



PUBLIC HEALTH

**ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON**

Recent Forest Fires & Public Health Impacts

Washington State Board of Health
November 14, 2012

Judy Bardin, ScD, MS, BSN, Environmental Epidemiologist



PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON

Our Response Activities

- Activated our incident command structure
- Coordinated with local, state, and federal response agencies
- Provided technical support to local health on ambient air quality public health impacts
- Over 53,000 N95 respirator masks provided to local health
- Prepared and web-hosted frequently asked questions on smoke and health (English and Spanish)
- Provided indoor air quality technical assistance

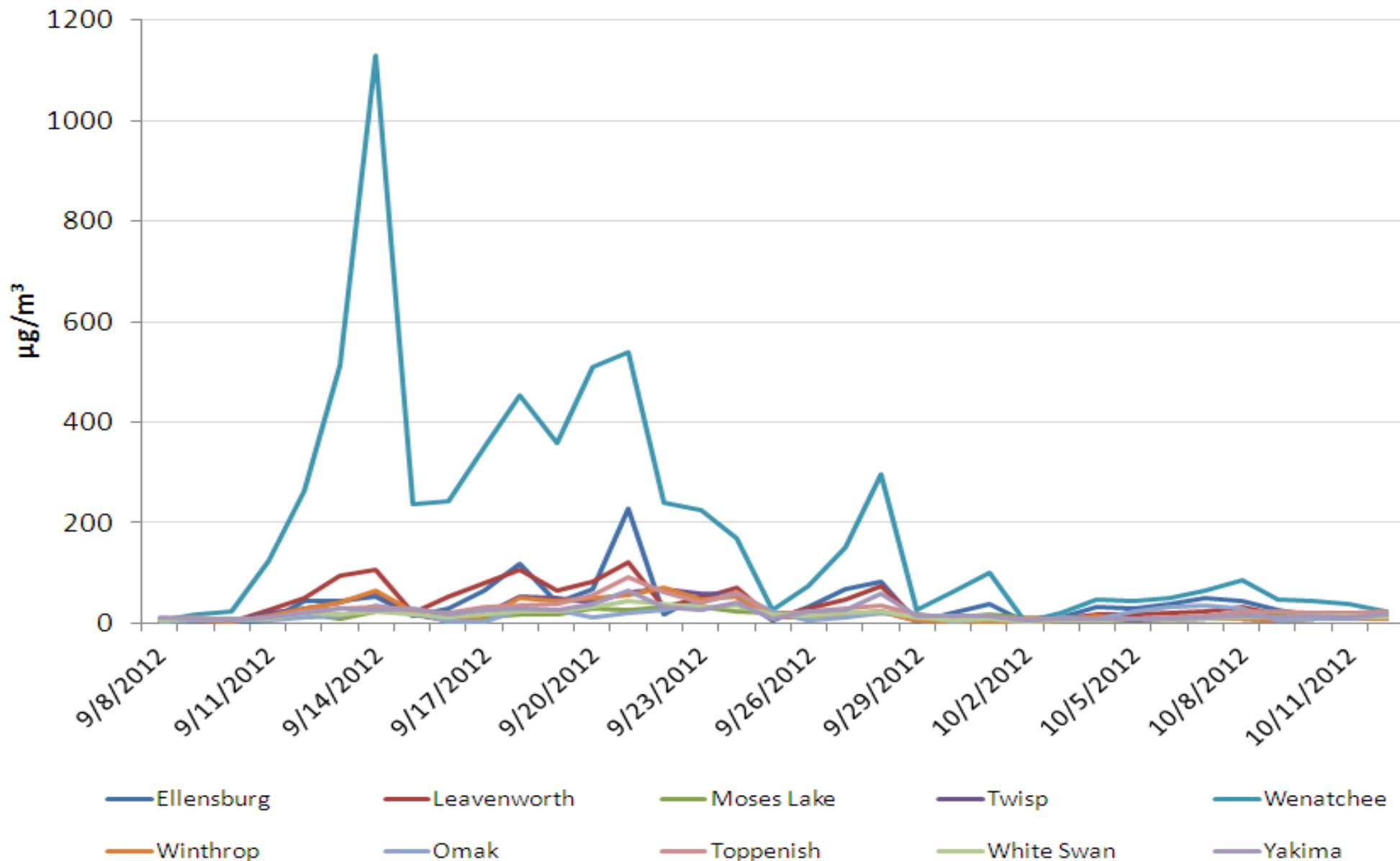
People Most Susceptible to Wildfire Smoke

- People with respiratory disease
- People with cardiovascular disease
- Diabetics
- Infants and children
- Older adults (65 and older)
- Pregnant women
- Smokers



Central Washington 24-hour PM_{2.5} Concentrations

*Unvalidated data



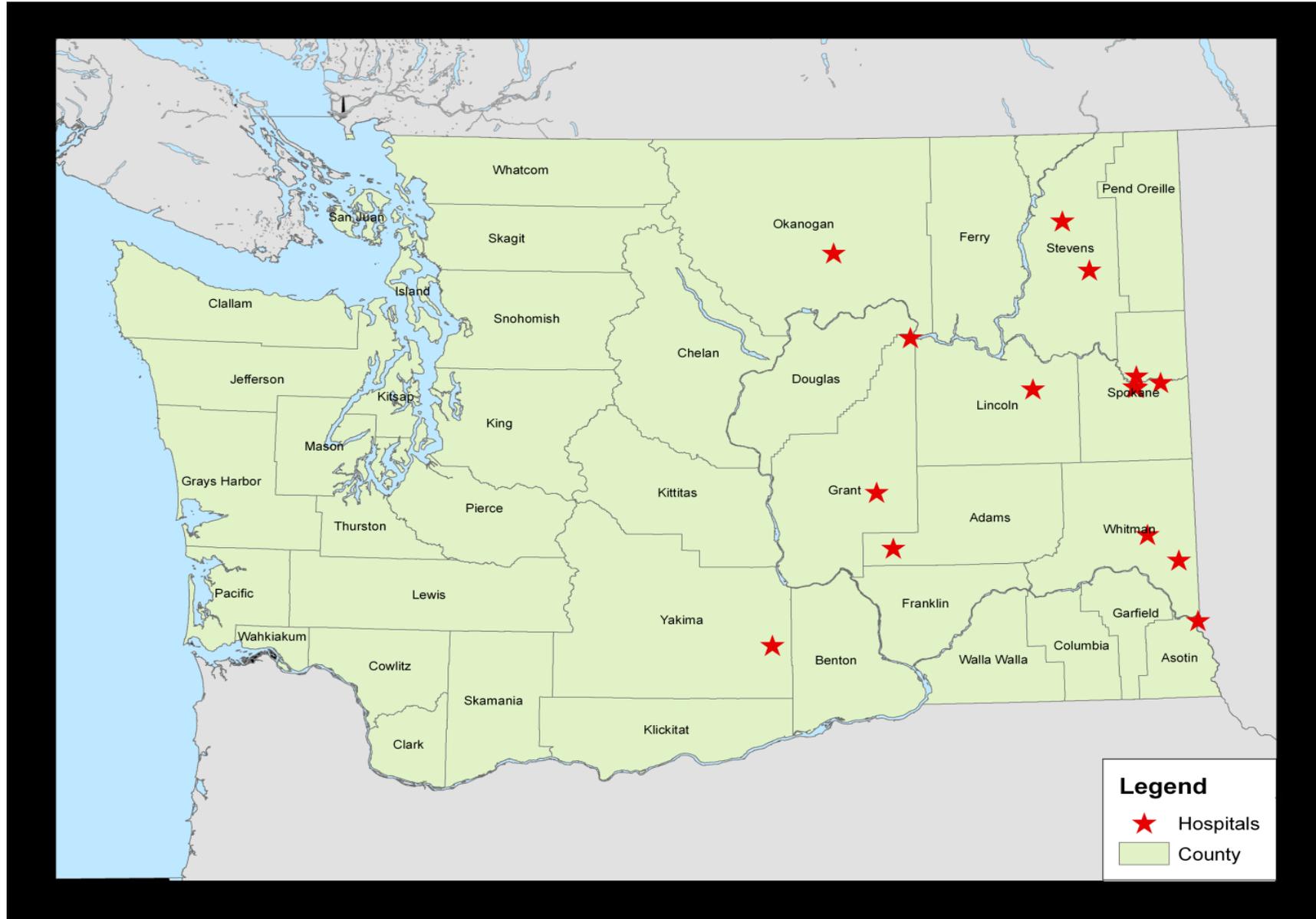
Data Sources

- Student Absenteeism Data Query System
 - During school year, 214 of the 295 school districts send counts of student absences to the agency daily
 - Maintained by Washington Tracking Network
- Emergency Departments
 - Our agency receives information on chief complaint for emergency department visits
 - 15 participating hospitals in Eastern Washington
 - Maintained by Communicable Disease Epidemiology

Student Absences in Four Counties

- 4 most heavily affected counties selected for analysis: Chelan, Douglas, Kittitas, and Okanogan
- Absence data from 9/11/12-10/25/12
 - Period of the wildfires plus two weeks
 - Compared to the same period in 2011
- 3,400 excess absences
 - Does not include 3 schools in the Cashmere School District closed for 3 days

Hospitals Supplying Emergency Department Data



Estimated Respiratory Health Effects in Eastern Washington

- Chief complaint - respiratory irritation
 - Difficulty breathing, wheezing, asthma, shortness of breath, and cough
- Wildfire exposure period (9/11/12-10/25/12)
 - Period of the wildfires plus two weeks
- 2011 period (9/11/11-10/25/11)
 - 59 average visits/day
- Wildfire exposure period
 - 67 average visits/day
 - 400 visit excess from 2011

PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER WASHINGTON