Quarterly Asthma Newsletter

Report Highlights:

◊ Recent research related to patients living with asthma, including:
  • development of asthma; and
  • differences in airway inflammation.

◊ Program updates and upcoming educational opportunities.

Research Updates

Thunderstorm-related asthma attacks

Authors discussed research linking thunderstorms to asthma epidemics and the worst such incident yet recorded in Melbourne, Australia, which resulted in 9 deaths and more than 8,500 emergency department visits. While rainfall generally removes pollen from the air, thunderstorms are accompanied by dry updrafts that carry whole pollens into the high humidity at the cloud base where they can then rupture and be carried by cold downdrafts to the ground level. However, the authors emphasize that these types of incidents are “neither frequent nor responsible for a high amount of disease exacerbation.”

Diagnosing and managing asthma: Research update!

Authors provide an evidence-based approach to the diagnosis and management of mild to moderate asthma in adults after a review of recent studies. Their summary is as follows:

“Management of persistent asthma requires avoidance of aggravating environmental factors, use of short-acting beta agonists for rapid relief of symptoms, and daily use of inhaled corticosteroids. Other controller medications, such as long-acting bronchodilators and biologics, may be required in moderate and severe asthma. Patients with severe asthma generally benefit from consultation with an asthma specialist for consideration of additional treatment, including injectable biologic agents.”

Montana Asthma Control Program

1400 E Broadway
Helena, Montana 59620-2951
dphhs.mt.gov/asthma

News

The online training about creating asthma-friendly schools for teachers is now on the Teacher Learning Hub hosted by the Montana Office of Public Instruction for easier access. More educators can now learn how to keep their students with asthma in their seats and ready to learn!

A community health assessment (CHA) was recently conducted by Boston University and the Blackfeet Reservation. Read the report on the Blackfeet Reservation CHA to learn more.
School Health Mini-grants: 2017-2018 Academic Year

The School Health Mini-Grant Program provides grants to nurses, asthma and diabetes educators, school counselors and administrators working in elementary, middle, and high schools throughout the state of Montana. Grants support applicants in their efforts to create safe and healthy learning environments for students and school staff.

An individual applicant can be awarded $500 to complete their project, and a group application can be awarded $1,500.

Promote mini-grant projects to school staff in your area this academic year. Reasons to participate include personal and professional growth, improvement in School Health Index indicators, the ability to purchase needed equipment for maintaining and improving student health outcomes (such as nebulizers to be used in school), and becoming more familiar with the school community.

See the following recommendations and comments from past grantees:

- “It’s a professional development opportunity, to stand up in front of your school board and keep their attention…just put yourself out there!”
- “I’d just encourage people to do it. It’s not overwhelming by any means. I did it and I didn’t know anything about what I was doing, I was so new.”
- “Even if you’re not sure of the effects in your building, you have more knowledge about what you can do or how you can help these kids, and it gives you an idea of what they are going through.”

Contact BJ Biskupiak, School Health Program Coordinator, at wbiskupiak@mt.gov for more information. You can also learn more at the School Health Mini-grant website.

Protective Factors and Development of Asthma


Researchers investigated associations of BF durations and patterns and of timing of other dietary introductions with prevalence of asthma and related conditions. No significant associations were found between time when fruits or vegetables were introduced and the studied diseases. Longer duration BF was only significantly protective when there was no family history of atopy. Heredity may negatively impact the effect of BF on childhood airway and allergic diseases, but not socioeconomic status or sex.


Past studies have suggested early-life farming exposures protect against childhood asthma, but few data exist on the potential effect on asthma and allergy in adults. Researchers analyzed data from 1746 farmers and 1555 spouses from a case-control study to assess current asthma and early-life farming exposures. There was no significant association between asthma and exposure in utero and in early childhood, but there was an association between exposure and reduced chances of atopy. The strongest association was seen when a mother performed farm activities while pregnant.
Airway Inflammation in Different Populations

Busse, P.J., Birmingham, J.M., Calatroni, A.,...& Wisnivesky, JP. (2017). Effect of aging on sputum inflammation and asthma control. *Journal of Allergy and Clinical Immunology* 139 (6), 1808-1818.

Researchers saw limited knowledge of the aging effect on airway inflammation and asthma, as well as the increased morbidity and mortality in aged patients with asthma. They demonstrated aged patients (mean=67.9 years) had significantly worse asthma control than younger patients (mean=30.8 years). Aged patients showed significant associations between increased sputum IL-6 and macrophage inflammatory protein 3α/CCL20 levels and decreased asthma control. Asthma pathophysiology in the aged should be studied further to improve management.


Authors investigated whether the pattern of airway inflammation differs between African American and white subjects, since African American subjects have a greater burden from asthma comparatively. Data were reviewed from 1018 participants, and African American subjects demonstrated lower FEV1 percent predicted, greater total IgE levels, and a greater proportion with uncontrolled asthma compared with white subjects. Eosinophilic airway inflammation was not significantly different between the groups. However, a significant difference was seen when data were adjusted for confounding factors. The primary findings from this study were that only a “minority of subjects with mild or moderate persistent asthma had an eosinophilic sputum airway inflammatory phenotype,” and race-related differences exist in eosinophil airway inflammation.

**MACP Webinars: Education on your schedule**

Montana Asthma Control Program (MACP) staff have been working to improve the sound quality of the educational webinars in the online archive, and also to improve the process of receiving continuing education credit for viewing.

Webinars occur two or three times per year, and are approved by the Montana Boards of Respiratory Care Practitioners and/or Pharmacy. According to administrative rule 24.159.2101, these webinars should also count for nursing credits because the Montana Boards of RCPs and Pharmacy are accrediting organizations.

The topics you can currently access on the MACP website include:

- Keeping Kids Health in School: Working with school nurses and resources to help patients afford care;
- Complementary and Alternative Methods (CAM) for asthma: What patients are using, why they’re using it, and what you can do;
- Spirometry: A key measurement in diagnosing and treating asthma;
- Hookah and e-cigarettes: What you should know;
- Patient Care for American Indians;
- Asthma Self-Management Education;
- Reactive Airways Disease vs Asthma;
- Talking with People about Tobacco; and
- Spirometry: Application in practice.

Save the date for our next webinar with Dr. Ben Francisco on Wednesday, January 17, 2018 from 12-1 pm. Topic TBD.
For more information, contact: asthmainfo@mt.gov

Sarah Brokaw, MPH  
Program Manager  
(406) 444-9154  
sbrokaw@mt.gov

Dorota Carpenedo, MPH  
Epidemiologist  
(406) 444-0653  
dcarpenedo@mt.gov

Anna Bradley, MS, CHES  
Evaluator  
(406) 444-7304  
abradley@mt.gov

Megan Burton  
QI Coordinator  
(406) 444-9729  
mburton@mt.gov

Sonja Tysk, MS  
Health Educator  
(406) 444-0593  
stysk@mt.gov

Shea Vogl  
Data Analyst  
(406) 444-4592  
svogl@mt.gov

BJ Biskupiak  
School Health Program Coordinator  
(406) 444-0995  
wbiskupiak@mt.gov

UPCOMING EVENTS
Montana Diabetes Professional Conference  
October 5-6, 2017  
Holiday Inn, Bozeman  
For more information, please contact  
Susan Day at sday@mt.gov

Asthma Educator Institute  
November 10-11  
Billings, MT  
For more information, please contact  
Marcy Ballman at Marcy.Ballman@lung.org

Spirometry training with the ALA  
January 26, 2018  
Billings, MT  
For more information, please contact  
Marcy Ballman at Marcy.Ballman@lung.org

Big Sky Pulmonary Conference  
March 15-17, 2018  
Fairmont Hot Springs, Anaconda  
For more information, please contact  
Anna Bradley at abradley@mt.gov

ONLINE RESOURCES
Wildfire Season
- Wildfire Smoke and Your Health  
  http://dphhs.mt.gov/publichealth/airquality
- Burn Wise for wood burning practices  
  https://www.epa.gov/burnwise

Montana Asthma Control Program Website  
dphhs.mt.gov/asthma

- Archived asthma-related webinars with free CEUs
- Archived surveillance reports on asthma-related subjects
- Resources for health care facilities, asthma educators, schools and school nurses, coaches, day care providers, and people living with asthma

PROGRAM UPDATES
- Congratulations to the Blackfeet Service Unit in Browning for starting the Diagnose and Manage Asthma (DMA) Protocol in September! Interested facilities can contact Megan Burton at mburton@mt.gov for information on the “Improving Clinical Outcomes” grant.

- Welcome to our new Montana Asthma Home Visiting Program staff: Chelsie Howe in Park County, Katie Bevan in Lewis & Clark County, and Sam Reed in Gallatin County. Best of luck to Tami Walsh and Marcia Ward in their retirements, and to Joy Helfrich and Sarah Crowley in their next adventures! Congratulations!

- Congratulations!