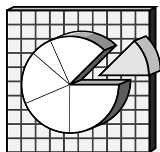

Health By Numbers

RHODE ISLAND DEPARTMENT OF HEALTH • DAVID GIFFORD, MD, MPH, DIRECTOR OF HEALTH

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Arthritis and Associated Health Conditions and Risks Among Rhode Island Adults In 2005

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Arthritis, which comprises over 100 different diseases and conditions, is the nation's leading cause of disability. Though arthritis becomes more common with age, it affects people of all ages. About 1 of every 5 US adults has arthritis, an estimated 46 million people.[1] For 2003, national direct costs (medical expenditures) attributable to arthritis and other rheumatic conditions were estimated to be $81 billion; for Rhode Island these costs were estimated to be $327 million.[2] The number of people with arthritis, and associated costs, will grow as the population ages.[2] This report presents survey data on arthritis and associated health factors among Rhode Island adults.

METHODS

Arthritis rates were calculated using self-reported data from Rhode Island's 2005 **Behavioral Risk Factor Surveillance System** (**BRFSS**), a telephone survey administered in all 50 states and 4 US territories with funding and specifications from the **Centers for Disease Control and Prevention** (**CDC**).[3] The BRFSS monitors the adult population for access to health care, certain health conditions, and behaviors that contribute to the leading causes of disease and death in the US. It is the main source of state arthritis data.

From January through December 2005, the Rhode Island BRFSS conducted random-digit dialed telephone interviews with 3,976 adults ages 18 and older. Survey data are weighted to be representative of the age, sex and race composition of Rhode Island's adult population. A person was identified as having doctor-diagnosed arthritis if s/he responded "yes" to the standard BRFSS screening question for arthritis: "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?"

Data on the prevalence of arthritis among different demographic groups were calculated for persons ages 18 and older. Because the large majority of Rhode Island adults with arthritis are ages 45 and older and higher rates of arthritis are associated with middle and older age, the analysis of data on health status, health risks, health conditions, and arthritis management was limited to adults ages 45 and older (reducing sample size to 2,464), an age criterion used in other studies based on BRFSS data.[4,5] "Error" bars on the charts represent the 95% confidence limits around the estimates, meaning there is a 5% chance the true value is NOT included within the span of the error bar.

RESULTS

In 2005, 28% of Rhode Island adults 18 and older, about 234,000 people, had doctor-diagnosed arthritis; women (32%) reported arthritis more often than men (24%) (Figure 1). The prevalence of arthritis increased markedly with age. In 2005, 61% of Rhode Island adults aged 65 or older (approximately 91,500 adults) had arthritis, compared with 4% of those ages 18 – 24. (Figure 1) Although Rhode Island's arthritis rates for age groups under 65 were comparable to national median rates, the state's rate for those 65 and older (61%) was significantly higher than the national median of 56%.[3]

A significantly higher proportion (31%) of White non-Hispanics than either Hispanics (8%) or Other non-Hispanics (17%) reported doctor-diagnosed arthritis, a difference which could be due in part to the higher proportion of older adults in the White non-Hispanic population. (Figure 1) However, even among adults ages 45 and up the significant difference between non-Hispanic whites and Hispanics persisted. Arthritis rates did not differ significantly by education or income.

Among those ages 45 and older, a greater proportion of persons with than without doctor-diagnosed arthritis reported fair or poor general health (27% vs. 11%), 14 or more days of poor physical health in the prior month (21% vs. 9%), and 14 or more days of poor mental health in the prior month (13% vs. 7%). (Figure 2) They also more often reported any kind of activity limitations because of physical, mental or emotional problems (34% vs. 12%), as well as 14 or more days of activity limitation in the prior month (11% vs. 4%). Adults with doc-

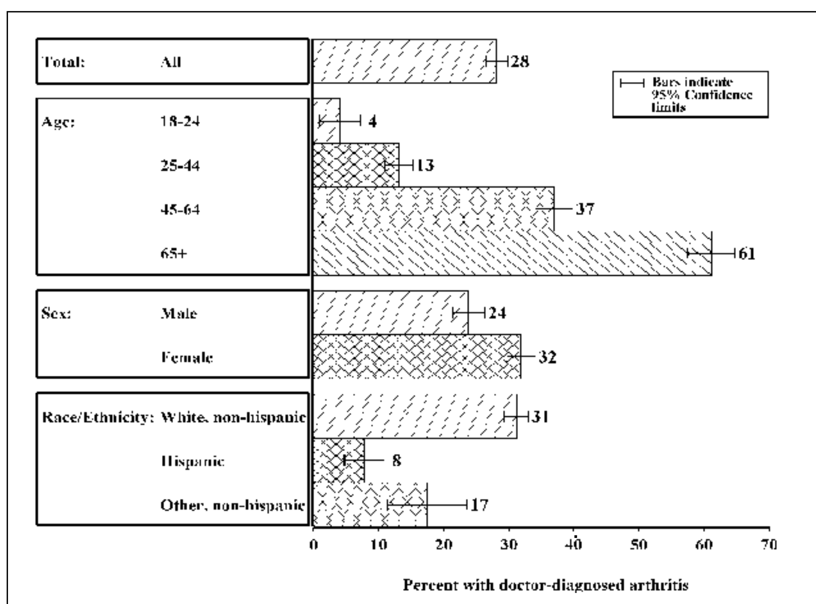

Figure 1. Demographic Characteristics of Rhode Island Adults Ages 18 and Older With and Without Doctor-Diagnosed Arthritis

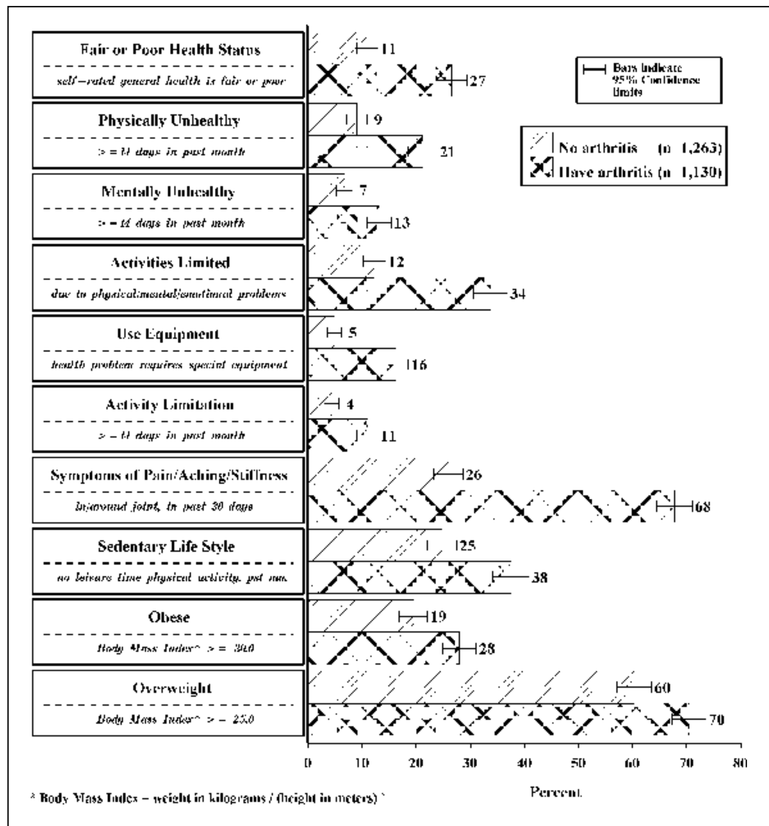

Figure 2. Health Status and Health Risks Among Rhode Island Adults Ages 45 and Older With and Without Doctor-Diagnosed Arthritis

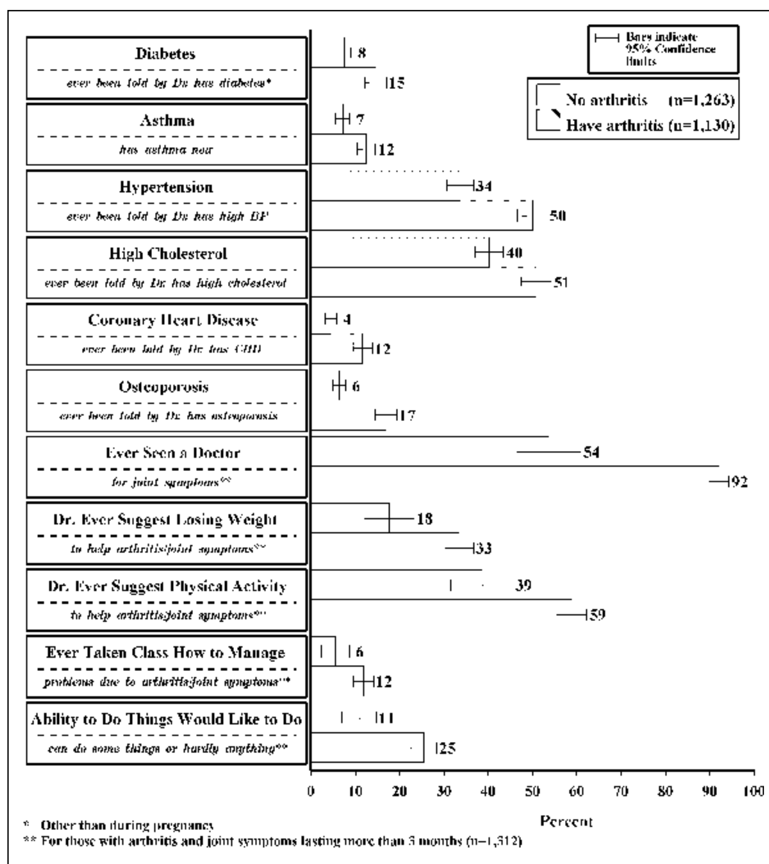

Figure 3. Health Conditions and Arthritis Management Among Rhode Island Adults Ages 45 and Older With and Without Doctor-Diagnosed Arthritis

tor-diagnosed arthritis more often reported having a health problem requiring the special equipment (16% vs. 5%) and experiencing joint symptoms of pain, aching or stiffness in the prior thirty days (68% vs. 26%).

Older adults with arthritis more often reported being sedentary (38%) than those without arthritis (25%), and a higher percentage were overweight (70% vs. 60%) or obese (28% vs. 19%). (Figure 2) A significantly higher proportion of people with arthritis than without reported having diabetes (15% vs. 8%), asthma (12% vs. 7%), high blood pressure (50% vs. 34%), high cholesterol (51% vs. 40%), coronary heart disease (12% vs. 4%), and osteoporosis (17% vs. 6%). (Figure 3) These differences persisted even when controlling for age.

People ages 45 and older with doctor-diagnosed arthritis or with joint symptoms of pain, aching or stiffness lasting more than 3 months were asked several questions about management of their symptoms. (Figure 3) Ninety-two percent (92%) of persons with doctor-diagnosed arthritis had seen a doctor about their joint symptoms, compared with 54% of people who reported persistent symptoms but not doctor-diagnosed arthritis. Thirty-three percent (33%) of people with arthritis had been advised by a doctor to lose weight; and 59% had been advised to exercise, compared with 18% and 39% respectively of persons with persistent joint symptoms but not doctor-diagnosed arthritis. Only 12% of people with arthritis had ever taken a class on symptom-management compared with 6% of others with joint symptoms. A quarter (25%) of people with arthritis compared with 11% of those with persistent joint symptoms said they could do only some or hardly any of the things they like to do. (Figure 3)

Discussion

Adults with doctor-diagnosed arthritis were more at risk for multiple indicators of poor health and impaired quality of life than other adults, even when those other adults included people with persistent joint symptoms of pain, aching and stiffness. It is likely that some percentage of people with joint symptoms, even without a doctor diagnosis of arthritis, have arthritis, though perhaps not as severely as those who have been diagnosed. It is also possible that people with symptoms are not diagnosed because of limited access to health care. Continued analysis of the BRFSS data on arthritis will examine those adults who do not have doctor- diagnosed arthritis but do have persistent joint symptoms.

The CDC has funded the **Rhode Island Arthritis Action Program (RIAAP)** since 1999. The RIAAP works in partnership with the Arthritis Foundation, the University of Rhode Island Physical Therapy Program, the Department of Human

Services, the Department of Elderly Affairs, and the Department of Health's Disabilities and Health Program. In collaboration with its multiple partners, the *Rhode Island Arthritis Action Plan 2001 – 2005*[6] was created to identify and coordinate strategies to reduce the burden of arthritis in the state. This spring the Arthritis Planning Council expects to update the state plan and develop action steps. The RIAAP works to promote self-management education, weight management, physical activity, and proper use of arthritis medications.

References

1. Prevalence of Doctor-Diagnosed Arthritis and Arthritis-Attributable Activity Limitation — United States, 2003—2005. MMWR 2006; 55: 1089 –90.
2. National and State Medical Expenditures and Lost Earnings Attributable to Arthritis and Other Rheumatic Conditions – United States, 2003. *MMWR* 2007; 56 :4-7.
3. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey. http://www.cdc.gov/brfss
4. Strine TW, Hootman JM, et al. Frequent mental distress status among adults with arthritis ages 45 years and older, 2001. *Arthritis & Rheumatism (Arthritis Care & Research)* 2004; 51: 533–7.
5. Okoro CA, Hootman JM, et al. Disability, arthritis, and body weight among adults 45 years and older. *Obesity Res* 2004; 12: 854-61.
6. Rhode Island Arthritis Action Plan 2001- 2005. Rhode Island Department of Health, Providence, RI.

Acknowledgement

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