

Wildland Fire Air Quality Response Program

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An Evolving Interagency Program

- One in three households has someone with respiratory issues: child with asthma, COPD, emphysema, etc. 26 million have asthma in US.
- Address sensitive groups at risk: people with asthma, older adults and those of low income. Science: pregnant women
- Public air quality warnings effective and at-risk public responds in kind
- **NO** particulate matter is healthy: Designations & SIPs
- Ozone EPA Science Analysis Effects 60ppb and below
- Medical costs: \$8 to \$80/day/person exposure to smoke
- Smoke impacts to public are longer at higher levels
- Wildfire Seasons longer and hotter
- US forests projected shift from carbon sink to source (USFS-RPA)
- Under the Clean Air Act, States obligated to respond and protect the public from high levels of air pollution
- Land managers know more of what the fire will do in terms of: fire spread, growth, intensity, burnouts, fuels, consumption, emissions, weather, duration,...
- Land managers using risk assessment to manage wildfires now.

Wildland Fire Air Quality Response Program

Focus for wildland fires through use of Air Resource Advisors:

- 1) Smoke impacts to public health and **safety**
- 2) Transportation safety (roads & aviation for public & personnel)
- 3) Fire personnel smoke exposure (on-fireline, ICP, Base Camp)



Methods – Monitoring, Modeling, Messaging

- **Monitoring** – Deployment, Interpretation and Dissemination
 - Cache of 20 E-SAMPLERs, 4 E-BAMs later
 - Satellite linkage, data available real-time online
- **Modeling** – Incident & regional forecasting of impacts
 - BlueSky (via US Forest Service AirFire Team)
 - Fine-scale (1 km) to national scale meteorology's – supplied by NWS, Univ of WA, Desert Research Institute

Monitoring, Modeling, Messaging

- **Messaging**

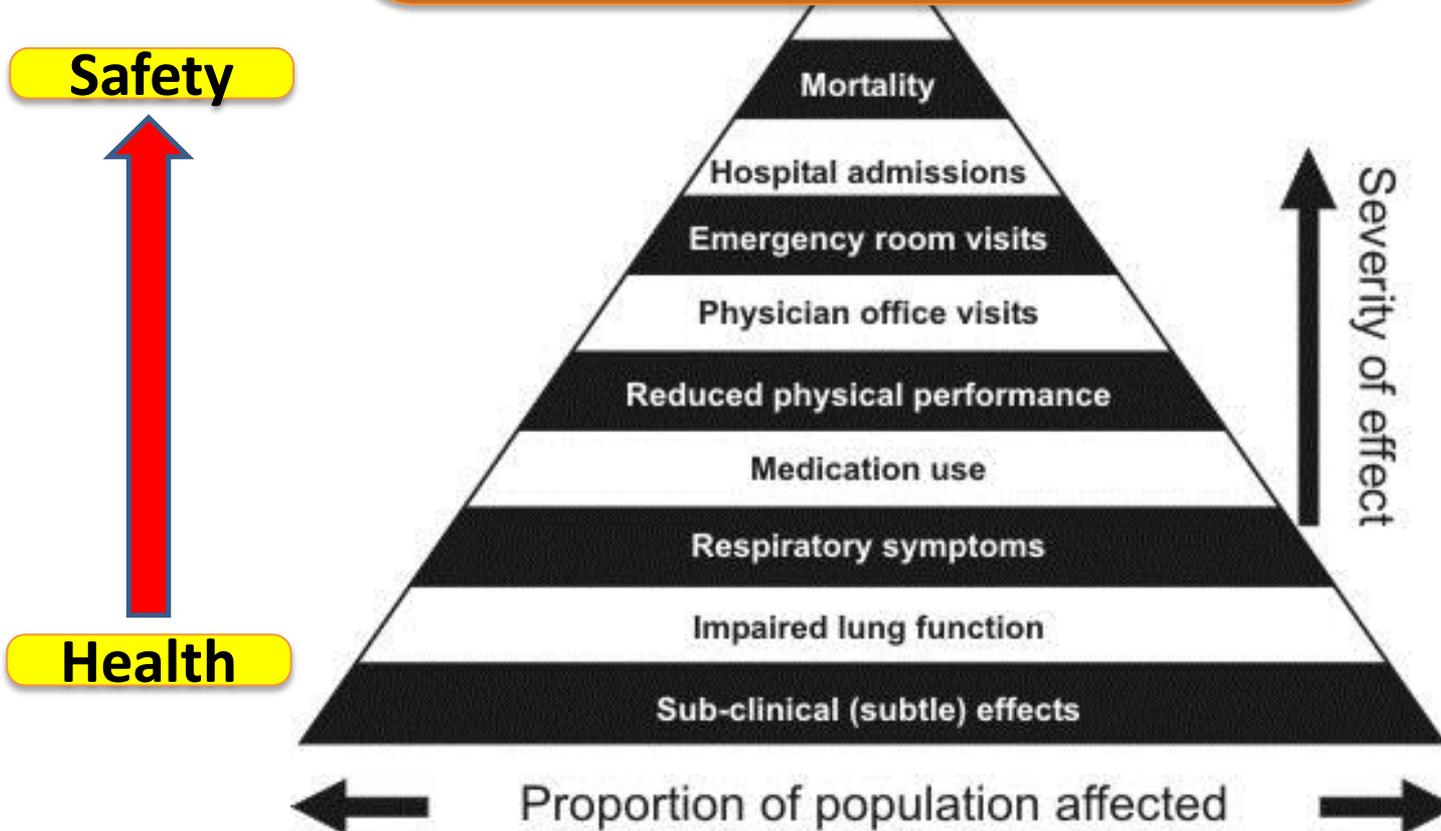
- Cohesive message (State Health & Air Quality Agencies, National Weather Service, blogs)
- Transportation Safety Alerts and Warnings
- Incident public meetings
- Cooperation with State Emergency Response Agencies
- Social Science research shows that people modify their behavior if they have information-social license

- **Stakeholder and Partner Collaboration**

- Planning & communication of fire strategy & tactics translated into smoke impacts and response
- State Emergency Response Plans for Wildfire Smoke
- EPA , CDC collaborative efforts



Transition from public health to public safety impacts



Interagency **Wildland Fire** Air Quality Response

● National Effort

- Cadre of Air Resource Advisors (THSP-ARA) Developed
- Two Training Sessions Held – Trainee Program
- Range of Skills not 310-1 position but FSM 5109.34
- FS, BLM, FWS, NPS, NRCS, Contractor, EPA, States
- Coordination/dispatch via FS Smoke Lead (IMET Model)
- Dispatches: 2011- handful, 2012-13, 2013-25
- Requests: IC, SOPL, SOF1, FS Regions,
- Assignments: Incident Level, State Level Program Efforts, Agency Admins. ,Area Command , GACC, Regional Wildfire Decision Support Centers



**Want to learn more:
IAWF/NWCG SmoC October 2013
International Smoke Symposium
– All Presentations on-line at IAWF through October**

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