SCIENTIFIC RESEARCH

Dr. Anderson’s research focuses on women’s health. A statistician, she helps lead the design and analysis of large-scale trials to give women new ways to prevent and fight disease and improve their quality of life.

She is principal investigator of the Women’s Health Initiative Clinical Coordinating Center, located at Fred Hutch. The WHI is an ongoing, multimillion-dollar project involving more than 160,000 U.S. women. It seeks to find ways to prevent cardiovascular disease, osteoporosis and cancer, which have large impacts on women’s health.

In the WHI’s most dramatic finding to date, Dr. Anderson and colleagues revealed that combined hormone replacement therapy can increase a woman’s risk of breast cancer, stroke and heart disease and, in women over 65, can double the risk of dementia. This finding led to a rapid drop in the use of these hormones, saving hundreds of thousands of women from these diseases and over $37 billion in health care costs since 2002.

Through the WHI, Dr. Anderson was involved in one of the largest studies yet to show that long-term exposure to air pollution impacts women’s likelihood of having and dying from cardiovascular disease.

Dr. Anderson leads an effort to gather tumor samples and data on cancer treatments and outcomes from WHI participants. The study will examine how tumor subtypes and their treatments are associated with health, quality of life and survival in older women, a population greatly affected by cancer but underrepresented in research.

The WHI findings about combined hormone replacement therapy have left fewer options to combat symptoms of menopause. In response, Dr. Anderson and her colleague Dr. Andrea LaCroix led a national network, known as MsFLASH, to identify and evaluate other remedies for these symptoms. Among their findings was the discovery that the effects of an inexpensive antidepressant on most menopausal symptoms are comparable to those of low-dose estrogen treatments.

BACKGROUND

Dr. Anderson earned her Ph.D. at UW. She joined Fred Hutch and UW upon completion of her degree in 1989.

Dr. Anderson has authored over 140 scientific articles and book chapters over the course of her career.