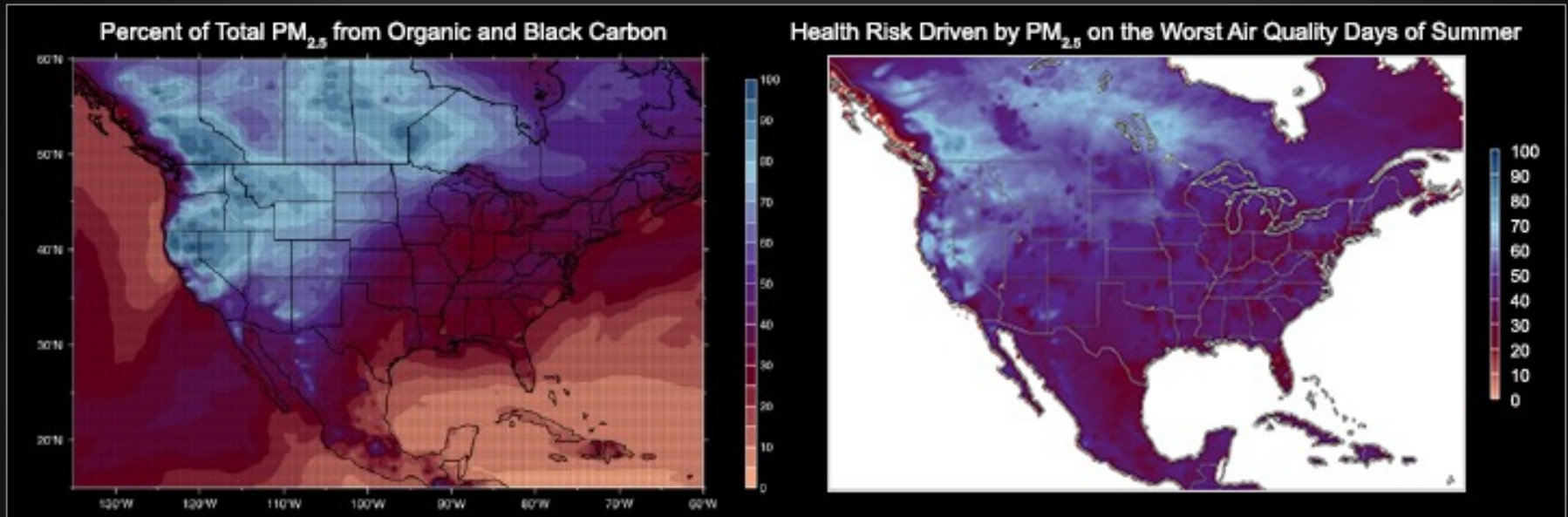


Health Impacts from Wildfires in 2021 Over North America



Growing air pollution hazards from wildfires: The spatial distribution of adverse health risks from wildfires in North America was evaluated for the [World Meteorological Organization \(WMO\) Air Quality and Climate Bulletin for 2022](#) using a multi-pollutant health-based air quality index designed to communicate children's respiratory risk (Gladson et al., 2022). For this analysis, historical estimates from the GMAO's GEOS-CF model for daily-average $PM_{2.5}$ and nitrogen dioxide (NO_2), and the maximum daily 8-hour average O_3 were run through this global index function to produce daily index values during June, July, and August of 2021. *Left image:* Wildfire smoke was likely the dominant source for GEOS-CF simulated $PM_{2.5}$ in summer 2021. *Right image:* Extreme $PM_{2.5}$ concentrations during summer of 2021, largely driven by wildland fire emissions, are associated with up to 90% of respiratory morbidity risk among children in parts of western and northern North America.