

# Arthritis Takes Painful Toll on Workers Nationwide

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Arthritis creates work limitations for about a third of working-age adults with the disease, impacting nearly 7% of the total U.S. workforce, according to a state-by-state study by the Centers for Disease Control.

The first-of-its-kind survey, drawing on data from the Behavioral Risk Factor Surveillance System, may foreshadow a profound challenge to the economy as the population ages. Arthritis today affects 46 million Americans, with an estimated economic toll of \$128 billion a year, according to the Arthritis Foundation.

The random digit-dialed telephone survey of more than 200,000 households queried working-age adults in every state, Washington, Guam, Puerto Rico, and the U.S. Virgin Islands about whether they had been diagnosed with arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. Respondents with arthritis were asked whether arthritis or joint symptoms affected whether they were employed and the type and amount of work they could do.

The responses are weighted to represent the adult population in each state.

A high degree of variability was found in the state-specific prevalence of arthritis-related work limitations among all adults 18-64 years of age, from 3.4% of adults in Hawaii to 15% in Kentucky, reported Kristina A. Theis and associates at the National Center for Chronic Disease Prevention and the National Center on Birth Defects and Developmental Disability at the CDC (MMWR 2007;56:1045-9).

Among adults with diagnosed arthritis and related conditions, work limitations were reported by a median 33%, from 25.1% in Nevada to 51.3% in Kentucky.

"That's huge," said Ms. Theis in a telephone interview. "In Kentucky, that represents every other person with arthritis a doctor might be seeing."

Preventing or minimizing work-related limitations through timely therapy, rehabilitation, and workplace accommodation impacts not only the economy as a whole, but the patients' independence, self-esteem, and financial well-being, she stressed.



Before modification, the low cart height required the worker to bend forward.

"It is not always on the physicians' radar screen to inquire, 'How's your function? How's your pain? And by the way, how is that function and pain impacting you at work?'" said Ms. Theis.

Rheumatologists in the states bookending the new statistics said patient characteristics and availability of services may play into differences seen across states.

In Elizabethtown, Ken., rheumatologist Dr. Daksha Mehta said that some patients travel more than 100 miles to see her. And although there is a nationwide shortage of board-certified rheumatologists, "I'm sure it's worse in Kentucky," she said.

Access to medical specialists, as well as experts in occupational therapy and workplace ergonomics, may be limited in small, isolated rural communities. Additionally, many patients still do not recognize the need for early diagnosis and treatment.

"I have patients with arthritis who are still working at their factory jobs, still farming, but that's with appropriate therapy . . . optimizing medications, having physical and occupational therapy, doing home strengthening exercises," said Dr. Mehta of the Center for Arthritis and Osteoporosis.

Rheumatologist Rex Adams of Arthritis Associates of Nevada in Reno said he doubted the types of jobs performed in his state differ much from those practiced in Kentucky, which has doubled the prevalence of work-related limitations reported by working-aged adults with arthritis.



The modification of a raised handle decreased painful bending posture.

"Mining is big in Nevada, and there are a lot of service industry workers here," he said. "Maybe it's because we're just good rheumatologists who keep everyone working!" he joked.

Dr. Adams speculated the variation might be explained by systemic factors, like differences in state disability programs, or perhaps populations. Nevada has a "pretty young, healthy population" with a large percentage of workers who recently moved from other locations. Kentucky's population may be older and more stationary.

In both states, rheumatologists said they advocate a team approach to arthritis management, with an emphasis on therapy and lifestyle modifications as well as medication. Occupational and physical therapy are offered on-site in a growing number of group rheumatology practices.

Such trends could make a difference in patients' ability to perform their jobs, said Ms. Theis from the CDC's Division of Adult and Community Health.

Preliminary findings from a separate CDC study build on a growing body of published research suggesting that physician recommendations concerning arthritis management are highly influential in terms of patient behavior, she explained.

When a physician recommends weight loss, an arthritis-focused exercise program, or workplace accommodations in conjunction with the Americans with Disabilities Act, for example, patients are much more likely to attempt to follow that advice.

"We're hoping physicians will say, 'I have a really important voice that carries a lot of weight on a lot of levels,'" said Ms. Theis. "We see them as one of our most important audiences."

Sometimes, the physician's role on minimizing work limitations is direct, perhaps by prescribing traditional therapy regimens and even biologic therapy.

Other times, a physician may refer a patient to physical or occupational therapy, or to a hand surgeon for a customized thumb or wrist splint that permits normal workplace activities, said Diana Baldwin, an occupational therapist at the Missouri Arthritis Rehabilitation and Training Center.



Unmodified task required static overreaching and bending of the trunk.



Before modification, leaning forward created greater tension on back muscles.

"We've found that it isn't enough to tell people, 'Cut back on your hours,' or 'Be more flexible,' or 'Don't do things that hurt,'" she said. "For the average working person with arthritis, that is not useful."

What is useful is when physicians explain to patients that their joints are vulnerable, and provide a rationale to implement protective strategies, she said.

The Missouri Training Center in Columbia is currently completing a federally funded study that has randomized 84 adults with arthritis to receive either written materials about arthritis in the workplace or interventions conducted by Ms. Baldwin in the work setting, be it a manufacturing workshop, business office, or classroom. She has spent 1.5-2 hours interviewing these workers with arthritis and then has studied them as they work, taking pictures that she will later diagram to show movements that stress the joints including twisting, grabbing, reaching, and bending.

She has investigated ergonomic surgical tools to aid an anesthesiologist, adapted the car of a traveling salesman, and added a step stool to ease a manufacturing specialist's reach to a drill press.

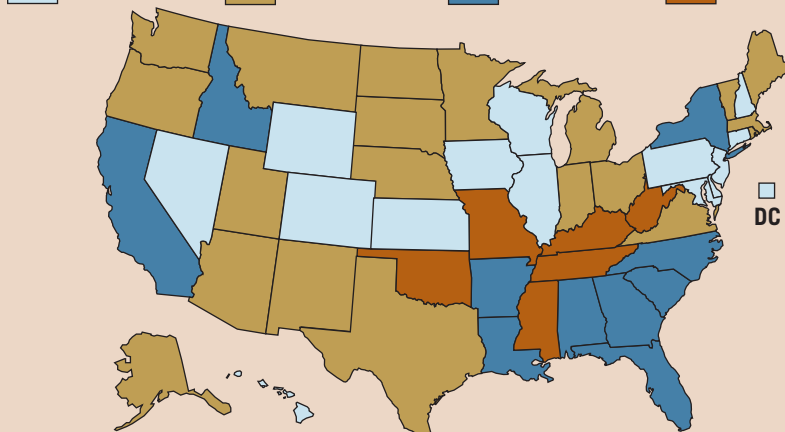
Making such changes early on appears to keep people working longer, more effectively, and with less pain, she said.

But economic realities have proved to be a barrier to early workplace interventions. No janitors have agreed to allow Ms. Baldwin to come to their workplaces to identify practices that might be exacerbating their arthritis, for example. "They're not going to expose the fact that they have arthritis on the job," she said.

## DATA WATCH

### Prevalence of Arthritis-Attributable Work Limitation In Working-Age Adults With Arthritis

25.1%-30.0% 30.1%-35.0% 35.1%-40.0% 40.1%-51.3%



Source: Centers for Disease Control and Prevention