

more successfully in the chronic case after preliminary treatment in a sanatorium or hospital. Another feature of considerable value was the judicious measure of rehousing of families in which there was a member suffering from open tuberculosis.

England and Wales

Healthy London

The health activities of the London County Council have been so closely followed from week to week in these columns that the section of the Council's report for 1933, by Sir Frederick Menzies, dealing with public health¹ contains little that has not already been published. The birth rate continues to fall; for 1933 it was the lowest yet recorded, being 13.2 per thousand, as against 14.3 in 1932. The number of births was more than 14,000 below that for 1918, when the influence of the European War on the birth rate was at its height. The infant mortality, however (54 per thousand births), was also the lowest on record. It is a little invidious to analyse these figures for different London boroughs, whose boundaries shade into one another, but taking the years 1930-2 and comparing them with the years 1921-3 one finds that while the infant mortality rate decreased almost everywhere in London it increased in five boroughs, and in one of them—namely, Paddington—the increase was as much as 19.7 per cent. In all the boroughs which show an increase in infant mortality—the others being the City of Westminster, Hampstead, St. Marylebone, and Holborn—the illegitimacy rate is excessive, being (except in Hampstead, where it is 9.4) over 11 per hundred total births. On the other hand, in Bermondsey, where infant mortality has declined by one-third in the course of ten years, the illegitimacy rate is the lowest in London (2.1 per hundred births). The deaths from measles, whooping-cough, scarlet fever, and diphtheria in 1933 were respectively 0.02, 0.08, 0.02, and 0.08 per thousand of population. Deaths from puerperal fever in London numbered ninety-six, and from other accidents of childbirth 119, the total maternal mortality rate being 3.66 per thousand live births. It is remarkable that for the six-year period 1928-33 maternal mortality was lowest in the East End boroughs—namely, Shoreditch, Bethnal Green, Stepney, and Poplar—and in St. Pancras and Lambeth, in all of which the rate was below 3 per thousand births. Leaving on one side the City of London, where cradles are scarce, the highest rates recorded were in Westminster (6.1), Stoke Newington (5.8), and St. Marylebone (5.2). The death rate (all causes) in 1933 in London was 12.5 per thousand living, slightly above the average of the last ten years, but forty years ago the rate was about 19. It has steadily fallen for all the principal infectious diseases and for tuberculosis, pneumonia, and other respiratory diseases, has fluctuated for influenza, and has risen for heart disease, cancer, and diabetes. The report contains much useful information about the multifarious powers and duties of the Council in connexion with common lodging houses, slum clearance, milk sampling, and the tuberculosis and venereal diseases schemes, and includes also the results of an inquiry made at the request of the Board of Control into the mentality of children, one or both of whose parents had been certified as mental defectives. The number of children examined was 617, representing 336 families. Of this number 2.1 per cent. were found to be supernormal, 51 per cent. normal, 31 per cent. retarded, and 15.9 per cent. mentally defective.

¹ L.C.C. *Annual Report, 1933*, Vol. iii (Part I). *Public Health*. Report of the County Medical Officer of Health. P. S. King and Son, Ltd., Westminster. (1s.)

Cardiff Mental Hospital

The annual report for 1933 of the City of Cardiff Mental Hospital contains some statistics and notes of general interest. It is pointed out that while last year the percentage of voluntary admissions was the highest in the country, a further advance was recorded this year, the figure rising from 45.5 to 55.2. The percentage of admission of temporary patients also rose from 3.2 to 7; thus only 37.8 per cent. of the patients were admitted under certificates. The discharge rate also remained high, being 69.3 per cent., including those discharged as recovered or relieved. Of the patients discharged 70 per cent. had resided in the hospital for less than six months, and 26 per cent. left after a stay of less than two months. Factors which are believed to be shortening the stay of patients in this hospital are the granting of short leave of absence, the facilities for attendance at the out-patient clinic, and the activities of the social service department. Dr. P. K. McCowan, the medical superintendent, in his report states that in no circumstances is a voluntary patient certified at the institution; if such a patient insists on leaving when his mental condition necessitates continued observation arrangements are made for his transference to the local infirmary, where certification can be effected if necessary. In 1933 only two voluntary patients returned under certificate. On the male side a ward has been provided for voluntary patients only; this has been most welcome to the patients, who are reassured by learning that they will only be called upon to associate with voluntary patients like themselves. Occupational therapy has proved most satisfactory. All sisters and male charge nurses continue to have a three months' course at the central classrooms, to enable them to supervise the daily classes held in the wards. The staff on each side consists of a head therapist with two assistants. In addition, on the female side there are four voluntary workers, whose services have proved very useful. During the year under review 277 females and 269 males passed through the classes. The average number of patients employed in useful tasks in the hospital, including the above, represent 78 per cent. of the male population, and 81 per cent. of the female. Classes in physical drill were restarted in 1933. While some improvement is manifest in the poorer type of patient, Dr. McCowan finds that the best results are obtained in the more educated, who have some genuine interest in the drill. The work of the out-patient clinic is also advancing, sessions being held twice each week. A routine ophthalmological examination has revealed interesting abnormalities in many instances, hypermetropia, with or without astigmatism, and presbyopia being notably common. Research work at this institution during 1933 included a study of infection of the nasal sinuses. Infection of the tonsils and nasal sinuses was found to be an important aetiological factor in a small minority of psychotics; its eradication in these cases led to cure or amelioration. Special emphasis is laid by Dr. McCowan on the connexion of these infections with the toxic exhaustive psychoses, where they appear to be comparatively common, and frequently causal factors. Another line of investigation revealed that a large proportion of the toxic symptoms accompanying prolonged somnifains narcosis was due to disturbance of the carbohydrate metabolism of the liver and heart by the narcotic, resulting in ketosis, tachycardia, fall of blood pressure, and varying degrees of circulatory collapse. These symptoms could be largely obviated by the administration of insulin and glucose as an integral part of the narcotic treatment. Carotene was found to be effective in increasing the weight of patients convalescing from manic-depressive or confusional attacks, there being a corresponding improvement in the mental and physical conditions. An exceptionally high percentage of reactors to the tuberculin test

was discovered, and it is thought that among the patients there may be a certain number of open cases of the relatively chronic and symptomless type. A systematic investigation has been instituted in conjunction with the tuberculosis department of the Welsh National School of Medicine. The patients were for the most part old-standing cases of dementia praecox, and Dr. McCowan thinks this fact may be at least as important as questions of environment, for there is undoubtedly a close relation between the two diseases, possibly even of a hereditary nature.

The Radium Institute, London

The annual report of the Radium Institute (London) for 1933 continues to record satisfactory progress, and research work on massive dosage (radium beam therapy) from a unit of 5 grams of radium is in progress. A considerable number of beds have been allocated for this purpose, and, as they were previously used for the reception of paying patients, this public-spirited action has entailed considerable financial sacrifice. A high-voltage x-ray outfit has been installed at the Mount Vernon Hospital, Northwood, and will enable important research and therapeutic work to be carried out there. The medical report, which is drawn up by Drs. Roy Ward and Durden Smith, contains a valuable summary of past and present work, mainly arranged in tabular form. During the year contributions to the literature of the subject have been made by Dr. Roy Ward on the clinical side and by Dr. J. C. Mottram, the director of pathological research, on more purely scientific matters.

Nutrition of School Children in Hull

In the school medical service section of the annual report for 1933 of the City and County of Kingston-upon-Hull Dr. Nicolas Gebbie, medical officer of health, points out that, while there is a great deal of discussion at present about malnutrition among school children, the assessment of degrees of nutrition is difficult in the case of the individual, and even impracticable on a large scale. Statistical information based on average weights and heights is of little value, for well-nourished children may be below the average in weight and under-nourished children may be above it. Even an individual assessment after careful medical examination is fallible, and does not lead very far, for malnutrition may be due to such different factors as insufficiency or unsuitability of food, inability to assimilate fully the food which is eaten, and insufficiency of sleep, exercise, or fresh air. Errors of diet appear to be most common in children well above the poverty line, the child being allowed to choose the food it prefers, and to eat at irregular intervals. An investigation of the position as regards meals and sleep was made in May, 1933, in the children attending the open-air school in Hull, among whom there are many cases of malnutrition, due to various causes. These children received half a pint of milk on arrival at the school, and a substantial midday meal, which most of them enjoyed. No other food was allowed. The children returned home about 5 p.m. It was found that no fewer than 178 had two meals between then and bedtime, while ninety-nine had one meal. Most children from the age of 8 upwards went to bed between 8 and 10 p.m. This investigation arose from the discovery that many children came to the ordinary schools in the mornings without having had any breakfast, or very little, the reason being lack of appetite. In many cases it was clear that the child had got into a "vicious circle," having had the last meal of the day, and often an unsuitable one, at 8 or 9 p.m. As a result there was a condition of subacute gastritis, with the usual loss of appetite. Since the child had had no breakfast, the mother sent it to school with a most unsatisfactory

lunch to be eaten about 11 a.m. This prevented justice being done to the midday meal, which would probably have provided more satisfactory nutrition. The child becomes hungry about 4 p.m., and receives a meal on getting home. After this he plays for several hours, becomes hungry again, and receives another meal about 9 p.m. There is no doubt, the report continues, that it would be advantageous for children to receive only one substantial meal between their arrival home and going to bed, and for bedtime to be earlier in most cases. As one result of this investigation all children on entering the open-air school are supplied with a leaflet for their parents, which stresses the importance of regularity in the taking of food and of sufficiency of sleep. Dr. Gebbie reports that while ringworm on the scalp has reached the lowest level of incidence on record, and can possibly fall no further, scabies is far too prevalent. Inefficient home treatment with sulphur is cited as one of the causes, the parents not realizing the need for medical supervision to ensure the treatment of contacts and the full cleansing of clothing and beds. Reinfection is common. It is also noted that many parents have contended that the cost of transport of the whole family in these cases to the corporation sulphur baths is too high. An appeal is made in the report for a fully staffed child guidance clinic on a comprehensive basis, with home visitors specially trained in psychological work.

Estuary Muds at Southend-on-Sea

A small establishment for "medicinal mud baths" was opened by Councillor H. E. Frith, the mayor of Southend, on October 2nd. This venture is due to the initiative of Dr. Mary Nicol, who has made some study of the medical uses of estuary muds in Germany. The mineral analysis of the "schlick" at Wilhelmshaven and that of the Thames estuary appear to be similar, both being very rich in silica (60 per cent.), and in aluminium oxide and iron. The organic content and the biological properties of these muds have not yet been investigated. These marine deposits have a general resemblance to those of the well-known "limans" of the Crimea, which are now very largely used for rheumatism and other diseases, both in the fresh state on the coast and when dried and transported to the cities, especially for use in the winter months. At a reception in the Clifton Hotel, with Dr. J. F. Walker in the chair, Dr. Fortescue Fox in a short address congratulated the town of Southend and Dr. Nicol on the first attempt to organize the medical use of estuary muds in England. Southend, he said, had special advantages as a London health resort on the "Thames Riviera," with the east-and-south climate, which was very favourable to health, and especially to the fundamental function of breathing. The place possessed three good elements in its shelter and saltings, and a sunny and southern aspect, and also had the driest winter climate in Britain. There was great need for small treatment centres at the great holiday resorts, where natural remedies (air, light, heat, water, the peloids or natural semi-solid media and movement) could be scientifically applied under medical direction. Not all holiday makers were quite well, and their time at the seaside gave them a chance for some simple recuperative treatment, which might prevent many serious diseases and breakdown. Such a centre would be a boon to ailing people all the year round at Southend, but especially in the months of winter and spring. Those who were subject to catarrh and feeble circulation and to many nervous and rheumatic affections would all certainly benefit from a properly organized establishment. Dr. Nicol had done wisely in including not only the estuary mud, but also local arm and leg baths and tonic aerated hot sea-water baths in her scheme.