

Women's  
 Health Study

# Update

## Some Recent WHS Findings

It is incredible to realize that the Women's Health Study is now 22 years old ... and still going strong! Thanks to the dedication of women like you, the study has contributed much valuable information to knowledge on women's health over more than two decades. Below, we highlight two recent findings from the WHS:

### Long-term effects of aspirin on cancer prevention

If you recall, when you first joined the study, one of the aims of the WHS trial was to examine whether alternate-day, low-dose aspirin reduced the incidence of cancer development. When the trial ended as scheduled in 2004, women had been taking aspirin or placebo for an average of 10 years (some women had been in the trial for longer than that; some, shorter). At that time, we found no effect of aspirin on the risk of developing cancer, publishing these results in 2005<sup>(1)</sup>.

However, cancer is a disease that takes a long time to develop. This is one of the reasons we wanted to continue following women for the development of health events, including cancer, even *after* randomized pill-taking had stopped. Most of you (89%) kindly agreed to continue in an observational study – i.e., no pill-taking, but just completing yearly follow-up questionnaires – after the trial ended in 2004.

Last year, the WHS published findings on aspirin and cancer, with

longer follow-up<sup>(2)</sup>. After an average follow-up of 18 years, we found that women randomized to the active aspirin group continued to have similar rates of total cancer, compared to women randomized to the placebo aspirin group. The two groups also had similar rates of breast and lung cancers.

However, colorectal cancer risk was now reduced in the aspirin group by 20%, with the difference between groups seen only after the first 10 years. We conclude that long-term use of alternate-day, low-dose aspirin may reduce the risk for colorectal cancer in healthy women.

What are the implications of these findings? Because aspirin also can cause bleeding, it is important to weigh risks against benefits. If you are at high risk of colorectal cancer, talk to your doctor about whether use of low-dose aspirin may be helpful.

### Class III obesity and mortality

The prevalence of class III obesity – body mass index of 40 or higher (e.g., 240 lb or heavier for a woman 5 ft 5 in tall) – has increased dramatically in the US, with uncertain impact on the risks of illness and death. Because the proportion of such heavy individuals is still small (6% in the U.S.), it is difficult to investigate the health effects of this level of obesity in any single study.

Thus, the WHS joined a large pooled study that included 20 prospective studies of men and women from the United States, Sweden, and

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Australia to examine this question<sup>(3)</sup>. We found that among class III obese persons, mortality rates were 856.0 in men and 663.0 in women during the study period (1976–2009), compared with 346.7 and 280.5 in normal weight men and women, respectively. We then estimated how many years of life may be lost. Compared with normal-weight BMI, a BMI of 40–44.9, 45–49.9, 50–54.9, and 55–59.9 was associated with an estimated 6.5, 8.9, 9.8, and 13.7 years of life lost. We concluded that class III obesity is associated with substantially elevated rates of total mortality, with most of the excess deaths due to heart disease, cancer, and diabetes, and major reductions in life expectancy compared with normal weight.

1. Cook NR, Lee I-M, Gaziano JM, Gordon D, Ridker PM, Manson JE, Hennekens CH, Buring JE. Low-dose aspirin in the primary prevention of cancer. The Women's Health Study: a randomized controlled trial. *JAMA* 2005;294:47-55.

2. Cook NR, Lee I-M, Zhang SM, Moorthy MV, Buring JE. Long-term effects of alternate-day low-dose aspirin on cancer in the Women's Health Study: Observational follow-up of a randomized, controlled trial. *Ann Intern Med* 2013; 159:77-85.

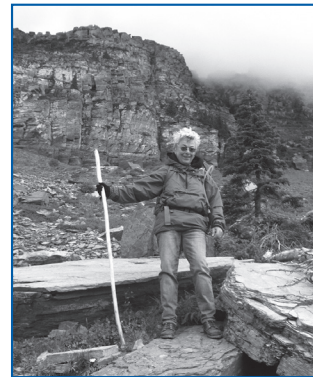
3. Kitahara CM, Flint AJ, Berrington de Gonzalez A, et al. Association between class III obesity (BMI of 40-59 kg/m<sup>2</sup>) and mortality: a pooled analysis of 20 prospective studies. *PLoS Med* 2014; 11:e1001673.

# WHS – Snapshots and Stories

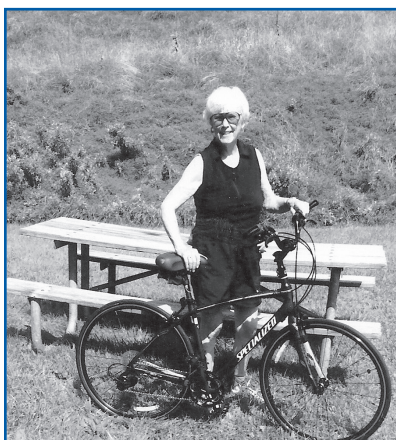


**Jill Hunter, DDS**, of Vacaville, California writes, "To honor turning 65, I walked the historic Camino De Santiago in Spain. I walked the five hundred miles solo in forty-two days and averaged twelve miles a day. I saw wonderful sights, met interesting pilgrims, discovered new insights and found myself much stronger both physically and mentally than I ever imagined. It was un buen camino!"

**Sandra Wilborn, MD**, of Portland, Oregon, celebrated turning 70 with a three-day backpacking trip over the Continental Divide in Glacier National Park, Montana. There were ten other women on the hike. Their leader was the first female park ranger in the United States. "It was my most adventuresome trip yet!"



**Jacqueline Pamplona, RN**, of Arroyo Grande, California, competes in the physically demanding and challenging sport of horse and carriage driving. She recently completed her first combined driving event which included driven dressage, a cones course and an obstacle course. Jackie's carriage is an antique Meadowbrook drawn by her horse, Maverick.



**Joan Maguire, RN, PhD**, of Wayne, Pennsylvania writes, "For twenty-five years I was a professor at Russell Sage College in Albany, New York. I received my PhD at age 57 and retired at age 70, but ages 70 to 81 have been some of the best years of my life. I love being old! It has so many advantages. I am still questing!"



**Martha Jenkins, RN**, of Frostburg, Maryland, seen here in the discus throw at the annual Polk County Florida Senior Games, is a track and field athlete who also qualified for the Florida State Senior Games. What made Martha interested in joining the senior games? Three years ago she was a spectator at the games when she realized, "I can do that!"



## Electronic Forms are in the Future

In the spring 2015, at the time of the next annual follow-up, the Women's Health Study will be introducing an on-line option. If you have provided us with an e-mail address, we will contact you in May with a link to the electronic form. If you decide not to use the e-form option, we will mail you the questionnaire via the USPS as usual.

## A call for photos



We always welcome your photos and stories and believe that WHS participants enjoy learning about each other. Although we are not able to publish all photos that we receive, we plan to continue featuring as many of our dedicated participants as possible in future newsletters. Please send a high-quality electronic photo to our e-mail address, [whs@partners.org](mailto:whs@partners.org). Along with the photo, please describe where the photo was taken and the circumstances.