

DATE:

June 1, 1983

cc:

P. Bureau - 1870

SUBJECT:

Massachusetts Worker Right-to-Know

REFERENCE:

TO

G. F. Fort - F3EC

Most of the questions you addressed to me have been answered reasonably well in the memo attached to the AIM communication, but I can say a bit more.

1. Cancer death rates in Massachusetts. For the 20 years from 1950-1969 Massachusetts had the seventh highest age-adjusted cancer mortality for white males and the eighth highest for white females. The corresponding rankings for the District of Columbia are second and third, respectively, and DC is not known for its high level of industrialization. The answer is that so many cancers depend on diet and ethnicity that these comparisons have to be taken with a grain of salt. The American (not National) Cancer Society data referred to in the AIM memo are no doubt more recent so I would accept that figure.

2. What percent of cancers is occupational? The AIM memo accurately quotes Doll and Peto. The 20-40 percent quoted in the Mass COSH pamphlet came from an unpublished 1978 paper of anonymous authorship, listing as "contributors" ten researchers from various federal agencies. The paper has been thoroughly discredited and none of the "contributors" has risen to defend it. At least one of them, Dr. Joseph F. Fraumeni of the National Cancer Institute, has subsequently supported the five percent figure estimated by Doll and Peto (Fraumeni, J.F. Epidemiologic approaches to cancer etiology. Ann. Rev. Public Health 1982. 3:85-100).

3. Brain tumors in children. I know of no basis for the statement that 25 percent of brain tumors in children are due to occupational exposures of their parents. In a letter to Science (213:235, 1981) three investigators from Southern California reported that parents of children with brain tumors were more likely to have been exposed to chemical dusts or solvents. The study was poorly done, and the authors note that five earlier studies gave inconsistent results. I doubt that this is the basis for the claim, so I am completely at a loss.

Bill

William R. Gaffey

an

RSV 0016903

MONSANTO

From
(Name-Location-Phone) W.R. Gaffey, A3NK, 4-8811

Date : February 25, 1987 cc:
Subject : Assorted facts about occupational cancer
Reference :
TO : T.F. Evans

Attached are a number of brief statements on cancer,
especially occupational cancer, with references.

Bill

William R. Gaffey

/jff
attachment

RSV 0016904

Facts About Cancer and Occupational Cancer

1. The percentage of deaths due to cancer is increasing, because the mortality rate from other causes is decreasing rapidly. Cancer represented 9 percent of all deaths in 1933-37 and 19 percent of all deaths in 1973-77. This is because the mortality rate from non-cancer causes decreased, while the mortality rate from cancer increased, entirely due to lung cancer. (Reference: Doll, R. and Peto, R. The causes of cancer. Quantitative estimates of avoidable risks of cancer in the United States today. J.N.C.I. 66: Page 1203, 1981).
2. The most important causes of cancer are diet and lifestyle. Japanese living in Japan have a stomach cancer occurrence three times as high as Japanese living in Hawaii, and a colon cancer occurrence one-fourth as high as Japanese living in Hawaii. The latter group has rates just about equal to those of Caucasians living in Hawaii. (Reference, IARC. Cancer incidence in five continents. IARC Sci. Pub. 3:1-584, 1976.

Men whose weight is more than 40 percent greater than the average for their height have a 73 percent excess of colon cancer. (Reference, Doll and Peto, P. 1234)
3. We are not awash in a sea of carcinogens. There are 18 established human carcinogens or industrial processes associated with cancer. The last such known carcinogen, vinyl chloride, was discovered about 15 years ago, and continued searching since then has discovered no others. (Reference, Doll and Peto, page 1203).
4. Most employed populations have a mortality rate below that of the general population, and Monsanto's in-house observations confirm this fact.
5. The percentage of cancer deaths due to occupation is estimated to be 2-8 percent, the best estimate being 4 percent. This range is concurred in by epidemiologists who several years ago believed the figure to be much higher. (Reference, Doll and Peto, pages 1240, 1256 and 1257).