

“ I am a teenager who was diagnosed with arthritis in high school. Before I had arthritis, I played soccer and tennis. My freshman year, I was the Metro Singles Champ for my school’s varsity tennis team. Unfortunately, I have not been able to play tennis or soccer since being diagnosed. With arthritis, I have to look at any future career or dream a little differently than most people without a disease. The arthritis plays a major part in what choices I can make now and for the future. I just take one day at a time and hope to finish high school. I always wanted to be a kindergarten teacher; it may take me a little longer to do, but I love working with children and I hope I will be able to.

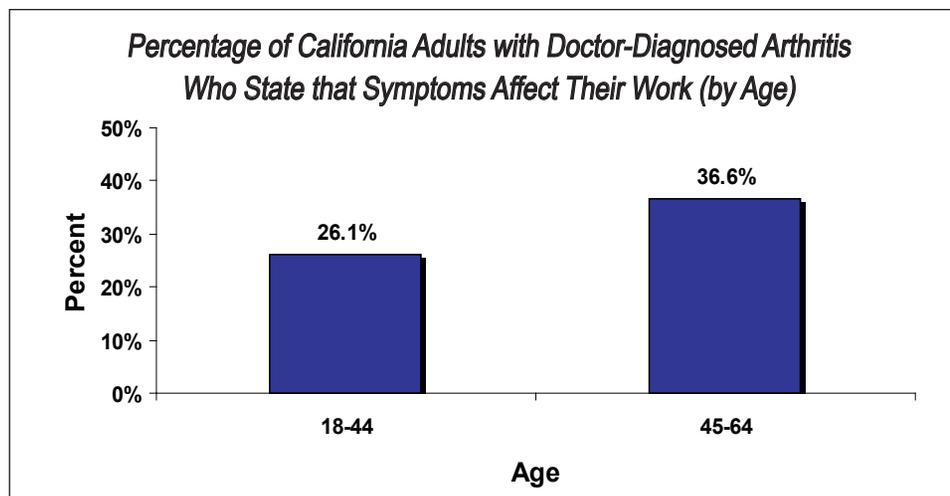
—Sofia, Age 17, Sacramento ”

## Public Health Message

Identifying people at risk for arthritis-related work disability before work limitations arise and offering them timely access to appropriate, evidence-based interventions may be more effective than beginning interventions after job loss or work disability has occurred.

# Arthritis and Work

Arthritis affects over 5.6 million adult Californians (22%).<sup>1</sup> Arthritis is the most commonly reported cause of disability and the third leading cause of work limitation in the United States.<sup>2</sup> Estimates vary, but between 79% and 84% of individuals with disabilities, in general, express a desire to be working.<sup>3</sup> Only 3–4% of beneficiaries with arthritis-related disability ever return to work.<sup>3</sup> The work status of people with arthritis poses considerable financial implications for businesses and the national economy.<sup>3</sup>



Source: State of California, Department of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 2005.

As the leading cause of disability among U.S. adults,<sup>2</sup> arthritis can have serious implications for the physical, social, psychological, and economic aspects of an individual’s life.<sup>3</sup> Arthritis can affect the quality of and ability to work in individuals of all ages. Consistent with national statistics, California data indicate the prevalence of arthritis-attributable work limitation is highest among people ages 45–64.<sup>1</sup>

## The Problem

- Nearly one in three Americans with doctor-diagnosed arthritis report arthritis-attributable work limitation.<sup>3</sup>
- In California, the prevalence of arthritis-attributable work limitation among working-age adults with arthritis is 35%.<sup>4</sup>
- Risk factors for work disability among people with musculoskeletal conditions include higher levels of joint pain and functional limitations.<sup>3</sup>
- People with arthritis-attributable work limitations have multiple indicators of poor physical health and function, including high BMI, joint and other pains, physical limitations, and frequent doctor’s office visits. This burden seems to fall disproportionately on non-white minority groups.<sup>3</sup>

## Implications

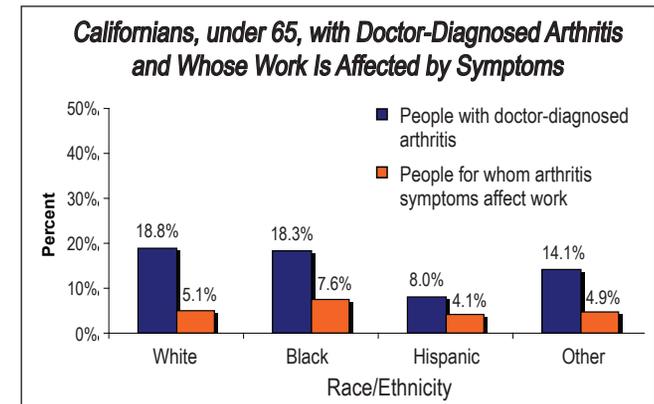
- Arthritis-attributable pain is common in the U.S. workforce and results in reduced performance and lost productive time.<sup>5</sup>
- Lost productive time costs U.S. employers an estimated \$61.2 billion/year.<sup>5</sup>
- Decreased work productivity due to health problems, also known as “presenteeism,” often represents hidden costs that are extremely difficult for employers to control and might actually pose greater downside risks for employers than work loss days.<sup>5</sup>
- Over 2 million Californians experience activity limitation due to arthritis or joint symptoms; this number is projected to increase to nearly 3 million by 2030.<sup>6</sup>
- In California, direct and indirect costs attributable to arthritis and other rheumatic conditions totaled over \$12.1 billion in 2003.<sup>7</sup>
- Total costs attributable to arthritis and other rheumatic conditions are likely to increase as the number of persons in older age groups continues to grow, and the number of U.S. adults living with chronic conditions increases.<sup>7</sup>

## Healthy People 2010 Objective

“Reduction in the proportion of adults with doctor-diagnosed arthritis who are limited in their ability to work for pay due to arthritis.”

## Public Health Strategies

- Work Limitations Questionnaire is a promising tool to identify both the magnitude and type of impact that arthritis is having on workplace productivity in terms of limitations handling time, physical, mental-interpersonal, and output demands.<sup>8,9</sup>
- Identifying groups with the highest prevalence of arthritis-attributable work limitation provides a target population for early diagnosis of arthritis and appropriate medical and self-management interventions to prevent or delay arthritis-attributable work limitation.<sup>3</sup>
- Arthritis-specific self-management programs, offered in the corporate disease-management setting, are effective in reducing pain, physician visits, and health care costs.<sup>3</sup>
- Vocational Rehabilitation programs provided to employed patients with rheumatic diseases, who were at risk for job loss, have been shown to both delay and reduce job loss.<sup>3</sup>
- The enormous magnitude of work impairment associated with chronic conditions, and the economic advantages of interventions that reduce work impairments, should be factored into employer cost–benefit calculations of expanding health insurance coverage.<sup>5</sup>
- The Americans with Disabilities Act (ADA) requires any company with more than 15 employees to make “reasonable accommodations” for employees with arthritis.<sup>9</sup> The degree of accommodation varies among employees with arthritis; not all employees with arthritis will need accommodations to perform their job.<sup>10</sup>
- Accommodation Ideas for Employees and Employers:<sup>10</sup>
  - Move workstation closer to other work areas, such as break rooms and office equipment;
  - Allow flexible work schedule, flexible use of leave time, and breaks;
  - Implement ergonomic workstation design;
  - Refer employees to appropriate resources and services.



Source: State of California, Department of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 2005.

Race/Ethnicity	Number of Californians, under 65, with Arthritis	Number of Californians with Arthritis Symptoms that Affect Work
White	2 million	540,000
Black	260,000	110,660
Hispanic	600,000	310,000
Other	490,000	170,000

*People with arthritis-attributable work limitations have multiple indicators of poor physical and functional health, demonstrating considerable burden.<sup>3</sup> Characterizing arthritis-attributable work limitations in working-age populations offers great potential for developing and implementing targeted interventions.<sup>3</sup>*

## References

- <sup>1</sup>State of California, Department of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 2005.
- <sup>2</sup>Morbidity and Mortality Weekly Report (MMWR), February 11, 2005. Racial/ethnic differences in the prevalence and impact of doctor-diagnosed arthritis.
- <sup>3</sup>Theis, K.A., Murphy, L., Hootman, J.M., Helmick, C.G., and Yelin, E. 2007. Prevalence and correlates of arthritis-attributable work limitation in the U.S. population among persons ages 18–64: 2002 national health survey data. *Arthritis and Rheumatism* 57(3):355–363.
- <sup>4</sup>Morbidity and Mortality Weekly Report (MMWR), October 12, 2007. State-specific prevalence of arthritis-attributable work limitation: United States, 2003.
- <sup>5</sup>Kessler, R.C., Greenberg, P.E., Mickelson, K.D., Meneades, L.M., and Wang, P.S. 2001. The effects of chronic medical conditions on work loss and work cutback. *Journal of Occupational and Environmental Medicine* 43(3):218–225.
- <sup>6</sup>Morbidity and Mortality Weekly Report (MMWR), May 4, 2007. Projected state-specific increases in self-reported doctor-diagnosed arthritis and arthritis-attributable activity limitations: United States, 2005–2030.
- <sup>7</sup>Morbidity and Mortality Weekly Report (MMWR), January 12, 2007. National and state medical expenditures and lost earnings attributable to arthritis and other rheumatic conditions: United States, 2003.
- <sup>8</sup>Lerner, D., Amick, B.C., Rodgers, W.H., Malspeis, S., Bungay, K., and Cynn, D. 2001. The work limitations questionnaire. *Medical Care* 39(1):72–85.
- <sup>9</sup>U.S. Department of Justice. 2007. Americans with Disabilities Act. Online at: <http://www.ada.gov/>.
- <sup>10</sup>Job Accommodation Network. 2007. Accommodation and compliance series: Employees with arthritis. Online at: <http://www.jan.wvu.edu/media/Arthritis.html>.

This publication was supported by:

Grant/Cooperative Agreement Number U58/CCU922827 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.



CAPP is a program of the California Department of Public Health and the University of California, San Francisco.