Cancer Mortality in Blacks

The Editor interviews
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Editor: You and your colleagues, Drs. Henschke, Mason, Schneider, White and Reinhold, at Howard University, recently reported an alarming increase of deaths from cancer in the United States black population. What is the statistical picture and how has it changed?

Dr. Leffall: According to figures computed from data in the Official Statistics of the United States and verified with rates cited in Report 33 of the National Cancer Institute, the cancer mortality rate per 100,000 population for blacks of both sexes increased 20 percent between 1950 and 1967. It remained unchanged in whites. Surprisingly, in
1950, the cancer mortality rate was two percent lower in blacks of both sexes than in whites. By 1967 the rate was 18 percent higher in blacks than whites. We also discovered that although the cancer mortality rate had declined by three percent in black women, it declined nine percent in white women. Even more disturbing, the cancer death rate increased by 50 percent in black men and by only 16 percent in white men.

Editor: What cancers are identified with this increase?

Dr. Leffall: Most common cancers, like lung, breast, colon, pancreas, prostate, esophagus and bladder are increasing faster in blacks than in whites. For cancers with declining mortality rates, such as stomach and cervix cancer, the decrease is occurring more rapidly in whites than in blacks.

Editor: Has cancer mortality really increased in blacks or were cancer deaths simply under-reported in the past?

Dr. Leffall: Under-reporting of cancer in death certificates due to poorer medical care for blacks probably was a factor in the lower figures in the past. But today we have much more accurate data through more accurate diagnosis and we have even been able to discount minor errors in census enumeration. It’s fair to say that we are getting the correct information.

Editor: Did you compare cure rates of blacks and whites?

Dr. Leffall: We estimate that the present over-all cancer cure rate is 37 percent for black and 45 percent for white cancer patients, but such a difference has been present for several decades and cannot explain the more rapidly rising cancer mortality rates in blacks.

Editor: Have you evaluated genetic influences on cancer incidence and mortality?

Dr. Leffall: It appears likely that genetic factors are responsible for the lower black mortality rates in cancer of the brain, eye, testis, malignant melanoma, malignant lymphomas and leukemias. But genetic makeup cannot change enough in one generation to account for the more rapid increase in cancer mortality in blacks.

Editor: What factors might then explain why the cancer mortality rates have increased so much faster in blacks than in whites?

Dr. Leffall: Environment seems to be the most important factor. We are now investigating numerous aspects of daily life—diet, housing, occupational exposures—that could affect many blacks. For instance, the change in eating habits of some blacks who now consume a diet similar to whites might explain the decreasing mortality of stomach cancer in blacks as well as whites. Also, since blacks are largely blue collar workers, exposure to industrial health
Table 1. Trend of nonwhite and white mortality rates for the most frequent cancers, 1950-1967

| Trend numbers | Cancer type | Sex | Death in 1967 | Average yearly change per 100,000 Nonwhites | Whites | Confidence level |
|---------------|-------------|-----|---------------|---------------------------------------------|--------|-----------------|
| 170           | Breast      | F   | 27,985        | 0.188                                       | 0.012  |                 |
| 153           | Colon       | F   | 17,877        | 0.215                                       | -0.092 |                 |
| 177           | Prostate    | M   | 16,345        | 0.451                                       | -0.090 |                 |
| 153           | Colon       | M   | 15,205        | 0.289                                       | 0.088  |                 |
| 157           | Pancreas    | M   | 9,696         | 0.340                                       | 0.157  |                 |
| 175           | Ovary       | F   | 9,168         | 0.108                                       | 0.043  |                 |
| 157           | Pancreas    | F   | 7,190         | 0.215                                       | 0.059  |                 |
| 181           | Bladder     | M   | 6,019         | 0.048                                       | -0.016 |                 |
| 150           | Esophagus   | M   | 4,306         | 0.294                                       | -0.013 |                 |
| 155           | Biliary + liver | F | 3,790 | 0.037 | -0.047 | P ≤ 0.001 |
| 155           | Biliary + liver | M | 2,955 | 0.155 | 0.031  |             |
| 181           | Bladder     | F   | 2,743         | 0.018                                       | -0.043 |                 |
| 161           | Larynx      | M   | 2,468         | 0.068                                       | -0.009 |                 |
| 145-148       | Pharynx     | M   | 2,270         | 0.068                                       | 0.009  |                 |
| 203           | Multiple myeloma | M | 2,081 | 0.134 | 0.059  |             |
| 203           | Multiple myeloma | F | 1,978 | 0.090 | 0.042  |             |
| 172           | Corpus uteri | F   | 1,743         | 0.065                                       | 0.006  |                 |
| 150           | Esophagus   | F   | 1,321         | 0.063                                       | -0.003 |                 |
| 144           | Mouth unspec.| M   | 702           | 0.021                                       | -0.005 |                 |
| 163           | Lung        | M   | 27,089        | 1.306                                       | 0.956  | P ≤ 0.001       |
| 162           | Lung        | M   | 18,294        | 0.882                                       | 0.652  |                 |
| 199*          | "Other"     | M   | 12,290        | 0.191                                       | 0.009  | P ≤ 0.01        |
| 180           | Kidney      | M   | 3,693         | 0.076                                       | 0.050  |                 |
| 141           | Tongue      | M   | 1,186         | 0.025                                       | -0.007 |                 |
| 204           | Leukemia    | M   | 8,222         | 0.144                                       | 0.016  | P ≤ 0.05        |
| 163           | Lung        | F   | 5,839         | 0.183                                       | 0.116  |                 |
| 130           | Kidney      | F   | 2,201         | 0.018                                       | 0.004  |                 |
| 145-148       | Pharynx     | F   | 640           | 0.010                                       | 0.004  |                 |
| 197           | Conn. tissue | F   | 605           | 0.025                                       | 0.015  |                 |

*Includes ICD numbers 156, 165, 195, 198 and 199
From: Henschke et al.: Cancer mortality in Negroes. Cancer 31: p. 765, 1973

hazards deserves examination. More cigarette smoking by blacks appears to be the main cause for the rapid increase in lung cancer incidence and mortality; increased alcohol consumption might be associated with the rise in esophageal cancer in blacks. However, it is too early to state which environmental factors are most significant.

Editor: Could'n't the higher cancer mortality in blacks and late diagnoses be the result of socioeconomic pressure?

Dr. Leffall: Of course, socioeconomic concerns are important. Many blacks
are worried about survival, the basics of food, clothing and shelter. The threat of cancer may just not be pressing enough. For example, despite clear evidence that early detection of cancer of the cervix by Pap smear can achieve very high cure rates, it is difficult to convince some black women, who can’t afford to lose a half-day’s pay, to go to a clinic. As a result we see too many black women with far advanced cancers of the cervix. Although mortality from cervical cancer has decreased in both blacks and whites, it is decreasing faster in whites.
Editor: What steps should be taken to reduce cancer mortality in the black population?

Dr. Leffall: The first need is to upgrade living standards for all blacks. We can improve medical care of blacks only after we have eased their day-to-day fears about survival. Also, cancer educational programs must be geared to the hard-to-reach black patient. A neighborhood health worker, within a community program, is most effective as an educator when she talks personally with black individuals she knows and understands. In addition, Pap smears and other diagnostic tests must be made more readily accessible to blacks. In our hospital facilities, we have tried to make Pap smears easily available by offering transportation, day care services for children and evening hours for working women. Accessibility is the key to success in cancer detection.

Editor: Are you and your colleagues involved in other programs?

Dr. Leffall: We are building a Cancer Research Center at Howard University, funded by the National Cancer Act and directed by Dr. Jack E. White. The new center will study this increase in cancer mortality. Broad spectrum studies including the viral, immunological and epidemiological facets of cancer of the cervix, breast, colo-rectum and head and neck will be started. We will also be working with teams in several other centers in the United States, the Caribbean and Africa, to make good use of all existing epidemiological information. Hopefully, what we find out about cancer in the black population will help prevent or cure cancer in all races.

Editor: Thank you, Dr. Leffall.