Dr. Prentice is a biostatistician who specializes in chronic disease prevention. He develops methods used in the design and analysis of clinical and population studies, with an emphasis on dietary and hormonal changes that may reduce the risk of major cancers and cardiovascular diseases.

He and colleagues at Fred Hutch established the Clinical Coordinating Center for the Women’s Health Initiative, a national program that enrolled more than 161,000 postmenopausal women in studies beginning in 1993, to evaluate the ability to reduce chronic disease risk through dietary change or menopausal hormone therapy.

In a landmark 2002 finding from the WHI, Dr. Prentice and his colleagues found an increased risk for breast cancer, heart disease and stroke among women in the study who were randomly chosen to receive estrogen and progestin hormone therapy. Consequently, more than 4 million women in the U.S. abruptly stopped using combined hormone therapy, and many others chose not to start in more recent years. These changes in women’s choices and clinical practice are estimated to have resulted in up to 20,000 fewer cases of breast cancer per year in the U.S. alone and reductions in the incidence of other chronic diseases.

Dr. Prentice also works to make the links between diet and chronic diseases that researchers identify more reliable by developing better ways to measure how much food and nutrients study participants consume.

Dr. Prentice received his Ph.D. in statistics from the University of Toronto in 1970. After serving on the faculty of the University of Waterloo, in Ontario, he joined Fred Hutch in 1974 while also serving as professor of biostatistics at UW. He was senior vice president and director of the Hutch’s Public Health Sciences Division from 1983–2002 and again from 2007–2012.

He has been a member of the National Academy of Medicine since 1990. He received the Presidents’ Award from the Committee of Presidents of Statistical Societies in 1986; the American Association for Cancer Research-American Cancer Society Award for Research Excellence in Cancer Epidemiology and Prevention in 2005; and the R.A. Fisher Lectureship award from COPSS in 2008.