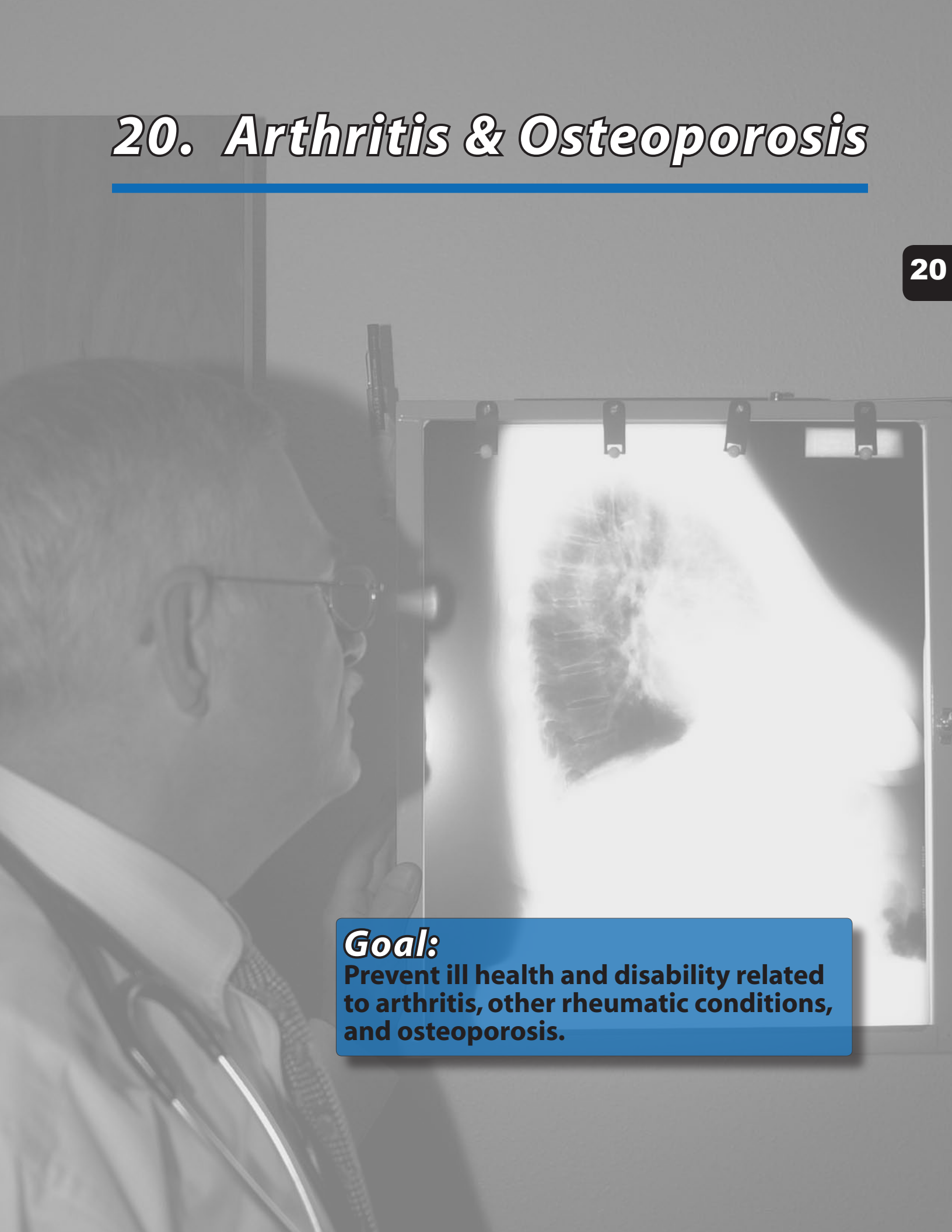
20. Arthritis & Osteoporosis



Goal:
Prevent ill health and disability related to arthritis, other rheumatic conditions, and osteoporosis.

Health Goal for the Year 2010: Decrease ill health and disability related to osteoporosis and arthritis.					
	Indicator	**Alaska Data Source**	**U.S. Baseline**	**Alaska Baseline**	**Alaska Target Year 2010**
1	Increase the number of days without severe pain among adults who have chronic joint symptoms.	BRFSS	Developmental	Available 2002	10% over baseline
2	Reduce the proportion of adults with chronic joint symptoms who currently experience a limitation in activity due to arthritis.	BRFSS	27% (1997) NHIS	50% (2000)	45%
3	Increase the employment rate among adults with arthritis in the working-age population 18 to 64 years old.	BRFSS	67% (1997) NHIS	85% (2000)	94%
4	Collect baseline data to assess any racial/ethnic disparities in the rate of total knee replacements.	Hospital Discharge Survey (potential)	Developmental	Developmental	
5	Increase the proportion of adults with chronic joint symptoms who have an arthritis diagnosis by a health care provider.	BRFSS	Developmental NHIS (Proportion of adults who have seen a health care provider for their chronic joint symptoms)	51% (2000)	56%
6	Collect baseline data to describe the number of adults hospitalized for hip, vertebral or wrist fractures associated with osteoporosis.	Hospital Discharge Survey (potential)	17.5 per 10,000 adults aged 65 or older hospitalized for vertebral fractures (1998)	Developmental	

BRFSS - Alaska Behavioral Risk Factor Surveillance System. All U.S. BRFSS data are age-adjusted to the 2000 population; the Alaska BRFSS data have not been age adjusted, so direct comparisons are not advised. See Technical Notes.
NHIS - National Health Interview Survey

Overview

The term arthritis encompasses over 100 conditions that affect joints, the surrounding tissues and other connective tissues. The most common types of arthritis include osteoarthritis, fibromyalgia, and rheumatoid arthritis.

A common misunderstanding about arthritis is that it affects only old people, as an inevitable part of the aging process. In fact, arthritis affects people of all ages. While arthritis does occur in half the population over the age of 65, 60 percent of all people living with arthritis are under the age of 65.

Arthritis affects people in many ways. Physical symptoms include pain, loss of joint motion, and fatigue. Overall health is also affected. People living with arthritis may be at higher risk for heart disease, diabetes, high blood pressure, and other conditions because they are less likely to be active when they have arthritis symptoms. Social well-being may be influenced by the physical limitations that people can experience with arthritis, as they are less able to participate in their normal social activities. Psychological problems that often arise with arthritis include depression, anger, stress, and changes in self-esteem.

Osteoporosis is characterized by decreased bone mass and deterioration of bone tissue which makes bones susceptible to fracture. The most common sites for fractures are the vertebrae, wrists, hips, and arms. Many of the vertebral fractures that occur are painless and often not diagnosed, but a series of vertebral fractures may cause the spine to be deformed, leading to a bent-over posture. Hip fractures are the most serious common fracture: in the United States only 50 percent of older adults who are hospitalized for hip fractures are able to return home or live independently.

The development of osteoporosis is related to three known factors: a deficient level of peak bone mass at physical maturity, failure to maintain this peak bone mass during the third and fourth decades of life, and the bone loss that begins during the fourth or fifth decade of life. Osteoporosis is more common among women than among men because women have lower peak bone mass than men; women lose bone mass at an accelerated rate after menopause when estrogen levels decline, and women have a longer life span than men.

Issues and Trends in Alaska

Arthritis and other rheumatic conditions are the leading cause of disability in the United States. Currently estimated to affect nearly one in six people, arthritis will continue to grow as a public health problem as the U.S. population ages. In 1990, the estimated prevalence of arthritis in Alaska was 54,000 people, or 10 percent of the total population.[2] As the Alaskan population ages, arthritis will become more prevalent. The largest growth in population in the next few decades will be among older Alaskans (65 years of age or older). The Department of Labor reports that the rate of growth is projected to increase to 5.0 percent to 6.5 percent annually from years 2005 to 2020, while the population of people aged 16 years and over will grow by 1.0 to 1.5 percent annually. With the population of older Alaskans growing at five times the rate of the general population, the prevalence of arthritis will continue to grow, as will the direct and indirect costs of arthritis to individuals and to state resources.

The estimated economic costs of arthritis in the United States total nearly $65 billion, of which $15 billion consists of medical expenses and the remainder represents lost wages.

Osteoporosis affects an estimated 5 to 8 million people in the United States, affecting 13 percent to 18 percent of women over the age of 50 and 3 percent to 6 percent of men in the same age group. The number of people in the U.S. at increased risk for fracture because of low bone mass is estimated to be 25 million. The medical care costs of fractures in older adults were estimated to be $13.8 billion dollars in 1995. As with arthritis, the rapidly aging Alaskan population will likely result in an increased prevalence of osteoporosis in the state in the coming decade. In the United States, osteoporosis causes 1.5 million fractures annually, with 432,000 hospital admissions, nearly 2.5 million physician visits, and about 180,000 nursing home admissions. Interventions that reduce the number of persons with osteoporosis reduce fracture rates.

Arthritis is second only to heart disease as a cause of work disability. Demographic trends suggest that people will need to continue working at older ages, increasing the adverse social and economic consequences of high rates of activity limitation and disability of older persons with arthritis. Rates of employment for persons with arthritis are far below the overall rate for people aged 18 to 64 years. Increasing the employment rate for those with arthritis will

improve independence and reduce the economic and support system burdens. Measuring current employment provides a relevant, if under-representative, measure for tracking this key economic and health-related quality of life (HRQOL) determinant for persons with arthritis.

Research studies have shown that African Americans have much lower rates of total knee replacement than whites, even when adjusted for age, gender, and insurance coverage. This suggests that many persons are not getting needed interventions to reduce pain and disability. Any disparities (including racial, socioeconomic, or geographic disparities) in knee replacements that exist in Alaska need to be identified, so that prompt action can be taken to correct the problem.

In the United States, it is estimated that 16 percent of adults (18 years of age or older) with arthritis have not seen a doctor for their illness. Medical management, including client education about self-management and physical activity, can reduce the pain and disability associated with arthritis.

Pain is the most important symptom among persons with arthritis. Pain causes people with arthritis to be significantly less physically active, increasing the risk for other diseases, including heart disease, diabetes, and colon cancer.[1] Living with the chronic pain associated with arthritis often causes stress, anger, depression, and anxiety. Increasing days without severe pain is a feasible target, given more widespread use of available interventions (medical, educational, exercise, nutritional) that are likely to affect this measure.

Arthritis limits the major activities (e.g., housekeeping, grocery shopping, going to school or work) of nearly 3 percent (about seven million people) of the entire United States population, including nearly one out of every five persons with arthritis.[2] Tracking activity limitation for those living with arthritis will measure Alaskans' access to self-management and exercise programs that improve functional ability.

Current Strategies and Resources

For all types of arthritis, early diagnosis and appropriate management are important in alleviating symptoms, improving quality of life, and improving long-term outcomes. "Management" includes not only medical treatment but self-management strategies (i.e., education, weight control, and physical activity). The Arthritis Foundation developed a self-management course that has been shown to reduce pain and decrease the number of physician visits for arthritis by 40 percent.

The Arthritis Foundation Washington/Alaska Chapter has a growing presence in Alaska and continues to expand the work they do here. The Arthritis Foundation has established five exercise/support group programs in the state and recently received a grant from their national organization to build 20 self-help programs throughout the state.

The Alaska Chapter of the Lupus Foundation of America formed in 1986 and currently has nearly 300 members. This organization offers support to people affected by the rheumatic disease lupus and their families, friends and caregivers. Lupus Foundation support groups meet in the Anchorage area and via teleconference all around the state.

The State of Alaska Department of Health and Social Services (DHSS) established an arthritis program in October, 1999 and an advisory group was formed in 2000 to develop a coordinated arthritis prevention and management plan for Alaska. The state program recently launched a web page that provides links to reputable sources of information about arthritis. Future plans include developing an arthritis resource directory and conducting a needs assessment to define what primary care providers need to best serve their clients with arthritis.

Data Issues and Needs

The arthritis modules of the Behavioral Risk Factor Surveillance System (BRFSS) will be included in the 2000, 2001, and every other year thereafter. The quality of life module will be included in year 2001 and possibly future years as well. Nationally, the National Health Interview Survey (NHIS) and National Health and Nutrition Examination Surveys (NHANES) also collect information on arthritis, but these data are not available at the state level. Of the national surveys, only BRFSS data provide large enough samples of the Alaska population for meaningful analysis.

The expected sample size of positive responses to "currently experiencing activity limitation due to arthritis" is small and may require multiple years of data collection before analysis provides meaningful information.

Alaska does not yet have a uniform hospital discharge data reporting system. Hospital discharge data on hip and vertebral fractures could be used to establish baselines and monitor progress. Establishment of a hospital discharge data reporting system is a priority of the DHSS.

Other data needs are listed below:

- To explore and develop additional sources of data on arthritis including: data on prevalence; economic costs to individuals and the state, associated disability, quality of life of people with arthritis, and their caregivers.
- To develop a surveillance system that provides accurate and on-going description of the burden of arthritis in the state.
- To conduct a statewide needs assessment to define the scope of arthritis needs in the Alaska.
- To create a resource inventory for arthritis, including information on data sources, organizations, service providers, community activities, etc..
- To continue to support collection of arthritis data through BRFSS.

Both a needs assessment and a resource inventory will be completed by year 2002 and will help identify strategies for meeting data needs.

Related Focus Areas

A variety of objectives in other *Healthy Alaskans* chapters will have an impact on reducing the burden of arthritis and osteoporosis.

- *Access*
- *Physical Activity and Fitness*
- *Nutrition and Overweight*
- *Injury Prevention*
- *Occupational Safety and Health*
- *Disability and Secondary Conditions*

For example, all the physical fitness objectives and the nutrition objectives of increasing school food services with menus consistent with dietary guidelines would help decrease the future prevalence of osteoporosis. Reducing the percent of the population that is overweight could decrease the prevalence of osteoarthritis in the knee and hip, as well as improve the health of those living with arthritis. Reducing barriers for people receiving primary care, reducing the number of areas that lack primary care providers, and increasing the number of health profession degrees awarded to Alaska Natives would also be beneficial to people living with arthritis. Objectives in the occupational safety and health programs could decrease the burden of osteoarthritis caused by traumatic injury to a joint. Hip fractures to women age 65 identified in Injury Prevention as an important indicator will decrease if osteoporosis is prevented. Finally, arthritis and osteoporosis are both disabling conditions and thus related to the chapter on *Disabilities and Secondary Conditions*.

Endnotes

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References and Sources

Alaska

DHSS: Section of Epidemiology Alaska Arthritis Program	www.epi.hss.state.ak.us/programs/chronic/arthritis/arthritis.stm
Washington/Alaska Chapter Arthritis Foundation	www.orthop.washington.edu/arthritis/general/washingtonaf/01

National

National Bone Health Campaign	www.cdc.gov/powerfulbones/
National Institute of Arthritis, and Musculoskeletal and Skin Diseases	www.niams.nih.gov/