# Respiratory Protection Awareness for New York Federally Qualified Health Centers



## Introductory Training

## Wednesday, Dec. 9, 2020

*This presentation was supported in part by the Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response under award number 1U3REP190597-01-00. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Department of Health and Human Services and Human Services Office of the Assistant Secretary for Preparedness and Response.*

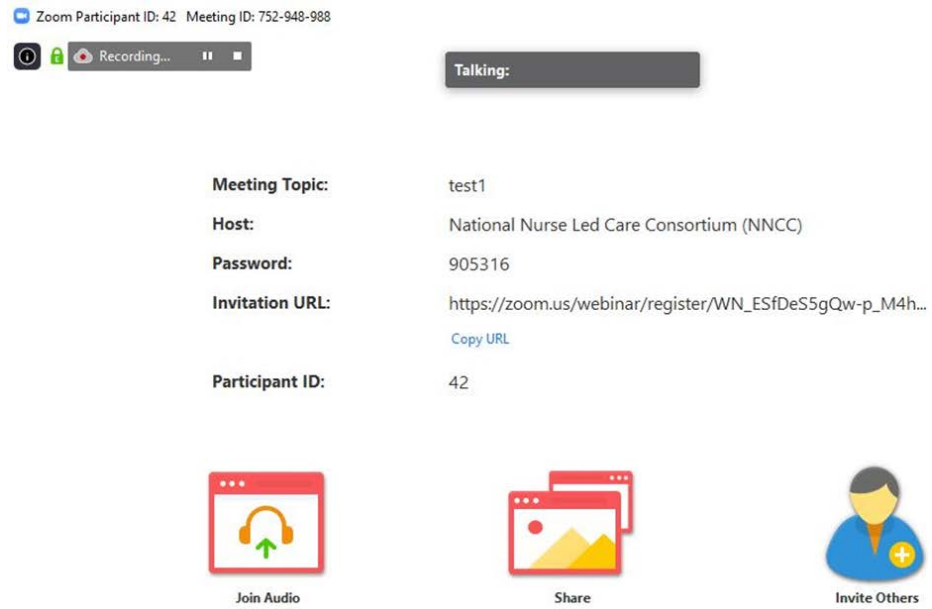
# Housekeeping Items

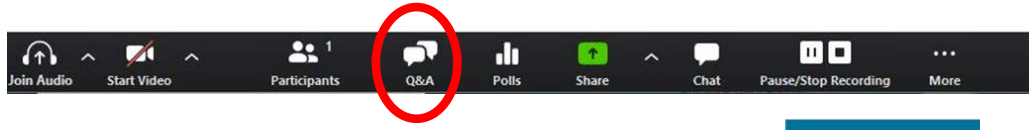
**Question & Answer**

- Click Q&A and type your questions into the open field.
- The Moderator will either send a typed response or answer your questions live at the end of the presentation.

**Continuing Education Credits**

- Please complete the evaluation survey after today's training.
- Certificate will arrive within 2 weeks of completing the survey.




CHCANYS DEFINING NEW DIRECTIONS
Community Health Care Association of New York State

# Learning Objectives

- Participants will improve their understanding of and ability to implement a respiratory protection program at their health center
- Participants will gain confidence in their knowledge of fit testing procedures
- Participants will increase their awareness of available fit-test resources

CHCANYS DEFINING NEW DIRECTIONS
Community Health Care Association of New York State

# Speakers


**Michael Levy, MS, ASP, CIH, CSP, ROH**
Assistant Regional Administrator –NJ, NY, PR, USVI
USDOL/OSHA

**Brian Crain**
Compliance Assistance Specialist
U.S. Department of Labor OSHA / Region II

NATIONAL NURSE-LED CARE CONSORTIUM
Respiratory Protection Awareness Training
December 9, 2020

## Protecting the Safety and Health of Workers

# Coronavirus Disease 2019 (COVID-19) Respiratory Protection


**Michael Levy, CIH, CSP, ASP, ROH**

**Assistant Regional Administrator**
**Occupational Safety and Health Administration**
**New York Regional Office**


OSHA® Occupational Safety and Health Administration

# DISCLAIMER

This information has been developed by an OSHA staff member and is intended to assist employers, workers, and others improve workplace health and safety. While we attempt to thoroughly address specific topics.  it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in this presentation. This information is a tool for addressing workplace hazards, and is not an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards.

This document does not have the force and effect of law and is not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. It does not create (or diminish) legal obligations under the Occupational Safety and Health Act. Finally, OSHA may modify rules and related interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at www.osha.gov.

OSHA® Occupational Safety and Health Administration

# Impact on workers

- **OSHA is closely coordinating with CDC, including NIOSH, and other agencies to monitor the ongoing pandemic.**
- **The risk of exposure in many workplaces likely reflects the risk to the general public in the community where the workplace is located.**
- **Risk increases when workers have frequent, close contact with the general public or other coworkers.**

Photo: U.S. Navy / Seaman Rob Aylward

**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# Occupational exposure risks

- **Workers in some sectors have increased risk of occupational exposure to SARS-CoV-2 from known or suspected sources of the virus, including in:**
  - Healthcare
  - Laboratories
  - Emergency response
  - Mortuary services and other deathcare

Photo: CDC

# Exposure risk – very high

- **Healthcare workers (e.g., doctors, nurses, dentists, paramedics, EMTs) performing or present for aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, CPR, some dental procedures and exams, invasive specimen collection) on known or suspected COVID-19 patients.**
- **Healthcare or laboratory personnel collecting or handling specimens from known or suspected COVID-19 patients.**
- **Morgue workers performing autopsies on the bodies of people who are known to have, or suspected of having COVID-19 at the time of their death.**

# Exposure risk – high

- **Healthcare delivery and support staff (e.g. doctors, nurses, and other hospital staff who must enter patients rooms) exposed to known or suspected COVID-19 patients. (While NO aerosol generating procedures are being performed.)**
- **Medical transport workers (e.g., ambulance vehicle operators) moving known or suspected COVID-19 patients in enclosed vehicles.**
- **Mortuary workers involved in preparing the bodies of people who are known to have, or suspected of having COVID-19 at the time of their death.**

# Exposure risk – medium

- **Jobs that require frequent (i.e., more than a few minutes) and/or close (i.e., within 6 feet) contact with people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients.**
- **Examples include:**
  - Critical retail workers, such as those in pharmacies and grocery stores.
  - Transit workers, such as bus drivers, subway operators, and taxi drivers.
  - Workers in other transportation operations.

# Exposure risk – low (caution)

- **Jobs that do not require contact with people known to be, or suspected of being infected with SARS-CoV-2 nor frequent close contact with (within 6 feet) of the general public.**
- **Workers in this category have minimal occupational contact with the public and other coworkers.**

# Existing OSHA standards protect workers from exposure

- **Existing OSHA standards can help protect workers from exposure to SARS-CoV-2 and infection with COVID-19.**
- **OSHA can use the General Duty Clause, Section 5(a)(1), of the Occupational Safety and Health Act to ensure that workers are protected from recognized safety and health hazards that may cause serious harm.**

## Relevant OSHA requirements

- **Personal Protective Equipment (29 CFR 1910 subpart I), including:**
  - **PPE General Requirements (1910.132)**
  - **Eye and Face Protection (1910.133)**
  - **Respiratory Protection (1910.134)**
  - **Hand Protection (29 CFR 1910.138)**
- **Bloodborne Pathogens (29 CFR 1910.1030)**
- **Hazard Communication (29 CFR 1910.1200)**
- **Recordkeeping (29 CFR part 1904)**

**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# OSHA enforcement discretion

- **OSHA has provided enforcement discretion for some of its requirements, including:**
  - Respiratory Protection standard (29 CFR 1910.134)
  - Other health standards with respirator requirements
  - Recording and Reporting Occupational Injuries and Illness (29 CFR Part 1904)

| Memorandum | Effective |
|---|---|
| Healthcare Respiratory Protection Annual Fit-Testing for N95 Filtering Facepieces During the COVID-19 Outbreak | March 14, 2020 - present |
| Enforcement Guidance for Respiratory Protection and the N95 Shortage Due to the 2019 Novel Coronavirus Disease (COVID-19) Pandemic | April 3, 2020 – present |
| Enforcement Guidance for Use of Respiratory Protection Equipment Certified Under Standards of Other Countries or Jurisdictions During the COVID-19 Pandemic | April 3, 2020 - present |
| Expanded Temporary Enforcement Guidance on Respiratory Protection Fit-Testing for N95 Filtering Facepieces in All Industries During the COVID-19 Pandemic | April 8, 2020 - present |
| Enforcement Guidance for Recording Cases of Coronavirus Disease 2019 (COVID-19) | April 10, 2020 – present |
| Enforcement Guidance on Decontamination of Filtering Facepiece Respirators in Healthcare During the COVID-19 Pandemic | April 24, 2020 – present |

www.osha.gov/coronavirus

OSHA® Occupational Safety and Health Administration

OSHA® Occupational Safety and Health Administration

# RESPIRATORY PROTECTION GUIDANCE

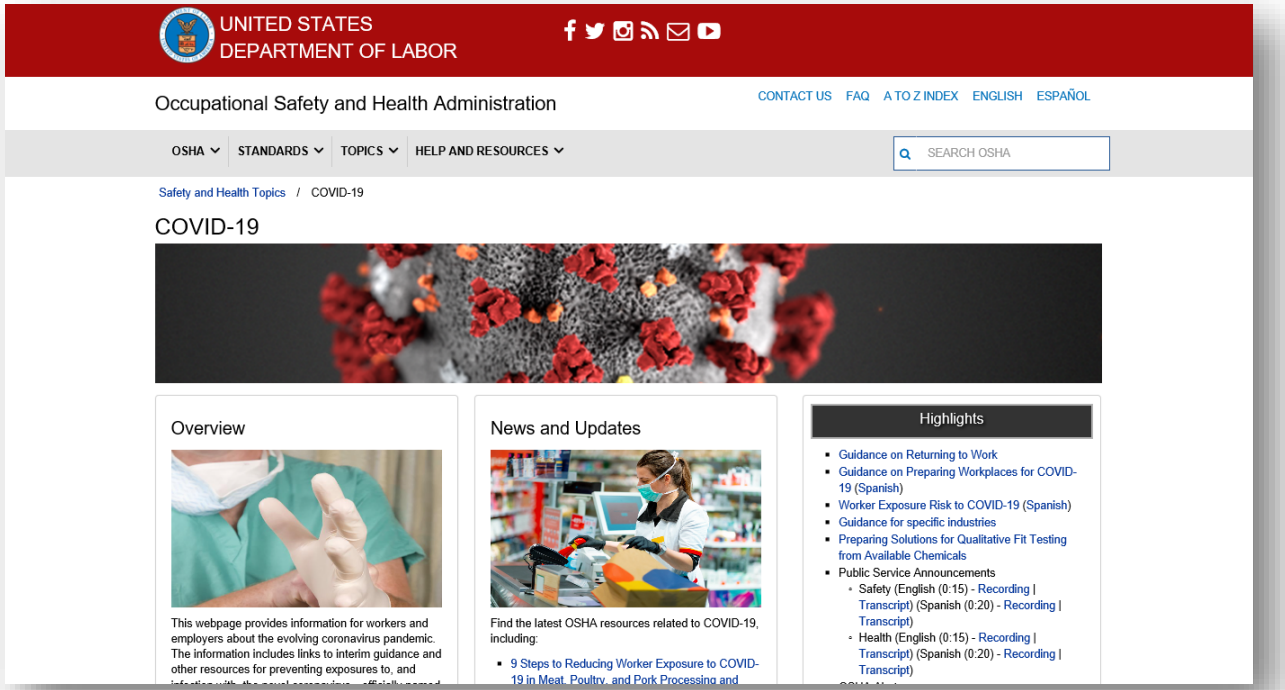
## for the Employers of Those Working in Nursing Homes, Assisted Living, and Other Long-Term Care Facilities During the COVID-19 Pandemic

https://www.osha.gov/sites/default/files/respiratory-protection-covid19-long-term-care.pdf

OSHA® Occupational Safety and Health Administration

# OSHA guidance

- **OSHA has developed a variety of guidance materials for workers and employers on how to stay healthy during the pandemic.**
- **OSHA.gov/coronavirus includes information on implementing the hierarchy of controls when workers have specific exposure risks.**




**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# OSHA Guidance: Frequently Asked Questions (FAQs)

**FAQ topics include:**

- General Information
- Cleaning and Disinfection
- Cloth Face Coverings
- Employer Requirements
- Healthcare
- Personal Protective Equipment
- Restrooms and Handwashing Facilities
- Retaliation
- Return to Work
- Testing for COVID-19
- Training
- Worker Protection Concerns
- Industry-Specific
  - Construction
  - Health Care

**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# OSHA guidance

- **OSHA guidance helps employers comply with OSHA standards.**
- **Guidance is based on anticipated hazards and risks, and incorporates standard, contact, and airborne precautions, and use of face/eye protection.**
- **Guidance should be adapted based on employer's hazard assessment and workers' tasks.**

Clockwise from L: public domain; WikimediaCommons; CDC/Kimberly Smith & Christine Ford

**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# OSHA guidance

**For all workers, regardless of specific exposure risks:**

- Practice good and frequent hand hygiene.
- Follow good cough/sneeze etiquette.
- Avoid touching the eyes, nose, or mouth with unwashed hands.
- Avoid close contact with people who are sick.

Photo: U.S. Department of Defense

**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# OSHA guidance

- **Train all workers about their risk of occupational exposure to COVID-19 as well as on what to do if they have traveled to high-risk areas or been exposed to possible cases.**
- **For workers at particular risk of exposure (e.g., in healthcare, others), discuss:**
  - Sources of exposure to the virus and hazards associated with that exposure.
  - Appropriate ways to prevent or reduce the likelihood of exposure, including use of engineering and administrative controls, safe work practices, and PPE.
- **Some OSHA standards (e.g., BBP, PPE) require worker training.**

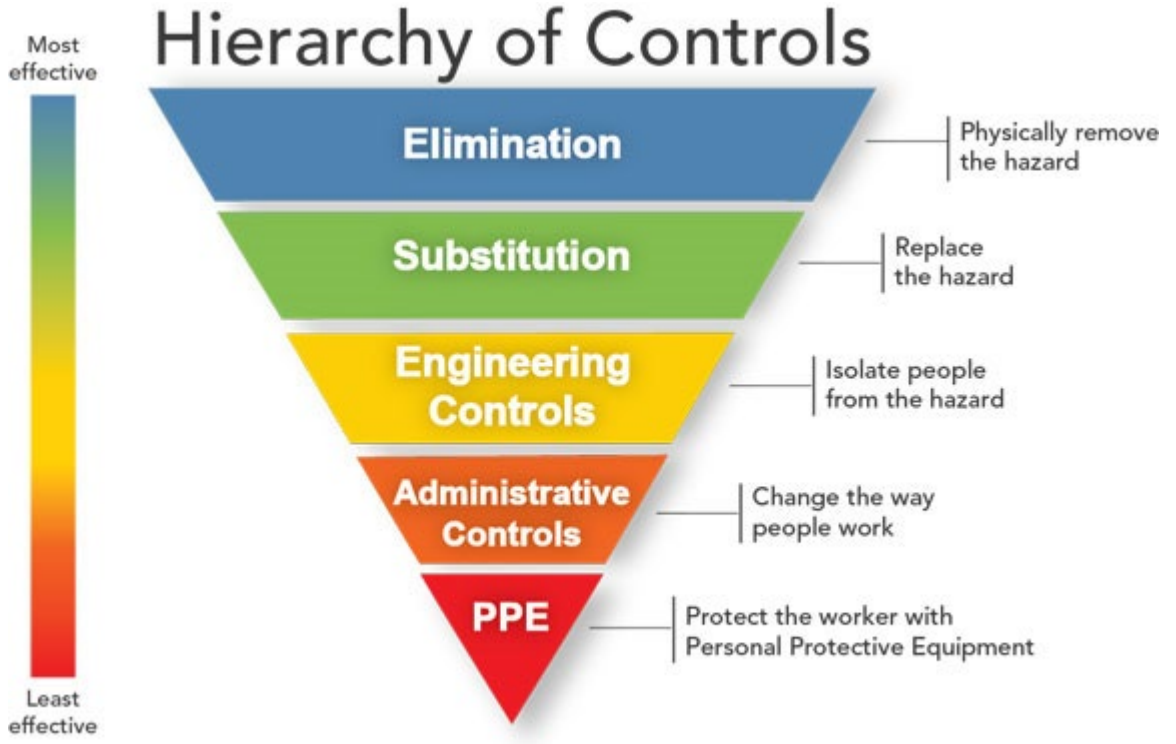
**www.osha.gov/coronavirus**

OSHA® Occupational Safety and Health Administration

# OSHA guidance

**For U.S. workers and employers of workers with potential occupational exposures to COVID-19:**

- Identify and isolate suspected cases.
- Implement other precautions appropriate for the worksite and job tasks, and according to the hierarchy of controls.




www.osha.gov/coronavirus

OSHA® Occupational Safety and Health Administration

# OSHA guidance

- **What should standard, contact, and airborne precautions consist of in workplaces where workers may be exposed to COVID-19?** *OSHA guidance breaks this down by worker type.*
  - Engineering controls, such as isolation rooms and other physical barriers, can limit most workers' exposures.
  - Administrative controls and safe work practices include measures such as limiting access to patient care areas, effective sharps management, and worker training.
  - PPE may include gloves, gowns, goggles or face shields, and N95 or better respirators.

# Worker Rights

## All workers have the right to:

- Raise a safety or health concern with their employer or OSHA, request personal protective equipment, or report a work-related injury or illness, including COVID-19.
- Receive information and training on job hazards in their workplace.

OSHA® Occupational Safety and Health Administration

# Whistleblower Protections under the OSH Act

- **Employers cannot retaliate (fire, lay off, demote, etc.) against employees for engaging in activity protected under the OSH Act.**
- **Protected activity includes:**
  - Requesting personal protective equipment
  - Wearing personal protective equipment
  - Reporting a work-related injury or illness, including COVID-19, to an employer or OSHA
  - Reporting an unsafe condition to an employer or OSHA
  - Requesting guidance on workplace safety from an employer, OSHA, or other government entity

OSHA® Occupational Safety and Health Administration

# Work Refusals under the OSH Act

- **Under the OSH Act, employees have the right to refuse to perform an assigned task if they:**
  - Have a reasonable apprehension of serious injury or death arising from a hazardous condition at the workplace; and
  - Refuse in good faith to expose themselves to the hazardous condition; and
  - Have no reasonable alternative; and
  - Have insufficient time, due to the urgency of the situation, to eliminate the danger through resort to regular statutory enforcement channels (i.e., contacting OSHA or an OSHA State Plan); and
  - Where possible, sought from their employer, and were unable to obtain, a correction of the dangerous condition.

OSHA® Occupational Safety and Health Administration

# For continual updates

- **Visit OSHA's website to sign up to receive OSHA information:**
  - QuickTakes biweekly newsletter
  - Tip of the Day
  - www.osha.gov/contactus
- **Follow OSHA on social media**
  - Twitter: @OSHA_DOL
  - Facebook: Follow the Department of Labor page

# OSHA's Respiratory Protection Standard 29 CFR 1910.134


OSHA® Occupational Safety and Health Administration

# Organization of Standard

(a) Permissible practice
(b) Definitions
(c) Respirator program
(d) Selection of respirators
(e) Medical evaluation
(f) Fit testing
(g) Use of respirators
(h) Maintenance and care
(i) Breathing air quality and use
(j) Identification of filters, cartridges, and canisters
(k) Training and information
(l) Program evaluation
(m) Recordkeeping
(n) Dates
(o) Appendices (mandatory)
    A: Fit Testing Procedures
    B-1: User Seal Checks
    B-2: Cleaning Procedures
    C: Medical Questionnaire
    D: Information for Employees Wearing Respirators When Not Required Under the Standard

OSHA® Occupational Safety and Health Administration

# Permissible Practice

- The primary means to control occupational diseases caused by breathing contaminated air is through the use of **feasible engineering controls**, such as enclosures, confinement of operations, ventilation, or substitution of less toxic materials
- When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this standard
- Employer shall provide respirators, when necessary, which are applicable and suitable for the purpose intended
- Employer shall be responsible for establishment and maintenance of a **respirator program** which includes the requirements of paragraph (c), *Respiratory protection program*

OSHA® Occupational Safety and Health Administration

# Employee Exposure

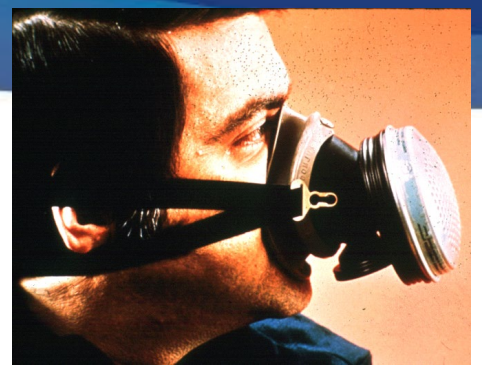
Exposure to a concentration of an airborne contaminant that would occur if the employee were **not** using respiratory protection.

OSHA® Occupational Safety and Health Administration

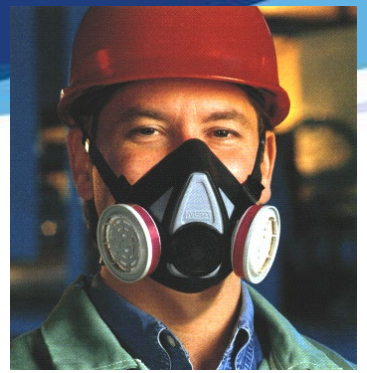
# Respiratory Inlet Covering

- That portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both
- May be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp

# Tight -Fitting Coverings



**Quarter Mask**



**Half Mask**

**N95- filtering facepiece**

**Full Facepiece**

**Mouthpiece/Nose Clamp**
(no fit test required)

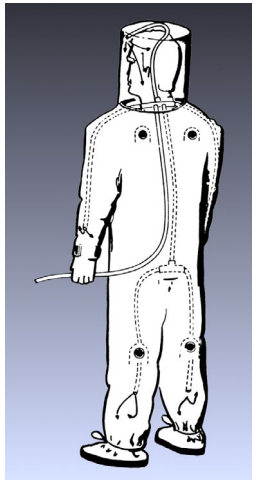
OSHA® Occupational Safety and Health Administration

# Loose-Fitting Coverings

Hood

Helmet

Loose-Fitting Facepiece



Full Body Suit

OSHA® Occupational Safety and Health Administration

# Filter

A component used in respirators to remove solid or liquid aerosols from the inspired air. Also called **air purifying element**.

OSHA® Occupational Safety and Health Administration

# Canister or Cartridge

A container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

OSHA® Occupational Safety and Health Administration

# Negative Pressure Respirator

A respirator in which the air pressure inside the facepiece is **negative during inhalation** with respect to the ambient air pressure outside the respirator.

OSHA® Occupational Safety and Health Administration

# Filtering Facepiece (Dust Mask)

A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.


OSHA® Occupational Safety and Health Administration

# Air-Purifying Respirator (APR)

A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

OSHA® Occupational Safety and Health Administration

# Positive Pressure Respirator

A respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

OSHA® Occupational Safety and Health Administration

# Powered Air-Purifying Respirator (PAPR)

An air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

OSHA® Occupational Safety and Health Administration

# Respirator Program

- Must develop a **written program** with **worksite-specific procedures** when respirators are necessary or required by the employer
- Must update program as necessary to reflect changes in workplace conditions that affect respirator use
- Must designate a **program administrator** who is qualified by appropriate training or experience to administer or oversee the program and conduct the required program evaluations
- Must provide respirators, training, and medical evaluations at no cost to the employee

Note: OSHA has prepared a *Small Entity Compliance Guide* that contains criteria for selection of a program administrator and a sample program.

OSHA® Occupational Safety and Health Administration

OSHA® Occupational Safety and Health Administration

www.osha.gov

# Small Entity Compliance Guide for the Respiratory Protection Standard

https://www.osha.gov/Publications/3384small-entity-for-respiratory-protection-standard-rev.pdf

OSHA® Occupational Safety and Health Administration

# Program Administrator
## *29 CFR 1910.134 (c) (3)*

- You must designate a program administrator to run the program and evaluate its effectiveness.
- An individual is qualified to be a program administrator if he or she has appropriate training or experience in accord with the program's level of complexity.
- This training or experience is appropriate if it enables the program administrator to fulfill the minimum requirements of recognizing, evaluating, and controlling the hazards in your workplace.

OSHA® Occupational Safety and Health Administration

# How do I, or a designated employee, become a qualified program administrator?

- If your workers are exposed only to nuisance dusts and relatively low-toxicity materials, and they use only a few types of relatively simple respirators, knowledge of this guide and materials supplied by the manufacturer may be sufficient for you, or a designated employee, to serve as the program administrator.
- If more dangerous substances are present, if the potential for high exposures exists, or if more complex respirators are used, the program administrator must have more extensive experience and/or training. In these circumstances, you may need to seek out the expertise needed or obtain appropriate training.

# Is there a list of approved training courses my program administrator can attend?

- No, OSHA does not provide a training course specifically to train respiratory protection program administrators, nor does OSHA require program administrators to attend a specified course.
- OSHA only requires the program administrator to have an adequate level of training or experience to deal with the complexity of the respiratory protection program at the worksite.

OSHA® Occupational Safety and Health Administration

# Respirator Program Elements

1. Selection
2. Medical evaluation
3. Fit testing
4. Use
5. Maintenance and care
6. Breathing air quality and use
7. Training
8. Program evaluation

OSHA® Occupational Safety and Health Administration

# Selection of Respirators

Employer must select and provide an appropriate respirator based on the respiratory hazards to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.


OSHA® Occupational Safety and Health Administration

# Selection of Respirators (cont'd)

- Select a **NIOSH-certified respirator** that shall be used in compliance with the conditions of its certification
- Identify and evaluate the respiratory hazards in the workplace, including a reasonable estimate of employee exposures and identification of the contaminant's chemical state and physical form
- Where exposure cannot be identified or reasonably estimated, the atmosphere shall be considered **Immediately Dangerous to Life or Health (IDLH)**
- Select respirators from a sufficient number of models and sizes so that the respirator is acceptable to, and correctly fits, the user

# Classes of Nonpowered Air-Purifying Particulate Filters

Nine classes: three levels of filter efficiency, each with three categories of resistance to filter efficiency degradation due to the presence of oil aerosols

| N | R | P |
|---|---|---|
| 100 | 100 | 100 |
| 99 | 99 | 99 |
| 95 | 95 | 95 |

**N for *N*ot resistant to oil**
**R for *R*esistant to oil**
**P for oil *P*roof**

OSHA® Occupational Safety and Health Administration

# Selection and Use

- If no oil particles are present, use any series (N, R, or P)
- If oil particles are present, use **only** R or P series
- Follow the respirator filter manufacturer's service-time-limit recommendations

OSHA® Occupational Safety and Health Administration

# High Efficiency Filters

Filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter.
(HEPA filter per NIOSH 30 CFR 11)

Equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.


OSHA® Occupational Safety and Health Administration

# Physician or Other Licensed Health Care Professional (PLHCP)

An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him/her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e), *Medical evaluation*.

# Medical Evaluation
## Procedures

- Must provide a medical evaluation to determine employee's ability to use a respirator, **before fit testing and use**
- Must identify a PLHCP to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information
- Medical evaluation must obtain the information requested by the questionnaire in Sections 1 and 2, Part A of App. C
- Follow-up medical examination is required for an employee who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of App. C or whose initial medical examination demonstrates the need for a follow-up medical examination

OSHA® Occupational Safety and Health Administration

# Medical Evaluation
## Additional Medical Evaluations

- **Annual review** of medical status is **not required**
- At a minimum, employer must provide additional medical evaluations if:
  - Employee reports medical signs or symptoms related to the ability to use a respirator
  - PLHCP, supervisor, or program administrator informs the employer that an employee needs to be reevaluated
  - Information from the respirator program, including observations made during fit testing and program evaluation, indicates a need
  - Change occurs in workplace conditions that may substantially increase the physiological burden on an employee

OSHA® Occupational Safety and Health Administration

# Fit Testing

Before an employee uses any respirator with a **negative or positive pressure tight-fitting facepiece**, the employee must be fit tested with the same make, model, style, and size of respirator that will be used.

**Half mask Filtering Facepiece Dust mask**
APF=10
*Needs to be fit tested*

**Half mask Elastomeric Respirator**
APF=10
*Needs to be fit tested*

OSHA® Occupational Safety and Health Administration

# Fit Test Exercises

- Normal breathing
- Deep breathing
- Turning head side to side
- Moving head up and down
- Talking
- Grimace
- Bending over
- Normal Breathing

OSHA® Occupational Safety and Health Administration

# Qualitative Fit Test (QLFT)

A pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

OSHA® Occupational Safety and Health Administration

# Quantitative Fit Test (QNFT)

An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.


OSHA® Occupational Safety and Health Administration

# Fit Testing (cont'd)

- Employees using tight-fitting facepiece respirators must pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT):
  - prior to initial use,
  - whenever a different respirator facepiece (size, style, model or make) is used, and
  - at least annually thereafter
- Must conduct an additional fit test whenever the employee reports, or the employer or PLHCP makes visual observations of, changes in the employee's physical condition (e.g., facial scarring, dental changes, cosmetic surgery, or obvious change in body weight) that could affect respirator fit

OSHA® Occupational Safety and Health Administration

# Fit Testing (cont'd)

- The fit test must be administered using an OSHA-accepted QLFT or QNFT protocol contained in Appendix A
  - QLFT Protocols:
    - Isoamyl acetate
    - Saccharin
    - Bitrex
    - Irritant smoke
  - QNFT Protocols:
    - Generated Aerosol (corn oil, salt, DEHP)
    - Condensation Nuclei Counter (PortaCount)
    - Controlled Negative Pressure (Dynatech FitTester 3000)
    - Controlled Negative Pressure (CNP) REDON

OSHA® Occupational Safety and Health Administration

# Fit Factor

A quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio:

$$\frac{\textit{Concentration of a substance in ambient air}}{\textit{Concentration inside the respirator when worn}}$$

OSHA® Occupational Safety and Health Administration

# Fit Testing (cont'd)

- QLFT may only be used to fit test negative pressure APRs that must achieve a fit factor or 100 or less
- If the fit factor is determined to be equal to or greater than 100 for tight-fitting half facepieces or equal to or greater than 500 for tight-fitting full facepieces, the QNFT has been passed with that respirator

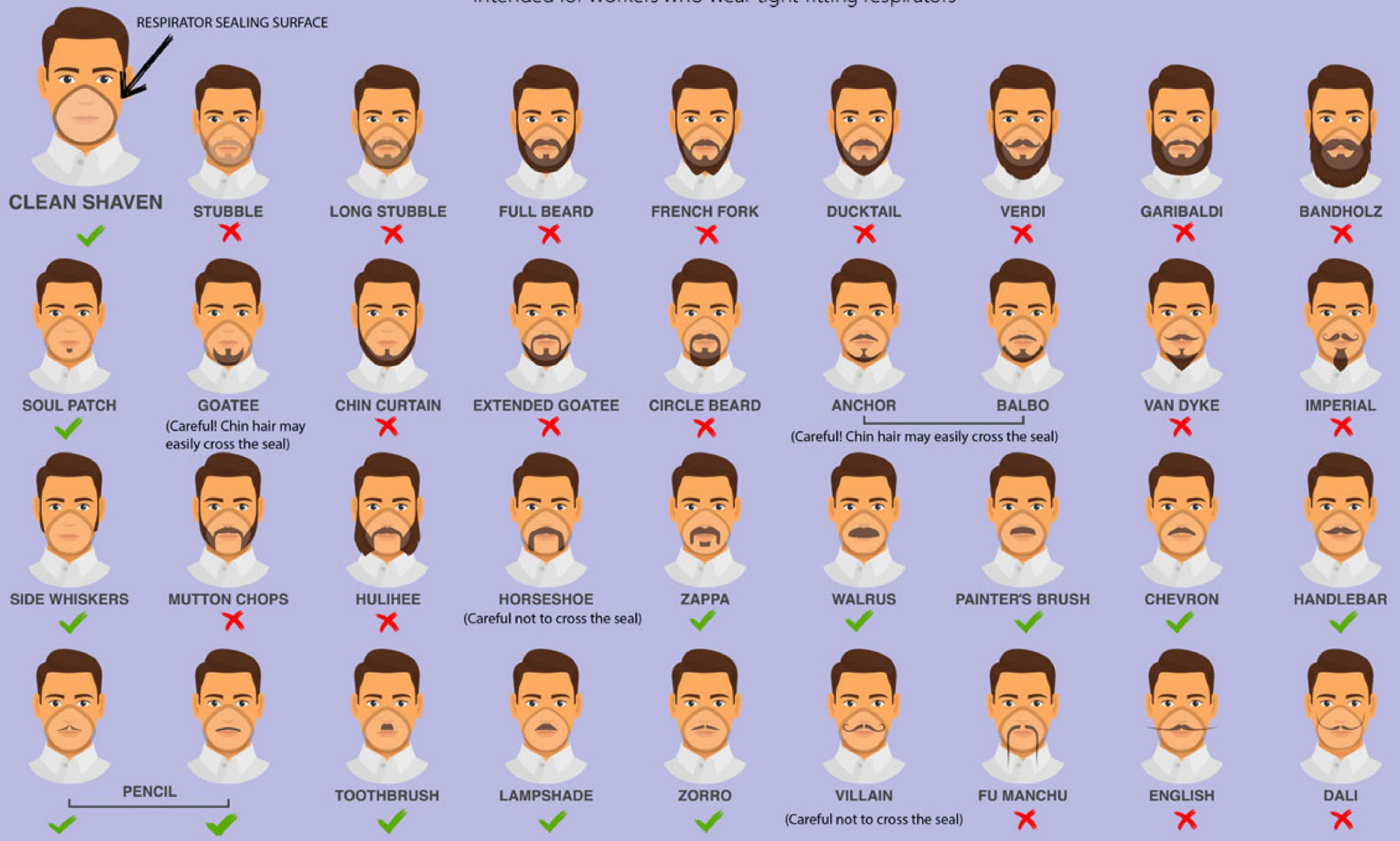
# Use of Respirators
## Facepiece Seal Protection

- Respirators with tight-fitting facepieces must not be worn by employees who have facial hair or any condition that interferes with the face-to-facepiece seal or valve function
- Corrective glasses or goggles or other PPE must be worn in a manner that does not interfere with the face-to-facepiece seal
- Employees wearing tight-fitting respirators must perform a user seal check **each time they put on the respirator** using the procedures in Appendix B-1 or equally effective manufacturer's procedures

OSHA® Occupational Safety and Health Administration

# Facial Hairstyles and Filtering Facepiece Respirators

Intended for workers who wear tight-fitting respirators




Original image vector by fredrisher/Shutterstock.com

*If your respirator has an exhalation valve, some of these styles may interfere with the valve working properly if the facial hair comes in contact with it.

†This graphic may not include all types of facial hairstyles. For any style, hair should not cross under the respirator sealing surface.

Source: OSHA Respiratory Protection Standard
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=12716

Further Reading: NIOSH Respirator Trusted-Source Webpage
https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource3fittest.html

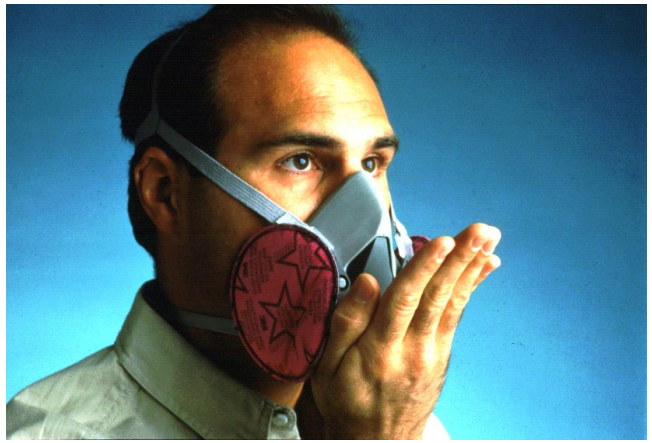
CDC NIOSH
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

2017

OSHA® Occupational Safety and Health Administration

# User Seal Check

An action conducted by the respirator user to determine if the respirator is properly seated to the face.



**Positive Pressure Check**

**Negative Pressure Check**

OSHA® Occupational Safety and Health Administration

# Maintenance and Care

- Provide each user with a respirator that is clean, sanitary and in good working order
- Use procedures in Appendix B-2 or equivalent manufacturer's recommendations
- Clean and disinfect at the following intervals:
  - as often as necessary when issued for exclusive use
  - before being worn by different individuals when issued to more than one employee
  - after each use for emergency respirators and those used in fit testing and training

OSHA® Occupational Safety and Health Administration

# Identification of Filters, Cartridges, and Canisters


- All filters, cartridges and canisters used in the workplace must be labeled and color coded with the NIOSH approval label
- The label must not be removed and must remain legible
- “TC number” is no longer on cartridges or filters (Part 84)
- Marked with “NIOSH”, manufacturer’s name and part number, and an abbreviation to indicate cartridge or filter type (e.g., N95, P100, etc.)
- Matrix approval label supplied, usually as insert in box

OSHA® Occupational Safety and Health Administration

# Training and Information

Employers must provide effective training to employees who are required to use respirators.

OSHA® Occupational Safety and Health Administration

# Training and Information

- Employees who are required to use respirators must be trained such that they can demonstrate knowledge of at least:
  - why the respirator is necessary and how improper fit, use, or maintenance can compromise its protective effect
  - limitations and capabilities of the respirator
  - effective use in emergency situations
  - how to inspect, put on and remove, use and check the seals
  - maintenance and storage
  - recognition of medical signs and symptoms that may limit or prevent effective use
  - general requirements of this standard

OSHA® Occupational Safety and Health Administration

# Training and Information (cont'd)

- Training must be provided prior to use, unless acceptable training has been provided by another employer within the past 12 months
- Retraining is required annually, and when:
  - changes in the workplace or type of respirator render previous training obsolete
  - there are inadequacies in the employee's knowledge or use
  - any other situation arises in which retraining appears necessary
- The basic advisory information in Appendix D must be provided to employees who wear respirators when use is not required by this standard or by the employer

# Program Evaluation

- Must conduct evaluations of the workplace as necessary to ensure effective implementation of the program
- Must regularly consult employees required to use respirators to assess their views on program effectiveness and to identify and correct any problems
  - factors to be assessed include, but are not limited to:
    - respirator fit (including effect on workplace performance)
    - appropriate selection
    - proper use
    - proper maintenance

OSHA® Occupational Safety and Health Administration

# Recordkeeping

- Records of medical evaluations must be retained and made available per 29 CFR 1910.1020
- A record of fit tests must be established and retained until the next fit test is administered
- A written copy of the current program must be retained
- Written materials required to be retained must be made available upon request to affected employees and OSHA

OSHA® Occupational Safety and Health Administration

# Questions?

- **Michael Levy**

  OSHA Region 2
  Email: levy.mike@dol.gov

  Phone: 212-337-4637

- **OSHA Directorate of Technical Support and Emergency Management**

  Phone: 202-693-2300


**www.osha.gov**

**1-800-321-OSHA (6742)**

# Q & A

# Speaker

**Jillian Bird, MSN, RN**
Nurse Training Manager
National Nurse-Led Care Consortium

# Respiratory Protection Awareness Training

## December 9, 2020

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# About NNCC

The **National Nurse-Led Care Consortium (NNCC)** is a membership organization that supports nurse-led care and nurses at the front lines of care.

NNCC provides expertise to support comprehensive, community-based primary care.

- Policy research and advocacy
- Technical assistance and support
- Direct, nurse-led healthcare services

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Learning Objectives

1. Participants will improve their understanding of and ability to implement a respiratory protection program at their health center
2. Participants will gain confidence in their knowledge of fit testing procedures
3. Participants will increase their awareness of available fit-test resources

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Why a Respiratory Protection Program?

Ensures all employees are protected from:

- person-to-person transmission of airborne infectious agents
- other possible harmful environmental risk

# Poll + Sharing

**At which stage in the process is your health center regarding having an RPP?**

- Established-up and running protocols
- Revamping-evaluating, modifying
- Implementation-training, fit test done
- Planning stages-writing program, developing workflow
- Aware of RPP-need to start, but where?

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

Emergency Management

CHCANYS

# Respiratory Protection Program

## Toolkit

V2020.08.20

# Phases of planning and implementation


**1 Design the Workflows**

How, when and who will be conducting the necessary steps of the program

**2 Prepare the Team**

Communicate and create buy-in, provide all necessary information about what to expect as program is implemented

**3 Identify Key Personnel**

Identify which members of the center will be needed to help execute the program, this will be site-specific

**4 Implement**

Pilot with a small cohort, perhaps all new hires or all the PHCPs

**5 Evaluate Success**

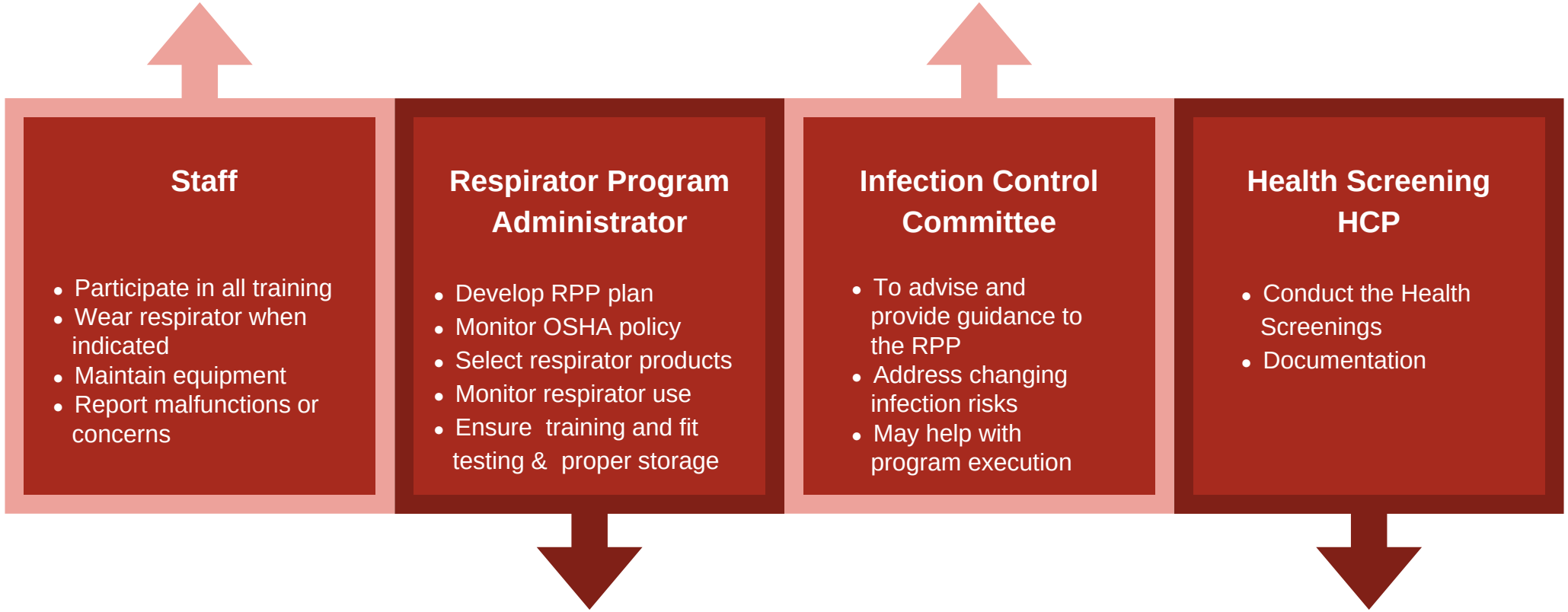
Define a timeframe for evaluation and measure success based on predetermined metrics

**6 Scale Up**

Adjust when ready to include next cohort and continue to scale up, be sure to get feedback along the way

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Key Personnel Roles & Responsibilities



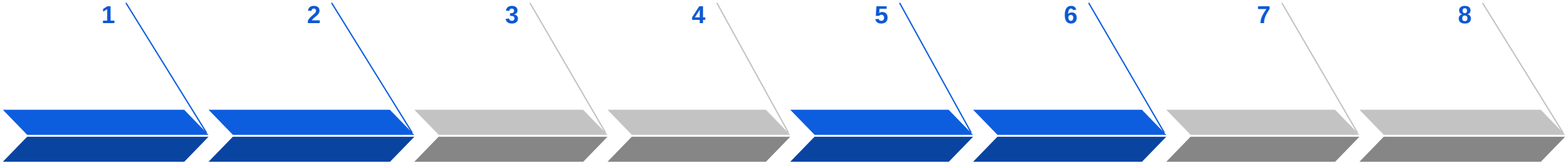

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Respirator Program Administrator

- Clinic supervisor
- Nurse Manager
- HR manager
- Safety Officer
- Other


NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Program Overview




| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| **Risk Assessment** | **Selection of Respirators** | **SOP** | **Medical Screening** | **Provide Training** | **Fit Testing** | **Maintenance Program** | **Evaluate** |
| Likelihood of adverse effects resulting from exposure to a disease or other | Selecting the “right” respirator based on the risk assessment | Written SOP administered by a “suitably” trained respiratory program administrator | Determines one’s ability to use a respirator in the workplace; completed by appropriately licensed HCP | Training provided to all employees required to use respirators | Determines which make, model, style, and size of respirator will be used; OSHA-accepted qualitative fit test | Ongoing cleaning and disinfecting, storage, inspection, and repair of respirators | Conducted annually or as needed; documented and stored |

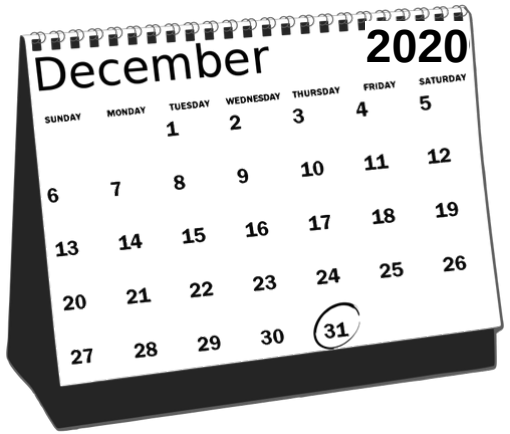
NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Risk Assessment

Engineering controls: ventilation, isolation or enclosure of the work process

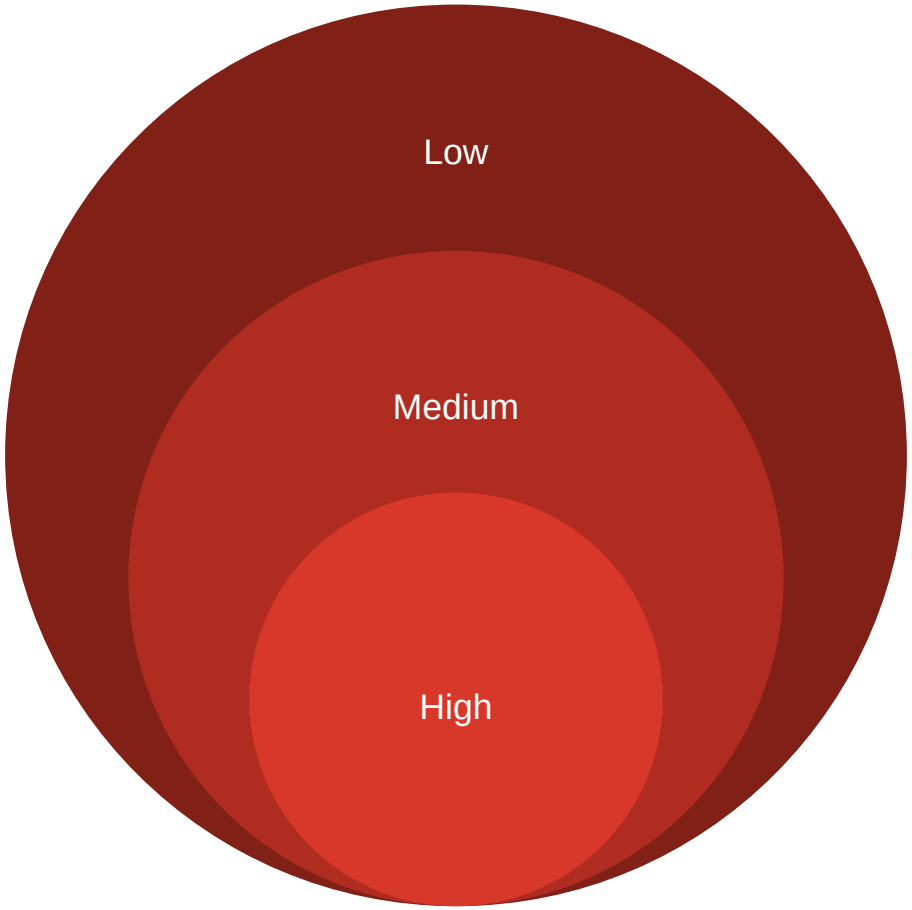
Administrative controls: staffing rotation, or scheduling safety protocols

PPE: respirator




NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Risk Assessment: Low, Medium and High Risk



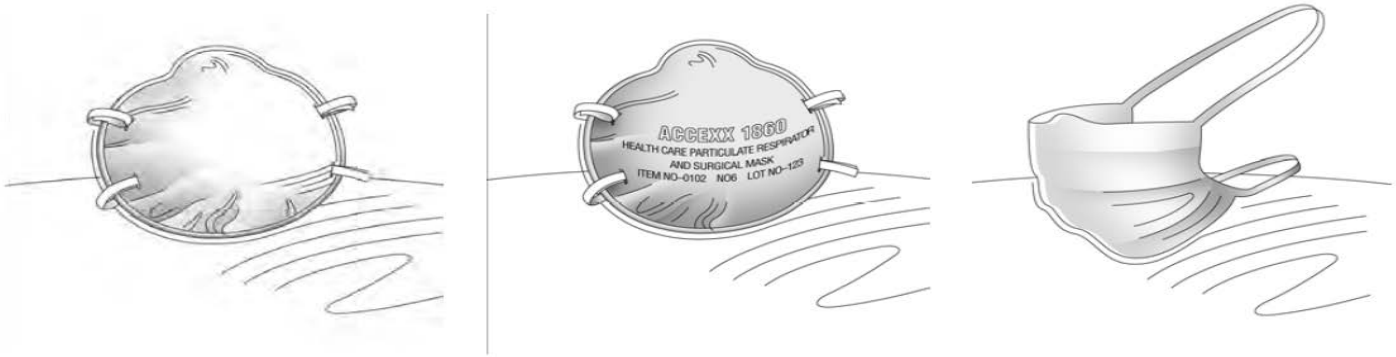

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Selection of Respirator

To address exposure airborne respiratory illnesses:

- N95 respirators:
  - 95% of 0.3 µm airborne particles free of oil
- Powered air-purifying respirator (PAPR)
  - contact tracing, disease investigation and patient contact/care
  - include this only if your agency has one or intends to buy one
- Other

**Filtering facepiece (N95) respirators, surgical (N95) respirators, and surgical masks**




Filtering facepiece (N95) surgical mask | Surgical (N95) respirator | Surgical mask

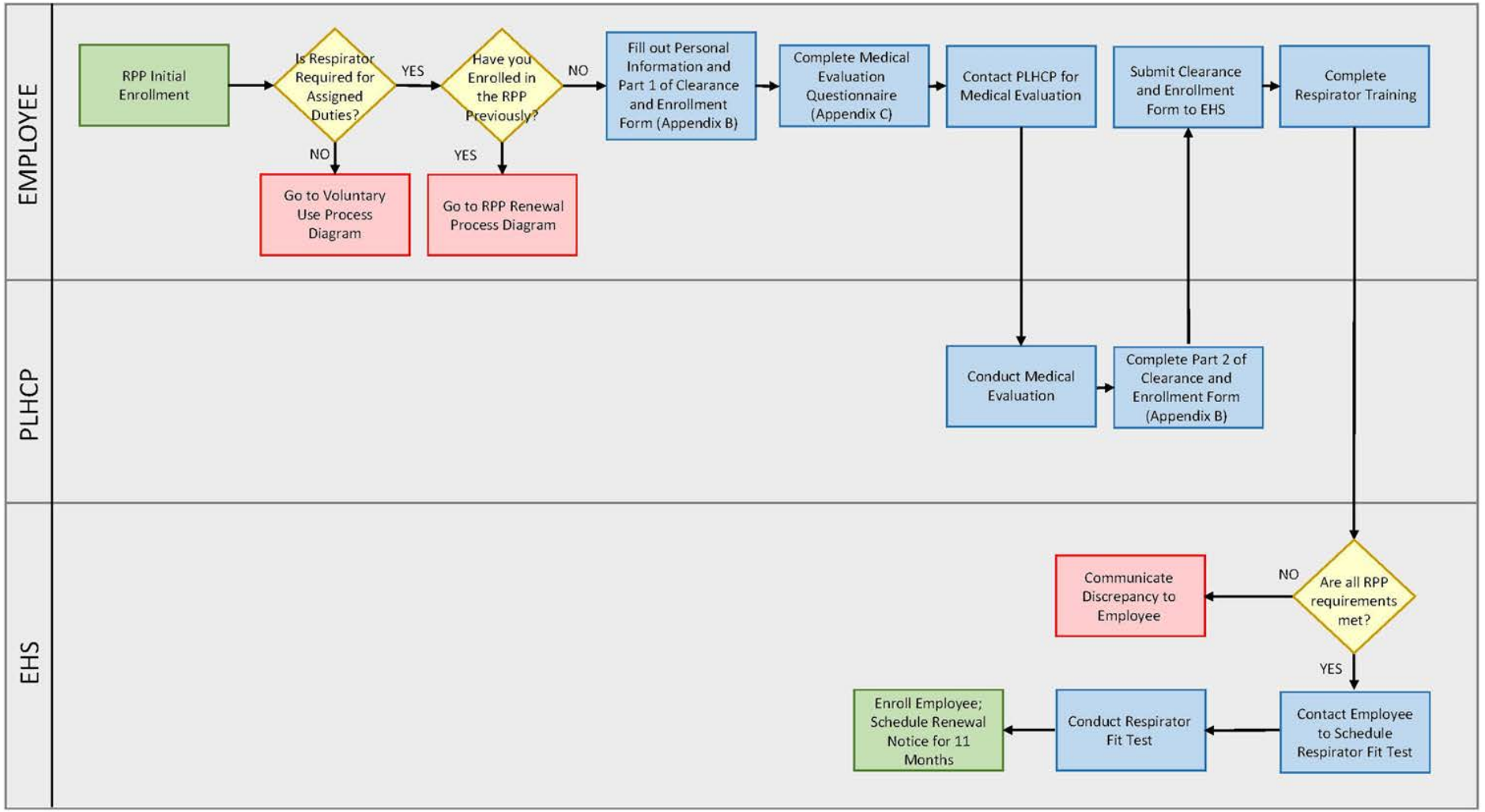
NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Standard Operating Procedure

- Written, contain info on all aspects of the RPP covered here today
- Administered by a “suitably trained” RPA
- Tool kits provides that SOP, tailor to site

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

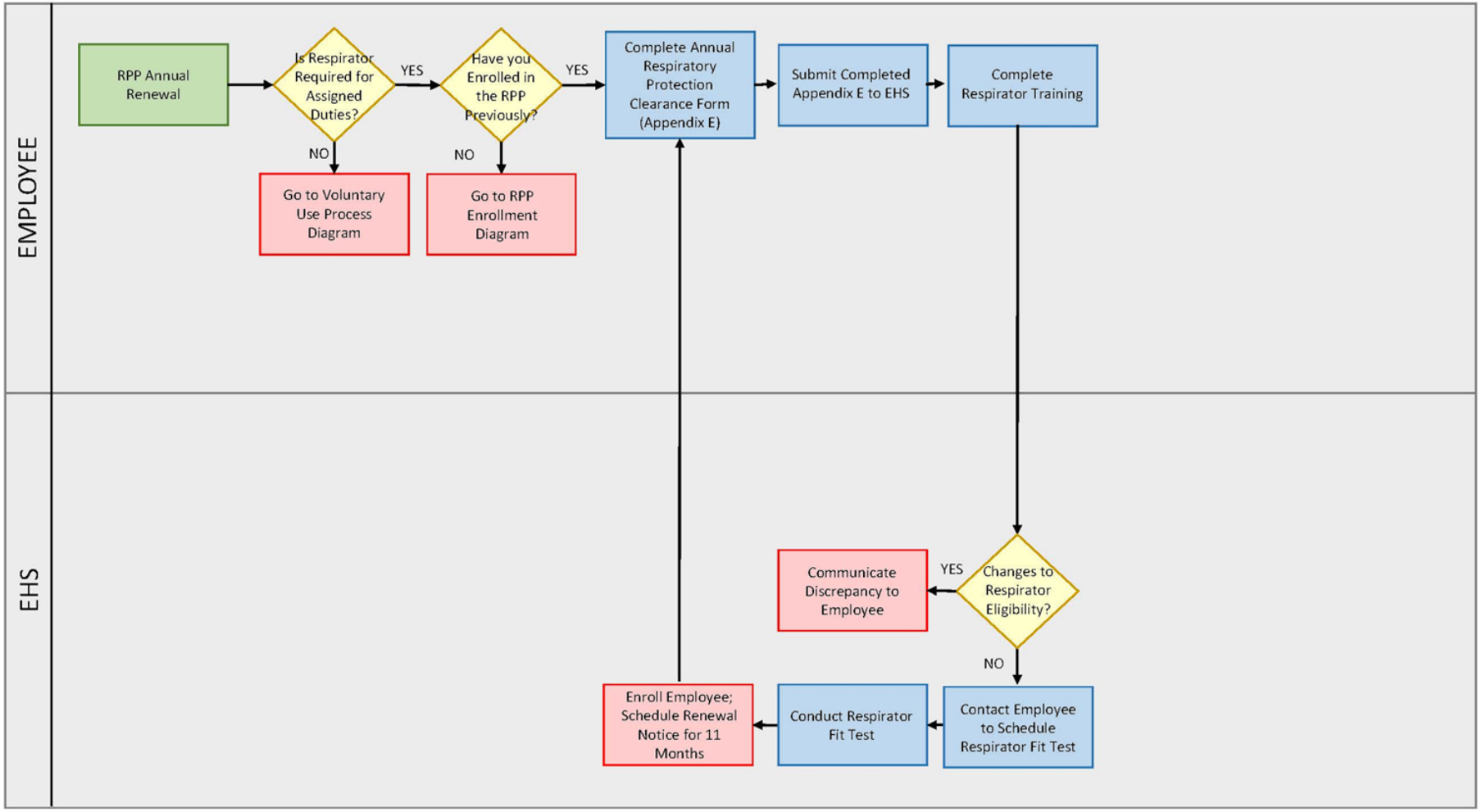
# Initial RPP Enrollment Workflow




https://www.k-state.edu/safety/occupational/respiratory-protection/

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Annual RPP Enrollment Workflow




https://www.k-state.edu/safety/occupational/respiratory-protection/

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Medical Screening

- Ensures people are physically able to perform job safely while wearing respirator
- Physical exam for certain circumstances
  - Respiratory condition
  - Deemed necessary (answer yes to Q 1-8, section 2)

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Toolkit: screen shot

## Attachment A- OSHA Respirator Medical Evaluation Questionnaire

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee: Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Annual Training


Putting on and Taking off a Mask
Runtime: 2:02 mins
Date: May 2020

Como Ponerte y Quitarte una Mascarilla
Runtime: 2:05 mins
Date: May 2020

Respiratory Protection for Healthcare Workers
Runtime: 33:13 mins
Date: January 2011

The Difference Between Respirators and Surgical Masks
Runtime: 5:37 mins

La Diferencia entre Las Mascaras de Respiración y las Mascaras Quirúrgicas


Respirator Safety. Donning (Putting on) and Doffing (Taking off) and User Seal Checks

Seguridad de Máscaras de Respiración
Runtime: 10:36 mins
Date: December 2009

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

https://www.osha.gov/respiratory-protection/training

# Fit Testing

- Complete prior to wearing
- Repeated annually
- Under certain circumstances
  - Respiratory condition
  - Altered body composition by 10%
- Tool kit has
  - Checklist to conduct test
  - Documentation template

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Fit Testing

## Step 1 – Coordinate the test

| Description | Check |
|---|---|
| Set a specific time slot for each person being tested.<br>*(30 minutes Suggested).* | ☐ |
| Arrange for each person to be fit-tested individually.<br>*(This way they will not be distracted by other people in the room. Test takes 20-40 minutes).* | ☐ |
| Instruct persons tested to be cleanly shaven.<br>*(If applicable).* | ☐ |
| Instruct person being tested not to eat or drink anything other than water within 30 minutes of their allocated time-slot.<br>*(This reduces the risk of food or drink leaving a residual taste in their mouth that could be confused with a fit test failure).* | ☐ |
| Determine if persons being tested should bring their own masks, or if identical models (sizes where appropriate) will be provided for the tests.<br>*(This applies if respirators have already been issued and fit testing is being carried out retrospectively. If respirators have not already been issued, explain that one will be specified and provided at the time of the test).* | ☐ |

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Fit Testing

- Prepare respirators for fit testing
- Properly don and doff respirators, with specific recommendations for each make and model and modifications for different contaminants and user factors.
- Prepare and properly squeeze nebulizers
- Check for and resolve clogging in nebulizers
- Avoid common mistakes when using nebulizers
- Understand requirements for recording fit-testing results.
- Not considered formal training

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Maintenance Program

N95 single use disposable

-now decontaminated for PPE supply optimization

- Proper use
- Replacement
- Cleaning
- Inspected
- Storage
- Repair

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Planning for Surge

## Personal Protective Equipment (PPE) Burn Rate Calculator


Use this Excel spreadsheet to calculate your PPE burn rate

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

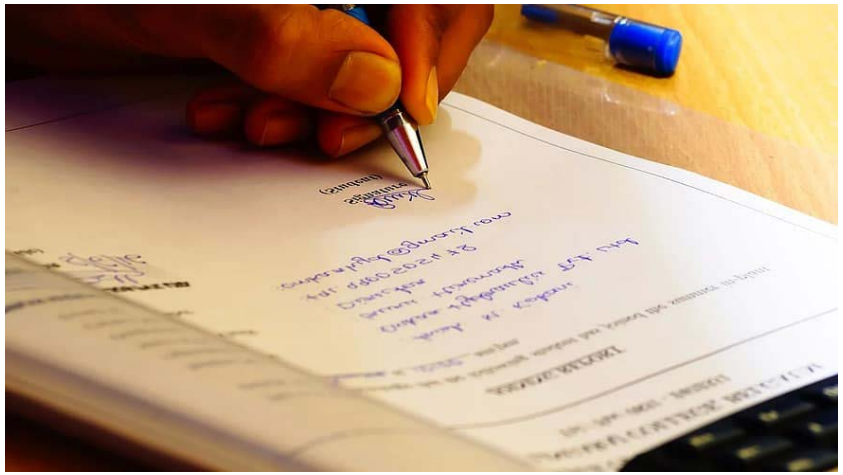
# Evaluate

- Annually
- Feedback and surveys from staff
- New hazards or changes in policy
- Recommendations for any needed changes

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Documentation and Records

- Written RPP, SOP
- Medical Records for RPP participants
- Record of trainings
- Record of Fit Tests
- All kept duration of employment plus 30 years



NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Tool Kit Overview

- Template of a Respiratory Protection Program
- Attachment A
  - OSHA Respirator Medical Evaluation Questionnaire
- Attachment B
  - Fit Testing Documentation Form
- Attachment C
  - Fit Testing Checklist
- Attachment D
  - Respiratory Protection Program Evaluation Form
- Attachment E
  - Staff Evaluation Form
- Attachment F
  - OSHA Quick Card of Respirator Types
- References and Additional Resource

# Hudson Headwaters Health Network

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Final Thoughts and Next Steps

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# References


Environmental Health and Safety, *Kansas State University*
https://www.k-state.edu/safety/occupational/respiratory-protection/

N95DECON
https://www.n95decon.org

OSHA Respiratory Protection
https://www.osha.gov/respiratory-protection

PPE Burn Rate Calculator
https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html

Respirator Protection Program. *Minnesota Department of Health.*
https://www.health.state.mn.us/facilities/patientsafety/infectioncontrol/rpp/index.html

Strategies for Optimizing the Supply of N95 Respirators
https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html


NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

# Q & A

# Thank you!

*Learn about more FREE continuing education opportunties by subscribing to our email newsletter.*

## NurseLedCare.org

NATIONAL
NURSE-LED CARE
CONSORTIUM
a PHMC affiliate