Montana Chronic Disease Prevention & Health Promotion Bureau

September 2017

THE BURDEN OF ARTHRITIS IN MONTANA, 2015

SURVEILLANCE REPORT

Quick Facts

More than 1 in 4 Montana adults were diagnosed with arthritis in 2015.

The Highest rates of arthritis were found in adults with a disability, older age, and lower income.

Regular, low-impact physical activity is the best way to manage arthritis pain.

Montana Chronic Disease Program

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MONTANA DPHHS
Healthy People. Healthy Communities.
Department of Public Health & Human Services

Background

Arthritis is a collection of over 100 different types of joint and connective tissue related diseases. It is one of the most common chronic diseases in the nation, affecting children and young adults as well as older adults. In 2015, nearly twenty-five percent (24.7%) of U.S. adults of all ages reported ever being diagnosed with arthritis.[1] Arthritis often causes severe joint pain and stiffness, and can lead to permanent joint damage and disability. Arthritis is the leading cause of disability in the United States. Among the 47.5 million Americans who reported having a disability in 2005, 8.6 million reported arthritis as the cause of their disability.[2]

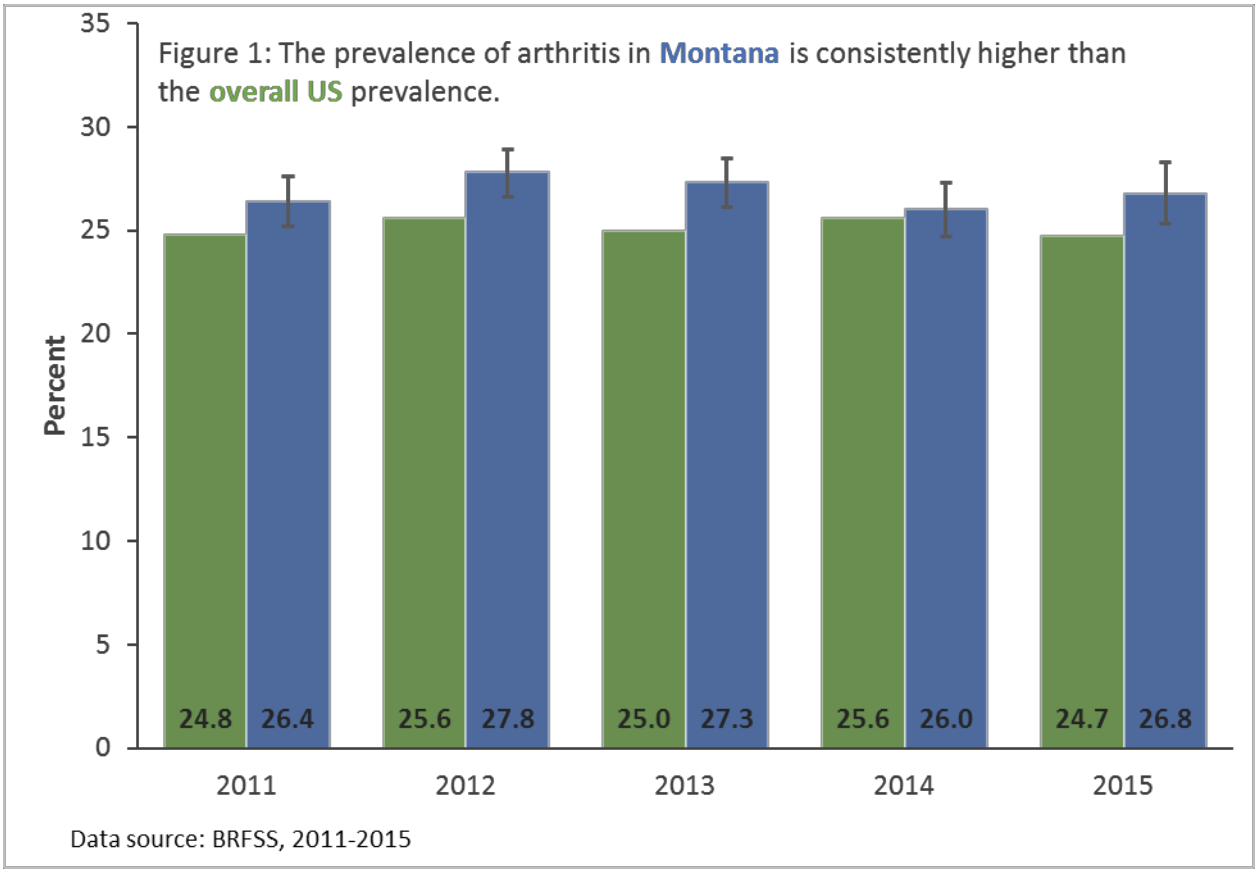
Methods

This report utilized data from the 2015 Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is a random digit dialed telephone survey of non-institutionalized adults. The survey asks respondents whether they have been diagnosed with any type of arthritis and collects information about pain severity, activity limitations due to arthritis, and activities that contribute to arthritis management as well as a variety of other health related information.

Findings

Prevalence

Arthritis is common among Montana adults, with 26.8% (approximately 216,000 adults) reporting ever being diagnosed with arthritis or an associated condition. The proportion of Montanans with arthritis is higher than the overall US prevalence, and has remained fairly constant since 2011 (Figure 1).



The prevalence of arthritis is significantly higher among adults aged 45 years and older, adults with annual household incomes less than $25,000, veterans, adults with a disability, and obese adults. The prevalence of arthritis is higher among women compared to men, and is also higher among adults who live in rural areas[3] compared to those living in more populated areas of Montana (Table 1).

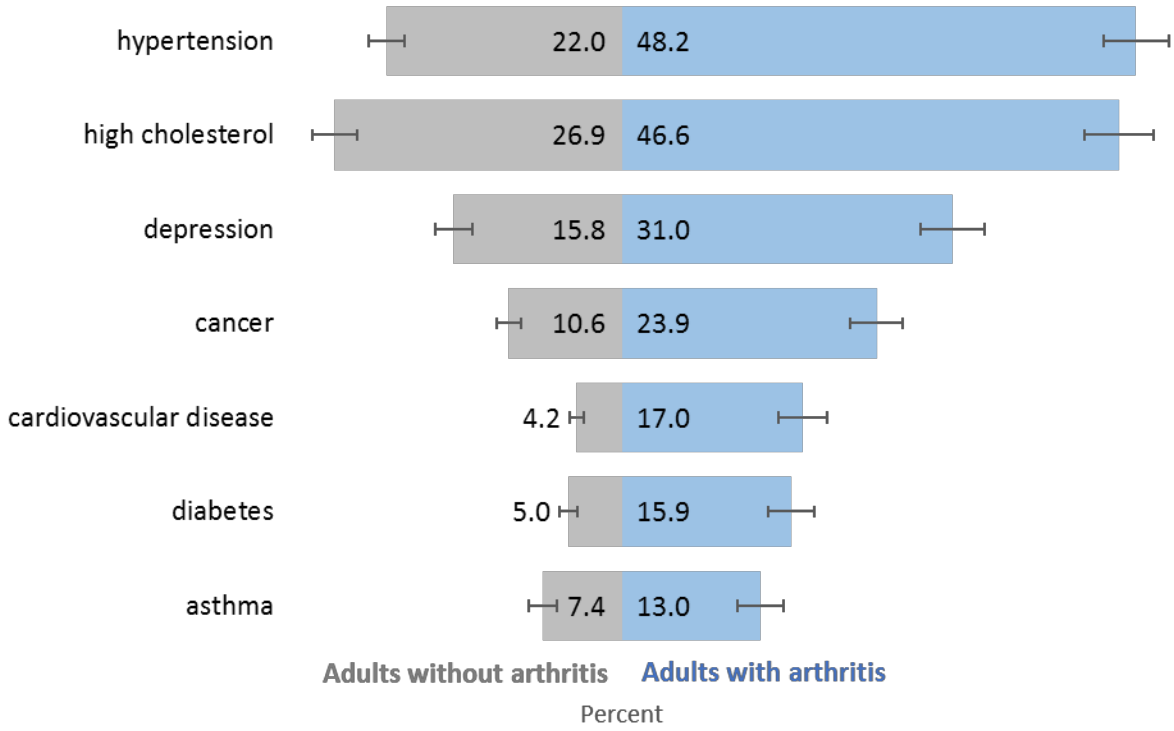
Table 1: Prevalence* of Arthritis by Selected Demographic Groups, Montana, BRFSS 2015

		95% Confidence Interval	
	Percent	Lower Limit	Upper Limit
All Montana adults	26.8	25.3	28.3
Sex			
Female	29.2	27.1	31.4
Male	24.4	22.3	26.5
Age			
18-44	10.6	8.5	12.6
45-64	**32.3**	**29.7**	**34.8**
65+	**49.9**	**47.2**	**52.7**
Disability Status			
Has a disability	**54.9**	**51.0**	**58.9**
Does not have a disability	19.3	17.8	20.7
Veteran Status			
Veteran	**35.8**	**31.7**	**40.0**
Non-veteran	25.2	23.6	26.8
Annual Income			
< $25,000	**37.0**	**33.3**	**40.8**
$25,000 - $49,999	31.2	28.1	34.4
$50,000 +	18.0	15.9	20.0
Education			
High school or less	29.5	26.9	32.0
Some college	28.0	25.3	30.8
College degree or more	21.2	19.1	23.3
Race			
White	27.4	25.7	29.0
American Indian / Alaska Native	32.7	25.5	39.9
All other races	17.4	11.9	23.0
Place of residence			
Lives in a rural county	30.1	27.7	32.4
Does not live in a rural county	24.8	22.9	26.7
Weight Status			
Not overweight or obese	22.3	19.9	24.8
Overweight	26.3	23.9	28.8
Obese	**35.9**	**32.6**	**39.3**

*Prevalence is expressed as the percent of all adults in each demographic group.
Bold indicates groups with significantly higher arthritis prevalence compared to all Montana adults.

Over four out of five Montana adults with arthritis (81.9%) also have at least one additional chronic health condition. Having multiple chronic conditions substantially increases the risk of death, hospitalization, and poor day-to-day functioning compared to having only one chronic condition.[4] Nearly half of adults with arthritis also have hypertension or high cholesterol, almost a third have experienced depression, and nearly a quarter have ever had cancer. The prevalence of these conditions, as well as that of cardiovascular disease, diabetes, and asthma, is significantly higher among adults with arthritis compared to adults who do not have arthritis (Figure 2).

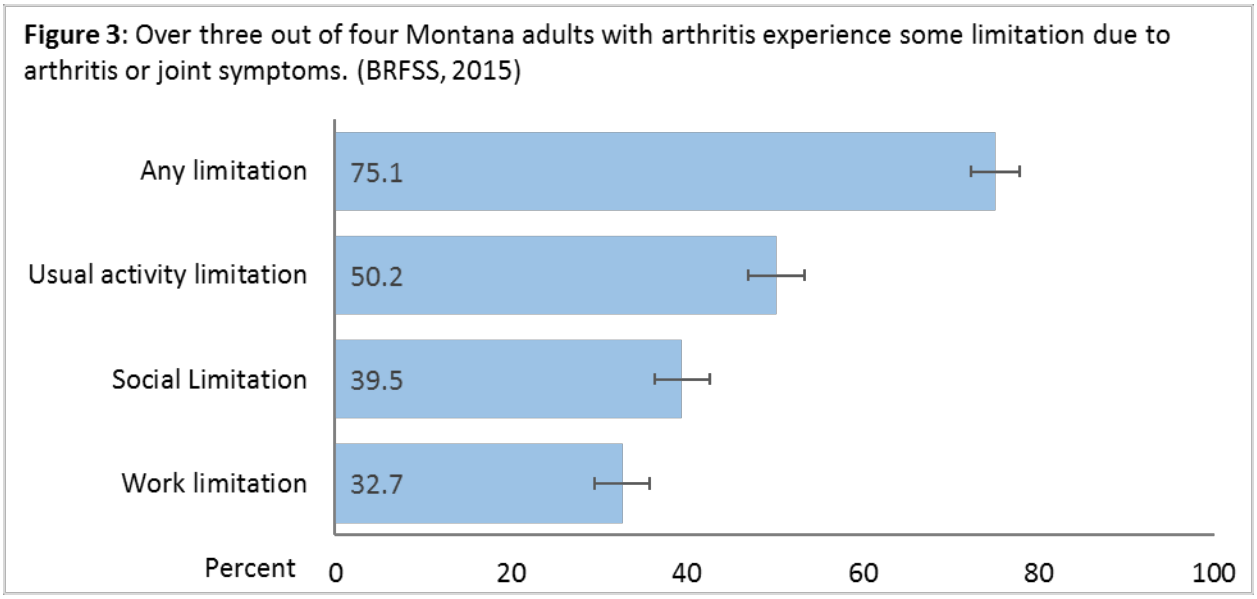
Figure 2: The prevalence of many chronic health conditions is higher in Montana **adults with arthritis** compared to Montana **adults without arthritis**. (BRFSS 2015)



Impact

Arthritis can substantially affect a person's ability to engage in everyday activities, as well as overall quality of life. More than three-quarters of Montana adults with arthritis reported that their arthritis limited them in some way: half reported being limited in their usual activities because of joint symptoms; one in three reported their arthritis affected whether they work, the type of work they do, or the amount of work they do; and nearly forty percent reported their arthritis interfered with their ability to participate in social activities (Figure 3).

Figure 3: Over three out of four Montana adults with arthritis experience some limitation due to arthritis or joint symptoms. (BRFSS, 2015)



About 30% of Montana adults with arthritis reported being able to do only some or hardly any of the things they want to do, and over 60% reported experiencing moderate or severe joint pain[5] over the past 30 days (Figures 4a and 4b).

Figure 4a: Over 75% of Montanas with arthritis are affected by it on a daily basis. (BRFSS 2015)

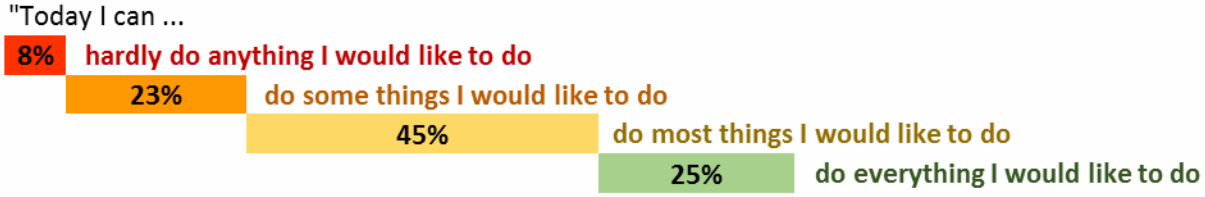
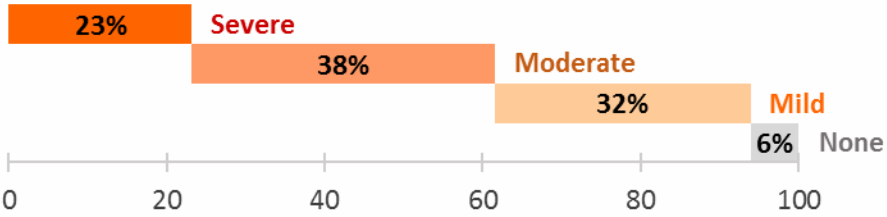


Figure 4b: Over 60% of adult Montanans with arthritis experience **severe** or **moderate** joint pain. (BRFSS 2015)

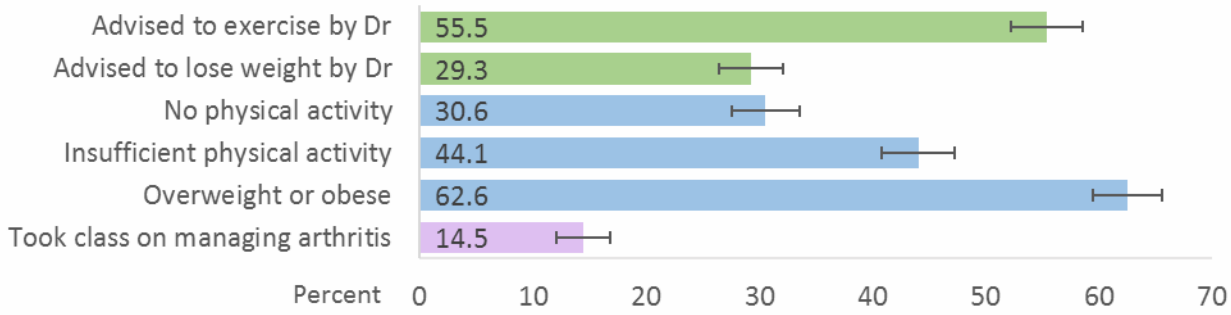


Management

Regular, low-impact physical activity is one of the best ways to manage arthritis pain and stiffness. Physical activity strengthens muscles around joints, making them better able to support and stabilize the joint.[6] Exercise can also help to increase the flexibility and range of motion of joints, and has been shown to help delay or prevent the need for future joint surgery among those with osteoarthritis.[7] Exercise also aids in maintaining a healthy weight which takes significant stress off of lower extremity joints. However, people with arthritis often don't exercise because of joint pain and fear of making their symptoms worse. [8]

Nearly two-thirds of Montana adults with arthritis are overweight or obese.[9] Over half reported being advised by a doctor to exercise in order to improve their arthritis or joint symptoms, and nearly one third were advised to lose weight. Despite this, nearly one in three adults with arthritis reported engaging in no physical activity and nearly half reported too little physical activity (Figure 5).

Figure 5: Despite **recommendations** from healthcare providers, most adults with arthritis don't get enough physical activity, and many are overweight or obese. (BRFSS, 2015)



Effectively managing a chronic health condition can be difficult. Learning new strategies can help people with chronic conditions not only better manage their health, but also cope more effectively in all aspects of their life. However, very few Montanans have accessed self-management education: among those with arthritis, less than one in six reported ever attending a class on how to manage their arthritis (Figure 5).

Arthritis programs

The Montana Arthritis Program (MAP) is working to improve the quality of life for people affected by arthritis and other rheumatic conditions by increasing awareness about appropriate arthritis exercise and self-management activities. The MAP is also working to expand the reach of programs proven to improve the quality of life for people with arthritis by providing mini-grants to sites across the state interested in implementing one or more of these programs. The MAP currently supports the Arthritis Foundation Exercise Program, the Walk with Ease Program, and the Stanford University Chronic Disease Self-Management Program.

Adults aged 45 years and older, veterans, and adults with low incomes have higher levels of arthritis and they make up a large proportion of Montana's population. The 2015 American Community Survey estimated about 44.4% of Montanans were aged 45 years or older; 11.4% of adults were veterans; and 25.8% of households had annual incomes of $25,000 or less. The MAP is making a special effort to increase access to arthritis-appropriate exercise and self-management classes for these populations. Organizations that serve older adults, veterans, and low-income adults should consider including programs to address arthritis management and exercise in their regular services.

If you are interested in implementing arthritis exercise and self-management programs or to find a class near you, please visit the Montana Arthritis Program website.

References

[1]Centers for Disease Control and Prevention (CDC). (2015). *Behavioral Risk Factor Surveillance System (BRFSS) survey data*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved from http://nccd.cdc.gov/

[2]Hootman, J. M., Brault, M., Helmick, C. G., Theis, K. A., & Armour, B. (2009). Prevalence and most common causes of disability among adults — United States, 2005. *MMWR: Morbidity and Mortality Weekly Report*, *58*(16), 421–426.

[3]Rural *areas* means counties categorized as "non-core" using the National Center for Health Statistics (NCHS) urban-rural classification scheme for counties, and includes: Beaverhead, Big Horn, Blaine, Broadwater, Carter, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Garfield, Glacier, Granite, Hill, Judith Basin, Lake, Liberty, Lincoln, Madison, McCone, Meagher, Mineral, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, and Wibaux counties. National Center for Health Statistics (U.S.) (Ed.). (2012). *NCHS urban-rural classification scheme for counties*. Hyattsville, Md: U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics.

[4]Office of the Assistant Secretary for Health (OASH). (2009, March 11). HHS Initiative on Multiple Chronic Conditions. Retrieved February 15, 2017, from https://www.hhs.gov/

[5]Using a ten point pain scale, *severe joint pain* is defined as 7 to 10, and *moderate joint pain* as 4 to 6. *See also* Barbour, K. E., Boring, M., Helmick, C. G., Murphy, L. B., & Qin, J. (2016). Prevalence of Severe Joint Pain Among Adults with Doctor-Diagnosed Arthritis - United States, 2002-2014. *MMWR: Morbidity and Mortality Weekly Report, 65*(39), 1052–1056. https://doi.org/10.15585/mmwr.mm6539a2

[6]American College of Rheumatology. Exercise and Arthritis. Retrieved March 15, 2017, from https://www.rheumatology.org/

[7]Svege, I., Nordsletten, L., Fernandes, L., & Risberg, M. A. (2015). Exercise therapy may postpone total hip replacement surgery in patients with hip osteoarthritis: a long-term follow-up of a randomized trial. *Annals of the Rheumatic Diseases*, *74*(1), 164–169. https://doi.org/10.1136/annrheumdis-2013-203628

[8]Arthritis Foundation. Benefits of Exercise for Arthritis. Retrieved March 15, 2017, from http://www.arthritis.org/

[9]*Overweight or obese* defined as having a BMI greater than or equal to 25.