

The Hearing Loss Prevention Program provides leadership to reduce the prevalence of occupational hearing loss. This snapshot shows recent accomplishments and upcoming work.

### What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Hearing Loss Prevention Program works with partners in industry, labor, trade associations, professional organizations, and academia. The program focuses on reducing occupational hearing loss through research on controlling hazardous noise and ensuring hearing protectors are as effective as possible where dangerous noise exposures have not yet been controlled or eliminated.

### What do we do?

- Develop and evaluate controls to reduce worker exposure to hazardous noise levels.
- Conduct surveillance of occupational hearing loss to identify workers at increased risk and monitor progress in prevention.
- Promote evidence-based best practices for work-related hearing loss prevention by developing NIOSH communication products, including guidelines and Criteria documents.
- Advance hearing protector and fit-testing technology to ensure workers are protected when engineering/administrative controls have not yet been implemented or do not sufficiently reduce noise to safe levels.
- Identify, characterize, and reduce risk factors associated with noise induced hearing loss, especially intermittent and impulsive noise exposures that present greater risk.

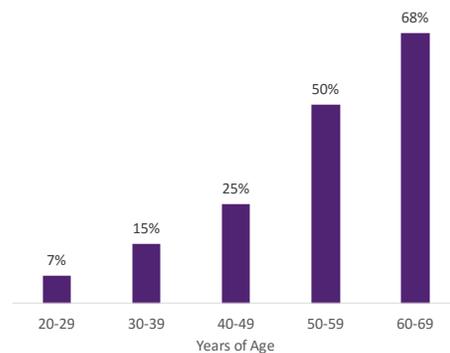
### What have we accomplished?

- Researched and provided occupational hearing loss data by age and gender to the revised [American National Standard: Estimation of Noise-Induced Hearing Loss, ANSI/ASA S3.44-2016](#). This standard focuses on work-related exposures and estimating the risk of hearing loss for workers exposed to noise.
- Developed and released for public use the [NIOSH Sound Level Meter for Apple mobile devices](#), which can accurately sample noise exposures with a smartphone or tablet device. This provides employers and workers with a free, easily accessible tool to make changes in real-time to reduce noise exposure.
- Published a [scientific paper](#) and [NIOSH document highlighting recipients](#) of the Safe-in-Sound Excellence in Hearing Loss Prevention Award™. These real-world examples demonstrate that noise control benefits extend beyond the prevention of hearing loss.
- Collaborated with National Center for Environmental Health to publish the [CDC Vital Signs: Noise-Induced Hearing Loss among Adults – United States 2011-2012](#) and web content “[Too Loud! For Too Long!](#)” on hearing loss.
- Published an [analysis of hearing difficulty and tinnitus among U.S. workers and non-workers](#) which found that over 50% of noise exposed workers experience either or both conditions.
- Published research to develop and evaluate controls for [reducing noise emissions from long-wall mining systems through a new numerical modeling approach](#) and submitted patent applications with a major equipment manufacturer.
- Coordinated the [June 2017 CDC Public Health Grand Rounds](#) on factors that affect hearing health and initiatives to prevent hearing loss across the lifespan.

### What's next?

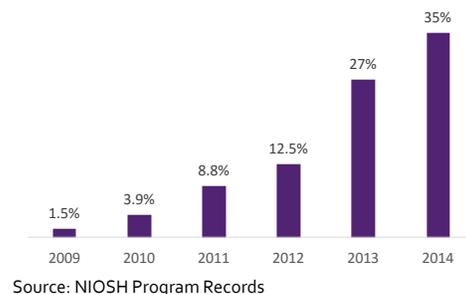
- Create a NIOSH topic web page for Hearing Protector Fit-Testing to provide best practice recommendations for integrating fit-testing into hearing loss prevention programs.
- Publish a paper on prevalence of hearing loss within the Agriculture, Forestry, and Fishing Sector for the period 2003-2012.
- Complete the draft of a consensus standard to validate the performance of hearing protector fit-test systems – ANSI/ASA S12.71.
- Contribute key chapters on noise measurement and hearing protector fit-testing to the 6th Edition of the American Industrial Hygiene Association Noise Manual.
- Conduct audiometric screening and train persons in hearing protector fitting at the 2017 ConExpo-Con/Agg convention, an international construction trade show conference.

### People with Hearing Loss (Not able to hear high pitched sounds)



Source: National Health and Nutrition Examination Survey 2011-2012. [Vital Signs: Noise-Induced Hearing Loss among Adults – United States 2011-2012](#)

### Adoption of NIOSH Noise Controls: Percentage of continuous mining machines with dual-sprocket conveyer chain, 2009-2014



Source: NIOSH Program Records

### Spotlight: NIOSH Sound Level Meter App



Image of the main screen of the NIOSH SLM app (shown with a MicW i436 external microphone)