

Arthritis: The Public Health Partnerships for Improving Health

Denise G. Brewster, MEd, CHES; Mary Altpeter, PhD, MPA, MSW

For many North Carolinians, dealing with the aches and pains and limited mobility of arthritis and joint conditions often takes a back seat to health issues such as diabetes and heart disease which may be seen as more life threatening. Many people with arthritis believe they cannot or should not be physically active with their aching joints, making management of other chronic diseases even harder. North Carolina public health professionals, the Centers for Disease Control and Prevention, and the National Arthritis Foundation recommend that people with arthritis can and should be physically active—the correct and safe way. There are proven methods for how they can successfully manage their condition, decrease pain, stay productive, improve quality of life, and reduce health care costs. To that end a collaborative public health approach to preventing and treating arthritis has been developed in the state, the North Carolina Arthritis Program.

The North Carolina Arthritis Program was revitalized in 1999 with a vision and a shoestring budget of only \$70 000 from the Centers for Disease Control and Prevention to build state infrastructure and capacity to reduce the burden of arthritis across the state. Given this daunting challenge, it was clear that the Arthritis Program needed to reach out to build interdisciplinary and interorganizational community partnerships to strategically pool resources, build infrastructure capacity, and help carry out programs and advocacy efforts. An Arthritis Program Advisory Board was created with

membership of key stakeholders in aging services, public health, medical care, community-based services, advocacy groups, and academia. Aging services representatives include key staff and leaders from Senior Games, AARP, Area Agencies on Aging, NC Division of Aging and Adult Services, and the Cary Senior Center. Medical community members include representatives from Vocational Rehabilitation, Sprain Strain Treatment Center, Rex Senior Health Center, WakeMed, Wilson Medical, Blue Cross Blue Shield of NC, and NC Division of Medical Assistance. Community-based organizations include the Arthritis Foundation, Pitt County Community Schools and Recreation, NC Citizens for Public Health, City of Raleigh Parks and Recreation, Mid-Carolina Council of Government, and local health departments. Academic partners include the University of North Carolina (UNC) at Chapel Hill (Schools of Public Health and Nursing, Institute on Aging, Department of Health Policy and Administration, and Thurston Arthritis Research Center), NC Office

“Many people with arthritis believe they cannot or should not be physically active with their aching joints, making management of other chronic diseases even harder.”

on Disability and Health, East Carolina University Brody School of Medicine, Duke University Divisions of Community Health and Rheumatology, UNC Charlotte School of Nursing, and Wake Forest University School of Medicine.

This broad-based advisory board serves as the driving force of the Arthritis Program. The board has reviewed the statistics and services available in our state (documented in the North Carolina Arthritis Report 2002) and crafted the North

Denise G. Brewster, MEd, CHES, is acting NC Arthritis Program coordinator in the Physical Activity and Nutrition Branch, Chronic Disease Section, NC Division of Public Health. She can be reached at denise.brewster@ncmail.net or 1915 Mail Service Center, Raleigh, NC 27699-1915.

Mary Altpeter, PhD, MPA, MSW, is associate director for program development at the Institute on Aging, the University of North Carolina at Chapel Hill, and NC Arthritis Advisory Board member.

Carolina Arthritis Plan,¹ a 3-goal, 3-year road map for decreasing the burden of arthritis. The NC Arthritis Plan is consistent with NC General Statute 130A-222 which mandates a state arthritis program and the Healthy Aging People 2010 national health objectives.

The first goal is to increase the number and accessibility of evidence-based arthritis programs and to increase the number of people participating in them. There are 5 programs nationally recognized as effective in helping manage arthritis. Three programs are oriented to physical activity: the Arthritis Foundation Exercise Program, the Arthritis Foundation Aquatics Program, and the EnhanceFitness exercise program. Two programs focus on self-management skills and patient-physician communication strategies: the Arthritis Foundation Self-Help Program and the Stanford University Chronic Disease Self-Management Program. These evidence-based programs have proven to provide benefits in symptom management, improved mobility, and reduction in depression among participants in study groups.^{2,3}

To achieve the goal of reducing the arthritis burden, the North Carolina Arthritis Program and its lead partner agency, the Arthritis Foundation Carolinas Chapter, work together to identify organizational networks in areas where evidence-based programs are currently unavailable or underutilized. Most of the evidence-based programs in the state are clustered around the largest metropolitan areas and about half of the counties have no evidence-based arthritis programs at all. Community members and participants of the regional senior centers in rural communities can, however, be trained to lead Arthritis Foundation exercise, aquatics, and self-help programs.

Leading a key partnership effort, the NC Division of Aging and Adult Services has embarked on a 3-year project to train volunteers in Stanford University's Chronic Disease Self-Management Program and deliver the program in 46 counties. The program has been shown to provide the same benefits (managing their disease, continuing activities of daily living, and coping with emotions) to people with arthritis as arthritis only self-help programs.⁴ The Division of Aging and Adult Services project will reach over 3000 North Carolinians living with chronic diseases such as arthritis. This effort is crucial—nationally, less than 1% of people with doctor-diagnosed arthritis participate in self-help programs.⁵

The second goal in the Arthritis Plan is to conduct community campaigns to raise public awareness that physical activity is an effective way to manage arthritis symptoms. To begin to address this statewide goal, the Arthritis Program has conducted 3 regional communication campaigns in North Carolina saturating 15 counties with media messages. The key message of the campaigns has been "Physical Activity. The Arthritis Pain Reliever." The communication campaigns have been pivotal opportunities for identifying community interest and commitment to establishing local exercise, aquatics, and self-help programs. For example, during the 6-week communication campaign in Pitt County, a special one day "Move More with Arthritis" event was held along with Arthritis Foundation aquatic program leader training. The two components, educating community members about the benefits of physical activity and building

community capacity to meet the demands of an informed citizenry, depend upon community-based partnerships like Pitt County Community Schools and Recreation who hosted the event and the aquatic leader training.

Since arthritis affects people of all ages and is also a leading cause of disability and work-related disability,⁶ senior communities are not the only focus of the Arthritis Program's efforts. Key arthritis messages are shared with participants of all wellness programs to encourage them to see their doctor, stay active, watch their weight, and protect their joints. Information about the evidence-based Arthritis Foundation Exercise Program will be included in the web-based menu of activities available in the "Worksites Eating Smart and Moving More" materials available to every workplace with a wellness program. The Arthritis Program is also working to make evidence-based program information available to all NC State Health Plan enrollees through the more than 150 state wellness committees currently established. The exercise program is an ideal fit for employees who have permanent disabilities that prevent participation in more vigorous physical activities or who have been sedentary and need a graduated approach to becoming more physically active. Families also benefit from learning to protect the joints of their children to reduce the possibility of future arthritis.

The third goal of the Arthritis Plan is directed toward creating policies and environments supportive of arthritis management in North Carolina by working with state legislators and local elected officials and organizations. Although some health savings accounts recognize the value for enrollees participating in evidence-based programs to maintain health and reduce medical costs, not all employers and insurance policies recognize this. Other types of plans and actions for supportive policies and environments are multi-faceted and long term in scope. For example the Arthritis Program hopes to increase the use of prescriptive physical activity recommendations from health care providers, but such prescriptions demand the availability of community resources for safe and effective physical activity opportunities.

What does the future hold for citizens living with arthritis in North Carolina? There are 3 major challenges. First, with the continuing momentum toward a dedicated plan to reduce the burden of arthritis, more evidence-based programs need to be available throughout communities. Citizens should have the opportunity to engage in physical activity that is safe, effective, and close to home. Persons living with arthritis will gain greater control over their lives and condition from participating in chronic disease self-management programs. Our challenges are to increase the number of master trainers, identify organizational sites for programs, and train program leaders. Currently there are only 8 Arthritis Foundation master trainers in North Carolina. The number of Arthritis Foundation exercise, aquatic, and self-help program leaders varies from year to year (currently around 100) due to attrition. There are only 8 Chronic Disease Self-Management Program trainers in the state who have completed Stanford University's intensive training preparation.

Second, employers need to recognize that supporting physical activity for employees with arthritis keeps them on the job and

performing better. A major challenge will be to create and implement strategies to address people with arthritis who may experience periodic or increasing functional impairment. We need to work with employers to examine how the work environment, employee tasks, and schedules may be adapted to offer flexibility for workers with arthritis while at the same time maintaining expected performance levels and overall productivity.

Third, these challenges cannot be met without cooperative efforts and dedicated funding. Strong collaborative partnerships are the biggest asset in accomplishing the goals of the Arthritis Plan. The biggest challenge is the cost of building infrastructure with severely limited dollars. Currently the Arthritis Program budget for fiscal year 2007-2008 is supported by a grant of \$135 000 from Centers for Disease Control and Prevention, an

increase of only \$65 000 from its initial funding 9 years ago. With a 2005 estimate of 1 754 000 North Carolina citizens diagnosed with arthritis,⁷ that means less than 8¢ per person is available for evidence-based programming, raising community awareness, and creating supportive policies and environments. It will take dedicated financial investment from the public, nonprofit, and private sectors to minimize and prevent arthritis-related disabilities from affecting the state's workforce as well as keeping people living with arthritis active and living independently. Basic funding and partner agencies working together through the comprehensive, multi-faceted public health response to arthritis can build a state in which all citizens enjoy the high level of wellness and quality of life that all tarheel citizens deserve. **NCMJ**

REFERENCES

- 1 North Carolina Arthritis Advisory Board. *North Carolina Arthritis Plan: 2007-2010*. NC Arthritis Program, Division of Aging and Adult Services, NC Department of Health and Human Services. Raleigh, NC; 2007. http://www.ncarthritis.com/documents/NCArthritisPlan_5-9-07_Final.pdf. Accessed October 3, 2007.
- 2 Boutaugh ML. Arthritis Foundation community-based activity programs: effectiveness and implementation issues. *Arthritis Rheum*. 2003;49(3):463-470.
- 3 Kruger JM, Helmick CG, Callahan LF, Haddix AC. Cost-effectiveness of the arthritis self-help course. *Arch Intern Med*. 1998;158(11):1245-1249.
- 4 Goeppinger J. Self-management education for persons with arthritis: managing comorbidity and eliminating health disparities. *Arthritis Rheum*. 2007;57(6):1081-1088.
- 5 Targeting Arthritis. Reducing Disability for Nearly 19 Million Americans: At a Glance 2007. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/nccdphp/publications/AAG/arthritis.htm>. Accessed October 25, 2007.
- 6 Centers for Disease Control and Prevention. Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation—United States, 2003-2005. *MMWR*. 2006;55(40):1089-1092.
- 7 2005 Behavioral Risk Factor Surveillance System. North Carolina Center for Health Statistics. <http://www.schs.state.nc.us/SCHS/brfss/>. Updated August 21, 2007. Accessed October 25, 2007.

Eat Smart, Move More Health Tip



Choose to Move More Every Day

For tips on how to move more every day where you live, learn, earn, play and pray, visit



www.EatSmartMoveMoreNC.com