



MACP Updates

September 2022

Air Quality & Wildfire Smoke

Wildfire Smoke & Employee Health



Employers should be aware that wildfire smoke may adversely affect the health of their workforce and prepare to take action to limit their workers' exposures when wildfire smoke is impacting a work environment.

Check PM2.5

Today's Air
Check PM2.5 levels at today'sair.mtdeq.us or by using a well-placed ambient air quality monitor designed for public use.

Reduce Exposure

Implement engineering controls, when feasible, to reduce employee exposure to PM2.5. Examples include providing enclosed structures or vehicles for employees to work in or take a break in where the air is filtered.

Respirators

Consider supplying N95/P100 masks or respirators for employee use on a voluntary basis when ambient PM2.5 levels are elevated due to wildfires and other comprehensive environmental controls have been implemented. Information on the voluntary use of respirators is available on the OSHA website. If respirator use is required, the employer must institute a comprehensive [respiratory protection program](#).

For more information on how to protect your health during poor air quality conditions, visit dphhs.mt.gov/airquality.

Communication

Implement a system for communicating about the health risks of wildfire smoke exposure in a manner understandable by all employees. Create a supportive environment for employees to express health concerns.

Workplace Controls

Implement changes to work procedures or schedules when practical. Examples include changing work schedules or the location where employees work, reducing levels of strenuous physical activity, and taking frequent breaks when air quality is poor.

Hydration

Wildfire smoke can contribute to the effects of heat stress. Provide cool drinking water on the work site and encourage frequent rest breaks on hot days. Remind your workers to drink a glass of water at least every 15 to 20 minutes even if they aren't feeling thirsty.

Commercial Building Smoke Readiness Plan

Designers, building operators, and citizens, we need to protect ourselves from the harmful effects of wildfire which is becoming a more frequent and imposing issue. There are solutions available, but they need to be designed to each facility.

10 Elements of a Smoke Readiness Plan

1. Assess smoke preparation supplies such as portable air cleaners and extra filters.
2. Hire an HVAC professional before the wildfire season to evaluate whether the system can accommodate a higher efficiency filter, like MERV 13 or higher.
3. Schedule a full annual maintenance check of the HVAC system and make repairs if needed.
4. Maintain adequate air flows to protect occupant health during smoke events. Operate HVAC in recirculate mode or temporarily reduce the amount of outdoor air supplied to the building.
5. Add supplemental filtration at the intake air vent where possible.
6. Measure filter pressure drop by adding a port or pressure gauge to measure the filter pressure drop on at least one unit.
7. Limit smoke intrusion. Consider measures such as limiting allowable entrances to the building (e.g., keeping loading dock and bay doors closed when not in actively in use).
8. Monitor for fine particulate matter (PM2.5) by purchasing one or more low-cost air sensors. Low-cost sensors can show trends in PM2.5 levels.
9. Create temporary cleaner air spaces within the building.
10. Avoid PM2.5 such as cooking, vacuum cleaning, use of printers or copiers and smoking.

Checklist for Protecting Commercial Buildings During Wildfire Events





Epidemiologist Report

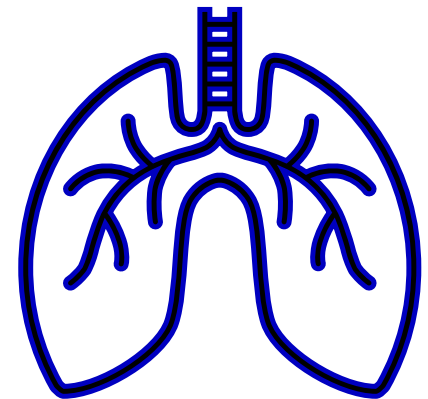
Mary Duthie
Epidemiologist/Evaluator
Asthma Control Program
9/8/2022

Outline

- Asthma-COPD Overlap Syndrome
- iPHARM Evaluation
- Asthma Emergency Department Visits and Hospitalizations, 2021

Asthma-COPD Overlap Syndrome (ACOS)

- ACOS: symptoms of both asthma and COPD
 - Symptoms: difficulty breathing, wheezing, coughing, chest tightness, extra mucus, tiredness, and shortness of breath
 - Diagnosis: medical history check, physical exams, chest x-rays, and/or CT scans
 - Exact diagnosis guidelines have not been established
- Data: Montana Medicaid members with COPD and asthma in the past two years



Continued...

Claims		
	N	Percent
Total COPD Claims	245,423	100%
ACOS Claims	40,203	16%
COPD Alone Claims	205,220	84%
Members		
Total Individual Members	3,908	100%
Members with ACOS	804	21%
Members with COPD Alone	3,104	79%
Visits		
Total Number of Visits	48,948	100%
ACOS Visits	7,884	16%
COPD Alone Visits	41,064	84%

- 250,000 COPD claims in 2019 for 4,000 members
- One in five (21%) had ACOS
- More members with ACOS (27%) were under 50 than COPD alone (8%)
- Acute exacerbation was greater in those with ACOS (22%) than those with COPD alone (15%)

Continued...

- Four of the five most common secondary diagnosis codes were related to respiratory conditions
- Minimal difference in charges of ACOS claims and COPD claims
 - Possible longer disease burden

ACOS			
	Min	Max	Median
Charge Amount	\$0.25	\$30,927.00	\$60.00
Allowable Amount	\$0.00	\$7,587.00	\$26.94
COPD Alone			
	Min	Max	Median
Charge Amount	\$0.00	\$18,951.68	\$54.00
Allowable Amount	\$0.00	\$8,857.76	\$24.00
Difference Between ACOS and COPD Alone			
	Min	Max	Median
Charge Amount	\$0.25	\$11,975.32	\$6.00
Allowable Amount	\$0.00	(\$1,270.76)	\$2.94

iPHARM Evaluation

- iPHARM: mobile pharmacy for residents in rural Montana
 - Expanded in 2018 and 2019 for chronic conditions
- Asthma procedures: ACT, education, inhaler technique, ED history, medication reconciliation, FEV and FCV
- Referrals
- No identifiable data retained
- Evaluation encompassed 2020 – Health fairs were not widely done



Continued...

- 26 asthma patients seen in 2 years
 - Most (25) did not have asthma measures taken – including ACT score
- Most of the patients were white, elderly women
 - 88% female, 50% white, 54% 60 years and older
- 46% of patients had a provider referral
 - No MAP referrals
- 5 out of 8 counties patients were from were classified as Noncore
 - Other locations: Rocky Boy and two Micropolitan counties

Continued...

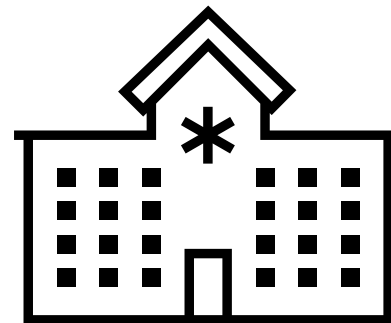
- What do patients request?
 - Education. Should they take medication daily if there's no symptoms?
- Strengths
 - Number of certified asthma educators
- Weaknesses
 - Covid-19 pandemic, patients refusing the ACT, patient information is not retained
- More participation needed
 - Motivational interview techniques, increase recruitment, continue rural location

ED/Hospitalizations

- 1,657 ED visits and 220 hospitalizations
- September and October had the highest numbers
 - Well-documented “September Spike”
- ED visits also had a large number in July
 - Air quality?
- Children
 - 40% hospitalizations
 - 25% ED visits
- Average cost of both ED and hospitalizations continue to rise
 - \$2,200 and \$11,200

Continued...

- Both ED and hospitalizations are a bit lower
- Monthly distribution of ED visits and hospitalizations different each year
 - September and October had the highest number most years
- Children normal
 - Lower in 2020 for both
- Overall, despite the lower number, visits are more like 2017 – 2019 than 2020



Questions?



New Today's Air Website



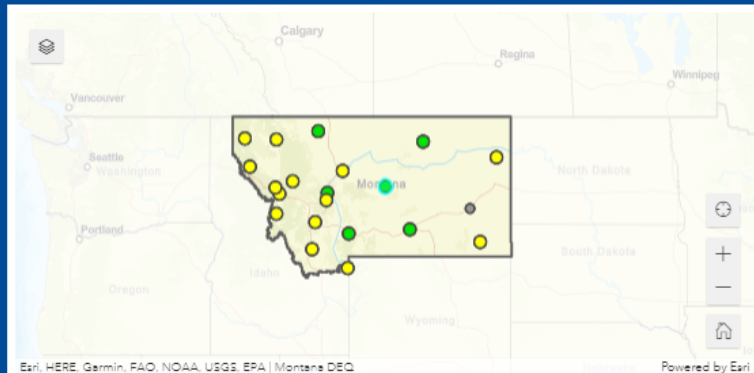
Air Quality Health Effect Category

Good

AQI: 40

LEWISTOWN STATION

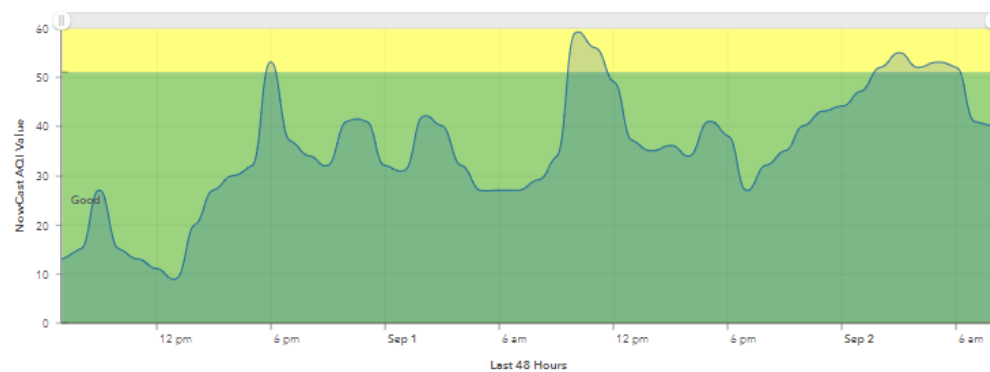
As of Sep 2, 2022 @ 8:00 AM



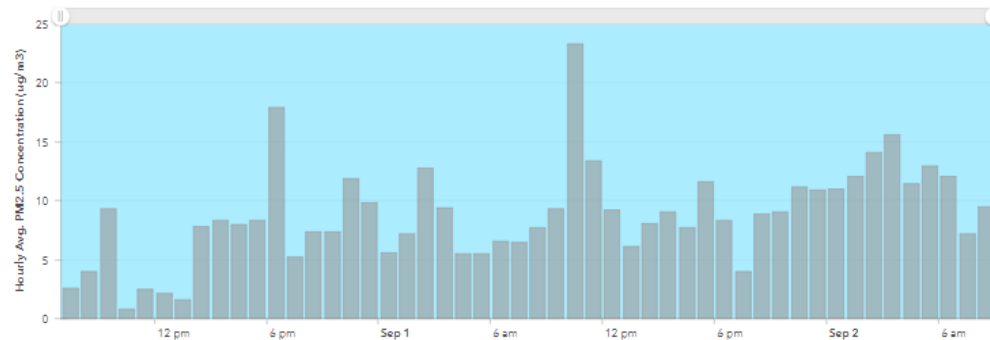
Ezri, HERE, Garmin, FAO, NOAA, USGS, EPA | Montana DEQ

Powered by Ezri

Air Quality Health Effects Trend



Particulate Matter Concentration Trend



Levels of Concern	Values of Index	Description of Air Quality
Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Hazardous	301 and higher	Health warning of emergency conditions; everyone is more likely to be affected.

More information about air quality in Montana:

- What Should I Do? - Activity Guide for Particle Pollution
- Outdoor Activity Guidance for Schools
- Montana Smoke Forecasts
- Montana Wildland Fire Map
- Wildfire Smoke and Your Health

Updated Outdoor Air Quality & Activity Guidelines

Outdoor Activity Guidelines Based on Air Quality

Health Effect Category	Good	Moderate	Unhealthy for sensitive groups*	Unhealthy	Very Unhealthy/ Hazardous
Visibility (miles)	13+	9-13	5-9	2-5	Less than 2
Air Quality Index (AQI)	0-50	51 - 100	101 - 150	151 - 200	201 +
Outdoor Activity (15 - 30 minutes)	No limitations	No limitations	Sensitive groups should remain indoors as much as possible. If outdoors, limit vigorous activity.	Everyone should remain indoors as much as possible. Keep indoor activity levels light to moderate. If outdoors, keep activity levels light.	Everyone should remain indoors as much as possible. Keep indoor activity levels light.
Outdoor Activity (1 hour)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Sensitive groups should remain indoors as much as possible. If outdoors, keep activities light to moderate.	Everyone should remain indoors as much as possible. Find alternative indoor activities in an environment with good air quality. Keep indoor activity levels light.	Everyone should remain indoors as much as possible. Find alternative indoor activities in an environment with good air quality. Keep indoor activity levels light.
Outdoor Activity (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Sensitive groups should remain indoors as much as possible. If outdoors, sensitive groups should keep activities light and avoid activities over 2 hours. Consider moving practices and events indoors. If events are not cancelled, increase rest periods to allow for lower breathing rates.	Everyone should remain indoors as much as possible. Reschedule events or relocate to an area with good air quality. Keep indoor activity levels light.	Everyone should remain indoors as much as possible. Reschedule events or relocate to an area with good air quality. Keep indoor activity levels light.

Visit todaysair.mtdeq.us for local air quality conditions and more information.

MAP Virtual Expansion

May 1 – August 31

116 Referrals to the MAP (110 Self-Referrals)

- 32- Enrolled
- 20- Waitlisted
- 54- Could Not Be Reached/Declined
- 10- Not yet contacted

Virtual visits with 8 clients/families

Future Program Promotion

BREATHE EASY
with the Montana Asthma Home Visiting Program

GET **FREE HELP** WITH YOUR ASTHMA TODAY

VIRTUAL OPTIONS AVAILABLE IN ALL 56 COUNTIES

You'll receive for **FREE**:

- Allergy Proof Mattress & Pillowcase Covers
- Portable Air Purifier
- Asthma Education & Learning Material
- Home Environmental Assessment to Help Identify Asthma Triggers

PLUS CONNECTION TO OTHER COMMUNITY PROGRAMS OR SERVICES

OPEN TO ALL AGES. ENROLL NOW, IT'S EASY!

Learn more at asthma.mt.gov

Why Should You Participate?

- Gain Skills to Manage Asthma
- Learn How to Communicate about Your Asthma
- Reduce Asthma Symptoms
- Reduce ED Visits and Healthcare Costs

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Working w/ Aging Population

MAP promotion in 60+ senior centers

Aging Horizons- MAP Article & upcoming TV interview

Virtual Statewide Health Fair in November



COVID-19 Relief Funding & Indoor Air Quality ELC School Reopening Grants

Round 3 funding available for schools

\$50,000-\$100,000 for school districts to support continued COVID-19 screening, testing, contact tracing and testing referrals

Portable air cleaners & HVAC system inspections/assessments

<https://dphhs.mt.gov/ARPA/SchoolHealth/ELC>



Changes to AE-C Exam



2023 Big Sky Pulmonary Conference

March 2-4, 2023



Questions?



Stock Albuterol in Utah

BettySue Hinkson, MSN RN-BC NCSN
State School Nurse Consultant



How it Began

Stock Albuterol Task Force

5-Utah Department of Health - State School Nurse Consultant, Asthma Program Manager, Asthma Program Evaluator, UDOH medical director

1-U of U Health Care

1-Utah County Health Department - Asthma Specialist

1-Breathe Utah

1-Weber State University - Nursing Professor

2-School nurses from Salt Lake City School District

2-School nurses from Davis School District

Also Reviewed by:

3-Allergy & Asthma Network

During the 2019 Utah State Legislative session lawmaker passed a bill allowing any public or private school to stock albuterol for use in students who:

- Have a known diagnosis of asthma by a healthcare provider, and
- Have a current AAP/EAP on file with the school, and
- Are showing symptoms of an asthma emergency as shown in that student's AAP/EAP.

26-41-103 Voluntary participation.

(6)

(a) Each primary or secondary school in the state, both public and private, **may** make stock albuterol available to any school employee who:

(i) is employed at the school; and

(ii) is a qualified adult.

(b) A qualified adult may administer stock albuterol to a student who:

(i) has a diagnosis of asthma by a health care provider;

(ii) has a current asthma action plan on file with the school; and

(iii) is showing symptoms of an asthma emergency as described in the student's asthma action plan.

(c) This Subsection (6) may not be interpreted to relieve a student's parent or guardian of providing a student's medication or create an expectation that a school will have stock albuterol available.

26-41-104.1 Training in use and storage of stock albuterol.

(1)

(a) Each primary and secondary school in the state, both public and private, shall make initial and annual refresher training regarding the storage and emergency use of stock albuterol available to a teacher or school employee who volunteers to become a qualified adult.

(b) The training described in Subsection (1)(a) shall be provided by the department.

(2) A person who provides training under Subsection (1) or (6) shall include in the training:

(a) techniques for recognizing symptoms of an asthma emergency;

(b) standards and procedures for the storage and emergency use of stock albuterol;

(c) emergency follow-up procedures, and contacting, if possible, the student's parent;

and

(d) written materials covering the information required under this Subsection (2).

(3) A qualified adult shall retain for reference the written materials prepared in accordance with Subsection (2)(d).

26-41-105 Authority to obtain and use an epinephrine auto-injector or stock albuterol.

(4) If a school nurse is not immediately available, a qualified adult:

(a) may immediately administer stock albuterol to an individual who:

(i) has a diagnosis of asthma by a health care provider;

(ii) has a current asthma action plan on file with the school; and

(iii) is showing symptoms of an asthma emergency as described in the student's asthma action

plan; and

(b) shall initiate appropriate medical follow-up in accordance with the training materials retained

under Section 26-41-104.1 after administering stock albuterol.

26-41-106 Immunity from liability.

(1) The following, if acting in good faith, **are not liable in any civil or criminal action for any act taken or not taken** under the authority of this chapter with respect to an anaphylactic reaction or asthma emergency:

- (a) a qualified adult;
- (b) a physician, pharmacist, or any other person or entity authorized to prescribe or dispense prescription drugs;
- (c) a person who conducts training described in Section 26-41-104 or 26-41-104.1;
- (d) a qualified epinephrine auto-injector entity; and
- (e) a qualified stock albuterol entity.

R426-5-2700. Epinephrine Auto-Injector and Stock Albuterol Use.

(1) Any qualified entities or qualified adults shall receive training approved by the Department.

(a) The epinephrine auto-injector training shall include:

- (i) recognition of life threatening symptoms of anaphylaxis;
- (ii) appropriate administration of an epinephrine auto-injector;
- (iii) proper storage of an epinephrine auto-injector;
- (iv) disposal of an epinephrine auto-injector; and
- (v) an initial and annual refresher course.

(b) The stock albuterol training shall include:

- (i) recognition of life threatening symptoms of an asthma emergency;
- (ii) appropriate administration of stock albuterol;
- (iii) proper storage of stock albuterol;
- (iv) disposal of stock albuterol; and
- (v) an initial and annual refresher course.

(2) The annual refresher course requirement may be waived if:

- (a) the qualified entities or qualified adults are currently licensed at the EMR or higher level by the state; or
- (b) the approved trainings are the Red Cross and American Heart Association epinephrine auto-injector modules.

Training

- ☰ ▼ Stock Albuterol Training
 - ☰ 📄 Stock Albuterol Training Overview
 - ☰ 📄 Stock Albuterol Training Video
 - ☰ 🎯 Stock Albuterol Training Assessment
 - 10 pts | Score at least 10.0
- ☰ Asthma Toolkit
 - ☰ 📄 Asthma Basic Overview
 - ☰ 📄 Utah Department of Health Asthma Program
 - ☰ 📄 Asthma and COVID-20
 - ☰ 📄 Asthma Forms-2
 - ☰ 📄 Asthma Medication-2
 - ☰ 📄 Nebulizer Cleaning
 - ☰ 📄 Resources for Obtaining Stock Albuterol and Spacers

- ☰ ▼ Demographic Information and Feedback
 - ☰ 🎯 Demographic Information and Feedback
 - 8 pts | Score at least 6.0
- ☰ ▼ Certificate of Completion
 - ☰ 📎 Certificate of Completion for Stock Albuterol Assessment (2).pdf

Evaluation

	Returned to Class	Student Sent Home	EMS Called	Total Asthma Episodes Treated by Staff
Albuterol administered by School Nurse	965 (95%)	46 (5%)	4 (.4%)	1011
Albuterol administered by Trained Staff	3391 (95%)	192 (5%)	4 (.1%)	3583

All Albuterol Dispositions (not stock)

- It was expected that 441 or **40%** of schools would implement (SNWS, 2019-2020)
- only **110 or about 10%** (110 out of 1121) of Utah schools have implemented the SSAP (SNWS, 2021-2022)
- -up from **34** the first year (SNWS, 2020-2021)

	Type of Personnel		
	School Nurse	Trained Staff	
School Year			<i>Total</i>
2020-2021	1	3	4
2021-2022	7	9	16
<i>Total</i>	8 (40%)	12 (60%)	

Who administers SA?

Finding someone to write the prescription	1 st - Most difficult
Finding a pharmacy to fill the prescription	Tied for 2 nd
Cost of medication and supplies	Tied for 2 nd
Getting support from principal	4 th

Barriers to Implementation

- Cost
 - Varied widely and were reported at \$112 and \$530
 - Second (tied) highest ranked in Difficulty Score
- Staff buy-in
 - Principal and school staff
 - “Getting staff trained with the online training”
 - “Right now, I need more buy in from staff.”
- Need school nurse support to facilitate implementation
 - “School nurse is not on site full time to help, explain, notify”
 - “Having school nurse explain documentation, organize training and be in contact with parents”.
- Unclear on the process or guidelines
 - “School nurse is not on site full time to help, explain, notify”
- Not having an AAP on file

Barriers to Implementation

- 396 students needed albuterol but didn't have access to their own medication or a school stock albuterol (SNWS).
 - "We have a child that has to wait 30+ minutes for their parent to come all the while struggling to breath".
- 5% (N=20) of students who needed albuterol were able to use the stock albuterol (SNWS).
- 100% (N=3) reported that parents responded "positively" or "very positively" when finding out their child had been given stock albuterol
- **67% (N=4) said "No" when asked if having stock albuterol made students less likely to bring their own inhalers**
 - **" they don't necessarily know that it's here"**
 - **33% (N=2) said they "didn't know"**
- Unintended consequences
 - Implementing the SSAP may influence guardians to get their children their own inhalers just by reminding them and demonstrating the importance of having accessible albuterol for their children at school.
 - "one parent not only turned in an AAP for their student to use SA but also provided their child with their own inhaler soon after".

Unintended Consequences

Questions?

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