

# **Osteoporosis Prevention and Education Program**

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**Annual Report to the General Assembly  
2008**

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Everette James,  
Acting Secretary of Health

Edward G. Rendell,  
Governor



# Osteoporosis Prevention and Education Program

## 2008 Annual Report to the General Assembly

**Message from Everett James  
Acting Secretary  
Pennsylvania Department of Health**

**The 2008 Annual Report of the Department of Health's (Department) Osteoporosis Prevention and Education Program** highlights the Department's ongoing and future plans, the education and prevention strategies for all ages and the current direction of the state's osteoporosis program.

Osteoporosis, a disease marked by weakened bones, is a chronic, but preventable, condition which is often under-diagnosed and under-treated. Since bone loss can occur without experiencing pain, osteoporosis is often called the "silent disease." While there are treatments for the disease, there is currently no cure.

Act 71, enacted in 1998, established the Osteoporosis Prevention and Education Program to provide leadership and direction for program development at the state level. The Department continues to focus on prevention and awareness, urging individuals to identify their risk factors for osteoporosis, educating them on appropriate action to take to reduce those risks and reminding them that certain lifestyle actions are harmful to bone health at all ages: poor nutrition, lack of physical activity, smoking and excessive alcohol consumption.

I am pleased to report the progress of these impressive programs that have been made possible with the funding approved by the General Assembly and Governor Rendell.

Sincerely,

Everette James

### **PENNSYLVANIA OSTEOPOROSIS PREVENTION AND EDUCATION STRATEGIC PLAN**

The **Pennsylvania Osteoporosis Prevention and Education Strategic Plan** (Plan) provides direction for comprehensive and coordinated initiatives to reduce the burden of osteoporosis on the citizens of Pennsylvania. The vision of the Plan is to build capacity in

Pennsylvania through implementing policy and lifestyle changes that promote healthy behavior.

The Plan's four major goals offer direction for education and prevention initiatives for partners throughout the state:

**GOAL #1:** Increase patient and provider awareness of the behaviors and strategies in maintaining bone health.

**GOAL #2:** Increase information efforts to health and human service professionals about osteoporosis prevention, diagnosis and treatment.

**GOAL #3:** Reduce barriers that prevent the diagnosis and treatment of osteoporosis.

**GOAL #4:** Develop a surveillance system to monitor dietary health trends and behaviors in children and adults.

Osteoporosis is known as a pediatric disease with geriatric consequences. Scientific evidence shows that implementing prevention and education initiatives during the early childhood years establishes lasting healthy behaviors that help to maintain bone health.

Collaborative efforts between the Department and community partners are advancing the Plan objectives to reduce the osteoporosis burden in Pennsylvania.

Pennsylvania's Plan focuses on population-specific strategies for all ages to raise awareness for bone health and increase prevention efforts for osteoporosis in the:

- Bone Building Years (0-30)
- Bone Maintenance Years (30-50)
- Bone Loss Years (50 and older)

The Plan is available on the Department's website at [www.health.state.pa.us/osteoporosis/](http://www.health.state.pa.us/osteoporosis/).

### **PREVALENCE**

The Department annually conducts the **Behavioral Risk Factor Surveillance System (BRFSS) Survey**, a sample telephone survey of Pennsylvania adults regarding various health risk behaviors, such as physical activity, eating habits, smoking and health status.

Reviewing data from BRFSS is one way to evaluate the progress toward the Healthy People 2010 goal of reducing the number of persons with osteoporosis to 8

percent. In 2007, Pennsylvania reported 7 percent of all adults were diagnosed with osteoporosis.

In Pennsylvania, 2007 BRFSS data supported that osteoporosis affects:

- 14 percent of all women aged 50 to 64
- 30 percent of women aged 65 and older

The Department made a request to the **Pennsylvania Health Care Cost Containment Council (PHC4)** for the 2006 inpatient data. The most recent data on the hospital discharge of patients with a diagnosis of osteoporosis showed:

- There were 58,550 hospitalizations for individuals having osteoporosis, with charges totaling more than \$1.5 billion.
- The average charge was about \$27,000.
- Nearly half of these patients were 80 years of age or older.
- Another 29 percent were between 70 and 79 years of age.
- Over 90 percent of the osteoporosis hospitalizations were women.

The Department's Bureau of Health Statistics and Research analyzed the data. The information will help to plan future education and prevention strategies.

## **OUTREACH EDUCATIONAL ACTIVITIES**

### **Department of Health Webpage and Clearinghouse**

The Department's osteoporosis webpage ([www.health.state.pa.us/osteoporosis/](http://www.health.state.pa.us/osteoporosis/)) and Public Health Clearinghouse ([www.health.state.pa.us/padohric/](http://www.health.state.pa.us/padohric/)) are available as helpful consumer resources.

### **National Association of Chronic Disease Directors**

The Osteoporosis Program Administrator is an active member in the Osteoporosis Council of the National Association of Chronic Disease Directors. This affords the Department an opportunity to collaborate and network with other state programs involved in efforts to reduce the burden of osteoporosis across the nation.

### **Department of Health Community Health Districts**

The Department supports the efforts of six Health District Chronic Disease Nurse Consultants (Consultants) to target population-specific, at-risk and disparate groups in their specific geographic areas. The Consultants act as resources and provide community-based education and prevention messages aligned with the Plan.

### **County and Municipal Health Departments**

The Osteoporosis, Physical Activity, Nutrition, Cardiovascular Disease and Diabetes (OPANAC) grants support ten County Municipal Health Departments in promoting environment, policy and systems changes that support healthy eating and increased physical activity.

The OPANAC grantees provide technical assistance to local partners in many settings: communities, schools, childcare facilities and in many worksites. In community settings, partners promote physical activity and the relationship between nutrition and chronic disease by developing community gardens, urging participation on walking and hiking trails and providing health promotion programs in cooperation with faith-based organizations and local grocery stores. In schools, promoting nutrition and physical activity is accomplished through school health councils and after-school activity programs. Within child care facilities, emphasis is placed on building and promoting safe and appropriate outdoor play spaces. For worksites, wellness committees foster health promotion strategies.

### **Pennsylvania Medical Society's CounterDetails**

*CounterDetails: Osteoporosis Prevention, Treatment, and Guidelines*, June 2008

The Osteoporosis Prevention and Education Program worked with the Pennsylvania Medical Society to offer CME/CEU credits to healthcare professionals through their **CounterDetails** program. The objectives of the **CounterDetails: Osteoporosis Prevention, Treatment, and Guidelines** (June 2008) CounterDetails are to help physicians:

- Define the epidemiology of osteoporosis.
- Review the latest Clinical Treatment Guidelines of Osteoporosis to integrate into practice.
- Formulate strategies to effectively communicate preventative measures with the patient.
- Review the drug treatment protocols and new drug-biomarkers.

The **CounterDetails** on Osteoporosis Prevention, Treatment, and Guidelines was placed in circulation June 15, 2008. This issue was mailed to 9,560 Pennsylvania physicians and 8,914 certified registered nurse practitioners and physician assistants in the following specialties: Family Medicine, General Practice, General Preventive Medicine, Geriatric Medicine, Gynecology, Internal Medicine, Nutrition, Obstetrics/Gynecology, Rheumatology and Other unspecified specialties.

Overall, the responses to the evaluations were very positive, with over 97 percent reporting the information was helpful or very helpful. One of the questions on the evaluation asked participants to cite one thing learned about treatment which could be implemented into their own practice. The most common responses were: early and better screening, more screening of men and appropriate use of medications. A six-month follow-up survey will be sent out at the end of December 2008 to assess the implementation of changes in practice related to treatment of osteoporosis.

### **Community Partner Activities**

**The Ophelia Project** expanded its reach with bone health messages into middle schools, through their Erie-based after-school mentoring program. The program's goal is to promote physical and emotional well-being in the young people of the community. College mentors led topics on positive self-image, accountability, healthy decision-making and bullying and relational aggression. Health, nutrition and physical activity were incorporated into these educational messages.

Approximately 60 middle school students participated in the program, which included varied physical activities that proved to be a great team building tool and an effective means to enhance student communications skills and self-esteem. Most of the students reacted positively to the increased physical activity.

The students also kept food and activity journals. The students commented on how the journaling process raised their awareness of the amount of junk food/fast food they ate. As a result, students cut out a significant amount of junk food in their diet and focused on incorporating more of the nutritious foods discussed during the mentoring sessions.

Students reported feeling much better physically and mentally after changing their eating habits and stated that they would continue to follow their modified diet. The Ophelia Project plans to continue incorporating the objectives of the bone health program into the mentoring program.

**Stay Strong!** was implemented in the Interboro High School in Delaware County through a partnership with the Delco Memorial Foundation of Crozer-Keystone Health System.

Curriculum was introduced that focused on nutrition and weight bearing physical activity for students who were typically not physically active. A student group called Kaleidoscope Kids (a TV production class) designed

video commercials that ran during morning announcements and were placed on YouTube during National Dairy Month. They focused on foods with calcium and the benefits of weight bearing activities. Educational outreach events were promoted through educational flyers as well as taste tests of calcium-rich foods during lunch periods. These events reached 1,440 students.

The program was so successful that the Health and Physical Education Department plans to make the bone health program a unit in their ongoing curriculum, and the school will explore other ways to promote health through lunch events and Kaleidoscope Kids. The program will be offered to an additional school district in Delaware County.

The **Family Fitness Program**, an intergenerational approach, provides parents, adult caregivers and children with information, skills and motivational guidance necessary to achieve quality in eating habits and a healthy level of physical activity. The program teaches participants to:

- increase fruit, vegetable, whole grain and low-fat dairy consumption;
- foster positive communication and collaboration on planning and preparing healthy meals and snacks;
- increase minutes of physical activity;
- increase goal setting and tracking of healthy diet and physical activity; and
- help students maintain or improve body mass index (BMI).

The Department collaborated with Pennsylvania State University (PSU) and provided support for 6 of the 14 program sites across Pennsylvania. Evaluation results indicate improvement in dairy food consumption (three or more dairy foods), which increased by 38 percent; knowledge of foods high in calcium increased by 12 percent; and families increased their minutes of physical activity (time spent walking) by 50 percent. The web site for the program is <http://extension.psu.edu/familyfitness/>.

**StrongWomen**, a national initiative, provides an opportunity for mid-life and older women at risk for osteoporosis to participate in the evidence-based strength-training program developed by John Hancock Center for Physical Activity and Nutrition at Tufts University. The effort to reach Pennsylvania women is led by the PSU Cooperative Extension Office and has been supported by the Department since March 2005. The program provides participants the opportunity to engage in weight-bearing physical activity led by a

certified trainer. During the 8 to 12 week sessions, in addition to leading the exercises, the trainer educates the participants on bone disease and nutrition. For additional program information, visit the website at <http://jhcpn.nutrition.tufts.edu/programs/strongwomen/>.

This year's PSU Cooperative Extension program expansion occurred in Cumberland, Delaware, Indiana, Northampton, Somerset, Wyoming and Westmoreland counties through the use of volunteers. The focus was on low income persons and those living in low-income housing. Some of the successes include a reduction in blood pressure and cholesterol numbers, improved balance and improved physical strength.

Based on osteoporosis prevalence rates, funding was provided to community partners to implement the StrongWomen program. Some success highlights include:

- Program expansion in rural areas, such as Wyoming County through a partnership with the Area Agency on Aging and the Wyoming County Housing Authority; and Columbia, Montour, Northumberland, Snyder and Union counties through a partnership with the ACTION Health, five-county State Health Improvement Plan collaboration.
- The Pennsylvania Housing Finance Agency partnered with local Cooperative Extension offices in Lebanon, Lancaster and Mercer counties to implement the StrongWomen program in six low-income housing sites

### Osteoporosis Education

Osteoporosis educational outreach programs help to familiarize the community with the cause of osteoporosis and how it can affect quality-of-life by providing language-appropriate workshops for non-English-speaking residents. The National Institute on Health reports that Asian-Americans are at high risk for developing osteoporosis. Therefore, the focus of the outreach programs was on Asian-Americans. This year, culturally appropriate osteoporosis workshops reached Korean and Vietnamese populations. By linking bilingual and bicultural health professionals with the workshops, participants received culturally appropriate bone health and osteoporosis education and materials and increased their acceptance of health information.

- In 2008, the second Vietnamese osteoporosis education workshop was held in a Philadelphia Vietnamese community. Through a collaboration between the **Center for Asian Health** at Temple University and the **Asian Community Cancer**

**Coalition** in Philadelphia, 118 individuals participated in educational activities and heard information on bone health, prevention of osteoporosis, food recommendations and the importance of getting a bone density test. Of the 118 participants, 84 percent increased their knowledge of the relationship between smoking and osteoporosis, and 74 percent increased their knowledge about men over the age of 50 being at a higher risk of getting osteoporosis. The participants discussed their individual dietary change plan, which was based on what they learned at the workshop, and agreed to take the information learned back into their communities. The Department's Got Calcium publication was adapted in Vietnamese for the program and was changed to be culturally appropriate.

- The **Philip Jaisohn Center** (Center) conducted a screening program for the Korean-American community within Philadelphia, specifically targeting women over the age of 40. The program included a series of workshops in which 39 participants were identified as having osteoporosis. These participants were referred to their physician for follow-up treatment. In addition, nutrition counseling sessions were provided for those at-risk and those with osteoporosis. The Center conducted telephone follow-up surveys two months after the workshops to find out if there were changes in nutrition and physical activity, as well as follow-through with the medical referrals. The results indicated that 74 percent kept their doctor visits, and 86 percent of those received treatment. In addition, the Center developed a series of senior adult exercise programs as a result of these findings.

These ongoing initiatives provide opportunities to reduce the barriers for access to osteoporosis health information for this growing minority.

### **FUTURE PLANS**

Since osteoporosis is not an inevitable part of the aging process, the Department will continue to support health promotion efforts in communities across the state by:

- Providing guidance and technical support to county and municipal health departments to better integrate awareness of osteoporosis and other chronic diseases through grant deliverables targeting community, child care, school and worksite settings.
- Supporting implementation of PSU's two age-specific bone health programs (Family Fitness Program and StrongWomen).

- Exploring opportunities to improve recommended calcium intake through daily milk consumption in students (grades six through 12), based on results of the 2006 Pennsylvania Youth Tobacco Survey.
- Identifying and linking with partnerships to develop and implement culturally appropriate osteoporosis educational workshops for Asian population groups.
- Continuing community partnerships with statewide groups and groups that provide services for at-risk populations to promote bone health and osteoporosis prevention for all ages.
- Tracking the public health disease and cost burden of osteoporosis, assessing trends over time, and evaluating strategies to facilitate planning using the 2008 BRFSS data.

The Department remains committed to statewide public and professional osteoporosis education efforts. For more information on the Osteoporosis Prevention and Education Program, visit the Pennsylvania Department of Health at [www.health.state.pa.us](http://www.health.state.pa.us).

**You are never too young or too old  
to improve your bone health.**



**Health Questions?**  
Call toll-free  
**1-877-PA-HEALTH**  
(1-877-724-3258)  
[www.health.state.pa.us](http://www.health.state.pa.us)