Division of Epidemiology School of Public 1 matth Stadium Gate 27 611 Beacon Street S.E. Minneapolis, Minnesota 55455 (612) 624-5400

July 26, 1988

TO:

Ancel Keys

FROM:

Henry Blackburn

SUBJECT:

National Academy of Sciences Diet & Health Report

Up until this moment I have not involved either of you in our preparation of the National Academy of Sciences new Diet and Health Report. Now, however, I am hoping that either or both of you would take time to peruse at least the lipid-CVD sections of the chapters.

I also enclose the external review of our draft by the no longer anonymous reviewer. It provides many insights. We have an unusual insight into the thinking process as well as scientific faculties and personality of reviewer G who you should know (confidentially) is Scott Grundy. You would probably devine this after reading a few of his criticisms. I think this is such a significant insight into his thinking and misinterpretations that you would do well to scan this and take an hour to dictate, if you would, your reactions to his criticisms. It should also help in our subsequent reviews of Grundy's work and our understanding of his attempts to change the thinking of the scientific community.

Obviously the most obvious part of his misunderstandings come from not separating the individual from the population effects. His ignorance of attributable risk in Critique #9 is one of many such indications.

But what also comes through strongly is his idea, which as far as I know is a new one, that the effects of all unsaturated fatty acids is simply the result of the removal of saturated fatty acids. I think an editorial by one or two or preferably all three of us would be useful to put this into perspective. It could point out in a sober way, in which letters to the editor cannot, the different conclusions that can be derived from experiments on the same general topic. We might show how his conclusions can be appropriate or inappropriate to the questions and to the design of his experiments. We might point out that his experiments are inappropriately designed to answer the important questions of specific fatty acid effects. At any rate, I thought you should have access to the remarkable insights provided by his critique.

I would ask you to keep this among our group and to decide what, if any, constructive response we might make as a result of gaining these insights. I also have enclosed my replies to his critique for our Committee.

Specific question for Dr. Keys: Did you take stearic acid out of the Keys equations and how much difference did it make? Does hydrogenation of vegetable oils produce stearic acid? Do we have experiments on hydrogenated vegetable oils and their hypercholesterolemic effect? What do we know about the dietary cholesterol/dietary fat interaction in humans?

/nmf Enclosures

P.S. I have circled the critiques most appropriate to your consideration.

410 Groveland Ave. No. 802 Minneapolis MN 55403 U.S.A. August 1, 1988

Professor Henry Blackburn
Divison of Epidemiology
School of Public Health
University of Minnesota
Stadium Gate 27
Minneapolis MN 55455



Dear Henry,

I have examined with much interest your letter to me and to David Jacobs and the 18 pages of "H. Blackburn responses to Chapter 7 comments of external reviewer. Augmented responses to July 1 comments."

I should be glad to review the material and to join in drafting whatever seems to be desirable about this subject. However, I have seen neither the draft of the National Academy of Sciences Report nor the ""external review of our draft". I should mention that I have neither a dictaphone nor a secretary to convert dictated material to a paper draft.

You ask specific questions.

- 1) Yes, I have taken stearic acid out of the regression equations using the many controlled dietary experiments in metabolic wards at Hastings State Hospital. The difference with and without stearic acid in the dietary data made extremely little difference as we would expect because in none of our diets, and in no natural population diets I know about, is stearic acid a large part of the total fat. On the average, stearic acid makes up some 40% of the saturated fatty acids in beef fat.

 Suet, a paéticular kind of beef fat that is not included in ordinary cuts of beef, is very high in stearic acid but few people eat any suet and, in fact, suet is practically indigestible.
 - 2) We never made specific controlled experiments on the effects of hydrogenated vegetable oils on the serum cholesterol concentration. Mattson and Grundy used hydrogenated vegetable oils in their completely unphysiological dietary experiments. I wrote a comment on those experiments and the M and G conclusions and enclose a copy as published in NEJM.
 - 4) You might be interested in the findings in a big diet survery im Belgium. A note about this is in Nutrition Research Newsletter, October, 1987. I have seen the full data and a ms on this study but the article was, unfortunately rejected by the American Journal of Clinical Nutrition because the Editor considered that it contribued "nothing really new". Also, you might profit from examining a bad paper by Reiser, etc in the American Journal of Clinical Nutrition 1985; 42: 190-197.

- 5) Enclosed is a copy of "Nutrition Classics" published in Nutrition Reviews 1988; 46: 195-197.
- 7) Margaret has just ordered our tickets for the next trip. We leave here September 9 and return December 12th. Except for a few days for the meeting in Sardinia in mid October, we'll be at Minnelea.

Axcel Keys

You may be interested in what is below. Should a table like this be added to the ms "Fatness and Longevity?"

The Framingham Study, men 55-64, reported by D. Shurtleff in "Some characteristics related to the incidence of cardiovascular disease and death, 18-year follow-up. EpidemioLlogical investigation of cardiovascular disease, 1974, Section 30 DHEW no. (NIH) 74-599. Beloow are the multiple logistic regression coefficients (COEFF), their standard errors, and t-values for 1) the regression of death rate on the characteristic (Univariate), 2) the regression of death rate on the characteristic taking into account age, (Bivariate), 3) the regression of death rate taking into account age, systolic blood pressure, serum cholesterol, cigarette use, glucose intolerance, left ventricular hypertrophy (ECG).

| CHARACTERISTIC | REGRESSION | COEFF | S.E. | T-VALUE |
|----------------|------------|---------|--------|---------|
| Systolic B P | Univariate | 0.0160 | 0.0018 | 8.87 |
| | Bivariate | 0.0117 | 0.0019 | 6.29 |
| | Multivar. | 0.0054 | 0.0021 | 2.64 |
| Cigarettes | Univariate | 0.0972 | 0.0404 | 2.41 |
| | Bivariate | 0.2224 | 0.0421 | 5.29 |
| | Multivar. | 0.2638 | 0.0433 | 6.09 |
| Relative wt. | Univariate | -0.0134 | 0.0031 | -4.28 |
| (BMI) | Bivariate | -0.0117 | 0.0032 | -3.72 |
| | Multivar. | -0.0149 | 0.0033 | -4.48 |

Ancel Keys in residence:

¹⁵ September - 15 December, "Minnelea" 84060 Pioppi (SA) Italy
16 December - 15 January 1989, 410 Groveland Av. (No. 802)

Minneapolis Minn 55403, USA.

410 Groveland Ave. No. 802 Minneapolis MN 55403 U.S.A. December 21, 1988

Dr. Henry W. Blackburn, Director Division of Epidemiology University of Minnesota School of Public Health Stadium Gate 27, Minneapolis MN 55455

Dear Henry,

I expect we'll talk soon but I write now to remind myself of the things to talk about; lately I find I am apt to forget too many things.

1) Rose Hilk has received the death information from the Railroad Retirement Board, complete through 1987 I believe. There are 290 death certificates and notices about another 500+ deaths with only our serial number, the death date and where they died. That will be enough for my immediate purpose of examining longevity versus entry characteristics but death certificates for all are needed for Alessandro Menotti to code and enter ascribed causes of death, which he will put on the master file for us here and for the file in Rome. Some costs will be involved: a) Certificates from the various states, perhaps averaging \$6 each, totalling perhaps \$4,000. b) Clerical costs of entering the death data on the file, perhaps \$2,000. I have no funds from grants so what should we do? A little grant of \$10,000 would cover these items and some other costs I face -- mail and reprint costs, photocopy work, publication charges now demanded by Am J Epid, power for the equipment in Italy, etc. Already I have 60 requests for my paper given at Ilomantsi in June and just out in Annals of Clinical Research.

I received yesterday a box of reprints of my "Special Article" on the diet and blood cholesterol in the big survey in Israel. I enclose a couple of copies.

2) I think I have finished the longevity-fatness ms which you saw in near final form months ago. I am inserting a short paragraph: "In the Kaunas-Rotterdam Intervention Study Dr. Paul G. H. Mulder of the Institute for Biostatistics, Erasmus University, Rotterdam, advises that for the Rotterdam men no relationship was found between the body mass index and total mortality. Dr. Mulder analyzed the data from 2953 men among whom 348 died in the follow-up. Dr. Mulder adds that the sample consists of men aged 45-59 at entry and is not evidence of what may be the case in younger populations." I am also adding a brief notice of the new book by J. S. Garrow: "Obesity and Related Diseases" published in London by Churchill Lingstone, 1988, which I paid to have sent to me in Italy (\$80). Garrow is a Professor whose main activity is running a reducing clinic where they do

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such things as wiring the jaws shut. He thinks obesity is a mortal threat but seems to know nothing about people with body mass index lower than 30. As noted before, I would welcome you as joint author if you wish to add your name as more authentication.

- 3) I propose to write in the same way about longevity and body fatness in middle age as follows: The cohorts in Italy with Menotti as co-author, the cohorts in Finland with Karvonen, Pekkanen and Nissinen as co-authors, the Greek cohorts with Aravanis and Dontas as co-authors, the cohorts Dalmatia and Slavonia with Buzina and Mohacek as co-authors, The Serbian cohorts with Nedeljkovic and perhaps Kromhout as co-authors (Kromhout got money and personally helped in the recent follow-up work in Serbia). Zutphen with Kromhout and perhaps Boschieter as co-authors, Tanushimaru and Ushibuka with Toshima as co-author must wait for the 25-year death data I have requested from Toshima. For all these I would restrict the subjects to men aged 50-59 at entry so we could have an advanced age as the longevity target. Suggestions?
- 4) Rose Hilk is helping me to write control programs for the analyses of the mortality in the Seven Countries Study. She also will add to the file on the men in Hungary the death data recently sent by George Lamm.
- 5) I am having innumerable medical tests but seem to be doing well. Margaret will order our tickets to Italy to leave here in mid January. In the meantime I work hard at the computer and word processor and she helps by checking my typing and data entries on the computer.

Ancel Keys



UNIVERSITY OF MINNESOTA

Division of Epidemiology School of Public Health Stadium Gate 27 611 Beacon Street S.E. Minneapolis, Minnesota 55455 (612) 624-5400

December 27, 1988

TO:

Ancel Keys

FROM:

Henry Blackburn

RE:

December 21 memo

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In reply to your December 21, memo, please have Rose Hilk submit a detailed breakdown of estimated costs for Railroad death certificates and clerical costs and submit it to Dean Surbey with a copy to me. We will somehow find the funds to cover these issues.

I assume that I will be getting the revised version of your article on longevity and fatness. You had earlier mentioned that you were going to add a quadratic term to the analysis.

I think it is ambitious that you have put this all together for each individual population and if the data are sufficient that would be a fine thing to do.

It's marvelous how productive you remain. Please let us know where we can help.

bpc: AEC Committee

/irh

corresp- Tamlyn



UNIVERSITY OF MINNESOTA TWIN CITIES

Division of Epidemiology School of Public Health Stadium Gate 27 611 Beacon Street S.E. Minneapolis, Minnesota 55455 (612) 624-5400

July 22, 1988

Tom Tamlyn 155 East 49th Street, Apt 5D New York, NY 10017

Dear Tom:

It was kind of you to send the postcard and good to hear from you. It's been a pleasure to be out of the public eye for several years. I don't do a particularly good job on television and now I find that I have very little new or newsworthy to say. I'm in full mutation to an academic administrator in which nothing else is as important as keeping the institution going. We now have well over 35 faculty and 600 employees and are too big.

My companion of 3 years, Stacy Richardson, I've told you about. We acquired a new house a couple of months ago, so I'm cutting back my travel schedule while we feather our nest or more appropriately, repair and renovate our nest, in a quiet little wood protected on three sides by the Prudential Insurance Company, The Burlington Northern Railroad tracks and the Jewish Community Center. We're still just four minutes from downtown and ten minutes from work.

I've just returned from only 5 days this year at the Bohemian Grove in which each day was especially savored. My planned for guest, Joe Stokes, of Boston, came up with a malignancy a few months ago and is spending the summer with his family. He is remarrying his first wife (sister of Nelly's college roommate!) after 20 years and two subsequent marriages!

Why don't you look over the enclosed Grove program and see whether this is an adventure you might enjoy for a couple of weeks next summer or

down the line. You could bring your voice and join the chorus on Sons of Preachers night and work in with the Aviary, the singing camp. You could also bring your tennis racket and walking shoes and stay fit, while most of us drink too much good california wine and eat too well at the common dining table under the redwoods. It will be roughly the same time next year, the last two weeks of July and involves three weekends and the two weeks in between for the full experience. All the "big shots" are there on the weekend while four or five hundred "real people" stay for the quiet and peace of the Grove in midweek. Think about it!

Regards to you and Ann,

Henry Blackburn, MD

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