

Submission to the House of Commons Standing Committee on Health Study on
Women's Health

**Transforming Canada's Gynecologic Cancer Care: Evidence-Based, Equitable
Access for All**

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Over half of Canada's population is at risk of developing a gynecological cancer over their lifetime.

Gynecologic cancer is any cancer that starts in the reproductive organs. The five types of gynecologic cancer are: cervical, ovarian, uterine, vaginal and vulvar.

Gynecological cancer has significant socioeconomic impact, both in direct costs [e.g, in 2021, \$781M direct health system costs] and incalculable indirect costs related to loss of productivity and societal impacts of the disease.(1) Clearly, improved prevention, diagnosis and treatment, and survivorship, are key to mitigating the burden and impact of gynecological cancers.

In Canada, there are profound disparities in cancer care delivery within and between provinces.(1) Differences between provincial healthcare policies means that a woman affected by gynecologic cancer may receive dramatically different care in Alberta, Ontario, or Newfoundland. The disparities are greater in areas where access to, or receipt of, cancer care is compromised due to geographic, cultural, political or socio-economic factors. Equitable, culturally-appropriate, trauma-informed delivery of care remains a significant challenge.

In 2019, in British Columbia, we created the Gynecologic Cancer Initiative. We are a multi-institutional, interdisciplinary research group comprised of scientists, clinicians, trainees, and women (including gender diverse, trans, and non-binary individuals) in BC. The vision of the Gynecologic Cancer Initiative is to accelerate transformative research to reduce incidence, mortality, and suffering from gynecologic cancer by 50% between 2019 and 2034. Often with grateful receipt of federal funding, we have made seminal research discoveries that span across all gynecologic cancers. Though they are too numerous to include, we will highlight two **demonstrated successes** and **future opportunities** to transform gynecologic cancer outcomes in Canada.

1. OVARIAN CANCER

The Context. Ovarian cancer affects approximately 3000 Canadians annually. Seven in ten Canadian women will die within five years of diagnosis,(2) making it the fifth leading cause of cancer deaths in females.(2) This poor survival can be partially attributed to the lack of effective screening for ovarian cancer, combined with vague and non-specific symptoms that only arise when the disease is already in advanced stages.(3) While 20% of ovarian cancers arise in women with an inherited genetic predisposition, the majority (80%) of ovarian cancers arise in women in the general population.(4) To significantly improve outcomes, we have focused on developing effective prevention for these 80% of cancers.

The Evidence. Approximately 20 years ago, scientists began to understand that the most common and lethal form of ovarian cancer, high grade serous cancer often originates in the fallopian tube, not the ovary.(5) The fallopian tubes play no known role post childbearing. With this new knowledge, our team innovated a new surgical

intervention called 'opportunistic salpingectomy' (removal of fallopian tubes/site of origin) as an ovarian cancer prevention strategy in the province of BC in 2010. We recommended that gynecologists and surgeons discuss fallopian tube removal (opportunistic salpingectomy) with all patients undergoing hysterectomy, and that opportunistic salpingectomy replace tubal ligation (i.e. having their tubes tied) in people seeking permanent contraception.

The Demonstration. BC has successfully implemented and sustained this prevention strategy with a formal education campaign in September 2010. Opportunistic salpingectomy was recommended by the Society of Gynecologic Oncology of Canada in 2011,(6) and by the Society of Obstetricians and Gynecologists of Canada in 2015,(7) and has since been followed by recommendations in many other developed countries.(8) Today, ovarian cancer prevention through removal of fallopian tubes/site of origin (opportunistic salpingectomy) is considered the most successful strategy to reduce the devastating burden from ovarian cancer. Data published by our team last year demonstrates its effectiveness as a prevention strategy for reducing the risk of ovarian cancer.(9) We, along with colleagues across the country, are currently working to expand opportunistic salpingectomy to other pelvic surgeries (i.e. colorectal surgery) to extend the impact of this ovarian cancer prevention strategy.

The Problem. While rates of opportunistic salpingectomy during hysterectomy and instead of tubal ligation have been increasing across Canada, there have been many missed opportunities for uptake of this life-saving procedure in Canadian provinces other than BC. We recently revealed that between 2017 and 2020 in Canadian jurisdictions other than Quebec (data were unfortunately missing from Quebec), there were 86,159 missed opportunities to remove fallopian tubes during hysterectomy or tubal sterilization. This will likely translate into 1000s of ovarian cancers that could have been prevented.(10) **National efforts are needed to remedy this inequitable receipt of life-saving cancer prevention.**

2. *ENDOMETRIAL/UTERINE CANCER*

The Context. Endometrial/uterine cancer is common, on a trajectory in the next 15 years to be second only to breast cancer in number of new patients/Canadians diagnosed. Mortality rates for this disease have increased every year for the last 20 years, impacting a greater proportion of young women and with the most aggressive subtypes of endometrial cancer arising in non-white individuals. There are currently no screening tools or population-based prevention strategy for this gynecologic cancer, thus we need to ensure all patients receive the ideal treatment for their cancer to ensure survival and high quality of life in survivorship.

The Evidence. Recent advances made by our BC team in the development of a practice-changing classification tool in endometrial cancer ('ProMisE'), has led to a change in the clinical management of endometrial cancers. ProMisE reliably categorizes endometrial cancers into four molecular groups that predict how well a woman is likely to do after her endometrial cancer diagnosis and identifies opportunities for targeted treatment.(11) Historically, all patients with endometrial cancer were managed with a one-size-fits all approach, which often led to patients receiving unnecessary

treatment(s) with adverse side effects or resulted in patients with more aggressive cancers receiving less than ideal treatment and missing an opportunity for cure. ProMisE represents a more precise and individualized treatment strategy.

The Demonstration. By early 2022, our BC team changed provincial policy so that molecular classification became standard of care, performed for free, and was accessible no matter where endometrial cancer patients live in BC.(12) Our ProMisE classifier was endorsed by the World Health Organization in December 2020 and recommended to be integrated into standard pathology reporting for endometrial cancer when available. Since then, multiple international guidelines have adopted BC's system to assign risk group and direct treatment and it has become the critical framework for endometrial cancer clinical trials.(13, 14)

The Problem. We need to ensure that all other jurisdictions in Canada offer molecular testing to their endometrial cancer patients. Ontario and Saskatchewan have made important strides in implementing molecular classification. However, despite international support and available resources and expertise in Canada to perform these tests, there are many Canadians who remain unable to access this important diagnostic information or may have unacceptable delays in obtaining this information to direct therapy or enable them to participate in clinical trials. **Federal funding in this area could make a very important difference to ensure that all Canadians with endometrial cancer get the best possible care.**

CALL TO ACTION/OPPORTUNITIES

1. Research models that are multidisciplinary, multi-institutional, and work across disease sites (e.g. endometrial cancer researchers collaborating with ovarian cancer researchers) have proven very effective in moving science forward quickly, and in improving translation of findings into practice. The examples above include work done in this manner within BC's Gynecologic Cancer initiative. However, working this way is difficult in the current funding models. Current funding is generally investigator-initiated and project specific. More funding for mission-driven research that could support large teams working across disciplines and disease sites would allow for progress to be made at a faster rate.
2. As the examples above illustrate, science directs the best path forward, and there are some jurisdictions where implementation of these novel and effective prevention, screening and treatment discoveries is delayed. An investment in implementation science, which is designed to ensure uptake of effective medical interventions, would mobilize pan-Canadian partners to bring the best evidence to everyone affected by gynecologic cancer in Canada. Implementation science is an important tool to improve equity in health outcomes in marginalized populations.(15) If the federal government were to fund scaling up and spreading the innovations listed above (among others), we could dramatically reduce the incidence, and burden of disease from gynecologic cancer in Canada.

3. The federal government has a proven record of communicating important scientific information to enact behaviour change—this proven system could change the landscape for patients by ensuring greater uptake of best possible clinical care, through a partnership in communication with Canadian researchers and clinicians.

We at the Gynecologic Cancer Initiative are proud of the progress we are making. We invite the Standing Committee on Health to visit BC to learn more about the important research initiatives that are making an impact in gynecologic cancer care and delivery in Canada and globally.

“Ocean to ocean to ocean, let’s do this! ... I call everyone here to action, to put their ideas together, and as a team, think about how we can bring these proven interventions forward and help more of those of us who are patients fight gynecologic cancer.” – Ariadne Holness de Hiller, Gynecologic Cancer Initiative Patient Partner and Advocate, Lheidli T’enneh First Nation, colonially known as Prince George

Together, we can change the story for thousands of Canadians diagnosed with gynecologic cancer and their families each year.

References

1. Garaszczuk R, Yong JHE, Sun Z, de Oliveira C. The Economic Burden of Cancer in Canada from a Societal Perspective. *Current oncology*. 2022;29(4):2735-48.
2. Brenner DR, Weir HK, Demers AA, Ellison LF, Louzado C, Shaw A, et al. Projected estimates of cancer in Canada in 2020. *CMAJ*. 2020;192(9):E199-E205.
3. Menon U, Gentry-Maharaj A, Burnell M, Singh N, Ryan A, Karpinskyj C, et al. Ovarian cancer population screening and mortality after long-term follow-up in the UK Collaborative Trial of Ovarian Cancer Screening (UKCTOCS): a randomised controlled trial. *Lancet*. 2021;397(10290):2182-93.
4. Schrader KA, Hurlburt J, Kalloger SE, Hansford S, Young S, Huntsman DG, et al. Germline BRCA1 and BRCA2 mutations in ovarian cancer: utility of a histology-based referral strategy. *Obstetrics & Gynecology*. 2012;120(2 Pt 1):235-40.
5. Piek JM, van Diest PJ, Zweemer RP, Kenemans P, Verheijen RH. Tubal ligation and risk of ovarian cancer. *Lancet*. 2001;358(9284):844.
6. The Society of Gynecologic Oncology of Canada. GOC Statement regarding salpingectomy and ovarian cancer prevention. 2011. <https://www.sgo.org/resources/sgo-clinical-practice-statement-salpingectomy-for-ovarian-cancer-prevention/> Accessed Feb 5, 2024
7. Salvador S, Scoe S, Fancis JA, Agrawal A, Giede C. No.344-Opportunistic salpingectomy and other methods of risk reduction for ovarian/fallopian tube/ peritoneal cancer in the general population. *Journal of Obstetrics and Gynaecology Canada*. 2017;39(6):480-93.
8. Ntoumanoglou-Schuiki A, Tomasch G, Laky R, Taumberger N, Bjelic-Radisic V, Tamussino K. Opportunistic prophylactic salpingectomy for prevention of ovarian cancer: What do national societies advise? *European journal of obstetrics, gynecology, and reproductive biology*. 2018;225:110-2.
9. Hanley GE, Pearce CL, Talhouk A, Kwon JS, Finlayson SJ, McAlpine JN, et al. Outcomes From Opportunistic Salpingectomy for Ovarian Cancer Prevention. *JAMA Netw Open*. 2022;5(2):e2147343.
10. Kaur P, Rufin K, Finlayson SJ, Huntsman DG, Kwon JS, McAlpine JN, et al. Opportunistic Salpingectomy Between 2017 and 2020: A Descriptive Analysis. *Journal of obstetrics and gynaecology Canada*. 2023:102278.
11. Talhouk A, McConechy MK, Leung S, Yang W, Lum A, Senz J, et al. Confirmation of ProMisE: A simple, genomics-based clinical classifier for endometrial cancer. *Cancer*. 2017;123(5):802-13.
12. British Columbia Cancer Agency. Endometrium. Management. Vancouver, BC. 2023 <https://www.bccancer.bc.ca/books/endometrium/management>. Accessed Feb 5, 2024
13. Abu-Rustum N, Yashar C, Arend R, Barber E, Bradley K, Brooks R, et al. Uterine Neoplasms, Version 1.2023, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw*. 2023;21(2):181-209.
14. Berek JS, MaFas-Guiu X, Creutzberg C, Fotopoulou C, Gaffney D, Kehoe S, et al. FIGO staging of endometrial cancer: 2023. *Int J Gynaecol Obstet*. 2023;162(2):383-94.
15. McLoughlin GM, MarFnez O. Dissemination and Implementation Science to Advance Health Equity: An Imperative for Systemic Change. *Commonhealth (Phila)*. 2022;3(2):75-86.