

PROCEEDINGS OF THE NUTRITION SOCIETY

FORTY-FOURTH SCIENTIFIC MEETING—TWENTY-FIRST
SCOTTISH MEETING

ROYAL INFIRMARY, EDINBURGH

28 FEBRUARY 1948

SCHOOL MEALS

Chairman: PROFESSOR R. W. B. ELLIS, *Department of Child Life and Health,
University of Edinburgh*

The Development of the School Meals Scheme

By MURIEL G. WATT (Senior Inspector of School Meals),
Scottish Education Department, St Andrew's House, Edinburgh

The Scheme

School meals of a sort have been provided for very many years. Before the second world war they were mainly of three kinds:

(1) Midday dinners in secondary schools. These were self-supporting schemes for the most part, where the charge to the pupils covered the entire costs and sometimes even yielded a profit. These pupils often came to school from considerable distances, and the refectory met a real need with varying degrees of adequacy.

(2) Meals to necessitous pupils. These were mainly provided in areas hit by the industrial depressions, under enabling legislation passed in 1908 for provision of meals to children who, by reason of malnutrition, could not benefit fully from their schooling. It should be noted, however, that evidence of malnutrition was required. This meant in practice that before free meals could be given the child had to be undernourished to a degree where gross signs were observable. These free meals for necessitous children did a great deal of good, but were, frankly, available only to the half-starved.

(3) Soup meals in rural areas, provided mainly in winter time at a nominal charge or free of charge, and subsidized by gifts of produce from local farmers and possibly the proceeds of a village concert.

The coming of war in 1939 gave rise to a great development which is still unfolding, and I propose to trace in some detail the stages through which the School Meals Scheme, as it is now called, has passed and to glance at the future.

Three factors due to the outbreak of war made provision of meals for children a matter of urgency. These were:

(1) Evacuation of children from towns to the country. This placed a burden upon rural households where the children were billeted, and it was deemed necessary to give as much relief to the householder as was feasible. A midday dinner at school was a material help.

(2) The employment of women in industry which could only be achieved on a large scale if women with children of school age could be assured that the children would be completely cared for during working hours. Dinner at school became a necessity.

(3) The establishment of Emergency Cooking Depots. These Emergency Cooking Depots, which were intended to come into action after air-raids to feed the homeless and those whose cooking apparatus or water supply had been put out of action, had to be manned by a staff who were trained and accustomed to working together with speed and skill. They could not do this unless the depot were in regular use. As long as they were not required for air-raid emergency work, the supply of dinners for children was a most suitable outlet for the meals produced in these depots.

In 1940, therefore, education authorities were encouraged to expand their meals provision by a special grant for school meals expenditure, 20% in excess of the general educational grant rate for the area. The average rate of this special grant for Scotland as a whole was approximately 73%. The response was not great or rapid. It was apparent that further steps would have to be taken.

In 1941 a further grant increase of 10% was offered for expenditure on school meals with an overriding maximum of 95%. The average rate now stood at about 83%. Practical difficulties in procuring equipment were alleviated by setting up a special pool operated by the Ministry of Works. Many items were specially planned for school use. It is worth mentioning in passing that the use of the term 'Pool' has given rise to misconceptions which it is well to clear up. The Pool was not, and is not, a vast warehouse full of equipment collected from here, there and everywhere from which a frying pan or a gas cooker could be handed out as required. It was a series of contracts, based on estimates of requirements and planned so as to produce a steady flow of equipment of all kinds. An order on the Pool was met by an individual manufacturer producing equipment under Government contract specifically for school meals purposes.

In the autumn of 1941, when stricter rationing became necessary, the Government was anxious to devise measures to safeguard the nutrition of children. A diet adequate for an adult in wartime was not necessarily sufficient for growing children with their relatively greater need for first-class protein. But the adequacy of the child's diet could not be guaranteed by allowing children special home rations. The Government's medical and nutritional advisers accordingly worked out the requirements of a really satisfactory meal for growing children, and the Ministry of Food made supplies of various rationed and unrationed foods available to schools in sufficient quantity to enable the authorities to supply meals of the necessary standards of nutrition and attractiveness. For remote rural areas where cooked meals were regarded as impracticable, a lunch meal of milk, bread and butter (or margarine), cheese, salad and 'points' food was devised, but whenever possible a cooked midday dinner was to be provided. These allowances, and a recommended nutritional standard to be aimed at in the school meals scheme, were announced in November 1941 and they remain substantially unaltered.

In 1942 legislation was passed which superseded the provisions of section 6 of the Act of 1908 and enabled authorities to provide meals without waiting for evidence that

a child was actually suffering from malnutrition. The obligation to meet the needs of all necessitous children was continued, and the education authorities were authorized to recover only the bare cost of the raw food in normal cases and, where the parents' means were limited, to reduce or waive the charge.

At the end of February 1943 the number of children in Scotland taking dinner in school was about 125,000 out of a total of about 750,000 pupils attending grant-aided schools, i.e. about one-sixth. In May 1943 the Government, feeling that unless the majority of children were able to have in school a hot midday dinner planned on sound dietetic lines they were not as secure as was reasonably possible against nutritional dangers arising from the war, pressed education authorities to undertake an accelerated expansion programme. To achieve this acceleration two offers of further assistance were made:

(1) From May 1943 no charge would be made for equipment for school meals ordered through the Ministry of Works Pool.

(2) It was arranged that the Ministry of Works would supply, erect and equip complete kitchens, sculleries and dining-rooms and, as far as practicable, carry out adaptations of school premises for the purpose of school meals for the education authorities free of charge. Where, for one reason or another, it was desirable that the education authority should undertake such work itself, the Scottish Education Department would reimburse the cost.

An interesting development springing from the offer to authorities of Ministry of Works' provision of school meals premises was the working out of standard plans. The first set of these plans, ten in number, was prepared in the summer of 1943 and issued in August of that year. They were based on the use of prefabricated buildings of a known span and height, and ranged in size from a central kitchen for 2000 meals, distributing meals in thermal containers to several schools, to a self-contained kitchen for seventy-five meals. These plans, worked out on the flow-of-work principle, and with alternative equipment according to the fuel available, have saved countless hours of architect's, surveyor's and engineer's time. The number of plans is now twenty-nine, ranging down from 2000 meals to twenty-four, and including dining-rooms and sculleries of many sizes. It is, I think, acknowledged that the convenience and efficiency achieved by this measure was remarkable by any standard, but doubly so in time of war.

Progress in the planning of the full programme has gone forward steadily since 1943. Until the middle of 1945 emphasis had to be kept on kitchen provision, as labour and materials were insufficient for providing both kitchens and dining-rooms on a wide scale. Dining had to be improvised in all kinds of unorthodox ways and only too often in uncomfortable conditions. In March 1945 it was possible for the Government to announce that response to the accelerated programme appeal had been good, that the total kitchen provision (available, under erection, or approved for erection) was sufficient for 50% of the total school population and that dining-rooms could now be more freely provided. Since 1945 the scheme has been very fully planned in most areas, and when the plans already approved are carried out there will be kitchens for 477,000 meals and special dining-rooms for 252,000, mainly in two sittings. Unfortunately, shortage of labour and materials and overriding priorities have made the

execution of approved plans less rapid than was originally hoped, but progress continues to be made and each school meals census taken shows an increase. In October last some 266,000 pupils had dinner in school in Scotland.

In 1945 the Government announced that milk and meals in school would come under the family allowance scheme. Milk in school became free in August 1946. Meals will become free when facilities over the United Kingdom as a whole are sufficient to meet the expected demand, which is likely to be in the region of at least 75% of the total number of pupils. From April 1947 a new financial arrangement has been in operation; the Exchequer subvention has been raised to a level designed to meet the net costs of the meals to education authorities, i.e. after deduction of the receipts from parents, who continue, except in necessitous cases, to pay for the raw ingredients. At present the cost is estimated annually in consultation with the Scottish Education Department, and varies from area to area in accordance with circumstances. The 'unit cost' is divided into two, one portion earmarked for food and the other for overheads.

The meals

Having sketched the major events in the growth of the service, I now turn to consideration of the food on the plate and of its palatability.

It was mentioned earlier that a recommended standard of dietary value was stated by the Government in November 1941. This has not been changed and is: first-class protein 20-25 g., fat 30 g., Calories 1000. For pupils under 11 years calories could be reduced by about one-quarter, and under 8 years by about one-third, but little or no reduction in protein or fat was advised. The 1000 Cal. meal has often been attacked as being too large but, once the child's palate and appetite have been stimulated, the average adolescent girl or boy can comfortably consume 1000 Cal. at dinner. It is well known that the average person, whether child or adult, is a mythical animal, and wide variations are recognized as normal. In framing the recommendations only protein, fat and calories were assigned a definite figure, but vitamins and minerals were not forgotten. These were covered by recommendation of definite quantities of a fairly comprehensive list of foods to be included in the diet. This list (paragraph 8 of Circular 209, Scottish Education Department, 1941) has a very familiar ring to all Directors of Education and organizers of school meals, whose attention is constantly drawn to it. The determining factors influencing the standard were that the meal should provide (1) not less than one-third of the child's daily needs for all dietary essentials, and (2) about one-half of the day's requirement of first-class protein, since breakfast and tea are unlikely to provide between them much more than the other half.

The main first-class protein sources of the school dinner are meat and milk. Small quantities of dried egg, cheese, bacon, canned meats and fish, and occasional fresh fish, make up the rest. Of meat 2*d.* worth for each meal is allowed, and a small but valuable quantity of liquid milk, together with 1 oz. of dried separated milk. This last is extremely valuable as a highly concentrated and adaptable form of protein. It provides approximately 11 of the 20-25 g. of first-class protein recommended. Rather less than half of the fat requirement is available as a ration of fats; the rest is found as part of other foods.

But a dietary prescription is useless if it is not translated into food which is enjoyed. This does no one any good if it is left on the plate. Much attention has accordingly been devoted to fostering good standards of cookery, and by the terms of the 1945 Education Act, authorities are obliged to appoint organizers of school meals qualified, amongst other things, to maintain a high standard of cookery. A standard set of menus has not been recommended, not only because of difficulties of local supply but also because the absence of regional variations in dishes would be a real loss.

Conclusion

How far the Government's recommendations are being achieved in the schools will be shown by subsequent speakers. I shall only say that we feel that the recommended standard is a high one, but that it is attainable and has been reached in some quarters, though not yet in others.

I cannot close without paying a tribute to that excellent body of men and women, the teachers. Meals have appeared in schools where the dining arrangements have perhaps been perforce far from ideal. Needing a respite in the lunch hour from the dynamic pressure of a class of children, they have, nevertheless, undertaken, in most cases willingly, and in many instances with enthusiasm, the supervision of the children during the dinner hour. This has been and continues to be of the utmost importance, for the school meal is not only a dietary treatment, but also a training ground of a unique kind, where social graces and virtues of unselfishness and consideration can be very readily implanted. William Wykeham said 'manners makyth man', and where can they be more suitably and unobtrusively taught than in the dining-room? The pupil's respect for his teacher is a very real thing, and for this important aspect of a great new social service the support of the teachers is essential. They have given it with great generosity.

The school meals scheme is still an infant service with many faults and failings, but there is no doubt that, with the enthusiasm and devoted service it evokes from the organizing and executive staff who work for it, it will grow to full stature as a great work of preventive medicine and a social benefit to all children.

REFERENCE

Scottish Education Department (1941). *School Meals*, circular no. 209. Edinburgh: H.M. Stationery Office.

Nutritional Aims versus Habit and Custom

By E. M. A. HILL (Supervisor of School Meals for Ayrshire),
Education Department, County Buildings, Ayr

I appreciate the opportunity of giving some account of what is involved in the putting into effect of scientific discoveries in the realm of nutrition. The process is far from simple, because it involves that variable factor, the human being with all his likes and dislikes, prejudices and enthusiasms.