Episode 56EX June 8, 2023. From being in a delusional dream state to intentionally unleashing a nightmare scenario on their near neighbors with their polluting wood smoke.

Let's assume residential wood burners run the spectrum:. To believe that residential wood burning does not pollute the air of near neighbors requires either residential wood burners being unconscious, unaware of their surroundings, or not connected to news reports about the recent wildfires and what is being repeatedly described on the East Coast and Midwest of the United States as the "nightmare scenario" of innocent United States nearby residents living in and having to work in a cloud of wood burning smoke from Canadian wildfires. This illustrates again that near neighbors of residential wood burners are "canaries in a coal mine" and the health effects on, and early deaths of, near neighbors in hyper-localized areas as a result of their neighbors' residential wood burning is, and has been, a harbinger of the ill effects of polluting wood smoke on the general public. The harbinger was in the past, and now we are in a scenario that affects the general public on a wide scale. Can the connection be made? Will the canary knocked out or dying in a cage placed closest, and earliest, to the coal smoke of a coal cave, be heeded and will the canary's plight be reversed, or will the coal miners not heed the canary and continue to work in coal smoke/or even more polluting and dangerous residential wood smoke and even work to create residential wood smoke, and walk into the cave filled with wood smoke, falling, and stopping breathing and dying in the larger coal mine cave/wood mine cave which they have not taken steps to clear out of smoke or not taken steps to cleanse of smoke? Wood burning produces more CO2 and PM2.5 than coal burning. PM2.5 is particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung, producing a cascade of human health problems and early deaths. The recent wildfire effects on human health in the Midwest and East Coast of the United States should be enough to "wake up" the most delusional residential wood burner and impel them to stop residential wood burning now. If the residential wood burner is on the spectrum as a person who would like to intentionally inflict a nightmare scenario on his near neighbors, there should be laws (federal rules, state laws or local ordinances) to shut down residential wood burning, each wood burning stove, other wood burning appliance, or wood burning fireplace one by one if necessary, based on the hyper-localized historical data readings of $249 PurpleAir PM2.5 monitors placed in the yards of near neighbors of residential wood burners. If PM2.5 is shown to be above E P A "safe" limits of PM2.5 (currently 12 micrograms per meter cubed annually and 35 micrograms per meter cubed daily, but it is hoped after comments at the February 2023 hearing on lowering "safe" limits the limits will go down to 8 and 25 respectively), if PM2.5 is above "safe" limits the residential wood burning should be shut down and the appliance removed or the fireplace chimney knocked off, and the chimney outlet sealed. It has been shown that residential wood burners are often more affluent than their neighbors, but there is a government program in the United States called the Low Income Home Energy Assistance Program (LIHEAP), for low income individuals. There are also wood stove exchange programs by the American Lung Association that exchange wood burning appliances for Heat Pumps that work down to 40 below zero degrees Fahrenheit and Heat Pumps can also replace Air Conditioners. There should also be laws for governments, probably Health Departments, to hand out PurpleAir PM2.5 monitors to any resident who complains of wood smoke pollution entering their yards and infiltrating their homes, from their neighbor's hyper-localized residential wood burning. These near neighbors have had costs to their health, and they should not bear additional costs if personally buying the low-cost $249 PurpleAir PM2.5 monitors. Residents Against Wood Smoke Emission Particulates (RAWSEPresidents) often already own PM2.5 monitors. PurpleAir data is already put on U S AirNow maps of Smoke and Fire, alongside $100,000 official E P A PM2.5 monitors, correlated with the E P A monitors with a simple mathematical formula. For instance, on the Wisconsin AirNow map of Smoke and Fire last year there were approximately 11 EPA official PM2.5 monitors and there were approximately 55 PurpleAir PM2.5 monitors. Official EPA PM2.5 monitors weigh PM2.5 particulates in two densities, "wood" (lighter density) and "gravel" heavier density and the results are published in about an hour. PurpleAir PM2.5 monitors measure the number of PM2.5 particulates that pass in front of the monitor's laser, and results are published every 10 minutes, making PurpleAir data "real time" data. PurpleAir data can be collected on nights and weekends when some residential wood burners burn, hoping to evade detection. PurpleAir data can also be downloaded during normal government working hours (and seen and downloaded by the general public at any time), so that entering a residence is not needed to shut down residential wood burning, and there is less Health Department paperwork and footwork to shut down residential wood burning using this method. The Office of the Inspector General (O I G) of the EPA stated in a report in February 2023 that the certification of wood stoves is flawed by wood stove industry lobbyists demanding loopholes for complying with certification rules, resulting in manufacture and continued sale of highly polluting wood stoves. The replacement of wood stove certification with monitoring (near the stack) in the yards of near neighbors after near neighbor complaints can serve as a way to reduce the pollution of residential wood burning immediately and protect the

health of near neighbors of current residential wood burners. The CO2 and PM2.5 from residential wood burning also contributes to climate change. Near neighbors are used to relying on multiple air purifiers running 24/7 in their homes to enable them to continue living in their homes. Because of Canadian wildfire smoke invading the United States this week, the general public is now aware of the value of these methods of living with pollution, but air purifiers are certainly not a perfect solution, and have been an additional cost added to the health effect costs of residential wood burning on near neighbors.

Residents Against Wood Smoke Emission Particulates, see RAWSEPresidents.wordpress.com and click on the nearest right icon for the latest month, June 2023, of PDFs of articles with U R L's to search on, to the right of that, Bingo for RAWSEP, Crosswords for RAWSEP, EndWoodSmokeJeopardy and EndWoodSmokeMonopoly Games with a RAWSEP Flyer, the "Un-Twist-it" Game, and icon links to 30 minute Youtube videos and Spotify podcasts as well as podcasts on Amazon Music Prime (free for Prime subscribers), podcasts.google.com, Cast Box, and Pocket Cast (Pocket Cast is only free on the phone App. Pocket Cast works on Apple phones) and, below those icons, icon links to monthly PDFs of articles with URL's to search on, from May 2023 to May 2022.

United States
New York Times.
June 7, 2023.
https://www.nytimes.com/2023/06/07/us/wildfire-smoke-indoor-air.html
Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.
How to Keep Indoor Air Clean if You Don't Have an Air Purifier
Fans and air-conditioners, if you use them right, can help.
An air purifier, like one that uses a HEPA filter, is the best way to improve the quality of your indoor air. The next best tool after an air purifier is an air-conditioner. Set your air-conditioner to recirculate air. Perhaps replace the air filter. Wirecutter, a New York Times company, has guidance on the air filters and purifiers that can help protect against wildfire smoke, and a tutorial on how to create a D.I.Y. air purifier. Portable fans and ceiling fans can help. Keep bathroom exhaust fans off if they bring in outdoor air. Some range hoods over kitchen stoves allow outside air to infiltrate your home. "Now is the time to promote lung health,".
United States
http://ehhi.org
E H H I
June 7, 2023.
The Environment and Human Health Inc.(EHHI) report, Professor John Wargo's report for EHHI on the dangers of wood smoke exposures is definitely worth reading now that so many of us are exposed to wood smoke from Canada's wildfires. Wood smoke is wood smoke whether from wildfires or from people's outdoor wood burning -- and it is harmful to health. It is harmful to human respiratory systems and to people's cardiovascular systems. Everything on our website is "downloadable." The report can be found at: https://www.ehhi.org/woodsmoke-exposures.php

United States

https://www.pbs.org/newshour/science/how-wildfire-smoke-can-threaten-human-health-even-when-the-fire-is-hundreds-of-miles-away
PBS
How wildfire smoke can threaten human health, even when the fire is hundreds of miles away
Science Jun 7, 2023.
Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission ParticulatesSmoke from more than 100 wildfires burning across Canada has been rolling into North American cities far from the flames. New York City and Detroit were both listed among the five most polluted cities in the world because of the fires on June 7, 2023. The smoke has triggered air quality alerts in several states in recent weeks. When we talk about air quality, we often talk about PM2.5. That's particulate matter 2.5 microns or smaller – small enough that it can travel deep into the lungs. READ MORE: 10 tips for coping with wildfire smoke, from a public health expert Exposure to PM2.5 from smoke can exacerbate health conditions like asthma and reduce lung function in ways that can worsen existing respiratory problems and even heart disease. The term PM2.5 only tells you about size, not composition – what is burning can make a significant difference in the chemistry. (This is a PurpleAir PM2.5 monitor online map). Dark purple dots indicate hazardous air quality. Light purple indicates very unhealthy air; red is unhealthy; orange is unhealthy for sensitive groups; and yellow indicates moderate risk. AirNow.gov not all vegetation is the same. If the fire is in the wildland urban interface, manufactured fuels from homes and vehicles may also be burning, and that's going to create its own toxic chemistry. PAHs, or polycyclic aromatic hydrocarbons are produced when biomass (wood) burns having the potential to harm human health. How does inhaling wildfire smoke harm human health?

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If you have ever been around a campfire and got a blast of smoke in your face, you had some irritation. With exposure to wildfire smoke, you get some irritation in the nose and throat and some inflammation. Cells in the lungs called alveolar macrophages will pick up the particulates (PM2.5) and clear them out, at reasonable doses. (See picture of) where macrophages are found in alveoli, the tiny air sacs in the lungs. Smoke (PM2.5) can suppress macrophage function, altering it so you become susceptible to respiratory infection. A study in the lag in effect of wildfire smoke exposure found an increase in influenza cases after a bad fire season. Studies in developing countries have also found increases in respiratory infections with people who are cooking on open fires in homes. READ MORE: Gaps in U.S. wildfire smoke warning network leave many exposed Being exposed to wood smoke won't independently cause someone to have a heart attack, the added stress can increase the risk. Researchers are also studying potential effects on the brain and nervous system from inhaled particulate matter. When smoke blows over long distances, does its toxicity change? The longer it's in the atmosphere, the more the chemistry will be altered by ultraviolet light, but we still have a lot to learn. There's some indication that more exposure leads to greater health effects. The supposition is that more free radicals are generated the longer smoke is exposed to UV light, so there's a greater potential for health harm.

If you're going for a bike ride or a hike in light haze every day for a month in wildfire smoke, that raises concerns. Studies with residents at Seeley Lake. Montana who were exposed to hazardous levels of PM2.5 from wildfire smoke for 49 days in 2017 found a decrease in lung function a year later. No one was on oxygen, but there was a significant drop.

Can you completely avoid the smoke? Only if you're in a hermetically sealed home. Levels drop if you have a good HVAC system with MERV 15 or better filters. Going inside decreases your activity, so your breathing rate is slower and the amount of smoke you're inhaling is lower. (A picture shows) A satellite captures wildfire smoke on May 16, 2023. NASA EarthData. If you have asthma, create a safe space at home and in the office with a high-level stand-alone air filtration system to create a space with cleaner air. High-quality N95 masks can help. Most states have air quality monitors. Read the original article.

New York

https://www.nytimes.com/live/2023/06/08/us/canada-wildfires-air-quality-smoke

Wildfire Smoke Noxious Air in the U.S. Pushes South and West

Driven by wildfires in Canada, the smoke that has hovered over parts of the Northeast was spreading, with alerts extended to the Midwest and south to the Carolinas.

See Our Maps of Air Quality and Smoke ›

Washington, D.C. Very Unhealthy Philadelphia Unhealthy New York Unhealthy Chicago Unhealthy for some Boston Moderate Source: Airnow.gov · Data as of 11 a.m. Eastern. June 8, 2023

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

Here's the latest on the fires shrouding parts of the continent in a haze.

Hundreds of fires raging across Eastern Canada continued to spread clouds of dangerous pollution across much of the eastern United States on Thursday. Officials issued warnings about air quality in a broad swath of the country, from New York west to Indiana and as far south as the Carolinas. Major cities including Philadelphia, Washington and New York woke up to unhealthy levels of air pollution, one day after New York City registered its worst air quality readings in decades. Although conditions in parts of the Northeast on Thursday were expected to be better than the day before, the (wood smoke) was spreading across the country. (Wood fires) in eastern Canada have forced tens of thousands of people from their homes. About 250 wildfires burned out of control in the eastern part of the country Thursday, the authorities said, about 150 of them in Quebec. Some have been burning for weeks. Officials warned of the threat of the smoke, which has forced some people to don masks in a grim reminder of the pandemic conditions of recent years. The smoky haze closed the National Zoo. At the Lincoln Memorial in Washington, teenage girls whose commencement ceremony had to be called off took pictures in graduation regalia, though the smoke was too thick to make out the Washington Monument halfway down the National Mall.