



VECTOR ENTERPRISES, INC.

*Please*  
*attach his older letter &*  
*my reply. Thanks*

October 21, 1987

*NE Spill missing his first*  
*letter to me.*  
*Looney - attached*

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

Dear Dr. Blackburn:

I want to thank you for your kind response to my letter. You did clarify some of my questions. In answer to your statement, "I cannot quite diagnose where the block is in your understanding of these issues...", let me clarify the fundamental problems I have with the relationship between blood cholesterol and CHD.

After reading nearly 1,000 articles on this subject I have found it exceedingly difficult locating raw data relating blood cholesterol to CHD with orthodox, equal interval scales. As any novice scientist or mathematician knows, you simply cannot derive a true relationship between two variables when one or both are plotted on unequal interval scales.

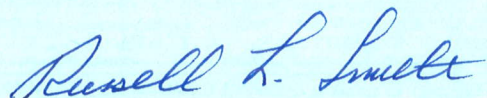
Of the recent studies, Stamler used quintiles of the original MRFIT data which completely distorted a true relationship and produced an exaggerated climb in the curve (Figure 1). Kannel used an unequal interval scale (20,29,29,29,829!) for his Framingham data which also exaggerated the climb in his curves (Figure 2). Grundy plotted CHD deaths of the MRFIT data with progressively larger intervals beyond the second interval which exaggerated the heights of the 3rd, 4th, 5th and 6th intervals (Figure 3). Keys' Seven Countries Study shows a gross exaggeration at the high end of his histogram with a noncomparable interval (Figure 4).

Dr. Blackburn, I most certainly do not deny a relationship between blood cholesterol and CHD but true relationship are apparently impossible to find in the literature. Regardless of any rationale offered for the use of unequal interval scales, they cannot change the fact that such scales distort and exaggerate relationships. Keys' data appear to be the "cleanest" and they show a very small absolute reduction in CHD deaths (4.7% to 1.0%) for a very large reduction in blood cholesterol (280-299 to < 160 mg).



I can assure you, Dr. Blackburn, that journals in other sciences would immediately reject any article for publication which used unequal interval scales as discussed above. Editors would say, "Re-plot your data on equal interval scales or (at minimum) clearly state the direction and magnitude of the effects of using unequal intervals on the relationship."

Sincerely,



Russell L. Smith, Ph.D.  
PRESIDENT

RLS:mas

Enclosure