

Proactive communication with healthcare providers to support wildfire smoke response in Colorado

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Agenda

- Discuss wildfires as a public health hazard in Colorado.
- Review HANs as an important communication tool between public health and healthcare providers to support public health response.
- Describe progress, considerations, and questions in developing HAN content for wildfires, smoke, and health for Colorado.



Wildfires: a public health hazard



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Colorado wildfires are getting larger



East Troublesome Fire, Colorado, October 2020. Image source: [wamu.org](https://www.wamu.org)



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Colorado wildfires are getting larger (cont.)

The 20 largest wildfires have occurred in the last 24 years (since 2002).

Eleven of the top 20 largest wildfires have occurred in the last eight years (since 2018).

Four of the five largest wildfires have occurred in the last six years (since 2020).

Wildfire incidence has more than quintupled

Total Wildfires in Colorado per Year

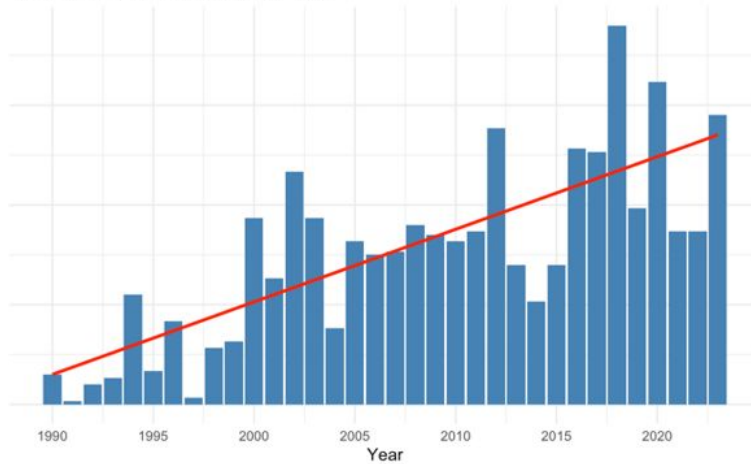


Figure 1: Number of Wildfires per Year

Total Acres Burned in Colorado per Year

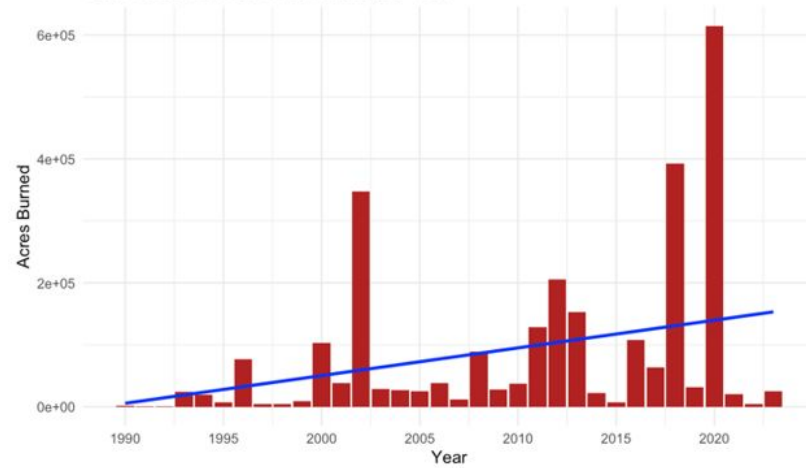
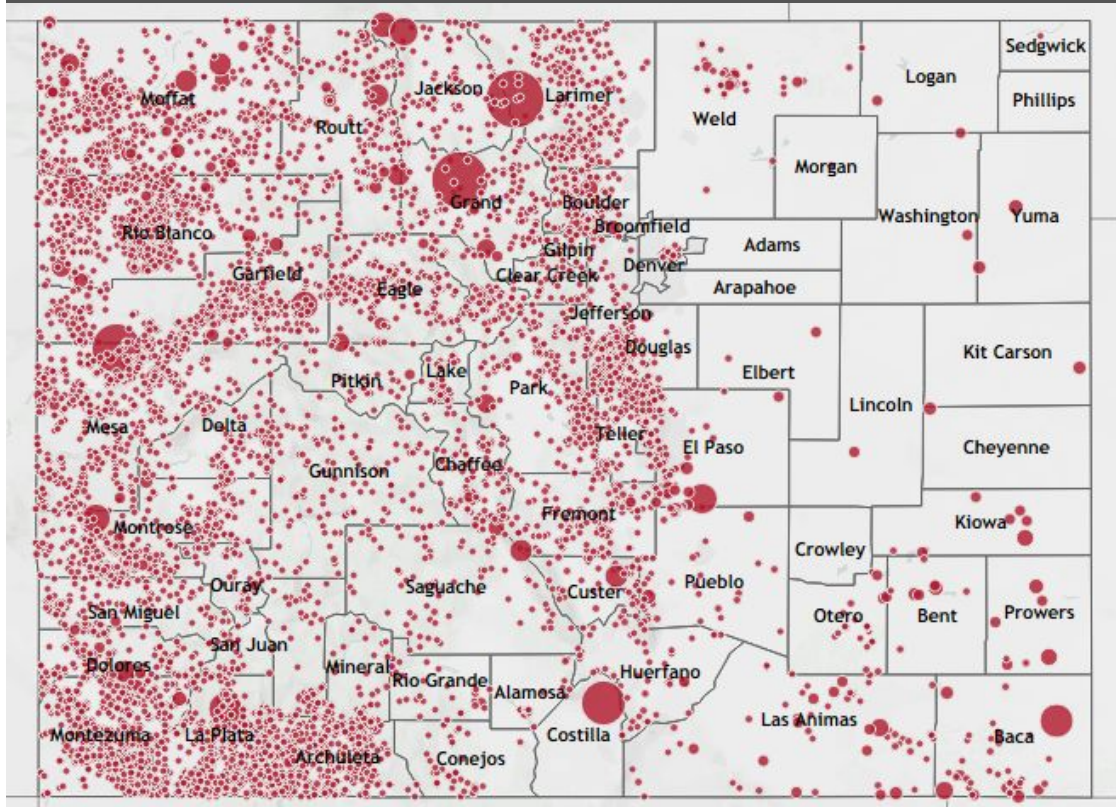


Figure 2: Total Burned Acreage per Year

- We see over five times as many wildfires each year as we did in the 1990s.
- The average acreage per fire has increased steadily over the decades.

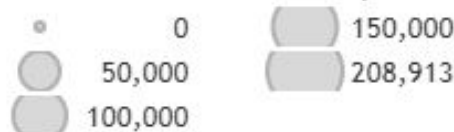
Where do we see wildfires?

Wildland fire incidents across Colorado counties, 2014-2023



- Wildfires in the Western Slope and Front Range
- Smoke impacts greater in eastern Colo.
 - [Burke et al \(2022\)](#): 2-6 more weeks of smoke-related poor AQ days than FR or WS

Wildland fire incident size (in acres)



[Colorado Tracking Climate Dashboard](#)

[National Interagency Fire Center](#)



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2025-2029 SHIP



- Colorado's State Health Improvement Plan sets priorities for public health for the next five years.
- Priority area for 2025-2029 SHIP: Climate Change Adaptation
 - Extreme heat
 - Wildfire smoke

Goal 2: Increase resilience and reduce health impacts related to wildfire smoke, using a data-informed health equity lens to focus on the most at-risk populations.



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HANs: supporting public health response



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Public health communication with providers



Educate



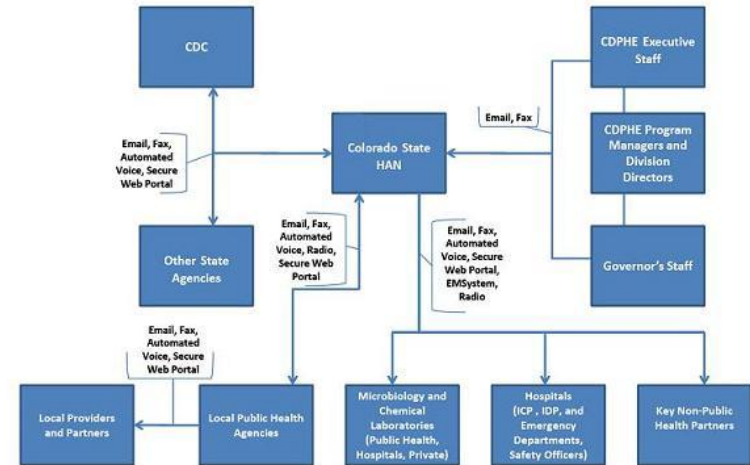
Prepare



Prevent

What is a HAN?

- The Colorado Health Alert Network (HAN) disseminates public health alerts and prevention guidelines to partners, providers, and key stakeholders.
 - Colorado now has the capability to send HANs directly to certain types of licensed healthcare providers who are registered through the Department of Regulatory Agencies (DORA).
- Historically, HANs have primarily been used to communicate about communicable disease (e.g., measles, Ebola, flu season).



HANs to communicate about climate hazards

- 2024: Colorado developed a Heat Action Plan to define state public health response to extreme heat, which includes:
 - HAN to mark the beginning of the heat season
 - HAN during critical statewide extreme heat events
- Useful for preparing providers for the heat season and acute events
- Use for other climate hazards beyond heat?

Health Advisory Alert | Preparing for extreme heat this weekend | July 11, 2024

Health care providers: Distribute widely in your office

This information is for the public health and health care community. Do not post this document on a public web or social media site.

Key points

- For the first time this heat season, all four National Weather Service (NWS) regions in Colorado will be in Heat Risk category red (major) for three consecutive days: July 12 - 14. In addition to extreme heat, smoke from fires across the western US could degrade [air quality](#) starting Thursday and into the upcoming weekend.
- This [heat](#) level affects **everyone** without effective cooling and/or adequate hydration. Fans and opening windows will not be effective to stay cool. According to [NWS](#), power interruptions may occur.

Example of 2024 heat HAN



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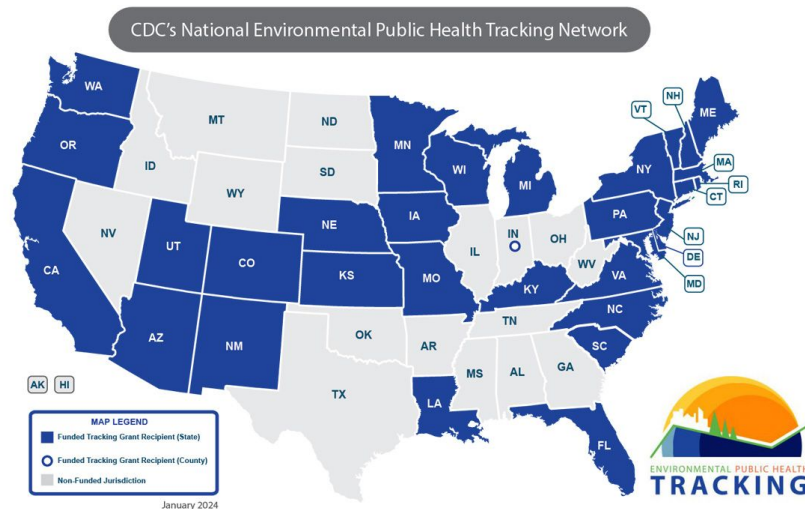
Wildfire smoke and health HAN



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A cross-jurisdictional need and effort

- Colorado is one of 33 funded recipients through the National Environmental Public Health Tracking.
- Jan. 2026: Extreme Weather PMO subgroup of states identified wildfire smoke as priority hazard and healthcare providers as priority audience.
 - Colo., Maine, Vt., Mass., Pa., N.M., Minn., N.J., Mich., Fla., N.Y.
- Jan.-April 2026: Tracking and Med Epi worked with subgroup to draft wildfire smoke and health HAN template



Key messages for providers

- Air quality (AQ)/smoke conditions and forecast in their area
 - Awareness and how to monitor
 - Counseling patients on how to monitor AQ conditions
- Who is affected by PM2.5
 - Sensitive groups
- Prepare for increased visits (urgent care, ED, hospital), particularly for certain conditions (asthma, COPD, metabolic and CVD exacerbations)
 - Staffing upsurge
 - Specialist capabilities (e.g., respiratory therapists, equipment, stock of meds)
 - Consider burn patient transfer
- Proactive patient counseling
 - All → strategies to reduce smoke exposure
 - High-risk patients → monitor symptoms, discuss potential adjustment of medication regimens and refills
 - Create wildfire and heat action plans.



Challenges and considerations

- What should trigger the issuance of a HAN?
 - Alert fatigue → 1-2 per year
 - AirNow forecast “Unhealthy,” “Very Unhealthy,” other tool?
- Regional vs. statewide?
 - How often does smoke affect a majority of counties vs. concentrated regional impacts?
- Before or during smoke event?
 - Smoke forecasting is not as generous as other weather forecasting (e.g., heat)
 - Very quick turnaround (24 hours max)



Next steps

- Gather data to understand locality of wildfire smoke events.
 - Inform protocol for local vs. statewide HAN issuance.
- Work with partners in meteorology, air quality, and public health response to identify the most appropriate:
 - Tool for forecasting
 - Threshold for issuance
- Work with healthcare systems to build in wildfire-specific discharge paperwork.



Acknowledgements

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Thank you!

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