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The Honorable Amy Klobuchar
United States Senate
Washington DC 20510

RE: HR1740

Dear Senator Klobuchar:

I am writing regarding proposed bill HR1740, the Early Bill.

My qualifications: I specialize in research on the etiology of breast cancer (and how to prevent it) in young women and have published more than 400 research papers and book chapters on my findings. I spent 25 years as a professor at the University of Southern California with an endowed chair in cancer research and served as a dean and vice provost at the university. I now am Dean for Faculty Affairs at the City of Hope National Medical Center/Beckman Research Institute, and Director of the Division of Cancer Etiology in the City of Hope Comprehensive Cancer Center. My qualifications as an expert to write to you about your bill include that I am the recipient of the Komen for the Cure Brinker Award (2007) for clinical research accomplishments (considered the highest award in breast cancer research and rarely awarded to an epidemiologist like me) and am the American Association for Cancer Research-Cancer Prevention Foundation Awardee for excellence in cancer prevention research on breast cancer (also 2007 – and the first woman and first epidemiologist to receive this award).

This proposed bill does too much HARM! It sounds wonderful on the surface, but cannot help reduce the burden of breast cancer in young women or in women of intermediate ages. It takes for granted that risk factors for breast cancer in young women are firmly defined and are modifiable. I have spent nearly 30 years working to define novel breast cancer risk factors. **What we know cannot be translated into appropriate action on the part of young women.** Those risk factors which apparently affect younger women (whom the bill defines as ages 15-39 years) are not modifiable. We cannot change them. Furthermore, all risk factors are defined in a relative sense. For example, a woman having her first menstrual period at age 11 years will have 10% higher breast cancer risk than a woman who has it at age 12 years, but the absolute increase in risk is miniscule. **What message can I give a young woman about this risk factor? She cannot change her age at menarche.** And the strongest predictor of age at menarche is heredity; the second strongest predictor is how fast a young girl is growing in height and when does her height spurt occur (partly hereditary, perhaps partly other factors). Age at menarche is one of the major predictors of breast cancer risk in younger women.

Having babies protects women in the long run, but adds risk immediately following the pregnancy. This increase in risk can last up to 10 years. The protection occurs after the early childbearing years. **How do you get this message across to young women?** Do you have them change their childbearing patterns? Not having a baby ultimately places them at higher risk unless they don't have any children until the mid-thirties. Then the risks cross over. A very complex issue and again, something we really cannot prescribe or modify.

We have no known environmental causes of breast cancer other than radiation – a rare exposure now and one that is tightly controlled when used (with lead aprons – except when you are having a mammogram).

Participating in exercise and limiting alcohol intake to less than a drink a day are important messages to give – but they don't necessarily prevent breast cancer. If I educate a young woman to recognize that she has drunk too much over her teen age years – there is nothing she can do to counteract this – and the absolute impact on her risk is too small to be detected.

The bill proposes to educate women so that they can recognize their own risk factors and change something. The most I could ever tell a young woman would be that she should drink in moderation, exercise, and breast feed babies if she is able. I don't need \$9 million to get that message across – and **I cannot promise that adopting these behaviors will protect a woman from breast cancer.**

Women cannot recognize their own risk factors if they are not well defined and ensure early detection. In fact, we cannot recommend mammographic screening for women who are in the age range 15-39 years except in rare circumstances (for example if they are survivors of adolescent or young adult onset Hodgkin disease). **Breast self-examination** may seem a virtuous and important means for self-detection of breast cancer. **It does not work.** All young women have bumps in their breasts; many have benign cysts that fill with fluid, often in line with their monthly cycles. Recommending breast self-exam will cause fear, false-positive results of various screenings, unneeded biopsies, and mistrust of the medical establishment. If a woman has not exercised much in her life (and what is much??) should we tell her to be screened at a young age – I would call that medical malpractice.

Furthermore, we cannot screen young women genetically for BRCA genes except if they fulfill the extreme family history requirements.

WE HAVE NO EVIDENCE-BASED methods to lower young women's risk. This bill (HR1740) takes far too much for granted that is UNCERTAIN.

Breast cancer is extremely rare among women ages 15-39 years. As the scientific director for the National Cancer Institute (NCI)-sponsored Surveillance, Epidemiology and End Results (SEER) registry in Los Angeles County for 20 years and now its scientific advisor, I can provide you detailed data regarding breast cancer incidence, but you can obtain these data for yourself on the NCI SEER website: SEER.NCI.GOV/FASTSTATS/ as it has a calculator for cancer incidence rates and the probability of developing cancer between certain ages. For example, **the probability that a young woman who is age 15 years will develop invasive breast cancer by age 40 years is less than one-half of one percent (0.497%).** This can be compared to the greater than 5% probability that a 50 year old woman will develop breast cancer by age 70 years (5.62%).

I am writing to you to ask you to oppose this bill. This is not the way to address reducing the burden of breast cancer among women in the United States.

Please, if possible, let me provide you with greater detail on my concerns so that I can explain why this bill and the \$9 million per year allocation that accompanies it is not worth doing. It will give women a false sense of control. I am basing my concerns on what can be done, what we know and the fear that this bill and the approach it enables will incite among young women.

Sincerely,



Leslie Bernstein, PhD