

Survey Instrument: Oregon Wildfire Smoke Communications and Impacts

An Evaluation of the 2020 Wildfire Season conducted by the University of Oregon for the Oregon Health Authority

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Q1.1 We need your help to learn about wildfire smoke in Oregon!

The University of Oregon's [Institute for Sustainable Environment](#) and [Institute for Policy Research & Engagement](#) are exploring the perceptions of wildfire smoke in Oregon.

During the 2020 wildfire season, significant portions of Oregon experienced hazardous air quality due to high levels of wildfire smoke. The University of Oregon has partnered with the Oregon Health Authority to evaluate how people responded to unhealthy air created by wildfire smoke as well as their opinions about how air quality issues are communicated to the public. This evaluation will help determine the need for information and education about air quality and inform future research in wildfire smoke-related public health and safety.

Duration. The questionnaire should take you about 7 minutes to complete.

Risks of Participation. The risks of participating in this evaluation are not expected to exceed the risks of daily life.

Benefits of Participation. Some of the benefits that may be expected include the creating of policies to reduce the impacts of wildfire smoke. Your answers are also not tied to your email address, your answers remain anonymous.

If you have any questions please contact Dr. Michael Coughlan, Principal Investigator at mcoughla@uoregon.edu | 541-346-0675. You may also contact Research Compliance Services for questions about your rights as participants at 541-346-2510.

Voluntary Consent. You are being asked to voluntarily participate in an evaluation. It is up to you whether you choose to participate or not. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate or discontinue participation.

By checking "yes," you agree to take this survey and that you are at least 18 years of age. Checking "no" will end survey.

- a) Yes
- b) No

Q2.1 Was your community impacted by wildfire smoke (visible smoke in your community) during the wildfire season of 2020?

- a) Yes
- b) No
- c) I don't know

Q3.1 The following questions are all about air quality during the 2020 wildfire season (approximately July to October 2020).

Q3.2 Did you have any concerns about air quality during the 2020 wildfire season? (Select all that apply)

- a) No concerns
- b) I was concerned about the risks of smoke to my health
- c) I was concerned for the health of vulnerable people
- d) I was concerned about the effects of smoke on the safety of food from my garden or the market
- e) I was concerned about the safety of my pets or livestock
- f) I had other wildfire-related concerns so I did not think about air quality (please list): _____
- g) Other (please list): _____

Q3.3 Where did you get information about air quality during the 2020 wildfire season? (Select all that apply)

- a) My own observations (e.g. looked at or smelled air outside)
- b) Television
- c) Radio
- d) Internet (website, email, social media)
- e) Friends or family
- f) Employer
- g) Other (please list): (_____

Q3.4 For each option, please indicate the degree to which the level of information about wildfire smoke, its potential hazards, and recommended protective actions met your needs for the 2020 wildfires.

[Below table displayed if respondent selected "Television" in question 3.3]

	I did not use it	The information did not meet my needs	The information met my needs	The information was overwhelming
Broadcast television (FOX, NBC, CBS, ABC, Univision)				
Public television (OPB)				
Cable or Satellite television				

[Below table displayed if respondent selected "Radio" in question 3.3]

	I did not use it	The information did not meet my needs	The information met my needs	The information was overwhelming
Commercial Radio				
Public Radio (NPR)				
Talk Radio				

[Questions displayed if respondent selected “Internet (website, email, social media” in question 3.3]

	I did not use it	The information did not meet my needs	The information met my needs	The information was overwhelming
Social Media				
Oregon Department of Environmental Quality (DEQ) Website/Email				
Oregon Health Authority (OHA) website/emails				
Oregon Smoke Blog				
AirNow.Gov				
PurpleAir.com				
Online Newspaper				
Other (please list): _____				

Q3.5 What information about smoke-related air quality would you like to have? (Select all that apply)

- a) How to stay safe while engaging in outdoor activities
- b) How to stay safe while indoors
- c) Information about personal protective equipment (masks, air filtration, etc.)
- d) Forecasts about air and smoke conditions
- e) Safety of food from my garden or the market
- f) Other (please explain): _____

Q3.6 Were you prepared for an air quality event like the 2020 wildfire smoke event before it happened?

- a) Yes
- b) No
- c) Unsure

Q3.7 Which of these factors contributed the most to your preparedness? (Select all that apply) [Question displayed if respondent selected “Yes” in question 3.6]

- a) Smoke doesn’t concern me
- b) I have experienced smoke events before
- c) My community has a response plan for wildfire and smoke
- d) I already had emergency supplies stored in my home
- e) I knew what to do in the event of wildfire smoke
- f) Other (please explain): _____

Q3.8 Would you have felt more prepared if you had access to ... (Select all that apply) [Question displayed if respondent selected “No” or “Unsure” in question 3.6]

- a) Personal protective equipment (respirators, masks, asthma medications)
- b) Adequate household protections (air filters, doors and windows that seal, emergency supplies)
- c) Clean air shelters in my community

- d) Information about the possibility of a smoke event
- e) Adequate information on what to do during a smoke event
- f) Nothing would have made me feel more prepared

Q3.9 Did you take any protective measures or make changes to your routine outdoor activities?

- a) No
- b) Yes
- c) Unsure

Q3.10 Which of the following protective actions for outdoor air did you take? (Select all that apply)

[Question displayed if respondent selected "Yes" or "Unsure" in question 3.9]

- a) I did nothing differently
- b) Stay home or reduce the number of times I left my home
- c) Totally avoid or reduce the total time you spent in usual outdoor recreation/exercise (walking, dog-walking, running, biking, etc.)
- d) Use a N95, KN95, or respirator when outdoors
- e) Use another type of mask when outdoors
- f) Other _____

Q3.11 Did you take any protective measures while indoors?

- a) No
- b) Yes
- c) Unsure

Q3.12 Which of the following protective actions did you take while indoors? (Select all that apply)

[Question displayed if respondent selected "Yes" or "Unsure" in question 3.11]

- a) Installed/used HEPA air purifiers
- b) Installed/used a commercial HEPA/HVAC air system
- c) Installed/used a home-made box fan HEPA air filter indoors
- d) Used a N95, KN95, or respirator when indoors
- e) Used another type of mask when indoors
- f) Created a cleaner air space in my home (e.g., kept windows and doors shut)
- g) Went to a cleaner air space
- h) Other _____
- i) None of the above

Q3.13 Did you evacuate to a different location because of smoke or wildfire in 2020?

- a) Yes
- b) No

Q3.14 What changes did you make concerning your location? [Question displayed if respondent selected "Yes" in question 3.13]

- a) I evacuated under an official "Go Now" order because of wildfire threat
- b) I evacuated under an official "Be Ready" or "Be Set" because of wildfire threat
- c) I voluntarily evacuated without official notice because of wildfire threat
- d) I voluntarily left the area because of **smoke but not wildfire threat**
- e) Other _____

Q3.15 How did you find out about where to evacuate? [Question displayed if respondent selected “yes” in question 3.13]

- a) Social media
- b) Mobile phone app
- c) Emergency call or text on my phone
- d) Police or other first responder came to my home
- e) Word of mouth from a direct observer
- f) TV/Radio
- g) Other (please explain): _____

Q3.16 If COVID-19 were not an issue and you planned to attend an outdoor event such as an athletic event or music concert, what would you do if there were wildfire smoke in the air? (Select the best answer)

- a) Attend the event and change nothing about my behavior
- b) Seek information about the air quality before making a decision to attend
- c) Attend but wear a mask or otherwise protect myself from the smoke
- d) Stay home
- e) Go to a cleaner air space and watch the event virtually
- f) Leave the area until the smoke event had ended
- g) Other (please explain): _____

Q3.17 How often do you think you are exposed to unhealthy air quality from wildfire smoke in any given year?

- a) Less than one day in a year
- b) One to three days per year
- c) Three to five days per year
- d) More than five days per year
- e) More than two weeks per year
- f) I don't know

Q4.1 According to the US Environmental Protection Agency (EPA), certain populations are more at risk of adverse health effects resulting from wildfire smoke exposure, including children, pregnant women, older adults and populations with pre-existing respiratory and cardiovascular disease.

Q4.2 Were any of these populations members of your household during the wildfire smoke events of 2020? (Select all that apply)

- a) Children (under 18 years old)
- b) Older adults (over 65 years old)
- c) Pregnant women
- d) Individuals with asthma and other respiratory diseases
- e) Individuals with cardiovascular diseases
- f) Outdoor workers
- g) Others that I would consider at higher risk from smoke. Please describe: _____
- h) None of these populations are part of my household

Q4.3 Did living with higher risk individuals change any of your household's activities? (Select all that apply)
[Question displayed if respondent *did not* select "None of these populations are part of my household" in question 4.2]

- a) No
- b) My household took more preventative measures for indoor activities
- c) My household was more cautious in limiting household outdoor activities
- d) Other (please explain): _____

Q4.4 Did you make any of the following changes the routine of children in your household? (Select all that apply) [Question displayed if respondent selected "Children (under 18 years old) in question 4.2 and "No" in question 4.3]

- a) No changes
- b) Kept them home from activities (such as school, childcare, sports practices or events)
- c) Prohibited them from playing outdoors
- d) Mostly confined their activities to rooms with air purifiers
- e) Evacuated them to a location with better air quality
- f) Other _____

Q5.1 Please tell us about your household.

Q5.2 How many people are in your household (including yourself):

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5
- f) 6
- g) More than 6

Q5.3 Regarding your home, do you:

- a) Rent
- b) Own
- c) Live with family and friends
- d) I am currently unhoused
- e) Other, please explain: _____

Q5.4 How often does your household have enough money to pay for food, bills, or housing?

- a) Rarely
- b) Sometimes
- c) Most of the time
- d) Always
- e) I don't know

Q5.5 What is your age (in years)?

- a) 18-24
- b) 25-34
- c) 35-44
- d) 45-54

- e) 55-64
- f) 65-74
- g) 75-84
- h) 85 or older

Q5.6 What is your gender identity?

- a) Man
- b) Non-binary/non-conforming
- c) Woman
- d) Prefer to self-identify _____
- e) Prefer not to answer

Q5.7 How do you identify yourself? (Select all that apply)

- a) Black or African American
- b) Hispanic or Latino/a/x
- c) Asian or Asian American
- d) Native American/American Indian/Alaskan Native
- e) Native Hawaiian or Pacific Islander
- f) Middle Eastern or North African
- g) White
- h) Other _____
- i) Prefer not to answer

Q5.8 Please check any of the following that apply to you. (Select all that apply)

- a) Non-disabled
- b) Independent living, self-care disability
- c) Physical disability
- d) Hearing disability
- e) Vision disability
- f) Cognitive disability
- g) Mental health disability
- h) Activity disability
- i) Communication disability
- j) Learning disability

Q5.9 What is your preferred spoken language?

- a) English
- b) Spanish
- c) Russian
- d) Chinese simplified
- e) Mandarin
- f) Cantonese
- g) Vietnamese
- h) Other (please write in) _____

Q5.10 What is your zip code? _____