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Examining the etiology of young-onset breast cancer in the Canadian Partnership for Tomorrow Project

Breast cancer continues to be the most commonly diagnosed cancer among Canadian women. Despite a decrease in the number of breast cancer diagnoses in older women in the past 25 years, diagnoses among women under the age of 50 have increased. The Canadian Cancer Society estimates that 17% of newly diagnosed breast cancer cases will be in women under the age of 50 in 2017. Young women diagnosed with breast cancer tend to have poorer survival because they are not routinely screened, thus they are often diagnosed with advanced-stage cancer. Breast cancer in older women has been studied extensively, but comparatively, little is known about the risk factors for young-onset breast cancer. Inherited genetic mutations play a role, but generally, only account for 5-10% of young-onset cases, suggesting lifestyle or environmental factors may contribute to the development of young-onset breast cancer.

The Canadian Partnership for Tomorrow Project (CPTP) is Canada's largest population cohort study that was developed to explore relationships between lifestyle, genetic, and environmental factors and chronic disease outcomes. In this project, we will use data from three sub-cohorts in CPTP (BC Generations Project, Alberta's Tomorrow Project and Ontario Health Study) to examine the risk factors of young-onset breast cancers in those less than 50 years of age. Results generated in this project will improve our understanding of breast cancer risk factors in younger women, leading to improved prevention strategies in young women at elevated risk of breast cancer.