



### Report Highlights

- **36%** of adults in Montana reported using CAM to help control their asthma.
- CAM usage was **negatively associated** with asthma control.
- **29%** of Montana adults with asthma reported using **breathing techniques**.
- **59%** of Montana adults with **uncontrolled asthma** use CAM, which is **significantly higher** than CAM use among Montana adults with controlled asthma (**29%**).
- There was a **significant positive association** between delaying care due to cost and CAM usage.

### Upcoming Events

Big Sky Pulmonary Conference  
 March 5-6, 2021  
 Free Virtual Conference– 11 CME/CEU



## Complementary and Alternative Medicine Usage in Montana

### Background

Asthma is a common chronic respiratory condition, affecting over 90,000 people in Montana. Almost three-quarters (71%) of Montana adults with current asthma report symptoms that indicate their asthma is either not well or very poorly controlled.<sup>1</sup>

Complementary/alternative medicine (CAM) is defined as, “a group of diverse health-care systems, practices, and products not presently considered to be part of conventional medicine.” Complementary medicine is used in conjunction with conventional medicine, whereas alternative medicine is used in place of conventional medicine.<sup>2</sup> The rate at which CAM treatments are used is increasing; nearly 40% of people with asthma reporting use of some form of CAM to manage their symptoms.<sup>3</sup> Common CAM therapies for asthma include yoga, breathing techniques, acupuncture, and homeopathy;<sup>4</sup> however, the effectiveness of these and other CAM treatments have had mixed results.<sup>5, 6, 7, 8, 9</sup> At this time, the Expert Panel Report 3 (EPR-3), a guide for the diagnosis and management of asthma, states that “Evidence is insufficient to recommend or not recommend most complementary and alternative medicines or treatments” for managing asthma.<sup>10</sup>

This report summarizes CAM usage, including herbalism, vitamin treatment, acupuncture, acupressure, aromatherapy, homeopathy, reflexology, yoga, breathing techniques, and naturopathy, among adults with asthma in Montana.

### Methods

The Montana Asthma Call-back Survey (ACBS) is a telephone survey of non-institutionalized adult residents aged 18 years and older. Participants are recruited from the Behavioral Risk Factor Surveillance System survey (BRFSS) if they indicate that they had or currently have asthma and are willing to be contacted for follow-up. These individuals are then called back and asked more in-depth questions about their experience with asthma. Montana has

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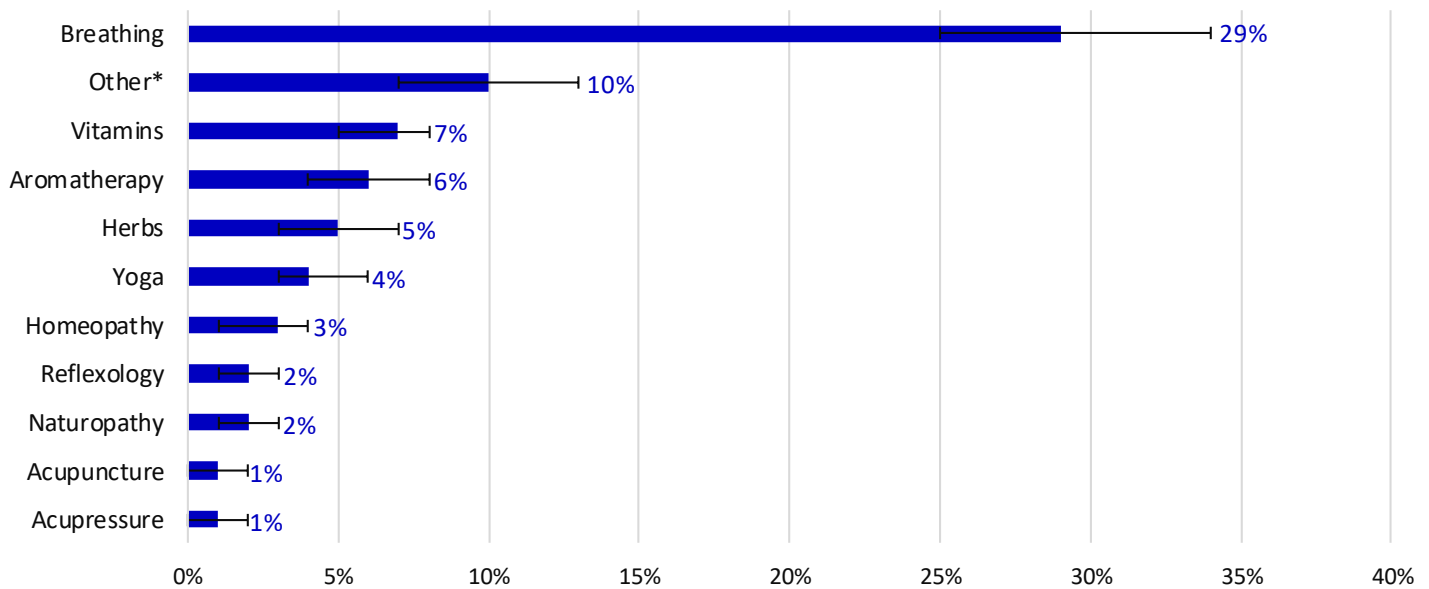
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participated in the ACBS, sponsored by the Centers for Disease Control and Prevention (CDC), since 2006. Levels of asthma control were categorized as either “uncontrolled” or “controlled” according to responses to three measures of asthma symptoms: 1) symptom-free days, 2) activity limitations, and 3) nightly symptoms. For this analysis, “uncontrolled” asthma was defined as symptoms at least three times weekly, activity limitations, or nightly wakeups four or more times a month, and “controlled” asthma was defined as symptoms less than two days a week, no activity limitations, and less than three nightly wakeups a month.

CAM usage was defined as responding “Yes” to having used any of the CAM techniques in the past 12 months. CAM usage was not mutually exclusive from conventional prescription rescue and controller medication usage. Insurance, care, and treatment metrics collected in the ACBS were analyzed against various CAM types. Chi-square tests were performed to identify significant ( $p < 0.05$ ) differences in health outcomes between groups.

Figure 1. Prevalence of CAM Use, by Type, Among Montana Adults with Asthma, Montana ACBS, 2013-2017



\*The “other” category encompasses results too small to display, such as caffeine, chiropractic care, steam, marijuana, sinus washes, and massages

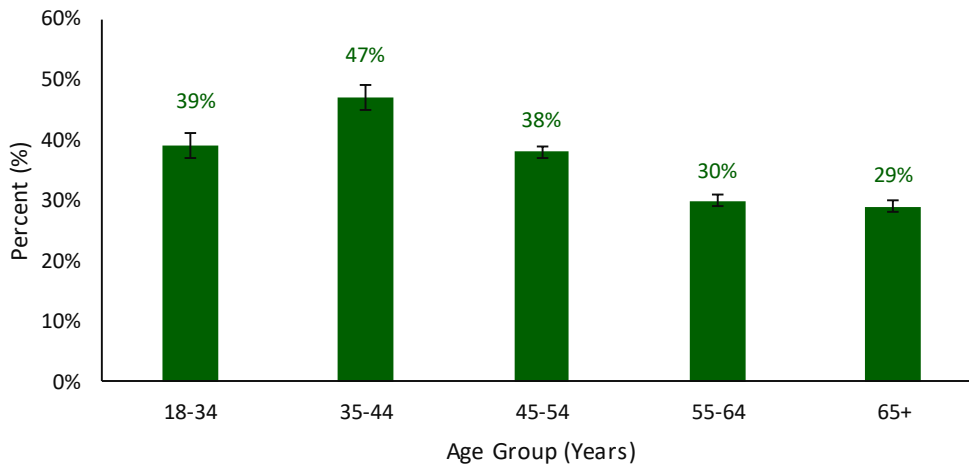
## Results

- **Over one-third (36%)** of Montana adults with asthma reported **using some form of CAM** to control their symptoms.
- **About half (49%)** of people who **used conventional medicine** in the last three months **used alternative medicine as well**. Alternatively, **25%** of people who **did not use conventional medicine** in the last three months **used alternative medicine instead**.
- **Breathing techniques (29%)** were the **most commonly reported** form of CAM used (Figure 1).
- Acupuncture (**1%**) and acupressure (**1%**) were the least used CAM method.
- Despite the most common CAM treatments for asthma in the United States being yoga, breathing techniques, acupuncture, and homeopathy, only **breathing techniques** was in the top four most common in Montana.



## Results

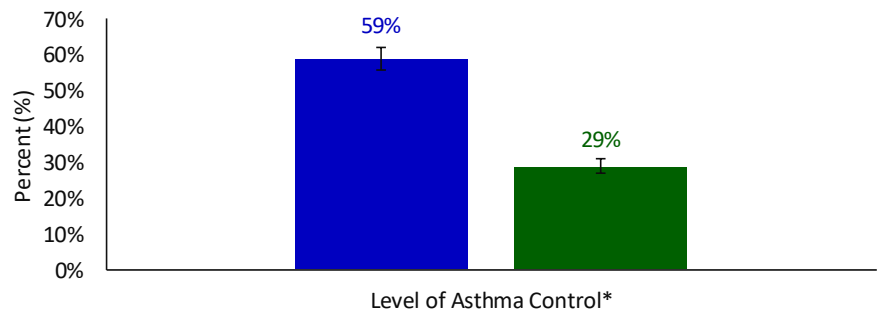
Figure 2. Prevalence of CAM Use by Age Group, Montana ACBS, 2013-2017



- Adults aged **35-44** years old reported the highest prevalence of CAM use, at **47%** (Figure 2).
- About **one in three** adults aged **55 years and older** reported using CAM for asthma control.
- The prevalence of CAM usage was **significantly higher** among adults aged **18-54** than among adults aged **55+**.

- The prevalence of CAM use was **significantly higher** among Montana adults with uncontrolled asthma (**59%**) than among those with controlled asthma (**29%**) (Figure 3).
- CAM usage had a **significant association** with asthma control ( $p < 0.001$ ), with an odds ratio of **0.28**. This suggests that **the odds of having controlled asthma are 72% less likely among Montana adults using CAM than Montana adults not using CAM.**

Figure 3. Prevalence of CAM Use among Montana Adults with Uncontrolled versus Controlled Asthma, Montana ACBS, 2013-2017



\*Statistically Different ( $p < .05$ )

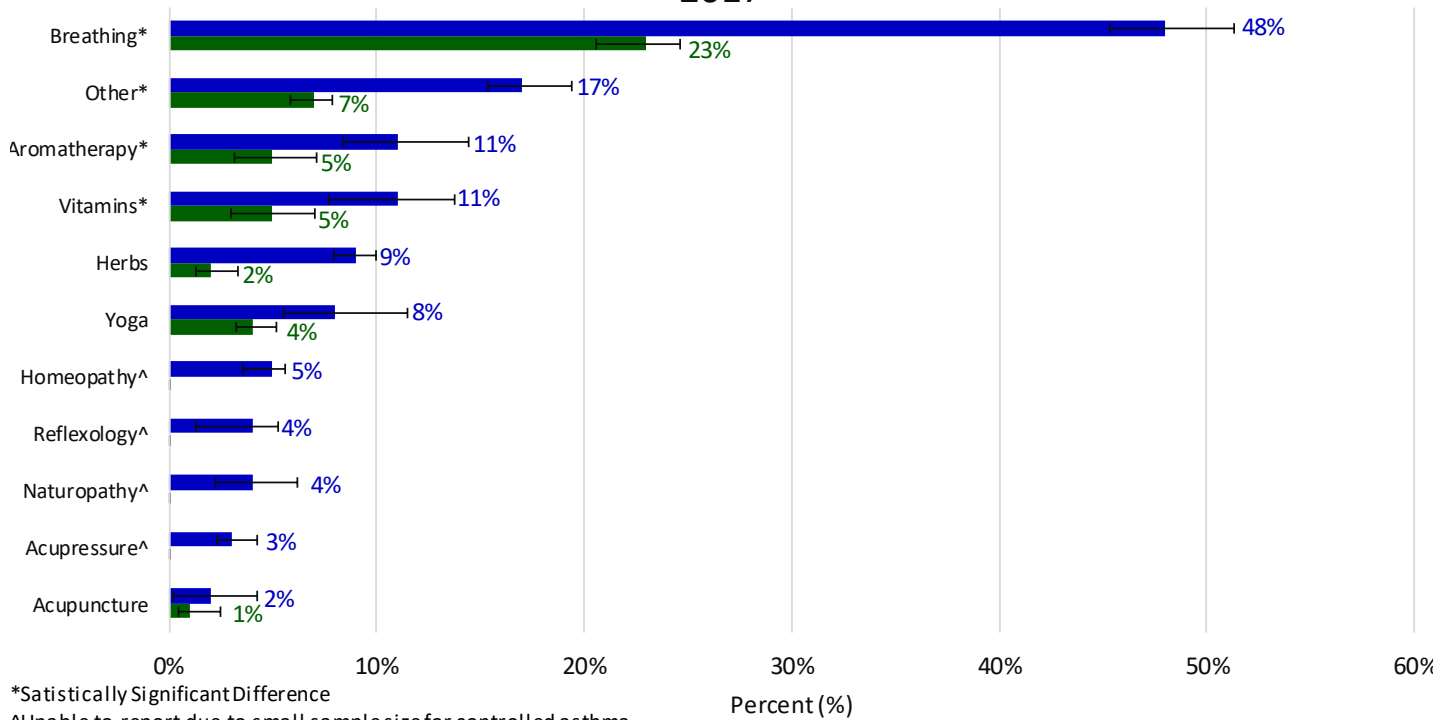
Further associations between CAM usage and other factors of asthma control were also considered.

- There was **no significant association** between insurance gaps, current insurance, seeing a doctor or having an asthma action plan and CAM use. Furthermore, there was **no significant association** between using conventional asthma medication (such as an inhaler, pills, or syrups) and CAM usage. These results suggest that **adults using CAM are still receiving their regular asthma care and taking medication.**
- There was a **significant association** ( $p < 0.001$ ) between delaying care (such as doctor or specialist visits and asthma medication) due to cost and CAM usage (Odds Ratio = 2.08). This indicates that the **odds of delaying care due to costs are two times higher among Montana adults using CAM than among Montana adults not using CAM.**



## Results

Figure 4. Prevalence of CAM Use, by Type, Among Montana Adults with **Uncontrolled** versus **Controlled** Asthma, Montana ACBS, 2013-2017



- Breathing techniques were the most prevalent of all CAM types used among adults with uncontrolled and controlled asthma at **48% and 23%**, respectively.
- The prevalence of breathing techniques, aromatherapy, vitamins, and “other” CAM methods were all **significantly higher** ( $p < 0.001$ ) among Montanan adults with uncontrolled asthma than those with controlled asthma, while yoga and acupuncture had **no significant differences**.
- The odds ratios of these significant differences ranged from 0.30-0.45, indicating that the **odds of having well-controlled asthma are 55% to 70% lower among Montana adults using breathing techniques, aromatherapy, vitamins, and “other” CAM methods than among Montana adults not using these CAM techniques**.
- Homeopathy, reflexology, naturopathy, and acupressure all had **too small of a sample size for controlled asthma** to report on any differences between controlled and uncontrolled asthma .

The cross-sectional design of the ACBS makes casual conclusions impossible. Therefore, this analysis cannot assess if CAM usage could lead to lack of asthma control or if a lack of asthma control could lead to CAM usage.



## Citations

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## Clinical Recommendations

- Adhere to the most current evidence–based guidelines as the primary method of asthma treatment.
- Ask patients about specific CAM treatments they may be using.
- Inform patients of any potential risks associated with certain CAM treatments (i.e. potential drug interactions with herbal medications, infection risk with acupuncture, etc.).
- Ask patients about the reasons they may wish to pursue CAM treatments (high cost, distaste for medications, etc.) and determine if changes can be made.
- While some CAM methods may be helpful, all individuals with asthma should still have appropriate rescue and controller medications available.

## Report Highlights:

- 36% of Montana adults with asthma are using CAM to help control their asthma.
- The age group with the highest percentage of CAM use is 35-44 year-olds.
- The most common CAM used in Montana is breathing techniques.
- Breathing techniques, aromatherapy, vitamins, and "other" CAM methods were negatively associated with asthma control.