



Division of Epidemiology School of Public Health Stadium Gate 27 611 Beacon Street S.E. Minneapolis, Minnesota 55455

(612) 624-5400

December 3, 1987

Richard Shekelle, Ph.D. School of Public Health University of Texas Health Science Center at Houston P.O. Box 20186 Houston, TX 77225

Dear Rick:

On reading the minutes of the last NRC meeting, I am increasingly saddened by the direction of the committee. Despite our writings and contributions over the period of our meetings, the same attitudes are there, rejecting population recommendations in favor of individual recommendations for diet change (from our chairman and even from epidemiological colleagues). Somehow we have failed to make our points.

I suggest that we try together to present the issues more clearly, in a letter to be circulated before the Jan. meeting. Then I would suggest that we sit by until we see what comes out in the recommendations. If the recommendations are inappropriate and do not take into consideration the population and public policy needs, you and I should meet with the leadership.

When I see in the minutes that they rejected all idea of population <u>and</u> individual recommendations, with no assignment of a working group to come up with a resolution of that issue, I begin to have concerns about "minority reports" and "resignations".

I suggest that we keep an open mind and drive home the logic as effectively as we can. I enclose a rough draft of some of the points. Would you edit and comment?

eganls -

The NAS/NRC Diet-Health committee has accepted the principle of "sick populations" as well sick individuals. The basic point is that diet is a mass phenomenon and results in mass characteristics of risk, which, acting with mass susceptibility, creates mass disease. Diet and cancer, certainly diet and atherosclerosis, and clearly diet and obesity are the best illustrations of this concept. The degree of elevated risk characteristic, whether it be obesity, serum cholesterol or whatnot, is in part determined by inherent individual differences and in part by interactions with the environment. Thus, individual-host environment interactions need to be addressed, and recommendations to the profession for dealing preventively with individuals at different risk in the population. But the main reason for a major new report on Diet and Health, from a leading scientific agency in this country, is to provide recommendations for the public as a whole.

A population approach to reduction of risk factors in the mass, and thus recommendations for the population as a whole, are essential for the following reasons:

There is apparently mass genetic susceptibility to the major risk characteristics and disease entities with which we are concerned (obesity, hypertension, hyperlipidemia, atherosclerosis and many cancers). Large fractions of the population are relatively obese, relatively hypercholesterolemic and obviously susceptible to and dying from atherosclerosis and cancer. These phenomena therefore involve much of the population.

All computations of effects of preventive strategies and risk reduction indicate the need for, and the greater efficiency of, shifting the distributions downward of mass elevated risk characteristics such as LDL cholesterol, blood pressure and obesity. This approach is essential for major reductions in mass diseases. The reduction of disease is enhanced by identification and selective treatment of the high risk individuals, when it is possible to identify and handle them. For certain of these conditions, it is now feasible to identify excess risk and treat it effectively. But for many conditions, such as susceptibility to hypertension and susceptibility to cancer we are unable to identify individuals at special risk and no strategy is left other than the population strategy—plus medical care when the condition develops in manifest form.

Recommendations for the entire population and a public health preventive strategy are also needed when the major influences on these mass risk factor levels are socio-cultural. This is most evident in the situation with which this committee is concerned—habitual eating pattern.

Not only is the population approach to eating patterns necessary for major reductions of disease, but it is necessary for the effective handling of individuals demonstrated at particular risk. They are ill-prepared with skills to reduce their risk in the presence of an environment that is nonsupportive. A spouse who is uninformed or unsympathetic or unable to change is tragic. Physicians or scientists unwilling to make recommendations, based on best evidence, for the common benefit of youth, the family, and the community as a whole, are a greater tragedy, as long as the change recommended is feasible and demonstrably safe.

Why are we willing to recommend seat belts for all when the improvement of an individual's risk is so small from wearing a seat belt? Why are we willing to recommend discontinuance of smoking in a family with young people when the

individual risk to one child is relatively so small and remote? Yet why are we so loathe as investigators and physicians to recommend to those not at exceptional risk to modify an eating pattern so that the spouse who is at higher risk may be protected and so that those not yet at excess risk will be protected for the future? Why are we hesitant to recommend simple, palatable, healthy and safe adaptations in eating pattern resembling those in areas more healthy than in the U.S.! Why do we consider the present U.S. eating pattern as ideal and present cholesterol levels as normal. To extend that logic to the ridiculous would be to recommend that we return to the eating pattern and average TC levels of the 1960s, and that we recommend that populations with average TC levels lower than our present level (±210 mg/dl) take public health action to raise their levels!

Finally, we miss one of the more exciting opportunities of this ${\tt NAS/NRC}$ Diet-Health report if we fail to recognize the apparent link between healthy behaviors and several of the mass diseases with which we are concerned, those that contribute the major portion of deaths and premature deaths in the U.S. population. Rather than the academically oriented thinking and recommendations for individuals, to which the committee is now inclined, we have the opportunity to point out that healthy living patterns are associated, probably causally, with lower incidence and death rates from heart and cardiovascular diseases and a number of cancers and a number of other causes. For example, note that socio economic class gradients for cardiovascular disease and noncardiovascular diseases tend to run in parallel. Death rates from cardiovascular and noncardiovascular diseases are generally correlated in the nations that report death rates. Trends for death rates (up or down) in cardiovascular and noncardiovascular diseases also tend to be parallel among countries. And finally, our literature review has demonstrated effectively that coronary disease and a number of other diseases with which we are concerned, including a number of cancers, chronic lung disease, obesity and diabetes, have several risk factors in common and several common sociocultural determinants of risk.

Cordially,

Henry Blackburn, M.D. Professor and Director

/ma