

OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

MOVE IT TO SOOTHE IT: PHYSICAL ACTIVITY AND ARTHRITIS

*"I don't deserve this award, but I have arthritis and don't deserve that either."*  
—Jack Benny

**THE PAINFUL TRUTH**

Nationally, one in five, or an estimated 50 million adults, report that they have doctor-diagnosed arthritis (being told by a doctor that they have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia).<sup>1</sup> By 2030, an estimated 67 million Americans aged ≥18 years are projected to have doctor-diagnosed arthritis.<sup>2</sup> This is concerning because arthritis and related conditions are the leading causes of disability for people in the U.S. In addition, arthritis commonly occurs with other chronic conditions, such as obesity, diabetes, and heart disease. In 2003, total costs (direct and indirect) attributed to arthritis and other rheumatic conditions in the U.S. were \$128 billion, up from \$86 billion in 1997;<sup>3</sup> total costs attributable to arthritis in Oregon were \$1.6 billion.

**THE ACTIVITY GAP**

A recent MMWR examined the difference in activity levels for people with and without arthritis in the U.S. The results were striking, especially regarding the very low levels of activity among those with arthritis.<sup>4</sup>

In particular, the report looked at the prevalence of no leisure-time physical activity (LTPA) among people with and without arthritis.\* Respondents with doctor-diagnosed arthritis (defined above) were classified as "no LTPA" if they answered "no" to the question, "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" No LTPA was particularly of interest because it was thought to be the physical activity area that is most readily modified for most people (as opposed to activity at work).

Nationally, the report found that: 1) the prevalence of no LTPA is sig-

\* Data from the 2009 Behavioral Risk Factor Surveillance System

nificantly higher among adults with arthritis than among those without arthritis in every state and the District of Columbia; 2) the disparity in no LTPA between adults with and without arthritis is large; and 3) adults with arthritis comprised a substantial portion of all adults reporting no LTPA in each state (Table, below).

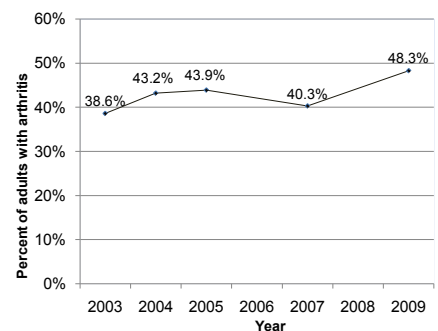
In Oregon, the proportion of people with arthritis reporting no LTPA is lower than the national average, but the difference between people with and without arthritis (% disparity gap), and the contribution of arthritis to no LTPA (% arthritis impact) are greater (Table). People with arthritis in Oregon are disproportionately represented among those reporting no LTPA, given that 27% of the population in Oregon reports having arthritis, but 40% of those reporting no LTPA have arthritis.

This limitation in physical activity is important because we know that arthritis symptoms tend to improve with appropriate physical activity<sup>5</sup>, and people with arthritis often have other chronic medical conditions that benefit from physical activity. Among adults with arthritis in Oregon, 32% were obese, 15% had diabetes, and 12% had coronary heart disease during 2009.<sup>6</sup> In addition, an increasing proportion of people with arthritis in Oregon report that arthritis symptoms restrict their daily activities (Figure, right). If we want to see activity levels increase across the population broadly, this large segment of the population with activity limitations will have to be addressed.

**GETTING THINGS IN MOTION**

The Oregon Arthritis Program works with the Arthritis Foundation to train instructors in the Arthritis Foundation Exercise Program (AFEP) and Walk With Ease, two evidence-based physical activity programs. The programs are supported by Arthritis Foundation staff and are promoted by local health departments. AFEP programs are currently available in 14 counties across Oregon. Since January of 2008, 692 participants have taken an AFEP program. The Walk With Ease program is just being launched in Oregon, with plans to make it more widely available during the next year. The Oregon Public Health Division also runs the «Arthritis Pain Reliever» campaign each spring, which encourages general exercise and active living.

**Figure. Age-adjusted activity limitation due to doctor-diagnosed arthritis in Oregon, 2003–2009**



**RESOURCES**

- The Oregon Prevention and Wellness Self-Management Website: <http://public.health.oregon.gov/PreventionWellness/SelfManagement/Pages/index.aspx>
- Centers for Disease Control and Prevention Arthritis Program: [www.cdc.gov/arthritis/pa\\_overview.htm](http://www.cdc.gov/arthritis/pa_overview.htm)

**Table. No LTPA among adults with and without arthritis.**

Location	With Arthritis (95% CI)	Without Arthritis (95% CI)	% Disparity Gap	% Arthritis Impact
U.S.	31.8 (30.2–32.9)	20.7 (19.6–21.8)	53.0	35.2
Oregon	25.5 (22.7–28.6)	13.9 (12.3–15.8)	183.5	40.7



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## REFERENCES

- Centers for Disease Control and Prevention (CDC). Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation—United States, 2007–2009. *MMWR* 2010;59:1261–5.
- Hootman JM, Helmick CG. Projections of US prevalence of arthritis and associated activity limitations. *Arthritis Rheum* 2006;54:226–9.
- CDC. National and state medical expenditures and lost earnings attributable to arthritis and other rheumatic conditions—United States, 2003. *MMWR* 2007;56:4–7.
- CDC. State-specific prevalence of no leisure-time physical activity among adults with and without doctor-diagnosed arthritis—United States, 2009. *MMWR* 2011;60:1641–5.
- U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans. See [www.health.gov/paguidelines/Report/G5\\_musculo.aspx](http://www.health.gov/paguidelines/Report/G5_musculo.aspx) (Accessed 19 Dec 2011).
- Oregon Health Authority, Public Health Division. Oregon's Arthritis Report, 2011. See <http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Arthritis/Documents/arthritis11.pdf>. (Accessed: 20 Dec 2011).

## Novel Influenza A H3N2 swine origin virus

On November 20, CDC confirmed that three children in Iowa were infected with a novel strain of influenza A H3N2.<sup>1</sup> This strain is a triple reassortant swine-origin virus, which has been identified in 11 cases in 5 states since July. Although 19 human infections with swine-origin H3N2 have been documented since 2009, this strain is different: it contains a gene for the matrix (M) protein from the pandemic H1N1 flu strain. All three Iowa children were only mildly ill and have recovered. They had not been exposed to swine, but they did have contact with one another, which suggests human-to-human transmission. No other cases were detected in Iowa. The 11 cases reported since July have

primarily been children (median age 3 years), but ages ranged from 11 months to 58 years.

A preliminary analysis of sera from patients vaccinated with last year's (same as this year's) seasonal vaccine suggests that in adults it induces antibodies with limited cross-protection against the novel strain, but probably not in children <3 years of age. The good news is that the novel viruses were susceptible to both zanamivir (Relenza®) and oseltamivir (Tamiflu®).

No novel H3N2 cases have been detected in Oregon this season. We will continue to monitor the emergence of such strains through PCR testing of specimens from sentinel providers throughout the state, outbreaks, and hospitalized patients in the Portland metro area. Any strain that cannot be subtyped by the Oregon State Public Health Laboratory will be forwarded to CDC for really fancy testing.

As usual, clinicians who identify influenza-like illness (fever  $\geq 100^{\circ}\text{F}$  [ $37.8^{\circ}\text{C}$ ], oral or equivalent, AND cough or sore throat in the absence of another known cause) among patients recently exposed to swine should contact our on-call epidemiologist at 971-673-1111. Influenza outbreaks should be reported to your local health department.

If you are a clinician interested in participating in the Oregon influenza-like illness sentinel provider network (ILINet), which helps to track flu activity in the state, please e-mail Patricia. Newman@state.or.us.

## REFERENCE

- CDC. Limited Human-to-Human Transmission of Novel Influenza A (H3N2) Virus—Iowa, November 2011. *MMWR* 2011; 60:1615–7.

## 2011 CD Summary Recap (Volume 60, by issue)

[www.healthoregon.org/cdsummary](http://www.healthoregon.org/cdsummary)

- The Decade of Hepatitis C
- Preventing Coronary Heart Disease in People Living with AIDS
- Sugar-Sweetened Beverages: Super-sized Containers and Consumers
- Tipping the Scales During Pregnancy
- Influenza Antiviral Agents: New Recommendations
- Oregon's Death with Dignity Act: Thirteen Years
- Everything Your Patients Want to Know about Radiation\* (and aren't afraid to ask)
- The 2011 Child and Adolescent Immunization Schedules
- Communicable Disease Summary 2010—Benchmarks or Bust
- What's Your Electronic Health Record "Meaningful Use" IQ?
- Employee Wellness: Healthcare Sector "Walks the Talk"
- If You Can't Stand the Heat, Find an Air Conditioner
- Mycobacterium tuberculosis var. xenophilum*
- Pediatric Window Falls: Children Can't Fly
- Sproßen Machen Krank: *E. coli* O104 Strikes Europe
- Don't Let the Bed Bugs Bite
- Living Well: Helping Patients Help Themselves
- Influenza: Pre-Season Primer
- Foodborne Illness: How Big a Problem?
- Social Networks, Not Just for Amway: Finding Unrecognized HIV Cases
- A Prescription for Safe Prescriptions
- 14 is Too Young to Drink
- Cryptococcus gattii*: The Fungus among Us
- PCV13: Taking It to the Pneumococcus
- Helping Oregonians Catch Their Breath: Improving Asthma Management
- Move It to Soothe It: Physical Activity and Arthritis. (This issue also includes an update on novel H3N2).