## **Healthy People 2010 Operational Definition**

28-13. Increase the proportion of persons with hearing impairments who have ever used a hearing aid or assistive listening devices or who have cochlear implants.

28-13a. Adults aged 20 to 69 years with hearing loss who have ever used a hearing aid.

National Data Sources National Health Interview Survey (NHIS), CDC,

NCHS; National Health and Nutrition Examination Examination Survey (NHANES), CDC, NCHS.

State Data Source Not identified.

**Healthy People 2000** Not applicable.

Changes since the 2000 Publication

New subobjective (see Comments).

**Measure** Rate per 1,000 population.

**Baseline (Year)** 165.9 (2001).

**Target** 182.5

Target-Setting Method 10 percent improvement

For a discussion of target-setting methods, see Part

A, section 4.

**Numerator** Number of adults 20-69 years who report they have

ever worn a hearing aid.

**Denominator** Number of adults 20-69 years with hearing loss in

either ear, defined as the pure-tone average of thresholds at {1000, 2000, 3000, and 4000 Hz}

greater than or equal to 35dB.

**Population Targeted** U.S. civilian, noninstitutionalized population.

Questions Used To Obtain the National Baseline Data

From the 2001 National Health Interview Survey:

Have you ever worn a hearing aid?

**Expected Periodicity** Annual.

## Comments

A hearing aid is an electronic device that brings amplified sound to the ear, usually consisting of a microphone, amplifier, and receiver.

A cochlear implant is a medical device that bypasses damaged structures in the inner ear and directly stimulates the auditory nerve, allowing some deaf individuals to hear and to maintain or develop speech and language.

Assistive devices are technical tools and devices used to aid individuals who have communication disorders in performing actions, tasks, and activities. Examples include alphabet boards, text telephones (TT/TTY/TTD), and text-to-speech conversion software.

The numerator for this objective, persons who respond that they have ever worn a hearing aid, is obtained annually from the National Health Interview Survey (NHIS); the denominator, persons testing as having hearing loss in either ear, is obtained from an average of the 1999-2004 National Health and Nutrition Examination Survey (NHANES).

At the time of the Healthy People 2010 Midcourse Review, baseline data were not age adjusted, and were therefore preliminary. Except those by Education status, final data are age adjusted to the 2000 standard population using the age groups 20-39, 40-59, and 60-69. Final data by education status are adjusted using the age groups 25-39, 40-59, and 60-69. For a discussion of age adjustment, see Part A, section 7.

Objective 28-13 moved from developmental to measurable during the Healthy People 2010 Midcourse review. Four subobjectives were created, each targeting different age groups and different methods of hearing assistance. Subobjectives 28-13a and c focus on increasing the proportion of adults with hearing loss aged 20-69 and aged 70 and older who have ever used a hearing aid, respectively. Subobjective 28-13b targets persons of any age who are deaf or very hard of hearing who have new cochlear implants; 28-13d focuses on adults aged 70 years and older with hearing loss who use assistive listening

devices.

For some objectives, data do not meet the criteria for statistical reliability, data quality, or confidentiality and have been suppressed. Information on suppression of data for the major Healthy People 2010 data systems has been published in a *Healthy People Statistical Note.*<sup>1</sup>

See Part C for descriptions of NHIS and NHANES and Appendix A for focus area contact information.

## References

1. Klein, R.J.; Proctor, S.E.; Boudreault, M.A.; Turczyn, K.M. Healthy People 2010 Criteria for Data Suppression. *Statistical Notes* No. 24. Hyattsville, MD: National Center for Health Statistics. 2002.

Operational Definition: Objective 28-13a