42–2).
 - » In 2014, there were statistically significant disparities by family income and geographic location in the rate of blindness and visual impairment among children and adolescents aged 17 and under (Table 42–3, V-2). The disparities by sex and race and ethnicity were not statistically significant.
- The age-adjusted rate of **visual impairment in persons aged 12 and over due to uncorrected refractive errors** (V-5.1) was 136.1 per 1,000 population in 2005–2008 (Table 42–2).
 - » In 2005–2008, there were statistically significant disparities by race and ethnicity, education, and family income in the age-adjusted rate of visual impairment in persons aged 12 and over due to uncorrected refractive errors (Table 42–3, V-5.1). Disparities by sex and disability status were not statistically significant.
- The age-adjusted rate of **visual impairment due to diabetic retinopathy in persons aged 18 and over with diabetes** (V-5.2) was 34.2 per 1,000 population in 2008 (Table 42–2).
 - » In 2008, there was a statistically significant disparity by family income in the age-adjusted rate of visual impairment due to diabetic retinopathy in persons aged 18 and over with diabetes (Table 42–3, V-5.2). The disparity by sex was not statistically significant.
- The age-adjusted rate of **visual impairment due to glaucoma in persons aged 45 and over** (V-5.3) was 13.9 per 1,000 population in 2008 (Table 42–2).
 - » In 2008, there was a statistically significant disparity by race and ethnicity in the age-adjusted rate of visual impairment due to glaucoma in persons aged 45 and over (Table 42–3, V-5.3). Disparities by sex, education, family income, and geographic location were not statistically significant.
- The age-adjusted rate of **visual impairment due to cataract in persons aged 65 and over who had ever been diagnosed with cataract** (V-5.4) was 110.0 per 1,000 population in 2008 (Table 42–2).
 - » In 2008, there were statistically significant disparities by education and family income in the

age-adjusted rate of visual impairment due to cataract in persons aged 65 and over (Table 42–3, V-5.4). The disparities by sex, race and ethnicity, and geographic location were not statistically significant.

- The age-adjusted rate of **visual impairment due to age-related macular degeneration in persons 45 and over** (V-5.5) was 15.5 per 1,000 population in 2008 (Table 42–2).
 - » In 2008, there were statistically significant disparities by sex and education in the age-adjusted rate of visual impairment due to age-related macular degeneration in persons 45 and over (Table 42–3, V-5.5). The disparities by family income and geographic location were not statistically significant.

Occupational Eye Injury

The two objectives monitoring occupational eye injuries exceeded their 2020 targets (Table 42–2).

- The rate of **occupational eye injuries resulting in lost work days** (V-3.1) decreased from 2.9 per 10,000 full-time workers in private industry in 2008 to 2.4 in 2011, exceeding the 2020 target (Table 42–2).
 - » In 2011, there was a statistically significant disparity by sex in the rate of occupational eye injuries resulting in lost work days (Table 42–3, V-3.1).
- The rate of **occupational eye injuries treated in emergency departments** (V-3.2) declined from 12.9 per 10,000 full-time workers in 2008 to 8.9 in 2012, exceeding the 2020 target (Table 42–2).
 - » In 2011, there was a statistically significant disparity by sex in the rate of occupational eye injuries treated in emergency departments (Table 42–3, V-3.2).

Use of Protective Eyewear

Data beyond the baseline were not available for either of the objectives addressing the use of protective eyewear in recreational activities and hazardous situations around the home, so progress toward their 2020 targets could not be assessed (Table 42–2).

- In 2008, 16.5% of **children and adolescents aged 6–17 who used protective eyewear while engaged in sports, hobbies, and hazardous situations around the home** (Table 42–2, V-6.1).
 - » In 2008, there was a statistically significant disparity by sex in the proportion of children and adolescents aged 6–17 who used protective eyewear while engaged in sports, hobbies, and hazardous

situations around the home (Table 42–3, V-6.1). Disparities by race and ethnicity, family income, and geographic location were not statistically significant.

- In 2008, 39.7% (age-adjusted) of **adults aged 18 and over who used protective eyewear in recreational activities and hazardous situations around the home** (Table 42–2, V-6.2).
 - » In 2008, there was a statistically significant disparity by sex in the age-adjusted proportion of adults aged 18 and over who used protective eyewear while engaged in recreational activities and hazardous situations around the home (Table 42–3, V-6.2). Disparities by race and ethnicity, education, family income, and geographic location were not statistically significant.

Vision Rehabilitation and Use of Assistive and Adaptive Devices

Data beyond the baseline were not available for either of the objectives addressing vision rehabilitation and use of assistive and adaptive devices, so progress toward their 2020 targets could not be assessed (Table 42–2).

- The age-adjusted rate of **vision rehabilitation services used by persons aged 18 and over with visual impairment** (V-7.1) was 30.2 per 1,000 population in 2008 (Table 42–2). The vision rehabilitation services included job training, counseling, or training in daily living skills and mobility.
 - » In 2008, there was a statistically significant disparity by education in the age-adjusted rate of vision rehabilitation services used by adults with visual impairment (Table 42–3, V-7.1). Disparities by sex and family income were not statistically significant.
- In 2008, 11.2% (age-adjusted) of **adults aged 18 and over with visual impairment used assistive and adaptive devices** (V-7.2), such as telescopic or other prescriptive lenses, magnifiers, large print or talking materials, closed circuit television (CCTV), a white cane, or a guide dog (Table 42–2).
 - » In 2008, the disparities by sex, race and ethnicity, education, family income, and geographic location in the age-adjusted proportion of adults with visual impairment who used assistive and adaptive devices (V-7.2) were not statistically significant (Table 42–3).

More Information

Readers interested in more detailed information about the objectives in this topic area are invited to visit the [HealthyPeople.gov](http://www.healthypeople.gov) website, where extensive substantive and technical information is available:

- For the background and importance of the topic area, see: <http://www.healthypeople.gov/2020/topics-objectives/topic/vision>
- For data details for each objective, including definitions, numerators, denominators, calculations, and data limitations, see: <http://www.healthypeople.gov/2020/topics-objectives/topic/vision/objectives> *Select an objective, then click on the “Data Details” icon.*
- For objective data by population group (e.g., sex, race and ethnicity, or family income), including rates, percentages, or counts for multiple years, see: <http://www.healthypeople.gov/2020/topics-objectives/topic/vision/objectives> *Select an objective, then click on the “Data2020” icon.*

Data for the measurable objectives in this chapter were from the following data sources:

- National Electronic Injury Surveillance System: <http://www.cpsc.gov/en/Safety-Education/Safety-Guides/General-Information/National-Electronic-Injury-Surveillance-System-NEISS/>
- National Health and Nutrition Examination Survey: <http://www.cdc.gov/nchs/nhanes.htm>
- National Health Interview Survey: <http://www.cdc.gov/nchs/nhis.htm>
- Survey of Occupational Injuries and Illnesses: <http://www.bls.gov/respondents/iif/>

Footnotes

¹The **Technical Notes** provide more information on Healthy People 2020 statistical methods and issues.

²**Developmental** objectives did not have a national baseline value.

³**Measurable** objectives had a national baseline value.

⁴**Target met or exceeded**—One of the following, as specified in the Midcourse Progress Table:

- » At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)
- » The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

⁵**Little or no detectable change**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.
- » Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.
- » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.
- » Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.
- » There was no change between the baseline and the midcourse data point.

⁶**Baseline only**—The objective only had one data point, so progress toward target attainment could not be assessed.

Suggested Citation

National Center for Health Statistics. Chapter 42: Vision. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

Table 42–1. Vision Objectives

LEGEND

	Data for this objective are available in this chapter's Midcourse Progress Table.		Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.		A state or county level map for this objective is available at the end of the chapter.
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Not Applicable

Midcourse data availability is not applicable for developmental and archived objectives. **Developmental** objectives did not have a national baseline value. **Archived** objectives are no longer being monitored due to lack of data source, changes in science, or replacement with other objectives.

Objective Number	Objective Statement	Data Sources	Midcourse Data Availability	
V-1	Increase the proportion of preschool children aged 5 years and under who receive vision screening	National Health Interview Survey (NHIS), CDC/NCHS		
V-2	Reduce blindness and visual impairment in children and adolescents aged 17 years and under	National Health Interview Survey (NHIS), CDC/NCHS		
V-3.1	Reduce occupational eye injuries resulting in lost work days	Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS		
V-3.2	Reduce occupational eye injuries treated in emergency departments (EDs)	National Electronic Injury Surveillance System (NEISS), CPSC; Current Population Survey (CPS), Census and DOL/BLS		
V-4	Increase the proportion of adults who have had a comprehensive eye examination, including dilation, within the past 2 years	National Health Interview Survey (NHIS), CDC/NCHS		
V-5.1	Reduce visual impairment due to uncorrected refractive error	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS		
V-5.2	Reduce visual impairment due to diabetic retinopathy	National Health Interview Survey (NHIS), CDC/NCHS		
V-5.3	Reduce visual impairment due to glaucoma	National Health Interview Survey (NHIS), CDC/NCHS		
V-5.4	Reduce visual impairment due to cataract	National Health Interview Survey (NHIS), CDC/NCHS		
V-5.5	Reduce visual impairment due to age-related macular degeneration (AMD)	National Health Interview Survey (NHIS), CDC/NCHS		
V-6.1	Increase the use of personal protective eyewear in recreational activities and hazardous situations around the home among children and adolescents aged 6 to 17 years	National Health Interview Survey (NHIS), CDC/NCHS		
V-6.2	Increase the use of protective eyewear in recreational activities and hazardous situations around the home among adults aged 18 years and older	National Health Interview Survey (NHIS), CDC/NCHS		

Table 42-1. Vision Objectives—Continued

LEGEND

-  Data for this objective are available in this chapter's Midcourse Progress Table.
-  Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.
-  A state or county level map for this objective is available at the end of the chapter.

Not Applicable Midcourse data availability is not applicable for developmental and archived objectives. **Developmental** objectives did not have a national baseline value. **Archived** objectives are no longer being monitored due to lack of data source, changes in science, or replacement with other objectives.

Objective Number	Objective Statement	Data Sources	Midcourse Data Availability
V-7.1	Increase the use of vision rehabilitation services by persons with visual impairment	National Health Interview Survey (NHIS), CDC/NCHS	 
V-7.2	Increase the use of assistive and adaptive devices by persons with visual impairment	National Health Interview Survey (NHIS), CDC/NCHS	 
V-8	(Developmental) Increase the proportion of Federally Qualified Health Centers (FQHCs) that provide comprehensive vision health services	(Potential) Uniform Data System (UDS), HRSA/BPHC	Not Applicable

Table 42–2. Midcourse Progress for Measurable¹ Vision Objectives

LEGEND

 Target met or exceeded ^{2,3}	 Improving ^{4,5}	 Little or no detectable change ^{6–10}	 Getting worse ^{11,12}	 Baseline only ¹³	 Informational ¹⁴
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Objective Description	Baseline Value (Year)	Midcourse Value (Year)	Target	Movement Toward Target ¹⁵	Movement Away From Baseline ¹⁶	Movement Statistically Significant ¹⁷
 ¹³ V-1 Preschool children ≤5 years receiving vision screening (percent)	40.1% (2008)		44.1%			
 ⁶ V-2 Blindness and visual impairment in children and adolescents ≤17 years (per 1,000 population)	28.2 (2008)	26.1 (2014)	25.4	75.0%		No
 ² V-3.1 Occupational eye injuries resulting in lost work days (per 10,000 full-time workers in private industry)	2.9 (2008)	2.4 (2011)	2.6	166.7%		
 ² V-3.2 Occupational eye injuries treated in emergency departments (per 10,000 full-time workers)	12.9 (2008)	8.9 (2012)	11.6	307.7%		No
 ¹³ V-4 Adults receiving a dilated eye examination within the past 2 years (age-adjusted, percent, 18+ years)	55.0% (2008)		60.5%			
 ¹³ V-5.1 Visual impairment due to uncorrected refractive errors (age-adjusted, per 1,000 population, 12+ years)	136.1 (2005–2008)		122.5			
 ¹³ V-5.2 Visual impairment due to diabetic retinopathy (age-adjusted, per 1,000 population, 18+ years, with diabetes)	34.2 (2008)		30.8			
 ¹³ V-5.3 Visual impairment due to glaucoma (age-adjusted, per 1,000 population, 45+ years)	13.9 (2008)		12.5			
 ¹³ V-5.4 Visual impairment due to cataract (age-adjusted, per 1,000 population, 65+ years)	110.0 (2008)		99.0			
 ¹³ V-5.5 Visual impairment due to age-related macular degeneration (age-adjusted, per 1,000 population, 45+ years)	15.5 (2008)		14.0			
 ¹³ V-6.1 Use of protective eyewear at home by children and adolescents (percent, 6–17 years)	16.5% (2008)		18.2%			
 ¹³ V-6.2 Use of protective eyewear at home by adults (age-adjusted, percent, 18+ years)	39.7% (2008)		43.7%			
 ¹³ V-7.1 Use of vision rehabilitation services by persons with visual impairment (age-adjusted, per 1,000 population, 18+ years)	30.2 (2008)		33.2			
 ¹³ V-7.2 Use of assistive and adaptive devices by persons with visual impairment (age-adjusted, percent, 18+ years)	11.2% (2008)		12.3%			

Table 42–2. Midcourse Progress for Measurable¹ Vision Objectives—Continued

<p>NOTES</p> <p>See HealthyPeople.gov for all Healthy People 2020 data. The Technical Notes provide more information on the measures of progress.</p> <p>FOOTNOTES</p> <p>¹Measurable objectives had a national baseline value.</p> <p>Target met or exceeded:</p> <p>²At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)</p> <p>³The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)</p> <p>Improving:</p> <p>⁴Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.</p> <p>⁵Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.</p> <p>Little or no detectable change:</p> <p>⁶Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.</p> <p>⁷Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.</p> <p>⁸Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.</p> <p>⁹Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.</p> <p>¹⁰There was no change between the baseline and the midcourse data point.</p> <p>Getting worse:</p> <p>¹¹Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.</p> <p>¹²Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.</p> <p>¹³Baseline only: The objective only had one data point, so progress toward target attainment could not be assessed.</p> <p>¹⁴Informational: A target was not set for this objective, so progress toward target attainment could not be assessed.</p>	<p>FOOTNOTES—Continued</p> <p>¹⁵For objectives that moved toward their targets, movement toward the target was measured as the percentage of targeted change achieved (unless the target was already met or exceeded at baseline):</p> $\text{Percentage of targeted change achieved} = \frac{\text{Midcourse value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100$ <p>¹⁶For objectives that moved away from their baselines and targets, movement away from the baseline was measured as the magnitude of the percentage change from baseline:</p> $\text{Magnitude of percentage change from baseline} = \frac{ \text{Midcourse value} - \text{Baseline value} }{\text{Baseline value}} \times 100$ <p>¹⁷Statistical significance was tested when the objective had a target and at least two data points, standard errors of the data were available, and a normal distribution could be assumed. Statistical significance of the percentage of targeted change achieved or the magnitude of the percentage change from baseline was assessed at the 0.05 level using a normal one-sided test.</p> <p>DATA SOURCES</p> <p>V-1 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-2 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-3.1 Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS</p> <p>V-3.2 National Electronic Injury Surveillance System (NEISS), CPSC; Current Population Survey (CPS), Census and DOL/BLS</p> <p>V-4 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-5.1 National Health and Nutrition Examination Survey (NHANES), CDC/NCHS</p> <p>V-5.2 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-5.3 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-5.4 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-5.5 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-6.1 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-6.2 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-7.1 National Health Interview Survey (NHIS), CDC/NCHS</p> <p>V-7.2 National Health Interview Survey (NHIS), CDC/NCHS</p>
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Table 42–3. Midcourse Health Disparities¹ for Population-based Vision Objectives

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

LEGEND

At the midcourse data point  Group with the most favorable (least adverse) rate  Group with the least favorable (most adverse) rate  Data are available, but this group did not have the highest or lowest rate.  Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.

Population-based Objectives	Characteristics and Groups																															
	Sex		Race and Ethnicity						Education ⁴						Family Income ⁵					Disability		Location										
	Male	Female	Summary Disparity Ratio ²	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio ³	Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio ³	Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio ³	Persons with disabilities	Persons without disabilities	Summary Disparity Ratio ²	Metropolitan	Nonmetropolitan	Summary Disparity Ratio ²		
V-1 Preschool children ≤5 years receiving vision screening (percent) (2008)			1.008								1.200													1.170								1.021
V-2 Blindness and visual impairment in children and adolescents ≤17 years (per 1,000 population) (2014)			1.027								1.256													2.192*							1.493*	
V-3.1 Occupational eye injuries resulting in lost work days (per 10,000 full-time workers in private industry) (2011)			2.385*																													
V-3.2 Occupational eye injuries treated in emergency departments (per 10,000 full-time workers) (2012)			4.344*																													
V-4 Adults receiving a dilated eye examination within the past 2 years (age-adjusted, percent, 18+ years) (2008)			1.156*								1.096							1.189*						1.234*							1.075*	
V-5.1 Visual impairment due to uncorrected refractive errors (age-adjusted, per 1,000 population, 12+ years) (2005–2008)			1.043								1.443*							1.345*						1.382*			1.080					
V-5.2 Visual impairment due to diabetic retinopathy (age-adjusted, per 1,000 population, 18+ years, with diabetes) (2008)			1.448																					6.353*								
V-5.3 Visual impairment due to glaucoma (age-adjusted, per 1,000 population, 45+ years) (2008)			1.166								2.135*							1.265						1.519						1.014		

Table 42–3. Midcourse Health Disparities¹ for Population-based Vision Objectives—Continued

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

Population-based Objectives	Characteristics and Groups																													
	Sex		Race and Ethnicity						Education ⁴					Family Income ⁵					Disability		Location									
	Male	Female	Summary Disparity Ratio ²	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio ³	Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio ³	Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio ³	Persons with disabilities	Persons without disabilities	Summary Disparity Ratio ²	Metropolitan	Nonmetropolitan	Summary Disparity Ratio ²
V-5.4 Visual impairment due to cataract (age-adjusted, per 1,000 population, 65+ years) (2008)			1.113								1.225							1.693*						1.547*						1.097
V-5.5 Visual impairment due to age-related macular degeneration (age-adjusted, per 1,000 population, 45+ years) (2008)			1.744*															1.812*						1.633						1.155
V-6.1 Use of protective eyewear at home by children and adolescents (percent, 6–17 years) (2008)			1.578*								1.239													1.256						1.024
V-6.2 Use of protective eyewear at home by adults (age-adjusted, percent, 18+ years) (2008)			1.303*								1.222							1.140						1.088						1.071
V-7.1 Use of vision rehabilitation services by persons with visual impairment (age-adjusted, per 1,000 population, 18+ years) (2008)			1.058															2.592*						1.478						
V-7.2 Use of assistive and adaptive devices by persons with visual impairment (age-adjusted, percent, 18+ years) (2008)			1.081								1.296							1.392						1.197						1.254

Table 42–3. Midcourse Health Disparities¹ for Population-based Vision Objectives—Continued

NOTES

See [HealthyPeople.gov](https://www.healthypeople.gov) for all Healthy People 2020 data. The **Technical Notes** provide more information on the measures of disparities.

FOOTNOTES

¹**Health disparities** were assessed among population groups within specified demographic characteristics (sex, race and ethnicity, educational attainment, etc.). This assessment did not include objectives that were not population-based, such as those based on states, worksites, or those monitoring the number of events.

²When there were only two groups (e.g., male and female), the **summary disparity ratio** was the ratio of the higher to the lower rate.

³When there were three or more groups (e.g., white non-Hispanic, black non-Hispanic, Hispanic) and the most favorable rate (R_b) was the highest rate, the **summary disparity ratio** was calculated as R_b/R_a , where R_a = the average of the rates for all other groups. When there were three or more groups and the most favorable rate was the lowest rate, the summary disparity ratio was calculated as R_a/R_b .

⁴Unless otherwise footnoted, data do not include persons under age 25 years.

⁵Unless otherwise footnoted, the poor, near-poor, middle, near-high, and high income groups are for persons whose family incomes were less than 100%, 100%–199%, 200%–399%, 400%–599%, and at or above 600% of the poverty threshold, respectively.

*The summary disparity ratio was significantly greater than 1.000. Statistical significance was assessed at the 0.05 level using a normal one-sided test on the natural logarithm scale.

^aData are for Mexican-American persons.

^bData are for persons who completed some college or received an associate's degree.

^cData are for persons who graduated from college or above.

^dData are for persons whose family income was 400% to 499% of the poverty threshold.

^eData are for persons whose family income was 500% or more of the poverty threshold.

^fData do not include persons under age 20 years.

^gData are for persons with activity limitations.

^hData are for persons without activity limitations.

DATA SOURCES

V-1	National Health Interview Survey (NHIS), CDC/NCHS
V-2	National Health Interview Survey (NHIS), CDC/NCHS
V-3.1	Survey of Occupational Injuries and Illnesses (SOII), DOL/BLS
V-3.2	National Electronic Injury Surveillance System (NEISS), CPSC; Current Population Survey (CPS), Census and DOL/BLS
V-4	National Health Interview Survey (NHIS), CDC/NCHS
V-5.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
V-5.2	National Health Interview Survey (NHIS), CDC/NCHS
V-5.3	National Health Interview Survey (NHIS), CDC/NCHS
V-5.4	National Health Interview Survey (NHIS), CDC/NCHS
V-5.5	National Health Interview Survey (NHIS), CDC/NCHS
V-6.1	National Health Interview Survey (NHIS), CDC/NCHS
V-6.2	National Health Interview Survey (NHIS), CDC/NCHS
V-7.1	National Health Interview Survey (NHIS), CDC/NCHS
V-7.2	National Health Interview Survey (NHIS), CDC/NCHS