# New Analysis Links Abortion, Cancer

Abortion is not only the most controversial elective surgery in the United States, it is also the most common. Each year, U.S. doctors terminate 1.6 million unwanted, abnormal, or risky pregnancies. One reason for the procedure's medical acceptance is its relative safety. Legal induced abortion is 12 times safer than childbirth itself.

Now, a new study indicates that induced abortion may ultimately harm some women.

Four scientists—three of whom say that they have long opposed abortion and a fourth who favors a woman's right to choose—say they have "overwhelming" evidence that women who have had an abortion raise their risk of breast cancer by one-third.

Other researchers rushed to dispute the study's conclusions.

Joel Brind of Baruch College of the City University of New York and his colleagues at Pennsylvania State University in Hershey base their breast cancer assertion on a combined analysis of 23 previously reported studies involving over 60,000 women. Most of the studies showed a weak association between abortion and breast cancer, but viewed individually each study raised more questions than it answered (SN: 11/5/94, p. 245).

By combining data from all available studies regardless of their quality—a method called metanalysis—the researchers sought to derive maximum statistical information without distorting the results. "We really wanted to know whether there was an increased risk associated with abortion," asserts researcher Joan Summy-Long.

The detailed analysis was reported in the October British JOURNAL OF EPIDEMIOLOGY AND COMMUNITY HEALTH. Although the researchers found a heightened risk of breast cancer among women who have had an abortion, the increase was slight compared to the doubled lifetime risk faced by women who have a strong family history of cancer, those who have never had a child, and those who waited until age 30 to have their first child, says epidemiologist Clark Heath of the American Cancer Society.

Nevertheless, the researchers predict that the 800,000 first abortions now performed each year in the United States will lead to a "public health tragedy"—an epidemic of breast cancer that, by the year 2040, could add 24,500 cases to the 184,300 now diagnosed annually.

The authors also contend that the apparent link between abortion and breast cancer emerging from prior studies has not been adequately acknowledged. "The potential of induced abortion as a breast cancer risk continues largely to be minimized," they state.

"We are very concerned about women who are contemplating having an induced abortion," Summy-Long says. "We are hoping [the findings] will be part of the information they get when they are making their decision."

Other researchers reject the results of the metanalysis. Among other things, they challenge the validity of using studies that hinge on a breast cancer patient's willingness to admit that she has had an abortion. In February, the National Cancer Institute published its own assessment of more than 30 studies on the issue, concluding that "there is no evidence of a direct relationship between breast cancer and abortion."

John Bailar, a University of Chicago biostatistician and adviser to the NEW ENGLAND JOURNAL OF MEDICINE, objects to metanalysis itself, saying it is impossible to draw a precise measure of risk from trials that vary in design and focus on different groups of individuals.

"My feeling is that there is very little here that isn't already known, but it's been misinterpreted," Bailar says. "Even if the effect is very well established, I would expect it to be quite small, just a few percent."

He says the dire warning about an epidemic of breast cancer is based on a potentially misleading statistic—that a woman's lifetime risk of breast cancer is about 12 percent.

"It's a figure thrown around by people who want to scare women," Bailar asserts. "It is based on the assumption that every woman is going to live to an old age. But a woman who dies at 60 isn't going to get breast cancer at 70. Hearing that figure makes me wonder what kind of snake oil these people are trying to sell." — *S. Sternberg*

## Precollege science and math 'lack focus'

Throughout the nation's more than 15,000 school districts, widely differing approaches to teaching science and math have emerged. Though there can be strength in diversity, a new international analysis suggests that this variability has instead contributed to lackluster achievement scores by U.S. children relative to their peers in other developed countries.

Indeed, concludes William H. Schmidt of Michigan State University in East Lansing, who led the new analysis, "no single intellectually coherent vision dominates U.S. educational practice in math or science." The reason, he told SCIENCE NEWS, "is because the system is deeply and fundamentally flawed."

The new analysis, released this week by the National Science Foundation in Arlington, Va., is based on data collected from about 50 nations as part of the Third International Mathematics and Science Study.

Not only do approaches to teaching science and math vary among individual U.S. communities, the report finds, but there appears to be little strategic focus within a school district's curricula, its textbooks, or its teachers' activities. This contrasts sharply with the coordinated national programs of most other countries.

On average, U.S. students study more topics within science and math than their international counterparts do. This creates an educational environment that "is a mile wide and an inch deep," Schmidt notes.

For instance, eighth graders in the United States cover about 33 topics in math versus just 19 in Japan. Among science courses, the international gap is even wider. U.S. curricula for this age level resemble those of a small group of countries including Australia, Thailand, China, Iceland, and Bulgaria. Schmidt asks whether the United States wants to be classed with these nations, whose educational systems "share our pattern of splintered visions" but which are not economic leaders.

The new report "couldn't come at a better time," says Gerald Wheeler, executive director of the National Science Teachers Association in Arlington. "The new National Science Education Standards provide that [focused] vision," including the call "to do less, but in greater depth" (SN: 2/3/96, p. 72).

Implementing the new science standards and their math counterparts will be the challenge, he and Schmidt agree, because the decentralized responsibility for education in the United States requires that any reforms be tailored and instituted one community at a time.

In fact, Schmidt argues, reforms such as these proposed national standards "face an almost impossible task, because even though they are intellectually coherent, each becomes only one more voice in the babble." — *J. Raloff*