

Preventing Chronic Disease Among Employed Adults

Health Risks by Occupation

- ### Report Highlights
- **About 19% of employed adults in Montana had two or more chronic diseases.**
 - **On average, employed adults with at least one chronic disease in Montana had 3.8 days per month of poor physical or mental health.**
 - **Prevalence of modifiable risk factors like smoking, physical activity, and unhealthy weight varied by occupation.**

People with chronic diseases miss one to two days of work per year and the days missed increase the more chronic diseases a person has.¹ This leads to billions of dollars of lost productivity and earned wages. Eighty-six percent of healthcare spending is for people with one or more chronic condition.²

Occupation itself can be a risk factor for poor health. The environment and exposures, interpersonal relationships, and physical demands can all influence physical and mental health.³ Occupation is also associated with various risk factors for chronic disease as well as prevalence of chronic disease.

Worksite wellness programs emphasize keeping employees healthy. These programs provide opportunities and incentives for people to manage their health. Worksite wellness can be a resource for people looking to reduce their risk for chronic disease.

This report examines the prevalence of risk factors related to chronic disease by occupation among working adults in Montana.

Methods

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual, random-digit-dial telephone survey of noninstitutionalized adults (18+ years) conducted in each state that collects data on general health and health behaviors.

Since 2012, the Montana BRFSS has been collecting data on the occupation and industry of currently employed respondents. For the survey respondents who were currently “employed for wages”, “self-employed”, or had been employed in the last 12 months, interviewers asked the following questions for industries and occupation, respectively: “What kind of industries do you work in?” and “What is your job title?” If no job title was provided, the respondent was asked “What kind of work do you do?” The narrative text responses were coded to 2002 Census Industry and Occupation codes by the National Institute for Occupational Safety and Health (NIOSH). Free text responses were coded by software. Those unable to be coded by software were manually coded. The detailed occupational classes were further grouped into 11 broader occupational categories.

All estimates were age-adjusted to the 2000 population.

Occupation categories with example professions

Management, Business and Financial: Chief executive, Legislator, Manager, Analyst, Accountant

Professional and Related: Computer programmer, Actuary, Engineer, Scientist, Social worker, Clergy, Lawyer, Teacher, Actor, Musician, Author, Healthcare provider

Service: Healthcare support, Fire fighters, Police, Cooks, Waiters and waitresses, Janitors, Barber, Child care provider

Sales and Related: Cashier, Travel agent, Telemarketer, Real Estate agent

Office and Administrative Support: Bank teller, Court clerk, Customer service representative, Data entry, Receptionist

Farming, Fishing, and Forestry: Logging, Conservation worker, Hunter and trapper, Animal breeder

Construction and Extraction: Carpenter, Mason, Electrician, Roofer, Mining

Installation, Repair, and Maintenance: Power-line installer, Heating/air conditioning installer

Production: Baker, Butcher, Machine setter, Machinist, Tailor, Jeweler

Transportation and Material Moving: Pilot, Ambulance driver, Bus driver, Taxi driver, Railroad conductor, Crane operator

Military Specific: Enlisted position

Upcoming Events

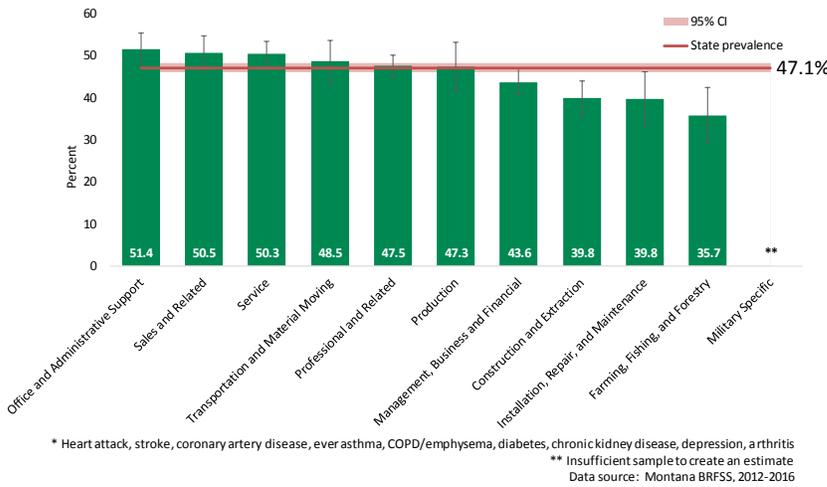
- Big Sky Pulmonary Conference—**
March 15-17th Fairmont Hot Springs
- Montana Asthma Advisory Group meeting—** May 10th Great Falls, MT

Montana Asthma Control Program

1400 E Broadway
Helena, Montana 59620-2951

<http://www.dphhs.mt.gov/asthma>

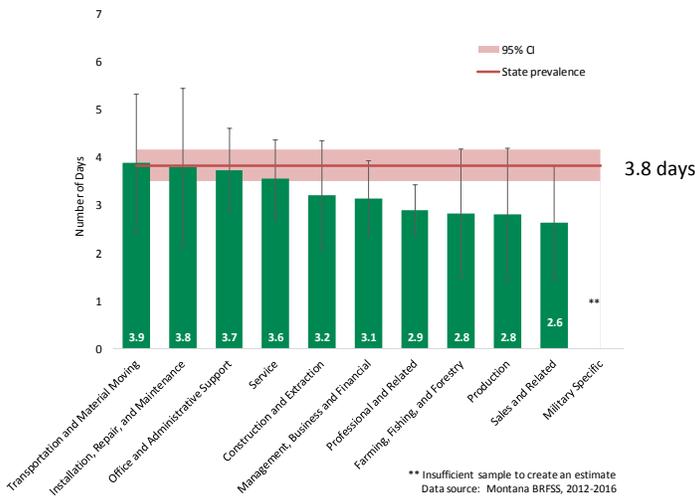
Figure 1. Age-adjusted percent of employed Montana adults who have at least one chronic disease* by occupation



Chronic Disease Prevalence

Nearly half (47.1%) of employed Montana adults reported having at least one chronic disease and 18.9% reported having two or more (BRFSS, 2012-2016). As the number of chronic conditions a person has increases, so does the risk of poor day-to-day functioning. In Montana, employed adults with no chronic conditions reported, on average, 1.4 poor mental or physical days in the last 30 days while employed adults with at least one chronic condition reported 3.8 days and those with at least two reported 4.8 days (BRFSS, 2012-2016).

Figure 2. Average number of poor physical or mental health days in the last 30 days among employed Montana adults with at least one chronic disease by occupation



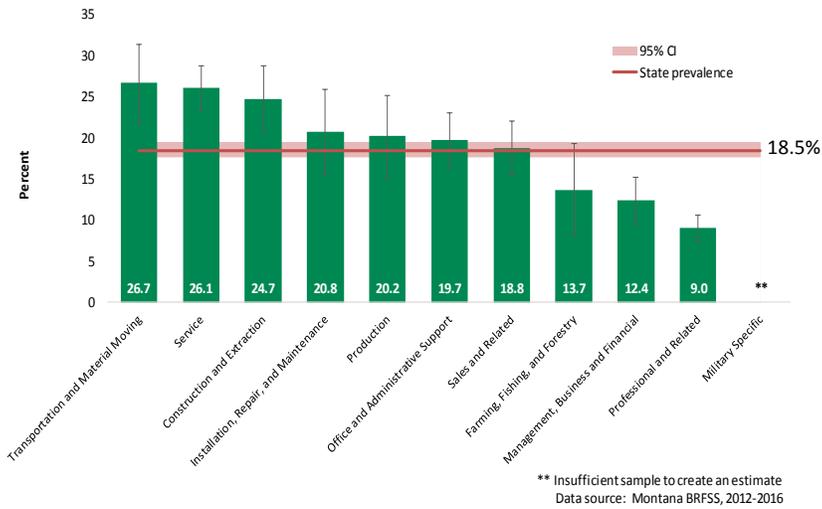
- Most occupation classes had similar prevalence of one or more chronic conditions as the state overall. The construction and extraction and farming, fishing, and forestry occupation categories were significantly lower. (Figure 1)
- Of people with at least one chronic disease, the mean number of poor physical and mental health days in the last 30 days was significantly lower among professional and related occupations than the state mean. (Figure 2)
- Office and administrative support occupations and service occupations had a significantly higher prevalence of depression than the state overall. (Table)

Table. Age-adjusted prevalence of selected chronic diseases among employed Montana adults by occupational categories

	Arthritis	Cancer (Skin, Other cancer)	Cardiovascular Disease (Heart attack, stroke, angina)	Chronic Respiratory Condition (Asthma, COPD, Emphysema)	Depressive Disorder	Diabetes
State prevalence	19.6	10.1	4.8	14.5	17.0	5.8
Construction and Extraction	16.9	8.6	6.5	10.1	8.9	4.8
Farming, Fishing, and Forestry	18.4	7.0		11.3	6.7	3.4
Installation, Repair, and Maintenance	15.4	7.7	6.1	13.5	7.4	
Management, Business, and Financial	19.2	10.1	4.3	13.6	13.1	5.6
Military Specific						
Office and Administrative Support	21.2	11.2	4.0	14.7	22.4	5.5
Production	23.7	4.9	4.2	18.2	15.8	5.2
Professional and Related	16.4	11.4	4.4	14.4	19.2	4.9
Sales and Related	22.7	9.1	4.9	16.6	18.0	6.6
Service	21.3	10.0	5.3	15.7	21.8	6.4
Transportation and Material Moving	20.6	9.5	4.8	13.9	16.1	7.0

Insufficient sample to create an estimate Data source: Montana BRFSS, 2012-2016	Lower than state prevalence	Similar to state prevalence	Higher than state prevalence
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Figure 3. Age-adjusted percent of employed Montana adults who smoke by occupation



Modifiable Risk Factors

There are many risk factors for the development of chronic diseases, however, three unhealthy behaviors (poor diet, tobacco use, and physical inactivity) are associated with four common chronic diseases (cancer, heart disease, type 2 diabetes, and lung disease), which account for about 50% of all deaths in Montana. In Montana, 18.5% of employed adults smoked tobacco, 19.1% had no leisure time physical activity in the last 30 days outside of work, and 63.4% were obese or overweight (BRFSS, 2012-216).

- The prevalence of smoking cigarettes varied widely by occupation. Transportation and material moving occupations, service occupations, and construction and extraction occupations had significantly higher prevalence of smoking than the state prevalence. Professional occupations as well as management, business, and financial occupations were significantly lower. (Figure 3)
- Four occupational categories had significantly higher prevalence of no leisure time activity outside of work than the state prevalence. Professional occupations reported more leisure activity outside of work than the state prevalence. (Figure 4)
- Transportation and material moving occupations had a significantly higher prevalence of being overweight or obese than the state prevalence. Professional occupation were lower. (Figure 5)

Figure 4. Age-adjusted percent of employed Montana adults who had no leisure time physical activity outside of work in the last 30

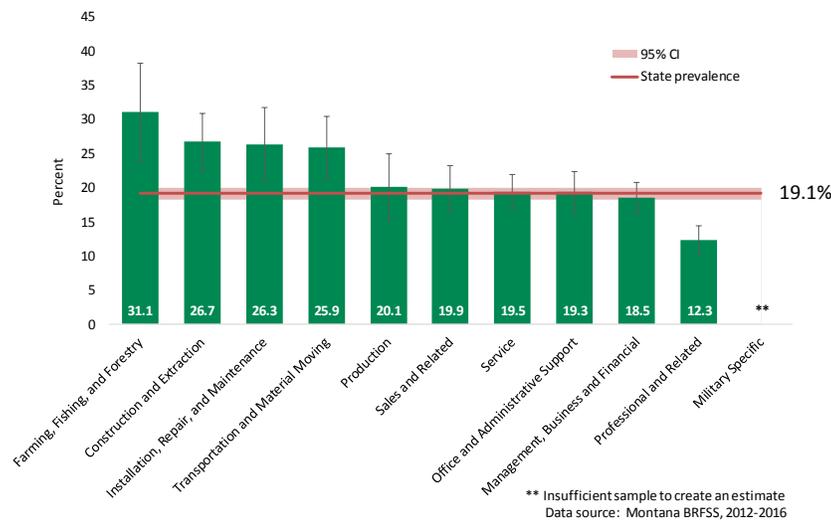
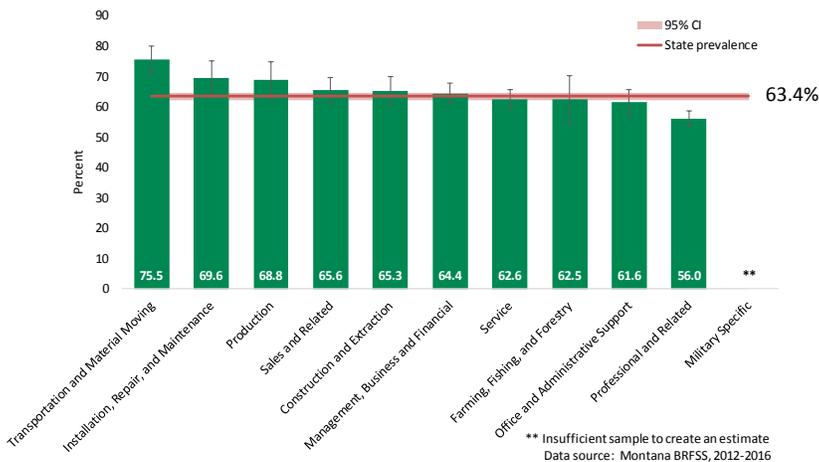


Figure 5. Age-adjusted percent of employed Montana adults who are overweight or obese by occupation



References

1. https://www.cdc.gov/pcd/issues/2016/15_0503.htm
2. <https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-care/decision/mcc/mccchartbook.pdf>
3. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-7-196>



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Clinical Recommendations

- Talk to your patients about work exposures or environmental triggers that may be affecting their health.
- Discuss staying active at work and outside of work.
- Ask your patients if they have access to any worksite wellness programs or benefits through their job that could support their health.
- Refer to self-management and lifestyle change programs to reduce the risk of developing a chronic disease.
- Refer current tobacco users to the Quit Line at 1-800-QUIT-NOW (1-800-784-8669) or QuitNowMontana.com.

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- Prevalence of modifiable risk factors like smoking, physical activity, and unhealthy weight varied by occupation.

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