

A critique of the Breast Cancer Prevention and Risk Assessment Clinic

“If you would persuade, you must appeal to interest rather than intellect.”

—Benjamin Franklin

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The enthusiasm, earnestness, and aims of the professionals behind the Breast Cancer Prevention and Risk Assessment Clinic project (*British Columbia Medical Journal*¹) have to be recognized, and none of the following comments are meant to take away from any endeavor to reduce the incidence of breast cancer.

However, when it comes to the possibility of efficacy in reducing either the incidence or the mortality of breast cancer, and this in a setting of hoped-for cost-effectiveness, the project is in need of some common sense and experiential appraisal.

Firstly, the introductory comment that women have a 1 in 9 lifetime risk of breast cancer should be clarified and not left standing as a fear-engendering statistic. Breast cancer risk is decade of age dependent² and only those women living to 90 years have a 1 in 9 chance of the disease;² the highest cause of death after 85 years remains vascular disease.³

This article has been peer reviewed.

Dr Laycock is a retired GP living in Mill Bay.

The absolute risk of breast cancer between 60 to 69 years is 3.45%⁴ and, as per the article's example of a Gail Risk Score,⁵ the average 60-year-old woman would be assigned a 1.67% 5-year risk of developing a breast cancer,⁵ which is stated to be a high-risk percentage: presumably then all women 60 years of age and older should be referred to the clinic.

As is pointed out, some lifestyle behaviors and physiological events in women's lives are statistically related to a higher risk. However they are not, especially those related to lifestyle, specifically breast cancer risk factors and they form the basis of primary care advice related to many health and medical issues.

Primary care physicians provide ongoing counseling to their patients on obesity, alcohol abuse, nutrition, and physical activity. However, the common sense bit is that to have any significant preventive impact, these behaviors need to be addressed in early life, not in the senior age group after a lifetime of physical inactivity, alcohol use, and being overweight.

For the proposed clinic to think that it will have an impact on these behaviors by a clinic visit and a follow-up phone call 3 months later, when the same advice from their family physi-

cians has been studiously ignored, seems naive to me.

Behavioral change, such as tobacco smoking, does not come about by fear of disease but mostly by social, cultural, and legislative changes. If simple educational awareness of these adverse lifestyle factors and their relationship to disease and early mortality were effective, the general population would not be increasingly obese and physically inactive. As Benjamin Franklin wrote, “If you would persuade, you must appeal to interest rather than intellect.”

The fear of a 1 in 9 chance of breast cancer at age 90 is no match for the sociocultural trend to endorse the “big is beautiful” and “be comfortable in your body” brigade. And it could be that most women would prefer to enjoy 10 units of alcohol per week to reduce their risk of an earlier cardiovascular death than worrying about what happens in their 90s.

Concerning HRT, the WHI study reported its findings, again in a fear-mongering fashion, by indicating a 24% increased risk of breast cancer in women on a combined estrogen and methylprogesterone regimen for 5 years or more. But this was a relative risk; the absolute risk was eight more cases per 10 000 women,⁶ which some

may say is significant but most would not. There was no increased risk in the estrogen-only arm and no increased risk is now reported with combined estrogen and micronized progesterone, compared with the combination with methylprogesterone acetate.⁷

As the women of an age to be referred to the new clinic will be past the physiological events, I am not sure how a referral will have an impact on their age of menarche, their parity, their breastfeeding habits, or their income/educational status.

The statistical relationship of those factors, along with sociodemographics, to breast cancer risk is of no real practical use or relevance unless, in an attempt to reduce the risk, we are to step backward in time and adopt a mindset of uneducated, lower-paid women who begin to breed, and do so frequently in their teens and who maintain breastfeeding until the children head off to school (“Breastfeed for as long as you can” in the patient Health Notes⁸).

So, after a risk calculation based on either one or both of the risk assessment models, it would appear that the preventive aspect will be advice directed to the usual behavioral tripartite of weight reduction, alcohol avoidance, and regular physical exercise—hardly innovative.

The logistics of how women will attend the clinic and their experience there also require elucidation. This is a Vancouver-based clinic, which it would appear is going to provide information that is available elsewhere and is mostly at the primary care level. Completing a personal health/medical history and lifestyle questionnaire and using the freely available, and quickly completed, Gail risk calculator,⁵ hardly seems worth a trip to Vancouver to hear the same advice as women receive from their local physicians. Surely those women who have had breast biopsies have been adequately counseled by the attending physicians.

The Harvard Disease Risk Index provides risk categorization for a number of different cancers, diabetes, heart disease, stroke, and osteoporosis.⁸ Is it the intent that a woman calculate her risk for all conditions or only for breast cancer? Comparing the two models is difficult since Harvard is more questioning than Gail before calculating a risk score, and there are differences in cutoff ranges. For example, in Gail age of first live birth is less than 25 years, and in Harvard less than 35 years; Gail assumes Caucasian ethnicity, but with other racial origin choices, whereas Harvard offers only

“mostly Jewish” or “non-Jewish” ethnicity.⁵⁻⁹ Concordance between the two models may not be present.

For example, a 60-year-old Caucasian woman with menarche at 12 to 13 years, singly parous between 20 to 24 years, with no first-degree relative with breast cancer and no personal history of any type of breast cancer, and never having had a breast biopsy would have a Gail calculated 5-year risk of 1.3% and at 90 years of age 6.6%, compared with the average woman’s risks of 1.8% and 9.1% respectively. Note that Gail does not take into

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The authors respond

We appreciate Dr Laycock’s letter about our Clinic. We have just a few comments:

- The risk assessment tools and modifiable risk factors we focus on are based on the most widely accepted guidelines based on the best current scientific evidence. We agree with Dr Laycock that obesity reduction is important for reducing breast cancer risk.
- Primary care providers are crucial to effective cancer prevention, and we salute Dr Laycock’s commitment to this in his practice. However, as shown in the National Canadian Family Physician Cancer and Chronic Disease Prevention Survey,¹ many primary care physicians do not include full counseling about risk factors in their practice, with the most common barrier being lack of time. Even when patients are counseled by their physicians, they generally need to hear a message more than once, particularly through a specialty clinic such as this one. We see our clinic as complementing primary care.
- The clinic is a pilot project. We are not proposing that women across the province come to Vancouver for the purpose of attending it. However, based on the overwhelmingly positive responses we have received from clinic attendees so far, we are considering ways to provide clinic services to a broader population through e-health technology. If readers of the *BCMJ* are interested in making this kind of program available to their patients, we invite them to contact us.

—Carolyn Gotay, PhD, Bonnie McCoy, MA,
Marliese Dawson, BA, Joseph Ragaz, MD

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account the modifiable risk factors of weight, alcohol use, exercise habit, breastfeeding, HRT, and so on. Harvard does take those extra factors into account, so to compare the two models one needs to make some assump-

doctors, designated by the woman, to receive a summons to provide whatever is thought necessary? Logistic problems include consent for release of information, timely responses, multiple doctors, permission implications, and so on.

delivers such a deep psychological blow that any future hope of weight reduction is null and void. One of their article's acronyms is SCOFF, and well we might.

Breast cancer risk is decade of age dependent and only those women living to 90 years have a 1 in 9 chance of the disease; the highest cause of death after 85 years remains vascular disease.

tions; for example, BMI 20 to 25, one drink per day, no regular exercise, breastfeeding up to 1 year, no HRT, menopause at age less than 55 years, and so on. The Harvard calculation would indicate an "average risk," given on a bar scale but without giving actual percentages over 5 years or at age 90. If Gail's average is 1.8% but the actual risk calculated is 1.3%, how does that compare with Harvard's "average" risk?

Harvard does note that for breast cancer there "are few controllable risk factors."⁹

If the initial medical history assessment is broad enough to point to other high-risk categories, for example a family history of premature cardiovascular death, will the clinic act on it? And how would such a risk be incorporated into the breast cancer risk? Seemingly, women can self-refer but they will not be given an appointment until all information from previously involved physicians has been received by the clinic. How is this to happen? Are the women to collect and collate this themselves or are

Some questions arise:

- How is outcome to be measured?
- How long will it take to assess whether a breast cancer has been prevented?
- How will cost-effectiveness be assessed?
- What evidence shows that presenting this approach and this type of information to those women who are in the final third of their life span will result in significantly reduced risk of breast cancer? (That is assuming they achieve an ideal BMI, stop their glass of wine, take to daily exercise, toss away their HRT, and give away all their worldly goods and embrace penury.)

The article notes that in the next decade, for women, obesity may be the biggest attributable cause of cancer. However, in the same edition of the *BCMJ*, the Council on Health Promotion notes that the words *overweight*, *obese*, and *fat* cannot be used and that we should "help patients accept their body for what it is, at a higher than average weight."¹⁰ It seems that any mention of the word *obese*

References

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