

Prescribed Fire Data Needs Related to Air Quality and Health

What types of PF data are most relevant?

- ❑ Information on at-risk communities (vulnerable populations near burn sites)
- ❑ Forestry databases
- ❑ Contextual factors that impact emissions / exposure

Comparing health burdens of PF with wildfires

- ❑ Comparing baseline and peak concentrations
- ❑ Quantifying person-days of exposure
- ❑ Measuring smoke impacts on public health (tradeoffs between chronic, lower concentration, and mostly localized impact[prescribed fire] vs. acute, higher concentration, and widespread impact [wildfire])

What PF inputs are needed by AQ and health impact models?

$$\Delta H = H_0 * (1 - e^{-\beta \Delta x}) * Pop$$

ΔH = Health impacts associated with exposure;

H_0 = Baseline health rate;

β = Effect estimate coefficient obtained from C-R function;

Δx = Change in PM_{2.5} concentration;

Pop = Impacted population.

Examples of how PF data are used

- ❑ Not enough information from the health community
- ❑ Alerting communities and places at-risk

What are the major sources of uncertainty in estimating the impacts of PF on AQ and health

- ❑ PM is a marker for many toxic components in smoke – differential toxicity to constituents of smoke
- ❑ Information on public behavior before / during / after smoke episodes
- ❑ Contribution from other sources in areas impacted by smoke

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Tracking Network

A system of integrated health, exposure, and hazard information and data from a variety of sources, that is accessible through a public web portal for educational to policymaking purposes

A. Data Query Interface

STEP 1: SELECT YOUR CONTENT

- Air Quality
- Real-time Air Pollutant Levels
- Surface Smoke

STEP 2: SELECT GEOGRAPHY TYPE

- State By Grid

STEP 3: CHECK ONE GEOGRAPHY

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana

STEP 4: SELECT YEAR(S)

- All Time Period
- Current
- Next 12 hours

STEP 5: SELECT ADVANCED OPTIONS

- Housing Composition / Disability
- Minority Status / Language
- Housing / Transportation
- Socioeconomic Status
- Overall Social Vulnerability

Disclaimer Clear Selections GO

B. Map Visualization Window

