

# Promoting Healthy Indoor Environments in Region 10: Alaska, Idaho, Oregon, & Washington

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Washington State Board of Health Panel  
January 10, 2024  
Erin McTigue, MPH



# Topics

Role of EPA

Focus areas for indoor air work

Key resources

Opportunities to connect

# EPA Role in Indoor Air & Housing



## **Technical assistance**

Training, science, research, guidance



**Coordination**  
of federal agencies, funders, others



**Funding**  
Environmental programs, technical assistance providers



**'Voluntary' indoor air program**  
Limited authority for indoor environment

# EPA's Indoor Air Related Grant Authorities

## State Indoor Radon Grant (SIRG)

- State Agencies in OR, ID, WA, AK
- Nez Perce, Spokane, Coeur D'Alene

## Indian General Assistance Program (IGAP) Grants

- Grants to Tribes/Consortia for enviro capacity building

## Clean Air Act (CAA) Grants

- State and Tribal Air Programs
- Technical Assistance Providers e.g., Tribal Healthy Homes Network

## Environmental Justice Grants

- Climate resiliency
- Multi-media

## **New:** National Indoor Environments Grants

- Wildfire Preparedness in Community Buildings – closed.
- National policy/systems change grants – open.

# Looking forward – new funding, projects, learning

*US EPA Environmental Justice  
Grants, 2023 - a sampling of R10  
awards*

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**Chelan County** - \$999,839 to build climate change **resiliency from wildfires** and protect health through smoke disaster preparedness.

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**Public Health - Seattle & King County** - \$1,000,000 for the Healthy and Resilient Communities Project to address **indoor environmental health and climate change** in South Seattle and South King County.

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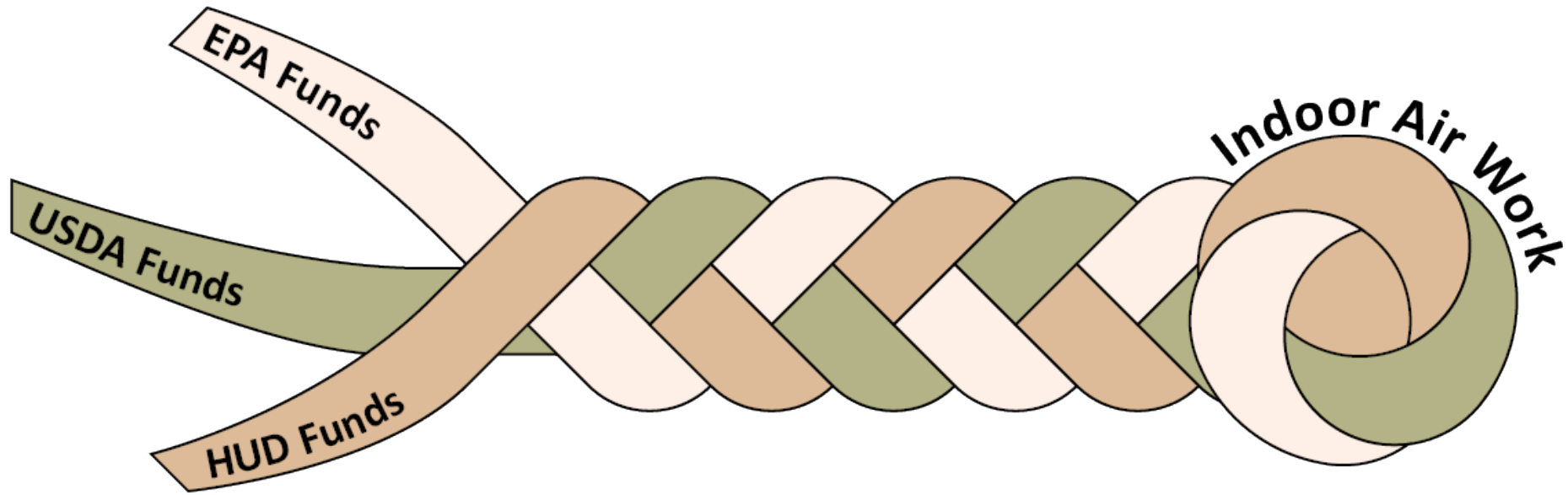
**Tacoma-Pierce County Health Department** - \$1,000,000 for the **Community-Led Wildfire Preparedness Initiative** in Key Peninsula, East and Southeast Pierce County

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**Farmworker Justice Fund, Inc.** - \$500,000 for **wildfire preparedness and resiliency in farmworker** communities across the state.

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**Methow Valley Citizens Council** - \$460,504 to **build climate resiliency from wildfire** and other climate impacts through community-oriented solutions in Okanogan County.



# **Braid Funds to Reach Indoor Air Goals**

# Indoor Air Focus Areas

## Address housing and health disparities, including rural and tribal

- Promote best practices, provide and coordinate training
- Tools for education, resident behavior change, builders, funding

## Children's environmental health protection

- Respiratory health disparities
- School (and childcare) tools and training

## Climate change impacts

- Disaster preparedness and response – flooding, wildfire/smoke, etc
- Mold and moisture

## Also...

- SARS-COV2
- Sensor technology



# Focus: Tribal Indoor Air Needs

Government to Government & Trust Responsibilities





# **NORTHWEST TRIBAL ASTHMA TEAM**

**Working to address pediatric asthma disparities in tribal populations, with a focus on holistic approaches that remove environmental asthma triggers**

- Center for Medicare & Medicaid Services
- Governor's Interagency Council on Health Disparities
- Nimiipuu Health and Nez Perce Tribe Air Quality Program
- Northwest Portland Area Indian Health Board
- Portland Area Indian Health Service
- Urban Indian Health Institute and the Seattle Indian Health Board
- U.S. Department of Health and Human Services
- U.S. Department of Housing and Urban Development
- U.S. Environmental Protection Agency
- Tribal Healthy Homes Network

# Collection of Resources on Tribal Asthma

- *Protecting Native Children with Asthma: Resources from the Northwest Tribal Asthma Initiative*
- Collection of 13 documents with information for policy makers

## PROTECTING NATIVE CHILDREN WITH ASTHMA:

Resources from the Northwest Tribal Asthma Initiative

The Northwest Tribal Asthma Team is a volunteer partnership group working to address pediatric asthma disparities in tribal populations, with a focus on holistic approaches that remove environmental asthma triggers. The team is led by EPA Region 10 and serves Alaska, Idaho, Oregon, and Washington.



September 2023



# Tulalip Tribes & Tribal Healthy Homes Network: Air Matters, Smoke Matters Toolkits, Education and Training



# SmokeMatters Kit from Tribal Healthy Homes Network

**Network:** <https://thhnw.org/smoke-ready-toolkits/>



- Twin Draft Guards
- N95 Masks (2 pk)
- MERV 13 Filters (2 pk)
- Box Fan
- Microfiber Cloths (2 pk)
- Indoor Air Sensor (optional)
- Cue cards

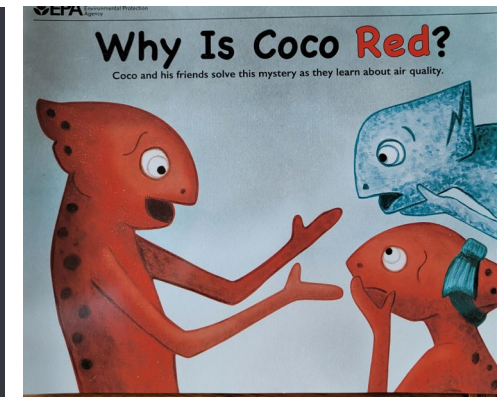
# Focus: Rural Indoor Air Needs

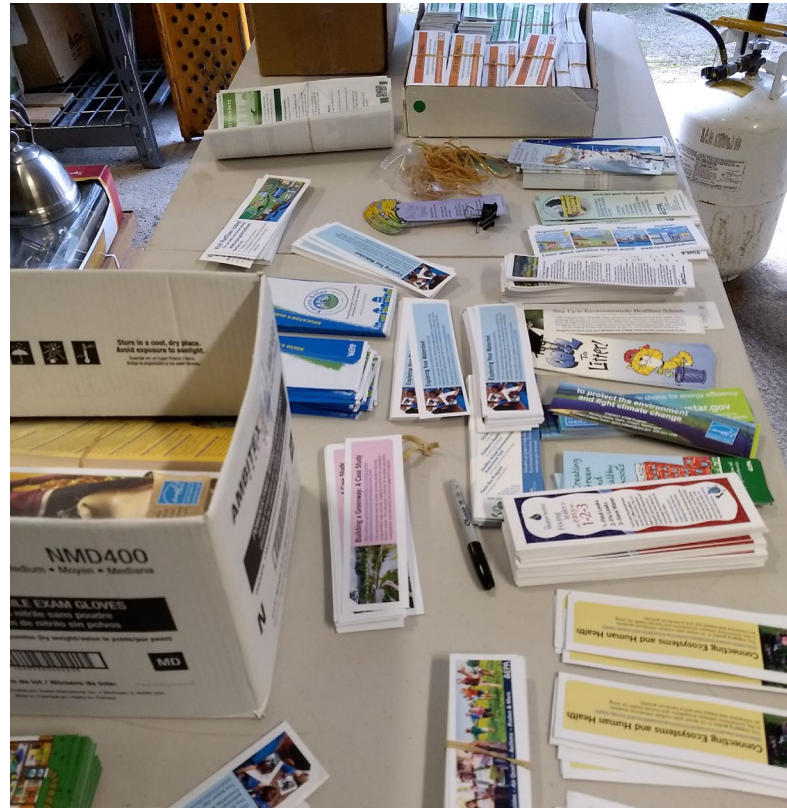
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# Outreach Tools and Models



- Rural library program
- Coordination with fire marshals, FEMA, others
- Yakima area outreach events
- Flag program





# Library Program Outreach – Indoors & Out!

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# NW Pediatric Environmental Health Specialty Unit

## SAFER DISINFECTION AND COVID-19 RESOURCES

View factsheets and websites

Learn More >



*A network of experts in reproductive and children's environmental health*

## Smoke & YOUR FAMILY'S HEALTH

Smoke from wildfires, wood or pellet stoves, agricultural burning, and prescribed fires can damage your child's health and well-being.

### POOR AIR QUALITY

Poor air quality can cause...

- Itchy eyes, throat, and nose.
- Coughing, wheezing, and difficulty breathing.
- Asthma attacks.
- Chest tightness, dizziness or light headedness.
- Lung or heart diseases.
- Respiratory infections, like pneumonia.

How do I know the air quality is poor?

- Pay attention to fire- and smoke-related news reports.
- Check with your local clean air agency to learn if your air quality is poor. Try [airnow.gov](http://airnow.gov).

For more information, visit:  
[PEHSU.net](http://PEHSU.net)  
[DOH.WA.gov/smokefromfires](http://DOH.WA.gov/smokefromfires)  
[WAburnbans.net](http://WAburnbans.net)

Contact the Northwest PEHSU  
1-800-KID-CHEM  
[pehsu@uw.edu](mailto:pehsu@uw.edu)  
[DEOHS.Washington.edu/PEHSU](http://DEOHS.Washington.edu/PEHSU)

### HOW DO I PROTECT MY KIDS?

During burning?

- Stay indoors.
- Make the indoor air cleaner:  
Visit [DOH.WA.gov/smokefromfires](http://DOH.WA.gov/smokefromfires) for recommendations.
- Go to your local library—these often have clean air.
- Visit friends or family living in areas with better air quality.
- Get medical assistance if your child has symptoms.
- Follow evacuation orders.

When returning to burned areas?

- Only return to burned area if recommended by authorities.
- Do not allow children or pets to play in ash.
- Keep kids out of the area during clean-up.
- Wet dust to clean up ash and wash fruits and vegetables thoroughly.
- If ash gets on your child: clean skin off with soap and water, change clothing.
- Avoid hazards, like downed power lines or debris.
- Be aware of your increased risk of flooding.



DEPARTMENT OF  
ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES  
UNIVERSITY OF WASHINGTON SCHOOL OF PUBLIC HEALTH





# NORTHWEST RADON POSTER CONTEST

Contest aims to raise awareness about radon and how to protect your household.

## WHAT IS RADON?

Radon is a naturally occurring radioactive gas that can build up in our homes. Both old and new housing can have radon problems. Testing is the only way to know if your home has radon because it is colorless, odorless, and tasteless. Long-term radon exposure is the number one cause of lung cancer in nonsmokers and the second-leading cause of lung cancer in smokers.

## HOW TO ENTER

Find contest submission forms, lesson plans, and rules [here](#).

First, second, and third place winners will be selected from each state (Idaho, Oregon, and Washington). A regional grand prize will be selected from the winning submissions.

The first-place posters from each state will be submitted to the 2025 National Radon Poster Contest. All participating students will learn about radon and how to reduce their risk of exposure.



Scan the QR code or click [here](#) for more information and how to enter.

## SUBMISSION DEADLINE

February 28, 2024  
11:59 pm

## CONTEST DATES

January 3 - February 28

## PRIZES

1st Place \$100  
2nd Place \$75  
3rd Place \$50  
Regional Grand Prize \$300

## ELIGIBLE STUDENTS

9 - 14 years of age  
living in Idaho,  
Oregon,  
and Washington

WINNING POSTERS  
WILL BE FEATURED  
ON WEBSITES,  
SOCIAL MEDIA,  
AND BILLBOARDS!

## SPONSORED BY

Coeur d'Alene Tribe  
Idaho Department of Health and Welfare  
Nez Perce Tribe, Oregon Health Authority,  
Spokane Tribe of Indians, & Washington State Department of Health  
in collaboration with the Northwest Radon Coalition &  
U.S. Environmental Protection Agency Region 10.





# Test Your Nest for Radon

[www.epa.gov/radon](http://www.epa.gov/radon)

Focus: Climate, Wildfire Smoke, Heat,  
Overlapping Hazards

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**AIR  
SENSOR  
TOOLBOX**



# WILDFIRE SMOKE

A GUIDE FOR PUBLIC HEALTH OFFICIALS  
REVISED 2019



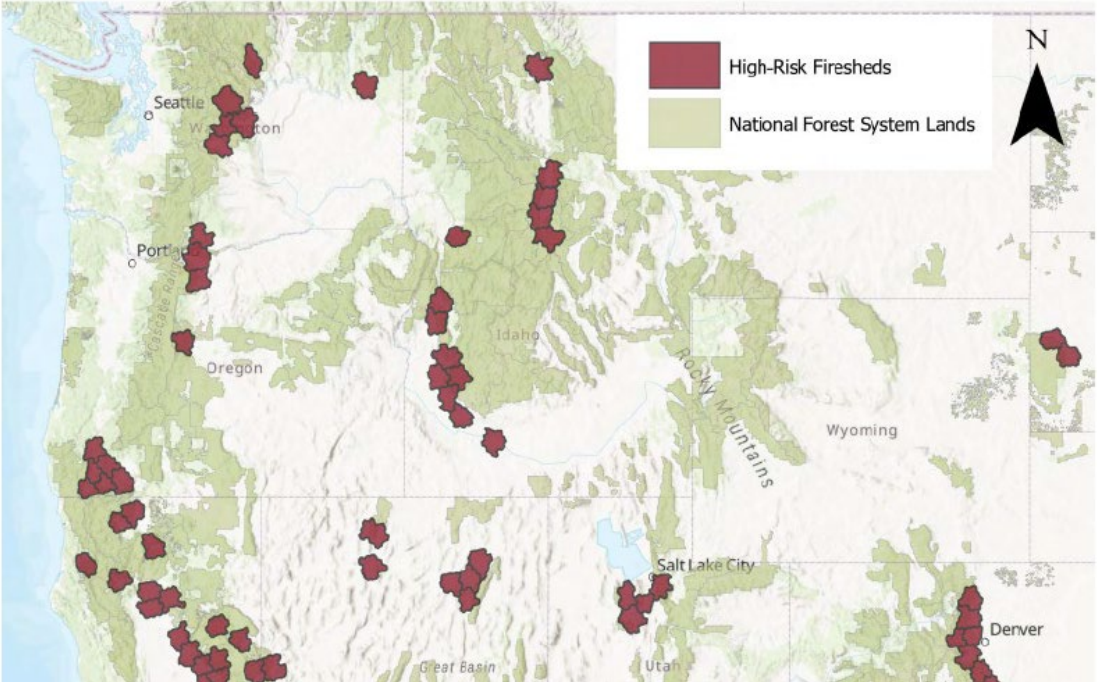
# High-Risk Firesheds and High-Risk Airsheds

## COUNTIES AT-RISK OF VIOLATING PROPOSED EPA PM STANDARDS



## HIGH-RISK FIRESHEDS

Community exposure is a central factor in the strategy to confront the wildfire crisis. Other factors include Tribal and State plans, watersheds, equity, climate forecasts, and partner priorities.



**SOME GROUPS OF PEOPLE ARE MORE SENSITIVE TO SMOKE...**

- ◆ Children
- ◆ Elderly
- ◆ People with pre-existing heart and lung conditions

**...AND NEED TO TAKE EXTRA PRECAUTIONS**

**SMOKE READY**

**OPTIMIZE INDOOR AIR QUALITY**

"We're on break!"

**SMOKE READY**

Join the #SmokeReady campaign!

Smoke Ready Week: June 12-16... and all season

Thanks to the NW Air Quality Communicators

**Smoke exposure**

Make a clean air fan. Attach a filter rated above MERV 11 to the back of a fan to reduce dust and smoke in your home.

**SMOKE READY**

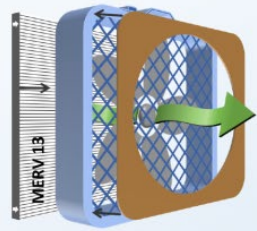
**SERIOUS HEALTH ISSUES CAN DEVELOP EVEN IN SHORT EXPOSURES TO SMOKE**

- ◆ Difficulty breathing
- ◆ Increased risk of asthma attacks
- ◆ Eye irritation
- ◆ Increased risk of heart attack

**SMOKE READY**



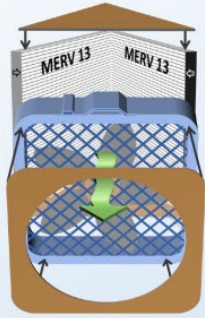
# DIY Air Cleaner Designs: Beyond the Basic



**Good**

**Basic Supplies:**

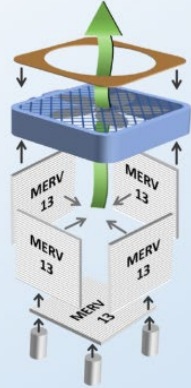
- 20" x 20" box fan
- 20" x 20" x 1" or 4" MERV 13 air filter
- 20" x 20" cardboard shroud (cutout the size of the fan blades)
- Clamps, duct tape, or bungee cords



**Better**

**Additional Supplies:**

- Two - MERV 13 air filters
- Triangle cardboard cutout for base on top



**Best**

**Additional Supplies:**

- Four or five - MERV 13 air filters
- If using five filter design, use leg supports (e.g., blocks) to allow airflow through bottom

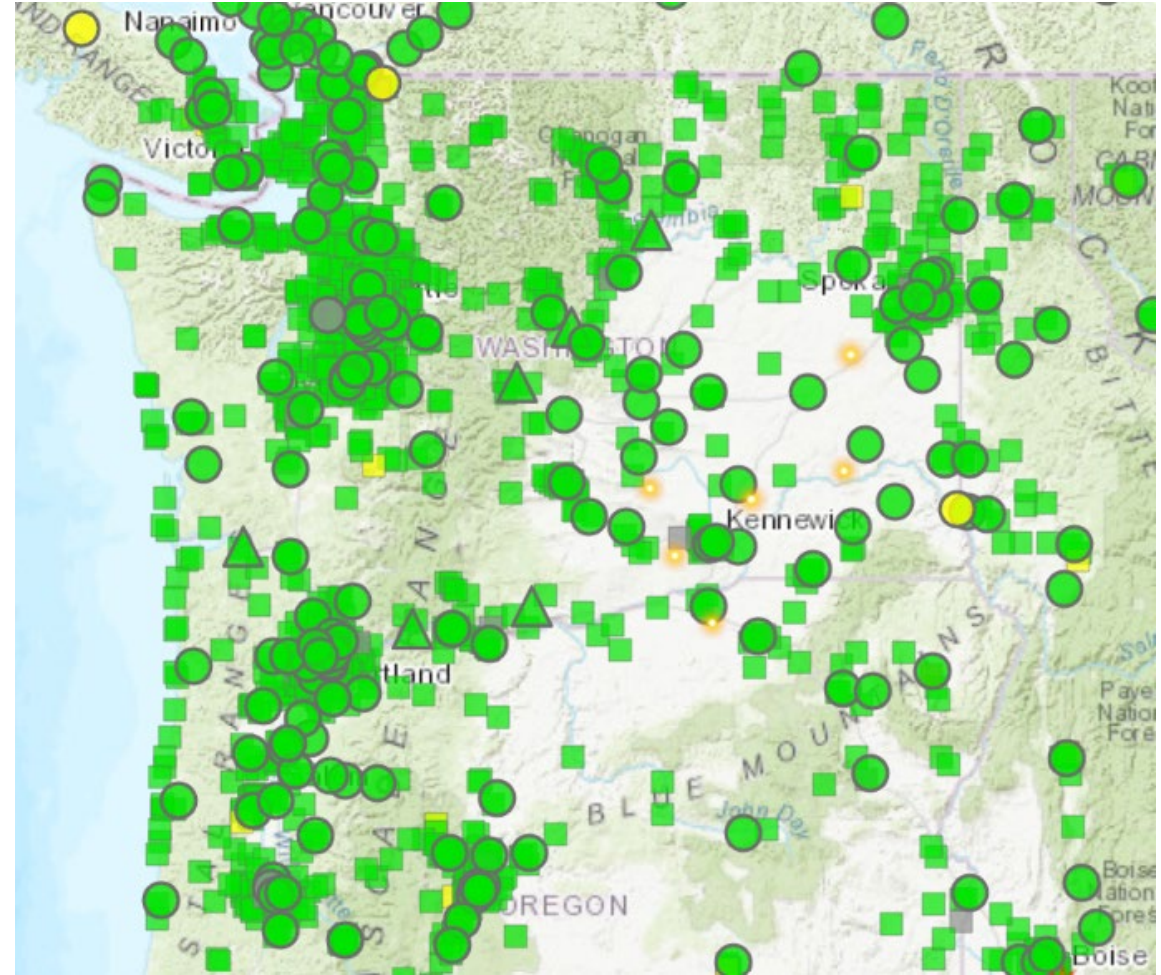
**Ways to Improve Effectiveness:**

- Add a cardboard shroud (no-cost improvement)
- Use thicker filters (4" rather than 1" MERV 13 filters)
- Use multiple filters (2-5 filter designs)

**Key Reminders:**

- Only use certified fans with UL or ETL marking (2012 model or newer)
- Keep extra filters on hand
- Replace filters when dirty

# Wildfire Smoke: Tools to Reduce Exposure



**AirNow** | AirNow | AQI & Health | Fires | Maps & Data | Education | International | Resources | Recursos en español

Click for live map. | Get Current and Forecast Air Quality for Your Area | ZIP Code, City, or State

Refreshed At: Mar-17-2021 8:29 AM

Before a Fire

• Be Smoke Ready

During a Fire

• During a Fire

After a Fire

• After a Fire

# HEAT AND SMOKE – OVERLAPPING HAZARDS

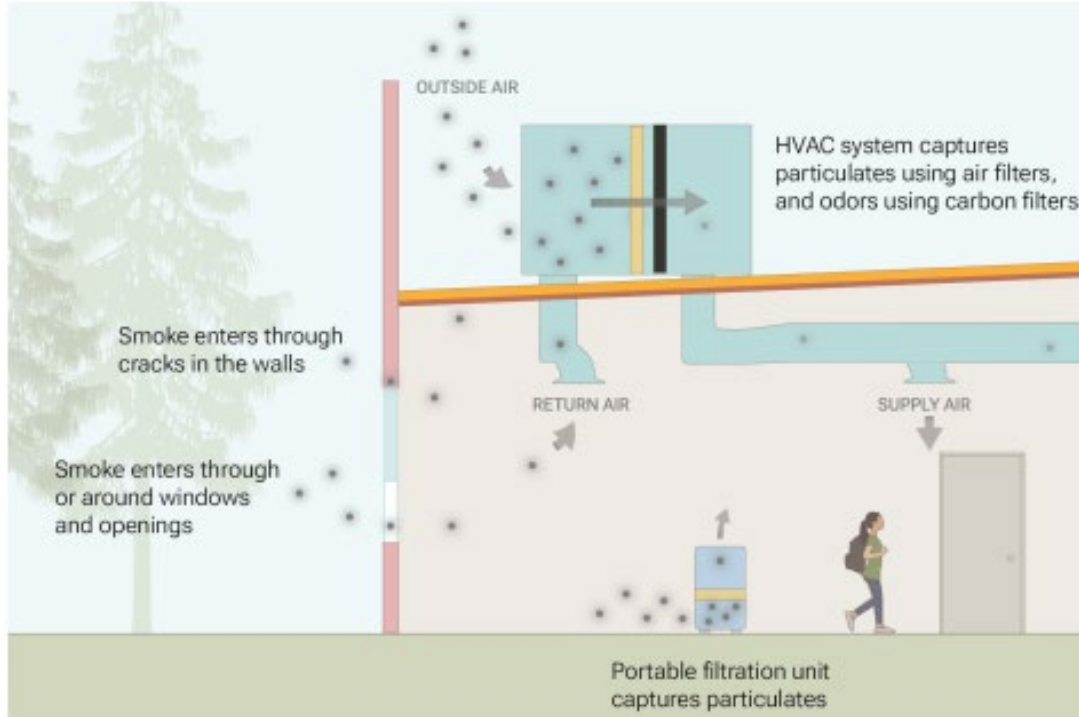


Figure 3: Sources of smoke infiltration during a smoke event

## Schools as Cleaner Air and Cooling Centers: Tips for Facility Managers, Principals, Teachers, and Parents and Caregivers

Communities across the United States are facing the impacts of climate change, including severe health consequences from disasters like heat waves and wildfires. The factsheets below can help guide important school partners on how to make schools safer during these increasingly frequent and more severe climate change impacts.

On this page:

- [Factsheets](#)
- [Climate Impacts and Sensitive Populations](#)
- [Schools as Community Cleaner Air and Cooling Centers 2021 Pilot Program](#)

**Apply Now!**

**Climate Resilient Schools Program**

This program will help school districts get buildings ready for the impacts of climate change.

**New tech assistance resource through the Climate Resilient Schools Program!**

<https://www.epa.gov/schools/climate-resilient-schools-program>

# Focus: Infectious Disease, Cleaning and Disinfecting

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# Frequent Questions about Indoor Air and Coronavirus (COVID-19)

View all frequent questions related to indoor air and [Coronavirus \(COVID-19\)](#) below.

[Go to Frequent Questions about Coronavirus \(COVID-19\).](#)

## Indoor Air

[What is Upper-Room Ultraviolet Germicidal Irradiation \(UVGI\)? What is HVAC UVGI? Can either be used to disinfect the air and help protect myself from COVID?](#)

[Can running the HVAC system in my home help protect me from COVID-19?](#)

[What kind of filter should I use in my home HVAC](#)

### Frequent Questions about Indoor Air and COVID-19 in Other Languages

- [Español](#)
- [عربي](#)
- [中文:简体版](#)
- [中文:繁體版](#)
- [한국어](#)

# CLEANING AND DISINFECTING

## Best Practices During the COVID-19 Pandemic

### Good Idea

#### Follow CDC, State, and Local Public Health Guidelines

According to the Centers for Disease Control and Prevention (CDC), COVID-19 is mainly spread through the air. The risk of getting the virus by touching a contaminated surface is thought to be low.



### Be Careful

#### Be Careful Using Disinfectants Around People with Asthma

Disinfectants can trigger an asthma attack. If you have asthma, you may need to take extra precautions like avoiding areas where people are cleaning and disinfecting or making sure the space is well ventilated.



### Don't Do It

#### Don't Ask Children or Students to Apply Disinfectants

Disinfectants are powerful tools for controlling the spread of disease, and they can harm kid's health if used or stored incorrectly. Children and students should not apply disinfectants, and they should be kept out of children's reach.



#### Clean Surfaces with Soap and Water

Normal routine cleaning with soap and water lowers the risk of spreading COVID-19 by removing germs and dirt from surfaces. In most situations, cleaning is enough to reduce risk.



#### Be Careful with Fogging, Fumigating, and Wide-Area or Electrostatic Spraying

Make sure your product's label includes directions for the application method. Follow all directions, including precautions. If a product isn't labeled for these application methods, using it that way might be risky or ineffective.

#### Don't Ignore the Label Directions

If you don't follow the label directions, disinfectant products may be ineffective or unsafe. Do not apply disinfectants to skin, pets or food. Do not dilute disinfectants or mix them with other chemicals unless the label tells you to. Don't think that twice the amount will do twice the job.



#### Use EPA-Registered Disinfectants According to Label Directions

Disinfectants further lower the risk of spreading COVID-19 by using chemicals to kill germs. Use disinfectants on high-touch surfaces when you know or suspect someone around you is sick with COVID-19.

#### Be Careful With UV Lights or Ozone Generators

UV lights or ozone generators may be risky or ineffective. EPA cannot verify if or when it is appropriate to use these devices. Check out the guidance at: [go.usa.gov/xHckJ](https://www.epa.gov/xHckJ)

#### Don't Use Unregistered Disinfectants

If a product says that it kills SARS-CoV-2 (COVID-19), but it doesn't have an EPA registration number, it may not be safe or effective. Federal law requires disinfectants to be registered with EPA.



# Clean Air in Buildings Challenge

U.S. ENVIRONMENTAL PROTECTION AGENCY

MARCH 2022

## **Air Cleaners, HVAC Filters, and Coronavirus (COVID-19)**

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**Webinar: Solutions and Resources  
to Address COVID-19 in Schools:  
Establishing Lasting  
Improvements to Ventilation and  
IAQ**

**Recorded February 10, 2022**

## **Ventilation and Coronavirus (COVID-19)**

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**Webinar: Ventilation and COVID-  
19 in Schools: Using a Framework  
to Assess, Prioritize, and Plan for  
HVAC Upgrades and IAQ  
Improvements**

**Recorded October 21, 2021**

Thank You

**Erin McTigue**  
[Mctigue.Erin@epa.Gov](mailto:Mctigue.Erin@epa.Gov)

Mel Sheldon, a Tulalip Tribal Board Member, supports partnerships that protect those at risk in tribal communities... *“When we want to protect our young, our elders, the most vulnerable... It asks us, no, it demands us, that we go into immediate action... that we work with EPA, with HUD, and with all entities to resolve this so we can safeguard the health of our people.”* - Mel Sheldon

