

incubation of malaria is about a fortnight. Within a fortnight of the day on which the divisions left their carefully treated lines and passed into that of the Turks which had not been treated at all, the number of malaria cases began to assume a very alarming proportion. Fortunately by that time the Turks were beaten, and a large majority of the infantry could be withdrawn into the old healthy areas, and though the troops used in the pursuit continued to suffer for some weeks, the total numbers infected formed only a comparatively small proportion of the whole force.

(To be continued.)

Current Literature.

CATHCART, E. P., and MURRAY, A. H. F. **A Dietary Survey in Terms of the Actual Food Consumed.** Medical Research Council—Special Report Series, No. 218.

This is the third account of special inquiries made by Professor Cathcart and Mrs. Murray. The two earlier reports were published in 1931 and 1932, dealing with the diet of families at St. Andrews and of families in Reading and Cardiff: these were fully described in Editorials in the *JOURNAL OF THE ROYAL ARMY MEDICAL CORPS*. In the earlier reports attention was drawn to food consumption in terms of protein, fat and carbohydrates. In the present report the data have been interpreted in terms of the principal foodstuffs purchased by these families.

In the earlier reports there was a marked constancy in the distribution of calories between fat, protein and carbohydrates eaten by people in the different towns. The constancy of the percentage of the protein was remarkable in view of the wide difference in the foodstuffs eaten by the communities, and seems to be the result of a kind of instinct. The purchasers of food were untutored housewives with a varied selection of materials to choose from: the purchases did not remain constant from day to day, nor did the housewives have a similar sum to expend on food, nor did they expend it alike.

As regards mineral requirements of the body, and Sherman's figures of 0.68 g. of calcium, 1.2 to 1.5 g. of phosphorus and 15 mg. of iron per day in a satisfactory diet, all the groups at St. Andrews, with the exception of one, were definitely above the accepted standards. The second investigation made at St. Andrews in the autumn gave identical results as regards protein, calories, etc. The authors then re-stated the results of the investigation in terms of foodstuffs eaten. The man values and expenditure of food per man per week were practically the same at the two periods, and as might be expected, the same types of food were consumed by more or less the same number of families in both periods. Moreover, the general impression was that there is little real difference in the consumption

of food in winter and spring. This result is interesting, as it would have been anticipated that the consumption of food would be greater in the winter than the summer. The explanation seems to be that people normally reduce their energy expenditure in winter by having their houses better heated, or by wearing warmer clothing, or by both means; the need of extra food is thus reduced.

Professor Cathcart and Mrs. Murray took the opportunity of examining the amount of refuse and waste which takes place in the process of cooking and serving meals in ordinary households. The excess amount of food to be purchased in order to allow for refuse and waste is the determining factor in the assessment of *gross* purchases over *net* requirements and is generally stated in calories. At the recent conference on dietary requirements convened by the Health Section of the League of Nations, the basic standard for an average man leading an ordinary day life was taken at 2,400 calories *net*. No *gross* standard was agreed upon owing to the known variations in the amount of refuse and waste which took place in different households, with different dietaries, different age-groups, and groups of different social standing.

The results of Professor Cathcart and Mrs. Murray's investigations were astonishing. They found that the mean percentage loss of edible calories was only 2.7 and 2.6 for the duplicate series. A maximum loss of approximately 6 per cent in a single study and of round about 5 per cent in only four more, speaks volumes for the care exercised by the housewives. They think that the conventional allowance of 10 per cent for refuse and waste far overstates the real position. They suggest that if these families can be taken as fairly representative an allowance of 5 per cent for the loss of edible calories in a mixed diet would allow an ample margin of error.

They conclude that few of the diets examined, when considered from the standpoint of energy, protein, fat, percentage of first-class protein, and mineral salts, can be regarded as really poor. As regards "protective" foodstuffs, such as milk, green vegetables and fruit, many of the diets leave much to be desired.

They lay great stress on the need for educating the average housewife in the relative nutritive value of different foodstuffs by personal contact and by demonstrations in which the cooking utensils used are those which the housewives have at command in their own homes.

WICKSTRÖM, J. Scarlatinastudier. I. On resultaten av förberedande Dickundersökningar och immuniseringsförsök mot scarlatina i Finlands armé. [Scarlatina Studies. I. Concerning the Results of Preparatory Dick Tests and Immunization Experiments against Scarlatina in the Finnish Army.] *Finska Läkäresällskapets Handlingar*. 1936, v. 79, 1029-50. [43 refs.] German summary.

Scarlatina in the Finnish Army has become an increasingly serious problem, witness the almost uninterrupted ascent of the morbidity curve

since 1928, when there were 179 cases, 7 of which proved fatal. By 1933 this figure had risen to 535, the number of scarlatinal deaths in this year being 14. In 1935 there were 768 cases, with 13 deaths. It was found that the incidence of this disease was highest in the first few months of army service. Altogether 6,783 soldiers were subjected to Dick tests, but only 3,367 satisfied the conditions required for a comparative study. Among them were 2,865 found to be definitely Dick negative (85.1 per cent). There were 95 (2.8 per cent) classed as both plus and minus, and the remainder (12.1 per cent) were in varying degrees Dick-positive. The prognostic importance of the Dick reaction was shown by the fact that the incidence of scarlatina among the Dick-positive men during their army service was 20.4 per cent, whereas the corresponding figure for the Dick-negative soldiers was only 0.34 per cent.

Wickström's investigations with both toxin and anatoxin have given him the impression that they are equally effective in converting a positive into a negative Dick reaction after an interval of two months, but that anatoxin is to be preferred because it is not so likely to provoke a severe general reaction. His investigations with these two preparations concern a total of 131 men. Serologically, it would seem that in some 78 per cent such treatment achieves the desired effects, but clinically speaking it has yet to be proven that real immunity results from this treatment. That it does so is suggested by a comparison of two groups, each of 74 originally Dick-positive soldiers. The 74 who were artificially immunized escaped scarlatina during the remaining ten months of their army service without a single exception, whereas 12 of the controls not immunized developed scarlatina.

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LIÈVRE-BRIZARD. Etude sur une épidémie de coqueluche traitée par le paraoxybenzoate de méthyl-propyl-diphénol. [On an Epidemic of Whooping-cough Treated by Methyl-Propyl-Diphenol.] *Bull. Acad. Méd.* 1936, v. 116, 863-7.

The author who records ten illustrative cases in children aged from 3 to 10 years, during a recent epidemic of whooping-cough, treated about thirty cases by the following method. Every morning and evening the special ward in which the patients were kept was sprayed with an oily solution of methyl-propyl-diphenol paraoxybenzoate. The spraying took place with the patients in bed and the doors and windows closed but not hermetically sealed. As the smell of the drug was not unpleasant or irritating, the children were kept in this atmosphere for half an hour. It was soon found that the frequency and intensity of the paroxysms in the children thus treated rapidly declined, so that the disease was over in a very short time, whereas in controls treated by the ordinary methods the frequency of the paroxysms diminished very slowly, and the general condition suffered as a result of vomiting.

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