



The National Institute for Occupational Safety and Health (NIOSH) Home

# Personal Protective Technology Program

## What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Personal Protective Technology (PPT) Program advances the application and knowledge of PPT to keep workers safe. PPT includes personal protective equipment (PPE) such as respirators, protective clothing, gloves, eye, fall and hearing protection, and hard hats, as well as sensors to detect hazardous substances, and fit testing equipment. The PPT Program includes the NIOSH respirator approval program, PPT research, evaluations, and interventions to support the NIOSH strategic goals.

## What do we do?

- Certify that new respirators meet minimum performance and respiratory protection standards before they enter the market.
- Conduct site and product audits to ensure respirators continue to meet standards after approval.
- Develop and implement science-based national recommendations for respirators and other PPE.
- Develop new methods to test effectiveness of PPE for workers, including workers engaged in infectious disease research and control activities.
- Create guidance and tools to help employers and workers use PPT as effectively and economically as possible.
- Develop and evaluate innovative PPE designs and test methods to improve comfort, fit and usability.

## What have we accomplished?

- Completed 732 respirator approval decisions and 260 quality assurance audits in 2021.
- Completed ISO 17025 accreditation for NIOSH's air purifying respirator (APR) and self-contained breathing apparatus (SCBA) labs.
- **Updated** the 2015 Hospital Respiratory Protection Toolkit in April 2022. This toolkit was developed to assist hospitals in developing and implementing effective respiratory protection programs.
- Facilitated **publication** of a new biohazard standard for eye and face protective devices, ANSI Z87.62.
- Developed an innovative test method for assessing helmet impact performance.
- Created technology for improving shock absorption of helmet suspension using air-bubble cushioning layers resulting in a nonprovisional patent application (pending).
- Completed the **Protective Clothing Challenge** resulting in five innovative solution awards to address PPE equity issues including fit and performance.

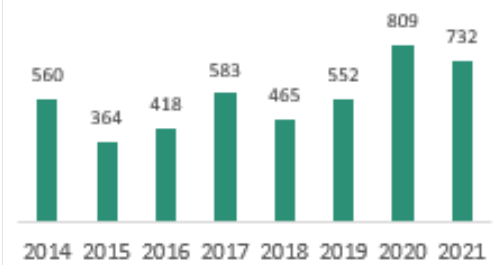
## What's next?

- Complete 400 respirator approval decisions and 250 quality assurance audits (YTD) in 2022.
- **Expand efforts** to reduce counterfeit respirators in the nation through a crowdsourcing challenge.
- Conduct the **Equitable PPE Protections Workshop** and initiate development of the draft PPE Equity Plan.
- Complete publications related to body measurement (or anthropometry) data collection of over 970 law enforcement officers in 12 regions to inform PPE design.
- Disseminate results from elastomeric respirator demonstrations with 43 healthcare and public safety facilities.
- Collaborate with external partners in developing and evaluating new materials for use in PPE.
- Provide scientific information to enhance the ASTM F2407 surgical gown standard.
- Facilitate ASTM adoption of the NIOSH-developed procedure to test for fluid leaks in the area where a glove and protective clothing sleeve meet.

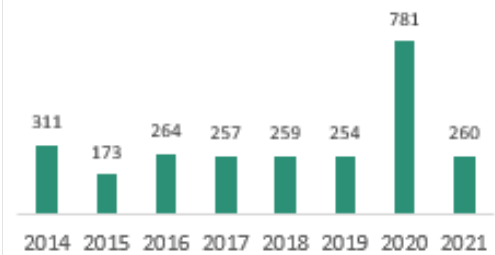
## At-A-Glance

The PPT Program is a world leader in protecting workers through PPT research, standards development, respirator conformity assessment, public outreach and information dissemination. This snapshot shows recent accomplishments and upcoming work.

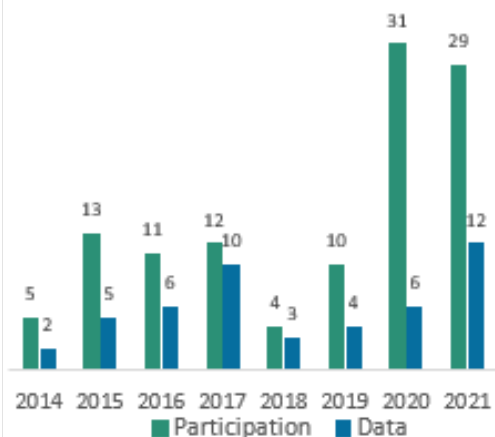
### Number of respirator approval decisions



### Number of respirator quality assurance audits



### Number of consensus standards developed using PPT Program participation and data in standards development organizations



Source for all data: NIOSH Program Records

