The impact of foot problems on worker attendance and productivity was examined by means of a survey conducted by the American Podiatric Medical Association (APMA) in 2004. The objective of the survey was to compile information for employers to indicate the value of including podiatric medical care in employee health-insurance plans.

The APMA is interested in documenting the costs of foot problems and the benefits to employers of providing podiatric medical care to workers who lose time from work owing to foot pain and lower-extremity biomechanical problems, as indicated by APMA House of Delegates Resolution 10-03.1 US Census data on employee foot problems is dated (1991–1992).2, 3 Little new information has become available since the year 2000. The APMA has tracked the prevalence of foot problems since 1994. The most recent APMA estimate of the time lost from work due to foot problems was obtained in 2000 by Coleman & Associates Inc.4

The present survey collected current data on reduced productivity and time lost at work due to foot problems, as well as medical treatments received and outcomes experienced. A question on health-insurance coverage for foot and ankle problems and restrictions on the choice of health-care providers in health-insurance plans from a recent APMA public attitude survey by Fisher5 was also included in this survey.

Methods

Data were collected by telephone from a stratified national probability sample of about 2,000 US adults located in 48 states and the District of Columbia. Interviews were conducted between January 29 and February 2, 2004. The data were weighted by age, sex, race, and geographic region to represent the US population using statistics from the 2002 US Census. Results have a margin of error of 2.1% for the total sample and 5.1% for workers who suffered from foot problems.

Results

Prevalence of Foot Problems Among Workers

About 1 in 5 people had experienced foot problems at work at some time (387 of the 2,000 people interviewed, or 19%). About half of these workers experienced foot problems in the last 12 months (46%), amounting to 9% of all of the 2,000 people in the survey (Table 1).

Thirty-six percent of affected workers said that their last foot problem had occurred in the last 6 months, and 10% said that it had occurred in the last 7 to 12 months, for a total of 46% in the past year. In contrast, 35% last had a foot problem 1 to 5 years ago, 11% last had a foot problem 6 to 10 years ago, and 8% last experienced a foot problem more than 10 years ago.
The Impact of Foot Problems on Work Performance

Foot problems caused 28% of the workers to miss time at work and affected the work productivity of 38%.

Lost Productivity. Thirty-eight percent of the workers said that their last foot problem limited their ability to do their job and made them less productive at work, 61% said that their foot problem did not affect their productivity or ability to perform, and 1% said “Don’t know.” The 146 people whose foot problems limited their ability to do their job represented 7.3% of the total sample of 2,000.

The extent to which foot problems affected productivity was related to the worker's education and income. More of the workers with only a high-school education were affected (48%) than were those with some college or advanced associate degrees (32%) and those with college degrees or postgraduate educations (31%). Foot problems limited the productivity of more workers with incomes under $40,000 (46%) than those with incomes of $40,000 or more (33%).

Missing Work. Twenty-eight percent of the workers said that their foot problem caused them to miss work, and 72% reported that it did not. The 108 people who missed work because of foot problems represented 5.4% of the total sample of 2,000.

The extent to which people missed work owing to foot problems was related to education. Workers with only a high-school education were more likely to miss work (35%) than were those with some college or advanced associate degrees (26%) and those with college degrees or postgraduate educations (19%).

Amount of Time Missed at Work. Forty-one percent of the 108 respondents who missed work were absent less than 1 week, while 58% missed 1 week or more (32% missed 1 week to 1 month and 26% missed more than 1 month) and 1% did not know how much time they missed.

Working Conditions and Foot Problems. More than half of the workers had jobs in which they had to stand or walk around all day when they experienced their last foot problem (53%), and 46% had jobs that did not require walking or standing.

Medical Treatments and Outcomes

Medical care was required for 60% of the workers with foot problems, and disability resulted for 18%.

Medical Care Required for Foot Problems. A total of 60% of the workers with foot problems required medical or surgical care or both. Surgery was required for 22% of workers with foot problems, either surgery alone (12%) or both surgery and other medical treatments (10%). Another 38% required medical treatment other than surgery, such as casting, taping, medication, or orthoses. Only 37% reported that no surgery or other medical treatment was required for their problem, and 3% said “Don’t know.”

Disability Caused by Foot Problems. About 1 in 5 workers with foot problems experienced some type of disability (18%), with 12% reporting partial disability and 6% reporting permanent disability. Most reported no disability and had no lasting problems as a result of their foot problem (81%), and 1% said “Don’t know.”

Disability rates varied by income. Workers with household incomes under $40,000 reported a much higher disability rate (25%) than those with incomes of $40,000 or more (13%).

Health Insurance and Foot Care

Health-insurance coverage was available to 92% of the workers with foot problems, but only 42% had unrestricted access to the health-care providers of their choice.

Physician Access Under Health Insurance. Forty-seven percent of the workers with foot problems reported that their health insurance either required the use of a certain doctor or restricted them to a choice of doctors from a list provided by the insurer. Only 42% said that they could see any doctor they wanted. Another 3% did not know the terms of their coverage. Eight percent said that they were uninsured.

Coverage for Foot Care. Most insured workers with foot problems said that they were covered for foot and ankle care (85%); only 7% said that they were not covered. Another 8% did not know the extent of their coverage for foot and ankle problems.
Foot-Care Providers

Only 28% of workers who experienced foot problems saw a podiatric physician first for foot care. Most affected workers first saw a physician other than a podiatrist (58%). Four percent saw a surgeon first, 16% saw an orthopedist, and 38% saw a doctor other than a podiatric physician, orthopedist, or surgeon. The question was answered “Not applicable” or “None” by 13% of the workers with foot problems.

Discussion

Missing Work Owing to Foot Problems

About 5% to 7% of Americans have missed work at some time owing to foot problems. In this survey, 5.4% of the total population had foot problems that had caused them to miss work. In 2000, an estimated 6.6% of the total population missed work, according to Coleman & Associates Inc.4 These two surveys suggest that about 6% of the population has missed work at some time owing to foot problems (an average value of 6.0% based on the two values of 5.4% and 6.6%).

Data from the US Census tend to support the recent APMA findings. Data from 1991–1992 on people aged 16 to 67 found that 11.6% had some type of work disability and that this disability prevented 5.1% from working.5 In 1996, LaPlante and Carlson6 presented data from a 1992 National Health Interview Survey of work disability among Americans aged 18 to 69 that found that orthopedic impairments of the lower extremities ranked fifth in prevalence at 4.5%, behind back disorders (16.4%), heart disease (13.1%), arthritis (8.1%), and diabetes (4.6%). Disability rates for foot problems varied by age. Orthopedic impairments of the lower extremities ranked third in prevalence at 5.9% among people aged 18 to 44 years of age, and ranked fifth at 3.8% for people aged 45 to 69.

There was no significant difference between the percentages of men and women who missed work owing to foot problems in either the 2000 or 2004 APMA survey. However, more blacks missed work than whites in each survey, and the differences achieved or approached statistical significance in spite of the small number of blacks represented in each survey.

Missing Time Estimates

Of those who missed work in this survey, 41% lost less than 1 week, 32% lost 1 week to 1 month, and 26% lost more than 1 month. Of those who missed work in the previous APMA survey, 57% lost less than 1 week, 26% lost 1 week to 1 month, and 16% lost more than 1 month.4

Although most workers with foot problems lost only about 1 week of work, the two APMA surveys indicate that 16% to 20% of Americans lost more than 1 month and 26% to 32% lost between 1 week and 1 month.

It should be noted that the APMA estimates are based on very few respondents (weighted sample sizes of N = 107 in 2004 and N = 126 in 2000) and may be unreliable. The margin of error for these estimates is as large as 10%.

The APMA surveys suggest that people typically lose less than 1 week of work owing to foot problems (an average value of 49% based on the two values of 41% and 57%). A similar estimate of about 1 week typically lost from work comes from a series of annual US Department of Labor Bureau of Labor Statistics surveys that provide estimates of time lost from work for all reasons for the period from 1992 to 2000. The median time lost was 5.67 days for men and 5.11 days for women.6

Additional Findings

Injuries by Occupation and Other Demographic Factors. This survey found that more men (57%) than women (49%) had a job in which they had to stand or walk around all day when they experienced their most recent foot problem. Higher rates of injury were also reported by nonwhites (62%) than by whites (50%), and by workers in blue-collar and service occupations (67% to 76%) than by those in white-collar positions (43% to 49%). However, only 61% of the people interviewed provided information about their occupations.

An analysis of occupational injuries and illnesses by the Bureau of Labor Statistics found that truck drivers suffered the most time away from work, followed by laborers (nonconstruction), nursing aides and orderlies, construction laborers, and janitors and cleaners.7

Recent Foot Problems. This survey found that workers who experienced foot problems in the last 12 months differed from workers whose last foot problem occurred more than 1 year ago. Workers with recent foot problems were less likely to have held jobs requiring standing or walking around all day (33%) than were workers whose last foot problem occurred more than 1 year ago (44%).

Workers with recent foot problems were less likely to have had problems requiring surgery (10%) than those whose last foot problem occurred more than 1 year ago (28%), but workers with recent foot prob-
lems were more likely to have suffered permanent or partial disability (26%) than those whose last foot problem occurred more than 1 year ago (12%).

The Type of Doctor Seen First for Foot Problems. Rates of seeing a podiatric physician first for foot problems varied from 19% to 28% in two 2004 APMA surveys. In the present survey, a podiatrist was the type of doctor seen first for their most recent foot problem by 28% of workers. In the 2004 APMA Public Attitude Survey, a podiatric physician was the type of doctor seen first by the general public for their most recent foot problem in 19% of cases. The percentage who saw a podiatrist first was 17% in 2000 and 16% in 1994.

The frequency with which workers saw a podiatric physician first for their foot problems was related to age and income in this survey. Only 19% of young workers, aged 18 to 24, saw a podiatrist first about their foot problems, but the rate doubled to 38% among those aged 55 and older. More workers with household incomes of $40,000 or more saw a podiatrist first (35%) than did those workers with incomes under $40,000 (21%).

Demographic Factors Related to Health Insurance and Foot Problems. Assuming an adult population of 200 million (a conservative estimate), approximately 10.8 million to 13.2 million Americans have missed work at some time owing to foot problems (based on estimated rates of 5.4% to 6.6%).

The impact of foot problems is not shared equally across the working population. Workers with less education are more likely to lack health insurance and coverage for foot and ankle problems but are more likely to miss work and have their productivity suffer as a result of foot problems. People in blue-collar and service occupations with lower incomes are more likely to lack health insurance and coverage for foot and ankle problems. However, they are more likely to work in jobs requiring them to stand or walk around all day, jobs in which foot problems are more likely to adversely affect productivity. Workers in lower-income jobs suffer higher rates of permanent or partial disability resulting from foot problems and are less likely to see a podiatric physician first about their foot problems.

Awareness of Podiatric Medical Services. Although younger, less educated male workers are more likely to suffer from foot problems, the 2004 APMA Public Attitude Survey found that these groups are less likely than others to be aware of podiatric medical services. Awareness that podiatric physicians provide foot care was much higher among women (79%) than men (67%), among people over age 35 (78%) than among younger people (61%), and among college graduates (89%) than among people with some college education (79%) and high-school graduates (57%). Awareness of podiatric medical services was also higher among whites (78%) than non-whites (56%).

Conclusion

Most workers who had experienced foot problems had health insurance, and most of the plans covered foot and ankle injuries. However, most workers with foot problems had restrictions in their insurance plans related to choice of health-care providers. One result of these restrictions was the finding that podiatric physicians were not the provider first seen by most workers with foot problems.

Podiatric physicians provide high-quality foot care at a cost competitive with that of orthopedists, and other foot-care providers. Thus it would be cost-effective for employers to include podiatric physicians among the health-care providers available to employees for foot care under their health-insurance plans and to inform their workers about podiatric medical services.

Providing rapid access to podiatric medical care to workers with foot problems should reduce personnel costs resulting from time lost from work and reduced productivity. Podiatric physicians could also be a valuable source of second opinions on the need for surgical care, an initiative popular with 92% of the general population. These initiatives could help control the rising cost of health insurance for cost-conscious employers.

References