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FOOD HABITS IN BRITAIN

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The changing patterns in British food habits since the 1939–45 war

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As a background to any consideration of changes in patterns of eating it is necessary to study trends in food supplies. (See, for example, Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1957, 1959, 1960.) The most striking increase in the consumption of dairy products in the United Kingdom occurred during the war, subsequent increases being slight in comparison. Meat supplies did not return to their prewar level until 1955, since when they have risen further, an indication of the importance placed by the British public on meat recently noted by Schulz (1960). Fish supplies have not changed much since 1950, but are about 30% less than those of 1947. The recent increase in poultry is largely due to the advent of the broiler industry; egg supplies have fluctuated about the prewar mean since 1950. The butter supply has increased fairly steadily since the end of the war, but is not back to the prewar level, while the amount of margarine produced, though greater than before the war, is tending to decrease. The postwar increase in total supplies of fats appears to be reaching a halt. In contrast, there is as yet no sign of any check in the continuous increase in total sugar consumption since the end of the war as supplies in 1958 were 40% greater than in 1947 and 12½% greater than before the war. Supplies of potatoes have declined fairly steadily from a postwar peak of 286 lb/head year in 1947 to 213 lb in 1958. Cereal products have also followed a downward trend since the end of the war to 188 lb/head year in 1958. Slightly more tea is used than before the war and about twice as much coffee, consumption of which went up during the war although, according to Warren (1958), a very small proportion of the population drinks coffee after meals.

It appears that the nutritional pattern of the national food supply, after wartime and postwar changes, may have reached something like stability by 1956. For all nutrients evaluated, the national diet was of greater nutritional value in 1958 than before the war. Its energy value was 5% above the prewar estimate and had hardly changed since rationing ended in 1954. The fat content had increased slightly for the 6th successive year and that of animal protein increased at the expense of protein of vegetable origin. The most marked changes, compared with prewar estimates, were for calcium and thiamine, which stood at 66% and 38% respectively above the

prewar levels in 1947 but have remained unchanged since. About one-third of the increase in calcium came from increased milk supplies and the rest from the addition of *creta praeeparata* to flour. The restoration of thiamine to flour was largely responsible for the maintenance of the supply of this vitamin at its comparatively high level. Similarly, the restoration of iron and nicotinic acid to flour was the main cause of the increases in these nutrients above the prewar levels. Animal protein and vitamin A also showed substantial increases compared with prewar estimates. Increased consumption of dairy products was the main reason for the rise in animal protein. The rise in vitamin A came in almost equal amounts from milk and its products, liver, vegetables containing carotene, and margarine fortified with vitamin A, which more than offset reduced butter consumption. Many of these dietary improvements had been achieved by 1947, a year of shortage: in protein, the vitamins of the B complex and vitamin C, the diet was equal or superior to that available 10 years later at a time of abundance. Probably the main reason for dissatisfaction with the postwar diet was its unpalatability, due mainly to shortages of fats and meat. The major improvements in nutrient content were achieved during the war and have since been consolidated; improvements in variety and palatability had to await the end of rationing and control. The general pattern of change can be seen from changes in the proportions of dietary calories derived from protein, fat and carbohydrate. In recent years there has been a tendency for the proportions from carbohydrate and, to a lesser extent, protein to fall, mainly because of decreasing consumption of flour and its products, and for that from fat to rise (Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1959, 1960).

Another way of studying food habits is to consider patterns of food expenditure as in Table 1. This Table shows the patterns of domestic food expenditure in October 1936–March 1937 (Crawford & Broadley, 1938), in corresponding months when rationing was still in force, in 1951–2, after it had ended, in 1954–5, and after some years of freedom from food control, in 1958–9 (Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1957, 1960), and indicates stability for the major food groups.

Table 1. *Percentage expenditure on main food groups*

Food group	October 1936– March 1937 (Crawford & Broadley, 1938)	National Food Survey		
		October 1951– March 1952	October 1954– March 1955	October 1958– March 1959
Milk, eggs and cheese	18	17	18	18
Meat and fish	30	29	32	32
Fruit and vegetables	14	18	15	16
Cereals, fats, sugar and preserves	27	29	27	26
Other foods	11	7	8	8

Recently Wright (1958) reviewed not only broad changes in national food supply but the changing patterns within the nation, between families belonging to different

social classes and of different sizes, between regions and between seasons, an aspect which I shall not repeat here. There is, however, one point connected with the changing patterns between families of different size which he did not make, namely that differences in the consumption of carcass meat and butter widened between small and large families after the end of rationing (Table 2). In carcass meat there was a steady widening of the difference from 1952 to 1954, but for butter for which rationing continued until May 1954 there was little difference in consumption per head in small and large families until the second half of 1954 when wholly adult households, including those of old age pensioners, increased their butter consumption and households with several children turned from butter to margarine (Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1957). These examples illustrate the restraints of food rationing and lead to the view that it may be misleading to attempt to review changes in food habits during the years when food supplies or prices were controlled.

Table 2. *Widening of differences between consumption (oz/head day) of meat and butter by households of one man and one woman (both under 55) and households of one man and one woman with four or more children during 1952-5 (Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1957)*

Year	Carcass meat			Butter		
	Couples	Larger families	Difference	Couples	Larger families	Difference
1952	15.1	8.8	6.3	2.9	2.8	0.1
1953	21.5	10.0	11.5	3.9	3.2	0.7
1954	25.2	9.6	15.6	5.4	2.7	2.7
1955	25.4	10.6	14.8	6.8	2.3	4.5

Broad averages indicate a fairly stable situation, but there are changes within them. One of the most striking is the increased consumption during the last few years of the so-called 'convenience' foods, in which the manufacturer has relieved the housewife of much of the labour of preparation. Supplies of canned meat and canned vegetables are more than twice those of the prewar years and well above those available in the early fifties. Supplies of canned fruit and home-produced canned soups were in 1958 more than twice as great as in 1953, while the supply of canned fish was three times as great (though not back to the prewar level). Consumption of unsweetened evaporated milk (which acts as a substitute for cream) is steadily increasing but that of sweetened whole and skim milk is declining. Lawton (1959) has mentioned 'a big increase' in production as well as variety of canned strained baby foods from about 1000 tons a year in 1944 to 10 000 tons.

In the last 5 years the production of dried soups has doubled. Since 1954 there has been intense competition in the breakfast-cereal market which has included the introduction of sugared cereals, 'which have built up a very substantial market' (Lawton, 1959). Biscuit production has doubled in the last 10 years. On the subject of cake-mixes Lawton (1959) has stated that 'except for one or two mixes, with or without dried egg, most of the complete cake mixes introduced in England since 1952 have disappeared'. Custard powder is becoming less popular, but sales of table jellies

and ice-cream are increasing. Instant coffee has rapidly gained ground and instant tea has appeared.

Lawton (1959) also expressed the view that the growth of the self-service shop and supermarket has probably led to a greater revolution in the presentation of meat products to the public than of other groceries or provisions, mentioning, for example, meat and meat products in transparent packs, quick-frozen prepacked sliced meats, joints, sausages (including skinless ones), pies and prepared meals.

Another development has been in frozen foods. In the last 10 years consumption of frozen vegetables (almost entirely peas) has increased about eightfold, and since 1953 consumption of frozen fish, not all of which is purchased in the frozen state, has quadrupled. A recent innovation is the sale of frozen partly prepared main dishes, such as chicken pie, and one that lies in the future is the production of dehydrated ready meals.

We (Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1960) have recently tried to illustrate in nutritional terms these trends towards convenience foods. Table 3 shows the contribution to the nutrient content of the diet made by cooked and canned meats, other meat products, cooked and canned fish, quick-frozen legumes, canned vegetables, canned fruit, fruit juices, cakes, pastries, biscuits, puddings, other cereals, and canned and dehydrated soups in 1954 and 1958, and their contribution to the cost of the diet.

Table 3. *Percentage contribution of certain convenience foods to energy value and nutrient content of domestic food consumption—all households, 1954 and 1958*

	1954	1958
Energy value	8.7	11.8
Protein	9.8	12.5
Fat	9.9	11.3
Calcium	5.2	7.1
Iron	12.1	15.7
Vitamin A	5.0	7.5
Thiamine	6.2	8.1
Riboflavin	4.4	5.9
Nicotinic acid	7.3	9.1
Vitamin C	3.2	6.3
Vitamin D	13.5	21.8
Cash value of consumption	14.7	17.0

Attention should be drawn to two apparently conflicting trends, one towards high-quality manufactured savoury foods, such as new types of meat pastes and spreads and new lines in manufactured meat products (Lawton, 1959) and the increasing use of processed cheese, and the other towards the steadily increasing consumption of sugar and foods containing it. Is it fanciful to suggest that the former may have some connexion with the consumption of a satisfying savoury supper before the television programme starts, a possibility that finds some support in the finding of the recent market research inquiry into meal patterns (Warren, 1958), that the majority of the nation eats its evening meal before, and less than 10% after, 7.30 p.m.

Concerning sugar, it is of interest to examine the records of the National Food Survey. Between 1950 and 1958 domestic consumption of sugar increased from 10.1 to 18.6 oz/head weekly, but that of preserves (including syrup, treacles and honey) decreased from 6.3 to 3.5; consumption of cakes and pastries decreased from 6.7 to 4.4 oz/head weekly, but that of biscuits increased from 3.7 to 5.6. Within the preserves group, the trends have been divergent; there was almost no change in marmalade consumption between 1954 and 1958, but consumption of jams, jellies and curds fell from 2.2 to 1.8 oz/head weekly. Can this be interpreted to mean that the pattern of tea, high or otherwise, is changing towards something more savoury than bread and jam, and cakes, but that marmalade still rules at breakfast? Complete statistics on the uses of sugar are not available, but in addition to the trends discernible from National Food Survey records, the consumption of chocolate confectionery increased sharply between 1952 and 1953 (2.8 to 3.8 oz/head week) and was 4.0 oz in 1958, and that of sugar confectionery increased from 2.8 to 4.4 oz/head week between 1952 and 1953, rose further to 4.9 oz in 1954 and 1955 and thereafter fell to 4.4 oz in 1958. Another important use for sugar is in soft drinks, production of which had more than doubled between 1948 and 1959. It is difficult to judge who consumes all these foods, but it is of interest that a recent study (Abrams, 1959) has shown that teenagers in Britain spend 12% of their uncommitted income on sweets, soft drinks, snacks and the like, in cafes and restaurants, which represents 15% of all consumers' spending on sweets and 20% of that on soft drinks.

Finally, no review of food habits can be complete without, at least, a mention of the habit of eating away from the home in restaurants or canteens. Wright (1958) estimated that there were over 200 000 catering establishments throughout the country, serving some 200 million meals each week, of which about one-third were main meals, and that this would represent roughly one main meal and two to three lighter meals or snacks per head weekly, and was equivalent to 5–10% of the total food supply. It is not easy to estimate whether the practice of eating out is increasing though, if the number of luncheon voucher coupons issued is indicative, it may be, for in 1957 over 3500 firms were using the scheme operated by Luncheon Vouchers Ltd. The number had increased to 8000 in 1960 (representing 40 million vouchers a year) and is continuing to increase (Anonymous, 1960). From an Industrial Welfare Society (Incorporated) (1958) survey it appears that about 35% of workers eat a cooked meal at their place of work. There is an impression that the practice of eating out is increasing among young people. Another trend appears to be an increasing number of sales of food and drink from automatic vending machines.

It is interesting to speculate on the factors that will influence the food-purchasing habits of the housewife of the future. Harries (1956) has postulated that environment, including such factors as economics, social status and custom, education in nutrition and advertising, determines the pattern of food habits, but that factors such as appearance, flavour, dependability and packaging, influence the actual choice of food. On present evidence it seems safe to conclude that the choice of food may also be influenced by such additional factors as lack of time and inclination to cook and ready availability of a wide choice of foods in supermarkets, which are likely to favour

the trend towards increased consumption of precooked and other processed foods. If the standard of living continues to rise and manual work to decrease it is reasonable to conclude that the pattern of food habits of the whole population will in the long term approach more closely that of the richest group (Class A1 of the National Food Survey), which now have a 'much greater consumption of liquid milk, cheese, meat, fish, green and other vegetables and fruit' than the rest of the population (Ministry of Agriculture, Fisheries and Food: National Food Survey Committee, 1960), though National Food Survey records for the last 5 years provide no evidence that this is happening yet: food habits are slow to change and the working-class diet may still be influenced by memories of the thirties (Abrams, 1959). Finally, it seems that nutritional considerations are more likely to play their part through the actions of food manufacturers, and perhaps the Government, than through deliberate changes made by consumers in their eating habits.

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Diet of London busmen—a sample study

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The diet of London busmen is being studied as part of a research project on coronary heart disease of middle-aged men in different occupations. Drivers of double-decker buses have a higher incidence of a more severe type of coronary disease than conductors and often develop it at an earlier age (Morris, Heady, Raffle, Roberts & Parks, 1953*a,b*). Drivers are also on an average taller, heavier and fatter than conductors (Kagan, 1960). A dietary study was undertaken to see if differences could be discovered between the meal patterns and food habits of these two groups, and comparisons have been made of the main nutrients in the diet. This paper is a report of work in progress and results are therefore provisional.