

## Letters to the Editor

### *EFFECTS OF SELECTION ON MORTALITY*

The paper entitled "Effects of Selection on Mortality" by Seltzer and Jablon (*Am J Epidemiol* 100:367-372, 1974) is both interesting and thought-provoking. The authors report that death rates among Army veterans of World War II have been much lower than those among US white males of similar ages. This reduction, which has persisted for 23 years, is attributed by the authors to the selective effect of screening for good health on entrance into the Army.

This explanation is certainly possible. On the other hand, veterans are not only selected for good health on entrance into service, but they are also selected for a number of other things, notably for subsequent hospital care by the Veterans Administration. Service-connected disabilities can be treated in VA hospitals, and veterans without such disabilities can also be hospitalized if they state they cannot afford private hospitalization. Low socio-economic men are therefore most likely to be affected by this perquisite of former military service. The effect on subsequent mortality is increased by the fact that low socio-economic groups have higher death rates than the well-to-do. To the extent that increased availability of hospital treatment without hesitation caused by financial concerns can reduce mortality, it seems that selection for hospital care might be the principal cause of the prolonged decrease in mortality rather than the ini-

tial selection. The marked reduction in deaths due to tuberculosis and pneumonia, the slight reduction in deaths due to cancer, and the lack of any reduction in deaths due to cirrhosis of the liver are consistent with an effect of readily available hospitalization.

Still another selective factor with a potentially long-lasting effect is the increased availability of education and training brought about by the GI bill. To the extent that this increased the socio-economic status of veterans, one would expect a concomitant decrease in their mortality. A similar effect might also have been produced by the initial screening for literacy, which would exclude from military service the very lowest socio-economic group in the general population.

All of this does not negate the authors' warning that "we cannot rely on the mere passage of a few years to overcome the unwanted, confounding, distinctions" that may exist between two survey sub-populations or between a screened group and the general population. However, it does seem that the illustration of this warning may relate only slightly, if at all, to the effects of initial screening for health.

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### *THE AUTHORS' REPLY*

Dr. Comstock is apparently not persuaded that the favorable mortality experience of veterans can be attributed to selection for good health at the time of entry into service but believes that a more likely explanation is to be found in veterans'

greater access to hospital medical care, in the VA system, and a possibly higher-than-average socioeconomic status of veterans, stemming from educational benefits received under the so-called GI Bill.

It is difficult to adduce direct evidence to