Episode 37 A to F, U S Forests threatened by Pellet Manufacturing, Amazonian Fires, Recreational Vehicle (RV) Parks consider banning campfires, European Union ending some Industrial Wood Burning Subsidies, Ghana teaches Health Care Workers to use PM 2.5 monitors

Episode 37 A Mary and Residential Wood Burning compared to Pellet Manufacturing and Burning PM 2.5 emissions

Mary noted that the focus of Residents Against Wood Smoke Emission Particulates (RAWSEP) is on the health effects to near neighbors of living next to residential wood burning, in those hyper-localized areas where the source of particulate pollution, PM 2.5, is concentrated. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke consists of 90% PM 2.5. Residential PM 2.5 monitors can be purchased by neighbors from PurpleAir for less than $300, and their locations are put on the online PurpleAir Map, along with data uploaded every 10 minutes, available to the general public, and of course to governmental authorities. Neighbors of Residential Wood Burners would like their PurpleAir PM 2.5 monitor data to be used to regulate and shut down Residential Wood Burning detected at neighbors' fence lines that exceeds the World Health Organization (W H O) standards of 5 micrograms per meter cubed or future US standards of 8 micrograms per meter cubed. There could even be court-ordered monitoring using a neighbor-owned PurpleAir PM 2.5 monitor as a "breathalyzer" (similar to car breathalyzers court ordered for repeat drunk drivers) to turn off the ignition of a neighboring indoor wood stove when levels of PM 2.5 in a near neighbor's yard is exceeded. In this way governmental authorities would not have to check the make and model of an appliance and would not have to rely on unreliable certification and other worthless assurances of levels of wood stove particulate emissions by the company that manufactured it. PurpleAir monitors also provide data every 10 minutes 24 hours a day, and data can be downloaded from the map by governmental authorities the day after the PM 2.5 levels are exceeded, during normal government working hours. PurpleAir PM 2.5 monitors are so reliable and accurate they are put on U S AirNow Smoke and Fire maps alongside $100,000 Environmental Protection Agency (E P A) monitors, correlated to the EPA monitors with a simple mathematical formula. But to publicize this, it is necessary to point out that living hyper-localized next to a residential wood burner is essentially the same as living next to Industrial Wood Burning. Wood pellet plants also produce large amounts of PM 2.5 or PM 10 in the form of wood dust produced when forming pellets for sale to Europe, or other consumers.

Mary noted this article which cites the additional information that a 2017 study by the World Resources Institute found that burning wood emits 2.5 times as much carbon dioxide pollution as does natural gas. Mary noted that the cleanest fossil fuel, natural gas, produces thousands of times less particulates than wood burning, and it is a little known fact tht even burning the solid fossil fuel, coal, produces less particulates than wood burning.

The article that Mary noted was titled Historic U S Southeast hardwood forests threatened by rapacious $11 billion wood pellet industry. Forest preservation activists in Europe (Birdlife Europe, Forest Defenders, ROBIN WOOD, and more) extolled the need for forests to serve as carbon sinks, and havens for wildlife. These campaigners and activist organizations also mention that wood burning produces particulates, which are deleterious to human health. There needs to be more emphasis on the health aspects of stopping wood burning, but the forest preservation activists probably had an effect on the European Union voting on September 14, 2022 to stop many subsidies for Industrial Wood Burning in the European Union. That vote will have an effect on the production of wood pellets in the United States (and Canada, especially British Columbia) starting in 2023.

Mary noted some excerpts from the article about U S Forests used to provide wood pellets, at this point, mostly to European markets. The Southeast U S Wood Pellet Plants exporting to Europe are in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina and South Carolina, Tennessee, and Texas. The European Union this week started cutting the subsidies that make the trade possible. Campaigners say 'loopholes' will help pellet firms keep on ripping up the U S and European forests. Environmentalists warn that hundreds of thousands of acres of forest are being torn down each year in the U.S. southeast to make wood pellets to fuel European power plants in a deluded bid to fight climate change. Climate activist Greta Thunberg has slammed the European subsidies that make wood-pellet burning viable 'It's an assault on the people to place an industry that releases such a huge amount of particulate matter into the air.' A looming shortage of Russian gas in the wake of the Ukraine war has reignited heating homes with wood pellets in Europe. The Drax Group power station complex in Yorkshire, Britain, is a former coal burning facility that now generates heat from compressed biomass (wood) waste. Wood pellet energy green credentials are questioned. A 2017 study by the World Resources Institute found that burning wood emits 2.5 times as much carbon dioxide pollution as does natural gas, and 30 percent more than coal. The supposedly 'green' power station Drax in the north of England burns taxpayer-subsidized wood pellets sourced from the U.S. southeast to provide 12 percent of the Britain's total electric power. Drax spews out 15.6 megatons of carbon dioxide emissions each year, which causes the planet to heat

up and leads to extreme weather events like floods, droughts, and storms. The U.S. is the world's top pellet producer, making 8.6 million tons of chips in 2019 or 22 percent of global supply, mostly from the southeast, trailed by Canada (which produced 3.0 million tons), Vietnam (2.5 million) and Russia (1.6 million). Virginia-based lawyer with the Southern Environmental Law Center (S E L C), said the 7.5 metric tons exported by the U.S. last year required the harvesting of 137,656 acres of forest, an area larger than American Samoa. Enviva is the world's top pellet firm. Its 10 plants in Virginia, North Carolina, South Carolina, Georgia, Florida, and Mississippi, produce some 6.2 million metric tons per year, mostly selling to the E.U., Japan and Britain, including Drax.

Episode 37 B Wendy and Residential Wood Burning compared to Amazon Fires' PM 2.5 emissions
Wendy noted that the focus of Residents Against Wood Smoke Emission Particulates (RAWSEP) is on the health effects to near neighbors of living next to residential wood burning, in those hyper-localized areas where the source of particulate pollution, PM 2.5, is concentrated. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke consists of 90% PM 2.5. Residential PM 2.5 monitors can be purchased by neighbors from PurpleAir for less than $300, and their locations are put on the online PurpleAir Map, along with data uploaded every 10 minutes, available to the general public, and of course to governmental authorities. Neighbors of Residential Wood Burners would like their PurpleAir PM 2.5 monitor data to be used to regulate and shut down Residential Wood Burning detected at neighbors' fence lines that exceeds the World Health Organization (W H O) standards of 5 micrograms per meter cubed or future US standards of 8 micrograms per meter cubed. There could even be court-ordered monitoring using a neighbor-owned PurpleAir PM 2.5 monitor as a "breathalyzer" (similar to car breathalyzers court ordered for repeat drunk drivers) to turn off the ignition of a neighboring indoor wood stove when levels of PM 2.5 in a near neighbor's yard is exceeded. In this way governmental authorities would not have to check the make and model of an appliance and would not have to rely on unreliable certification and other worthless assurances of levels of wood stove particulate emissions by the company that manufactured it. PurpleAir monitors also provide data every 10 minutes 24 hours a day, and data can be downloaded from the map by governmental authorities the day after the PM 2.5 levels are exceeded, during normal government working hours. PurpleAir PM 2.5 monitors are so reliable and accurate they are put on U S AirNow Smoke and Fire maps alongside $100,000 Environmental Protection Agency (E P A) monitors, correlated to the EPA monitors with a simple mathematical formula. But to publicize this, it is necessary to point out that living hyper-localized next to a residential wood burner is essentially the same as living next to wildfires in the South American Amazon basin. Amazonian wildfires also produce large amounts of PM 2.5 or particulate matter of 2.5 micron size. The difference is that, with PM 2.5 monitoring, the pollution can be pre-empted by shutting down the hyper-localized residential wood burning, but control of wildfires cannot be as easily controlled. It appears that less human initiated pasture and cropland burning after forest clearing could exert some control over the wildfires in the Amazon basin of Bolivia and Brazil.
The article that Wendy noted stated that on September 5, 2022, the Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Aqua satellite acquired a natural-color image of smoke over parts of Bolivia and Brazil. Thick smoke was emitted from Bolivia's El Beni and Santa Cruz districts, where forests receive less rain than other parts of the Amazon basin. The smoke streamed north and mixed with plumes from fires burning in rainforests in Brazilian states, including Acre, Amazonas, Rondônia, Pará, and Mato Grosso. Fire activity in 2022 occurred along highways, notably BR-163 and the Trans-Amazonian highway in Pará and Amazonas. The thickest smoke plumes amid the heavily forested (green) areas rise from deforestation fires. These are lit to dispose of piles of leftover wood, often months after forests were bulldozed. Forest clearing for ranching and farming is common. Smaller smoke plumes in cleared, agricultural areas (brown) are grassland fires lit by ranchers and farmers on cattle pastures or croplands. Human-caused deforestation and pasture fires escape control and spread unchecked. In wet parts of the Amazon, in the western and northern parts of the basin, this can lead to understory fires that smolder and spread along the forest floor. In drier areas, including the Chiquitano forests, Beni Savanna, and Chaco forests in Bolivia, fires spread more quickly, burn hotter, produce more smoke, and consume the forest canopy. Brazil's National Institute for Space Research (I N P E) uses MODIS observations to monitor daily fire activity in the Amazon; I N P E scientists also maintain a record of MODIS fire detections that spans decades. The agency reported 226,677 Aqua MODIS fire detections throughout Amazon Basin countries between January 1 and September 12, 2022. Argentina, Bolivia, Colombia, Paraguay, and Venezuela all had more than 10,000 fire detections; Brazil had 117,436. Brazil's fire count in 2022 is the most since 2010. "We have seen plenty of fire activity in recent weeks," said Alberto Setzer, a senior scientist at INPE. "The fire season in the southern Amazon doesn't usually wind down until October or November."

Episode 37 C Wendy and Residential Wood Burning compared to Recreation Vehicle Park fires PM 2.5 emissions
Wendy noted that the focus of Residents Against Wood Smoke Emission Particulates (RAWSEP) is on the health effects to near neighbors of living next to residential wood burning, in those hyper-localized areas where the source of particulate pollution, PM 2.5, is concentrated. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke consists of 90% PM 2.5. Residential PM 2.5 monitors can be purchased by neighbors from PurpleAir for less than $300, and their locations are put on the online PurpleAir Map, along with data uploaded every 10 minutes, available to the general public, and of course to governmental authorities. Neighbors of Residential Wood Burners would like their PurpleAir PM 2.5 monitor data to be used to regulate and shut down Residential Wood Burning detected at neighbors' fence lines that exceeds the World Health Organization (W H O) standards of 5 micrograms per meter cubed or future US standards of 8 micrograms per meter cubed. There could even be court-ordered monitoring using a neighbor-owned PurpleAir PM 2.5 monitor as a "breathalyzer" (similar to car breathalyzers court ordered for repeat drunk drivers) to turn off the ignition of a neighboring indoor wood stove when levels of PM 2.5 in a near neighbor's yard is exceeded. In this way governmental authorities would not have to check the make and model of an appliance and would not have to rely on unreliable certification and other worthless assurances of levels of wood stove particulate emissions by the company that manufactured it. PurpleAir monitors also provide data every 10 minutes 24 hours a day, and data can be downloaded from the map by governmental authorities the day after the PM 2.5 levels are exceeded, during normal government working hours. PurpleAir PM 2.5 monitors are so reliable and accurate they are put on U S AirNow Smoke and Fire maps alongside $100,000 Environmental Protection Agency (E P A) monitors, correlated to the EPA monitors with a simple mathematical formula. But to publicize this, it is necessary to point out that living hyper-localized next to a residential wood burner is essentially the same as living next to wildfires in the South American Amazon basin. Amazonian wildfires also produce large amounts of PM 2.5 or particulate matter of 2.5 micron size. The difference is that, with PM 2.5 monitoring, the pollution can be pre-empted by shutting down the hyper-localized residential wood burning, but fires at Recreational Vehicle (RV) Parks are in areas where the regulation and enforcement of rules on wood burning are controlled by the RV Park owners, rather than controlled by complaints and PM 2.5 monitoring by near neighbors of residential wood burners.
The argument against burning wood in RV Parks, according to the article Wendy read, from the publisher of RV travel, is that there is growing concern that fires may be be getting out of control, even when "safely" confined to a fire pit. The publisher of RV travel thought it was time for some campgrounds to establish so-called "No Campfire Zones." He wrote his editorial, of course, after spending a few nights at a packed RV campground where his neighbor's fire pit was less than 10 feet from his RV. The publisher and a podcast host talked about the idea of having campfire bans in certain situations. In that episode of the podcast, they talked about how to screen campgrounds, and what happens when you become ill on the road. The discussion touched on whether it was worth it to melt a marshmallow with a wood fire rather than using other, less labor intensive, and particulate-polluting, methods. The publisher sleeping 10 feet from a wood fire was the impetus for the discussion. Concern about hyper-localized PM 2.5 pollution causing discomfort and trouble breathing may have been the reason for the publisher's concern, in addition to the implied concern about causing wildfires to spread.

Episode 37 D Wendy and Residential Wood Burning compared to the Red Cross aiding California and Oregon residents affected by PM 2.5 emissions from wildfires
Wendy noted that the focus of Residents Against Wood Smoke Emission Particulates (RAWSEP) is on the health effects to near neighbors of living next to residential wood burning, in those hyper-localized areas where the source of particulate pollution, PM 2.5, is concentrated. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke consists of 90% PM 2.5. Residential PM 2.5 monitors can be purchased by neighbors from PurpleAir for less than $300, and their locations are put on the online PurpleAir Map, along with data uploaded every 10 minutes, available to the general public, and of course to governmental authorities. Neighbors of Residential Wood Burners would like their PurpleAir PM 2.5 monitor data to be used to regulate and shut down Residential Wood Burning detected at neighbors' fence lines that exceeds the World Health Organization (W H O) standards of 5 micrograms per meter cubed or future US standards of 8 micrograms per meter cubed. There could even be court-ordered monitoring using a neighbor-owned PurpleAir PM 2.5 monitor as a "breathalyzer" (similar to car breathalyzers court ordered for repeat drunk drivers) to turn off the ignition of a

neighboring indoor wood stove when levels of PM 2.5 in a near neighbor's yard is exceeded. In this way governmental authorities would not have to check the make and model of an appliance and would not have to rely on unreliable certification and other worthless assurances of levels of wood stove particulate emissions by the company that manufactured it. PurpleAir monitors also provide data every 10 minutes 24 hours a day, and data can be downloaded from the map by governmental authorities the day after the PM 2.5 levels are exceeded, during normal government working hours. PurpleAir PM 2.5 monitors are so reliable and accurate they are put on U S AirNow Smoke and Fire maps alongside $100,000 Environmental Protection Agency (E P A) monitors, correlated to the EPA monitors with a simple mathematical formula. But to publicize this, it is necessary to point out that living hyper-localized next to a residential wood burner is essentially the same as living next to a wildfire and its' smoke, although a wildfire is only temporary. Wendy noted that the American Red Cross is helping people in California and Oregon where devastating wildfires continue to burn, forcing thousands from their homes. With the threat of wildfires not slowing down, the Red Cross is ready to expand relief efforts if needed. In Oregon, multiple large fires are burning, including the Cedar Creek Fire east of Eugene, which grew to more than 92,000 acres and is completely uncontained. The Oregon fires have forced nearly 1,500 people from their homes. In northern California, the Mosquito Fire has scorched more than 63,000 acres and is only 20% contained. More than 11,200 people have had to leave their neighborhoods. Wildfires have already consumed more than 6.7 million acres across the country so far this year. The Red Cross gave the following advice about avoidin the worst health effects of PM 2.5 pollution from wood burning wildfires. **SMOKE AS FAR EAST AS COAST.** Hazardous air quality alerts are in effect for Oregon, Washington, Idaho, Wyoming, Montana, Nevada and California. Smoke from the fires has blown all the way to the East Coast. Wildfire smoke is a mixture of air pollutants that are harmful to your health. When wildfires create smoky conditions it's important for everyone to lessen their exposure to smoke which can irritate your eyes, nose, throat and lungs, making it hard to breathe and causing coughing and wheezing. **Keep smoke outside.** Choose a room you can close off from outside air. Set up a portable air cleaner or filter to keep air clean in the room. Children, women who are pregnant and people with asthma, chronic pulmonary disease or heart disease need to be especially careful about breathing smoke from a wildfire. Ask your doctor if it is safe for you to wear a respirator. If you have a central air conditioning system, use high efficiency filters to capture fine particles from smoke. If your system has a fresh air intake, set the system to recirculate mode or close the outdoor intake damper. Limit exposure to smoke and dust. Keep indoor air clean by closing windows and doors to prevent outside smoke from getting in. If you are trapped outdoors, crouch in a pond, river, or pool. If there is no body of water, look for shelter in a cleared area or among a bed of rocks. Lie flat, face-down and cover your body with soil. Breathe the air close to the ground to avoid scorching your lungs or inhaling smoke. Download the Red Cross Emergency app for real-time alerts, open Red Cross shelter locations and expert advice on wildfires. The app includes an "I'm Safe" feature that help people check on loved ones. Search "American Red Cross" in app stores or go to redcross.org/apps.

Episode 37 E  Gerda and European Union signals a move away from wood energy

Gerda noted that the focus of Residents Against Wood Smoke Emission Particulates (RAWSEP) is on the health effects to near neighbors of living next to residential wood burning, in those hyper-localized areas where the source of particulate pollution, PM 2.5, is concentrated. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke consists of 90% PM 2.5. Residential PM 2.5 monitors can be purchased by neighbors from PurpleAir for less than $300, and their locations are put on the online PurpleAir Map, along with data uploaded every 10 minutes, available to the general public, and of course to governmental authorities. Neighbors of Residential Wood Burners would like their PurpleAir PM 2.5 monitor data to be used to regulate and shut down Residential Wood Burning detected at neighbors' fence lines that exceeds the World Health Organization (W H O) standards of 5 micrograms per meter cubed or future US standards of 8 micrograms per meter cubed. There could even be court-ordered monitoring using a neighbor-owned PurpleAir PM 2.5 monitor as a "breathalyzer" (similar to car breathalyzers court ordered for repeat drunk drivers) to turn off the ignition of a neighboring indoor wood stove when levels of PM 2.5 in a near neighbor's yard is exceeded. In this way governmental authorities would not have to check the make and model of an appliance and would not have to rely on unreliable certification and other worthless assurances of levels of wood stove particulate emissions by the company that manufactured it. PurpleAir monitors also provide data every 10 minutes 24 hours a day, and data can be downloaded from the map by governmental authorities the day after the PM 2.5 levels are exceeded, during normal government working hours. PurpleAir PM 2.5 monitors are so reliable and accurate they are put on U S AirNow Smoke and Fire maps alongside $100,000 Environmental Protection Agency (E P A) monitors, correlated to the EPA monitors with a simple

mathematical formula. But to publicize this, it is necessary to point out that living hyper-localized next to a residential wood burner is essentially the same as living next to Industrial Wood Burning in the European Union.

Gerda noted in an New York Times article that, by the European Union (E U) vote on September 14, 2022, the EU has signaled a move away from wood energy. In excerpts from the article "European lawmakers voted this week to phase out some wood-energy subsidies, a recognition that more than a decade of government incentives has contributed to deforestation without curbing greenhouse gas emissions. The vote leaves key details unsettled and no changes will take place for at least a year. Governments are under tremendous pressure to ease soaring energy prices this winter as Russia cuts its gas supply to Europe. European governments began subsidizing wood energy more than a decade ago as a way to encourage power plants and homeowners to move away from oil and natural gas. A booming market for wood pellets sprung up. Wood is now Europe's largest renewable energy source, far ahead of wind and solar.
The vote shows how dramatically political opinions of wood have shifted since last year, when government figures revealed that burning wood in the European Union released more carbon dioxide than would have been emitted had that energy come from fossil fuels. "The writing is on the wall: Cutting down forests for energy use is neither sustainable, nor does it help with our energy independence," said a German member of the European Parliament who supported ending the subsidies. The details remain murky and must still be worked out in discussions among national governments, a process that is expected to begin later this year or early next year. So lobbying on the issue will continue. "I don't see any easy solutions to those problems, especially if you take into account that we are going to have a substantial shortage of energy in Europe," said a member of the European Parliament from Finland. He said The Times's report laid bare the unintended consequences of the subsidies. "We have a huge problem," he said. In other news related to wood burning in Europe, the price of wood pellets is soaring in France due to a growing shortage of the wood-burning stove and pellet stove fuel, and in Greece, searches on the Skroutz shopping site in the first 10 days of September for wood-burning stoves were up 318% year-on-year. The argument that wood burning is cheap energy may be disproved economically. This week the European Union made clear it views that wood burning has a cost to the environment that makes subsidies for wood burning untenable.

Episode 37 F Nasha, Ghana, U N declared Clean Air is a Human Right, PM 2.5 monitor training, and Residential Wood Burning compared to Ghana PM 2.5 emissions
Nasha noted that the focus of Residents Against Wood Smoke Emission Particulates (RAWSEP) is on the health effects to near neighbors of living next to residential wood burning, in those hyper-localized areas where the source of particulate pollution, PM 2.5, is concentrated. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke consists of 90% PM 2.5. Residential PM 2.5 monitors can be purchased by neighbors from PurpleAir for less than $300, and their locations are put on the online PurpleAir Map, along with data uploaded every 10 minutes, available to the general public, and of course to governmental authorities. Neighbors of Residential Wood Burners would like their PurpleAir PM 2.5 monitor data to be used to regulate and shut down Residential Wood Burning at neighbors' fence lines that exceeds the World Health Organization (W H O) standards of 5 micrograms per meter cubed or future US standards of 8 micrograms per meter cubed. There could even be court-ordered monitoring using a neighbor-owned PurpleAir PM 2.5 monitor as a "breathalyzer" (similar to car breathalyzers court ordered for repeat drunk drivers) to turn off the ignition of a neighboring indoor wood stove when levels of PM 2.5 in a near neighbor's yard is exceeded. In this way governmental authorities would not have to check the make and model of an appliance and would not have to rely on unreliable certification and other worthless assurances of levels of wood stove particulate emissions by the company that manufactured it. PurpleAir monitors also provide data every 10 minutes 24 hours a day, and data can be downloaded from the map by governmental authorities the day after the PM 2.5 levels are exceeded, during normal government working hours. PurpleAir PM 2.5 monitors are so reliable and accurate they are put on U S AirNow Smoke and Fire maps alongside Environmental Protection Agency (E P A) monitors, correlated to the EPA monitors with a simple mathematical formula. But to publicize this, it is necessary to point out that living hyper-localized next to a residential wood burner is essentially the same as living next to residential wood burning for lighting and cooking in Ghana. One participant in training cited training in using a personal air quality monitor as transformative.
The notable fact of the article that Gerda read about Ghana training health care workers to recognize and teach about air pollution which affects the health of Ghanians, was that particular kinds of air pollution such as residential wood burning were not specified as sources of air pollution. The World Health Organization (WHO) is piloting a program to

train health professionals as advocates for clean air policies and programs with the ultimate aim to protect and promote people's health and wellbeing. Health workers from all corners of Ghana met in Kumasi, Ashanti Region and provided input into the program. This successful pilot is expected to expand into a global program in 2023. Health professionals shape the dialog on air pollution and health topics both through direct engagement within their communities and peer colleagues. WHO is piloting a program to train health workers to advocate for clean air measures in the communities where they work. The project is led by the Air Quality and Health Unit within the Department of Environment, Climate Change and Health. The global training curriculum is designed to be tailored at the regional and country level. **Pilot Workshop in Ghana.** In Kumasi, Ghana, in June 2022, a group of almost fifty health professionals gathered to test the program. It allowed them to gain the skills and knowledge to act as trainers with peer colleagues in the health sectors and the communities they serve. Training covered air pollution and health as well as specific modules for clinicians addressing cardiovascular and respiratory diseases and the health effects of air pollution on children and pregnant women. **Clean Air as a human right.** In August 2022, the United Nations General Assembly passed a historic resolution declaring that everyone on the planet has a right to a healthy environment, including clean air, water, and a stable climate. "We have made air – the thing that keeps us alive – the number one threat to our health," said the Head of Secretariat, Climate and Clean Air Coalition. "By formalizing our right to clean air, this resolution is an important step towards protecting both people and planet." The training toolkit being developed by WHO is designed to reach those planetary health goals. 99% of people worldwide breathe air that exceeds WHO global air quality guidelines. Regions and countries differ widely in their burden of air pollution, Low-and-Middle Income Countries being the ones whose population is most affected by this threat. In Ghana, this a serious concern for public health. Ghana's annual ambient mean concentration of $PM_{2.5}$ (35 ug/$m^3$) largely exceeds WHO global air quality guidelines for particulate matter (PM). Households' heavy reliance on unclean fuels and technologies for cooking significantly contribute to air pollution exposure and important health outcomes in the population. Health systems pay the price of illnesses that result from air pollution exposure, therefore the health sector has a vested interest in improving air quality and advising patients and individuals on exposure reduction strategies. A public health officer for disease control says that as a result of the training, *"I'm equipped. I now have the knowledge to go orient my other staff and also be an advocate for clean air." An employee from* the Ghana Health Services in the central region of the country, appreciates that trainees had the opportunity to conduct field visits including to use **air quality personal monitors** while appraising firsthand the sources of air pollution in the Ashanti region. He notes that air pollution is one of the major causes of respiratory and cardiac problems. He says that *"we know that one of the major causes of asthma, cardiovascular diseases, and other conditions are due to air pollution."* He believes this workshop is timely and hopes to implement the modules in the program to reduce regional exposure to air pollution. Health workers listened to presentations from WHO staff and other experts from the University of Ghana and WONCA - Global Family Doctors. and worked together in small groups to figure out how to best implement policy and clinical approaches to air pollution within their specific local contexts. A reduction in air pollution emissions is a "win–win" opportunity to simultaneously protect human health and the environment and to address the complex challenge of climate change, as the combustion of fossil fuels (and residential wood burning) contributes to increasing the levels of some air pollutants.