

DEPARTMENT OF HEALTH

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November 6, 1974

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WIS NLO & return
Attach 1st draft of my letter to Paffenbarger on November

Dear Henry:

I did so appreciate your letter received this morning and its helpful and thought-provoking critique. In response, without attempting to overburden you, I forward the New Orleans paper of two weeks ago and prior publications in the "Longshoremen Series."

In the most recent analyses, somewhat "unconventional" procedures were used: person-years of experience were computed for job categories rather than for individuals, that is, one individual may have contributed to any or each of three levels of energy expenditure; and deaths were assigned to age at occurrence rather than age at intake. Also, as an addition to earlier observations, sudden CHD death was examined along with the total of CHD.

It would seem that our earlier analytic methods, where jobs were classified at the initial examination and no account was taken of job transfers, provided a minimal estimate of the influence from physical activity (whether protective or selective). Although the prevalence of all risk factors changes over any followup period, shifts in work activity are undoubtedly greater than changes in status of cigarette smoking, lipidemia, hypertension, etc. This is especially so on a relative scale. (You will see in the new manuscript that the proportion of longshoremen doing heavy work declined from 40 to five percent over a 22-year period).

The data available on Bay Area longshoremen do not include repeated assessment of the "established risk factors" so that temporal adjustments for smoking, etc. cannot be made, at least on an annual basis. Yet, we have been working with other analytic strategies, to include multifactorial methods other than just two-way classifications. (Admittedly we are terribly slow at this.) You will note, however, from Figure 4 of the July 1971 paper that for both lower and higher risk levels of established factors, heavy workers experienced lower CHD death rates than men less active.

I cannot disagree more with your idea that "there is no way to handle the selection question" aside from a controlled trial. Ferreting out true relationships from observational data is the primary role of an epidemiologist. If he can't accomplish such goals, at least some of the time, he might as well turn things back to the clinically-oriented statistician, or to the statistically-oriented clinician.

Henry Balckburn, M.D.

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Henry, I do so appreciate your note, and hope you will find time to look over the appended items, to show same to Henry Taylor, and to respond in time. I'll try to assemble some additional data and submit a proposal on physical activity and CHD for presentation at the Tampa meeting--a good place to air contrasting views on an unresolved and inadequately studied issue.

Sincerely,



Ralph S. Paffenbarger, Jr., M.D.
Epidemiologist
San Francisco Bay Area
Resource for Cancer Epidemiology

RSP:ew

Enclosures