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Better Nutrition Throug

The author suggests establishment of a Nutrition Educational Foundation which could organize a strong educational program designed to educate people about the right use of food and to carry conviction on the benefits of practicing good nutrition

A DECADE AGO, the writer had an opportunity to see patients with active pellagra, rickets, scurvy, nutritional edemas, and a number of other deficiency conditions initiated primarily by faulty diet, at the Dr. Tom Spies Hillman Clinic, in Birmingham, Ala. Many, who had been burdens on their families or communities, had almost completely recovered to become the first of hundreds who were industrially rehabilitated by Dr. Spies. Patients were first brought toward recovery by medical injections of vitamins to correct their deficiencies and by the use of vitamin and protein concentrates. The responses were almost miraculous. Improved dietary practices which followed accomplished final correction within a short period of time. These afflicted people had built up over a period of generations eating habits which set up long-term vitamin and protein deficiencies. The subjects generally were poverty stricken. They were relatively short-lived but they produced very large numbers of children. Deterioration generally became obvious before the age of 30 and child survival was not very high.

Ten years later, I visited the Hillman Clinic and the people whose afflictions of a decade earlier have just been described. What a difference! The only visible gross vitamin deficiency was found in a few cases of rickets among the colored people. The age of the visitors to the Spies Clinic had changed considerably. These were older people. There were very few in the 30 to 50 year group which by far had been the dominant one in 1943. The afflictions were of a degenerative type, such as heart and blood vessel diseases and arthritis. Some dietary treatment was still indicated and utilized, but medical treatment called for the use of the new hormones, such as cortisone and ACTH. Dietary patterns were still important, although much improved.

What had brought about this tremendous change? There are several factors:

1. **The educational program unquestionably had borne considerable fruit.**
2. **Vitamins had been introduced into flour, cereals, and bread stuffs.**
3. **Economic conditions were better; purchasing power was somewhat higher.**

In any event, this latest visit to the Hillman Clinic and into the homes of the people in both town and country convinced me that the practice of better nutrition contributed tremendously to the progress of a population that had been greviously afflicted for generations.

Since there has been such a great improvement in a region that exhibited gross nutritional deficiencies, it is probably reasonable to assume that there has been considerable improvement in the subclinical state of deficiency that has occurred among the bulk of our population. Fortunately, in the United States we do not have much of a problem in availability of food for any appreciable segment of our population. Our farms

ducation

and ranches do a wonderful job in providing the highest quality foodstuffs. Our food industry and distribution system, including retail outlets, are marvelously organized to bring foods fresh to market. Our research in our colleges, universities, and food laboratories has been outstanding in studying the basic fundamentals of the science of nutrition and determining the best combinations of foods. What is lacking? A strong educational program to inform people about the right use of food and to carry conviction on the benefits of practicing good nutrition.

The Public Is Ready

The American people should readily accept nutrition education if they can be told and shown that following the simple practice of right eating will:

1. **Bring better health for all age groups.**
2. **Increase mental alertness.**
3. **Promote a good disposition.**
4. **Increase the active life span.**
5. **Promote physical development.**

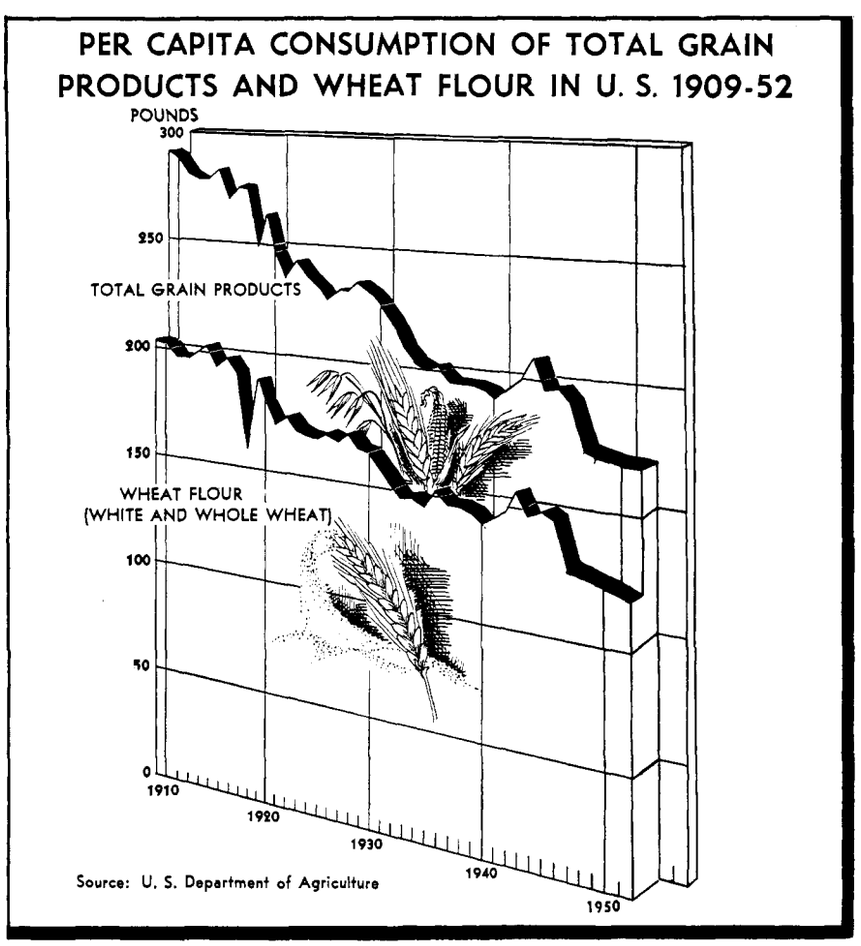
If we stop for a moment and look at the record, we note several established facts. A hundred years ago the life expectancy of a baby at birth was about 35 years. Today it is 69 years. Boys of 17 to 21, in the major number of families, are 1.5 or more inches taller than their fathers; the girls are correspondingly larger than their mothers. What has brought about these tremendous changes?

Over the past 50 years, there have been at least four outstanding achievements in health progress in America. The practice of food sanitation began in the latter part of the 19th century with the bacteriological findings of Pasteur and Lister. After the usual struggle to obtain public recognition of the need for and value of good sanitary practices, our country gradually wiped out the foodborne diseases. Today, we never have an epidemic of disease that originates in our food supply. The next step forward against disease was the gradual establishment, slowly overcoming public prejudice and misunderstanding, of the practice of immunization against smallpox, diphtheria, and other great killers of the past. Sanitation of water supplies also entirely overcame typhoid fever as an epidemic. Chemistry contributed the next great medical advance in the form of the sulfa drugs. This great boon to human suffering and survival was followed closely by the development of the antibiotics, of which penicillin, streptomycin, and others are in common use.

Sanitation, immunization, sulfa drugs, and antibiotics, all of these took a leading role in bettering the health of our population and doubling life expectancy for infants. However, we see that all of these are *external* factors, guarding against disease or helping to overcome the invasion once it has begun.

The greatest hope for bettering the future of our people and the only force which can build from *within* the body is—better nutrition. Nutritional improvements are evident all around us, particularly among infants and children. The increase in life expectancy must be credited almost entirely to survival of the young, but the hope for the future lies in better health for all ages. This will extend the active years of our life, move middle age much further along the span of years, and eventually increase longevity by a quarter century or more.

Mention was made of mental alertness, and good, happy dispositions as potential rewards of right eating. In the research field it has been shown clearly that deficient diets lead to sluggish mentalities, moroseness, and downright cussedness. Many children suffer from a variety of food imbalances. Some adults have such ingrained poor food habits that they gradually lose all mental poise and natural sociability. We can correct the severe cases by hos-



pitalization and forcing the right foods upon them, but this is not the answer to our great problem: those who are not sick in bed but are suffering from marginal deficiencies. Older people neglect right eating because they are alone and don't prepare a full meal. They don't know that they are shortening their lives and often impairing their mental faculties by such neglect.

Education Is the Answer

What shall we do? What can we do? Education is the only answer. Education on the rewards of right eating, or practicing thoughtfully and carefully the best nutritional regimen possible. Tell the story dramatically and romantically in words that the average American can understand and apply to himself and his family. It's never too late to expect some betterment from good nutrition. The babe, the adolescent, the middle-aged, the oldster—all profit.

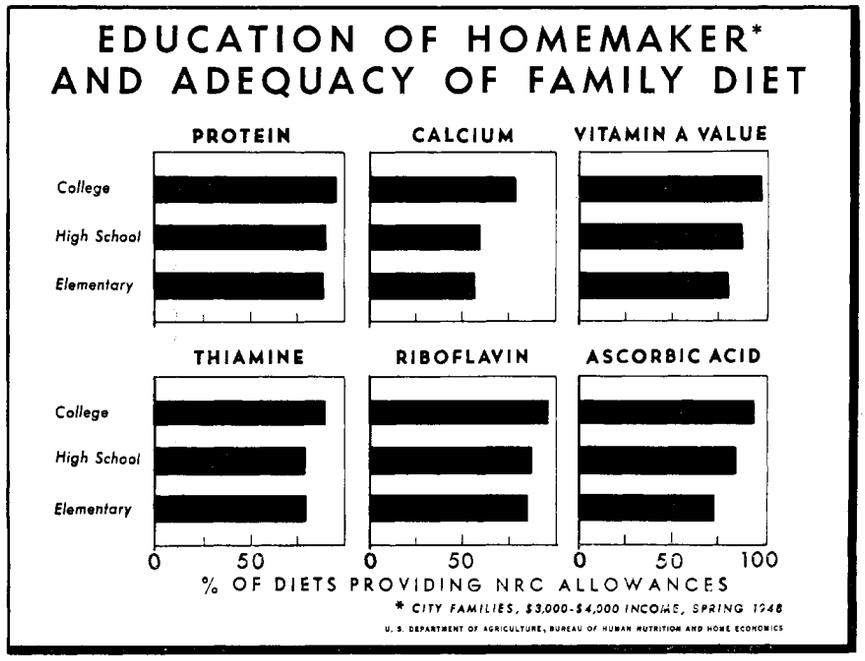
Infant feeding has progressed tremendously in this century. The newborn baby now has available for early use all the elements of a complete diet. The food industry has done a wonderful job of providing well balanced nutrition for today's American infant. Primarily, this has been done by adding convenient, highly palatable, and time-saving prepared foods for the mother's use. Now that babies get such a good start in life, there should be far greater stress given to nutrition education for the preschool child and for the adolescent.

Adult dietary habits are currently causing the greatest furor that this nation has known in a generation. Various slogans are rampant in the latest drive for good nutrition, such as "the battle of the bulge," "subtract inches and add years," "waste that waist." It is not the purpose here to attempt to discuss the obvious benefits of weight reduction for a very large proportion of our middle-aged population. Rather we should give some thought to the impact of this very strong program on the food industry. It is well known that the per capita consumption of many carbohydrate foods has been dropping steadily over the years. It now seems probable that the use of potatoes, cereal products, bread, and flour may drop even more drastically this year and next. There can be little doubt also that the reducing craze will have a tremendous effect on the per capita intake of foods which are primarily fatty in nature.

Effect of flour and bread enrichment on content of certain nutrients in urban diets, spring 1948[1]

Annual Income Class	Addition to Diet Due to Enrichment: Iron, %	Thiamine, %	Riboflavin, %	Niacin, %
All classes	12	16	3	13
$1000–$2000	14	20	5	15
$5000–$7500	10	13	2	9

[1] From 1948 Food Consumption Surveys, Bureau of Human Nutrition and Home Economics.



All segments of the food industry should be giving serious thought and taking action in line with this latest of nutrition fads, a fad which, if properly done, is a wonderful thing. Certainly, those manufacturers whose lines of products are most affected should be researching on means of making their products fit the current trend and they should also be doing a strong educational job on common sense reducing diets which do not eliminate certain foods, thereby losing nutritional balance, but which rather tend to decrease intake across the board. Naturally, the consumption of high protein foods will continue to go up as long as they are available, attractive, and, above all, serve to give hunger satisfaction. Many medical leaders believe that the emphasis on weight reduction is the most beneficial project in practical nutrition and that participation will tend to increase in this country for some time to come.

The food industry can compliment itself most highly for its assistance in founding and its support over a 12-year period of the Nutrition Foundation. This foundation, led policy-wise by many of the country's outstanding executives, both industrial and academic, and led scientifically by one of the world's greatest food and nutritional chemists, has had an outstanding—in fact, a remarkable — success. Hundreds of fundamental papers of the greatest significance to basic nutrition have resulted from the efforts of the Nutrition Foundation. This work must be continued and extended. Every individual industrial corporation which deals with food directly or indirectly should have a part in the support of the Nutrition Foundation.

Since the right kind of nutrition education is so badly needed in this country, it might be a sound endeavor for the food industry to form a Nutrition Educational Foundation, conducted along the same lines of the high policy standards set by the Nutrition Foundation. In any event more must be done in furthering the interpretation to the consumer of the outstanding research findings in nutrition, both theoretical and clinical, that have come forth in the last decade alone.

(Based on a talk presented by Dr. Robinson, before the Division of Agricultural and Food Chemistry, AMERICAN CHEMICAL SOCIETY, *in Chicago, Sept. 9, 1953)*

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