

Better eating can help you have fewer colds, be less tired and less irritable—all important to a college student's success. And as the report of a recent survey in this article shows—you can still have a slim, trim figure. Organized houses place well-balanced meals before you but eating them is up to you. A good breakfast is one of the best ways to get on the path to good eating and good health, this study points out.

Are You Eating Your Way To Poor Health?

by Barbara Parsons

AMERICANS are gambling with their health by forgetting common sense rules of eating. And women are the worst offenders.

This was the reported outcome of a year-long nutrition study of family eating habits conducted jointly by the Westinghouse Electric Corporation and the Ellen H. Richards Institute of the Pennsylvania State College.

It is the first time such a study has been made. Families were not only surveyed to discover their eating habits but the study sought to find out if their physical well-being could be improved by selecting, storing and preparing foods better. Previous studies have surveyed the food habits of families but have made no attempt to improve physical conditions.

A second goal of this study was to discover whether or not it costs more in time to prepare and more dollars to eat these better selected and better prepared foods.

And the final result? This study shows that Americans can improve their health by choosing what they eat more wisely; by more careful preparation of their food; by using better storage methods. As far as costs in time and dollars are concerned—the increase is negligible compared to the increase in physical well-being.

Heading the nutrition study of 64 families, 239 people in all, were Mrs. Julia Kiene, director of the Westinghouse Home Economics Institute, and Dr.

Pauline Beery Mack, director of the Ellen H. Richards Institute.

Ages of the persons studied ranged from 15 days to more than 74 years. Of these, 119 were males and 120 were females. All families had sufficient income to purchase the recommended nutritional foods.

The study began late in the summer of 1944 and was completed in the early fall of 1945. Results of the year-long project were only recently released. Pennsylvania was selected as the area in which to conduct the study because it is not known as a region of substandard diets.

Before the study actually started, a check was made to learn the kinds and amounts of food eaten by each person for one week. The diet records showed that their food selection was better than average but only 28 per cent were eating sufficient food. Even though they appeared in good health, thorough physical examinations showed that several individuals had "eaten their way to poor health." Most individuals had minor nutrition deficiencies which they had never been aware of.

To make it easier for the homemaker, each family was given 36 master menus with alternate choices, totaling 78,650 possible combinations. Scientists prescribed certain quantities of food for each individual according to his age, size, sex, activity and physical condition.

Mrs. Kiene and other home economists helped the homemakers to properly cook vegetables, helping to

retain their nutrient content. Demonstrations of low-temperature roasting of meat were given in addition to general instructions on preferred methods of cooking various cuts of meat.

Utensils with flat bottoms to fit heating units, straight sides and tight-fitting covers to hold in steam were provided to 60 out of the 64 families who did not already have them. These utensils helped them follow the recommended vegetable-cookery rules. Homemakers were also advised to prepare vegetables for cooking, salads or raw relishes at the last possible moment to help retain vitamins. They were told not to allow such foods to soak in water for any length of time.

In addition, the homemakers were given instructions on correct food storage. This eliminated food losses through spoilage or loss of nutrients. Homemakers were urged to refrigerate perishables promptly and to place them in the proper area of the refrigerator for best protective temperatures.

Food Selection

To prove that better selection of foods does not mean more expensive grocery bills or added kitchen chores, Mrs. Kiene helped each woman organize her kitchen work to save time, effort and waste of food.

Under careful supervision of a trained worker, each homemaker recorded the amounts of food eaten by each member of her family. This record was taken three times for 1-week periods; at the beginning, at the end of the first 6 months, and at the end of the year.

After just 1 year of proper eating, physical examinations showed vast improvements in the health of the individuals. Marked improvement was noted in the condition of skin, gums, tongue and reflexes. Families reported fewer colds; all participants said they felt better, looked better, did not get as irritated and noticed less fatigue. Proper foods properly cooked, had definite results. The consumption of milk and cheese increased 24 percent, green and yellow vegetables 24 percent, potatoes 9 percent, fruits and other vegetables 9 percent, cereals and related products 21 percent, and fats 30 percent.

Women Worst Eaters

Adult women made the worst showing of all the groups studied. Although they made great improvements, they were still in lowest place in many phases of the program at the end of the study. They simply weren't eating enough of the right foods before the study began. The report showed 31.9 percent were consuming less than three-fourths of the recommended calories needed for good health. This percentage dropped to 14.4 percent at the end of the study.

The desire to be slim—more fashionable than good eating—caused 57.8 percent of the women to be underweight at the beginning of the program. At the end of the year, 63.9 percent attained their standard weight status. Considering that many of the women were of child-bearing age, it seems they were ill-prepared to withstand the heavy drains imposed on their calcium supply during pregnancy and nursing—50.7 percent were eating less than three-fourths of the recommended amounts of calcium.

At the start of the study, large percentages of women were eating inadequate amounts of proteins,

phosphorous, iron, vitamin A, thiamin (B1), so vital to nervous stability; riboflavin (B2) and niacin. Very few would have been below the ascorbic acid (vitamin C) recommendation, had it not been for excessive cooking losses of this vitamin.

Teen-age girls showed many of the faulty eating habits of their mothers. However, they made a greater rate of improvement during the year. Many were far below standard on skeletal maturity and were consuming too little calcium. Adolescent girls need lots of iron, yet 19 percent were eating much less than three-fourths of their needs. Vitamin intake also was poor. At the end of the study, phenomenal weight improvements were made. They also showed great improvement in skeletal growth.

Adult men made a better showing than adult women at the start of the study in everything except Vitamin C. This deficiency was attributed to their frequent dislike of raw foods such as salads. However, they made a superior showing on nearly all parts of the nutrition rating.

Children under 12 years showed conditions which are far from ideal and despite the fact that this age group came closest to eating amounts of food which met the recommendations, their food habits left much to be desired. Quite a few of them were underweight—10.8 percent of the boys, 5.8 percent of the girls. At the end of the study, however, more children were up to standard weight and none was seriously underweight.

A striking lag in skeletal maturity was noted among the younger children at the start of the study. At the end of the program, despite the fact that it takes time to make up for lost skeletal advancement, the boys—originally poorer than the girls—had made marked improvement. The girls showed little change. Also noted was a considerable need by both girls and boys of more vitamin A and D.

Some reasons reported by Mrs. Kiene for the poor eating faults of Americans are:

- Although many charts and pamphlets on nutrition have been issued—homemakers don't use them.
- Likes and dislikes of foods heavily influence food selection.
- Breakfast skippers—9 percent of the individuals studied.
- Skimpy breakfast eaters—23 percent of the individuals studied.
- Good breakfast eaters—only 14 percent of the individuals studied.
(Breakfast should supply one-third of the day's dietary needs.)
- Lunch boxes—inadequate, lack appetite appeal.
- Between meal snacks—not well planned nutritionally
- Bad cooking practices cause heavy vitamin losses
- Poor cooking makes many people refuse vegetables.

Vast improvements were noted in all of these phases of the study. Scientists concluded that the widespread improvement in breakfasts was one of the potent factors in improving physical well-being.

Although the people in the study ate more food when the menus were followed, the cost of the food was no more. Women reported that before the study, they spent an average of about 27 hours per week in kitchen work. At the end of the study, they were saving practically 3 hours of that time.