



REPORT HIGHLIGHTS

- Social determinants of health can significantly influence the risk, severity, and management of asthma.
- **Female** Montanan adults have reported a higher prevalence of asthma compared to male Montanans (14.8% and 8.5%, respectively).
- **21.3%** of Montanans with asthma reported experiencing **four or more** social determinants of health risk factors.

ASTHMA CONTROL RESOURCES

- Food, heating, medical, and cash assistance are available in the state of Montana. To check eligibility and apply for these resources visit the [Department of Public Health and Human Services online application page](#).
- Montana 211 is a free, confidential, 24/7 service that connects people to essential health and human services. Call 211 or visit online at [Montana211.org](#).
- PRAPARE (Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences) is a standardized tool for assessing social determinants of health, helping clinics address patient needs and advance health equity. Visit the [PRAPARE® site](#) to learn more.

CONTACT

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BACKGROUND

Social determinants of health (SDOH) are conditions in the environments where people are born, live, learn, work, play, worship, and age that affects a wide range of health, functioning, and quality-of-life outcomes and risks. The U.S. Department of Health and Human Services' Healthy People 2030, which sets data-driven objectives to improve health in the nation by 2030, groups SDOH into five domains: economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social community context¹. Adverse SDOH have been linked to adverse health outcomes and behaviors and have shown to disproportionately impact certain groups. Studies have shown evidence that inequities in SDOH can contribute to excess burden of asthma prevalence/incidence, morbidity and exacerbation, and increased asthma-related hospitalization and emergency department visits^{2,3}.

This report uses data from the Montana Behavioral Risk Factor Surveillance System (BRFSS) Health Equity Module for the combined years of 2022 and 2023 to describe the prevalence of SDOH risk factors among Montana adults with asthma (n = 1,393)⁴. BRFSS is an annual telephone survey of randomly selected, non-institutionalized adults aged 18 and older in Montana. Analyses compared each group of interest to all other respondents using Rao-Scott chi-square tests for proportions, with p-values below 0.05 considered statistically significant.

MONTANA DEMOGRAPHIC ASTHMA DATA

In 2022 and 2023, 11.6% of Montana adults reported having asthma. Nearly 14% of non-Hispanic American Indian or Alaska Native (AI/AN) adults and nearly 11% non-Hispanic white adults in Montana reported having asthma in those same years. Adult females had a higher percentage of reported asthma than adult males (14.8% and 8.5%, respectively). Older adults (65+ years) reported the lowest prevalence of asthma (9.1%) compared to 18-44 (12.3%) and 45-64 (13.1%) year old adults (Figure 1).

Figure 1. Montana adult Females and those 18 to 64 years reported higher prevalence of asthma than their cohorts.

Categories in blue were statistically different (p≤0.05)

Variable	Features	Percentage
Race	American Indian/Alaska Native, non-Hispanic only	13.7%
	White, non-Hispanic only	10.7%
	All other races*	18.6%
Sex	Female	14.8%
	Male	8.5%
Age	18 - 44	12.3%
	45 - 64	13.1%
	65+	9.1%

Source: BRFSS Demographic data of adults with current asthma in Montana, 2022-2023

*Other races include: Black or African American only, non-Hispanic, Asian only, non-Hispanic, Native Hawaiian or other Pacific Islander only, non-Hispanic, and multiracial non-Hispanic and Hispanic.

Social Determinants of Health among Montanans with Asthma

MONTANA SDOH ASTHMA DATA

The SDOH module asks survey participants how satisfied they are with life. One-in-ten (10.1%) Montanans with asthma reported being “Dissatisfied” or “Very Dissatisfied” with their life, which was twice as frequently as those without asthma (Figure 2). Nearly three-fourths (72.0%) of Montanans with asthma reported “Always” or “Usually” receiving the social and emotional support they need, slightly less often than those without asthma (80.6%). In the past 30 days, 25.6% reported “Always” or “Usually” feeling stressed, almost twice as frequently as Montanans without asthma (13.2%), and 13.0% of those with asthma reported similarly for how often they felt lonely. Lastly, 8.1% of adults with asthma reported “Always” or “Usually” lacking food or money to buy food, whereas only 3.3% of those without asthma reported the same (Figure 3).

Figure 3. Over a quarter of Montanans with asthma reported *always or usually* feeling immense stress in the last 30 days.

Source: BRFSS 2022-2023

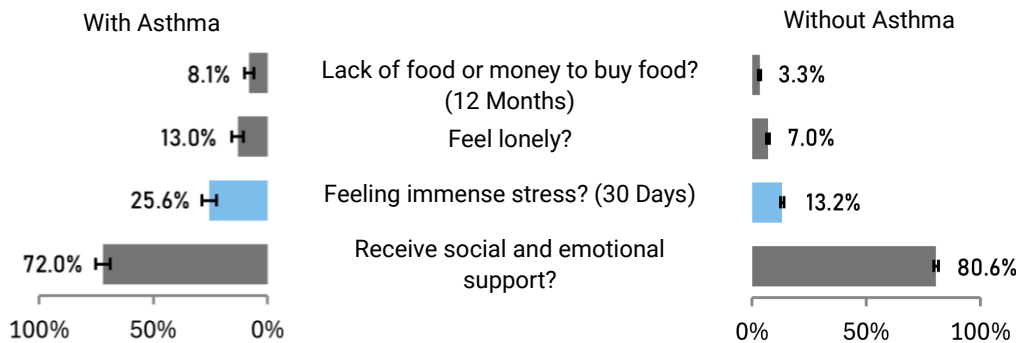


Figure 4. In the past 12 months, 15.2% of adults *with asthma* in Montana reported they were unable to pay their mortgage, rent, or utility bills.

Source: BRFSS 2022-2023

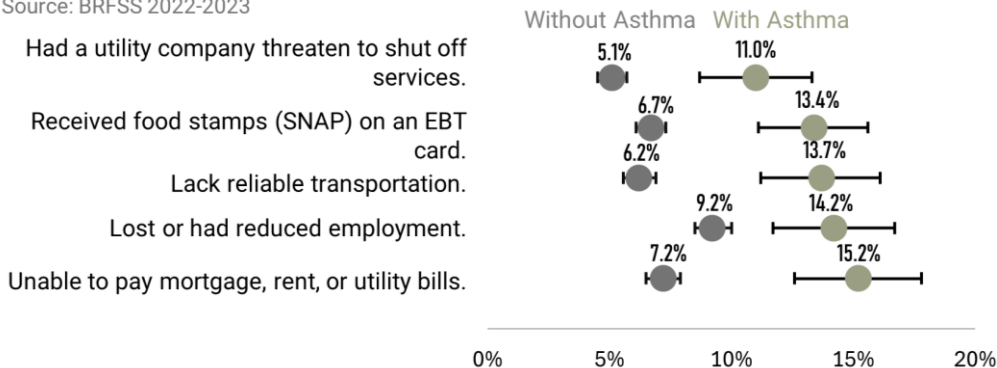
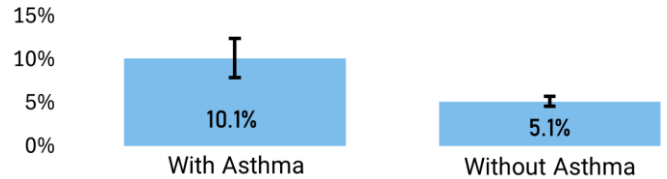


Figure 2. One in ten Montanan adults with asthma reported being *Very Dissatisfied/Dissatisfied* with life.

Source: BRFSS 2022-2023



Almost one-in-seven respondents (15.2%) with asthma reported not being able to pay their mortgage, rent, or utility bills in the last 12 months, over twice as frequent as those without asthma (7.2%). A similar percentage of respondents with asthma reported losing or having reduced employment (14.2%), lacking reliable transportation for medical appointments, work, or daily living needs (13.7%), and receiving food stamps (13.4%) in the last 12 months. Those without asthma reported nearly half as often when asked about receiving food stamps (SNAP) on an EBT card (6.7%) and lacking reliable transportation (6.2%). Less than 10% of those without asthma reported losing or having reduced employment. Over one-in-ten respondents (11.0%) with asthma had their electric, gas, oil, or water company threaten to shut off services in the past 12 months, while 5.1% of those without asthma reported similarly (Figure 4).



Social Determinants of Health among Montanans with Asthma

TOTAL RISK FACTORS

When calculating the number of SDOH risk factors participants with asthma had, 35.0% reported none, 20.3% reported only one, 12.8% reported two, 10.6% reported three, and 21.3% reported four or more. Overall, nearly two out of every three (65.0%) Montanans with asthma had one or more SDOH risk factors, whereas less than half (48%) of those without asthma reported the same (Figure 5).

DISCUSSION

SDOH has been shown to have a major impact on people's health, mental well-being, and quality of life. Because these social risk factors are highly interrelated, it's important to focus on all aspects when evaluating the impact of SDOH on health outcomes. Individuals who have limited access to quality housing, education, and job opportunities have a higher risk of illness and death⁵. One research article found evidence that socio-physical environments play a roll in asthma prevalence, with smoking and depression being the most influential risk factors⁶. Asthma burden falls heavily on Black, Hispanic, and American Indian/Alaska Native populations, with interconnected systems of structural, social, biological, and behavioral determinants largely driving disparities in asthma⁷. When addressing asthma health concerns, SDOH risk factors should be considered in tandem with the usual suspected asthma triggers. Providing culturally competent care, visits, education, and assessments for asthma and using SDOH screeners to provide relevant resources can help address all aspects of the client's asthma burden. Screening tool assessments, such as the Protocol for Responding to & Assessing Patients' Assets, Risks & Experience (PRAPARE®) designed to engage patients in assessing and addressing SDOH, can provide a standardized data collection method for health professionals. After assessments are completed, SDOH resources specific to Montana can be utilized, such as the SNAP, TANF, LIHEAP, and health coverage assistance application found on the DPHHS website, and Montana 211, a free, confidential, 24/7 service that connects people to essential health and human services.

REFERENCES

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Figure 5. Nearly two-thirds of adults with asthma reported one or more risk factors.

