OREGON'S ARTHRITIS REPORT 2009

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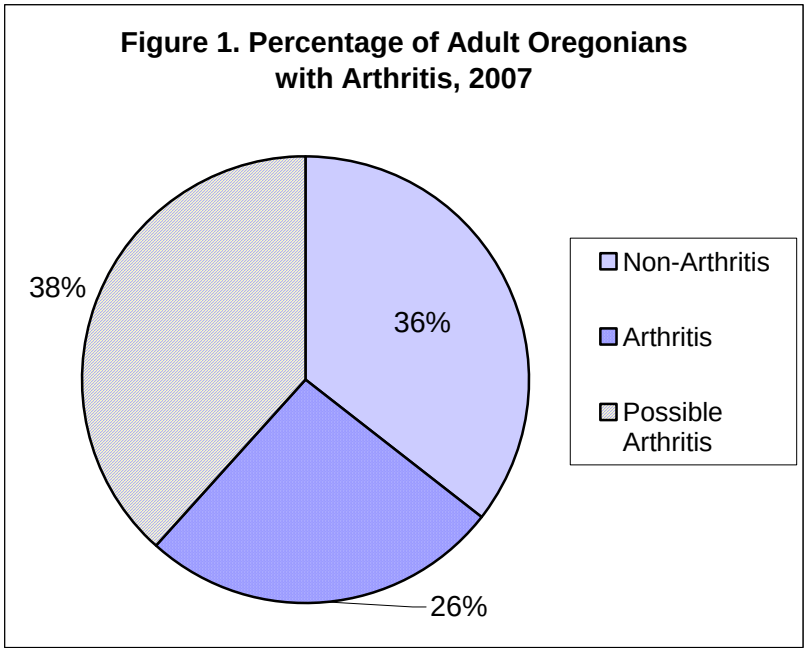
January, 2009

BURDEN OF ARTHRITIS

Nationally, arthritis and other rheumatic conditions affect almost 43 million Americans. By the year 2020, this number is expected to rise to 60 million. A greater concern is the fact that arthritis and related conditions are the leading causes of disability for people in this country. Direct and indirect costs from arthritis are conservatively estimated to exceed $70 billion each year in the United States.

Oregon Health Services conducts the Behavioral Risk Factor Surveillance System (BRFSS) telephone survey annually among Oregonians who are 18 years or older. In 2007, a random sample of 5,000 adult Oregonians participated in the survey and the information in this report is based on their responses. The 2007 BRFSS defines arthritis solely on the basis of reported diagnosis by a health care provider. Those with chronic joint symptoms, but without clinically diagnosed arthritis are classified as having "possible arthritis".

Figure 1. Percentage of Adult Oregonians with Arthritis, 2007



Results from the 2007 Oregon BRFSS demonstrate that arthritis is a major public health issue in this state; the prevalence of clinically diagnosed arthritis among adult Oregonians is 26% (Figure 1). An additional 38% reported symptoms consistent with "possible arthritis" (chronic joint symptoms in the absence of diagnosis by a healthcare provider). Possible joint arthritis has been more than double since 2005. It is estimated that over 1.8 million adults in Oregon have arthritis or chronic joint symptoms.

Arthritis-Related Hospitalizations

While the bewildering menagerie of conditions included in the CDC surveillance definition of arthritis makes a complete assessment of hospitalizations problematic, a brief look at hospitalizations from the two most common forms, osteoarthritis and rheumatoid arthritis, is instructive. In Oregon, during 2005, there were 8,930 hospitalizations with osteoarthritis as the principal diagnosis, and 179 with rheumatoid arthritis as the principal diagnosis. In all, 8,413 of the hospitalizations for these two conditions resulted in surgical replacement of a major joint (knee, shoulder, or hip) with an estimated total cost of $247 million. When we compare this with data from 2001, the last year in which the economic impact of arthritis-related hospitalizations was assessed, the number of hospitalizations for each of the diagnoses has decreased, as has the number of joint replacements. The overall cost, however, has risen by $130 million (see Table 1).

It is worth noting that this represents the tip of the iceberg as far as the total economic impact of arthritis. If the costs of non-surgical hospitalizations, outpatient medical care, medications, and lost productivity in the form of missed work were included, the total would be much higher.

Table 1. Arthritis Hospitalization in Oregon

	2001	2005
Hospitalizations with rheumatoid arthritis (RA) as principal diagnosis	199	179
Hospitalizations with osteoarthritis (OA) as principal diagnosis	6,208	8,930
Hospitalizations for RA or OA that involved replacement of major joint*	5,754	8,413
Cost of hospitalizations involving joint* replacement among those with RA or OA as principal diagnosis	$117,938,000	$247,672,000

* Knee, shoulder, or other replacement

Risk Factors for Arthritis

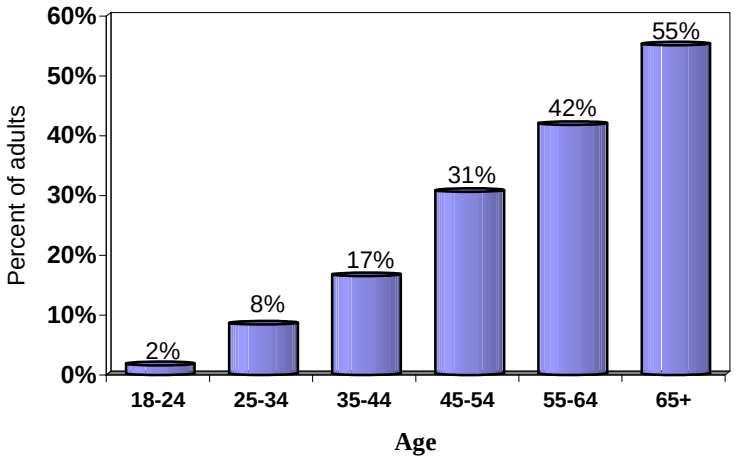
Risk factors are characteristics or attributes that increase a person's risk for developing a disease or condition. A number of risk factors have been linked to the development of arthritis, or, in the case of sedentary lifestyle, to increased morbidity from arthritis among those who have it (Table 2). Some of these risk factors (such as age, gender, and genetic predisposition) are not modifiable. Some risk factors, however, can be addressed through changes in lifestyle, potentially decreasing the risk of arthritis onset or morbidity.

Table 2. Arthritis Risk Factors

Non-Modifiable	Modifiable
Age	Sedentary Lifestyle
Gender	Obesity/Overweight
Genetic predisposition	Joint Injury
	Infections
	Work-Related Joint Trauma

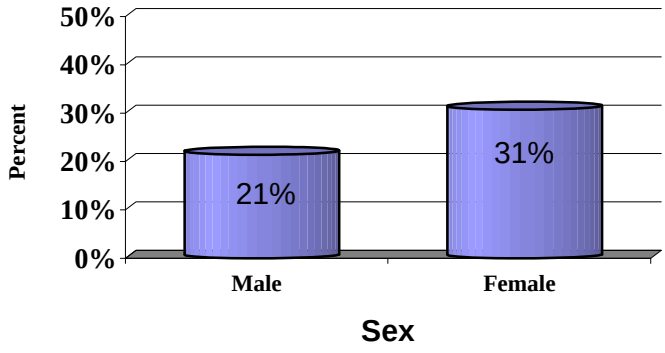
Many of Oregon's health care providers are incorporating this information into their practices. Fifty-three percent of those with clinically diagnosed arthritis reported that their doctor suggested physical activity or exercise to help relieve their arthritis symptoms.

Figure 2. Percentage of adult Oregonians in various age groups who report having arthritis, 2007



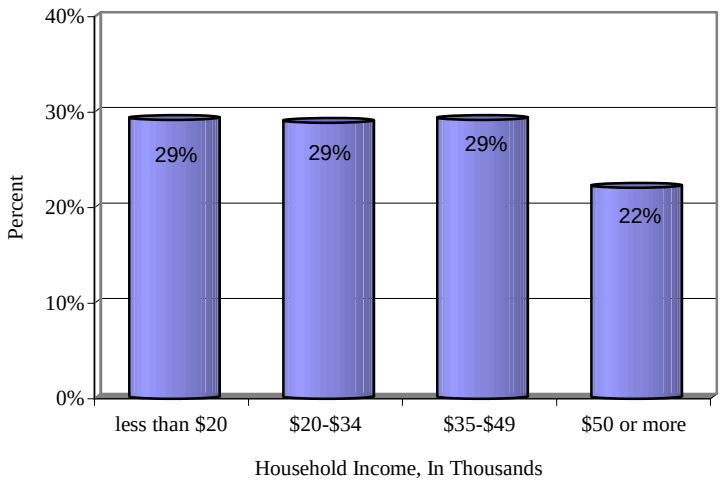
Age: Older Oregonians are more commonly affected by arthritis. The prevalence of arthritis increases with age. This is not to say that the elderly are the only ones affected by arthritis. In 2007, 64% of Oregonians with clinically diagnosed arthritis are under 65 years old.

Figure 3. Percentage of adult males and females in Oregon who report having arthritis, 2007



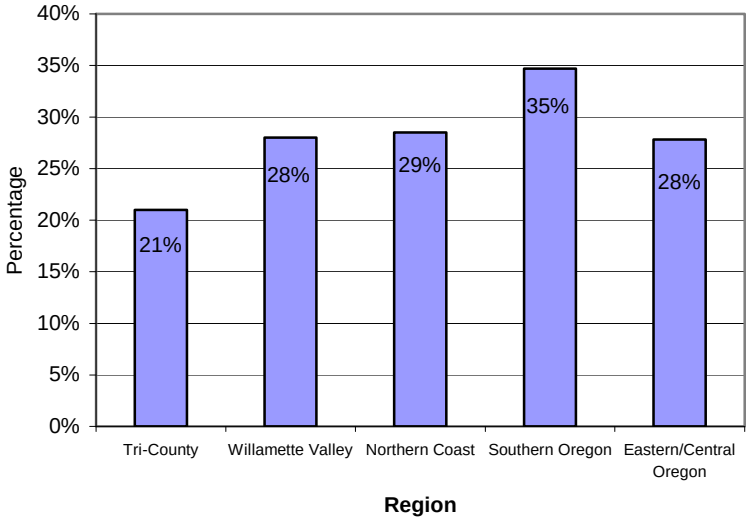
Gender: Although arthritis affects both sexes, women are more likely to have this condition than men. Among females, 31% have arthritis, compared with 21% of the male population.

Figure 4. Percentage of adult Oregonians at various levels of annual household income who report having arthritis, 2007



Income: Twenty-nine percent of adult Oregonians with less than $35,000 a year in household income reported having arthritis. Prevalence of arthritis is lower among people living in households with higher income levels.

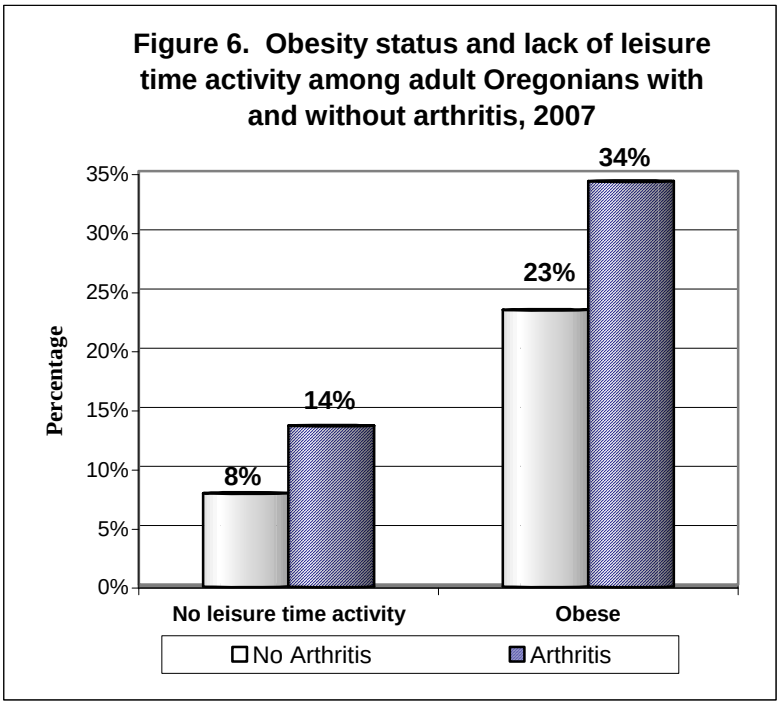
Figure 5. Percentage of adult Oregonians with arthritis, by region, 2007



Region: Figure 5 shows arthritis prevalence in Oregon by region. Persons living in Southern Oregon have a highest prevalence of arthritis than those living elsewhere in Oregon. The Portland metropolitan (Tri-County) area has the lowest arthritis prevalence of the five regions at 21%.

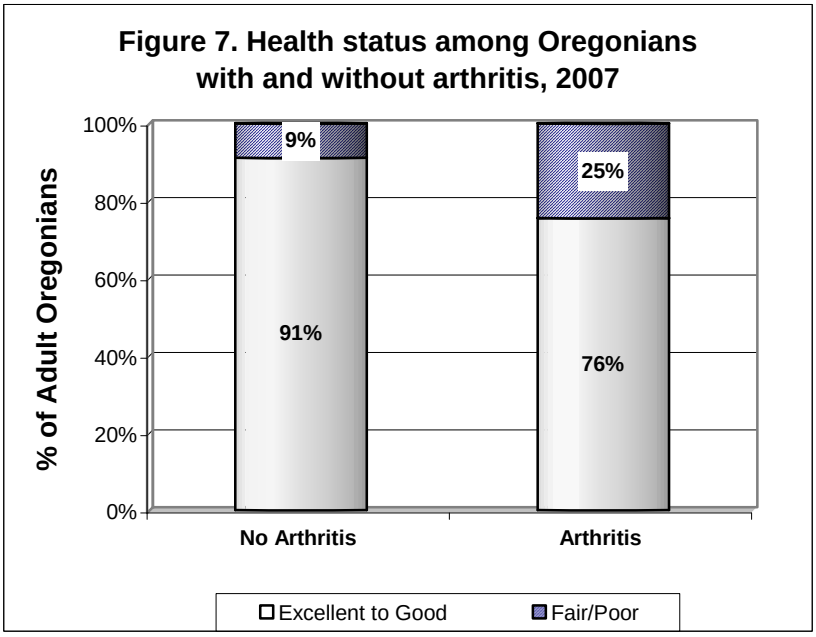
Regions

Tri-County:	Clackamas, Multnomah, Washington
Willamette Valley:	Benton, Columbia, Lane, Linn, Marion, Polk, Yamhill
Northern Coast:	Clatsop, Lincoln, Tillamook
Southern Oregon:	Coos, Curry, Douglas, Jackson, Josephine.
Eastern/Central Oregon:	Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler.



The 2007 Survey suggests that people with arthritis are more likely to be physically inactive. The prevalence of no leisure time activity is 14% among those with arthritis, compared to 8% among those without arthritis. In addition, 34% of adults with arthritis are obese, whereas among adults without arthritis, only 23% are obese.

Arthritis and Perceived Health Status



Those living with arthritis report decreased quality of life. About 41% of those with clinically diagnosed arthritis report limiting their usual activities because of the condition. Oregonians with arthritis are also more likely to report poorer health status (25%) compared to those without arthritis (9%).

ARTHRITIS AND DEPRESSION

In a call-back survey conducted between July 2004 and February 2005, 1638 respondents to the BRFSS who reported that they'd been diagnosed by a clinician with arthritis, diabetes, heart disease, or stroke were re-surveyed and asked about evidence of depression, as well as their chronic disease self-management activities. Of the call-back survey respondents, 880 had been diagnosed by a clinician with arthritis. Of the respondents with arthritis, 21% had been told by a health care provider in the last 12 months that they had depression, and 9% had active symptoms consistent with major depression at the time of the survey. Using a broader definition of depression (clinical confirmation in the past 12 months, current medication for depression, or active symptoms), the percentage of Oregonians with arthritis who are depressed increases to 30.

We also looked at self-management behaviors among people with arthritis, as well as these people's confidence in their ability to carry out these behaviors. We found that those who met the broader definition for depression were less confident in their ability to get regular physical activity, to maintain a healthy body weight or lose excess weight, to follow a healthy eating plan, and to do all the things necessary to manage their arthritis condition (all p-values less or equal to 0.05). When we assessed actual self-management activities, people with arthritis and with depression as a co-morbidity were less likely to met the recommended levels of physical activity, more likely to be smokers, and more likely to be obese.

CONCLUSIONS

Based on the 2007 Oregon BRFSS, 26% of adult Oregonians (about 700,000 people) suffer from arthritis. In addition to those with clinically diagnosed arthritis, there are over half a million Oregonians with chronic joint symptoms, but no formal diagnosis of arthritis. Combined, that represents almost half of the adult population. Arthritis limits the activities and productivity of many of the Oregonians affected by it. Reported health status was also poorer in persons with arthritis than in those without the condition. Further, $247 million was spent in 2005 on joint replacements done because of osteoarthritis and rheumatoid arthritis alone.

Slightly over half of Oregonians with clinically diagnosed arthritis have received counseling from their physicians to incorporate physical activity into their routines as a way to decrease arthritis morbidity. About 30% of Oregonians with clinically diagnosed arthritis also have depression, and there is evidence that it interferes with their ability to manage their arthritis optimally.

Arthritis is more prevalent among older Oregonians and is associated with overweight and obesity. In light of increasing rates of obesity and the aging of the population, arthritis is likely to become even more prominent as a cause of disability. Efforts to address modifiable risk factors, for example, through physical activity interventions like the *Arthritis Foundation Exercise Program*, may help limit this anticipated rise in morbidity.