

Improving Information Exchange Now and for the Future



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wildlandfiresmoke.net



Interagency Wildland Fire Air Quality Response Program

Evolution of communicating about smoke

Air Resource Advisors* – dispatched as part of Incident Mgmt Teams

- **Modeling:** BlueSky smoke dispersion modeling
- **Monitoring:** National cache of 38+ PM2.5 units
- **Monitoring:** Data display and analysis
- **Messaging:** Daily Smoke Outlooks (posted typically 0800 every day with peak and low smoke periods)
- **Coordination:** w/state/tribal/local air quality regulatory agencies, public health dept. and impacted communities

Enables: reduction of smoke exposure through behavior modification messages (public or personnel), provide roadway smoke forecasting (when needed)

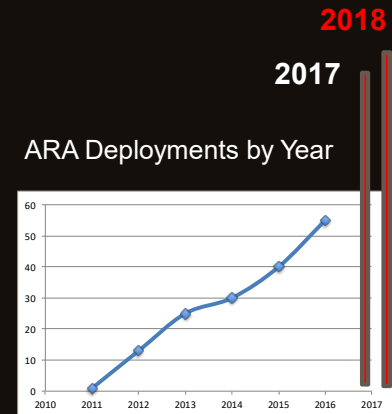
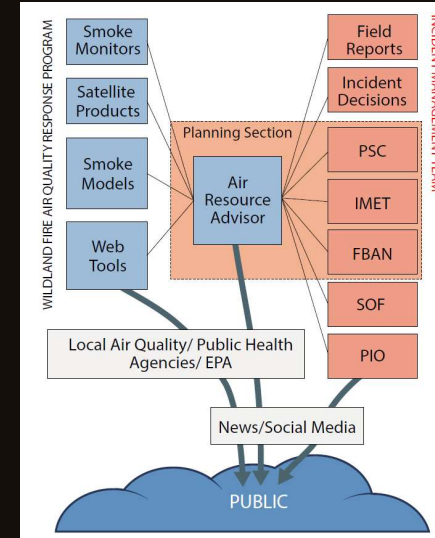


2018 ARA Smoke Outlooks covered area 52 million people

2020 6 million views of ARA Smoke Outlooks

*Currently 60 ARA's and 35 trainees, multiple entities represented including: FS, BLM, NPS, FWS, EPA, State Forestry (NC, GA, FL, OR, WA) Tribes, NWS, NRCS, CDC, AD-Contract, State/County, Air/Regulatory/Health (NC, CO, Placer County, Washoe County)

IWFAQRP is the merging of Operations with Technical Support by PNW AirFire Team



Evolution of the IWFAQRP - March 2019 Authorized by US Congress S.47 - John D. Dingell, Jr. Conservation, Management, and Recreation Act

SEC. 1114. WILDFIRE TECHNOLOGY MODERNIZATION.

(a) PURPOSE.

—The purpose of this section is to promote the use of the best available technology to enhance the effective and cost-efficient response to wildfires—

- (1) to meet applicable protection objectives; and
- (2) to increase the safety of—
 - (A) firefighters; and
 - (B) the public.

(f) SMOKE PROJECTIONS FROM ACTIVE WILDLAND FIRES.

—The Secretaries shall establish a program, to be known as the “Interagency Wildland Fire Air Quality Response Program”, under which the Secretary concerned

— (1) to the maximum extent practicable, shall assign 1 or more air resource advisors to a type 1 incident management team managing a Federal wildland fire; and

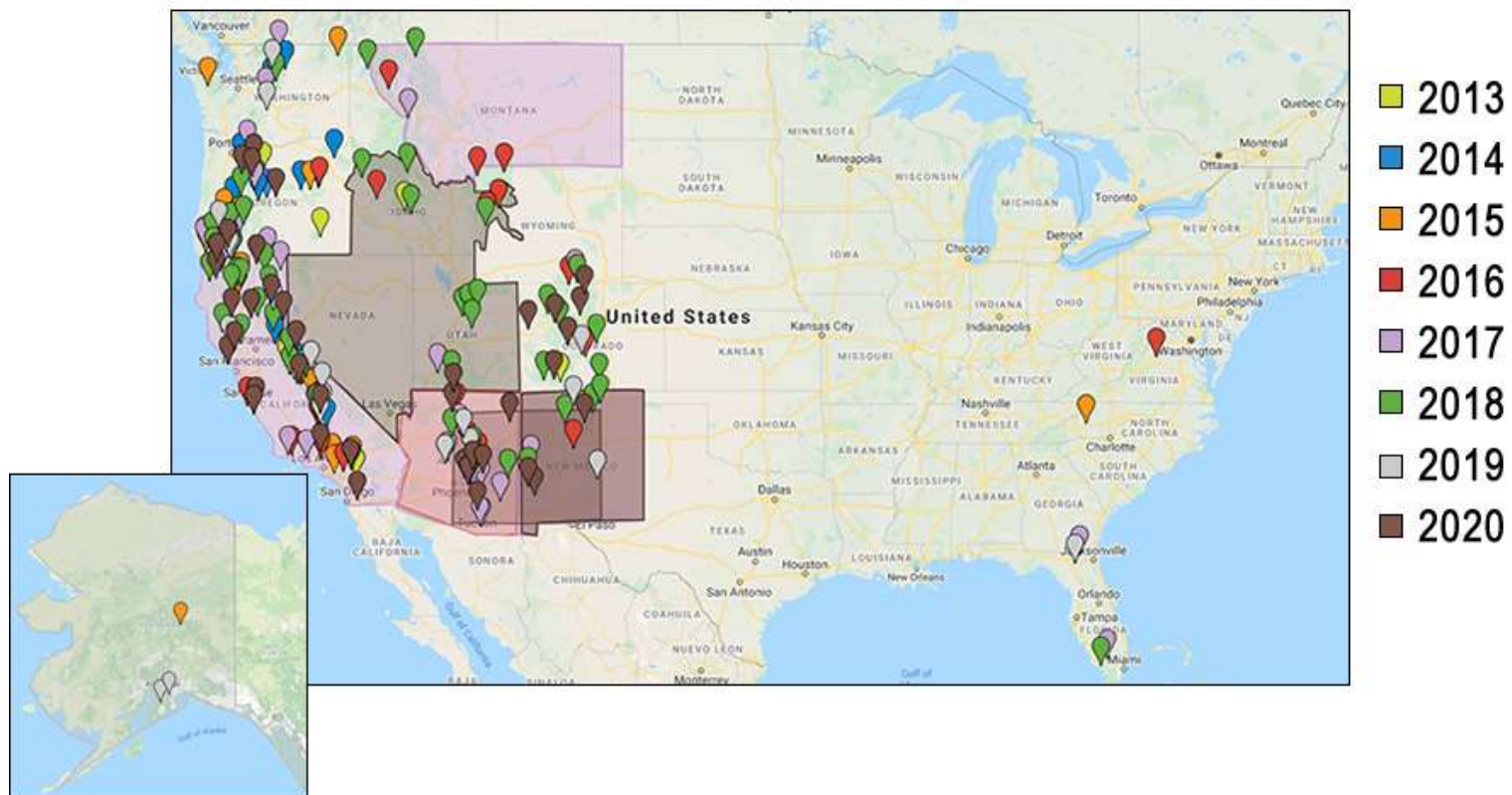
(2) may assign 1 or more air resource advisors to a type 2 incident management team managing a wildland fire.



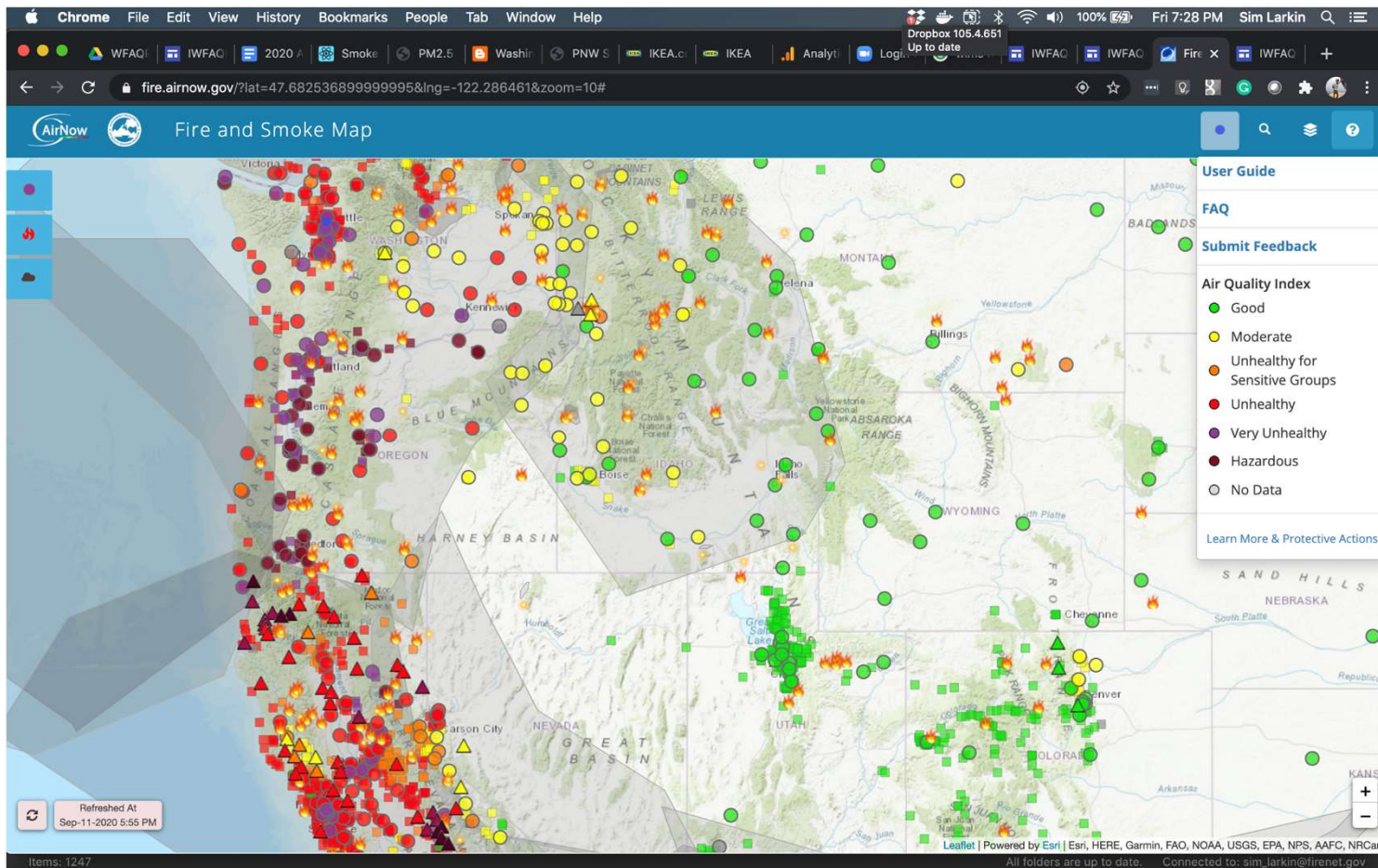
IWFAQRP: **DISPATCHES**



Annual ARA Deployments

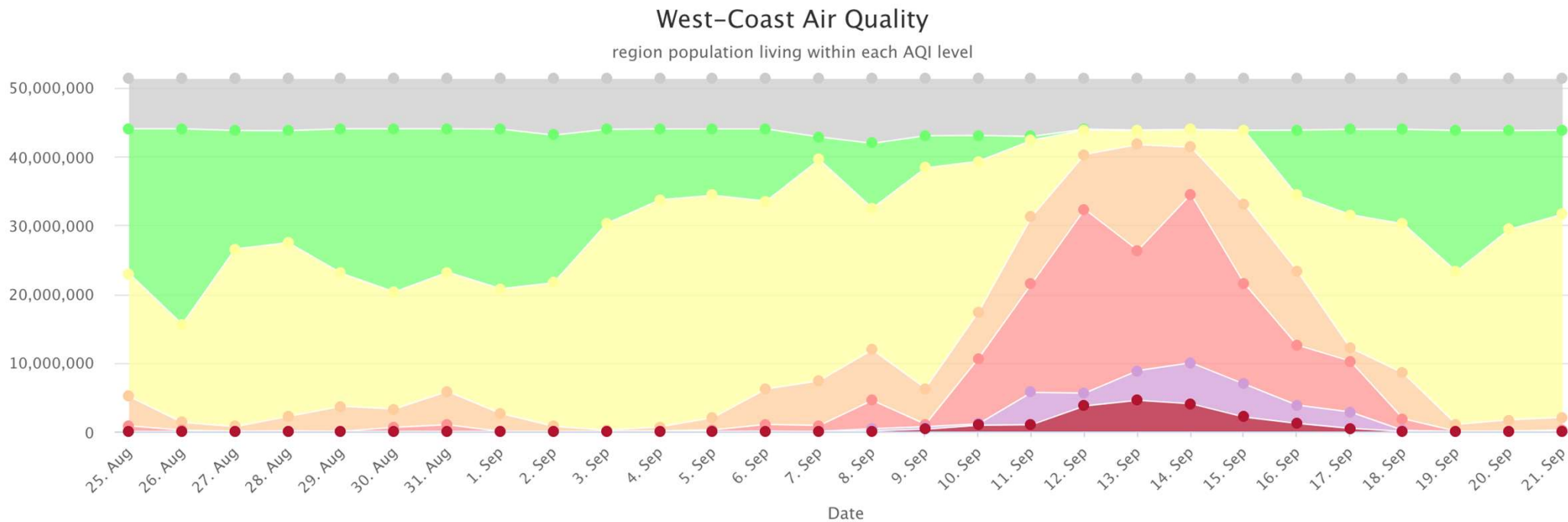


Continuing to build partnerships...EPA-USFS, CDC,
Wildland Fire Leadership Council,...



2020 Data from the IWFAQRP

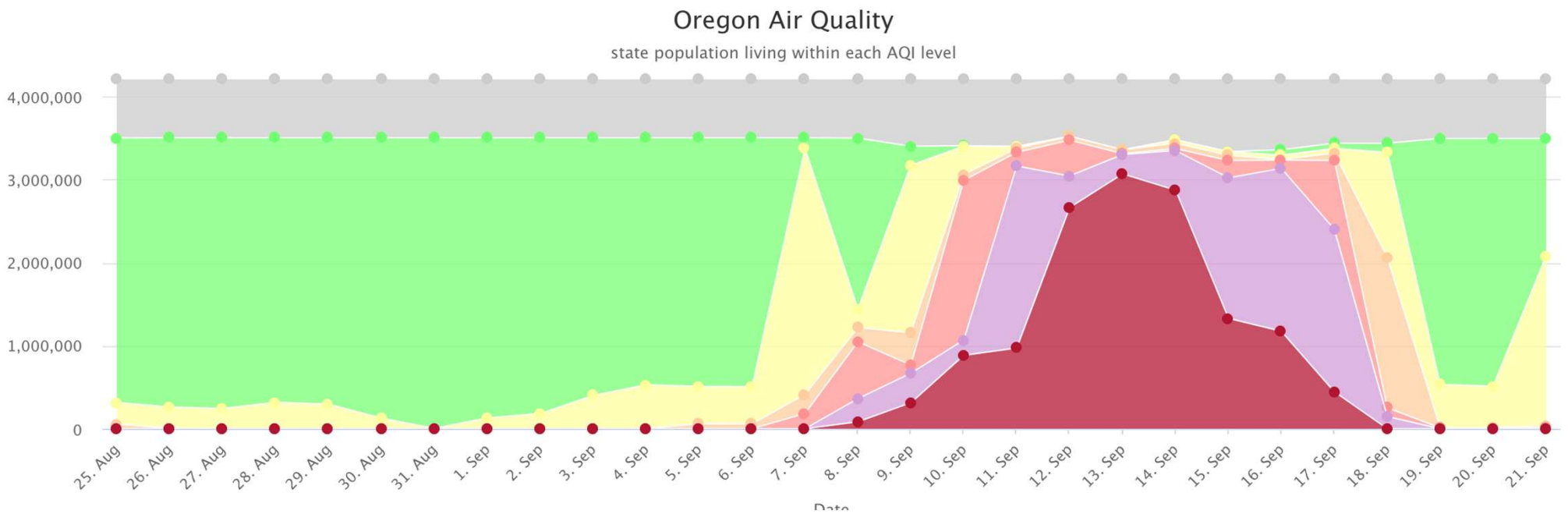
Population exposed to PM2.5 levels coded to EPA's AQI



Monitor within 50km of a permanent PM2.5 monitor

2020 Data from the IWFAQRP

Population exposed to PM2.5 levels coded to EPA's AQI



Monitor within 50km of a permanent PM2.5 monitor

Social Media and the internet is great but many get information by other means



BE SAFE BE SMOKE READY

WILDFIRE IS A NATURAL PART OF THIS LANDSCAPE. PROTECT YOURSELF AND YOUR FAMILY BY BECOMING SMOKE-ADAPTED BEFORE WILDFIRES AND SMOKE ARRIVE THIS SUMMER.

DIY GUIDES & RESOURCES:

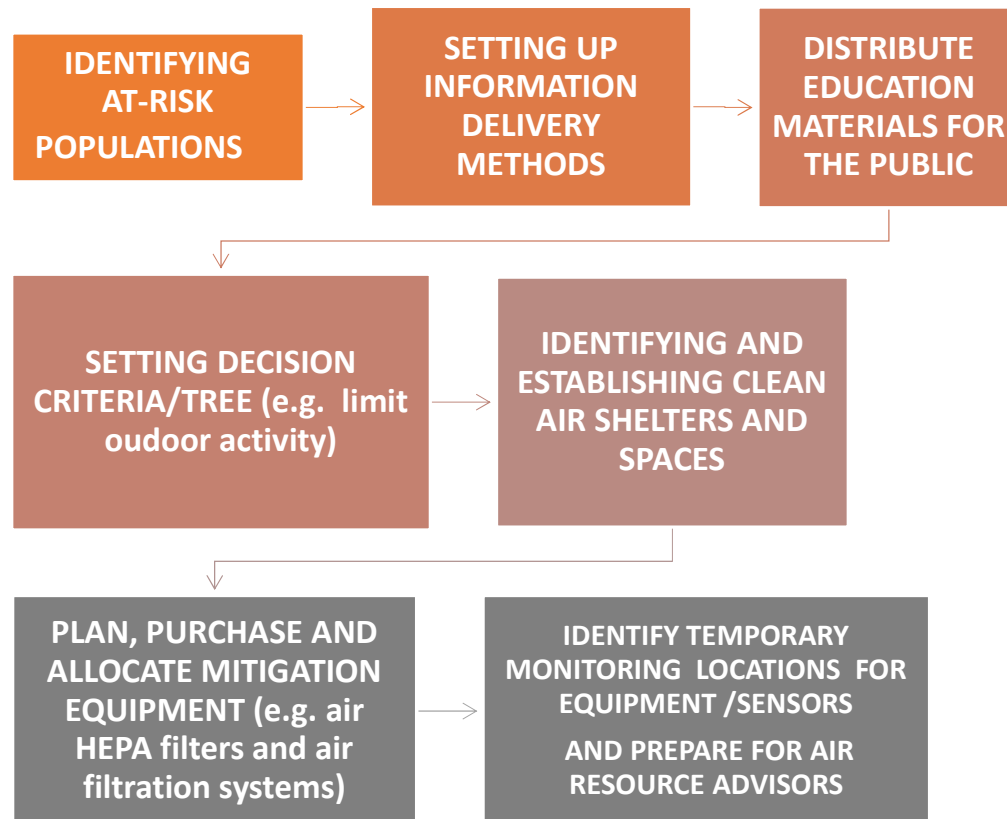
www.epa.gov/smoke-ready-toolbox-wildfires



Key Concepts in Becoming a Smoke Ready Community



Credit: SF Gate



Other considerations can include economics, type of community (retiree, tribal, other) and opportunities for NGO partners.



The United States is a fire environment. Smoke will be a part of our future.



The Challenge of being Smoke Ready:

Identifying those at-risk and insuring they are prepared to address the hazard of high levels of smoke (PM2.5).

- 1) Do those at-risk know? ((outdoor worker, healthy and young at the recent levels))
- 2) What is missing in the current information stream to be ready? Every person affected
- 3) Do we have a system for smoke preparation?
- 4) A Prescription for Preparation:
 - 1) Understand the smoke potential from wildfires, fire seasons and prescribed fire – Model, Display, Inform
 - 2) Local, state, regional, national and international scales
 - 3) Acknowledging PM2.5 impacts from wildfire smoke can especially cause mortality and increase hospitalization develop the role of medical insurance prevention response.
 - 4) Develop variable approaches to address risk levels of smoke exposure and the individual at risk
 - 5) Prescribe a solution from HVAC filter to medicine on hand to air filtration device and assistance if needed.



IWFAQRP – Models, Monitoring and Messaging Wildfire and Prescribed Fire Smoke

- **Incorporating Smoke into Fire Risk Planning and Assessment**
 - Fuels, fire activity, consumption, emissions, dispersion and transport
 - Not enough to know where a fire is, where will the smoke go...firefighter, public, air quality agency and health department all have an interest
 - Transportation risks of smoke are also serious.
- **Considering Smoke in Health Risk Planning and Preparation**
 - 2020 not over yet with Above Average Wildfire Potential in Southeast Predicted
→ What have we done as a community of practice to be ready for this???
- **2020 has provided a tremendous opportunity to learn from the challenges**
- **After Action Review – Capture the lessons**
- **Prepare and Train for the next Wildfire and Smoke Year**

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