NOTES
SHORT PAPERS

ALASKA ESKIMOS AND THE SCHOOL LUNCH PROGRAM: A CULTURAL MISPERCEPTION

Arthur E. Hippler
University of Alaska, Anchorage

Background

The National School Lunch Program in the U.S. is a program through which school children in the U.S.A. (including Eskimo children in Alaska), are provided, (if the program is accepted by their school district), hot lunches which are developed according to Federal guidelines for menus. The child is charged either for their assumed cost, a reduced cost, or nothing, depending upon the financial status of the child's parents, as determined by federal guidelines.

Initially developed in 1946, the program was conceived of and developed by individuals whose memory of the great economic collapse in the 1930s included a mental picture of vast numbers of hungry or starving children. The program initially geared to the patently needy was amended numerous times till by 1972 the program was directed toward nearly all children in all circumstances, and with a vast complex of administrative rules, regulations, procedures, guidelines, and requirements, and naturally demanding a substantial National and State level staff to administer them. Along the way, organizations of Food Service Employees and Dieticians developed a vested interest in the program, and eventually the program developed so sanctified an aura that to question the program became seen as attacking "food for the kids". Needless to say, until recently, this attitude discouraged any serious research into the program. Beyond that, questioning the program's need and effectiveness for Alaska Eskimos was nearly unthinkable.

Alaska's Eskimo (and Indian and Aleut) population tends to be spread out in more than 170 villages, few of which have the tax base to sustain a school program, or are associated with an urban area, or a borough (state political subdivision analagous to a county) whose taxing power can sustain a school system, let alone to support a school lunch program without outside support.

Initially, under the Department of Education in the 1880s, Alaska Native village schooling came under the aegis of the Bureau of Indian Affairs, and after Alaska Statehood, some schools became part of the State of Alaska supported system, some of large village community systems, and a few as borough operated schools, not to mention a small number of private schools supported by religious denominations. The School Lunch Act nonetheless is applicable in all Alaska Native schools. Most children in most villages receive free or reduced price lunches.

In the U.S., as the decades form 1930 wore on, the rationale for publicly provided hot school lunches shifted from a concern with children to the more sophisticated notion that learning is assisted in well nourished children and retarded in those where there is malnutrition, such as in the assumed present state of Eskimos. It is ordinarily taken as an article of faith by nearly everyone who comes into contact with this group that Alaska Eskimo children are grossly malnourished, overeating carbohydrates and undereating protein. The bad habits are assumedly the negative result of white contact and the subsequent acculturation to Euro-American ways.

Most observers (including the author) have in the past not only assumed that Eskimo children were very poorly nourished, and that this poor nourishment was a result of acculturation, but also that in general nutrition affects educational achievement and that Eskimos' poor achievement is at least in part due to the assumed obvious malnutrition.

The facts, so far as they can be ascertained at this point, do not seem to support a single one of the above assumptions, but of at least equal significance is the fact that Alaska Eskimo populations seem clearly to have a much higher nutritional status in general than was expected or is commonly believed.

Nutrition and Education in the U.S.

The popularly assumed general nutritional deficiency[1] in the U.S. is apparently a chimera. The U.S. Department of Health, Education and Welfare through its comprehensive Health and Nutrition Education Survey (HANES — US DHEW 1977) has determined that even among lowest socio-economic groups in the U.S. there is nothing resembling systematic malnutrition (Table 1). Moreover, it finds in a country where obesity is a problem that the U.S. is under-nourished not in basic vitamins, minerals, and proteins, but calories (!). Findings by Charlotte Stefanich based on 24 hour recall studies of Southwest Alaska Eskimos show the same thing.

So stunning a set of findings obviously needs clarification. An investigation into procedures whereby Recommended Daily Allowance (RDA) of nutrients are determined shows that all the recommendations are conservatively set to account for .9987 percent of the population.[2] That is just about the most extreme nutritional need one can imagine is covered by these recommendations. Beyond that, a 25 percent add-on in calories is provided over World Health Organization norms simply because the U.S. is a rich country (Food and Nutrition Board 1974). Thus, coming even close to the recommendations, let alone exceeding them as the Stefanich work shows Eskimos do, is clear evidence of adequate nutrition.

Even so, it is logically possible that for those few who may be nutritionally deprived, school lunches would assist them in their educational achievement. Such a logic is not supported by research findings. A substantial array of studies show that unless nutritional deficiencies are incurred in the first two years of life, there is no observable educational deficit which occurs (Pollitt, Gersovitz and Garguilo 1978). Further, all research on the effectiveness of school lunch programs seems unable to relate it to changes in educational attainment or even clearly to nutritional advancement.

When, as we have suggested above, we look at the situation for Eskimos, precisely the same realities apply. Substantial studies (Jamison, Zegura and Milan 1978) strongly suggest no nutritional deficiencies clinically observable, nor can other evidence of them be elicited even though most health and social science professionals are sure that Eskimos are malnourished, drink too much soda pop, and eat too much candy in lieu of "good food".

The Stefanich study referred to above included 24 hour recall studies in six Eskimo villages in

the Southwest region of Alaska. The villages were Togiak, Kaliganek, New Huyahok, Dillingham, Naknek and South Noknek. Those villages range from relatively to very acculturated, but are located in a moderately poor part of Alaska. In the study, children are asked to recall for each meal what they ate over a 24 hour period. The large numbers of children used (Hippler *et al* 1979) tends to wash out individual variances. These findings were compared using exact nutritional values (computed by the author) of the school lunch (Table 3) with the home lunch most likely to have been eaten (Table 2).

As can easily be seen, the National School Lunch Program (NSLP) lunch offered little if anything to the already adequate Eskimo diet for these children. Of course, one such study may be an artifact of design, or there may have been contaminating variables. Our attention was then fortuitously brought to the recent work of Jamison, Zegura and Milan (1978), in which a range of nutrition of and clinical studies of Eskimos from across the state, focussing primarily on the North Slope shows exactly the same pattern. No clinical or other evidence of malnutrition seems to exist among this population.

Thus, though the bulk of public and assumedly informed opinion had felt Eskimo nutrition to be worse now than in the past, there was no evidence of malnourishment anywhere in Alaska for which data could be derived. Of course, it is always possible that this present diet, even though adequate, may have been less adequate than past diets. Our discussions with medical personnel and analysis of height and weight records, such as they were for Eskimos in Alaska, did not support this assumption either. There was thus no available legitimate perspective that could support: 1) hunger and malnutrition in the U.S.; 2) hunger and malnutrition for Eskimo children; 3) any general value in school lunch programs; and 4) any observable value in such programs directed toward Eskimo populations.

Such findings, needless to say, were not well received by those in charge of the N.S.L.P. in Alaska. It is hard to find some way of refuting these findings, parallel as they are to findings everywhere in the U.S. Yet political pressure from Food Service employees to maintain and even increase the program continues unabated.

We suggest there may be a lesson here for those social scientists who are involved, as many are, in programs to "help" Eskimos. There is the distinct possibility that many helping professions may have a vested interest in maintaining programs which have little, if no, real benefit. Simply defining something as "good for people" may have very little to do with its merits. This is clearly the case in the nutrition establishment. At the very least, it warrants our great care and caution in quickly prescribing, especially for some general "social good", which has not received an objective analysis, or which defies objective analysis and merely reflects ideological assumptions.

NOTES

1. The popular literature, press and social engineering commentators have for years decried inadequate U.S. nutrition. Retrospectively, these are usually the same individuals and institutions which demand government intervention in nearly all aspects of life, in the absence of compelling need, and with clear evidence of continual failure of such programs.

2. Information was partly derived from Charlotte Stefanich and Betsy Nobman, USPHS nutritionist in Anchorage.

Table 1

HANES – U.S. D.H.E.W., 1977 Dietary Intake Findings – P. 28

(As an example of the kind of findings in the Hanes study for all age and sex groups)

Table 8. Intake of selected nutrients for persons aged 12-14 years by race and sex for income levels, number of persons, mean, median, and mean nutrient intake as a percent of standard and per kilogram of body weight: United States, 1971-74

Sex and Nutrients	Total[1]	White	Negro	Total[1]	White	Negro	Total[1]	White	Negro
BOTH SEXES	All income			Income below poverty level[2]			Income above poverty level[2]		
Number of examined persons	1,107	828	272	266	115	150	797	680	112
Estimated population in thousands	12,916	11,004	1,805	2,124	1,196	926	10,189	9,321	786
Calories									
Mean	2,226	2,244	2,109	2,060	2,122	1,981	2,251	2,254	2,214
Median	2,114	2,121	1,999	1,899	1,900	1,898	2,146	2,144	2,156
Mean nutrient intake:									
Percent of standard[3]	75	75	71	72	73	70	75	76	71
Per kilogram of body weight	44.07	44.13	42.94	42.18	43.84	40.12	44.17	44.00	45.09
Protein (gm)									
Mean	82.90	84.24	74.43	75.54	80.35	69.40	84.10	84.65	77.51
Median	78.17	79.00	68.43	68.90	72.47	64.92	79.53	79.71	73.62
Mean nutrient intake:									
Percent of standard[3]	139	141	126	132	142	118	140	141	130
Per kilogram of body weight	1.64	1.66	1.52	1.55	1.66	1.41	1.65	1.65	1.58
Calcium (mg)									
Mean	1,124	1,178	805	931	1,052	774	1,157	1,189	807
Median	1,027	1,095	762	854	1,062	670	1,066	1,100	841
Mean nutrient intake:									
Percent of standard	173	182	124	145	164	119	178	183	124
Per kilogram of body weight	22.24	23.17	16.39	19.06	21.75	15.67	22.70	23.21	16.44
Iron (mg)									
Mean	12.01	11.96	12.14	12.33	12.31	12.37	11.94	11.94	11.69
Median	10.84	10.83	10.67	10.54	10.56	10.50	10.89	10.87	10.74
Mean nutrient intake:									
Percent of standard	77	77	77	80	82	77	77	77	76
Per kilogram of body weight	0.24	0.24	0.25	0.25	0.25	0.25	0.23	0.23	0.24
Vitamin A (IU)									
Mean	4,302	4,361	3,909	4,479	4,234	4,757	4,259	4,357	2,968
Median	3,034	3,152	2,181	2,693	2,857	2,596	3,089	3,156	2,113
Median nutrient intake:									
Percent of standard	98	101	75	87	94	81	99	101	73
Mean nutrient intake:									
Percent of standard	140	143	124	146	146	147	138	141	98
Per kilogram of body weight	85.14	85.73	79.58	91.73	87.49	96.55	83.55	85.04	60.44
Vitamin C (mg)									
Mean	84.72	84.30	86.50	73.35	67.48	80.27	87.64	86.45	100.36
Median	55.10	55.75	48.90	40.32	39.06	47.67	57.53	57.63	55.07
Mean nutrient intake:									
Percent of standard	185	184	188	161	152	172	190	188	220
Per kilogram of body weight	1.68	1.66	1.76	1.50	1.39	1.63	1.72	1.69	2.04
Thiamine (mg)									
Mean	1.41	1.41	1.36	1.38	1.45	1.29	1.41	1.41	1.45
Median	1.28	1.29	1.25	1.24	1.26	1.12	1.29	1.29	1.29
Mean nutrient intake:									
Percent of standard	158	158	163	158	170	163	158	120	163
Per kilogram of body weight	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Riboflavin (mg)									
Mean	2.24	2.30	1.86	2.03	2.12	1.92	2.27	2.32	1.75
Median	2.11	2.22	1.64	1.82	2.11	1.53	2.20	2.23	1.67
Mean nutrient intake:									
Percent of standard	184	187	160	180	181	175	184	187	144
Per kilogram of body weight	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.04
Preformed niacin (mg)									
Mean	15.95	16.05	15.22	14.67	14.92	14.36	16.15	16.16	15.83
Median	14.38	14.42	14.11	13.23	13.32	12.87	14.66	14.69	14.41
Per kilogram of body weight	0.32	0.32	0.31	0.30	0.31	0.29	0.32	0.32	0.32

[1]Total includes all races.

[2]Excludes persons with unknown income.

[3]Based on body weight for age, sex, and height.

3. This study is the result of a grant from the U.S. Department of Agriculture, and Alaska Department of Social Services, both of which wanted to determine the causes for the decline by school districts and individuals in participation in the National School Lunch Program. Very early in the study we discovered that we could not answer the question "why the decline" without addressing the question "is the program of use?" This brief communication is the result of that study.

REFERENCES

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE.
1977: *Health and Nutrition Examination Survey*, Dietary Intake Findings, U.S. 1971-1974, D.H.E.W. No. 77-1647, Hyattsville, Maryland.

FOOD AND NUTRITION BOARD.
1974: *Recommended Dietary Allowances*, 8th Revised Edition, Committee on Dietary Allowances, Committee on Interpretation of the Recommended Dietary Allowance, National Academy of Sciences, Washington, D.C.

JAMISON, Paul; ZEGURA, Stephen; MILAN, Frederick (eds.)
1978: *Eskimos of Northwestern Alaska*, Dowd, Hutchinson and Ross Co., Stroudsburg, Penn.

HIPPLER, Arthur E.; ALVES, William; DEROCHE, Patricia.
1978: A Study to Determine Causes of Decline in NSLP Participation in Alaska, (limited distribution), Institute of Social and Economic Research, University of Alaska, Anchorage.

TABLE 2

N.S.L.P. As Eaten from Stefanich Data Compared to HANES RDA Standards

SEX	CALORIES	PROTEIN	CALCIUM	IRON	VITAMIN A	THIAMINE	RIBO-FLAVIN	NIACIN	VITAMIN C
Male	2,076	94	1,223	15	3,713	1.1	2.5	15	129
% RDA									
Comparison to Home Lunch *	79↓	194↑	178↑	135↑	140	127	194↑	88	312↓
Female	2,006	81	1,145	10	4,212	1.2	2.1	14	165
% RDA									
Comparison to Home Lunch *	79↓	156↓	169↑	54↓	148	151	175↑	84↓	375↓

*Greater ↑
Less ↓

TABLE 3

Eskimo Age / Sex Nutritional Need Via HANES Base Compared To Stefanich Data

SEX	WEIGHT	CALORIES	PROTEIN	CALCIUM	IRON	VITAMIN A	THIAMINE	RIBOFLAVIN	NIACIN	VITAMIN C
Male	41.019 kg	2,641	48.4	628.82	11.48	2,638	.86	1.23	17.43	41.019
24-Hour Recall With Home Lunch										
Male Recall		2,203	84	964	14	3,755	1.1	1.9	15	157
Male RDA %		83	173	153	127	142	127	154	86	382

Eskimo Females Nutritional Need Via HANES Base

Female	44.35 kg	2,496	51.88	665.25	18.18	2,834	.798	1.15	16.47	44.35
24-Hour Recall With Home Lunch										
Female Recall		2,261	84	1,039	12	4,174	1.200	1.9	16	195
Female RDA %		90	161	156	63	147	150	165	97	439