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COMMONWEALTH of VIRGINIA

Department of Health

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July 15, 1991

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STATE HEALTH COMMISSIONER

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DEPARTMENT OF
PUBLIC HEALTH
NORFOLK, VA 23507

MEMORANDUM

TO: Valerie Stallings, M.D., M.P.H.
Director, Norfolk City Health District

FROM: C. Diane Woolard, M.P.H.
Senior Epidemiologist *DW*

SUBJECT: Cancer in Glenwood Park

I have analyzed the information you sent regarding the citizens of Glenwood Park. The data are presented and discussed in an attachment. After this analysis, I draw the same conclusions drawn following the study I conducted last September on the same neighborhood. That is, the data do not support the hypothesis of an unusual cluster of cases of cancer in this community.

A variety of types of cancer have been diagnosed among the residents of Glenwood Park. Breast and lung cancer, which are the most common types of cancer nationally, have also been the most frequently diagnosed in this community. Most of the persons with cancer in this neighborhood are over age 50, the age group at which cancer is most commonly detected. Based on the data analyzed, there is no reason to believe that living in Glenwood Park is related to cancer.

cc: Betty S. Rouse

Stallings

Second Study of Cancer in Glenwood Park, Norfolk, Virginia
July, 1991

Introduction

In September 1990, the Virginia Department of Health investigated a complaint of cancer in the Glenwood Park neighborhood of Norfolk, Virginia. In that study, cancer mortality in Glenwood Park was compared to that in the Pamlico community, the city of Norfolk, and white residents of Norfolk. Glenwood Park was found to have no more cancer deaths than the comparison communities.

Following the September study, the citizens requested that the health department conduct a morbidity study. They wanted to include cases of cancer in the neighborhood, not just deaths due to cancer. The methods and results of the morbidity study are presented below.

Background

Glenwood Park is a neighborhood which abuts property of the U.S. Navy in Norfolk, Virginia. The 1988 population was estimated to be 1,536, with 83% of the residents being white. The median age is approximately thirty. About one-fourth of the population is age 45 or older, with nine percent over age 65.

Methodology

The citizens of Glenwood Park compiled a list of names and streets of residence of persons reported to have had cancer. No other identifying information was provided. The district health director asked the Office of Epidemiology to analyze this data.

Names were searched in the Virginia Tumor Registry. For those persons found in the Registry, hospital abstracts were reviewed and data entered into a computerized database. Death certificate data could not be obtained from the data provided since vital status and year of death were not indicated on the list and death data are maintained by year of death. Additionally, a mortality analysis has already been conducted on this population.

Results

Forty-eight names were submitted to the Virginia Department of Health. Twenty-one were identified in the Virginia Tumor Registry. Given that name and residence in Norfolk were the only information provided, however, complete verification of the identities could not be established. Social security number and/or date of birth

may have enabled a more reliable match between the neighborhood list and Virginia Tumor Registry data.

Of the 21 persons found in the Virginia Tumor Registry, 11 were male and 10 female. Nineteen were white, one black, and one race unknown. Age at diagnosis is presented in Table 1. Seventeen of the 21 (81%) were over age 50 at the time of the cancer diagnosis. Year of diagnosis ranged from 1975 to 1989, as shown in Table 2. Eleven of the persons had died.

Cancer sites included seven breast, seven lung, two lymphomas, and one case each of colon, small intestine, prostate, endometrium, and multiple myeloma. Five of the abstracts noted that the patients were smokers.

Discussion

Although only half of the persons reported to have had cancer were found in the Virginia Tumor Registry, it may be assumed that the pattern observed in the analysis of the 21 reported cases continues in the entire population. That is that a variety of different types of cancer are found among persons of the age at which cancer is commonly diagnosed.

As in the September 1990 study, this study points to the need for a better understanding of cancer among the residents of the Glenwood Park community. Cancer is a very commonly occurring group of diseases. It is diagnosed in one out of every three Americans. The incidence of cancer increases with age, so that an older population will experience more cancer. Different types of cancer are different diseases, with different risk factors and different latency periods. Cancers are specific to certain exposures so that an exposure to a cancer causing agent will result in cases of a particular type of cancer.

Environmental sampling of well water near the Glenwood Park area has found some chemical contamination. Specifically, vinyl chloride, 1,2-dichloroethene, 1,2-dichloroethane, and trichloroethene were found in wells on Navy property. Vinyl chloride is a known human carcinogen, associated with a rare cancer in man, angiosarcoma of the liver. No cases of this type of cancer were found among the residents.

1,2-dichloroethene has not been found to be associated with cancer. 1,2-dichloroethane, also called ethylene dichloride, has been investigated thoroughly. Persons exposed to this chemical may experience central nervous system depression and gastrointestinal upset. It has not been found to be a human carcinogen and experiments with laboratory animals have yielded conflicting results. Trichloroethene also causes central nervous system depression and gastrointestinal disturbances. Laboratory experiments have also found conflicting results regarding carcinogenicity.

Cancers usually take twenty or more years to develop. Since the reported cancers began occurring in 1975, if the citizens suspect that contamination of their environment occurred anytime after 1955, the cancers they are seeing are not associated with the alleged contamination. The latency period of cancer must be considered when investigating a cancer report.

Additionally, if the chemicals mentioned above are found to be present in the wells of Glenwood Park, the dose and route of exposure must be considered. Well water in this area is not currently used for drinking; all citizens are on the public water supply. If the water is not ingested, no significant exposures to these chemicals would be anticipated.

No excess cancer has been seen in this community. There is no reason, from an epidemiologic perspective, to continue studying Glenwood Park. The only recommended action is to remedy the situation if the groundwater is found to be contaminated.

Table 1. Age at Diagnosis of Cancer Among Residents of Glenwood Park.

<u>Age Group</u>	<u>Number of Cases</u>
less than 30	0
30-39	1
40-49	3
50-59	8
60-69	5
70-79	0
80-89	4

Table 2. Year of Diagnosis of Cancer Among Residents of Glenwood Park.

<u>Year of Diagnosis</u>	<u>Number of Cases</u>
1975	1
1976	1
1977	0
1978	0
1979	0
1980	3
1981	0
1982	1
1983	3
1984	1
1985	2
1986	0
1987	2
1988	3
1989	4