

## WILL WOMEN DIAGNOSED WITH BREAST CANCER PROVIDE BIOLOGICAL SAMPLES FOR FUTURE RESEARCH PURPOSES?

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**Background and Aims:** Biological samples are often used to assess exposures in case control studies of cancer risk. Little is known about the response rates for biological sample provision, especially in younger age groups, and how these are affected by other demographic or lifestyle variables. A population based study of breast cancer patients was conducted to estimate these rates and to obtain information on the recruitment of friend/colleague controls.

**Methods:** Breast cancer cases diagnosed April-May 2010 were recruited to determine the proportion willing to provide biological samples (morning or 24 hour urine, saliva, blood) and contact information for similarly aged women for control recruitment. Cases (n=417) were women 25-74 years of age identified through the Ontario Cancer Registry and 67% (n=278) of those completed a mailed questionnaire.

**Results:** Women indicated they were willing to provide blood samples, by visiting a clinic (62%) or having a nurse visit the home (61%). They also were willing to provide saliva samples (73%) and morning (66%) or 24-hr urine samples (52%). Compared to older women, younger women ( $\leq 45$ ) were consistently more likely to agree to provide any biological samples and were 3.1 times (OR) more likely to report they would collect a morning urine sample (95% CL: 1.15-8.35). Only 26% of cases indicated they would be willing to give contact information for similarly aged women (controls) to provide samples in future studies. Educated women were more likely to agree to provide biological samples, and women who consumed alcohol were more likely to agree to provide contact information than non-drinkers. Ethnicity, income, body mass index, and smoking status did not influence these results.

**Conclusions:** Reasonable response rates for biological sample collection can be expected in future case controls studies of breast cancer (especially among younger women), however, other methods of control selection must be devised.