nature medicine

VOLUME 3 • NUMBER 3 • MARCH 1997

When the data are not clear

Public policy abhors uncertainty. Uncertainty is uniquely disquieting if it takes center stage in public policy about human health. And that is the heart of a controversy that erupted as the result of a report last month by a 'consensus' panel of the US National Institutes of Health (NIH) that refused to issue an unambiguous recommendation about mammography in the face of ambiguous data.

In February, the 13 members of a consensus development panel on breast cancer screening for women ages 40–49 declared that women in that age group must decide one-by-one, in consultation with their physician, whether the benefits of routine screening mammography outweigh the risks (see *News*, p. 255).

The panel, chaired by epidemiologist Leon Gordis of the Johns Hopkins School of Hygiene and Public Health, infuriated far more people than it pleased with its statement that data do not support the devoutly held presumption that screening is necessary for women in their forties, whose principal risk of developing breast cancer is being female.

The group stated that routine screening of women who are forty-something does not offer the same benefit of reduced mortality through early detection that applies to postmenopausal women in their fifties or beyond. Furthermore, the Gordis panel concluded that the likelihood of unnecessary surgery or other intervention that results from a high incidence of false-positive results in young women with dense breast tissue offers a significant risk to these women compared to the benefit of detecting a real

tumor in only one of every 2,500 women who are screened. This is not a trivial risk. For a variety of reasons, from the need for certainty to a doctor's fear of legal liability, in the United States data suggest that biopsies of what is predictably benign tissue are common*. The panel left it to women and physicians to decide whether such risk factors as a family history of breast tumors or exceptional psychological anxiety justify screening mammograms in younger women.

IN THE FACE ON UNCERTAINTY, IT IS QUITE REASONABLE TO RECOMMEND THAT INDIVIDUALS MAKE THEIR OWN CHOICES.

As public *health* policy this makes sense but as public policy it was a disaster, because it defies what people want to hear.

Richard Klausner, who called for the creation of the panel as director of the National Cancer Institute (NCI), was among the first to proclaim himself 'disappointed' by the report, and said that he would ask the NCI's advisory board to review the consensus advisors' advice at its next meeting. United States Senator Arlen Specter of Pennsylvania said he would ask panel chairman Gordis to testify at a Senate hearing, and Senator Olympia Snowe of Maine promptly introduced a resolution urging the Cancer Institute to issue guidelines favoring routine mammography for women in their forties. The Senate passed her resolution unanimously.

Only in America.

As is too often the case with scientific data in the courts (*Nature Medicine*, 3, 123;

1997), biomedical science and public policy collide when data cannot offer people the guarantees we all seek about ways to protect our health and preserve our lives. It is certainly true that there are sound data to support the value of mammography in some women in their forties. It is also true, sad to say, that definitive data do not exist to either support or condemn the practice of routine early screening, which says more about the choices that are being made in clinical research than it does about the political correctness of any specific public health recommendation.

It is disappointing that there are not definitive data. But it would be more disappointing if the consensus panel had reached a conclusion based essentially on what people wish the data say, rather than what they do say. The fact is that vital details about when to screen and when not to, about the technology of radiological screening, and about how to follow-up when a mammogram reveals a spot that could be a tumor or a normal bit of breast tissue must be taken into consideration in evaluating the whole picture. The importance of these medical nuances in decision-making lends credence to the idea that choices rightly reside with a woman and her physician. It is not easier, but that does not mean it is not the right recommendation. It should be noted that the new recommendation is not inconsistent with an official NCI statement issued in 1993: "Experts do not agree on the value of routine screening mammography for women ages 40 to 49". Although some new data have accumulated in the interim, they do not definitively change the fact that the experts have a basis for disagreement. In the face on uncertainty, it is quite reasonable to recommend that individuals make their own choices.

— Barbara J. Culliton

*For a thorough discussion of the biology of the healthy and cancerous breast, and an analysis of the advantages and disadvantages of mammography in language that is readily accessible, see the second edition of *Dr. Susan Love's Breast Book*, Addison Wesley, 1995.