



Heartbeat

Newsletter of the Cardiovascular Health Study (CHS)
for participants, family and friends

Winter 2014

25th Anniversary Issue!

The Cardiovascular Health Study Celebrates 25 Years of Success

By Diane Ives, University of Pittsburgh

The Cardiovascular Health Study investigators and staff came together on the evening of May 7, 2013 in Bethesda, Maryland to celebrate the study's 25th anniversary. Representatives from the four clinical centers (Wake Forest University in Winston-Salem, NC, University of California at Davis in Sacramento, CA, Johns Hopkins University in Hagerstown, MD, and the University of Pittsburgh in Pittsburgh, PA) attended along with investigators from the University of Vermont central laboratory in Burlington, VT, and the Data Coordinating Center at the University of Washington in Seattle, WA. Past and current project and contract officers from the National Heart Lung and Blood Institute and the National Institutes of Health also attended.

It was a festive atmosphere, giving everyone a chance to see old friends and reminisce about the many years of CHS. The celebration opened with a slide show of photos over the years from investigator meetings, staff trainings, clinical outcome review meetings and field center activities. Certificates of Appreciation were given to those members of the CHS team who have

been part of the study since its inception in 1988/89. There was a time of remembrance for those in the CHS family no longer with us, including investigators, staff, and especially all the study participants who contributed their time to make CHS one of the most successful and long running studies of cardiovascular disease and aging ever completed.

The CHS Steering Committee Chair for all 25 years, Dr. Curt Furberg of Wake Forest University, reflected on the accomplishments of CHS, including just recently achieving the 1000th published paper in a scientific journal. The evening ended with a

ceremonial passing of the torch from Dr. Furberg to Dr. Bruce Psaty of the University of Washington who will assume the role of Steering Committee Chair. We all look forward to his leading CHS into the next 25 years of success!



CHS Scientific Publications over 25 Years

By Dr. Curt Furberg, Wake Forest University

One measure of the success of the Cardiovascular Health Study is the number of scientific publications it has produced. As of April 2013, 1,008 articles in scientific journals were published using data from CHS. Very few research projects

can point to a similar publication record.

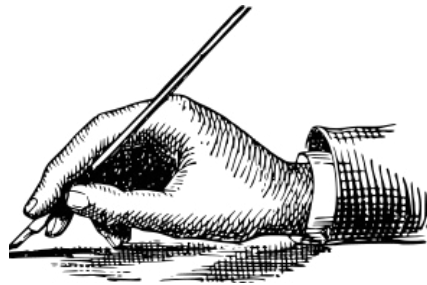
The number per year has increased over time and in 2010 and 2011 it exceeded two articles published every week. Our record is outstanding and a good reason for

the CHS investigators to be proud and also grateful to the CHS participants who made this possible.

The CHS publications covered a broad range of topics and appeared in 209 different journals. The top journals focus on geriatrics, heart conditions, stroke and general medicine. It was rewarding to learn that a large number of these journals are highly respected. Writing scientific articles requires a lot of work and CHS is grateful to the investigators behind the publications. Seven co-authored 100 or more articles, including Drs. Bruce Psaty and David Siscovick, University of Washington; Drs. Anne Newman and Lewis Kuller, University of Pittsburgh; Drs. Russell Tracy and Mary Cushman,

University of Vermont; and Dr. Teri Manolio, National Institutes of Health.

The impact of a scientific publication is often measured by how frequently it is cited by other investigators in their publications. The total number of citations of CHS publications is overwhelming and has recently exceeded 2,200 per year; an awesome record! Among the most cited were articles that addressed frailty in older adults, issues around caregiving, and findings from the special brain imaging and ultrasound examinations.



This is not the end of CHS publications. An additional 800 papers are underway or pro-

posed. This is a guarantee that CHS will continue to enrich scientific literature and provide information that will ultimately benefit the health and well-being of older persons.



View the bibliography of CHS publications by visiting the CHS website at: chs-nhlbi.org

An Ode to Johns Hopkins Health Studies

By a Hagerstown, Maryland Participant

More than 20 years ago new life was given me in speaking of Johns Hopkins and their studies that were timed just right for me.

I had gone to my doctor for a problem in my chest.

His checkup didn't tell him much so he sent me for more tests.

The local experts worked with me testing all around.

When their work was finished, no trouble had been found.

I'm sure good luck was with me when Johns Hopkins did explain

The Cardio Health Study and all it did contain.

By good luck I was accepted and a test on my first day;

By use of the right equipment found my problem right away.

I am awed by their efficiency in everything they do.

And I for one participate in each project that they do.



Thank you, Johns Hopkins, for 23 more years of great living.



Some of the CHS investigators and staff who contributed 25 years or more to the Cardiovascular Health Study since its inception.

Pictured left to right:
Dr. David Siscovick
(University of Washington); **Ms. Pat Crowley** (Johns Hopkins University); **Ms. Diane**

Ives (University of Pittsburgh); **Dr. Lewis Kuller** (University of Pittsburgh); **Dr. Russell Tracy** (University of Vermont); **Dr. Richard Kronmal** (University of Washington); **Dr. Curt Furberg** (Wake Forest University); **Dr. Anne Newman** (University of Pittsburgh); and **Dr. Bruce Psaty** (University of Washington). **Congratulations and many thanks to all!**

MAJOR SCIENTIFIC CONTRIBUTIONS OF CHS

The Cardiovascular Health study has been groundbreaking in showing how older adults are different from younger adults in their risk for heart disease and stroke. As you have aged and continue to participate in CHS, you are providing new information on the oldest old. A generation ago, we could not have imagined how the landscape of cardiovascular disease has changed.

First of all, there are a large number of heart attacks in women; in fact, most heart attacks after age 80 are in women. Women appear to lag in risk behind men for 10 years or more. However, the rates in women are never as high as in men. Why are men more affected? Health behaviors including smoking, diet, and exercise can explain this to an extent, but men continue to account for more heart attacks until older ages.

Secondly, CHS has demonstrated an increasing risk of heart failure with age. Much of this is difficult to detect as the heart appears to pump well on the echocardiogram (done in 1989-90 and 1996-97), but in many cases it becomes too stiff with age. CHS was one of the first studies to characterize a type of heart failure not associated with reduced heart pumping.

Third, CHS has also documented how serious atrial fibrillation is for increasing the risk of stroke. This has led to more aggressive use of Coumadin, a blood thinner to prevent stroke. These are just a few of the important results that have been reported from the information that you have provided.



As mentioned in the article on scientific publications, one of the most frequently cited papers to come out of CHS included results from the carotid ultrasound that you underwent in 1989-90 or 1992-93. The purpose of these exams was to explore the contribution of covert or subclinical disease, that is, disease that is present without specific symptoms. Your contributions show that there is a remarkably large extent of plaque and thickening in the carotid arteries that develops silently as we age. Such changes

By Drs. Anne Newman, University of Pittsburgh
and Alice Arnold, University of Washington

provide evidence of atherosclerosis. Furthermore, the presence of atherosclerosis in the carotid arteries predicts a higher risk of a stroke or heart attack. In fact, the results of this test predicted as well as a full risk factor battery including cholesterol, blood pressure, C-reactive protein and other tests, regardless of any previous history of heart disease. This was a landmark report, demonstrating the importance of identifying the earliest stages of a cardiovascular disease process.

Another frequently cited paper defined “frailty”, a condition that was often observed, but not defined in older adults. CHS investigators showed that frailty can be characterized by weight loss, fatigue, slow walking, low physical activity and muscle weakness. All of this was determined during the clinical examinations and interviews that you had. People in CHS described as frail were more likely to be hospitalized or have a fall than participants who were not frail. This has led to earlier identification of the risk for future health problems in older adults and is widely used in clinical research.

To all the participants and proxies who gave of their time to contribute to our understanding of sub-clinical cardiovascular disease and manifestations of the aging process,

we would like to say,

Thank you!



Do you know about the NIA's (National Institute on Aging) online *Health & Aging Topics Index*?

If you have access to the internet, you can find helpful articles with answers to questions about health topics from A-Z , such as:

- causes & signs of depression
- preventing falls & fractures
- hearing loss - take a nifty quiz!
- legal planning
- prescription drugs
- well-being

Go to:

NIA.NIH.gov/health/topics

To Find Help in your Community:

Eldercare Locator

1-800-677-1116 (toll-free)

www.eldercare.gov

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