Episode 56JT October 10, 2023. Indoor Woodburning raises lung cancer risk for women. PM2.5 and women's breast cancer.

A cohort covering six states (California, Florida, Louisiana, New Jersey, North Carolina, and Pennsylvania) and two metropolitan areas (Atlanta and Detroit), between 1995 and 1996. Dr. White and colleagues observed a consistent increase in breast cancer incidence for PM2.5 exposure across three estimated time windows of exposure (1980-1984, 1985-1989, 1990-1994), which suggests exposure during all periods was related to breast cancer risk (Table).
Indoor Wood Burning raises lung cancer risk for women. Invisible danger: Indoor wood burning raises lung cancer risk for women - ZME Science Burning wood indoors in stoves or fireplaces can pose significant health risks, primarily due to the emission of particulate matter and harmful gases. Wood-burning stoves and fireplaces could pose a greater health risk than previously believed, according to new research. Wood smoke is a mixture of particulate matter, gases, and hundreds of different chemicals, some of which have been classified as hazardous air. Air Pollution Linked With Risk for ER-Positive Breast Cancer - Physician's Weekly White and colleagues examined whether historical levels of fine particulate matter (PM2.5) ... The study team found an 8% higher incidence of breast cancer. New data on estimates of historical air pollution show a potential link between exposure to fine particulate matter (PM 2.5), a known human carcinogen that contains a mixture of solid particles and liquid droplets, and greater risk of estrogen receptor–positive (ER+) breast cancer, according to a study published in. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates Corporation, a non-profit organization. A comprehensive study involving 50,000 women discovered a significant correlation between frequent use of wood-burning stoves and an elevated risk of lung cancer. Specifically, women who regularly use these stoves have a 43% higher likelihood of developing lung cancer compared to those who do not. Air pollution may contribute to the etiology of ER-positive breast cancer, supporting public health interventions to reduce exposure levels. A recent study notes that risk factors associated with air pollution point to the key role that hormones play in the etiology of breast cancer and suggest that environmental chemicals with endocrine-disrupting properties contribute to the risk for acquiring ER-positive breast cancer. "Air pollution, a well-established risk factor for lung cancer, has been understudied in relation to other cancers, including breast cancer," explains Alexandra J. White, PhD, MSPH. "Since breast cancer is the most common cancer diagnosis among women in the US, a need exists for a better understanding of potentially intervenable risk factors at both the policy and individual level." Association Positive for ER-Positive, But Not ER-Negative Breast Cancer For a study published in the Journal of the National Cancer Institute, Dr. White and colleagues examined whether historical levels of fine particulate matter (PM2.5), which were higher in the past than today, impacted breast cancer incidence. The team used data from a nationwide spatiotemporal model for women (N=196,906) in the National Institutes of Health–AARP Diet and Health Study, a prospective cohort covering six states (California, Florida, Louisiana, New Jersey, North Carolina, and Pennsylvania) and two metropolitan areas (Atlanta and Detroit), between 1995 and 1996. "We estimated their historic residential exposure to PM2.5 for a 5-year period approximately 10 to 15 years prior to enrollment and evaluated whether women who lived in areas of higher PM2.5 had a higher incidence of breast cancer over an average of 20 years of follow-up," Dr. White says. She emphasizes that this link was evident for estrogen receptor (ER)–positive but not ER–negative tumors. Dr. White and colleagues identified 15, 870 breast cancer cases, with follow-up through 2017. The study team found an 8% higher incidence of breast cancer for women living in areas with higher PM2.5 exposure when compared with women living in areas with lower levels. "This suggests that PM2.5 may modestly increase the risk for breast cancer, particularly estrogen receptor (ER)-positive tumors," Dr. White points out. "At the individual level, this association translates to a small increase in risk. However, at the population-level this finding may be more meaningful given the fact that almost everyone is exposed to air pollution." Focus on Intervention Efforts for Cancer-Related Sources Dr. White and colleagues observed a consistent increase in breast cancer incidence for PM2.5 exposure across three estimated time windows of exposure (1980-1984, 1985-1989, 1990-1994), which suggests exposure during all periods was related to breast cancer risk (Table). "Our research, the largest study of its type to date in the US, supports that air pollution may play a role in the etiology of ER-positive breast cancer and supports public health interventions to reduce air pollutant exposure levels," Dr. White says. "For physicians, it may be useful to discuss this with patients to help them understand how their environment may play a role in breast cancer."
Since levels of PM2.5 varies geographically across the US due to fluctuating sources of pollution, Dr. White and colleagues conclude that future research may help identify the specific components of PM2.5 that drive relationships with breast cancer, and thus help focus any intervention efforts on sources of PM2.5 that are most relevant to cancer.
REFERENCES & ADDITIONAL READING Ambient Fine Particulate Matter and Breast Cancer Incidence in a Large Prospective US Cohort https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djad170/7260521?login=false

Wisconsin, Superior and Minnesota, Duluth. Indoor Wood Burning and House Fires Heating your home is the second cause of house fires - WDIO.com Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates Corporation, a non-profit organization. If you have a fire in your fireplace or wood burning stove, make sure that the fire is fully out before you go to bed. one in five fatal fires are also related to a heating device left on overnight. your home is the second cause of house fires. October 10, 2023. If you have a fire in your fireplace or wood burning stove, make sure that the fire is fully out before you go to bed. When it comes to using a space heater or a lit fireplace, keep anything and everything at least three feet away.
California, Northern California. Female Asian non-smokers and reasons for Lung Cancer Digging Into the Increasing Lung Cancer Rate for Female, Asian, Never Smokers: Dr Jeffrey Velotta American Journal of Managed Care. PM 2.5 is the primary hazard from this type of smoke, and it can be especially harmful to sensitive groups including children, outdoor workers, and. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates Corporation, a non-profit organization. Digging Into the Increasing Lung Cancer Rate for Female, Asian, Never Smokers: the phenomenon of an increase in female, Asian, nonsmokers developing lung cancer, and what is being done to address this rise. In the study "Trends in Smoking-Specific Lung Cancer Incidence Rates Within a US Integrated Health System, 2007-2018," it was found that more research needs to be done on adults who develop lung cancer but never smoke, especially those of Asian and Pacific Islander (API) origin. for Asian American, female, nonsmokers. We found that lung cancer was increasing 2% per year, a significant amount, versus everybody else across the board who was decreasing. We have a current study in collaboration with Kaiser Permanente in Northern California and UCSF [University of California San Francisco] called the FANS study, which is Female Asian Never Smoker study. We already know that they [Asian women] don't smoke. Northern California actually has the highest amount of Asian Americans in the United States per number. Hawaii actually has a higher concentrated amount, but we have the highest number in terms of overall population.
South Asia, The Maldives. The **Maldives**, officially the **Republic of Maldives** is an archipelagic state and country in South Asia, situated in the Indian Ocean. It lies southwest of Sri Lanka and India, about 750 kilometres (470 miles; 400 nautical miles) from the Asian continent's mainland. The Maldives' chain of 26 atolls stretches across the equator from Ihavandhippolhu Atoll in the north to Addu Atoll in the south.
https://www.nytimes.com/2023/10/10/opinion/environment/solar-battery-climate-maldives.html RAWSEP View: A solar power pilot project provides energy which costs less than diesel. The New York Times. How One Tiny Island Nation Is Replacing Fossil Fuels With Renewable Power. October 10, 2023. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates Corporation, a non-profit organization. Many developing countries lack access to the cheap financing they need to make the switch to clean power, so they continue to burn fossil fuels, even though this is more expensive over the long term and hurts efforts to slow rising temperatures. In a report last April, the World Bank framed the problem this way: Low- and middle-income countries “are unable to afford the high upfront costs of switching to clean energy, and thus are locked into higher costs and recurring payments for fossil fuels.” Maldives is a nation of 1,200 islands in the Indian Ocean and half-million people across 187 islands. For electricity, we rely almost completely on imported diesel fuel to run our generators. It’s dirty and expensive. But recent solar and battery storage projects, financed with the help of the World Bank, allowed us to deploy renewable energy projects across our archipelago. They provide a template for other nations. The Maldives is a new democracy. Its first multiparty elections were held in 2008. Since then, the country has experienced political upheaval, a period of authoritarianism, and recently, a return to democracy and calm under the leadership of President Ibrahim Mohamed Solih. The Maldives would like to rapidly deploy renewable energy, primarily solar, given our abundant sunshine. In 2020, President Solih set a goal for the Maldives to become net-zero by 2030. producing a unit of electricity with solar power on a sunny day is cheaper than producing a unit of electricity using diesel. Especially on the more remote islands, switching from diesel generators to solar power promises fantastic cost savings. The Maldives government subsidizes electricity. But Maldives has been hurt by a bad credit rating and high interest rates. So we continue to burn diesel fuel. A recent solar power project in the Maldives demonstrates the promise of that approach. After the World Bank offered to underwrite the risks of default, the cost of the project fell to 9.8 cents per kilowatt-hour, from 15 cents. This is the third and largest project we have done with the World Bank. Sixty-three investors expressed interest, and the cost is one of the lowest for any small island developing state, according to the bank. Maldives is rolling out solar projects from the capital city, Malé, to far-flung island communities. Short on land, the country is even pioneering the use of floating banks of solar panels in lagoons. solar systems that will sell the electricity to the grid should power 13,000 households and save $20 million a year spent on diesel fuel. The International Energy Agency estimates the world must triple renewable

energy capacity by 2030 to hold the increase in global warming to 2.7 degrees Fahrenheit, or 1.5 degrees Celsius. We must reduce the cost of capital in developing economies.

United Kingdom, AQMesh pods measuring PM2.5 UK rail operator uses AQMesh for baseline air pollution study - Envirotech Online The six AQMesh pods measure particulate matter (PM1, PM2.5, PM4, PM10, total particle count)

Singapore Haze Situation Update (10 October 2023) | - Meteorological Service Singapore Singapore, 10 October 2023 – Many areas of Singapore saw thundery showers in the late morning and afternoon today. As at 5pm, the 1-hr PM2.5.