Prospective study of CVD in 14,942 breast cancer survivors diagnosed at KPNC (2005-2013)

Each person is matched to 5 women without a history of breast cancer (74,702)

Goal: Examine incidence of CVD events in women with and without breast cancer, and

- how incidence varies by breast cancer treatment received, and by CVD medications taken

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CVD Risk and Breast Cancer Treatment

- Higher Incidence of Hypertension and Diabetes in Women with Breast Cancer
  - Hypertension Short-term $\uparrow$ Incidence within 2 years
  - Diabetes Overall $\uparrow$ Incidence over 10 years
  - Dyslipidemia Overall $\downarrow$ Incidence over 10 years

- Chemotherapy Treatment: 2-3 times Higher Risk of Heart Failure and Cardiomyopathy
  - Anthracyclines
  - Trastuzumab

Kwan et al. Journal of Clinical Oncology 2022
Greenlee et al. Journal of Clinical Oncology 2022
Neighborhood and CVD Risk

- What is the influence of the social and built environment on risk of CVD in ~4,000 breast cancer survivors in the Pathways Study?
  - Lower Asian American and Pacific Islander neighborhood population: 1.9-times higher risk of CVD
  - Higher neighborhood crime: 1.5-times higher risk of CVD

- What have we learned:
  - Residential environments can shape health outcomes
  - Stress pathways could be responsible for some health effects

*manuscript under review