REPORT CONCERING INDUCED ABORTION AND INFORMATION PROVIDED WOMEN

When a **pregnant** woman is considering induced abortion, she has a right to know vital facts that are well known and accepted by the world wide medical community concerning breast development and other reproductive risk factors for breast cancer. These include the data concerning the trends in breast cancer risk in countries, which parallel that country's public policy concerning the availability of abortion, most notably those statistics in the British Isles and Romania. More importantly, when a woman ends her pregnancy through induced abortion, she can not reverse the changes that have already occurred in her breast while she was pregnant which impact subsequent breast cancer risk.

I. Established facts a woman should know when considering an abortion:

A. A woman's lifetime risk for breast cancer will be lower if she **continues** the pregnancy to term.

A woman who has a full term pregnancy has a lower lifetime risk of breast cancer than a woman who remains nulliparous (without a birth). This is an undisputed fact that would be especially important to a woman with a significant family history of breast cancer or other risks which cause her to be already at increased risk for breast cancer[1].

B. The earlier in life a woman has a full term pregnancy, the lower her risk of breast cancer.

Standard medical texts recognize this fact. Based upon the widely used Gail Risk Model to assess breast cancer risk, which considers the age of a woman's first full term pregnancy as part of the evaluation, a woman who has a pregnancy at age 18 has a greater than 50% risk reduction than if she has her first child at 32[2]. Young women considering abortion especially need this information.

C. Every full-term birth adds to a woman's long-term protection against breast cancer.

Even among women who are older at first childbirth or already have born children**, long-term** risk decreases with each additional full-term pregnancy[3]. In other words, the induced abortion of any normal pregnancy leaves a woman with a higher long-term risk of developing breast cancer, compared to carrying that pregnancy to term.

D. Breastfeeding decreases breast cancer risk in proportion to the duration of breastfeeding.

A consequence of this clearly established fact is that abortion precludes the breastfeeding of the child who would otherwise have been born, thus preventing the additional protection against breast cancer that breastfeeding would have afforded the mother[4].

E. Through the effect of increasing her risk of premature delivery after an abortion, a woman will increase her breast cancer risk secondarily, as premature delivery doubles breast cancer risk.

Premature delivery before 32 weeks is known to more than double breast cancer risk[5]. It leaves the breast with a greater number of Type 1 and 2 lobules where ductal and lobular breast cancers start respectively. The growth stimulating hormones of pregnancy increase the numbers of cancer vulnerable Type 1 and 2 lobules during early pregnancy. These Type 1 and 2 lobules do not mature in significant number to cancer resistant Type 4 lobules until the last trimester[6].

The risk of premature delivery following abortion increases with each abortion[7]. A woman's future children after her abortion(s) are also put at increased risk of cerebral palsy due their premature delivery. Women need to be aware that abortion can affect both her breast cancer risk and health of future children.

II. Data concerning the breast changes with pregnancy.

There are well documented, physiologic changes which occur in the breast with a normal pregnancy and result in a lowering of breast cancer risk for the mother if the pregnancy goes past 32 weeks[8]. This reduction is due to the maturing hormones produced by the fetal-placental unit in preparation for breast feeding.

A lobule is a unit of breast tissue consisting of milk glands and ducts which carry the milk toward the nipple. Prior to a first full term pregnancy, the breast is about 75% Type 1 and 25% Type 2 lobules where ductal and lobular breast cancers form respectively. By the end of the pregnancy, the breast is about 85% fully matured to cancer resistant Type 4 lobules and only 15% immature, cancer vulnerable lobules, thereby reducing the mother's future risk of breast cancer. During a pregnancy the absolute numbers of these lobules also increase as the breast doubles in volume with an increase in number of lobules and a decrease in stroma (the surrounding connective tissue)[9]. A premature delivery before 32 weeks **for any reason,** whether physician-induced or due to an incompetent cervix or any other natural cause, doubles breast cancer risk[5], as the breast has already responded to the hormones estrogen and progesterone, which are produced by the ovaries in response to fetal secretion of human chorionic gonadotropin (hCG). These hormones cause an increase in breast tissue, Type 1 and 2 lobules, where cancers start[6]. Only after 32 weeks' gestation, do the feto-placental hormones hCG and human placental lactogen (hPL) fully mature the breast lobules into Type 4, and make them cancer-resistant. **An induced abortion before 32 weeks has the same physiologic effect on the breast and differs from premature delivery only in the fact that the fetus is delivered dead and not alive.** Even pregnancies ending after 32 weeks but before 40 week's gestation do not offer the maximal protection afforded by a 40-week pregnancy.[10]

This breast physiology explains the independent breast cancer risk that induced abortions cause in addition to the loss of the protective effect the mother could have gained by carrying her pregnancy to term. The longer the gestation before the induced abortion, the higher the breast cancer risk for the mother.[11]

Spontaneous abortions (miscarriages) do not carry the same risk as induced abortions because spontaneous abortions are associated with low levels of the pregnancy hormones needed for breast development because there is an abnormality in the fetal-placental unit which then results in a spontaneous abortion[12]. Women who spontaneously abort often report having "not felt pregnant" due to these low hormonal levels.

III. Data concerning abortion, breast cancer trends and public policy of nations

In the United Kingdom, those countries which have the highest abortion rates also have the highest breast cancer rates. In England where abortion rates are the highest, the incidence of breast cancer is 116 per 100,000, while in Ireland where abortion is rare, the incidence is 97 per 100,000. Scotland is in between England and Ireland in both breast cancer and abortion rates. There has been a 70% increase in the risk of breast cancer in Britain between 1971 and 2002.[13] Romania had one of Europe's lowest breast cancer rates while abortion was illegal there under Ceausescu. Since his

execution and the legalization of abortion, breast cancer rates have risen and now Romania has one of the highest breast cancer rates in the world. In China, the enforcement of a one child policy, which includes using abortion, occurred with a subsequent 40% increase in breast cancer rates. In the United States, subsequent to the legalization of abortion in 1973, there has been a 40% increase in the risk of breast cancer over the last 30 years. On a smaller scale in the U.S., Washington State breast cancer rates in black women were seen to rise after state funding of abortions by impacting abortion availability to poor black women[14].

The legalization of abortion in a nation will produce increases in breast cancer incidence rates, which can be calculated with some precision, based on analyses of national data trends.[15]

IV. Regarding relying on the authority of the U.S. National Cancer Institute (NCI)

The February 2003 "Workshop on early reproductive events and breast cancer" which was initiated by the NCI did conclude that there was no association between abortion and breast cancer[16], save for one dissenter who wrote a minority report, which is available at www.bcpinstitute.org. However, as a governmental agency, the NCI has a demonstrably poor record regarding timely warnings to the American public about cancer risks. For example, in 1928, a British journal reported a study linking cigarettes with lung cancer. Yet decades passed before the NCI strongly supported that link which impacted the economies of its Southern tobacco-producing states as well as the health of the American public. In regard to breast cancer, there were data in the literature supporting links between estrogen-progestin combination drugs (those found in hormone replacement therapy [HRT] and oral contraceptives [OCP]), and increased breast cancer risk for over 20 years[17]. However, it was not until 2002 that the public became widely aware of those studies on HRT though the popular press coverage of the Women's Health Initiative study published by the British journal *Lancet* that year[18]. Similarly, it was a full year after the World Health Organization's (WHO) International Agency for Research on Cancer (IARC) published a report in Lancet Oncology before the NCI acknowledged on its web site that OCPs increase breast cancer risk[19]. Still there has been no public warning to the 75% of American women who have taken OCPs by the NCI other than a web posting on May, 4, 2006. It has been 50 years since the first study linking abortion to breast cancer was published in 1957[20]. Before 1999, when the abortion-breast cancer debate had become even more prominent in the public arena, there were 17 statistically significant studies linking abortion and breast cancer which remained largely unknown to both the lay public and professional medical community. In fact, 13 out of 14 epidemiological studies on American women then in the published record showed increased risk among women who had had any induced abortions[21].

The failure of the NCI to warn the public about the abundant published evidence of abortion's links to breast cancer is particularly striking in light of the fact that abortion is one of the most common elective procedures performed on women. It has recently been demonstrated that scientists working on grants from the National Institutes of Health (of which the NCI is the largest institute) are not immune to economic and political pressures. A recent study in the British journal *Nature* revealed that, questioned anonymously, more than 15% of NIH grant recipients, admitted to scientific misconduct in the form of "changing the design, methodology or results of a study in response to pressure from a funding source"[22].

V. Regarding reliance on the authority of the American College of Obstetricians and Gynecologists (ACOG)

ACOG has a stake in maintaining the reputation of the safety of elective induced abortion in the public awareness, which presents a conflict of interest. In the litigious American society, there is a large malpractice concern, especially in the areas dealing with pregnancy and breast cancer. There have been two U.S. cases in which there were successful plaintiffs wining monetary awards from malpractice carriers in regards to the association of abortion with breast cancer. The young female plaintiffs prevailed contending that they were not properly informed of their risk of breast cancer after an induced abortion despite neither having yet contracted cancer[23].There are similar cases pending. The American Association of Pro-Life Obstetricians and Gynecologists (AAPLOG) which is a recognized part of ACOG, supports the abortion-breast cancer link[24].

VI. Regarding reliance solely on cohort studies and disregarding case-control studies and those studies published before 1999

Studies concerning the abortion breast cancer association before 1999 were largely case-control studies, this being the most common accepted methodology for performing epidemiologic studies. This is a valid method of study. The idea that the results of case-control studies on abortion and breast cancer are invalid due to reporting bias (i.e., response bias or recall bias) has—although often been invoked—been repeatedly disproved in the peer-reviewed literature. Conversely, the fact that a study is based on prospective data, as are cohort studies, does not preclude the existence of serious methodological flaws in such studies. In fact, such flaws—sufficiently serious to invalidate the result of the study—have been documented in the recent prospective data-based studies which have been invoked to dismiss the abortion-breast cancer link[25].

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