

HPFS 40th Anniversary Newsletter – Spring 2026

Four Decades of Discovery

This year, the Health Professionals Follow-Up Study (HPFS) celebrates 40 years of public health discoveries made possible by its participants. Established in 1986 by Walter Willett and colleagues, HPFS has enrolled 51,529 male health professionals from across the United States. Since then, HPFS has produced more than 1,300 scientific publications, advancing our understanding across all areas of health, including diet, cardiovascular disease, cancer, and healthy aging. Findings from this work have guided health recommendations and helped shape public health policy, including contributing to the evidence that led to the elimination of trans fat from the U.S. food supply by 2018. HPFS is one of the largest and longstanding studies enrolling exclusively men, complementing the Nurses' Health Studies of women. The response rate continues to exceed 90 percent—a reflection of the extraordinary commitment of our participants!

To mark this occasion, we invite you to join the HPFS 40th Anniversary Celebration on Thursday, September 10, 2026, from 1:00 to 5:00 PM EST via livestream. The afternoon will include scientific presentations on key findings from the study, brief testimonials from fellow participants, and an opportunity to look back on four decades of this remarkable research community.

To register for the event, please visit <https://hsph.me/hpfs40>. For questions about the event, please email us at hpfs40@hsph.harvard.edu. We hope you will join us for this celebration. Thank you for 40 years of dedication to this work.

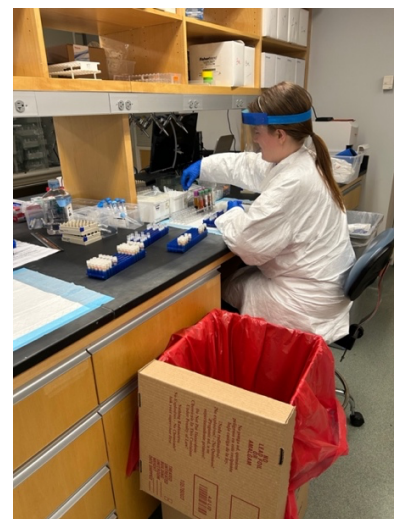
Sincerely, Walter Willett and Lorelei Mucci, on behalf of the HPFS team.

A New Chapter in Blood Collection

One of the unique features of the HPFS is that detailed diet and lifestyle data as well as health outcomes are linked with data from diverse biospecimens that have been collected: blood, toenails, cheek cells, tumor tissue, urine, and stool. This year, we launched a major new blood collection for the HPFS, supported by a grant from

the National Institute on Aging. Building on the original blood collection from the 1990s, when 18,000 participants provided blood samples, the goal is to collect new samples from as many participants as possible to understand the markers of healthy aging. Paired with the originals, these samples will allow researchers to study a phenomenon known as clonal hematopoiesis (CH) and its relationship to aging and disease across nearly three decades. CH occurs when certain blood stem cells develop mutations that allow them to multiply more than normal, gradually making up a larger share of blood cell production. Rare before age 40, CH is detectable in roughly 20% of older adults and has been linked to cardiovascular disease and other age-related chronic conditions, making it an important emerging biomarker of aging. The new blood samples will enable many other studies as well.

Participants receive a blood draw kit by mail, have their blood drawn locally, and return the samples to Harvard. There, a dedicated team in Lorelei Mucci's lab processes each sample, led by laboratory manager Pati Soule, who has worked in the lab for 25 years. More than 600 participants have already returned samples, with over 1,000 more expressing willingness to take part. "I'm just so impressed by their determination to get their blood drawn," says Pati Soule of the participants. "They all have a story to tell."



Salem Hartley processes participant blood samples in Lorelei Mucci's lab.

"This would be impossible without the commitment of the HPFS participants," says Yuan Ma, Assistant Professor of Epidemiology at Harvard Chan and co-leader of the CH study. "The rich information collected over four decades, plus the very precious samples our participants provided, allow us to look at the progression—that's unique." As the collection continues into 2026, the team looks forward to reaching more participants in the months ahead.



Chloe Wilkens, Pati Soule, and HPFS participant Dr. De Prima during a blood draw

Which Dietary Patterns Support Healthy Aging?

As the global population ages, identifying the dietary patterns most strongly associated with healthy aging has become a critical public health priority. A study published in *Nature Medicine* in 2025, by Anne-Julie Tessier, Frank Hu, Walter Willett, and colleagues, used data from both HPFS and our partner study the Nurses' Health Study (NHS) to address this question.

We followed 105,015 participants for up to 30 years, examining long-term adherence to eight different dietary patterns and their associations with healthy aging, defined as reaching age 70 free of chronic disease and with intact cognitive, physical, and mental health. Across all eight patterns, diets that were plant-forward and had at their base whole grains, fruits, vegetables, nuts, legumes, and healthy fats showed benefits for healthy aging. These included the Alternative Healthy Eating Index, the Planetary Health Diet Index, the Alternate Mediterranean Diet, and the MIND diet. The Planetary Health Diet Index quantifies adherence to

the EAT-Lancet Commission's reference diet, a plant-rich dietary pattern designed to promote human health and environmental sustainability (Rockström, Willett, et al. *The Lancet*. October 2025). The findings reinforce what decades of HPFS research have consistently shown: that what we eat matters enormously for long-term health. None of this would be possible without the detailed dietary information HPFS and NHS participants have shared every four years. (Tessier AJ et al. *Nature Medicine*. March 2025).

Stay the Course: Decades of Steady Exercise Tied to Lower Cancer Risk

It is well established that physical activity lowers cancer risk, but a 2025 study published in *JAMA Oncology* by Yiwen Zhang, Edward Giovannucci, and colleagues examined a more nuanced question: is consistent adherence to the recommended physical activity level—at least 7.5 metabolic equivalent task (MET) hours per week—over time associated with a lower risk of cancers of the digestive system? Using data from the HPFS and the NHS I and II, the researchers followed 231,067 participants for up to 32 years, tracking physical activity levels at multiple time points. Digestive system cancers included mouth, throat, esophagus, stomach, small intestine, colon, and rectum.

They found that consistently engaging in a moderate level of physical activity, approximately 17 MET hours per week (i.e., the equivalent of 5 hours of brisk walking per week), at every assessment point over three decades was associated with substantial reductions in risk of digestive cancers. Notably, performing much higher amounts of activity was not associated with further benefit beyond this consistent moderate level. The researchers suggest that physical activity may reduce cancer risk through multiple biological mechanisms, including improving insulin sensitivity, reducing systemic inflammation, and enhancing immune function. These findings carry a practical message: maintaining a moderate level of physical activity over decades might be sufficient to achieve optimal benefit in reducing cancer risk. The study is yet another example of how the long-term data provided by HPFS, NHS, and NHS II participants continues to yield insights that can improve lives. (Zhang Y et al. *JAMA Oncology*. October 2025).