In the United States, 23% of all adults, or more than 54 million people, have arthritis. It is a leading cause of work-related disability. The annual direct medical costs are at least $81 billion. The term arthritis refers to more than 100 diseases and conditions affecting the joints. The most common type of arthritis is osteoarthritis. Other forms of arthritis are gout, lupus, and rheumatoid arthritis.

Symptoms of arthritis are pain, aching, stiffness, and swelling in or around the joints. Rheumatoid arthritis and lupus can affect multiple organs and cause widespread symptoms.

Arthritis commonly occurs with other chronic diseases. About half of US adults with heart disease or diabetes and one-third of people who are obese also have arthritis. Having arthritis and other chronic conditions can reduce quality of life and make disease management harder.

The Centers for Disease Control and Prevention (CDC) conducts research and supports programs for people with arthritis so they can work and do other daily activities, have less pain, manage their own care, and delay disability.

Public Health Problem

Arthritis Limits the US Workforce

Sixty percent of US adults with arthritis are of working age (18-64 years). Arthritis can limit the type of work these men and women are able to do or keep them from working at all. In fact, 8 million working-age adults report that their ability to work is limited because of their arthritis.

The most common limitations that adults with arthritis report are difficulty climbing a flight of stairs or walking the equivalent of three city blocks. This means that adults with arthritis could have trouble walking from a parking deck or subway stop to their worksite.
The impact of arthritis on the productivity of US businesses will continue to grow as the percentage of people with this condition increases in the coming decades. By 2040, more than 78 million people (26% of the projected adult population) will have arthritis.

Many People Do Not Know How to Manage Symptoms

People with arthritis can reduce their symptoms in several ways, but many don’t know how. For example, people with arthritis can:

- Join a self-management education program, such as the Chronic Disease Self-Management Program, that teaches the skills and confidence to live well with arthritis every day.
- Be physically active. Physical activity—such as walking, bicycling, and swimming—decreases pain and improves function, mood, and quality of life. People with arthritis should try to get at least 150 minutes of physical activity each week. This activity can be done for 30 minutes, 5 days a week, or for as little as 10 minutes at a time. CDC-recommended physical activity programs—like Walk With Ease and EnhanceFitness—are community interventions that improve health for participants with arthritis.
- Maintain a healthy weight and protect their joints. People can reduce their risk of knee osteoarthritis by controlling their weight and avoiding types of activities that are more likely to cause joint injuries.
- Talk with a doctor. Recommendations from health care providers can motivate people to be physically active and join a self-management education program. People with inflammatory arthritis, like rheumatoid arthritis, have a better quality of life if they are diagnosed early, receive treatment, and learn how to manage their condition.

CDC’s Response

The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) works in four key areas or domains: epidemiology and surveillance, environmental approaches, health care system interventions, and community programs linked to clinical services. This comprehensive approach supports healthy choices and behaviors, makes healthier options more available, and helps Americans better manage their health.

CDC works with partners—such as state health departments, other federal agencies, and nonprofit organizations—to improve the quality of life for adults with arthritis.

With $11 million in FY 2016 funding, CDC’s Arthritis Program supports these efforts by focusing its activities in three of NCCDPHP’s four domains: epidemiology and surveillance, environmental approaches, and community programs linked to clinical services.
Epidemiology and Surveillance

Collecting Data

CDC’s Behavioral Risk Factor Surveillance System and National Health Interview Survey collect data on the percentage of people who have arthritis, whether the percentage is going up or down, and how the disease affects people’s quality of life. These data can help guide public health decisions about the best ways to help people with arthritis.

CDC also supports surveillance research on lupus. This condition is hard to diagnose, and estimates of how many people have it vary widely. CDC is completing projects with four state and local health departments, four universities, and the Indian Health Service to produce better estimates of the incidence and prevalence of lupus among different racial and ethnic groups in the United States. Follow-up studies are looking at disease progression and treatment.

CDC works with the Lupus Foundation of America and the American College of Rheumatology to raise lupus awareness and educate patients and health care providers about early diagnosis, lupus self-management, and physical activity, including strength training.

Environmental Approaches

CDC is a member of the Osteoarthritis (OA) Action Alliance, a national coalition that promotes and responds to the goals and recommendations of A National Public Health Agenda for Osteoarthritis. The OA Action Alliance and the Center for Enhancing Activity and Participation among Persons with Arthritis (ENACT) at Boston University studied tools that measure neighborhood “walkability” and “rollability” and concluded that a more specialized tool is needed for people with arthritis. ENACT is now working with the University of North Carolina, the Arthritis Foundation, and CDC to understand which environmental factors help increase walkability and rollability for people with arthritis.

Osteoarthritis Is Among the Most Expensive Conditions

Osteoarthritis affects 30 million adults in the United States and was the second most expensive health condition treated at US hospitals in 2013. It accounted for $16.5 billion, or 4.3%, of the combined costs for all hospitalizations, according to US government research published in 2016.

Osteoarthritis was also the most expensive condition for which privately insured patients were hospitalized, accounting for over $6.2 billion in hospital costs.

Estimates of annual medical spending and absenteeism (average lost work days) for arthritis at the state level for 2006-2010 are available from the Chronic Disease Cost Calculator.

Three Most Expensive Conditions Treated in US Hospitals, All Payers, 2013

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cost in Millions</th>
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</thead>
<tbody>
<tr>
<td>Live Births</td>
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<tr>
<td>Osteoarthritis</td>
<td>$16,520</td>
</tr>
<tr>
<td>Septicemia</td>
<td>$23,663</td>
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</table>

Community Programs Linked to Clinical Services

Supporting State Health Departments

Twelve state health departments use CDC funding to expand the reach of proven, arthritis-appropriate self-management education and physical activity programs. States work with community organizations that can make these programs part of their routine operations and sustain them over time. Organizations such as local YMCAs, cooperative extension service programs, and state and local parks and recreation departments have partnered with state arthritis programs to deliver interventions in their communities.

Reaching the Public

In addition to funding states, CDC works with national organizations to expand the use of proven interventions for people with arthritis. For example, the National Recreation and Park Association (NRPA) offers support to more than 70 local park agencies in 32 states to deliver the Active Living Every Day Program or the Walk With Ease Program. These agencies receive seed funding for training and start-up costs. NRPA has also developed resources that highlight key successes, challenges, and lessons learned from the pilot test of this project. NRPA created a webinar that promotes arthritis interventions to local parks and recreation departments and a website that highlights arthritis programs and partnerships.

In addition, the YMCA of the USA (the Y) continues to build a national infrastructure to support and expand delivery of the EnhanceFitness program at local YMCAs and in the surrounding communities. EnhanceFitness, which was developed and evaluated by the University of Washington Prevention Research Center, Group Health Cooperative, and Sound Generations, improves participants’ physical functioning, mood, and social functioning.

The Y has adopted EnhanceFitness as a signature program and offers classes at 221 YMCA sites and 39 non-YMCA sites in 37 states. The Y is also participating in a new effort to reduce health disparities by bringing EnhanceFitness to more local YMCAs in low-income and underserved communities. These local YMCAs will receive intensive technical help and small grants to offset training and start-up costs.

Through NRPA and the Y, CDC’s Arthritis Program delivered proven arthritis physical activity interventions to more than 18,000 people over the last few years, while the 12 states with CDC-funded arthritis programs delivered interventions to over 100,000 adults in 3 years.

Future Directions

Improving the lives of the millions of people with arthritis is a top priority for CDC. To meet this goal, we will continue to:

♦ Increase access to physical activity programs and self-management education programs to help people with arthritis reduce symptoms and improve their quality of life.

♦ Conduct research to guide public health practices related to arthritis.

♦ Help state programs promote the use of environmental approaches that help people with arthritis be more active, reduce pain, and improve their quality of life.

♦ Increase awareness of the effect of arthritis on the nation’s health and well-being, including its costs and its effect on other chronic conditions.

In a 2013 report to Congress, the Centers for Medicare & Medicaid Services described promising evidence that EnhanceFitness had reduced total health care costs (saving $945 per participant), unplanned hospitalizations, and death rates for participating Medicare beneficiaries 12 months after enrollment.

For more information, contact
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National Center for Chronic Disease Prevention and Health Promotion
Division of Population Health, Arthritis Program
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