

Regional Arthritis Prevalence

in New York State

Introduction

Arthritis comprises more than 100 diseases and conditions affecting the joints and surrounding connective tissues.¹ With one in four American adults reporting doctor-diagnosed arthritis, it is one of the nation's most common health problems as well as the number one cause of disability in the state and nation.² Eighteen percent of people with a disability attribute the cause of their activity limitation to arthritis.² Of the more than 3.9 million New York adults who report having doctor-diagnosed arthritis, nearly 36 percent report limitations in their daily activities.³ Though these numbers become more dramatic in older age groups, arthritis is by no means simply a disease of older age. More than two-thirds of individuals who report having arthritis are under the age of 65.⁴

Each year, arthritis results in 750,000 hospitalizations and 36 million ambulatory care visits in the U.S. Women account for 63 percent of these visits and 68 percent are by persons under 65 years of age.⁵ In 1997, estimated annual medical care costs for arthritis was \$51 billion; when lost productivity is factored in, total costs are \$86 billion.⁶ That same year the total of direct and indirect costs of arthritis care in New York State was \$5.8 billion.⁷

Though arthritis cannot be cured, its symptoms can be managed and its progression slowed by methods other than medical intervention. Comprehensive evaluations of several self-management programs have demonstrated significant benefits to participants, including improvements in symptoms such as pain and stiffness, as well as reductions in health care utilization in the form of fewer average physician visits and trips to emergency rooms.⁸⁻¹¹ In order to enhance planning and

targeting of resources and promote and expand the use of evidence-based interventions in New York State, the New York State Department of Health Arthritis Program recognizes the need to increase awareness of the state and local arthritis burden.

This brief provides specific information on arthritis prevalence in 38 localities in New York State (each locality consists of one to three counties) by sex, age, and education, drawn from the 2003 Expanded Behavioral Risk Factor Surveillance System (BRFSS), a population-based survey of state residents. Prevalence data tables are organized regionally by Arthritis Foundation local chapter catchment areas.

For example, the data shows that 25.9 percent of the respondents in Clinton, Essex, and Franklin counties report doctor-diagnosed arthritis; while 25.8 percent of the respondents in Nassau County report doctor-diagnosed arthritis. Albany County respondents report 26.5 percent of doctor-diagnosed arthritis as compared to 34.4 percent in Hamilton and Herkimer counties. This report does not examine the causes of regional variations; it is only meant to provide prevalence data.

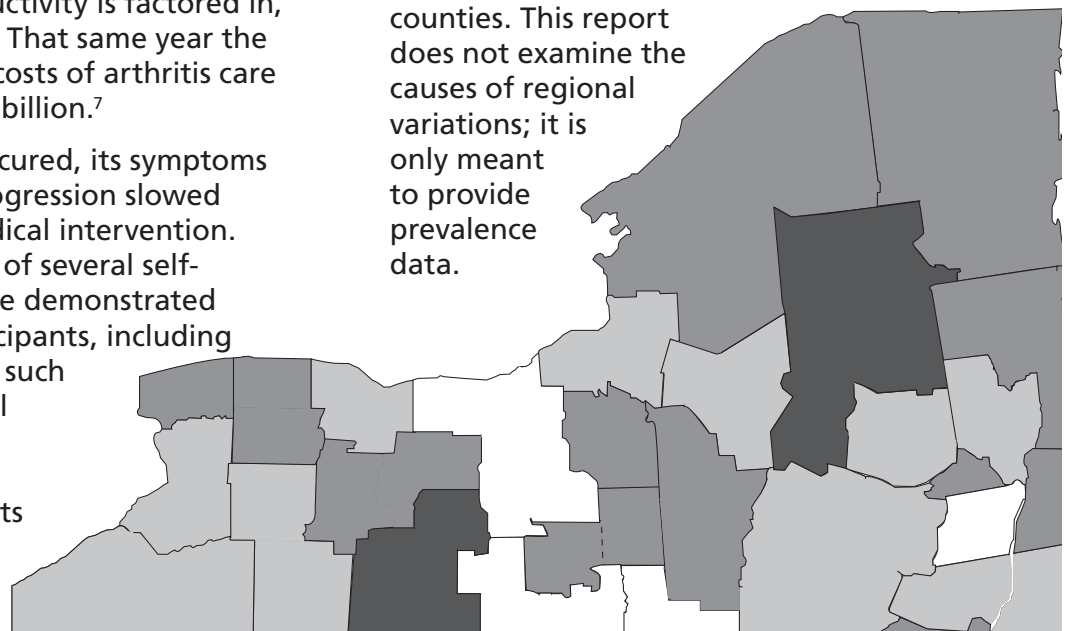


Table 1. Prevalence^a of doctor-diagnosed arthritis among adult New Yorkers, by demographic characteristic and Expanded BRFSS locality: New York Arthritis Foundation Chapter catchment area

Characteristic		Locality (includes one to two counties)													
		Westchester		Rockland		Orange		Putnam		Dutchess, Ulster		Bronx		Broome	
		%	± CI ^b	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI
Total		23.0	3.7	26.1	3.7	23.4	3.6	23.4	3.7	30.9	4.2	20.7	3.7	32.5	4.0
Sex	Male	17.3	5.0	20.1	5.2	16.0	4.6	19.5	5.3	25.7	5.7	14.9	5.8	25.7	5.7
	Female	28.0	5.2	31.7	5.1	30.7	5.1	27.3	4.9	36.1	6.0	25.5	4.7	38.6	5.5
Age (yrs)	18-44	8.3	3.4	11.8	3.9	9.5	3.5	9.2	3.5	16.9	6.2	7.5	3.3	14.1	4.6
	45-64	32.3	7.9	34.1	7.1	35.7	7.2	35.9	7.1	37.4	6.7	36.2	7.9	43.1	7.6
	65+	46.4	9.2	56.1	9.6	51.4	9.7	44.3	10.4	56.7	9.6	44.6	12.7	60.7	8.4
Education	≤ H.S./GED	23.7	7.0	24.5	7.1	30.3	5.8	30.2	7.0	33.0	7.3	25.4	5.5	39.8	6.5
	Some college	20.3	7.7	23.9	7.5	20.6	6.8	18.2	5.9	27.9	7.3	14.6	7.0	25.9	7.1
	College grad	23.8	5.3	26.3	5.3	15.8	5.4	20.7	5.6	31.0	6.8	15.4	6.2	29.1	7.0

^a Prevalence rate is the total number of cases of a disease in a population divided by the total population

^b CI, 95% confidence interval

effort, more than 7,000 people have been reached in New York State. This is in addition to the people that are normally reached by the Arthritis Foundation chapters. The Arthritis Program has worked closely with the chapters to seamlessly implement and coordinate program activities as needed.

Much like the national goal of Healthy People 2010, the mission of the Arthritis Program is to maximize the quality of life for New Yorkers who suffer from arthritis and related diseases. This can be accomplished in a variety of ways: decreasing limitations experienced by people with arthritis, decreasing pain associated with arthritis, and increasing the number of people who have participated in evidence-based arthritis interventions. Currently, a new focus of partnering with health systems and networks will allow for the introduction of the evidence-based programs to a wider audience, reaching more individuals with arthritis or possible arthritis.

Table 2. Prevalence^a of doctor-diagnosed arthritis among adult New Yorkers by demographic characteristic and Expanded BRFSS locality: Long Island Arthritis Foundation Chapter catchment area

Characteristic		Locality			
		Suffolk		Nassau	
		%	± CI ^b	%	± CI
Total		23.6	3.5	25.8	3.9
Sex	Male	18.3	5.0	20.2	5.6
	Female	28.6	4.9	30.8	5.3
Age (yrs)	18-44	11.8	3.8	9.2	3.7
	45-64	26.9	6.7	29.0	7.2
	65+	56.8	9.8	56.1	9.6
Education	≤ H.S./GED	27.9	6.5	34.2	8.4
	Some college	23.9	6.8	20.6	7.1
	College grad	19.5	5.2	24.0	5.3

^a Prevalence rate is the total number of cases of a disease in a population divided by the total population

^b CI, 95% confidence interval

Table 5. Prevalence^a of doctor-diagnosed arthritis among adult New Yorkers, by demographic characteristic and Expanded BRFSS locality: Upstate New York Arthritis Foundation Chapter: Central New York Branch catchment area

Characteristic		Locality (includes one to three counties)																			
		Hamilton, Herkimer		Jefferson, Lewis, St. Lawrence		Oneida, Oswego		Madison, Chenango		Onondaga		Tompkins, Cortland		Sullivan, Kings		New York		Richmond		Queens	
		%	± CI ^b	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI
Total		34.4	4.3	35.4	4.4	32.8	4.0	30.1	3.8	29.0	3.8	23.9	3.8	24.1	3.9	22.0	3.8	26.5	3.9	22.5	3.9
Sex	Male	30.3	6.5	35.3	7.0	28.3	6.1	26.3	5.7	26.5	6.0	18.4	5.0	22.3	6.5	17.4	5.2	21.8	5.6	17.2	5.5
	Female	38.3	5.6	35.6	5.4	37.2	5.1	33.7	5.0	31.3	4.9	29.0	5.4	25.6	4.7	26.0	5.	30.8	5.4	27.2	5.4
Age (yrs)	18-44	16.0	5.5	15.6	4.9	15.9	4.4	10.9	3.7	11.7	4.4	12.5	4.7	9.1	3.3	7.3	3.2	10.3	3.8	8.4	4.1
	45-64	42.9	7.3	54.0	7.8	41.8	7.4	41.7	7.0	38.4	6.9	33.2	6.7	35.5	7.9	30.8	7.8	42.0	7.7	33.4	8.1
	65+	57.7	8.8	65.2	9.3	62.9	8.4	59.6	8.6	55.9	9.2	56.3	10.1	57.3	12.6	60.0	10.0	51.0	10.9	51.2	10.6
Education	≤ H.S./GED	38.5	6.2	39.5	6.4	36.7	6.0	31.7	5.4	36.4	6.9	38.0	7.9	27.4	6.0	30.2	8.6	31.1	6.6	23.6	6.3
	Some college	31.1	7.8	32.4	7.9	34.4	7.6	29.0	7.1	29.9	7.3	15.6	5.9	23.4	8.8	19.8	8.3	22.2	7.3	21.8	8.3
	College grad	30.4	8.9	29.5	9.6	22.1	7.2	28.8	8.1	22.2	5.8	18.7	4.8	19.6	6.3	18.1	4.5	24.5	6.6	20.2	5.6

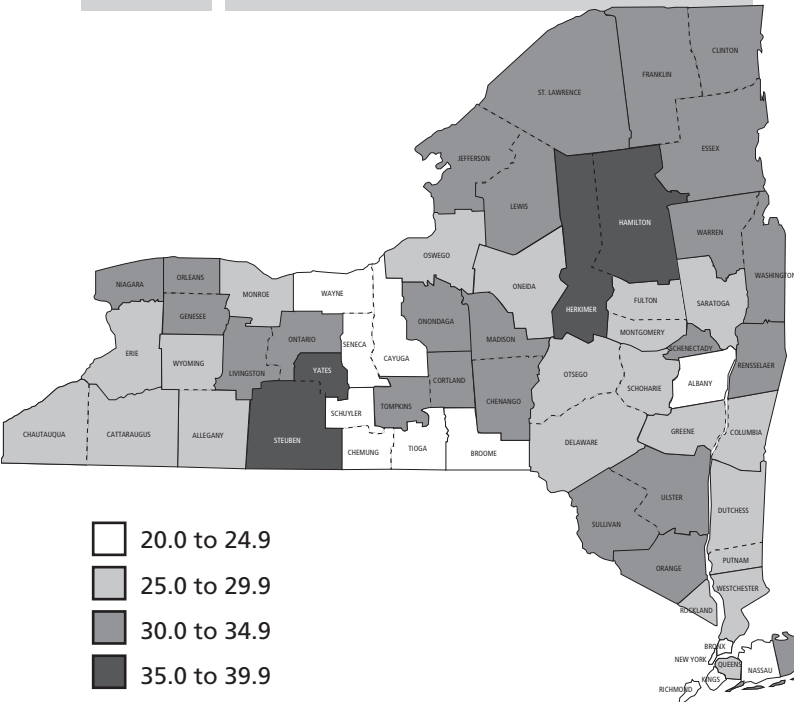
^a Prevalence rate is the total number of cases of a disease in a population divided by the total population
^b CI, 95% confidence interval

Table 6. Prevalence^a of doctor-diagnosed arthritis among adult New Yorkers, by demographic characteristic and Expanded BRFSS locality: Southern New England Arthritis Foundation Chapter: Northern New England Branch catchment area

Characteristic		Locality (includes three counties)	
		Clinton, Franklin, Essex	
		%	± CI ^b
Total		25.9	3.7
Sex	Male	21.0	5.2
	Female	31.5	5.1
Age (yrs)	18-44	10.0	3.6
	45-64	33.1	7.0
	65+	61.5	8.6
Education	≤ H.S./GED	27.2	5.5
	Some college	23.4	6.8
	College grad	26.4	7.2

^a Prevalence rate is the total number of cases of a disease in a population divided by the total population
^b CI, 95% confidence interval

Map Arthritis prevalence by locality (weighted percentage of adults with doctor-diagnosed arthritis)



*Note:
Broken lines represent county borders within multi-county localities

Source of Data

Expanded Behavioral Risk Factor Surveillance System

The Expanded Behavioral Risk Factor Surveillance System project was conducted from July 2002 through July 2003 to assess local level prevalence of behavioral risk factors and utilization of preventive care services related to the leading causes of illness, injury, and death. The information from the Expanded BRFSS is intended for use by local health departments and others for needs assessment, health program planning and evaluation, policy formulation, and monitoring progress toward established health goals and objectives.

The Expanded BRFSS followed the protocol established by the Centers for Disease Control and Prevention (CDC) for the annual New York State BRFSS. Random-digit-dialing telephone interviewing procedures were used to survey adults aged 18 years and older in localities across the entire state. The composition of the 38 localities was determined in consultation with the New York State Association of County Health Officers (NYSACHO). Counties with sparser populations were grouped with neighboring counties in order to increase the pool of potential respondents. The Expanded BRFSS questionnaire was constructed of standard BRFSS items and modules developed by the CDC. Questionnaire development began with the selection of a common set of core items and modules. Representatives from each county and from program areas within the New York State Department of Health (NYSDOH) prioritized topics to constitute the questionnaire core. Each locality was then allowed to select optional items and modules of particular interest to their respective area to complete the balance of their specific questionnaires. In localities opting not to select optional questionnaire items, a “standard” questionnaire developed by the NYSDOH was administered.

In the Expanded BRFSS survey, doctor-diagnosed arthritis was assessed by a response of “yes” to the following question: “Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?”

Table 3. Prevalence^a of doctor-diagnosed arthritis among adult New Yorkers by demographic characteristic and Expanded BRFSS locality: Northeastern New York Arthritis Foundation Chapter catchment area

Characteristic		Locality (includes one to three counties)																	
		Columbia, Greene		Albany		Rensselaer		Schenectady		Saratoga		Warren, Washington		Hamilton, Herkimer		Fulton, Montgomery		Schoharie, Delaware, Otsego	
		%	± CI ^b	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI
Total		32.9	4.1	26.5	3.7	33.9	4.1	29.7	3.8	28.7	3.9	28.7	3.8	34.4	4.3	36.5	4.2	31.6	4.1
Sex	Male	27.4	5.9	21.4	5.3	30.8	6.2	21.2	5.3	26.9	6.3	23.3	5.4	30.3	6.5	32.4	6.4	31.9	6.5
	Female	38.4	5.5	31.0	5.2	36.9	5.3	37.3	5.2	30.4	4.7	34.0	5.1	38.3	5.6	40.2	5.5	31.2	5.1
Age (yrs)	18-44	9.6	3.8	8.1	3.2	16.7	4.8	15.4	4.4	14.4	4.6	11.8	4.3	16.0	5.5	18.7	5.1	15.5	5.5
	45-64	44.0	6.6	36.2	7.0	43.5	7.7	31.7	7.1	34.4	7.1	36.5	6.7	42.9	7.3	48.8	7.9	38.2	6.7
	65+	56.0	9.3	55.8	9.6	64.8	8.6	57.4	8.2	62.5	9.7	56.9	9.0	57.7	8.8	55.6	8.6	56.8	8.4
Education	≤ H.S./GED	37.6	6.3	35.4	7.7	41.4	6.8	37.3	6.8	32.9	7.0	26.6	5.2	38.5	6.2	41.6	5.9	32.5	6.0
	Some college	31.9	7.9	29.9	8.1	34.8	7.9	33.0	7.6	29.9	7.3	31.8	7.8	31.1	7.8	32.5	7.4	38.6	8.9
	College grad	26.2	7.0	19.3	4.7	23.4	6.2	19.1	5.1	24.1	6.2	29.6	7.7	30.4	8.9	28.4	10.4	23.7	6.7

^a Prevalence rate is the total number of cases of a disease in a population divided by the total population

^b CI, 95% confidence interval

Table 4. Prevalence^a of doctor-diagnosed arthritis among adult New Yorkers, by demographic characteristic and Expanded BRFSS locality: Upstate New York Arthritis Foundation Chapter catchment area

Characteristic		Locality (includes one to three counties)																			
		Chemung, Schuyler, Tioga		Seneca, Wayne, Cayuga		Steuben, Yates		Monroe		Ontario, Livingston		Allegany, Wyoming		Genesee, Orlean		Erie		Niagara		Cattaraugus, Chautauqua	
		%	± CI ^b	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI
Total		28.4	3.8	31.3	4.0	32.9	4.1	30.8	4.0	28.7	3.8	29.2	3.8	32.8	4.1	33.0	4.1	32.8	4.0	29.5	3.9
Sex	Male	24.5	5.7	27.4	5.9	28.6	6.4	26.5	5.9	27.2	5.7	25.8	5.7	29.3	6.1	29.6	6.3	29.3	5.8	22.8	5.7
	Female	32.0	5.0	35.3	5.3	36.9	5.2	34.8	5.2	30.1	5.2	32.8	5.0	36.1	5.3	36.0	5.3	36.0	5.4	35.8	5.1
Age (yrs)	18-44	11.7	3.9	15.6	4.9	14.2	5.5	14.2	4.5	14.1	4.5	14.3	4.4	14.1	4.4	15.1	5.1	14.6	4.6	14.4	4.7
	45-64	37.7	7.1	36.9	7.3	40.9	7.2	43.6	7.7	37.5	6.8	40.5	7.2	45.8	7.5	38.2	7.3	40.2	7.2	36.7	7.1
	65+	52.9	9.4	63.5	8.0	60.8	9.0	55.8	9.7	55.4	9.8	52.6	9.3	57.6	8.9	65.7	8.5	66.1	7.7	53.7	8.4
Education	≤ H.S./GED	32.0	5.6	39.3	6.3	34.9	5.6	42.1	7.5	36.0	6.4	31.0	5.3	32.3	5.7	40.5	6.8	39.8	6.3	30.2	5.4
	Some college	24.9	6.8	24.5	7.1	30.6	8.5	31.2	7.8	22.2	6.6	29.1	7.2	34.7	8.0	33.9	7.9	24.7	6.4	30.3	7.9
	College grad	24.9	7.7	23.7	7.2	32.1	8.4	22.3	5.6	25.5	6.8	24.1	8.5	30.4	8.6	22.6	6.2	29.6	7.9	27.2	7.6

^a Prevalence rate is the total number of cases of a disease in a population divided by the total population

^b CI, 95% confidence interval

Arthritis Interventions in New York State

Working in partnership with the four New York Arthritis Foundation chapters, the New York State Office for the Aging, The State University of New York at Albany School of Social Welfare, the New York State Department of Health Disability and Health Program, and others, the New York State Department of Health Arthritis Program incorporates arthritis messages into chronic disease prevention, health promotion, and education programs. The program promotes effective interventions to manage the disease and, at the same time, reduce the limitations of activities experienced by those living with arthritis and other rheumatic conditions. The program targets proven interventions into underserved areas of New York. This is all done in accordance with the New York State Arthritis Plan (http://www.health.state.ny.us/diseases/conditions/arthritis/arthritis_act_index.htm), which provides a comprehensive framework for addressing arthritis in New York.

The effective arthritis interventions consist of five evidence-based programs: two Self-Management and Education programs (the Arthritis Foundation Self Help Program and the Chronic Disease Self-Management Program) and three Physical Activity Programs (the Arthritis Foundation Exercise Program, the Arthritis Foundation Aquatic Program, and EnhanceFitness). Self-management education programs teach people with arthritis how to manage arthritis on a day-to-day basis. Research has shown that appropriate physical activity offers substantial benefits to people with arthritis and can decrease pain and disability.

The State Health Department’s Arthritis Program, charged with providing arthritis interventions, has offered approximately 38 programs reaching over 400 individuals through the state. Part of the success of the Arthritis Program is the capacity to train more than 206 program leaders and instructors.

Since 2004, the New York Arthritis Foundation chapters have received state funding to enhance and expand programs and services to those affected by arthritis. Due to the success of the

Notes

- ¹ Arthritis Foundation, Association of State and Territorial Health Officials, Centers for Disease Control and Prevention. National Arthritis Action Plan: A Public Health Strategy. Atlanta, GA. Arthritis Foundation, 1999.
- ² CDC. State prevalence of self-reported doctor-diagnosed arthritis and arthritis-attributable activity limitation - United States, 2003. MMWR 2006; 55:477-81.
- ³ New York State Behavioral Risk Factor Surveillance System. 2004.
- ⁴ Bolen J, Snizek J, Theis K, Helmick CM, Hootman J, Brady T, Langmaid G. Racial and ethnic differences in the prevalence and impact of doctor-diagnosed arthritis. MMWR 2005; 54:119-123.
- ⁵ Impact of arthritis and other rheumatic conditions on the health care system – United States. 1997. MMWR 1999; 48:349-53.
- ⁶ Dunlop DD, Manheim LM, Yelin EH, Song J, Chang RW. The costs of arthritis. Arthritis Rheum 2003; 15:101-3.
- ⁷ CDC. Direct and indirect costs of arthritis and other rheumatic conditions – United States. 1997. MMWR 2004, 53; 388-89.
- ⁸ Lorig K & Holman H. (1993). Arthritis self-management studies. Health Educ, 19:17-28.
- ⁹ Doyle MA, Farrar V, Ryan S & Sisola S. (1990). An evaluation of PACE. Arthritis Care Res, 3(2): S7.
- ¹⁰ Arthritis Foundation. (1987). Arthritis Foundation Aquatics Program Evaluation. Atlanta, GA: Arthritis Foundation.
- ¹¹ Lorig KR, Sobel DS, Stewart AL, Brown BW, Bandura A, & Ritter P. (1999). Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. Medical Care, 37:5–14.

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