Report Highlights:

- Updates from the Montana Asthma Control Program.
- Recent asthma-related research, including:
  - Executive functioning,
  - Asthma in school-aged children,
  - The microbiome; and
  - Shared Decision Making.
- Information about upcoming events and educational opportunities.

Quarterly Asthma Newsletter

News

1) The most recent webinar from the Montana Asthma Control Program, “Preparing for Wildfire Season,” was recorded and is available for viewing in the [MACP’s online webinar archive](https://dphhs.mt.gov/Asthma).

2) The [MT DPHHS Air Quality website](https://dphhs.mt.gov/Asthma) has been developed as a landing page with information on wildfire smoke and your health, recommendations for outdoor activities based on air quality, and other resources.

3) Marcy Ballman with the American Lung Association is making a list of individuals with lung disease who may benefit from receiving an air filter unit this coming wildfire season. Funding from the Montana Community Foundation’s Wildfire Relief Fund will allow the ALA in Montana to distribute about 80 HEPA filters to people in need. Send an email to Montana@lung.org to have a person added to the list, and contact Marcy Ballman at Marcy.Ballman@lung.org with questions.

4) The U.S. Department of Housing and Urban Development has passed a rule requiring “each Public Housing Agency administering low-income, conventional public housing to initiate a smoke-free policy.” The policy must be in place by July 31, 2018. You can access more information and resources about smoke-free housing from the [HUD.gov](https://www.hud.gov) website.

5) The Training and Continuing Education Online (TCEO) website maintained by the CDC offers free online continuing education courses for health professionals on a variety of topics, including asthma. To register, visit [tceols.cdc.gov](https://tceols.cdc.gov).
Children with Asthma


Researchers conducted a secondary analysis of the 2011-2012 National Survey of Children’s Health using a sample of 2,880 children with asthma and 25,841 without between the ages of 13 and 17 years. Results indicated lower flourishing for youth with asthma compared to youth without. In youth with asthma, asthma severity was not associated with lower flourishing. However, lower flourishing was related to experiencing negative behaviors such as arguing or bullying and experiencing sad feelings. Flourishing is a concept related to a child’s behaviors and characteristics towards learning, resilience, handling challenges, empathy, and other components of mental and emotional health.


1,059 middle school students in a northeastern region of the US completed questionnaires measuring perceptions about their relationships with peers and teachers, school environment, and self-reported chronic health conditions. Asthma was reported by 16.5% of the participants. Students with asthma reported significantly poorer relationships with peers and teachers, and their perceptions of overall school environment were also lower than their counterparts. While rates of asthma were higher in minority students, race showed no significant effect on school factors.


A total of 20 semi-structured interviews were conducted in Saudi Arabian primary schools with a convenience sample of Saudi parents and carers of children with asthma. Researchers found that participants “expressed concern at the schools’ social and physical environments and a lack of confidence in the ability of schools to manage their child’s asthma, especially when their child was ill.” Participants “advocated for staff training and school community engagement to improve the management of asthma” at school.

Shared Decision Making

The Allergy & Asthma Network, in partnership with the American College of Chest Physicians and the American College of Allergy, Asthma, & Immunology, has launched an interactive Shared Decision Making tool. The tool is also available in print. The interactive Asthma Control & Severity Assessment Tool was also launched. The developers hope to “improve patient awareness, monitoring, and management of asthma symptoms.”

Learn more at the Allergy & Asthma Network website.


This prospective 3-year study was conducted in six community-based practices serving low-income patient populations. The practices received training on SDM using an evidence-based toolkit. Included patients were ages 2 to 17 years and had a diagnosis of asthma. Receipt of SDM using an evidence-based toolkit was associated with higher asthma quality of life and fewer asthma control issues compared to usual care with decision support. The majority of patients were non-White (94.6%) with Medicaid insurance (92.4%).
The Microbiome in Allergic Disease: Current Understanding and Future Opportunities

2017 PRACTALL document of the American Academy of Allergy, Asthma, & Immunology and the European Academy of Allergy and Clinical Immunology

PRACTALL is a joint initiative of the AAAAI and the EAACI to promote evidence-based recommendations on "cutting-edge topics in the field of allergy and immunology." The 2017 PRACTALL focuses on what is currently known about the role of the microbiome in patients with atopic dermatitis, food allergy, and asthma. It also highlights areas where there are gaps in knowledge.

The microbiome is seen as an important topic because increasing evidence indicates a connection between microbial communities in the human gastrointestinal tract, airway, and skin contribute to overall health and disease. In relation to asthma, microbes are thought to play the following roles:

1. Early-life exposure to microbially rich environments on susceptibility to childhood asthma;
2. Development of the immune system;
3. Patterns of respiratory tract bacterial colonization on childhood asthma; and
4. Bronchial colonization by particular bacteria in phenotypes of asthma.

Researchers review evidence that "specific clinical and inflammatory features of asthma have been found to associate with difference patterns of lower airway microbiota composition," including airway hyperresponsiveness, asthma control, obesity-associated asthma, and responsiveness to corticosteroids and macrolides, among others.

Learn more by accessing the 2017 PRACTALL online, or in the Journal of Allergy and Immunology, Volume 139, Issue 4, pages 1099-1110.

Adults with Asthma


This study included 30 patients with chronic asthma who were referred to Al-Zahra hospital in the Isfahan Province of Iran, and 30 of their visitors were assigned as the control group. Researchers measured the following executive functions:

- Set shifting: measured with the Wisconsin Card Sorting Test, developed to measure abstract reasoning and the ability to adapt cognitive strategies to environmental challenges;
- Inhibition: measured with the Stroop Test, which can effectively measure the severity and type of mental reaction toward environmental stressors, neurological disorders, and inhibition control; and
- Attention performance: measured with the Continuous Performance Test, which is a visual-motor test that measures sustained attention, care, alertness, and focused attention.

Significant differences between the patients with asthma and their visitors were found with all three tests, indicating that patients with chronic asthma may have defects in their executive functions compared with people living without asthma. The average age of patients in this study was 34, and inclusion criteria were limited to patients 1) with at least a five-year history of asthma and 2) without any other chronic disease.
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Program Updates

- A new surveillance report was published in April 2018 about Montanans with asthma enrolled in the Medicaid Expansion HELP Plan. All recent reports are archived on the Montana Asthma Control Program website.
- Stacey Wolfe has joined the Montana Asthma Control and Diabetes Programs as the new Quality Improvement Coordinator. Contact her at stacey.wolfe@mt.gov to learn about the support she can offer with health care quality improvement activities.
- The Montana Asthma Control Program was able to provide scholarships to 8 of the attendees at the Association of Asthma Educators Exam Review course held in May 2018. Congratulations to all of the awardees, and good luck!
- BJ Biskupiak is returning as the coordinator for the Montana Asthma Home Visiting Program. Welcome back!
- The online data collection system used by the home visiting program will be celebrating its successful implementation by launching an update effective July 2018 that will give users more flexibility when entering participant information.

Upcoming Events

Montana Diabetes Advisory Coalition Meeting
July 20, 2018
Missoula, MT
For more information, please contact
Sarah Brokaw at sbrokaw@mt.gov

Worksites Wellness Webinar Series: Promoting a Culture of Inclusion in Worksite Wellness
July 26, 2018
Online
For an invitation, please contact
Kara Hughes at khughes3@mt.gov

Montana Asthma Advisory Group Meeting
August 9, 2018
Helena, MT
For more information, please contact
Sarah Brokaw at sbrokaw@mt.gov

Montana Asthma Control Program webinar: Illicit drug use and lung health
September 20, 2018
Online
For an invitation, please contact
Anna Bradley at abradley@mt.gov

Online Resources

Montana Asthma Control Program
dphhs.mt.gov/asthma

Websites with information about wildfire safety and air quality:

Landing page with health and safety information and links to other resources in the state and nationally
https://dphhs.mt.gov/publichealth/airquality

Private non-profit organization assisting in the development of local FireSafe councils across the state
http://firesafemt.org

Up-to-date air quality monitoring information and smoke forecasts
http://svc.mt.gov/deq/todaysair/