

CHAPTER 20

Hearing and Other Sensory or Communication Disorders (ENT-VSL)

Lead Agency

National Institutes of Health

Contents

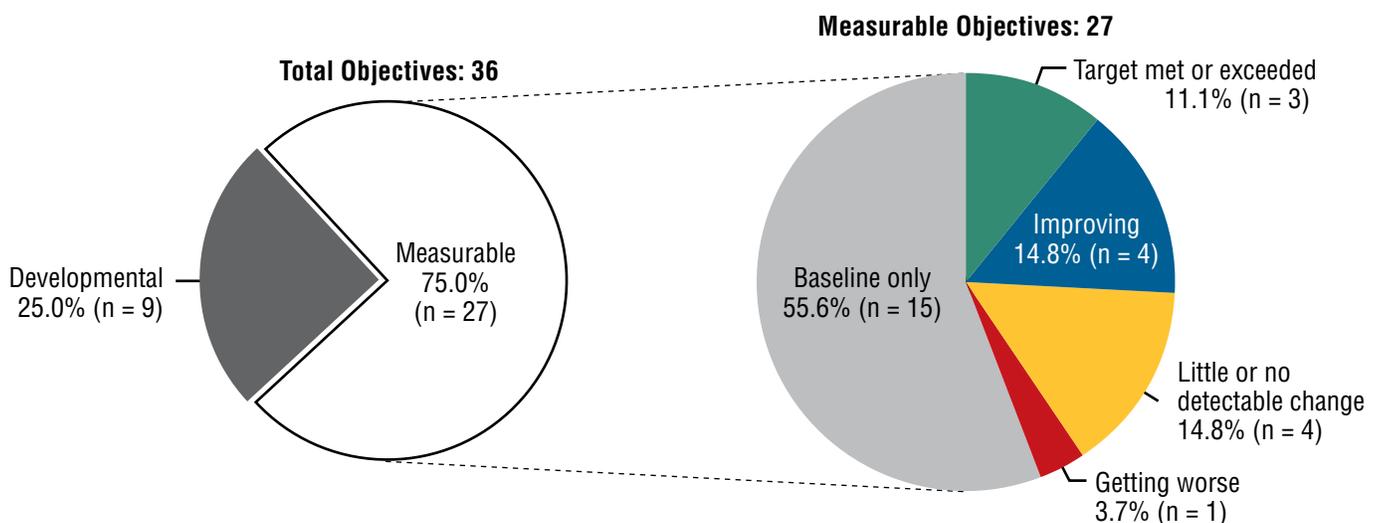
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Goal: Reduce the prevalence and severity of disorders of hearing and balance; smell and taste; and voice, speech, and language.

This chapter includes objectives that monitor newborn hearing screening; ear infections; hearing loss; hearing examination; use of hearing aids and protection devices; tinnitus; balance and dizziness problems; smell, taste, voice, speech, and language disorders; and use of Internet health care resources. 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 The objective numbers in this topic area begin with ENT-VSL, which stands for “Ear, Nose, and Throat—Voice, Speech, and Language.”

Status of Objectives

Figure 20–1. Midcourse Status of the Hearing and Other Sensory or Communication Disorders Objectives



- Of the 36 objectives in the Hearing and Other Sensory or Communication Disorders Topic Area, 9 were developmental² and 27 were measurable³ (Figure 20–1, Table 20–1). The midcourse status of the measurable objectives was as follows (Table 20–2):
- 3 objectives had met or exceeded their 2020 targets,⁴
- 4 objectives were improving,⁵
- 4 objectives demonstrated little or no detectable change,⁶
- 1 objective was getting worse,⁷ and
- 15 objectives had baseline data only.⁸

Selected Findings

Newborn Hearing Screening

- Three objectives monitoring newborn hearing screening improved (Table 20–2). Between 2007 and 2012, the proportion of **newborns receiving hearing screening before age 1 month** (ENT-VSL-1.1) increased from 82.0% to 83.0%; the proportion of **infants with possible hearing loss receiving a hearing evaluation before age 3 months** (ENT-VSL-1.2) increased from 66.0% to 69.0%; and the proportion of **infants with hearing loss receiving intervention services before age 6 months** (ENT-VSL-1.3) increased from 50.0% to 51.0%, all moving toward their respective 2020 targets.

Ear Infections

- The rate of **ear infections (otitis media) in children and adolescents under age 18** (ENT-VSL-2) demonstrated little or no detectable change between 2007 and 2010 (246.6 and 256.1 per 1,000 population, respectively) (Table 20-2).
 - » In 2010, disparities in the rate of ear infections (otitis media) in children and adolescents under age 18 (ENT-VSL-2) by sex, race and ethnicity, and provider's geographic location were not statistically significant (Table 20-3).

Hearing

Hearing Aids, Cochlear Implants, and Assistive Listening Devices

Of the four objectives monitoring the use of hearing devices, two objectives had baseline data only, one objective met or exceeded the 2020 target, and one demonstrated little or no detectable change (Table 20-2).

- The age-adjusted rate of **hearing aid use by adults aged 20-69 with hearing loss** (ENT-VSL-3.1) was 162.7 per 1,000 population in 2007 (Table 20-2). Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed.
 - » In 2007, the disparity by sex in the age-adjusted rate of hearing aid use by adults aged 20-69 with hearing loss (ENT-VSL-3.1) was statistically significant (Table 20-3). The disparity by education was not statistically significant.
- The rate of **new cochlear implants in deaf or very hard-of-hearing persons** (ENT-VSL-3.2) was 76.8 per 10,000 population in 2004 (Table 20-2). Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed.
 - » In 2004, the disparity in the rate of new cochlear implants in deaf or very hard-of-hearing persons (ENT-VSL-3.2) by sex was statistically significant (Table 20-3).
- From 2007 to 2013, the rate of **adults aged 70 and over with hearing loss who used hearing aids** (ENT-VSL-3.3) increased from 289.1 to 324.6 per 1,000 population, exceeding the 2020 target (Table 20-2).
 - » In 2013, disparities by education and disability status in the rate of adults aged 70 and over with hearing loss who used hearing aids (ENT-VSL-3.3) were statistically significant (Table 20-2). The disparities by sex and race and ethnicity were not statistically significant.
- From 2005-2006 to 2009-2010 the rate of **adults aged 70 and over with hearing loss who used assistive listening devices** (ENT-VSL-3.4) demonstrated little or no detectable change (100.0 and 81.3 per 1,000 population, respectively) (Table 20-2).
 - » In 2009-2010, disparities by sex, education, and family income in the rate of adults aged 70 and over with hearing loss who used assistive listening devices (ENT-VSL-3.4) were not statistically significant (Table 20-3).

Hearing Examinations

Of the four objectives monitoring hearing examination and referral for hearing evaluation and treatment, one objective met or exceeded the 2020 target, two objectives demonstrated little or no detectable change, and one objective had baseline data only (Table 20-2).

- The age-adjusted proportion of **adults aged 20-69 who had a hearing examination in the past 5 years** (ENT-VSL-4.1) was 21.3% in 2011-2012. Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed (Table 20-2).
 - » In 2011-2012, disparities in the proportion of adults who had a hearing examination in the past 5 years (ENT-VSL-4.1) by sex and race and ethnicity were statistically significant (Table 20-3). The disparities by education, family income, and disability status were not statistically significant.
- From 2003-2006 to 2007-2010, the proportion of **adults aged 70 and over who had a hearing examination in the past 5 years** (ENT-VSL-4.2) demonstrated little or no detectable change (40.6% and 38.2%, respectively) (Table 20-2).
 - » In 2007-2010, disparities by sex and education in the proportion of adults aged 70 and over who had a hearing examination in the past 5 years (ENT-VSL-4.2) were statistically significant (Table 20-3). The disparities by race and ethnicity, family income, and disability status were not statistically significant.
- The proportion of **adolescents aged 12-19 who had a hearing examination in the past 5 years** (ENT-VSL-4.3) demonstrated little or no detectable change from 2005-2006 to 2009-2010 (79.3% and 78.9%, respectively) (Table 20-2).
 - » In 2009-2010, disparities in the proportion of adolescents aged 12-19 who had a hearing examination in the past 5 years (ENT-VSL-4.3) by sex, race and ethnicity, and family income were not statistically significant (Table 20-3).

- The age-adjusted rate of **persons aged 18 and over referred for hearing evaluation and treatment by their primary care providers** (ENT-VSL-5) increased from 283.3 per 1,000 in 2007 to 355.6 in 2014, exceeding the 2020 target (Table 20–2).
 - » In 2014, disparities by education, family income, and disability status in the age-adjusted rate of persons aged 18 and over referred for hearing evaluation and treatment by their primary care providers (ENT-VSL-5) were statistically significant (Table 20–3). The disparities by sex, race and ethnicity, and geographic location were not statistically significant.

Noise-induced Hearing Loss and Use of Hearing Protection Devices

Three of the four objectives monitoring noise-induced hearing loss and the use of hearing protection devices had baseline data only, and one objective had worsened (Table 20–2).

- The age-adjusted rate of **adults aged 20–69 who used hearing protection devices when exposed to loud noises** (ENT-VSL-6.1) was 483.0 per 1,000 population in 2003–2004. Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed (Table 20–2).
 - » In 2003–2004, disparities by sex and family income in the age-adjusted rate of adults aged 20–69 who used hearing protection devices when exposed to loud noises (ENT-VSL-6.1) were statistically significant (Table 20–3). The disparities by race and ethnicity, education, and disability status were not statistically significant.
- From 2005–2006 to 2009–2010, the rate of **adolescents aged 12–19 who used hearing protection devices when exposed to loud noises** (ENT-VSL-6.2) decreased from 410.7 per 1,000 population to 343.9, moving away from the baseline and 2020 target (Table 20–2).
 - » In 2009–2010, disparities by sex, race and ethnicity, and family income in the rate of adolescents aged 12–19 who used hearing protection devices when exposed to loud noises (ENT-VSL-6.2) were statistically significant (Table 20–3).
- The rate of **adolescents aged 12–19 with noise-induced hearing loss in both ears** (ENT-VSL-7) was 45.9 per 1,000 population in 2005–2006. Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed (Table 20–2).
 - » In 2005–2006, disparities by sex and race and ethnicity in the rate of adolescents aged 12–19 with noise-induced hearing loss in both ears were not statistically significant (Table 20–3, ENT-VSL-7).
- The age-adjusted rate of **adults aged 20–69 with noise-induced hearing loss in both ears** (ENT-VSL-8) was 121.4 per 1,000 population in 2003–2004. Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed (Table 20–2).
 - » In 2003–2004, the disparity by sex in the age-adjusted rate of adults aged 20–69 with noise-induced hearing loss in both ears (ENT-VSL-8) was statistically significant (Table 20–3). The disparities by race and ethnicity, education, family income, and disability status were not statistically significant.

Tinnitus (ringing in the ears or head)

Of the three objectives monitoring tinnitus (ringing in the ears or head), one objective met or exceeded the 2020 target, one objective had improved, and one objective had baseline data only (Table 20–2).

- The age-adjusted proportion of **adults aged 18 and over bothered by tinnitus in the past 12 months who had seen a doctor** (ENT-VSL-9.1) increased from 44.5% in 2007 to 48.5% in 2014, moving toward the 2020 target (Table 20–2).
 - » In 2014, disparities by education, family income, and disability status in the age-adjusted proportion of adults aged 18 and over bothered by tinnitus in the past 12 months who had seen a doctor (ENT-VSL-9.1) were statistically significant (Table 20–3). The disparities by sex, race and ethnicity, and geographic location were not statistically significant.
- The age-adjusted proportion of **adults aged 18 and over with moderate to severe tinnitus in the past 5 years who had seen an audiologist or otolaryngologist** (ENT-VSL-9.2) increased from 45.8% in 2007 to 61.8% in 2014, exceeding the 2020 target (Table 20–2).
 - » In 2014, disparities by education and family income in the age-adjusted proportion of adults aged 18 and over with moderate to severe tinnitus in the past 5 years who had seen an audiologist or otolaryngologist (ENT-VSL-9.2) were statistically significant (Table 20–3). The disparities by sex, disability status, and geographic location were not statistically significant.

- The age-adjusted proportion of **adults aged 18 and over who had moderate to severe tinnitus who had tried appropriate treatments** (ENT-VSL-10) was 14.7% in 2007. Data beyond the baseline were not available, so progress toward the 2020 target could not be assessed (Table 20-2).
 - » In 2007, the disparity by sex in the age-adjusted proportion of adults aged 18 and over who had moderate to severe tinnitus who had tried appropriate treatments (ENT-VSL-10) was statistically significant (Table 20-3). The disparities by race and ethnicity, education, family income, and geographic location were not statistically significant.

Balance and Dizziness

Data beyond the baseline were not available for the eight objectives monitoring balance and dizziness, so progress toward their 2020 targets could not be assessed (Table 20-2).

- The age-adjusted proportion of **adults aged 18 and over with balance or dizziness problems in the past 12 months who had seen a health care provider** (ENT-VSL-11) was 48.4% in 2008 (Table 20-2).
 - » In 2008, the disparity by sex in the age-adjusted proportion of adults aged 18 and over with balance or dizziness problems in the past 12 months who had seen a health care provider (ENT-VSL-11) was statistically significant (Table 20-3). The disparities by race and ethnicity, education, family income, and geographic location were not statistically significant.
- The age-adjusted proportion of **adults aged 18 and over with moderate to severe balance or dizziness problems who had seen a health care specialist** (ENT-VSL-12) was 65.4% in 2008 (Table 20-2).
 - » In 2008, the disparities by sex, race and ethnicity, education, family income, and geographic location in the age-adjusted proportion of adults aged 18 and over with moderate to severe balance or dizziness problems who had seen a health care specialist (ENT-VSL-12) were not statistically significant (Table 20-3).
- The age-adjusted proportion of **adults aged 18 and over with moderate to severe balance or dizziness problems who had tried appropriate treatments** (ENT-VSL-13.2) was 24.4% in 2008 (Table 20-2).
 - » In 2008, the disparity by sex in the age-adjusted proportion of adults aged 18 and over with moderate to severe balance or dizziness problems who had tried appropriate treatments (ENT-VSL-13.2) was statistically significant (Table 20-3). The disparities by race and ethnicity, education, family income, and geographic location were not statistically significant.
- The age-adjusted proportion of **adults aged 18 and over whose balance and dizziness problems had not improved** (ENT-VSL-14.1) was 61.5% in 2008 (Table 20-2).
 - » In 2008, disparities by education and family income in the age-adjusted proportion of adults aged 18 and over whose balance and dizziness problems had not improved (ENT-VSL-14.1) were statistically significant (Table 20-3). The disparities by sex, race and ethnicity, and geographic location were not statistically significant.
- The age-adjusted proportion of **adults aged 18 and over whose balance and dizziness problems prevented them from participating in regular activities** (ENT-VSL-14.2) was 23.3% in 2008 (Table 20-2).
 - » In 2008, the disparity by family income in the age-adjusted proportion of adults aged 18 and over whose balance and dizziness problems prevented them from participating in regular activities (ENT-VSL-14.2) was statistically significant (Table 20-3). The disparities by sex, race and ethnicity, education, and geographic location were not statistically significant.
- The age-adjusted proportion of **adults aged 18 and over who missed work or school days because of balance and dizziness problems** (ENT-VSL-14.3) was 14.5% in 2008 (Table 20-2).
 - » In 2008, disparities by sex and education in the age-adjusted proportion of adults aged 18 and over who missed work or school days because of balance and dizziness problems (ENT-VSL-14.3) were statistically significant (Table 20-3). The disparities by race and ethnicity, family income, and geographic location were not statistically significant.
- The age-adjusted proportion of **adults aged 18 and over who had fallen in the past 5 years due to dizziness, vertigo, or imbalance** (ENT-VSL-15.1) was 55.6% in 2008 (Table 20-2).
 - » In 2008, the disparity by education in the age-adjusted proportion of adults aged 18 and over who had fallen in the past 5 years due to dizziness, vertigo, or imbalance (ENT-VSL-15.1) was statistically significant (Table 20-3). The disparities by sex, race and ethnicity, family income, and geographic location were not statistically significant.

- The age-adjusted proportion of **adults aged 18 and over with balance or dizziness problems who were injured from a fall in the past 12 months** (ENT-VSL-15.2) was 41.7% in 2008 (Table 20–2).
 - » In 2008, disparities by sex, race and ethnicity, education, family income, and geographic location in the age-adjusted proportion of adults aged 18 and over with balance or dizziness problems who were injured from a fall in the past 12 months (ENT-VSL-15.2) were not statistically significant (Table 20–3).

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/hearing-and-other-sensory-or-communication-disorders>
- For data details for each objective, including definitions, numerators, denominators, calculations, and data limitations, see: <http://www.healthypeople.gov/2020/topics-objectives/topic/hearing-and-other-sensory-or-communication-disorders/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/hearing-and-other-sensory-or-communication-disorders/objectives>
Select an objective, then click on the “Data2020” icon.

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

- Healthcare Cost and Utilization Project—National (Nationwide) Inpatient Sample:
<https://www.hcup-us.ahrq.gov/nisoverview.jsp>
- National Ambulatory Medical Care Survey:
<http://www.cdc.gov/nchs/ahcd.htm>
- National Health and Nutrition Examination Survey:
<http://www.cdc.gov/nchs/nhanes.htm>
- National Health Interview Survey:
<http://www.cdc.gov/nchs/nhis.htm>
- National Hospital Ambulatory Medical Care Survey:
<http://www.cdc.gov/nchs/ahcd.htm>

- U.S. Census Bureau Population Estimates Program:
<http://www.census.gov/popest/>
- State-based Early Hearing Detection and Intervention Program: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/pages/early-hearing-detection-and-intervention.aspx>

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**Improving**—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 statistically significant.
 - » Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.
- ⁶**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.

⁷**Getting worse**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.
- » Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.

⁸**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 20: Hearing and Other Sensory or Communication Disorders. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

Table 20–1. Hearing and Other Sensory or Communication Disorders 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. |
|--|---|---|--|---|--|

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 |
|--------------------------------------|---|--|---|
| Newborn Hearing Screening | | | |
| ENT-VSL-1.1 | Increase the proportion of newborns who are screened for hearing loss no later than age 1 month | State-based Early Hearing Detection and Intervention Program Network (EHDI), CDC/NCBDDD |  |
| ENT-VSL-1.2 | Increase the proportion of newborns who receive audiologic evaluation no later than age 3 months for infants who did not pass the hearing screening | State-based Early Hearing Detection and Intervention Program Network (EHDI), CDC/NCBDDD |  |
| ENT-VSL-1.3 | Increase the proportion of infants with confirmed hearing loss who are enrolled for intervention services no later than age 6 months | State-based Early Hearing Detection and Intervention Program Network (EHDI), CDC/NCBDDD |  |
| Ear Infections (otitis media) | | | |
| ENT-VSL-2 | Reduce otitis media in children and adolescents | National Ambulatory Medical Care Survey (NAMCS), CDC/NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC/NCHS; Population Estimates, Census |   |
| Hearing | | | |
| ENT-VSL-3.1 | Increase the proportion of adults aged 20 to 69 years with hearing loss who have ever used a hearing aid | National Health Interview Survey (NHIS), CDC/NCHS; National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |   |
| ENT-VSL-3.2 | Increase the proportion of persons who are deaf or very hard of hearing and who have new cochlear implants | Healthcare Cost and Utilization Project–Nationalwide Inpatient Sample (HCUP–NIS), AHRQ; National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-3.3 | Increase the proportion of adults aged 70 years and older with hearing loss who have ever used a hearing aid | National Health Interview Survey (NHIS), CDC/NCHS; National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |   |
| ENT-VSL-3.4 | Increase the proportion of adults aged 70 years and older with hearing loss who use assistive listening devices | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |   |
| ENT-VSL-4.1 | Increase the proportion of adults aged 20 to 69 years who have had a hearing examination in the past 5 years | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |   |

Table 20–1. Hearing and Other Sensory or Communication Disorders 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 |
|--------------------------|---|---|-----------------------------|
| Hearing—Continued | | | |
| ENT-VSL-4.2 | Increase the proportion of adults aged 70 years and older who have had a hearing examination in the past 5 years | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | |
| ENT-VSL-4.3 | Increase the proportion of adolescents aged 12 to 19 years who have had a hearing examination in the past 5 years | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | |
| ENT-VSL-5 | Increase the number of persons who are referred by their primary care physician or other health care provider for hearing evaluation and treatment | National Health Interview Survey (NHIS), CDC/NCHS | |
| ENT-VSL-6.1 | Increase the proportion of adults aged 20 to 69 years who have ever used hearing protection devices (earplugs, earmuffs) when exposed to loud sounds or noise (age-adjusted to the year 2000 standard population) | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | |
| ENT-VSL-6.2 | Increase the proportion of adolescents aged 12 to 19 years who have ever used hearing protection devices (earplugs, earmuffs) when exposed to loud sounds or noise | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | |
| ENT-VSL-7 | Reduce the proportion of adolescents who have elevated hearing thresholds, or audiometric notches, in high frequencies (3, 4, or 6 kHz) in both ears, signifying noise-induced hearing loss | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | |
| ENT-VSL-8 | Reduce the proportion of adults who have elevated hearing thresholds, or audiometric notches, in high frequencies (3, 4, or 6 kHz) in both ears, signifying noise-induced hearing loss | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | |

Table 20–1. Hearing and Other Sensory or Communication Disorders 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 |
|---|---|---|---|
| Tinnitus (ringing in the ears or head) | | | |
| ENT-VSL-9.1 | Increase the proportion of adults bothered by tinnitus in the past 12 months who have seen a doctor | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-9.2 | Increase the proportion of adults bothered by the onset of tinnitus in the past 5 years for whom it is a moderate, big, or very big problem, who have seen or been referred to an audiologist or otolaryngologist (ENT physician) | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-10 | Increase the proportion of adults for whom tinnitus is a moderate to severe problem who have tried appropriate treatments | National Health Interview Survey (NHIS), CDC/NCHS |   |
| Balance and Dizziness | | | |
| ENT-VSL-11 | Increase the proportion of adults with balance or dizziness problems in the past 12 months who have ever seen a health care provider about their balance or dizziness problems | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-12 | Increase the proportion of adults with moderate to severe balance or dizziness problems who have seen or been referred to a health care specialist for evaluation or treatment | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-13.1 | (Developmental) Increase the proportion of children who have tried recommended methods for treating their balance or dizziness problem | (Potential) National Health Interview Survey (NHIS), CDC/NCHS | Not Applicable |
| ENT-VSL-13.2 | Increase the proportion of adults who have tried recommended methods for treating their balance or dizziness problem | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-14.1 | Reduce the proportion of adults with balance and dizziness problems in the past 12 months who reported their condition got worse or did not improve | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-14.2 | Reduce the proportion of adults with balance and dizziness problems in the past 12 months who were prevented from doing regular activities within the home or outside | National Health Interview Survey (NHIS), CDC/NCHS |   |

Table 20–1. Hearing and Other Sensory or Communication Disorders 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 |
|--|--|---|---|
| Balance and Dizziness—Continued | | | |
| ENT-VSL-14.3 | Reduce the proportion of adults who have missed days of work or school in the past 12 months because of balance and dizziness problems | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-15.1 | Reduce the proportion of adults with balance and dizziness problems who have fallen in the past 5 years while experiencing symptoms of dizziness, vertigo, or imbalance | National Health Interview Survey (NHIS), CDC/NCHS |   |
| ENT-VSL-15.2 | Reduce the proportion of adults with balance and dizziness problems who have been injured as a result of a fall for any reason in the past 12 months | National Health Interview Survey (NHIS), CDC/NCHS |   |
| Smell and Taste (Chemosenses) | | | |
| ENT-VSL-16 | (Developmental) Increase the proportion of adults with chemosensory (smell or taste) disorders who have seen a health care provider about their disorder in the past 12 months | (Potential) National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | Not Applicable |
| ENT-VSL-17 | (Developmental) Increase the proportion of adults who have tried recommended methods of treating their smell or taste disorders to improve their condition in the past 12 months | (Potential) National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | Not Applicable |
| ENT-VSL-18 | (Developmental) Reduce the proportion of adults with chemosensory (smell or taste) disorders who as a result have experienced a negative impact on their general health status, work, or quality of life in the past 12 months | (Potential) National Health and Nutrition Examination Survey (NHANES), CDC/NCHS | Not Applicable |
| Voice, Speech, and Language | | | |
| ENT-VSL-19 | (Developmental) Increase the proportion of persons with communication disorders of voice, swallowing, speech, or language who have seen a speech-language pathologist (SLP) for evaluation or treatment | (Potential) National Health Interview Survey (NHIS), CDC/NCHS | Not Applicable |
| ENT-VSL-20 | (Developmental) Increase the proportion of persons with communication disorders of voice, swallowing, speech, or language who have participated in rehabilitation services | (Potential) National Health Interview Survey (NHIS), CDC/NCHS | Not Applicable |

Table 20–1. Hearing and Other Sensory or Communication Disorders 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 |
|---|--|---|-----------------------------|
| Voice, Speech, and Language—Continued | | | |
| ENT-VSL-21 | (Developmental) Increase the proportion of young children with phonological disorders, language delay, or other developmental language problems who have participated in speech-language or other intervention services | (Potential) National Health Interview Survey (NHIS), CDC/NCHS | Not Applicable |
| ENT-VSL-22 | (Developmental) Increase the proportion of persons with communication disorders of voice, swallowing, speech, or language in the past 12 months whose personal or social functioning at home, school, or work improved after participation in speech-language therapy or other rehabilitative or intervention services | (Potential) National Health Interview Survey (NHIS), CDC/NCHS | Not Applicable |
| Internet Health Care Resources for Ear, Nose, and Throat (ENT)—Voice, Speech, and Language (VSL) | | | |
| ENT-VSL-23 | (Developmental) Increase the proportion of persons with hearing loss and other sensory or communication disorders who have used Internet resources for health care information, guidance, or advice in the past 12 months | (Potential) National Health Interview Survey (NHIS), CDC/NCHS | Not Applicable |

Table 20–2. Midcourse Progress for Measurable¹ Hearing and Other Sensory or Communication Disorders 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 |
| Objective Description | | Baseline Value (Year) | Midcourse Value (Year) | Target | Movement Toward Target ¹⁵ | Movement Away From Baseline ¹⁶ | Movement Statistically Significant ¹⁷ | | | | |
| Newborn Hearing Screening | | | | | | | | | | | |
|  | ⁵ ENT-VSL-1.1 Newborns receiving hearing screening before age 1 month (percent) | 82.0% (2007) | 83.0% (2012) | 90.2% | 12.2% | | | | | | |
|  | ⁵ ENT-VSL-1.2 Infants with possible hearing loss receiving hearing evaluation before age 3 months (percent) | 66.0% (2007) | 69.0% (2012) | 72.6% | 45.5% | | | | | | |
|  | ⁵ ENT-VSL-1.3 Infants with hearing loss receiving intervention services before age 6 months (percent) | 50.0% (2007) | 51.0% (2012) | 55.0% | 20.0% | | | | | | |
| Ear Infections (otitis media) | | | | | | | | | | | |
|  | ⁸ ENT-VSL-2 Otitis media in children and adolescents (per 1,000 population, <18 years) | 246.6 (2007) | 256.1 (2010) | 221.9 | | 3.9% | No | | | | |
| Hearing | | | | | | | | | | | |
|  | ¹³ ENT-VSL-3.1 Use of hearing aids by adults with hearing loss (age-adjusted, per 1,000 population, 20–69 years) | 162.7 (2007) | | 179.0 | | | | | | | |
|  | ¹³ ENT-VSL-3.2 New cochlear implants in deaf or very hard of hearing persons (per 10,000 population) | 76.8 (2004) | | 84.5 | | | | | | | |
|  | ² ENT-VSL-3.3 Use of hearing aids by adults with hearing loss (per 1,000 population, 70+ years) | 289.1 (2007) | 324.6 (2013) | 318.0 | 122.8% | | No | | | | |
|  | ⁸ ENT-VSL-3.4 Use of assistive listening devices by adults with hearing loss (per 1,000 population, 70+ years) | 100.0 (2005–2006) | 81.3 (2009–2010) | 110.0 | | 18.7% | No | | | | |
|  | ¹³ ENT-VSL-4.1 Adults having a hearing examination in past 5 years (age-adjusted percent, 20–69 years) | 21.3% (2011–2012) | | 23.4% | | | | | | | |
|  | ⁸ ENT-VSL-4.2 Adults having a hearing examination in past 5 years (percent, 70+ years) | 40.6% (2003–2006) | 38.2% (2007–2010) | 44.7% | | 5.9% | No | | | | |
|  | ⁸ ENT-VSL-4.3 Adolescents having a hearing examination in past 5 years (percent, 12–19 years) | 79.3% (2005–2006) | 78.9% (2009–2010) | 87.2% | | 0.5% | No | | | | |
|  | ² ENT-VSL-5 Persons referred for hearing evaluation and treatment by primary care providers (age-adjusted, per 1,000 population, 18+ years) | 283.3 (2007) | 355.6 (2014) | 311.7 | 254.6% | | Yes | | | | |
|  | ¹³ ENT-VSL-6.1 Adult use of hearing protection devices when exposed to loud noises (age-adjusted, per 1,000 population, 20–69 years) | 483.0 (2003–2004) | | 531.3 | | | | | | | |

Table 20–2. Midcourse Progress for Measurable¹ Hearing and Other Sensory or Communication Disorders Objectives—Continued

| 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 |
| Objective Description | Baseline Value (Year) | Midcourse Value (Year) | Target | Movement Toward Target ¹⁵ | Movement Away From Baseline ¹⁶ | Movement Statistically Significant ¹⁷ | | | | | |
| Hearing—Continued | | | | | | | | | | | |
|  ¹¹ ENT-VSL-6.2 Adolescent use of hearing protection devices when exposed to loud noises (per 1,000 population, 12–19 years) | 410.7 (2005–2006) | 343.9 (2009–2010) | 451.8 | | 16.3% | Yes | | | | | |
|  ¹³ ENT-VSL-7 Adolescents with noise-induced hearing loss (both ears) (per 1,000 population, 12–19 years) | 45.9 (2005–2006) | | 41.3 | | | | | | | | |
|  ¹³ ENT-VSL-8 Adults with noise-induced hearing loss (both ears) (age-adjusted, per 1,000 population, 20–69 years) | 121.4 (2003–2004) | | 109.3 | | | | | | | | |
| Tinnitus (ringing in the ears or head) | | | | | | | | | | | |
|  ⁴ ENT-VSL-9.1 Adults bothered by tinnitus in the past 12 months who have seen a doctor (age-adjusted, percent, 18+ years) | 44.5% (2007) | 48.5% (2014) | 48.9% | 90.9% | | Yes | | | | | |
|  ² ENT-VSL-9.2 Adults with moderate to severe tinnitus in the past 5 years who have seen an audiologist or otolaryngologist (age-adjusted, percent, 18+ years) | 45.8% (2007) | 61.8% (2014) | 50.4% | 347.8% | | No | | | | | |
|  ¹³ ENT-VSL-10 Adults with moderate to severe tinnitus who have tried appropriate treatments (age-adjusted, percent, 18+ years) | 14.7% (2007) | | 16.2% | | | | | | | | |
| Balance and Dizziness | | | | | | | | | | | |
|  ¹³ ENT-VSL-11 Adults with balance or dizziness problems in the past 12 months who have seen a health care provider (age-adjusted, percent, 18+ years) | 48.4% (2008) | | 53.2% | | | | | | | | |
|  ¹³ ENT-VSL-12 Adults with moderate to severe balance or dizziness problems who have seen a health care specialist (age-adjusted, percent, 18+ years) | 65.4% (2008) | | 72.0% | | | | | | | | |
|  ¹³ ENT-VSL-13.2 Adults with moderate to severe balance or dizziness problems who have tried appropriate treatments (age-adjusted, percent, 18+ years) | 24.4% (2008) | | 26.8% | | | | | | | | |
|  ¹³ ENT-VSL-14.1 Adults whose balance or dizziness problems have not improved (age-adjusted, percent, 18+ years) | 61.5% (2008) | | 55.3% | | | | | | | | |
|  ¹³ ENT-VSL-14.2 Adults whose balance or dizziness problems prevent them from participating in regular activities (age-adjusted, percent, 18+ years) | 23.3% (2008) | | 21.0% | | | | | | | | |

Table 20–2. Midcourse Progress for Measurable¹ Hearing and Other Sensory or Communication Disorders Objectives—Continued

| 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 |
| Objective Description | Baseline Value (Year) | Midcourse Value (Year) | Target | Movement Toward Target ¹⁵ | Movement Away From Baseline ¹⁶ | Movement Statistically Significant ¹⁷ | | | | | |
| Balance and Dizziness—Continued | | | | | | | | | | | |
|  ¹³ ENT-VSL-14.3 Adults who miss work or school days because of balance and dizziness problems (age-adjusted, percent, 18+ years) | 14.5% (2008) | | 13.0% | | | | | | | | |
|  ¹³ ENT-VSL-15.1 Adults who have fallen in the past 5 years due to dizziness, vertigo, or imbalance (age-adjusted, percent, 18+ years) | 55.6% (2008) | | 50.0% | | | | | | | | |
|  ¹³ ENT-VSL-15.2 Adults with balance or dizziness problems who were injured from a fall in the past 12 months (age-adjusted, percent, 18+ years) | 41.7% (2008) | | 37.5% | | | | | | | | |

NOTES

See HealthyPeople.gov for all Healthy People 2020 data. The **Technical Notes** provide more information on the measures of progress.

FOOTNOTES

¹**Measurable** objectives had a national baseline value.

Target met or exceeded:

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%.)

³The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

Improving:

⁴Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.

⁵Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.

Little or no detectable change:

⁶Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.

⁷Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.

⁸Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.

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.

¹⁰There was no change between the baseline and the midcourse data point.

Getting worse:

¹¹Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.

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.

¹³**Baseline only:** The objective only had one data point, so progress toward target attainment could not be assessed.

¹⁴**Informational:** A target was not set for this objective, so progress toward target attainment could not be assessed.

FOOTNOTES—Continued

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):

$$\text{Percentage of targeted change achieved} = \frac{\text{Midcourse value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100$$

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:

$$\text{Magnitude of percentage change from baseline} = \frac{|\text{Midcourse value} - \text{Baseline value}|}{\text{Baseline value}} \times 100$$

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.

DATA SOURCES

| | |
|-------------|--|
| ENT-VSL-1.1 | State-based Early Hearing Detection and Intervention Program Network (EHDI), CDC/NCBDDD |
| ENT-VSL-1.2 | State-based Early Hearing Detection and Intervention Program Network (EHDI), CDC/NCBDDD |
| ENT-VSL-1.3 | State-based Early Hearing Detection and Intervention Program Network (EHDI), CDC/NCBDDD |
| ENT-VSL-2 | National Ambulatory Medical Care Survey (NAMCS), CDC/NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC/NCHS; Population Estimates, Census |
| ENT-VSL-3.1 | National Health Interview Survey (NHIS), CDC/NCHS; National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-3.2 | Healthcare Cost and Utilization Project—Nationwide Inpatient Sample (HCUP–NIS), AHRQ; National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-3.3 | National Health Interview Survey (NHIS), CDC/NCHS; National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-3.4 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |

Table 20–2. Midcourse Progress for Measurable¹ Hearing and Other Sensory or Communication Disorders Objectives—Continued

DATA SOURCES—Continued

| | |
|--------------|---|
| ENT-VSL-4.1 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-4.2 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-4.3 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-5 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-6.1 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-6.2 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-7 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-8 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-9.1 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-9.2 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-10 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-11 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-12 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-13.2 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-14.1 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-14.2 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-14.3 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-15.1 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-15.2 | National Health Interview Survey (NHIS), CDC/NCHS |

Table 20–3. Midcourse Health Disparities¹ for Population-based Hearing and Other Sensory or Communication Disorders 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

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 | 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 |
| Tinnitus (ringing in the ears or head) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENT-VSL-9.1 Adults bothered by tinnitus in the past 12 months who have seen a doctor (age-adjusted, percent, 18+ years) (2014) |  |  | 1.033 |  |  |  |  |  |  |  | 1.266 |  |  |  |  |  | 1.302* |  |  |  |  |  | 1.175* |  |  | 1.375* |  |  | 1.067 |
| ENT-VSL-9.2 Adults with moderate to severe tinnitus in the past 5 years who have seen an audiologist or otolaryngologist (age-adjusted, percent, 18+ years) (2014) |  |  | 1.105 |  |  |  |  |  |  |  | |  |  |  |  |  | 1.934* |  |  |  |  |  | 1.807* |  |  | 1.532 |  |  | 1.329 |
| ENT-VSL-10 Adults with moderate to severe tinnitus who have tried appropriate treatments (age-adjusted, percent, 18+ years) (2007) |  |  | 1.775* |  |  |  |  |  |  |  | 1.338 |  |  |  |  |  | 1.129 |  |  |  |  |  | 1.336 |  |  | |  |  | 1.352 |
| Balance and Dizziness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENT-VSL-11 Adults with balance or dizziness problems in the past 12 months who have seen a health care provider (age-adjusted, percent, 18+ years) (2008) |  |  | 1.162* |  |  |  |  |  |  |  | 1.032 |  |  |  |  |  | 1.120 |  |  |  |  |  | 1.135 |  |  | |  |  | 1.017 |
| ENT-VSL-12 Adults with moderate to severe balance or dizziness problems who have seen a health care specialist (age-adjusted, percent, 18+ years) (2008) |  |  | 1.087 |  |  |  |  |  |  |  | 1.086 |  |  |  |  |  | 1.261 |  |  |  |  |  | 1.163 |  |  | |  |  | 1.037 |
| ENT-VSL-13.2 Adults with moderate to severe balance or dizziness problems who have tried appropriate treatments (age-adjusted, percent, 18+ years) (2008) |  |  | 1.216* |  |  |  |  |  |  |  | 1.327 |  |  |  |  |  | 1.238 |  |  |  |  |  | 1.248 |  |  | |  |  | 1.074 |
| ENT-VSL-14.1 Adults whose balance or dizziness problems have not improved (age-adjusted, percent, 18+ years) (2008) |  |  | 1.028 |  |  |  |  |  |  |  | 1.192 |  |  |  |  |  | 1.174* |  |  |  |  |  | 1.223* |  |  | |  |  | 1.063 |

Table 20–3. Midcourse Health Disparities¹ for Population-based Hearing and Other Sensory or Communication Disorders 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

| LEGEND | | 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. | | | | | | | | | | | | | | | | | | | |
|--|--|--|--------|--|-------|---|-------------------|---|---------------------|---------------------|--------------------------------------|----------------------|--------------------------------------|--------------------|--------------------------------------|-----------------|------|-----------|--------|-----------|------|---------------------------|------------------------------|--------------|-----------------|-------|--|
| At the midcourse data point | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Population-based Objectives | | Characteristics and Groups | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sex | | Race and Ethnicity | | | | Education ⁴ | | | Family Income ⁵ | | Disability | | Location | | | | | | | | | | | | |
| | | Male | Female | 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 | Less than high school | High school graduate | At least some college | Associate's degree | 4-year college degree | Advanced degree | Poor | Near-poor | Middle | Near-high | High | Persons with disabilities | Persons without disabilities | Metropolitan | Nonmetropolitan | | |
| | | Summary Disparity Ratio ² | | Summary Disparity Ratio ³ | | | | Summary Disparity Ratio ³ | | | Summary Disparity Ratio ³ | | Summary Disparity Ratio ² | | Summary Disparity Ratio ² | | | | | | | | | | | | |
| Balance and Dizziness—Continued | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENT-VSL-14.2 Adults whose balance or dizziness problems prevent them from participating in regular activities (age-adjusted, percent, 18+ years) (2008) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.024 | | | | | | | | 1.236 | | | | | | 1.217 | | | | | | 1.520* | | | | 1.137 | |
| ENT-VSL-14.3 Adults who miss work or school days because of balance and dizziness problems (age-adjusted, percent, 18+ years) (2008) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.387* | | | | | | | | 1.303 | | | | | | 1.922* | | | | | | 1.402 | | | | 1.164 | |
| ENT-VSL-15.1 Adults who have fallen in the past 5 years due to dizziness, vertigo, or imbalance (age-adjusted, percent, 18+ years) (2008) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.081 | | | | | | | | 1.084 | | | | | | 1.439* | | | | | | 1.265 | | | | 1.015 | |
| ENT-VSL-15.2 Adults with balance or dizziness problems who were injured from a fall in the past 12 months (age-adjusted, percent, 18+ years) (2008) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.164 | | | | | | | | 1.313 | | | | | | 1.207 | | | | | | 1.345 | | | | 1.058 | |

Table 20–3. Midcourse Health Disparities¹ for Population-based Hearing and Other Sensory or Communication Disorders 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.

⁶Location of the healthcare provider.

⁷Data are for persons who completed some college or received an associate's degree.

⁸Data are for persons with activity limitations.

⁹Data are for persons without activity limitations.

¹⁰Data are for persons who graduated from college or above.

¹¹Data are for persons whose family income was 400% to 499% of the poverty threshold.

¹²Data are for persons whose family income was 500% or more of the poverty threshold.

¹³Data do not include persons of Hispanic origin.

¹⁴Data are for Mexican-American persons.

¹⁵Data include persons of Hispanic origin.

*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.

DATA SOURCES

| | |
|--------------|--|
| ENT-VSL-2 | National Ambulatory Medical Care Survey (NAMCS), CDC/NCHS; National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC/NCHS; Population Estimates, Census |
| ENT-VSL-3.1 | National Health Interview Survey (NHIS), CDC/NCHS; National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-3.2 | Healthcare Cost and Utilization Project–Nationwide Inpatient Sample (HCUP–NIS), AHRQ; National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-3.3 | National Health Interview Survey (NHIS), CDC/NCHS; National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-3.4 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-4.1 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-4.2 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-4.3 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-5 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-6.1 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-6.2 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-7 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-8 | National Health and Nutrition Examination Survey (NHANES), CDC/NCHS |
| ENT-VSL-9.1 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-9.2 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-10 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-11 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-12 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-13.2 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-14.1 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-14.2 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-14.3 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-15.1 | National Health Interview Survey (NHIS), CDC/NCHS |
| ENT-VSL-15.2 | National Health Interview Survey (NHIS), CDC/NCHS |