Wildfire smoke: Enhancing information exchange

Michael Brauer

School of Population and Public Health
THE UNIVERSITY OF BRITISH COLUMBIA
IHME Institute for Health Metrics and Evaluation

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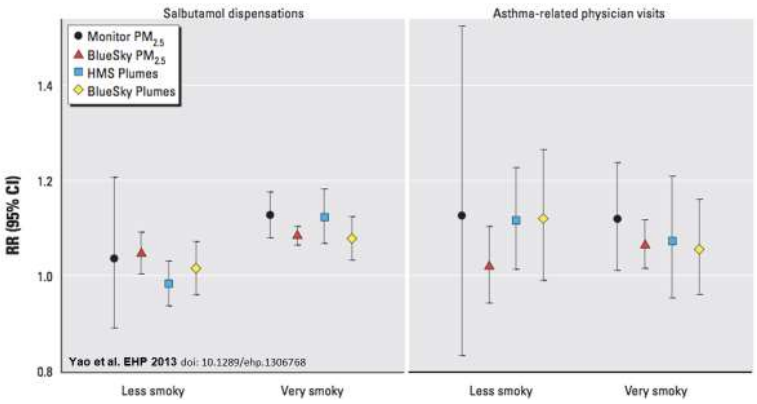
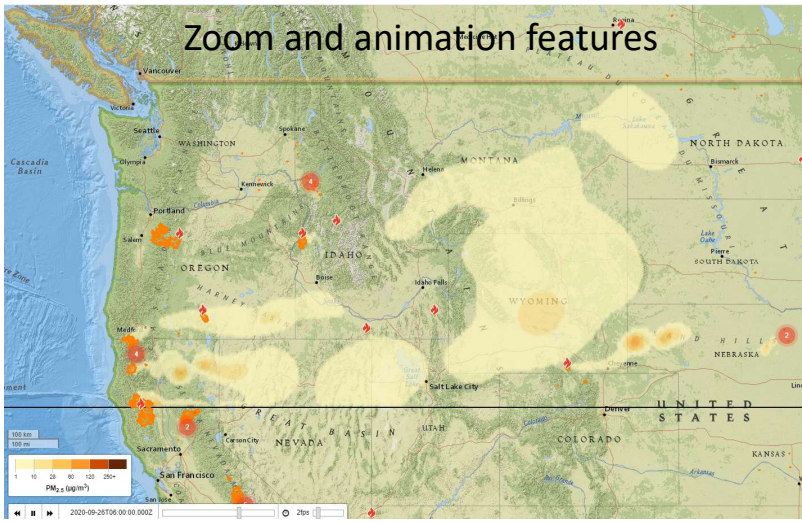
Smoke forecasts for health protection

- Temporal and spatial specificity > accuracy or complexity
- Integrate into existing weather tools - **Is smoke any less important than rain?**
- Extend current tools to 7-day smoke forecast

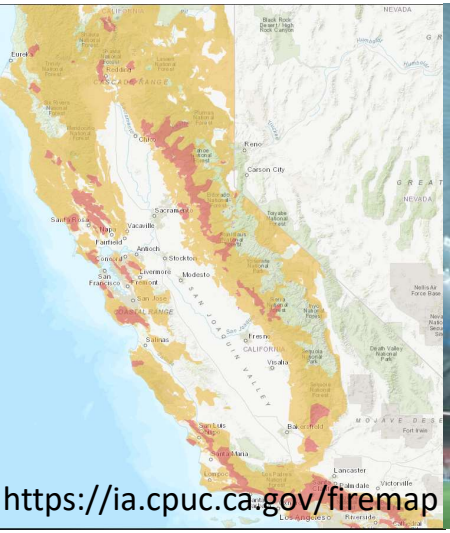
Effects of **forecasted** smoke consistent with effects of **observed** smoke for asthma outcomes





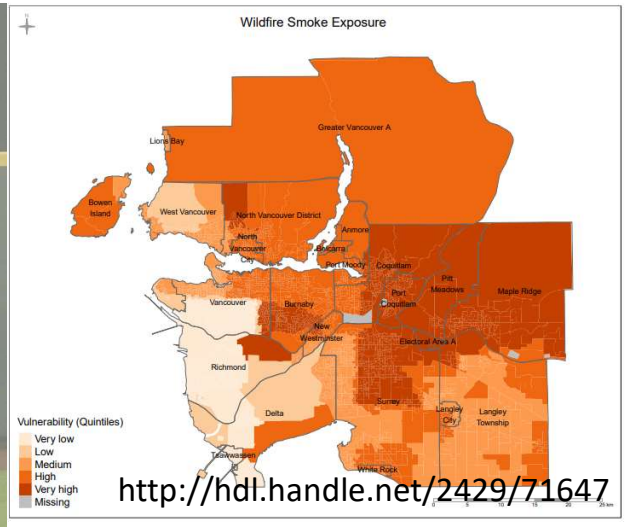
Tools for seasonal impacts and event planning

- Integrate (seasonal) fire hazard information & smoke forecasts
- Hazard maps: areas with high smoke probability
  - Smoke contingency plans for events in high hazard areas
  - Cumulative impacts in high hazard areas?


https://ia.cpuc.ca.gov/firemap


Jonathan Hayward/Canadian Press

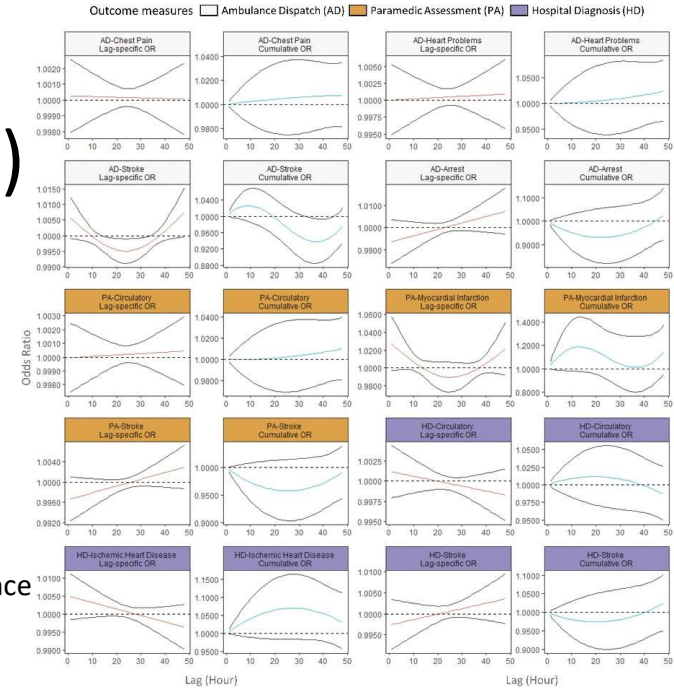
AP Photo/Ted S. Warren



http://hdl.handle.net/2429/71647

Visual/Perception vs air quality/exposure/risk

- AQI rolling average vs hourly pollutant measurements
- ~immediate health impacts
- Low-cost sensors indoors and outdoors (e.g schools, care facilities) in high risk areas
- Integrate into building systems (filtration)



Yao et al. 2020. Particulate Matter and Ambulance Dispatches during Wildfire Seasons: A Case-Crossover Study in British Columbia, Canada.

Other communications issues

- General public, healthcare providers, building managers, schools, etc.
- Co-exposures
  - Wildfire smoke + extreme heat
  - Wildfire smoke + COVID
- **Preparation** before onset of season
  - Medication and disease management
  - Filtration