



Protecting Kids from Wildfire Smoke: Actions for California Schools

As smoke and wildfire seasons intensify, schools must take urgent action to protect kids' health. Improvements in indoor air quality and readiness planning are also critical for COVID-19 – and ongoing climate challenges.

Why take action?

Wildfire smoke contains fine, inhalable particles called PM2.5, as well as dangerous levels of heavy metals and other toxins. It may be as much as 10 times more dangerous for kids than other forms of air pollution.

Wildfire smoke can increase emergency room visits for asthma and upper respiratory infections in kids. It can also reduce immune function, lead to cardiovascular and lung diseases later in life, and create long-term cancer risks.

Since air pollution levels are also associated with reduced school performance, improving schools' air quality doesn't just help protect kids' health – it also safeguards their learning. Better air quality infrastructure can also help protect against COVID-19 and other illnesses.

Don't just close.

When schools close due to wildfire smoke, kids – especially from lower-income communities and communities of color – are set back. Kids could be left without access to learning resources, meals, or school support services. Schools, particularly those with improved filtration, may also have better air quality than many homes.

Learning loss and lost school days are a growing problem in California – and can affect kids' health and wellbeing throughout the rest of their lives.

In the face of intensifying wildfires, as well as future pandemics and the growing health impacts of climate change, schools need to help protect kids – including the most vulnerable among them.

What can schools do?

KNOW YOUR INDOOR AIR QUALITY



Monitoring indoor air quality is an important way to tailor interventions and keep kids safe. Ideally, this should also be done at home. More information: bit.ly/3wyg3tP

IMPROVE HVAC SYSTEMS



Installing, improving, and maintaining HVAC systems is critical for mitigating exposure to smoke – as well as other emerging challenges, like disease-spreading pathogens and heat. Use MERV13+ filters or highest possible filter compatible with system. More information: bit.ly/3Czx7SS

GET AIR PURIFIERS



Where HVAC installation isn't an option or additional filtration is needed, classrooms should get portable mechanical air cleaners. Avoid purchasing purifiers that have ionizers, as they can create ozone. More information on devices certified for sale in CA: bit.ly/37zwrhU

CREATE CLEAN AIR ROOMS



Schools should consider creating large clean air rooms, such as cafeterias, gyms, or auditoriums – which can also serve as clean air shelters for community members outside of school hours. Ideally, ALL classrooms should be clean air rooms to keep kids safe. More information: bit.ly/3ykggRt

CONDUCT A BASELINE ASSESSMENT



Conducting a baseline assessment of infrastructure and vulnerabilities, such as a hazard mitigation plan, is important for disaster preparedness and can open up additional funding. More information: bit.ly/3CM0RLH

FOLLOW ACTIVITY GUIDELINES



Work with local health and air quality officials to understand how to best implement school activity guidelines and other responses to a smoke event. More information: bit.ly/3fRyXof

HAVE KIDS WEAR MASKS



When there is smoke outside, the best place to be is an indoor space with good air quality. If outdoors for brief periods, consider having kids wear NIOSH-certified N95 masks, especially if kids are coughing or have underlying health concerns. More information: bit.ly/3lThLCP

There is no safe level of air pollution. Every year, about 7.4 million kids across the United States are affected by one of its most dangerous forms: wildfire smoke. A large proportion of these kids are in California.

Funding opportunities:

CaISHAPE

CaISHAPE funds can be used to repair and improve HVAC systems that simultaneously improve energy efficiency. Deadline for ventilation program: Jan 31, 2022. Learn more: bit.ly/2ZlZn3

ESSER II + III

Improving air quality is a win-win for COVID-19 and wildfire smoke. ESSER II and III funds can be directed towards air quality infrastructure. Deadline: Dec 17, 2021. Learn more: bit.ly/3xB4Vv2, bit.ly/3i28o0C

SEP

CARB's Supplemental Environmental Projects (SEP) provide funding to selected projects from environmental violations settlements. As part of a longer-term funding strategy, schools can apply here: bit.ly/3u50nx0

AB 836

CARB's Wildfire Smoke Clean Air Centers grant is operated by local air quality management districts (AQMDs). Schools should contact their AQMD to learn more. More information: bit.ly/3oge2i8

MORE OPPORTUNITIES

Sign on to this mailing list to stay posted on additional funding opportunities: bit.ly/3lewbgr

Additional resources:

Information on protecting kids' health in wildfires from WSPHUSU: bit.ly/3ENkEvj

Information on school ventilation and filtration from UC Davis: bit.ly/3iAu7gS

Information from CARB on staying safe in wildfires, including resources on masks and air filters: bit.ly/3s3dVbi

Wildfire preparedness for K-12 schools from REMS: bit.ly/3yCpGla

Fire and smoke map and other key resources: airnow.gov/fires

Ready.gov information on wildfires: ready.gov/wildfires

EPA information on indoor air quality: bit.ly/37lyKPK

ALA toolkit on clean air at school: bit.ly/2VLwepT

ALA considerations for asthma: bit.ly/3scuFwQ

Resource on the impacts of wildfires on minorities from The Nature Conservancy: bit.ly/3ijdu2M

Resources from the California Department of Education's Emergency Services Team: bit.ly/3iRnTtn

Climate leadership:

Parents and guardians can work with school boards to advance wildfire and climate readiness. Actions include: navigating funding applications for infrastructure improvements, passing climate resolutions that commit districts to climate resilience and sustainability planning, and joining or creating district climate action committees.

In addition to engaging parents and guardians in climate leadership, schools can also pass Climate Action Resolutions, which can include commitments to developing climate curriculum, implementing sustainability practices, and developing multi-stakeholder crisis committees.

Explore resources compiled by Schools for Climate Action: bit.ly/3Hgl8vV

THIS RESOURCE WAS PRODUCED
IN A PARTNERSHIP BETWEEN:



STANFORD
CENTER FOR INNOVATION IN
GLOBAL
HEALTH



Stanford
MEDICINE

Sean N. Parker Center
for Allergy & Asthma Research



Sonoma County
Office of Education



This fact sheet was produced by the Action Lab for Planetary Health at the Stanford Center for Innovation in Global Health and highlights research conducted at the Stanford Sean N. Parker Center for Allergy & Asthma Research.

In addition to the above partners, this fact sheet was also supported by the American Academy of Pediatrics (AAP) and funded (in part) by a cooperative agreement with the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR). The U.S. Environmental Protection Agency (EPA) supports the PEHSUs by providing partial funding to CDC/ATSDR through an Inter-Agency Agreement. The findings and conclusions presented have not been formally disseminated by CDC/ATSDR or EPA and should not be construed to represent any agency determination or policy. Use of trade names that may be mentioned is for identification only and does not imply endorsement by the CDC/ATSDR or EPA.