

Crisis and Emergency Risk Communication Toolkit for Wildfire Smoke



Developed for Oregon Local Health Departments by the
Oregon Health Authority, Public Health Division
Health Security, Preparedness, and Response Program

**NOTE: This document replaces and supersedes
all previous versions of the communication toolkit for wildfires.**

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REVISION HISTORY

Summary of Changes	Date	Point of Contact
First version created based on CERC phases	2013	Talia Gad, Kathleen Vidoloff
Post-2013 revisions based on evaluation survey; remove preparedness information; reduce pages from 72 to 20; requested relevant agencies and LHDs review revisions in early 2014; updated mask resources and guidance	2014	Kathleen Vidoloff, Theresa Watts
Changed fire photo to smoke photo. Updated to include “wildfire smoke” throughout document. Included link to Oregon Smoke Protocol. Updated goal on page 5. Included PM _{2.5} talking points. Removed wildfire recovery messages; not relevant to smoke.	2015	Kathleen Vidoloff
Updated press release language	2015	Jonathan Modie

INTRODUCTION

The Risk Communication Toolkit for Wildfire Smoke has been designed to assist local health authorities with public messaging during a severe wildfire smoke event. The most likely health impacts from a wildfire smoke include

- Smoke irritation to eyes, throat and lungs
- Worsening respiratory symptoms in people with underlying lung disease such as asthma and pulmonary inflammation
- Heart attacks or irregular heart rhythm in people with underlying heart disease

Populations at risk for acute respiratory problems include but are not limited to the following:

- individuals with asthma
- individuals with cardiovascular disease
- individuals over the age of 65
- children
- pregnant women
- smokers
- individuals with a family history of cardiovascular disease
- individuals who primarily work outside

In order to effectively and efficiently use the communication materials included in this Toolkit, please review the [Oregon Wildfire Response Protocol for Severe Smoke Episodes](#). See section “Recommended Public Health Actions, based on level and anticipated smoke exposure.”

If you need assistance with health messaging, please contact Kathleen Vidoloff at Kathleen.G.Vidoloff@state.or.us or 971-673-1111.

KEY MESSAGES FOR WILDFIRE SMOKE

The Crisis Phase is characterized by uncertainty, shortened response time, and intense media interest. The public is seeking timely and accurate facts about what happened, where it happened, and what is being done to address the crisis. They will question the magnitude of the crisis, the immediacy of the threat to them, the duration of the threat, and who is going to fix it.

Communicators should be prepared to answer these questions as quickly, accurately, and fully as possible. Simplicity, credibility, verifiability, consistency, and speed count when communicating in the initial phases of an emergency.



Goal: Provide up-to-date and accurate information to empower decision-making and prompt action

- Provide available information on wildfire smoke
- Explain the health risks wildfire smoke
- Promote Oregonsmoke.blogspot.com as the website to get smoke information
- Provide self-efficacy messages on what the public should do based on air quality levels

TALKING POINTS FOR WILDFIRE SMOKE: REDUCE EXPOSURE

- **If smoke levels are very unhealthy or hazardous**, the best recommendation is to get out of the smoky area. If you have the means and ability to leave, getting out of the smoky area is the best thing you can do for your health.
- If you are not able to leave the area, reduce the amount of time you spend outdoors. People with heart or lung disease, infants and children are more sensitive to health effects from wildfire smoke, so leaving the area until the smoke clears is the best thing you can do for your health.
- If you have asthma, other lung disease, or heart disease, you may be more sensitive to health effects from wildfire smoke, **follow your doctor's advice about medicines and about your disease management plan**. Call your doctor if symptoms worsen.
- **Do not rely on dust masks for protection**. Paper "comfort" or "dust" masks commonly found at hardware stores trap large particles, such as sawdust. These masks will not protect your lungs from smoke. An "N95" mask, properly worn, may offer some protection.
- Go to **Oregonsmoke.blogspot.com** for the latest health and safety information about air quality and health effects. Oregon Smoke Blog has information from agencies and organizations helping with the wildfire response.
- **If you are told to stay indoors, stay indoors and keep your indoor air as clean as possible**. Keep windows and doors closed unless it is very hot outside.
- **Have enough food and medications** on hand to last several days. Minimize the amount of food that requires frying or broiling. This can add particles to indoor air.
- **Avoid strenuous work or exercise outdoors**. With the exception of firefighters and emergency personnel who are trained to work in hazardous environments, people should avoid physical exertion during smoke exposure.
- **Avoid driving** whenever possible. If driving is necessary, run the air conditioner on the "recycle" or "re-circulate" mode to avoid drawing smoky air into the car.
- **Which is worse: second-hand smoke from cigarettes or wildfire smoke?** There are no comparable data for second-hand smoke from cigarettes and forest fires. The 2006 Surgeon General report indicates there is no safe level of exposure to second-hand smoke from cigarettes. The Centers for Disease Control and Prevention indicates that health problems from wildfire smoke depends upon how much smoke you are exposed to, how long you are exposed, your age, and your degree of susceptibility. The best thing to do is to limit your exposure to both.

TALKING POINTS FOR WILDFIRE SMOKE: MASKS

There are several drawbacks to recommending widespread mask use in an area affected by wildfire smoke. First, there is no evidence that simple surgical masks, bandanas, etc. have any benefit at all, so we might create a false sense of security. Second, NIOSH-certified N95 respirators might have some benefit if they are properly fit-tested and used correctly, but many people may not use the respirator correctly and won't understand the importance of having an airtight seal. As a result, masks, and even respirators, may provide little if any protection in this setting.

Therefore, it is important to communicate to the public not to rely on masks for protection from wildfire smoke.

See these resources for additional information regarding masks:

- **CDC: Respirator Factsheet**
<http://www.cdc.gov/niosh/docs/2003-144/>
- **NIOSH**
<http://www.cdc.gov/niosh/docs/2010-131/pdfs/2010-131.pdf>
- **Oregon OSHA Voluntary use of respirator protection (for employers)**
http://www.orosha.org/pdf/pubs/fact_sheets/fs05.pdf
- **Oregon OSHA General Respirator use (for employers)**
http://www.orosha.org/pdf/pubs/fact_sheets/fs06.pdf
- **California Department of Health: Protect your lungs from wildfire smoke**
<http://www.bepreparedcalifornia.ca.gov/Documents/Protect%20Your%20Lungs%20Respirator.pdf>

TALKING POINTS FOR WILDFIRE SMOKE: 1 HOUR PM_{2.5}

- Weather conditions and smoke levels can vary dramatically during wildfires, not only from one day to the next but on an hourly basis. Smoke may also impact one portion of a community but not another. This can make it difficult to provide any specific health advisories, especially as conditions change so quickly.
- Some people may experience health impacts even when the air is unhealthy for a short period of time. It is important that people take precautions based on their individual health and the smoke levels around them. This may mean remaining indoors when air quality is poor, or not exercising during those conditions.
- For short term smoke impacts, people can use the 5-3-1 visibility index to guide their behavior. This index is based on how far you can see. If smoke prevents you from seeing more than 3 miles in any direction, air quality is poor and people may want to stay indoors or take other precautions.
- If air quality remains poor for an extended period of time – generally more than one day – then DEQ and the appropriate health agency can issue a health advisory to protect public health. Refer to the Oregon Smoke Blog or local media for updates.
- DEQ data showing hourly concentrations of particulate matter is one tool available to the public during wildfires to gauge air quality. While this can be a useful tool, people should also consider the longer-term concentrations of particulate matter in determining any precautionary actions they may take to protect their health.
- One hour data often changes a lot during a 24 hour time period, sometimes dramatically so. Air that is unhealthy for an hour or two at night may be very good the next morning. For this reason, people should also rely on visibility (how far they can see during wildfires) to determine what precautions they may want to take.

SAMPLE PRESS RELEASE #1 FOR WILDFIRE SMOKE

FOR IMMEDIATE RELEASE

CONTACT: [Name]
[County] County Health Department
Phone [(XXX) XXX-XXXX]
Email [email address]

High Temperatures and Smoky Air Could Cause Health Problems

[City, State] – County public health officials urge people across the state to take precautions as temperatures and air quality reach potentially unhealthy levels.

The National Weather Service is predicting weather that could bring prolonged wildfire smoke exposure to communities in the [region affected] area. Smoke levels can rise and fall depending on weather factors including wind direction.

“The combination of high temperatures and wildfire smoke in the [affected] area may increase the risk of illness, especially for older adults, young children, and people with asthma, respiratory, or heart conditions,” said [Health Officer, position].

Public health officials urge all Oregonians to take the following precautions to avoid health problems during hot, smoky conditions.

- Be aware of smoke concentrations in your area. Residents can get the latest information by visiting the Oregon Smoke blog: Oregonsmoke.blogspot.com or call 2-1-1 Info.
- Avoid outdoor activities when air quality is unhealthy and hazardous. Those with heart or lung problems, as well as young children, are especially vulnerable.
- Avoid smoke either by leaving the area or protecting yourself by staying indoors, closing all windows and doors.
- Reduce other sources of indoor air pollution such as burning cigarettes and candles; using gas, propane, and wood burning stoves and furnaces; cooking; and vacuuming.
- Individuals with heart disease or lung diseases such as asthma should follow their health care providers’ advice about prevention and treatment of symptoms.

For more information:

[Oregon Smoke blog](#), for the latest on wildfire smoke and air quality across the state

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SAMPLE PRESS RELEASE #2 FOR WILDFIRE SMOKE
FOR IMMEDIATE RELEASE

CONTACT: [Name]
[County] County Health Department
Phone [(XXX) XXX-XXXX]
Email [email address]

Wildfire Smoke Inhalation Prevention Information

[City, State] – County health officials are offering information about steps help local residents can take to avoid illness from wildfire smoke inhalation.

People with respiratory or heart disease, the elderly and children, are advised to stay indoors. Poor air quality conditions are a health threat and should be avoided by all residents in smoky communities. Local smoke levels can rise and fall rapidly depending on weather factors, including wind direction.

Take the following precautions to avoid breathing problems or other symptoms from smoke:

- Be aware of smoke concentrations in your area. Go to Oregon Smoke blog <<http://oregonsmoke.blogspot.com/>> or call 2-1-1 Info.
- Avoid outdoor exertion during such conditions. Avoid strenuous outdoor activity including sports practice, work and recreation.
- Drink lots of water - staying hydrated can keep your airways moist which will help reduce symptoms of respiratory irritation such as scratchy throat, running nose and coughing.
- Try to avoid driving in smoky areas. If you do need to drive in these areas, keep your windows rolled up and vents closed. If you need air conditioning, make sure you set your system on “re-circulate” to avoid bringing smoke into your car.
- Avoid smoke by staying indoors, closing all windows and doors and use a filter in your heating/cooling system that removes very fine particulate matter.
- People with concerns about health issues, including those suffering from asthma or other respiratory problems, should follow their breathing management plans; keep medications on hand, and contact healthcare providers if necessary.

For more information:

Oregon Smoke blog, for the latest on wildfire smoke and air quality across the state:
<http://oregonsmoke.blogspot.com/>

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SAMPLE PRESS RELEASE #3 FOR WILDFIRE SMOKE

FOR IMMEDIATE RELEASE

CONTACT: [Name]
[County] County Health Department
Phone [(XXX) XXX-XXXX]
Email [email address]

Health officials urge residents to take precautions due to wildfire smoke

[City, State] – AGENCY NAMES are offering Oregonians ways to identify poor air quality conditions and tips to stay healthy and safe during fire season. Wildfires across the state are creating hazardous and smoky conditions. Smoke from fires in our region may begin to drift into NAME communities and rapidly degrade air quality.

"People with chronic lung or heart conditions, the elderly and children have higher risk of health problems from the fine particles in wildfire smoke," said [health officer, position]. "People who suffer from asthma or other respiratory conditions should follow their breathing management plans, keep medications on hand, and contact their health care provider if necessary."

AGENCY NAMES urge residents to take the following precautions to avoid breathing problems or other symptoms from smoke:

- Be aware of smoke concentrations in your area and avoid the places with highest concentrations.
- Residents can check the current local air quality conditions on Oregon Smoke blog <<http://oregonsmoke.blogspot.com/>> or call 2-1-1 Info. Avoid outdoor activities when air quality is unhealthy and hazardous.
- To avoid smoke either leave the area or protect yourself by staying indoors, closing as many windows and doors as possible without letting your home overheat, and using a filter in your heating or cooling system that removes very fine particulate matter.
- Avoid strenuous outdoor activity in smoky conditions. Young children and persons with heart or lung problems are especially vulnerable.

Persons suffering from asthma or other respiratory problems should follow their breathing management plans or contact their health care provider.

For more information:

Oregon Smoke blog, for the latest on fires across the state:
<http://oregonsmoke.blogspot.com/>

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FACT SHEETS AND FAQs FOR WILDFIRE SMOKE

The following fact sheets are available for download. If your agency needs these documents in additional formats, please contact your [preparedness or hospital liaison](#). (Note: Click on button next to “Staff” to find your liaison).

Public health and wildfire smoke FAQs (English)

http://public.health.oregon.gov/Preparedness/Prepare/Documents/OHA_2014_WilfireFAQs.pdf

Public health guidance for school outdoor activities

http://public.health.oregon.gov/Preparedness/Prepare/Documents/2014Public_Health_Guidance_for_Outdoor_School_Activities.pdf

Hazy, smoky air: Do you know what to do? (English)

http://public.health.oregon.gov/Preparedness/Prepare/Documents/OHA%208622_Public_Health_Wildfires_Flyer_fullpage_English.pdf

Hazy, smoky air: Do you know what to do? (Hay mucho humo en el aire: ¿Sabe que hacer? - Spanish)

http://public.health.oregon.gov/Preparedness/Prepare/Documents/OHA%208622_Public_Health_Wildfires_Flyer_fullpage_Spanish.pdf

CDC Be Ready! Wildfires Infographic

http://www.cdc.gov/phpr/documents/BeReady_Widfires.pdf

WEBPAGES FOR WILDFIRES AND WILDFIRE SMOKE

Oregon Smoke Information Blog

<http://oregonsmoke.blogspot.com/>

Oregon Public Health Wildfire and Smoke Webpage

<http://public.health.oregon.gov/Preparedness/Prepare/Pages/PrepareForWildfire.aspx>

Northwest Coordination Center

<http://www.nwccweb.us/index.aspx>

InciWeb Incident Information System

<http://inciweb.nwcg.gov/>

Department of Forestry

<http://www.oregon.gov/odf/Pages/index.aspx>

Department of Environmental Quality

<http://www.deq.state.or.us/AQ/burning/wildfires/index.htm>

CDC Emergency Preparedness Wildfire Webpage

<http://emergency.cdc.gov/disasters/wildfires/index.asp>

SOCIAL MEDIA MESSAGES FOR WILDFIRE SMOKE: TWITTER

Twitter Messages

The following messages can be posted on your local health agency's Twitter feed. All posts are 140 or fewer characters.

In addition to the suggestions below, the Centers for Disease Control and Prevention's @CDCReady and @CDCEmergency feeds can be retweeted as relevant information and links are tweeted.

#Wildfires are affecting air quality in [insert region]: <http://oregonsmoke.blogspot.com/>

Hazy air? Check DEQ's Air Quality Index before heading out:
<http://oregonsmoke.blogspot.com/> #wildfires

Use #wildfires to get the latest wildfire info, or check <http://oregonsmoke.blogspot.com/>

Populations sensitive to #wildfires smoke should limit outdoor activities.
<http://oregonsmoke.blogspot.com/>

Drink lots of water! Keeping hydrated minimizes health effects from #wildfire smoke.

Stay safe from #wildfire smoke. Visit <http://oregonsmoke.blogspot.com/>

SOCIAL MEDIA MESSAGES FOR WILDFIRE SMOKE: FACEBOOK

A benefit to posting on Facebook is that conversations can be had among fans (although this can require additional moderation).

All of the above tweets can be cross posted as Facebook messages, but the following suggestions have images and links that can also be posted. For more suggestions, visit the Centers for Disease Control and Prevention's Facebook page at <https://www.facebook.com/cdcemergency> to repost useful links, webpages, photos, and tips.

Wildfires are unpredictable and can quickly send smoke into Oregon communities. DEQ's Air Quality Index (AQI) is a color-coded tool which shows air pollution levels. Green is good, yellow is moderate, orange is unhealthy for sensitive groups, and red is unhealthy for all groups. <http://www.deq.state.or.us/aqi/index.aspx>

Need an excuse to avoid yard work? As smoky wildfire air persists, avoid strenuous outdoor activities. [Find](#) your community's air quality levels at the Oregon Smoke blog: <http://oregonSmoke.blogspot.com/>.

To protect yourself and your family from wildfire smoke, limit outdoor activities during poor air quality times. Check the Oregon Smoke blog for the latest information: <http://oregonSmoke.blogspot.com/>

High smoke levels can have hazardous impact on health. People with respiratory or heart disease, the elderly, and children should follow their breathing management plans or contact their healthcare providers. Check the Oregon Smoke blog for the latest information: <http://oregonSmoke.blogspot.com/>

Hazy outside? Scratchy throat? People in smoky areas should drink lots of water. Keeping hydrated reduces the amount of smoke that can travel deep into your lungs. Check the Oregon Smoke blog for the latest information: <http://oregonSmoke.blogspot.com/>

Do you bike to work? To reduce exposure to smoky wildfire air, bike commuters should avoid overly strenuous rides and stay hydrated. Consider taking public transportation. Check the Oregon Smoke blog for the latest information: <http://oregonSmoke.blogspot.com/>

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