



VECTOR ENTERPRISES, INC.

correspondence - R. Smith

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report from July*

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Dr. Henry Blackburn
Division of Epidemiology
School of Public Health
University of Minnesota
Minneapolis, MN 55455

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Dear Doctor Blackburn:

In reading your recent article entitled, "Primary prevention of coronary heart disease," I had difficulty in understanding your discussion of Figure 1 (Page I-165) presented on Page I-164.

First, you state that "Within high-incidence populations most evidence suggests a smoothly rising relationship between single and combined risk factor levels and individual CHD risk rather than a threshold level of critical importance."

Then you state that "Combined modest risk factor elevations are as strongly predictive of CHD risk as severe elevations of single risk factors. Such combinations involve large numbers of people in high-risk societies. In addition, most excess CHD events come from the central part, rather than the extremes, of the risk factor distributions, as illustrated in Figure 1."

Does not the second statement (and the figure) indicate that CHD death rate is lower at the lower and higher ends of the serum cholesterol distribution than at the central portion? If so, how can this be consistent with the first statement? More specifically, how can smoothly rising individual curves yield a rising and then decreasing curve when combined?

I also have a problem with understanding how individual CHD risk is determined. A single individual has one cholesterol level and he either has or has not symptoms of CHD. How, therefore, does one calculate a CHD risk curve? Incidentally, the distribution (histogram) of cholesterol levels in Figure 1 is not nearly as normal in shape as that presented in other reports on the Framingham study. Am I missing something?

I would greatly appreciate any clarification you may provide regarding these questions.

Sincerely,

Russell L. Smith

Russell L. Smith, Ph.D.
President