

# DIET, WORKPLACE CALLED CANCER FACTORS

Saying that "most common cancers are potentially preventable," a National Research Council committee has begun recommending general dietary guidelines to reduce the risk of cancer. Despite their mildness and similarity to guidelines publicized by the National Cancer Institute two and a half years ago (C&EN, Oct. 15, 1979, page 20), the NRC committee's report has been criticized instantly.

In a separate but topically related development, epidemiologists who study cancer incidence are calling for "continued vigilance in the workplace and environment" to prevent cancer. They are acting on the basis of a recent analysis which, in part, contradicts another widely discussed epidemiologic study that played down the importance of such risk factors for cancer (C&EN, Aug. 17, 1981, page 32).

The National Research Council, the research arm of the National Academy of Sciences in Washington, D.C., was commissioned by the National Cancer Institute to prepare its report, "Diet, Nutrition, and Cancer." The ad hoc committee responsible for that report consisted of 13 scientists from the U.S. and Canada, including chairman Clifford Grobstein, professor of biological sciences and public policy at the University of California, San Diego.

The epidemiologists whose study

refers to the importance of the workplace and the environment include Devra Lee Davis, who recently moved to the Environmental Law Institute in Washington, D.C.; her former colleague at Johns Hopkins University in Baltimore, Kenneth Bridbord; and Marvin Schneiderman, a consultant with Clement Associates, also in Washington.

The principal trend to which Davis and her colleagues wish to direct scrutiny is that of increasing cancer deaths among older men in the U.S. These epidemiologists discern an increase in deaths due to cancer among men between the ages of 45 and 65 in the U.S. However, the trend is opposite for men below the age of 45, they note, with a drop in cancer mortality of about 40% since 1950.

Davis also draws attention to increases during the past several decades of the bulk manufacture of chemicals that are known to cause cancer in humans, including a doubling of "synthetic carcinogen production" in the past decade. Any effects of this increased manufacture on cancer incidence, either among workers or in the general populace, won't be known "until the end of the century," she says, adding: "Those who say we have no problem are jumping the gun." Thus she takes issue with a study published last year by British epidemiologists Richard Doll and Richard Peto. They

concluded that cigarette smoking could account for the only discernible general increase in cancer mortality. Davis says that chemical exposure, infectious disease incidence, and nutrition also must continue to be scrutinized.

A wide group of experts, including Doll and Peto, agree that nutritional factors probably play an important role in cancer. The NRC committee also agrees, but says "precise estimates of diet's contribution are not yet possible."

Nonetheless, says chairman Grobstein, "We recognize we should try to put what we learn to use as soon as possible. By controlling what we eat we may prevent such dietary cancers."

Thus the NRC committee has formulated rather mild and "interim" recommendations for the general population. These recommendations are explained carefully and qualified cautiously by the committee. The committee adds an even more general caveat: "It is not now possible, and may never be possible, to specify a diet that protects all people against all forms of cancer."

The critics of the committee's guidelines are arguing that it may not be possible to specify a diet that protects against any form of cancer. The most vehement critics perhaps are the meat suppliers. Representatives of the American Meat Institute and the National Meat Association, both headquartered in Washington, D.C., greeted visitors to the NRC press conference with statements offering instant criticism of the cancer-diet report.

That criticism also draws attention to inconsistencies within NRC, and in particular to the stance taken by NRC's Food & Nutrition Board two years ago regarding dietary guidelines (C&EN, June 2, 1980, page 6). Board member Robert E. Olson, a biochemist at St. Louis University school of medicine and a principal author of that FNB report, also is critical of the new NRC report, calling it "premature. My basic philosophy is don't make public health recommendations unless you're sure of a benefit," he says.

Grobstein defends the NRC report, saying: "I don't think we're pushing any unproven theories." □

## Dietary guidelines may help reduce cancer risk

The Committee on Diet, Nutrition & Cancer of the National Research Council says the following guidelines are "consistent with good nutritional practices and likely to reduce the risk of cancer." Moreover, the guidelines ought to be followed in "their entirety" for maximum benefit.

- Consumption of fats should be reduced from the current level of about 40% to about 30% of total calories in the diet—"a moderate and practical target."

- The daily diet should include fruits, especially those rich in vitamin C; vegetables, particularly those rich in carotene and also members of the mustard family; and whole grains. However, taking of supplements of minor nutri-

ents found in these foods is not recommended, inasmuch as high doses are "potentially toxic."

- Foods cured or pickled with salt and smoked foods should be "minimized" in the diet.

- Contamination of foods with carcinogens "from any source" should continue to be minimized. "Intentional additives" should continue to be evaluated before approval for use in foods.

- Mutagens in foods should be identified and tested for their ability to cause cancer. Where "feasible and prudent," mutagens should be "removed" or their levels "minimized."

- Any drinking of alcohol, particularly by smokers, should be done "in moderation."

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