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### The Princess Margaret Cancer Center Target Ovarian Cancer Program

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# Target Ovarian Cancer Program (TOCP): Systematic identification of high-risk women for ovarian cancer prevention

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Ovarian cancer is the 5th leading cause of cancer-related death in Canadian women and is the most lethal cancer of the female reproductive tract<sup>1</sup>. 1 in 5 women with the most common form of ovarian cancer, high-grade serous carcinoma (HGSC), have an inherited mutation in the *BRCA1* or *BRCA2* genes<sup>2-3</sup>. Due to the strong link between *BRCA1/2* and HGSC, the Ontario Ministry of Health and Long-Term Care released recommendations in 2001 that made all women with serous epithelial ovarian cancer eligible for *BRCA1/2* testing. In the following decade only ~20% of eligible patients were referred<sup>4</sup>, resulting in up to 2000 women in Ontario with inherited *BRCA1/2* mutations who have not been identified and are unaware of their high risk for deadly ovarian cancer. The purpose of this initiative is to identify these women who carry *BRCA1/2* mutations and other risk genes through genetic testing and provide the opportunity to prevent ovarian cancer by risk-reducing surgery<sup>5-7</sup>.

## Princess Margaret Cancer Centre Target Ovarian Cancer Program

### Pilot Initiative: Fill the Gap

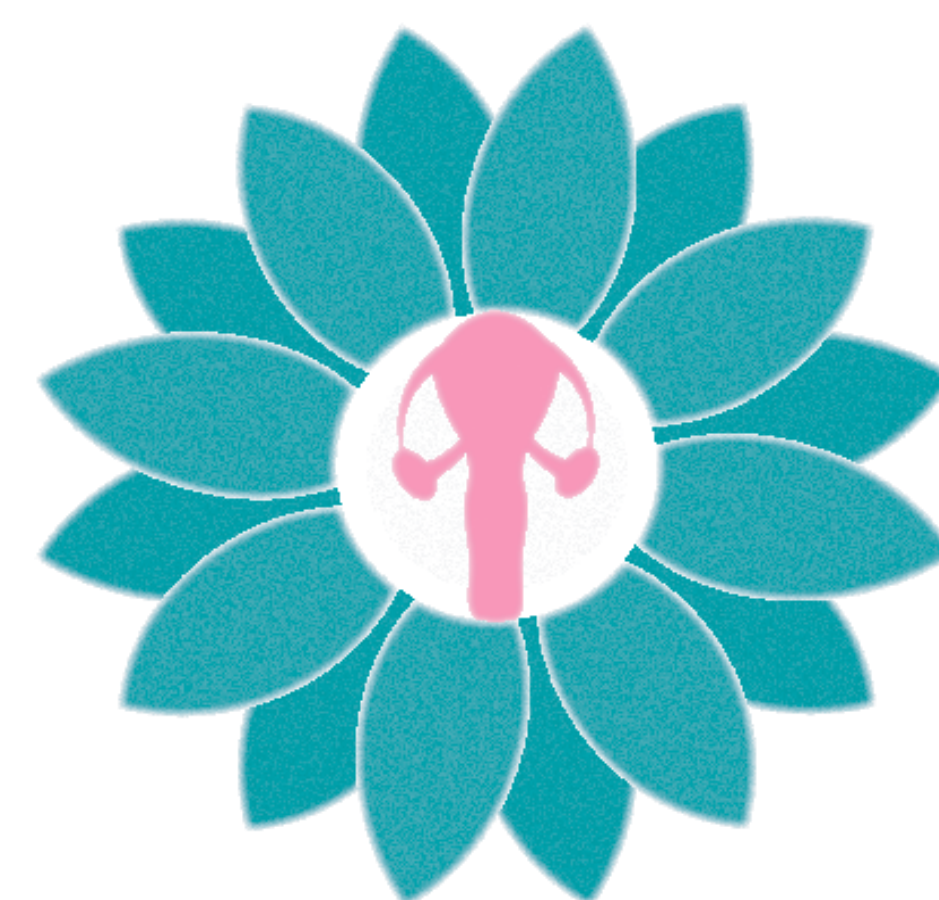
- I. Education campaign
- II. Panel-based germline testing of female first degree relatives → detect mutations in *BRCA1/2* (recommend risk-reducing surgery) + new risk genes
- III. Grow high-risk cohort/research infrastructure
- IV. Build case for shift in OMHLTC criteria/panel-based testing

### Impact: Research in High-Risk Population

- I. Psychosocial impact and barriers to genetic testing & risk-reducing surgery
- II. Genotype-phenotype studies in new risk genes
- III. Optimal targeted prevention strategies based on mutation status
- IV. Long-term follow-up

### Impact: Shift in Clinical Paradigm

- I. Systematic genetic testing & targeted prevention
- II. New models of genetic counselling
- III. Work with Cancer Care Ontario & Ontario Ministry of Health (OMHLTC) to impact policy/knowledge translation



**Detect** inherited cancer predisposing mutations, **Diagnose** increased cancer risk, **Target** mutation carriers for risk-reducing surgery & **Support** families throughout the process

TOCP website - [www.preventovariancancer.ca](http://www.preventovariancancer.ca)