[Report of the Medical Officer of Health for Harrow].

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URBAN DISTRICT OF HARROW

Annual Report

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1945

CARYL THOMAS, M.D., B.Sc., D.P.H.

BARRISTER-AT-LAW

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REPORT OF THE MEDICAL OFFICER OF HEALTH.

To the Chairman and Members of the Urban District Council of Harrow.

Mr. Chairman and Gentlemen,

I beg to submit the Annual Report on the Health and Sanitary Circumstances of the District for the year 1945.

The presentation of an annual report is one of the duties imposed on a medical officer of health. Under article 17 (5) of the Sanitary Officers (Outside London) Regulations, 1935, as soon as practicable after the 31st December in each year, he shall make an annual report to the local authority on the sanitary circumstances, the sanitary administration, and the vital statistics of the district . . . and shall furnish the Minister with as many copies of such report as the Minister may from time to time require. Before the war it had been the custom of the Ministry to issue a circular of guidance as to the form the report should take. During the war years, because of the shortage of paper, the Ministry were content with summary reports. Each year though, the Public Health Committee requested that that presented locally should follow the more usual pattern. This year an attempt has been made to include in the report those matters which have a bearing on local health, even though these are not the function of the local authority. It is felt that presentation in this form might be of assistance to the many new members of the Council, and be perhaps a reminder to others of the steps that have led up to the present organization. It is felt too, that as a period of change and progress—or at least, change—is perhaps to be entered upon, and one during which are to be introduced those measures promised, or perhaps in the eyes of some threatened, of which so much was heard during the war years, that a summary of the existing state of affairs might be helpful.

Fully to understand the set up of the present arrangements it is necessary to consider briefly the development of local government and of the health service, it being appreciated that the services which may be given by an Authority are limited to those which they are empowered to provide. The legislation for the promotion of environmental hygiene was largely concentrated in the last quarter of the last century. The 1875 Act with its sanitary provisions and its sanitary districts replaced or consolidated legislation which imposed certain hygienic duties on ad hoc authorities, replacing an arrangement which left much undone which called for attention, largely because it was the responsibility of no body. This Act was soon followed by a spate of legislation dealing with food, river pollution, factories, diseases of animals, housing, and infectious diseases control and treatment. The duties in these Acts were largely imposed on the sanitary authorities. In only one case was the purpose of these Acts the concern of the individual, namely, the Isolation Hospitals Acts, and even these were designed not so much in his interests as to attempt to ensure by removing an infective focus, a safer atmosphere for the general public.

In 1888, County Councils were created, doubtless for some good even though unascertainable reason, but at least at that time their functions did not embrace anything concerned directly with the physical health of the community.

At the end of the century then, the sanitary conscience of the country which had been awakening and developing more particularly from the middle years, had resulted in the imposition of duties in regard to sanitation on definite bodies, the county districts.

The turn of the century saw a complete reorientation in health activities. Environmental hygiene had by this been established on a firm basis. Now came the development of personal hygiene with the growth of the personal services. Starting with the Midwives Acts in 1902, the next step was the inauguration of the school medical services, followed by the earlier stages of the child welfare schemes, arrangements for the care and treatment of the tuberculous, treatment of those suffering from venereal diseases, and provision for the mentally afflicted. The Maternity and Child Welfare Act at the end of the last war extended broadly the scope of the services provided for certain groups of the population. This was followed by the Local Government Act of 1929 with the break up of the Poor Law organization and the assumption by certain local authorities of the responsibility for the provision of hospital accommodation. The most recent step in this line of development is the Education Act of 1944, which makes it the duty of the authority to provide free medical services for the children attending schools.

At the same time that this change in the direction of the development of the health services occurred, the allocation of duties and the emphasis of responsibilities of authorities were altered. Hitherto the health duties had been largely imposed on the local sanitary authorities, the county council being left with little or none. They came into the picture though in connection with the Midwives Acts, and also as education authorities under the 1902 Act, to the exclusion of the smaller sanitary authorities. The earlier maternity and child welfare services similarly went to them and to the larger only of the county districts. From that time on, practically all new health work has been imposed on the councils of counties and county boroughs, with at the most provision for delegation of certain functions to certain larger county districts. The culmination of the progress was reached in the Education Act under which authorities which had for years successfully provided a service were divested of direct responsibility for them though most being granted alternative obligations under powers of delegation.

So far as affects the health services provided in a community then, it can be seen that these are by no means restricted to those provided by the Authority under the control of its Public Health Committee, but that there is a very large collateral service provided by the County Council. The health service embraces much more than this though. Quite apart from the activities of the general medical practitioners, of the nursing associations, of those responsible for managing nursing homes and voluntary hospitals, there are services maintained entirely independently, including amongst these the health provisions of those in the larger factories. Apart again from these aspects, local sanitary authorities

have duties and provide services fundamental to health but not falling to the administration of the Public Health Committee. A recent water-borne outbreak of typhoid fever was a reminder of the necessity for ever watchful care in the distribution of water. An outbreak of typhoid fever and an outbreak of dysentery just before the war were reminders of the risks run by the community if every precaution is not taken in the disposal of sewage. The complaints of householders during the war about the collection of house refuse and the nuisances from pig bins again are reminders of what is so readily forgotten when the service is provided smoothly and efficiently. Aspects as widely separated as efficient street cleansing and the provision of parks and open spaces where might be enjoyed recreation or leisure are amongst the health services provided by a community.

This report though, deals more essentially with those health services provided by the staff of the Public Health Department. These may be grouped into three. The first comprises the functions of a sanitary authority exercising powers it has inherited from legislation passed in the last quarter of the last century, and may be grouped into those relating to environmental hygiene, the sanitation of food and drink, and the control of the spread of infectious disease. The first two of these three groups are the concern of the sanitary inspectors. From the body of the report it can be seen that they are concerned particularly with housing conditions, with the supervision of the distribution of food, including milk, and with the control of nuisances and other factors injurious to the health of the community. Working under the Chief Sanitary Inspector, Mr. S. N. King, are six district inspectors, each of whom is responsible for the hygienic conditions of his own area.

The next main classification of the health functions of the Council is the very widely embracing maternity and child welfare service which the Council provides under its powers as welfare authority, a term brought into use by the Public Health Act, 1936, replacing that previously used, maternity and child welfare authority. Starting as a service which dealt with infants, it extended its scope to include the care of children up to the age of five, and extending backwards through the ante-natal supervision of expectant mothers, enlarged its activities so that it provided for the care of expectant and nursing mothers. An extension resulted in the making of arrangements for the confinement, either in the home or in an institution. The maternity and child welfare service is maintained by the activities of the health visitors of whom there are 15, working under the superintendent, Mrs. D. Brace. Their duties comprise home visiting of infants and children up to five, and of expectant and nursing mothers, and clinic attendances, including infant welfare, toddlers and ante-natal sessions. The clinics themselves are staffed mostly by the four medical officers of the authority, though the services of general medical practitioners acting in a part-time capacity are required to ensure that the forty-odd sessions of different kinds held each week are manned by doctors. The domiciliary midwifery service is provided by a staff of 16 midwives working under their superintendent, Miss M. Carpenter. As to the provision of arrangements for institutional confinements, although as welfare authority possessing the legal powers to do what other author-

ities have done, the Council has not been permitted by the Minister of Health to give this service.

The third of the three main groups of health activity provided now by the local authority is the school medical service. This it exercises under powers delegated by the local education authority, the Middlesex County Council. Because not one of the constituent authorities which combined to form the district of Harrow in 1934, was in 1902 of sufficient population, in spite of the large population and the very large number of school children, the Council was not until the middle of 1945, responsible for local education, and so not for the school medical, service. To-day that service is now integrated with the maternity and child welfare arrangements, the staff transferring from the county council (two medical officers and three school nurses) merging with the Council's own staff so that each member undertakes work in both branches. The small staff allocated for this work prevents more being done at the moment than some routine school medical inspections, attendances at a number of minor ailment clinics, cleanliness surveys at the schools and a limited amount of home visiting.

For those interested in the financial aspects of the health service, the following figures being the annual expenditure on various branches of the service in the year 1944/45 are included :—The gross expenditure on maternity and child welfare, including centres, was about £20,000, with recoveries of £7,500, most of this being from the sale of foodstuffs at the clinics. The running of the war nurseries in this year cost £21,000, all recoverable from the parents' contributions of £3,500 or from Government grants. The gross cost of the midwifery service, including meeting the claims of medical practitioners summoned on medical aid notices, of £7,500, was reduced to a net cost of £4,000 by the receipts from patients of £2,000 and a Government grant of £1,500. The gross expenditure of £9,000 for the general administration of the Health Department was reduced by a grant of £1,700. The cost of running the infectious diseases hospital was £10,000.

In so far as they reflect the standard of the health of the community, the vital statistics for last year were very satisfactory and compared favourably with the national rates. The death rate at 9·03 showed a decline on last year's figure of 9·3 and even a slight decline on the commonest rate of 9·1 for most of the war years ; the national rate was 11·4. The infant mortality rate of 32·2 was a decline on the figure of 34 for 1945, and appreciably lower than the national rate of 46. The birth rate which in 1945 was 18·7—the highest recorded figure for this area—fell to 16·0, the national rate being 16·1. The maternal mortality rate of 1·26, though greater than the exceptionally low figure of 0·56 in 1945, compared favourably with the rate of 1·79 for the country as a whole. Notifications of, and deaths from, tuberculosis showed a further fall on the previous year's figures, though the number of new cases each year is still much above the number brought to notice in the pre-war years. It will be some years before the present rate of fall will result in as satisfactory a position as the district was in immediately before the war. Of the infectious diseases the only one exhibiting any marked prevalence was measles, over 2,000 cases being notified in the course of

the year. The cases were apparently mostly mild and the disease accounted for only two deaths. No other infections were unduly prevalent, while the incidence of scarlet fever was particularly light. The death rates for these infections were mostly lower than the national figures.

During the year the district lost the services of Mr. A. B. Kramm who, though eligible to retire some two years before, volunteered to continue to serve, an offer which was gratefully accepted. Mr. Kramm was appointed as sanitary inspector to the Harrow-on-the-Hill Council in 1902, so lived through the period of transition of the reorientation of the health services, seeing the entire growth of the personal services, a development likely, it would seem, to culminate in the nationalization of the medical services. His many years of devoted service were acknowledged by the Council when at their meeting in July, the following resolution was passed :—

" That the Council record their sincere appreciation of the long and efficient service rendered to the district by Mr. A. B. Kramm as Senior Sanitary Inspector and wish him many years of health and contentment in his retirement."

It is customary before printing the annual report to await the receipt of the Registrar-General's figures for inclusion. These are the official figures which vary somewhat from those compiled locally. It is undoubtedly an advantage to be able to include them, while at the same time they do enable a comparison to be made of local and national rates. This year the figures did not arrive until a particularly late date, though at the best of times they did not come before some time in May. It is a question of whether the advantage of postponing the production of the report so as to be able to use the information the Registrar-General supplies is not outweighed by the delay in the report reaching those who might possibly be interested if it should be in their hands nearer the time to which the report relates.

I have the honour to be,

Your obedient servant,

CARYL THOMAS,

Medical Officer of Health.

COUNCIL OFFICES,

HARROW-ON-THE-HILL.

June 28th, 1946.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres)	12,558
Registrar-General's estimate of resident population, mid-year, 1945	191,710
Rateable Value (April 1st, 1946)	£2,125,236
Sum represented by a penny rate (April 1st, 1946) ...	£8,550

Extracts from Vital Statistics for the Year.

Live Births :—	Total	Male	Female	
Legitimate	2,889	1,496	1,393	Birth rate per 1,000 of the estimated resident population, 16·0
Illegitimate	179	103	76	
Total	3,068	1,599	1,469	
Stillbirths :—				
Legitimate	88	50	38	Rate per 1,000 total (live and still) births, 2·9
Illegitimate	4	3	1	
Total	92	53	39	
Deaths ...	1,732	877	855	Death rate per 1,000 of the estimated resident population, 9·0

Deaths from puerperal causes :—	Deaths	Rate per 1,000 total (live and still) births
Puerperal sepsis	1	0·31
Other puerperal causes	3	0·95
Total	4	1·26

Death rate of Infants under one year of age :—

All infants per 1,000 live births	32·2
Legitimate infants per 1,000 legitimate live births	32·2
Illegitimate infants per 1,000 illegitimate live births	39·1

Deaths from Cancer (all ages)	324
,, ,, Measles (all ages)	2
,, ,, Whooping Cough (all ages)	2
,, ,, Diarrhœa (under 2 years of age) ...	9

Population.

The Registrar-General's estimate of the mid-year population in 1934 was 132,049. It was calculated that the number of inhabited houses was 35,805, the number of persons per house being therefore 3·68.

From 1934 to 1939, the population figure rose, though at a diminishing rate. This increase was largely the result of the occupation of the newly erected dwellings, though was partly due to the natural increase in the population. By this is meant the excess of births over deaths in any

one year. This figure was about 1,000 in 1934 and rose to nearly 2,000 by 1939. From this it can be assumed that for a number of years, quite apart from any continued building development, the population would have increased. The erection of new houses here reached the peak figure in 1935, when 4,715 were built. The figures for the next two years were only slightly less, but fell to 2,890 in 1938 and to 1,375 in 1939, at the end of which year there were 56,500 inhabited houses in the district.

The population figures for the year 1935 onwards were 144,280, 160,300, 174,800, 183,500 and 190,200 for 1939. During the war years the building of houses ceased, so that that reason for any increase in population was removed. The natural increase in population fell sharply from a figure of 1,913 in 1939 to 1,276 in 1940, and to 946 in 1941. This fall was partly attributable to a sharp rise in the annual number of deaths, but more to the decline in the number of births. By 1942 the births had increased, with a resulting rise in the natural increase to a figure of 1,450 in 1942, and to figures of 1,751 and 1,741 in the next two years. Despite this natural increase though, the population of the district fell to 188,710 in 1940. In point of fact, fluctuation in the population occurred on a far greater scale than the differences in these population figures indicate, because large movements of population out of the district were almost balanced by inward movements of similar numbers. The figure rose to 195,480 in 1941 and remained at much the same level, namely 195,100 in 1942. This slight decline was unexpected in that it had been thought from the extent to which houses were being occupied by more than one family that the population had probably increased. A decline to 191,660 took place by 1943. Movements of population were by then less marked and presumably the fall which took place and which was repeated the next year to yield a mid-year population of 185,090 was due to the fact that the calls to the Services more than outweighed the importation of those occupying parts of houses previously occupied only by one family. By mid-year 1945, the figure had increased to 191,710. Of this the 0 to 4 population was estimated at 15,010 and the 5 to 14 at 29,320. The contribution of the natural increase would be part of the 1,741 of 1944 and 1,336 of 1945. By the end of September the figure had risen to 195,340, and by the end of the year to 201,070, the increases presumably being due to the return of Service personnel.

The decline in the building development before the war was an indication that the district was becoming built up. Apart from such proposals as the London County Council's Headstone Estate and the Council's own sites for housing purposes, there is now comparatively little land available for the erection of houses. Assuming development of this at the density of the growth during pre-war years, the ultimate population figure for the area may be about 240,000.

The distribution of the population throughout the district is indicated by the following figures of the number of electors in the twelve wards at October, 1945 :—Stanmore North, 12,534 ; Stanmore South, 18,287 ; Kenton, 14,447 ; Harrow Weald, 10,948 ; Wealdstone North, 12,863 ; Wealdstone South, 9,620 ; Harrow-on-the-Hill, 8,466 ; Headstone, 8,042 ; Pinner North, 10,222 ; Pinner South, 18,729 ; Roxeth, 15,381 ; West Harrow, 10,584 ; Total, 150,123.

The relatively large natural increase of the population is in itself evidence of the abnormal age constitution of the population, a state of affairs natural to a rapidly growing community which inevitably contains a relative preponderance of young adults. This in turn is reflected in a high birth rate and in a low death rate. The age distribution of the country as a whole is altering, and it is calculated that whereas in 1900 the number of persons over 65 years of age in Great Britain was 1,750,000, and in 1937, 3,750,000, in 1951, the number will be 5,500,000 and they will then constitute some 11½ per cent. of the population. Much is heard these days of this increase in the number of the aged and the later reduction in the number of producers which many seem to assume to be due to improved conditions resulting in the longevity of greater numbers, and it is anticipated that the change will be permanent. This, however, is very largely not the case. The larger numbers of the aged in the immediate future will result from the larger numbers of births some years ago. This increase in the number of lives at certain ages is passing as a wave through the population in succeeding years and will ultimately pass right through, leaving the age distribution of the then smaller population (smaller because of the smaller number of births for several years now) altered, where it has been changed, mostly as the result of the saving of the lives of infants rather than a wholesale prolongation of the lives of adults. This evanescent character of the age distribution in which the aged are in relatively high proportion suggests all the more need for the temporary retention at work of all who can be producers rather than only consumers.

Births.

The number of 3,068 births in 1945 was a further fall on the figure of 3,473 of 1944, which was just less than the 3,500 births in 1943, the greatest number recorded for this district. The birth rate per thousand population was 16·0. This figure has fluctuated in the last few years from a minimum of 14·7 in 1941, to the maximum of 18·7 in 1944. The figure for the country as a whole for last year was 16·1.

Deaths.

Taking 1939 as an average pre-war year as regards local vital statistics, the 1,408 deaths were the greatest number which had occurred, and yielded a death rate of 7·4 per thousand population. There was a sharp increase to over 1,700 deaths in 1940, with the death rate of 9·1. This deteriorated position has been maintained, the number of deaths in 1942 reaching 1,818, and for each year since, the death rate being 9·1 or 9·3. In 1945, there were 1,732 deaths, yielding a death rate again of 9·1. The fact that this is lower than the national rate of 11·4 is again probably mostly attributable to the relative deficiency of the aged in the population.

Of the 1,061 deaths in the district, 92 were of non-residents. Of the outward transferred deaths, 16 took place in the orthopædic hospital, 8 at the Harrow hospital and 20 in nursing homes, this figure including 3 new-born babies.

Of the 760 deaths of local residents which occurred outside the area, most took place in institutions, 326 being in Redhill Hospital, 48 at

Redhill House and 80, including 5 new-born infants, at other County institutions. 12 deaths occurred in institutions for the treatment of the tuberculous. 77 deaths took place in hospitals just outside the district, and 100 in the various London hospitals.

The following is the Registrar-General's abridged list of causes of death in the district :—

	Male	Female		Male	Female
Typhoid fever	0	0	Heart disease	187	241
Cerebro-spinal fever ...	0	2	Other circ. diseases ...	22	27
Scarlet fever	0	0	Bronchitis	59	25
Whooping cough ...	2	0	Pneumonia	57	49
Diphtheria	3	1	Other resp. diseases ...	15	12
Resp. tuberculosis ...	38	31	Ulcer of stomach ...	23	6
Other tuberculosis ...	3	6	Diarrhœa under 2 years	7	2
Syphilitic diseases ...	8	5	Appendicitis	4	5
Influenza	6	1	Other digestive diseases	18	20
Measles	1	1	Nephritis	25	20
Acute polio-myelitis ...	0	0	Puerperal sepsis ...	0	1
Acute encephalitis ...	0	2	Other maternal causes	0	3
Cancer of mouth and œsophagus (M), and uterus (F)	18	17	Premature birth ...	15	8
			Cong. malformations, etc.	26	13
Cancer of stomach ...	27	27	Suicide	9	5
Cancer of breast ...	0	36	Road traffic accidents	8	3
Cancer of other sites ...	112	87	Other violent causes ...	28	22
Diabetes	6	4	All other causes ...	82	74
Intra.-cran. lesions ...	68	99	All causes	877	855

The number of deaths, 1,732, is identical with the figure for the previous year, though because of the larger population the death rate is lower. The number of male deaths was very slightly higher than in 1944, though the increase was not especially marked for any special cause of death. The number of female deaths was slightly lower in spite of an increase of 56 in the number due to heart disease, an increase which was offset by a reduction in deaths from other circulatory diseases and from respiratory complaints. In each sex the number of deaths due to cancer was much the same as for 1944, while those from tuberculosis and also those of children under one year of age showed a decline.

The war years saw a sharp rise both in the number of deaths occurring in the district, and in the death rate per thousand population. From 1934 to the outset of the war, the number of deaths rose roughly in proportion to the growth of the population, so that the death rate remained more or less uniform, the actual figures from 1934 onwards being 8·1, 7·7 for three years, 7·1 in 1938, and 7·4 in 1939. In this year with a population of 189,000, there were 1,408 deaths. With a slightly lower population of 188,710 in 1940, there was a marked rise in deaths to 1,725, since when no lower figure has been recorded, the death rates for the years 1940 onwards being 9·1, 9·1, 9·3, 9·1, 9·3 and 9·0 in 1945, when 1,732 deaths occurred. During the war years, more particularly

the latter, it might have been expected that the death rate would have increased because of the withdrawal from the population of those of such favourable ages from the mortality view point. What occurred though was not merely a rise in the death rate, but a sharp increase in the actual number of deaths. Again this might have been expected to have been the effect of the harsher living conditions during the war years. A comparison of the age distribution of the deaths of 1945 with those of 1938 is of interest. The figure for the various groups of younger ages is small in each of these two years, and does not differ markedly, the 1945 figures in each group for each sex being less than the 1938 figures. It is in the older groups that the differences are manifest. Of the 666 deaths amongst males in 1938, 49 occurred in the age group 35-44, 73 in group 45-54, 118 in group 55-64, 143 in group 65-74, and 126 amongst those over 75 ; the corresponding 1945 figures were 42, 110, 160, 204 and 224 out of 877 deaths. Amongst females the 1938 figures were 62, 54, 84, 124 and 169 out of 630 deaths ; the 1945 figures were 43, 63, 114, 171 and 373 out of 855 deaths. Such an increase in the number of deaths amongst persons of these ages might have been the result of conditions, possibly the harsher conditions of war time, operating especially severely on persons of these age groups or could be the result of a larger population at risk. While the elderly were not favoured in the way that the growing members of the population were, it is not felt that conditions of such harshness as to cause this substantial increase in the number of deaths of the aged could have produced this effect without exerting an appreciable influence on the younger element and particularly on the very young. So far from this being the case though, the position is that for part of this period the infant mortality rate touched its lowest level. It is felt then that the increase in the number of deaths must be a reflection of the increase in the population at risk, an increase presumably brought about by the influx of the elderly, more particularly elderly females, during some of the war years.

Fatalities from the infectious diseases expressed as a rate per 1,000 population, again compared favourably with figures for the country as a whole, those for whooping cough 0·01, measles 0·01, influenza 0·04, being about half the national rates, that for diphtheria, 0·02, being the same, and for diarrhœa in those under two years of age at 2·9 per 1,000 live births, being about half the national rate of 5·6.

GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

HOSPITALS:

1. For Infectious Cases.

(a) Usual infectious diseases.

(i) South Harrow Isolation Hospital : Accommodation, 46 beds. Admits ordinarily cases of scarlet fever and diphtheria.

(ii) Stanmore Isolation Hospital : Accommodation, 26 beds. Admits ordinarily when necessary cases of scarlet fever from the South Harrow Hospital.

Cases of other infections are admitted to the hospitals of other authorities. (See page 47.)

(b) Smallpox.

The district is within the area of the Middlesex Districts Joint Smallpox Hospital District of which the governing body is the Board, and is regulated by the Orders 1905-1924. The County Council has arranged with the London County Council for the admission of smallpox patients to the River Hospitals.

(c) Typhus.

The County Council has arranged for two isolation hospitals in the County to be adapted to enable them to receive cases of typhus, namely, Hornsey, Finchley and Wood Green Hospital and the Uxbridge Hospital.

2. Tuberculosis.

The following is an extract from a County Council report of July, 1945, on the accommodation for those suffering from tuberculosis : " The County Council maintains three institutions reserved solely for pulmonary tuberculosis cases. Two of these, Harefield and Clare Hall, are large hospitals, and the third, Danesbury, is reserved for so-called ' convalescent ' female cases. In addition, certain of the County general hospitals have wards reserved for cases of pulmonary tuberculosis. The accommodation available from these sources at the end of 1943 was as follows :—

" Harefield County Hospital, 468 ; Clare Hall County Hospital, 440 ; Danesbury Convalescent Home, 60 ; Central Middlesex County Hospital, 34 ; North Middlesex County Hospital, 60 ; Redhill County Hospital, 84 ; Staines County Hospital, 56 ; West Middlesex County Hospital, 92 : Total, 1,294.

" Since the review was commenced it has been decided to use Grims Dyke to accommodate about 50 male tuberculosis ' convalescents.'

" In addition to beds in its own institutions, the County Council maintains a number of patients elsewhere ; on the 31st March, 1944, it was 304."

3. General Hospitals.

(a) Harrow Hospital.

This hospital with a pre-war complement of 79 beds was extended during the war by the Emergency Medical Service accommodation and to-day has 125 beds.

In regard to the future of the small general hospital, the Gray-Topping Survey of the Hospital Service of London and the Surrounding Area stressed the distinction between the cottage hospital and the district hospital. In a report on the Post War Hospital Problems of the King's Fund it is said "the most critical stage in the development of the voluntary general hospital is the transition from the small local cottage hospital of some 20-60 beds to the general hospital of 100-200 beds and upwards. . . . It is increasingly coming to be recognised that efficiency demands a bed complement somewhere in the neighbourhood of 150. . . . In hospitals suitably staffed and equipped to deal with all the commoner specialities as well as general, medical and surgical cases, it is apparent that the number of beds needed may well reach 250 or more, especially if separate pay-bed accommodation and a maternity unit are included."

The following out-patient services are provided at the hospital:—medical, surgical, diseases of women and children, ear, nose and throat, skin, orthopædic, fracture, varicose veins, neurology and radio-diagnostic. In addition, physio-therapy is provided at the clinic at 76, Marlborough Hill.

(b) Redhill County Hospital.

This hospital on the Edgware Road, the district boundary, is the nearest and most used by local inhabitants of the County Hospitals. The accommodation comprises 814 beds, including 60 maternity cots.

The following is a list of the out-patient sessions provided by this hospital:—medical, surgical, children's, genito-urinary, ophthalmic, ear, nose and throat, ante-natal, post-natal, diabetic, sterility, orthopædic, physio-therapeutic, psychiatric, dental, casualty, skin, varicose veins and hæmorrhoids.

Associated with this hospital is the Bushey Heath Maternity Home with its 40 beds for the reception of straightforward maternity cases.

(c) Northwood, Pinner and District Hospital.

A hospital of 36 beds, just over the district boundary, and which draws its patients from the Hatch End and Pinner part of the district. The following out-patient sessions are held:—general, gynæcological, ear, nose and throat, orthopædic and X-ray.

(d) Stanmore Cottage Hospital.

An institution of 9 beds, admitting patients referred by a restricted number of local medical practitioners.

(e) Stanmore Orthopaedic Hospital.

This is the country branch of the Royal National Orthopædic Hospital. During the war it was up-graded from its complement of 320 beds to an E.M.S. General Hospital of 550 beds. It will probably revert to its specialist character.

The Council were early concerned at the inadequacy of the general hospital services for the district and in July, 1935, a deputation from the Public Health Committee attended before the Middlesex County Council and the Voluntary Hospitals Joint Advisory Committee. There is land available for the development of Redhill County Hospital, while a pre-war programme of hospital construction is understood to have made provision for the construction of a new large county hospital to the south west of the district, though not in Harrow. The needs of the district will be further met by the additional accommodation provided just outside the district if the proposals of the Charing Cross Hospital to erect a 1,000-bedded hospital at Northwick Park materialise.

4. Lunacy and Mental Deficiency.

The three County mental hospitals are Springfield Hospital at Wandsworth, and Napsbury and Shenley Mental Hospitals at St. Albans.

NURSING HOMES.

The statutory provisions relating to the control of nursing homes are contained in ss. 187 to 195 of the Public Health Act, 1936. Although the authority responsible for registration is the council of a county or county borough, s. 194 authorises the county council on the application of the council of a county district, to delegate to the council of that district any of the functions of the county council under the provisions of the Act relating to nursing homes. The local authority has exercised powers under this delegation since November 1st, 1936.

S. 187 prohibits any person carrying on a nursing home without being registered and sets out the circumstances in which the Council may refuse registration. Power is given under s. 188 to cancel the registration. The authority have power to exempt certain institutions from the operation of the provisions of the Act, while in addition the Ministry of Health may grant exemption to Christian Science Nursing Homes.

To control the management of the homes, the authority may make bye-laws prescribing the keeping of records, and also the requirements as to notice to be given when deaths occur in the home. There are in force in this district bye-laws dealing with these points. S. 452 of the Middlesex County Council Act, 1944, authorises the making of bye-laws for controlling the spread of infectious disease in the home. Approach was made during the war for authority to make such bye-laws, but this was not granted. Supervision of the conduct of the home may be exercised by the powers granted under s. 191 to certain officers of the authority to inspect the premises and records. Homes for the reception of maternity patients are visited every three months, homes for medical and surgical cases every six months, and certain homes admitting mental cases every 12 months.

During the war years the applications for admission to nursing homes and particularly to maternity homes have been greater than ever. The future of these homes though, is uncertain in that increased accommodation to be provided by those authorities responsible for hospital accommodation, together with the probably increased accommodation in pay-beds will meet the needs of those who otherwise would have sought

admission to these homes. Without necessarily agreeing with those who see increased efficiency in proportion to the increased size of a unit, it can be appreciated the private nursing home is managed under very real difficulties, and is a relatively uneconomical establishment, so that with the developing competition of a growing hospital service it is doubtful if it will long survive.

At present the authority responsible for registration is at times placed in an embarrassing situation in that it might be known that there is much in connection with the home which is felt is not entirely right, yet the faults fall far short of those which might justify the cancellation of the registration. The remedy in such cases would seem to rest in the hands of the local medical practitioners who could decline to attend any of their patients who chose to arrange to be admitted to such a home. Another type of difficulty at a maternity home arises from the fact that a number of medical practitioners attend their patients, each being interested only in his own patient and none responsible for seeing to the taking of those steps which should be taken in the interests of other patients or others who might be admitted. This difficulty could be overcome if each home were required to appoint a practitioner as its medical advisor.

The following is a list of registered nursing homes in the district at the end of the year :—

		Beds.	
Bermuda N.H. (143, Wemboro' Rd., Stanmore	Mrs. A. M. Elphick	2	Maternity.
Brockenhurst N.H. (84, Hindes Rd., Harrow)	Mrs. T. M. Bell ...	6	Chronic.
Brookdale N.H. (2, Woodridings Ave., Hatch End)	Mrs. L. E. Crowe ...	5	Maternity and chronic.
College Hill N.H. (123, College Hill Rd., Harrow Weald)	Miss I. Yule ...	10	Maternity, medical or surgical.
Culverlands N.H. (Green Lane, Stanmore)	Dr. P. Vosper ...	11	Chronic.
Grosvenor House N.H. (100, High St., Harrow-on-the-Hill)	Mrs. Chaplin ...	20	Maternity and others.
Highfield N.H. (London Rd., Stanmore)	Mrs. M. Guyatt ...	10	Maternity and others.
Lincoln House N.H. (London Rd., Harrow-on-the-Hill)	Mrs. Chaplin ...	10	Chronic.
Maitlands N.H. (54, Marsh Rd., Pinner)	Mrs. Taylor ...	9	Maternity and others.
Oakdene N.H. (11, Hindes Rd., Harrow)	Mrs. A. Gee ...	8	Maternity and others.
Roxborough N.H. (25, Roxborough Ave., Harrow)	Miss Calland ... Miss Burrows ...	13	Maternity and others.

		Beds	
St. Anne's N.H. (34, West End Ave., Pinner)	Miss E. Paice ...	4	Maternity.
St. Vincent's N.H. (Headstone Lane, N. Harrow)	Mrs. Cutler ... Miss Hughes	9	Maternity and others
Suffolk House N.H. (Marsh Lane, Stanmore)	Miss M. C. Ping ...	8	Maternity and others.
The Firs N.H. (13, Roxborough Park, Harrow)	Hillingdon Surgical Instrument Co.	22	Maternity.
The Hall (Harrow Weald)	Dr. Lincoln Williams	10	Mental (borderline)

GENERAL MEDICAL PRACTITIONERS.

Before the war 155 doctors carried on a domiciliary practice in Harrow. Of these, 110 lived in the district and 45 outside. During the war the numbers practising in the area who lived here was reduced by 39, of whom 28 joined the services and 11 who were not replaced either died, left the area, or gave up practice. This means that over much of the war period the average number of patients to each practising doctor neared 3,000. Particularly in the winter months and more especially in the case of some practitioners, this resulted in great strain on the doctors and an impaired service for the population.

NURSING IN THE HOME.

1. General.

(a) Greater Harrow District Nursing Association.

Secretary: Miss Smily, Warneford, 79, Bessborough Road, Harrow.

Matron: Miss Dodds.

Homes: (a) Warneford, 79, Bessborough Road.
(Telephone: Byron 2647.)
(b) Uppingham Avenue, Stanmore.
(Telephone: Words. 2538.)

This association covers most, though not all, of the urban district, providing nursing, but not maternity, services. Advantage is taken by many of the Association's Provident Scheme.

(b) Pinner Nursing Association.

Secretary: Mrs. Lascelles, Manor House, Waxwell Lane, Pinner.

Nurse: Miss Swift, Dalwood, Rickmansworth Road, Pinner.

The work of this association is almost limited to Pinner North Ward. A maternity as well as a nursing service is provided.

(c) Watling and District Nursing Association.

Secretary: F. G. Matthews, 208, Blundell Road, Burnt Oak.
(Telephone: Mill Hill 1836.)

Superintendent: Miss Perkins.

Nurses Homes: 1, Gervase Road, Edgware.

The staff provides a nursing and maternity service for part of the Edgware portion of the district.

2. Midwifery and Maternity Nursing.

The sixteen Council midwives work in four groups of four each:—

Nurse Raeburn, 16, Worcester Court, Headstone Drive, Wealdstone.

Nurse Tennant, 49, Cannons Lane, Pinner.
Nurse Whitchurch, 33, Parkside Way, North Harrow.
Nurse Lundy, 2, Church Avenue, Pinner.
Nurse Angel, 9, Thistlecroft Gardens, Stanmore.
Nurse Craft, 134, Brampton Grove, Kenton.
Nurse Swann, 38, College Hill Road, Harrow Weald.
Nurse Shaw, 113, Locket Road, Wealdstone.
Nurse Ponter, 36, Corbins Lane, South Harrow.
Nurse Graham, 28, Tintern Way, West Harrow.
Nurse Janes, 14, Crown Street, Harrow.
Nurse Rough, 213, Exeter Road, South Harrow.
Nurse Mooney, 39, Malvern Gardens, Kenton.
Nurse Francis, 68, St. Paul's Avenue, Kenton.
Nurse Robertson, 83, Merlin Crescent, Edgware.
Nurse Rice, 470, Honeypot Lane, Stanmore.

In addition there were at the end of the year 10 midwives living in the area whose work is almost entirely restricted to domiciliary practice here, while as well there were 6 midwives living out of the area but whose domiciliary practice extends into this district.

CLINICS AND TREATMENT CENTRES.

The following is a summary of the various clinics and treatment centres in or serving the district, as at December 31st, 1945.

Infant Welfare Centres.

The Clinic, Broadway, Wealdstone ...	Wednesday a.m. and p.m.
The Clinic, Elmwood Avenue, Kenton	Monday p.m., Wednesday p.m.
The Clinic, Honeypot Lane, Stanmore	Monday p.m., Friday p.m.
The Clinic, Alexandra Avenue, South Harrow	Monday p.m., Thursday p.m.
St. Hilda's Hall, South Harrow ...	Tuesday p.m., Thursday p.m.
St. George's Hall, Headstone	Tuesday p.m., Friday p.m.
Memorial Hall, Harrow Weald ...	Thursday p.m.
Elmfield Hall, Imperial Drive, North Harrow	Monday a.m. and p.m.
Spiritualist Hall, Vaughan Road ...	Wednesday p.m.
Methodist Church Hall, Love Lane, Pinner	Friday p.m.
St. Anselm's Hall, Hatch End ...	Thursday p.m.
Baptist Church Hall, Streatfield Road	Wednesday a.m. and p.m.
Baptist Church Hall, Walton Avenue, South Harrow	Friday p.m.
The Pavilion, Chandos Recreation Ground	Thursday p.m., Friday p.m.

All these sessions are held weekly.

Ante-natal Clinics.

The Clinic, Broadway, Wealdstone ...	Tuesday a.m.
The Clinic, Elmwood Avenue, Kenton	Monday a.m.
Elmfield Hall, Imperial Drive ...	Wednesday p.m.
St. Hilda's Hall, South Harrow ...	Tuesday a.m.
Spiritualist Hall, Vaughan Road ...	Wednesday a.m.
Memorial Hall, Harrow Weald ...	Tuesday p.m.
The Clinic, Honeypot Lane, Stanmore	Friday a.m.
Methodist Church Hall, Pinner ...	Monday p.m.
St. Anselm's Hall, Hatch End ...	Thursday p.m.
Baptist Church Hall, Streatfield Road	Thursday p.m.
76, Marlborough Hill	Monday p.m.
Baptist Church Hall, Walton Avenue	Friday a.m.
The Pavilion, Chandos Recreation Ground	Monday and Friday a.m.

The sessions are held at these clinics weekly, except at Pinner and at Hatch End, where they are held fortnightly. A consultant ante-natal clinic is held on the second, third and fourth Tuesday mornings at the Clinic, Elmwood Avenue.

Toddlers' Clinics.

The Clinic, Elmwood Avenue, Kenton	Thursday a.m.
St. Hilda's Hall, South Harrow ...	Wednesday a.m.
Honeypot Lane Clinic	Thursday a.m. (alternate)
Methodist Church Hall, Love Lane, Pinner	Friday a.m. (alternate).
Baptist Church Hall, Streatfield Road	Thursday a.m.
The Pavilion, Chandos Recreation Ground	Thursday a.m. (alternate)

Birth Control Clinic.

The Clinic, Broadway, Wealdstone ...	Tuesday a.m. (first of month).

School Minor Ailment Clinics.

The Clinic, Broadway, Wealdstone ...	Thursday a.m.
The Clinic, Elmwood Avenue, Kenton	Friday a.m.
The Clinic, Alexandra Avenue, South Harrow	Friday a.m.
The Clinic, Honeypot Lane, Stanmore	Wednesday a.m.
Methodist Church Hall, Love Lane, Pinner	Monday a.m.

Ophthalmic Clinic.

76, Marlborough Hill	Tuesday a.m., Friday a.m

Dental Clinics.

The Clinic, Elmwood Avenue, Kenton.
76, Marlborough Hill.
The Clinic, Alexandra Avenue, South Harrow.
The Clinic, Roxeth Hill.
Stanburn School.

The sessions are held most week-day mornings and afternoons.

Physio-Therapeutic Treatment.

Treatment sessions are held throughout the week, cases being seen by a consultant physio-therapeutist on the mornings of Wednesday and Friday; Monday and Tuesday afternoons or Thursday evenings; or the orthopædic surgeon attending on the morning of the first Wednesday of the month.

Tuberculosis Clinic.

The part of the district roughly that to the west and south of the main L.M.S. line, is served by the Chest Clinic at 25, Greenhill Crescent, where the medical officer attends on Monday morning, Thursday afternoon and some evenings. Persons from the area north and east of the railway line attend the Chest Clinic at Redhill County Hospital, where sessions are held on the mornings of Tuesday, Wednesday and Thursday and some evenings.

Venereal Diseases.

In addition to the hospitals at which treatment is available under the London and Home Counties scheme, facilities are available at the following County hospitals:—Central Middlesex Hospital, Acton Lane, Willesden; Hillingdon Hospital, Royal Lane, Hillingdon; West Middlesex Hospital, Twickenham Road, Isleworth.

The most convenient of the London hospitals at which treatment is provided, are St. Mary's Hospital, Cambridge Place, Paddington, and University College Hospital, Gower Street.

ESTABLISHMENTS FOR MASSAGE AND SPECIAL TREATMENT.

The Council adopted part VII of the Middlesex County Council Act, 1934 (now part XII of the 1944 Act), regarding establishments for massage and special treatment. These are defined as premises for the reception or treatment of persons requiring massage, manicure or chiropody, electric treatment or radiant heat, light, electric, vapour or other baths for therapeutic treatment, or other similar treatment.

Subject to provisos regarding practice by medical practitioners or members of the Chartered Society of Massage and Medical Gymnastics, and regarding certain premises such as hospitals, no person can carry on an establishment for massage or special treatment without a licence from the local authority authorising him to do so. Bye-laws are in force regarding the conduct of the business.

The granting or renewal of a licence is subject to the authority being satisfied as to the suitability of the person, the suitability of the premises and the mode of conduct of the establishment. In addition the licence may be refused in respect of any establishment at which special treatment is administered by any person who does not possess such technical qualifications as may be reasonably necessary. As to this, establishments at which treatment is provided by members of the Chartered Society of Massage and Medical Gymnastics are already exempt from the provisions of this part of the Act. On the other hand the application made for approval to a bye-law which would limit treatment in licensed premises to those holding specific qualifications was not acceded to. Unless stronger powers are to be given to authorities to enable them to exercise some control over the standard of treatment, it would perhaps be preferable if authorities did not assume any responsibility for the licensing of such premises. The object of supervision when these powers were first granted to the earlier authorities who applied to possess them was not so much to ensure a satisfactory standard of treatment as to control the use of the premises. The present position is that those providing treatment can quite correctly claim to be licensed by the local authority, a claim which would lead those contemplating attendance for treatment perhaps to read more into this than is justified in to-day's circumstances.

During the year 19 premises were licensed. In addition there were 3 premises used by members of the Chartered Society.

PUBLIC HEALTH AMBULANCE SERVICE.

Up to 1939, the public health ambulances were stationed at the various fire stations, being manned by members of the Fire Brigade. Some time after the establishment of the National Fire Service, these arrangements were stopped, the ambulances being then maintained by personnel of the Civil Defence Ambulance Service. On the disbanding of the Civil Defence organization, the ambulance service passed to the administrative control of the Surveyor. For ease of administration the vehicles had been grouped at one central station. Since the termination of hostilities the ambulances have again been stationed at the central fire station, though manned by Council personnel who devote their entire time to these duties.

The fleet comprises four ambulances and one in reserve, and one sitting case car.

The following is a summary of the extent to which the ambulances have been used during the year :—

Traffic accidents	162
Other accidents (including street illness)	517
Maternity removals	413
Sick removals to and from hospitals	2,977
Total ...	4,069

For removals to institutions in the district and also to Redhill and Northwood and Pinner Hospitals, a charge of 7s. 6d. is made. For journeys outside the district the charge is higher, the cost charged for removal to London being £1.

The ambulances are restricted to proceeding to places within 25 road miles of the boundary of the district. This was increased from the pre-war figure of 15 miles owing to demand consequent on the evacuation of many hospitals and the setting up of country establishments of hospitals during the war.

When an ambulance is required for the removal of a maternity case, arrangements are made by the applicant or by the Council for the presence of a midwife or maternity nurse. Owing to difficulties in obtaining staff, this rule was modified during the latter part of the war.

LABORATORY FACILITIES.

Before the war, apart from the examination for the presence of Klebs Lœffler bacillus, carried out at the isolation hospital of swabs of in-patients and specimens sent in by general medical practitioners, examination of clinical material was undertaken by the laboratories of the Clinical Research Association.

Having in mind the possible disruption of transport and the risks of major epidemics, the Government before the war set up the framework of the Emergency Public Health Laboratory Service, an organization to supplement the existing services in case of need. Although this was not intended to interfere in any way with the operation of the normal services where these could be maintained, it seemed that many authorities did in fact make use of these laboratories, action which was later confirmed by the Ministry of Health's approval, and the whole matter regularised by the payment by local authorities of an annual charge based on the average pre-war cost to authorities of their laboratory work. At their meeting in September, 1941, the Public Health Committee decided that all future samples be sent to the laboratory established under this organization. Of recent years the work has been done at the Public Health Laboratory, Bland Sutton Institute, Middlesex Hospital, under the control of Dr. C. J. Britton. The number of specimens from this district examined in 1945 was 1,378; the total amount of work done in units 5,967.

The Government have now decided to continue the Public Health Laboratory Services on a permanent basis, and the Medical Research Council has agreed to be responsible for its direction during an initial period of five years. For the most part the work will be done without charge to local authorities, though certain kinds of examination can be undertaken only on a payment basis. The central laboratory of the whole service is situate at Colindale. At their meeting in October, 1945, the Public Health Committee agreed to arrangements being made as soon as possible that specimens for bacteriological examination be submitted to the central laboratory at Hendon.

SANITARY CIRCUMSTANCES OF THE AREA.

WATER.

Apart from the small part of the south-western portion of the district served by the Rickmansworth & Uxbridge Valley Water Company, the area is supplied with water by the Colne Valley Water Company. The water, originating in the gathering grounds in the Chilterns, is pumped at a number of stations from wells about 200 feet deep in the chalk. The main stations are at Aldenham Road, Bushey, Berry Grove near Aldenham and Eastbury Road between Bushey and Rickmansworth. The water is softened by lime or by the base-exchange process and chlorinated. Its purity is ensured by the supervision carried out by a staff of chemists and bacteriologists. The service reservoirs are at Windmill Lane, Bushey Heath. A boosting station in Grove Hill Road ensures adequate pressure on Harrow hill. The Rickmansworth & Uxbridge Valley Water Company have pumping stations at Ickenham, West Drayton and Mill End.

The statutory duty has been laid on all water undertakers who derive their powers from special statutory enactments to ensure that the water supplied by them to consumers is at all times wholesome. Section 111 of the Public Health Act, 1936, also lays it as a duty on every local authority to take from time to time such steps as may be necessary for ascertaining the sufficiency and wholesomeness of the supplies within the district. The only complaints ever received as to inadequacy of supply came from the small area supplied by the Rickmansworth Company, and even from here there has been none of recent years. The Colne Valley Company notify the authority of their intention to cut off the supply of water to an inhabited house. Beyond an occasional criticism about the hardness of the water and at times complaints of the chlorine taste, few complaints are received about the quality. As a routine practice, quarterly samples are submitted to both chemical and bacteriological analysis. Below is set out one of these analyses of a sample taken in January, 1945, which is typical of all those that have been submitted.

Appearance : Clear and bright.

Colour : Normal.

Odour : Nil.

p.H. Reaction : Neutral.

Chlorine as chlorides : 7·0.

Hardness : Total, 26·0. Temporary, 17·5. Permanent, 8·5.

Nitrogen in nitrates : 0·52. In nitrites—absent.

Free ammonia absent ; albuminoid ammonia, 0·0020. Oxygen absorbed in 4 hours, 0·020.

Free chlorine reaction : Absent. Metals absent.

The number of bacteria growing on agar per c.c. in—

1 day at 37°C. : 0.
2 days at 37°C. : 0.
3 days at 20°C. : 9.

B.coli absent in 100 c.c.

The analyst's summary read :—

" This sample is clear and bright in appearance, neutral in reaction and free from iron and other metals. It is hard in character though not to an excessive degree, contains no excess of salinity or mineral constituents in solution, and is of very satisfactory organic or bacterial purity. These results are consistent with a pure and wholesome water suitable for drinking and domestic purposes."

In addition, copies are received regularly from the analyst of the Colne Valley Water Company of the results of analyses carried out on samples of water collected from houses throughout the district. These have been uniformly good.

Some diseases may be water-borne. In order that the water company shall be aware of the occurrence of these, the practice has been instituted of sending them particulars of households at which such a patient is resident even though there is nothing to suggest that in that particular case the infection was attributed to water.

SEWERAGE AND SEWAGE DISPOSAL.

In the early part of 1936, the last of the five sewage disposal works, which had, up to that, treated the sewage of the district was abandoned, since when practically all sewage from this area has been treated under the West Middlesex Drainage Scheme at the disposal works at Mogden, where it is treated by the activated sludge process. There are still some few houses on the northern fringe of the area from which the sewage is treated mostly in small plants in the grounds of the houses, the effluent finding its way to a water course.

Two trunk sewers and nine main intercepting outfall sewers are of such capacity that it is calculated on a dry weather flow of 40 gallons per person per day they can serve an ultimate population of 330,000. The length of the County Council trunk and outfall sewers in the district is 10 miles and of the district council's foul sewers, 215 miles. There is a pumping station in South Vale, Sudbury, for lifting sewage from the South Vale area some 80 feet into the high level sewer in South Hill Avenue.

The surface water passes by separate sewers to water courses, the 215 miles of surface water sewers and culverts being vested in the district council. The open watercourses are under the jurisdiction of the County Council, though those lengths which have been culverted and so have become sewers, are the responsibility of the district council.

There are five main watercourses in the district. The river Pinn, which is under the control of the Thames Conservancy, rises in the Royston Park Estate, runs in a southerly direction to High Street, Pinner, during

which part is open and part culverted, changes its direction to run westerly and crosses the district boundary between Cuckoo Hill and Eastcote Road. The Yeading Brook rises in two sources, the one near the recreation ground, Pinner Road, the other near Moat Farm. These two streams, which are partly culverted, join at Hooking Green Bridge, from where the brook runs in a south-westerly direction to the Hendon Rural District Sewage Works at Pinner, this portion of its length being open. Rising in Harrow Weald, the Wealdstone Brook runs in an easterly direction through Wealdstone, crossing out of the district at the Kenton Road near Kenton Grange farm. The Kenton Brook, rising in Kingsbury, passes near the Little Stanmore Sewage Farm to flow in a southerly direction out of the district, later joining the Wealdstone Brook. The Edgware Brook, which rises in two sources south of the Stanmore village, flows in a southerly direction to the Great Stanmore Sewage Works, then easterly towards Edgware, later to run into the Silk stream.

The largest of the lakes are those at Cannon's Park (8·7 acres and 10 million gallons), Bentley Priory (4·3 acres and 5 million gallons), Harrow Weald Park (3·1 acres and 2 million gallons), and Temple Ponds at Stanmore Park (2·9 acres and 2 million gallons).

PUBLIC CLEANSING.

Refuse Collection.

The practice before the war was the weekly collection of house refuse, while special arrangements were made for the collection of trade refuse. It had not by the end of the year been found possible to revert to the weekly collection of house refuse which is still being collected fortnightly. The inconvenience arising from this altered practice would be much less were it possible to obtain a sufficiency of suitable dustbins. Refuse is collected from some 65,000 premises, the average weekly weight being 550 tons. The collection of trade refuse is undertaken at a charge ; it has as yet not been found possible to restore the pre-war arrangement for the collection of garden refuse.

Refuse Disposal.

Before the war refuse was treated, some at the destructor in South Harrow, some at the separation plant at Wealdstone, and some at sites suitable for controlled tipping. The Council had decided that when the plant was ready all house refuse was to be treated at the hyganic plant at Wealdstone. The construction of this plant was not sufficiently advanced for any refuse to be treated there during the war years and the proposal has now been abandoned. In the meantime, owing, amongst other reasons, to the low calorific value of the refuse, treatment at the destructor and at the separation plant was discontinued, all refuse then being disposed of by controlled tipping. This has resulted in what land was available for the purpose at Cannon Lane, Pinner, and at Elmgrove Road, Wealdstone, being used up much more rapidly. It was reported

to the Cleansing Committee in November, 1945, that tipping had been carried out almost to the limit at Cannon Lane unless the Yeading Brook was culverted ; at the Wealdstone tip it is proposed to tip over most of the former sewage works, and arrangements were being made to start tipping on 14 acres at Old Redding.

During the war years salvaging of materials essential to industry was carried out on quite a large scale.

Street Cleansing.

The pre-war practice was for the main roads and shopping centres to be cleaned twice daily, the main district roads once daily and the general district roads three times a week ; cul de sacs twice weekly and private streets once a week. The sweepings collected in orderly barrows were disposed of at the tips. The lengths of highways repairable by the public are the County roads, 34 miles, and the district roads, 198 miles

PUBLIC CONVENIENCES.

Apart from those in the Recreation Grounds, public conveniences have been sited at Northolt Road, Havelock Place, the Car Park at Station Road, Pinner Road, at North Harrow and Peel Road. Because of the use made by the public of the urinal at the Red Lion Public House, the Council agreed to be responsible for its cleansing. In consideration of a lump sum payment by the Council the convenience provided and maintained by the London Passenger Transport Board at South Harrow Station is available to the public. Arrangements were in train for conveniences to be provided in many more of the Recreation Grounds, but the onset of the war interfered with this programme and with the erection of a new convenience in Whitchurch Lane. Conveniences are required in many parts of the district, but none perhaps more urgently than to serve the Kenton shopping area or Pinner Village.

BURIAL GROUNDS.

The Council, under the provisions of Section 46 of the Middlesex Review Order, 1934, became the burial authority for the district and has control of the following burial grounds or cemeteries :—Paines Lane and Roxeth Hill (both full except for re-openings), Pinner Road, Byron Road, Eastcote Lane, Pinner Cemetery, and Harrow Weald. The acreage unused is about 24, sufficient to last at the present rate for about forty years. There is, apart from re-openings, little available at the grounds under the control of the Church authorities, namely Harrow, Roxeth, Pinner, Harrow Weald, Great Stanmore and Whitchurch.

In 1935, consideration was given to the question of the erection in the district of a crematorium. In 1944, the Council accepted the proposal and a site was agreed on.

MORTUARY.

Of the mortuaries provided by the three constituent authorities, on amalgamation only that at Wealdstone was retained, as it was the most suitably constructed, was more central to the area than the others, and it was felt that the one was sufficient to meet the needs of the district. It was later improved by the installation of a refrigerating chamber.

During 1945, 244 bodies were received, post mortems were carried out on 176 and 38 inquests were held. 68 bodies were admitted for storage.

SWIMMING BATHS.

There are two open-air swimming baths in the district, one at Charles Crescent, Honeybun Estate, Harrow, and the other at Christchurch Avenue, Wealdstone. The former, constructed in 1923, measures 165 feet by 75 feet, with a depth of 7 feet to 3 feet 6 inches. The water, after being filtered, is treated by chlorination. Dressing accommodation, shower and foot baths and sanitary conveniences are provided. The Wealdstone bath, constructed in time for the 1934 season, measures 165 feet by 75 feet, with a depth of 8 feet 6 inches to 2 feet 6 inches. In addition, there is a shallow semi-circular beginners' pool. Suitable dressing accommodation, with shower and foot baths, and sanitary conveniences are provided. The water is treated by passing through filters and then chlorinated.

The duration of the turn-over period varies according to the amount the baths are used, but it is at least once a day and at busy times is every eight hours.

Daily tests are carried out for the presence of free chlorine and to determine the p.H. value.

SANITARY INSPECTION OF THE DISTRICT.

The activities of the sanitary inspectors may be divided into three main categories, viz., housing inspection ; inspection and supervision of other premises ; and the inspection and supervision of food.

The following table is a summary of the visits paid for various purposes :—

A. Inspection of Houses :—

(a) Public Health Acts.

On complaint of defects	1,012
On complaint of other nuisances	773
Routine inspections	296
Number defective	863
Revisits	5,174
Inspections of foster parents' premises	20
Visits to verminous premises	154

(b) Housing Act.

Routine inspections	—
On complaint of defects	15
Not in all respects fit	15
Unfit for human habitation	1
Revisits	41
Surveys under S. 157, 1936 Act	109
Number of cases of overcrowding	96
Inspections of houses-let-in-lodgings	—

B. Inspection, Visits, etc., to Other Premises :—

On complaint	43
Number of routine inspections of premises liable to give rise to nuisance	144
Revisits	126
Number of complaints of rats investigated (primary visits)	631
Number of revisits	501
Number of visits re food poisoning or small pox contacts	163
Number of observations for smoke nuisances	3
Number of inspections of factories (mechanical)	80
do. do. factories (non-mechanical)	16
do. do. workplaces	10
do. do. outworkers' premises	63
do. do. cinemas and places of entertainment	37
do. do. hairdressers' premises	6
Number of visits under Shops, etc., Acts	8
Number of evening observations under Shops Acts	—
Number of visits to premises where rag flock used	—

C. Inspection of food and premises where food is manufactured or prepared :—

Slaughterhouses	27
Butchers (including Meat Depot)	459
Cowsheds	30
Dairies	106
Fish-shops	66
Fried Fish-shops	28
Bakehouses	53
Cafes and Restaurants	74
Ice Cream premises	21

D. Inspection of premises where food is retailed :—

Greengrocers	52
Provision Merchants	313
Milk shops	9
Bakers and Confectioners	19
Other Food premises	29

HOUSING.

Inspection under the Public Health Acts.

One of the chief duties of a sanitary inspector is the investigation of complaints, including among these those relating to housing conditions. Most of these refer to defects such as of roofs, gutters or windows, faults affecting drainage whether defective sinks, water closets, drains or the choking of drains, and defective yard paving. Most of the defective conditions giving rise to complaints are remedied on drawing the attention of the owners to the conditions ; in a few formal action under the Public Health Acts is required. The remedy in such instances, if the nuisance continues after the service of a statutory notice, is application to the Court for an order that the work shall be done.

In ordinary circumstances then, when an inspector visits a house, especially if it is because of some complaint, he has to consider whether action should be taken under the relevant provisions of the Housing Act. He therefore makes a thorough inspection of the house, determines what work is required to put the house in a habitable condition, and if the estimated cost is not out of all proportion to the value of the house, the Committee's approval is sought to the serving of the necessary notice. The advantage of proceeding by the provisions of the Housing Act is that more can be called for than under the nuisance sections of the Public Health Acts, while in default of the owner undertaking the repair the authority can execute the work and recover from the owner.

During the war years, shortage of labour and material necessitated action being limited to the more urgent works called for under the Public Health Acts, but already the situation is easing and some houses are being dealt with under the provisions of the Housing Acts.

Inspection under the Housing Acts.

Sanitary authorities have been given increasingly greater powers to obtain satisfactory housing conditions since the time when any premises in such a state as to be a nuisance or injurious to health were made statutory nuisances under the Public Health Act of 1875. By the Housing of the Working Classes Act, 1885, sanitary authorities had to secure the proper sanitary condition of all premises within their districts. In 1890, it became the duty of the Medical Officer of Health to report to his authority any dwelling-house that appeared to be in a state so dangerous or injurious to health as to be unfit for human habitation. Local authorities under the Housing and Town Planning Act, 1909, were required to see that inspections were made in their districts of houses so dangerous or injurious to health as to be unfit for human habitation. The implied contract that a house should be kept by the landlord reasonably fit for human habitation during the holding, became under the 1925 Housing Act an obligation on the owners of properties not exceeding a certain rental to see that the house would be kept in all respects reasonably fit for human habitation. At the same time it was made the duty of the local authority to cause inspections to be made from time to time with a view to ascertaining whether any dwelling-house was in a state so dangerous or injurious to health as to be unfit for human habitation, and a duty of the Medical Officer of Health to report such houses to the local authority.

The procedure under this Act for dealing with groups of houses was replaced by the machinery of the 1936 Housing Act. The " clearance areas " under this Act are groups of dwelling-houses which by reason of disrepair or sanitary defect were unfit for human habitation, or which by reason of bad arrangement or of the narrowness or bad arrangement of the streets were dangerous or injurious to the health of the inhabitants and which were more satisfactorily dealt with by the demolition of all the buildings. Steps can also be taken to effect the demolition of any dwelling-house unfit for human habitation which is occupied or is of a type suitable for occupation by persons of the working classes. In determining whether a house is fit for human habitation, regard is to be had to the extent to which, by reason of disrepair or sanitary defects, the house falls short of the provisions of any bye-laws in operation in the district, or of the general standard of housing accommodation for the working classes in the district.

Apart from the structural state of houses, conditions of living may be unsatisfactory because of overcrowding. The Housing Act, 1935, was the first great effort to tackle this problem on a national scale. The obligation was imposed on every local authority to cause an inspection to be made with a view to ascertaining what dwelling-houses were overcrowded, and to submit proposals for providing new houses to abate the overcrowding. The degree of crowding which could occur before the house was statutorily overcrowded was very high, this standard having to be adopted because of the appalling conditions obtaining in parts of the country. It was accepted that when circumstances had permitted the abatement of most of the crowding according to that standard, a higher criterion would be adopted.

It will be seen then that it is the duty of the authority to cause inspections of properties to be made, the so-called routine inspections. Where housing defects are found, the question to be settled is whether repairs could be reasonably required, in which case the owners were approached ; or if not, then steps are taken to obtain a demolition order in the case of a single house or a clearance order in the case of a group of houses. In regard to overcrowding, approach is made to both owner and tenant, whilst many owners request the authority to give them a certificate of the permitted number of occupants.

This routine inspection accounts for only part of the work of the sanitary inspector in regard to housing. To an increasing extent their help is sought by tenants who complain of some structural fault. Since amalgamation progress had been made in the eradication of the poorer classes of habitation in the district. Concurrently, repairs were being carried out to quite a high standard. The overcrowding survey showed that there was comparatively little statutory overcrowding in the district. The war soon altered this relatively satisfactory housing situation. Shortage of labour and shortage of material restricted action under the Housing Acts, quite apart from the shortage of inspectors to carry out the inspections. Repairs to property were limited to that work necessary to comply with the more urgent standards of the Public Health Acts. No further houses were reported with a view to the making of demolition or clearance orders, while the demolition of properties already condemned was suspended. The standard of housing then has fallen ; while, too, the position in regard to crowding has become very much worse. While the increased availability of labour and materials should shortly enable the houses to be brought to a more satisfactory standard, not until sufficient new accommodation has been erected to house those needing it, will it be possible to contemplate taking action in regard to those houses many of which before the war were considered to be due for representation, and which are now in that much worse a state because of the absence of any maintenance or repair.

The following table sets out the particulars relating to housing inspections and subsequent action :—

1. Inspection of Dwelling-Houses :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1,439
(b) Number of inspections made for the purpose ...	6,648
(2) (a) Number of dwelling-houses inspected and recorded under the Housing Consolidated Regulations ...	2
(b) Number of inspections made for the purpose ...	24
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	1

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ... 871

2. Remedy of Defects without Service of Formal Notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers 681

3. Action under Statutory Powers :—

A. Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 :—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs 18

(2) Number of dwelling-houses which were rendered fit after service of formal notices :—

(a) By owners 7

(b) By Local Authority in default of owners 3

B. Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 131

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—

(a) By owners 76

(b) By Local Authority in default of owners 15

C. Proceedings under Sections 11, 12, and 13 of the Housing Act, 1936 ... ... —

The following is a list of those houses included in the different Orders, Clearance or Demolition, made before the war and which are still occupied (the figures in parenthesis are the numbers of houses still occupied) :—

Clearance Orders : West End Lane, No. 1 (1) and No. 2 (2) ; Ferndale Terrace (8) ; High Street, Stanmore, No. 3 (2) and No. 4 (4) ; College Hill Road (2) ; Headstone Place (20) ; Pleasant Place (3) ; Brewery Cottages (5), a total of 47.

Demolition Orders : 1-11, Peel Road (1) ; 93, 95 (1) and 99, 101 (1), Greenford Road ; Kingsfield Terrace (6), a total of 9.

Closing Orders : Canning Place (2).

In addition, four out of the five properties the Minister condemned in the unconfirmed Marlborough Road Clearance Orders are occupied, the total number of condemned properties still being occupied being 62. There are also four houses at present occupied, but in regard to which the owner has given an undertaking that they will not be re-let when vacated by the present tenants.

No. 16, Marlborough Hill was the subject of a Demolition Order in 1943. Against this an appeal was lodged and after many delays was finally dismissed and the house subsequently demolished.

Inspection of Houses.

One hundred and nine surveys were carried out and certificates issued under Section 157 of the 1936 Housing Act. The number of certificates issued is now 10,367.

Overcrowding.

The position in regard to crowding is that at the end of the year, 141 houses were known to be statutorily overcrowded. Of these one was overcrowded by 7 units, two by 5, three by 4, two by 3½, seven by 3, eleven by 2½, fifteen by 2, twenty-four by 1½, thirty-five by 1, and forty-one by ½ unit.

Rehousing.

During the war, local authorities had been given power to requisition properties for a variety of purposes. Circular 2845 of the Ministry of Health, issued in August, 1943, authorised the release of houses which had been requisitioned for the housing of bombed-out persons, for the use of families inadequately housed, the guiding principles in the allocation being those considerations governing the selection of tenants for houses on municipal housing estates, namely, persons occupying insanitary or overcrowded houses, large families or those living in insanitary housing conditions. Since the termination of hostilities many properties requisitioned for one purpose have now been released, and of these some have been added to the pool available for the accommodation of those unsatisfactorily housed.

This was, up to the end of the year, the only accommodation controlled by the Council available except for the small number of temporary houses which were made ready for occupation.

For the selection of tenants for houses as they became available, the Council adopted a points system, factors taken into consideration being the number in family, the accommodation available to the family at the time of application, the period of residence, etc. A separate list was compiled of applicants who were in or had been in the Services. It was also decided that the Committee would give special consideration to the following classes of applicants in cases recommended by the Medical Officer of Health :—

(i) Families, one or more of whose members is or are suffering from tuberculosis. (ii) Families living in overcrowded conditions. (iii) Families requiring to be rehoused as a result of operative Clearance Orders. (iv) Families living in houses subject to operative Demolition Orders.

All in these categories were communicated with, and of the 126 forms sent out, 83 were returned. The list was added to and by the end of the year reached 177. Before the end of 1945, 10 of these families had been rehoused, 2 in prefabricated houses and 8 in requisitioned accommodation.

INSPECTION AND SUPERVISION OF OTHER PREMISES.

Many complaints, which entail visits to homes, arise not from a defect in the structure of the house. The following is a summary of the complaints received, including those relating to housing conditions :—

Complaints.

During the year, 1,828 complaints were received. These were :—

Accumulations of refuse	106
Animals causing a nuisance	24
Damp condition of premises	62
Decorations	22
Drains and sewers: Blocked	472
Defective	92
Dustbins defective	185
Houses with defects	424
Defective waterclosets	78
Dirty premises	37
Factories—insufficient watercloset accommodation ...	5
Food unfit or in dirty condition	23
Gardens—flooding	11
Insect infestations	48
Overcrowding alleged	113
Plumbing defects	87
Shelters unsatisfactory	16
Smoke nuisances	6
Vermin	49
Watercourses	1
Other complaints (pig bins, wasps nests, mis-use of footpaths, defective fences, etc.)	92
Total ...	1,828

During the year 1,329 informal notices were served; and 131 statutory notices, of which 91 were complied with.

Special Premises.

Apart from these visits though, there are those paid to special premises which are kept under observation. In this category are those places such as stables, farms, pig sties, allotments and yards, at which a nuisance might arise from accumulations of manure or of rubbish or from general dirty conditions. Of these 144 visits were paid last year. Apart from the routine visits, others are necessary where a nuisance has been discovered, these being repeated until the nuisance has been abated.

Hairdressers' premises are visited periodically to see that the Council's bye-laws as to the cleanliness of the premises and the cleanliness and sterilisation of the utensils are complied with.

In circular 120 of the 25th August, 1920, the Minister suggested arrangements be made by sanitary authorities for all theatres, music halls, and other places of public entertainment, to be visited periodically with regard to their sanitary condition. The Secretary of State also suggested that, when considering an application for the granting or renewal of a licence for any place of public entertainment, licensing authorities should require a certificate from the sanitary authority that the condition of the building is satisfactory in all sanitary and other respects. A report on the condition of places of amusement is sent to the Middlesex County Council before they consider the renewal of the licences ; and a similar report is sent to the licensing justices before the Brewster Sessions.

Smoke Abatement.

Some places in the district offend the Smoke Abatement bye-laws and in ordinary times special observations are carried out more especially of these premises. During last year these numbered three. One complaint was received and the nuisance satisfactorily abated.

Factories Act, 1937.

This Act consolidated previous factory and workshop legislation and effected certain changes. In general, the enforcement of its provisions rests with the Home Office. The district council, though, are charged with certain duties relating to outworkers ; to the employment of persons in unwholesome premises, basements, bakehouses, and the provision of sanitary conveniences in all factories, and also cleanliness, overcrowding, temperature, ventilation and drainage of floors in the case of factories in which mechanical power is not used. In this district there are 464 factories with mechanical power, 159 without, and 138 workplaces. The number of visits paid to these three classes of premises was 80, 16 and 10. Of the 35 public health nuisances detected, 13 were due to want of cleanliness. The sanitary accommodation was unsatisfactory in 16 instances, unsuitable or defective in 6, unclean or insufficient in 9, and not separate for the sexes in one. Six other nuisances were noted. Particulars of 87 outworkers resident in the area were received. To these premises, 63 visits were paid.

Shops Acts.

The Council, as a local health authority, is responsible for enforcing the provisions relating to the ventilation and temperature of shops and to the sanitary conveniences. As a local authority under the Shops Acts, it is responsible for the provisions relating to lighting and facilities for washing and taking meals. It is concerned then, not only with the actual condition of the premises, but also with the condition of employment of the assistants, in particular, regarding off-duty time in the day and the weekly half-holiday. Orders may be made fixing a particular day for half-day closing, and fixing the closing hours at night. There is no

general closing order operative throughout the district. Efforts were made to prepare a scheme which might meet with sufficient general acceptance to obtain the necessary majority votes of the traders to put it into operation, but nothing came of the endeavour. A Shops Acts Inspector was appointed to be responsible for the conditions of the general arrangements for undertaking the duties imposed under the various Acts. He is assisted by the sanitary inspectors, not only in regard to the supervision of the hygienic condition of the premises, but also in patrolling the district for the detection of infringements of the closing orders. During the war years it has, of course, not been necessary to take action in regard to such infringements, so the time of the inspectors in regard to shops inspection has been concentrated mostly on the hygienic condition of the premises, coupled with the investigation of complaints as to the hours worked by young persons, giving advice as to notices, and the general welfare of the shop assistants. Eight visits were paid.

Rat Infestation.

Although the provisions of the Rats and Mice (Destruction) Act, enabled the County Council to transfer to the district council their powers and duties under this Act, the County Council had declined to accede to the Council's request when application was made. However, in November, 1943, as a result of representations by the Ministry of Food, the County Council approached local authorities with a view to their assuming these powers and this, amongst other districts, agreed to the transfer as from the 1st April, 1944. The work is brought into line with the routine duties of the inspectors. On receipt of a complaint of rat infestation, the inspector visits and refers the case to the rodent operative, if any work of extermination is to be carried out. Starting with two operatives, a third was later appointed. Apart from dealing with day-to-day complaints, work has been done on the larger areas of infestation, including the infested refuse tips at Wealdstone and Cannon Lane. While at one time it appeared that control was being obtained, in that fewer complaints were being received, it seems that without additional staff it will not be possible to attempt to tackle the other areas of infestation, such as brooks and sewers.

During the year 631 complaints were received and 501 re-visits made.

A small charge is made for any work done, though the sum is increased for the more extensive treatment necessary at some industrial premises. Although the charge does not act as a deterrent to the occupant requesting the work of eradication to be put in hand, it is very questionable whether it is worth the labour involved to collect such small sums, apart from the fact that so very often it is not really the fault of those on whose grounds rats are nesting that they have arrived there at all.

Verminous Premises.

Ninety-seven premises were inspected following complaints of vermin. The number infested with the bed bug was 49; to these premises, 154 visits were made.

Legislation.

The following is a summary of local legislation designed to minimise nuisance or discomfort to the general population :—The Harrow Urban (Offensive Trades) Confirmation Order under Section 112 of the Public Health Act, 1875, under which the following trades, businesses or manufacturies are declared to be offensive trades—rag and bone dealers ; blood drier ; leather dresser ; tanner ; fat melter or fat extractor ; glue maker ; size maker and gut scraper. The bye-laws made by former authorities and continued in force by the Middlesex Review Order, 1944, include those relating to refuse dumps. Bye-laws made by the present Council, dealing with matters referred to the Public Health Committee, include those relating to nuisances (20.2.36), to nuisances in connection with the removal of offensive or noxious matters (20.2.36), slaughter-houses (20.2.36), smoke abatement (20.2.36), houses let in lodgings (20.2.36), hairdressers' and barbers' premises (18.12.36), establishments for massage and special treatment (21.7.37), and offensive trades (18.8.39). Regulations regarding underground rooms became operative on 20.3.36. Bye-laws made by the County Council for the Good Rule and Government deal, *inter alia*, with waste paper or other refuse in streets, broken glass, etc., on highways or public places, deposit of litter to the detriment of public amenities, deposit of tree or hedge clippings, noisy animals, some noises, gypsy encampments, carrying of soot, carrying of carcases, contents of ash-bins, and the fouling by dogs of foot-ways.

COUNCIL HOUSING.

457 houses were erected by the Harrow-on-the-Hill Council, 202 on the Honeybun Estate, and 255 at the Eastcote Lane Estate. 485 were built by the Wealdstone Council, 260 being in Weald Village and 169 in the Elmgrove Estate. There are 10 houses in Meadow Way, 39 in Montrose Road and 7 bungalows in Canning, Byron and Palmerston Roads. Of the 800 houses erected by the Hendon Rural District Council, 112 are on the Chandos Estate, Little Stanmore, 81 at Woodlands Drive, Harrow Weald, 53 at Canterbury Road, North Harrow, 59 at Pinner Hill Road and The Close, Pinner, and 32 at Wolverton Road, Great Stanmore. In a further scheme, 88 were built on the Chandos Estate, 40 at Bransgrove Road, 65 on the Glebe Estate, 22 at Kenton Lane, 42 at Church Lane, Harrow Weald, and 206 on the Pinner Hill Estate. In addition, the Council possesses 20 houses at Greenway, Pinner, 14 at The City, Harrow Weald, and Tithe Farm Cottage, Cannon Lane.

The numbers built under the various Housing Acts were :—1919, 573; 1923, 706 ; 1924, 463 ; and 1925, 20.

In 1936/37, the Glebe (46) and the Berridge (68) Estates were developed and the King's Road site for the housing of the aged (18), in all some 128 houses. In the years just before the war, the housing programme provided for the development of the Rayners Lane Estate, and work had started on the construction of roads and the laying of sewers.

While there was the need for further houses, as shown by the list of some thousand applicants for houses, the regular surrender of tenancies amongst those occupying Council houses did enable some houses to be

offered to applicants. The war years saw a sharp decline in this turnover, to such an extent that, as contrasted with a pre-war weekly figure of 4 to 8, the total number in the years 1942/44 was only 43. The district lost, too, by enemy action, 369 houses of which 9 were Council houses. An indication of the urgency of the problem is that in July, 1945, the list of applicants was 6,000, though of the forms sent out to these only 2,750 were returned, of which something over one-half were from those who were in, or who had been in, the Forces. At this time the special cases deriving consideration on health grounds numbered 190, 21 on account of tuberculosis and 107 because of overcrowding.

Partly to meet the needs of the most urgent and to provide something at an earlier date than was possible by the construction of permanent houses built by traditional methods, reliance had to be placed on accommodation in temporary buildings. In this district, a start was made in the summer on the construction of the first of some 50 prefabricated bungalows of the American pattern, and later, a start was made on the erection of Arcon houses on the Rayners Lane housing site. In the meantime, the Council planned the construction of a number of permanent houses. At their meeting in December, the Housing Committee had before them the following programme of works involving capital expenditure :—

Rayners Lane (Section 1)	Erection of 72 houses.
Rayners Lane (Section 2)	The construction of roads and sewers for 96 Arcon houses.
Elmgrove Road	The construction of roads and sewers for the erection of 80 houses.
Woodlands, Harrow Weald	The construction of roads and sewers for the erection of 253 houses.
Clifton Road	Erection of 8 flats.
Bessborough Road ...	Rebuilding of 4 houses.
Elstree	The construction of roads and sewers for 188 temporary houses.
Camrose Avenue	Erection of 45 houses.
Alexandra Avenue ...	Erection of 132 flats.

INSPECTION AND SUPERVISION OF FOOD.

(A) MILK SUPPLY.

Control.

By the Milk and Dairies Regulations, 1926-1943, every local authority must keep a register of all dairies and dairymen in their district; and no person may carry on the trade of dairyman unless he and his premises are registered. "Dairy" includes any farm, cowshed, milk store, milk shop, or other place from which milk is supplied on, or for sale, or in which milk is kept or used for purposes of sale or manufacture into butter, etc.

Production.

Little milk is now being produced locally, only 11 persons or firms being now registered as cowkeepers. Of these, two (Dalton of Copse Farm, Harrow Weald, and Hedges of Pinner Hill Farm) produce tuberculin tested milk; three (Williams of Grove Farm Stanmore, Hall & Sons, Pinner Park Farm, and A. Keene of Stanmore Hill Farm) produce accredited milk; while the remaining six (Emmeny of Mill Farm, Pinner Hill; Wood, Hill Farm, Elstree; Smith, Oxhey Lane Farm; Perrin of Sudbury Court Farm; Kennet House; and Bradley of College Hill Road) produce ungraded milk. The number of cows in milk is about 250.

Supervision of the hygiene of milk production was an important duty of the sanitary inspector. Of recent years, great assistance has been received from the staff of the Central War Agricultural Committee. The provisions of the Food and Drugs (Milk and Dairies) Act, 1944, will in due course result in the transfer to the staff of the Ministry of Agriculture of the functions of local authorities relating to the conditions under which milk is produced at the farm. This will leave to the staff of the sanitary authorities the responsibility only for the state of milk as retailed to the consumer.

Licensing.

Under the Milk (Special Designations) Regulations, 1936-43, the special designations that might be used in relation to milk are: tuberculin tested, accredited, and pasteurised. Licences in respect of the first two categories are granted by the councils of counties and county boroughs, but for pasteurised milk by the councils of county districts. Licences are required in respect of establishments where designated milk is produced, bottled, pasteurised or sold retail.

There are certain general conditions subject to which licences may be granted. All arrangements regarding the production, storage, treatment and distribution of milk must be such as to satisfy the licensing authority. Designated milk must be kept separate at all stages from all other milk unless it is in sealed containers. Accurate records must be kept showing the quantities of milk produced, pasteurised and sealed.

To qualify for a licence to produce tuberculin tested milk, a producer must arrange that every animal is tuberculin tested at intervals of six months, and all reactors must be removed from the herd. Every animal

must be clinically examined at six-monthly intervals, and those animals suffering from any disease likely to affect the milk injuriously, must be segregated or removed. The milk must not at any stage be heat treated, and must satisfy a methylene blue reduction test, and must not contain the B.coli in $^{1}/_{100}$th ml. Tuberculin tested milk may be pasteurised, and be then retailed as tuberculin tested milk (pasteurised).

Accredited milk is that from cows subjected to periodical veterinary examination, but not to the tuberculin test. It is required to pass the same laboratory standards as tuberculin tested milk.

Pasteurised milk is that which has been heated, being retained at a temperature of 145-150° F. for at least 30 minutes and immediately cooled to a temperature of not exceeding 55° F.; it shall not have been heated more than once. This was the only standard accepted in this country before the war. Owing to staffing and other difficulties, the Ministry of Health approved during the war the High-Temperature Short-Time Process by which milk is exposed to a temperature of not less than 162° F. for at least 15 seconds, being then immediately cooled to 55° F. Pasteurised milk must not contain more than 100,000 bacteria per millilitre. The phosphatase test is a very sensitive colorimetric test which demonstrates deficiencies in the pasteurised product. By the 1946 Regulations, which come into force on March 1st, 1946, the plate count test is being rescinded, reliance being placed on the phosphatase and the methylene blue tests.

Two firms are licensed to bottle t.t. milk, namely, Spackman & Downham, The Broadway, Hatch End, and Hall & Sons, Pinner Park Farm.

Two firms are licensed to pasteurise milk, namely, Brazier of Kenton Lane Farm, and Hall & Sons, Pinner Park Farm.

Distribution.

The bulk of the milk in this district is retailed as pasteurised milk, the proportion probably not being very far removed from 98 per cent. of London in 1938. Before the war, the larger retailing firms had, by education and by rejecting products of less satisfactory producers, been able to start with a milk of high quality. During the war years, the general standard of production seems to have fallen appreciably, while, of course, firms could draw on only those supplies with which they were furnished. The producer of milk of any quality seemed to be so assured of a market, that there was little inducement, against the difficulties with which many were contending, to raise the standards. Much of the pasteurised milk retailed locally is distributed by one of three firms. Of these, the Express Dairy Company, with their pasteurising establishment in Hendon, retails from 13 addresses in the district; the United Dairies Limited, with their pasteurising establishment in Willesden, retails from 17 shops; and the Watford Co-operative Society, pasteurising in Watford, from 5 addresses. In addition, pasteurised milk is retailed from a further 10 addresses.

Tuberculin tested milk is retailed from 17 addresses of which eight belong to the Express Dairy, two to the United Dairies, and two to the Watford Co-operative Society.

Apart from the retail of milk from premises in the district, a certain amount is sold here from premises outside the area. Pasteurised milk is so supplied from eight premises and tuberculin tested milk from five.

The number of dairymen retailing raw milk in the loose state from premises in Harrow is three.

Before the war, to a growing extent, milk was sold in sealed containers from a number of small stores, the sale of milk being quite a subsidiary line to the main activities of the shop. The objections to this practice were perhaps more on æsthetic than on sanitary grounds, as of course it was a condition that the milk should remain in its sealed container. In such circumstances a dairyman was not required to be registered under the Milk and Dairies Regulations. During the war the practice declined to very small proportions, and at present there are only five premises from which milk is sold in this way.

Sampling.

The laboratory examination of milk, as distributed to the homes of the consumer, is a useful index of its state. It was the practice then, at intervals, to take routine samples for analysis. These would be taken more in the warmer than in the colder weather, and special attention was paid to the milk produced locally. Any unsatisfactory sample would be followed by an investigation of the cause, and, on the taking of those steps considered necessary, further samples would be taken until a series of good samples obtained, from which it would be assumed that the trouble leading to the unsatisfactory state had been overcome. It has been possible to carry out far less of this sampling in the war years. On the other hand there has been less necessity for sampling at the former frequency, as reports are received regularly of the results of analyses of samples taken by the County War Agricultural Committee. Local sampling is now fitted in to alternate with that of the County.

Last year, of the 11 samples of pasteurised milk, two proved unsatisfactory, failing to pass the phosphatase test. Of the two samples of tuberculin tested pasteurised milk, one similarly failed to pass the phosphatase test (this was from the same firm as supplied one of the failures of the pasteurised milk sample). The single samples of raw milk and of tuberculin tested milk were both satisfactory.

Supervision.

It is one of the duties of the sanitary inspector to see that the milk supplied to the householder is of satisfactory quality. He exercises supervision over its production, seeing to the sanitation of the premises and to the soundness of the routine adopted. In such an area as this, though, where so little milk is produced locally, his activities are directed more to the methods of distribution, though, of course, he exercises supervision of the pasteurising process. Routine visits are paid to all premises where milk is handled and any irregularity corrected. Thus the results of the analysis of samples submitted to laboratory examination might point to the need of a correction of some process. Above this, though, is the investigation of all complaints about the unsatisfactory state of milk as delivered, or about its poor keeping qualities. For some time past complaints have not been uncommon about the condition of

the bottles in which the milk has been delivered. The defence almost invariably has been the inefficiency of labour available. It is to be hoped that the day is not far distant when those engaged in the treatment of milk on a large scale will be able to obtain a sufficiency of satisfactory labour. It is hoped, too, that it will be possible to remove those controls that prevent a retailer obtaining his supplies from sources he knows to be satisfactory, and the householder obtaining her supplies from the retailer she wants.

(B) MEAT.

Inspection.

At the time of amalgamation there were nine slaughterhouses in the district. Certain changes have since been made, giving now the following eight :—7, Northolt Road ; 46, High Street, Wealdstone ; 94, High Street, Wealdstone ; High Street, Pinner ; Green Man, Honeypot Lane ; Stanmore Hill ; Stanmore Hall Farm ; and 63, High Street, Edgware.

In ordinary circumstances very little killing took place at these premises. For instance, in 1935, two were not used at all, a third was used on one occasion only, while the total average weekly killings in all amounted only to four beasts, 40 pigs, seven calves and 23 sheep. For this very limited amount the provision of a municipal abattoir was not considered to be warranted.

In the early days of the war slaughtering at these premises was abandoned, though a limited amount of killing at one institution was permitted. The effect of the Live Stock (Restriction on Slaughtering) Order, 1940, which became operative early in 1940, was that whereas formerly slaughtering had been carried out in some 16,000 premises in the country, the work was now concentrated in some 500 premises. The previous multiplicity of the private slaughterhouses which rendered impossible effective post-mortem examination of the animals killed and precluded ante-mortem examination on any scale, was a blot on the public health service of this country. Because the premises at which killing was centralised were selected primarily because of considerations of transport, not the most satisfactory from a hygienic point of view were selected. Nevertheless, it is to be hoped that hygienic conditions will now enable a similar practice to be continued and not permit all over the country the re-opening of the small private slaughterhouses.

Slaughterers are required to give notice to the authority of their intention to slaughter. The purpose of this requirement is to enable an inspector to attend and examine. With the limited killing here, it was possible to arrange that examination took place of almost every carcase before it was released. No difficulty was experienced regarding the surrender and condemnation of unsound parts.

During the year, 62 pigs and one lamb, owned by pig clubs or an institution, were killed and inspected on slaughter. Except one, in which the head was affected with tuberculosis, the carcases were sound. Three mesenteric fats were condemned for tuberculosis ; four plucks for parasitic disease or pneumonia, and five livers because of abscesses or flukes.

All three constituent districts adopted the clauses of the Slaughter of Animals Act by which sheep are included in the list of animals to be

slaughtered by the humane killer. The Council by resolution continued to enforce these provisions.

Section 3 of the same Act prohibits the slaughter or stunning of animals in slaughterhouses except by persons licensed by the local authority. At one time as many as 22 persons were licensed here.

MEAT DEPOT.

During the war years there was a meat depot in Canterbury Road. Not designed for the purpose for which they were used, the premises for a while were most unsuitable, though improvements were later effected. The volume of food stuffs passing through the depot necessitated almost the continued attendance in the daytime of one of the sanitary inspectors. The weight of meat condemned was 12,391 lbs. The use of the premises as a meat depot ceased on April 5th, 1945.

REGISTRATION OF HAWKERS.

Section 71 of the Middlesex County Council (General Powers) Act, 1938 (now re-enacted as section 279 of the 1944 Act), obliges a hawker of meat, fish, fruit and vegetables himself to be registered with the local authority, and obliges the owner of any premises used to see that they are registered.

(C) OTHER FOODS.

Bakehouses.

There are 48 factory bakehouses in the district to which 53 visits were paid in the course of the year.

Food Shops.

Food shops are visited regularly as a routine, apart from visits following complaints. Large quantities of food stuffs are condemned and voluntarily surrendered. 459 visits were paid to butchers' shops, 66 to fish shops, 313 to provision shops, 106 to dairies and milk shops, and 52 to greengrocers.

The following amounts of food stuffs were condemned and surrendered :—2,964 tins, one third containing milk and another one-third fish ; 172 stone of fish ; 45 cwt. fruit or vegetables ; 1,420 lbs. dried fruit ; 1,494 lbs. cereals ; 1,575 lbs. biscuits ; 784 lbs. flour ; 478 lbs. sugar ; 491 jars of jam, pickles or paste ; 38 packets of dried egg and 3,306 eggs.

(D) ADULTERATION OF FOOD.

In spite of the lead given by the Local Government and Public Health Consolidation Committee set up with a view to recommending the consolidation of local government and public health law that authorities with a population of not less than 40,000 should become food and drug authorities, the Minister of Health on the representation of the Middlesex County Council declined to make an order endowing this authority with such powers. Sampling of foodstuffs with a view to their being analysed is, therefore, undertaken by the staff of the Public Control Department of the Middlesex County Council.

ISOLATION HOSPITALS.

PROVISION OF ACCOMMODATION.

The Harrow Council fell heir to two institutions used for the reception of infectious patients. The Harrow-on-the-Hill Council had, in 1896, erected a 25-bedded hospital on a site of one-and-a-half acres in South Harrow. In 1902, the Hendon Rural District Council erected a 17-bedded hospital on a site of 3·2 acres at Honeypot Lane.

Since amalgamation both institutions have been run as one unit, acute cases being admitted to the South Harrow Hospital from which convalescent scarlet fever patients were transferred to the Stanmore Hospital. In general, only cases of scarlet fever and diphtheria have been admitted locally, though in epidemic times wards have been opened for those suffering from complications of influenza and of measles. Patients suffering from other infectious complaints have been admitted to the hospitals of other authorities, namely, the London County Council, the Borough of Hendon, the Borough of Willesden, and the Uxbridge and the Waltham Abbey Isolation Hospitals.

Local accommodation is unsatisfactory on many counts. It is insufficient for the reception of all local infections, while the site of neither hospital is large enough to enable suitable extensions to be made. The single bed accommodation is extremely limited, so severely restricting the types of cases which can be admitted for treatment.

A very rough standard of the accommodation for the infectious sick required by any district is one bed per thousand population. It was, therefore, decided in 1935 that a new hospital should be erected having an immediate provision of 130 beds, with facilities for ultimate expansion to 180, which it was thought would be adequate to meet the needs of the population in the built-up district. Although a most suitable site had been found, it was not until the summer of 1939 that all obstacles to the construction of the new hospital were removed. By this time the final draft of the conditions of the architectural competition had been agreed upon, the assessor for the competition had been appointed, as had also the consulting engineer, and an agreement had been reached with the County Council on the question of the access roads, drainage and the provision of other services.

The size of the hospital to be erected could be based only on theoretical considerations as, of course, the district had not been developed sufficiently long for there to be available statistics which would be a guide to the extent of the prevalence of the infections. Ten years' actual experience, though, has shown the needs of the district could have been met by some 100 beds. On the other hand, though, whereas at one time this was considered a sufficient number of beds for a satisfactory isolation hospital unit, to-day's opinion is that the minimum should be nearer 200, a figure far in excess of the probable needs of the area.

The Borough of Hendon have a relatively modern hospital near the Harrow boundary and have ground on which the hospital could be considerably extended. In 1944, then, it was decided that approach should be made to the Borough of Hendon to discuss in general the question of the provision of a hospital of size sufficient to receive patients from both districts. At an early meeting it was agreed there were advantages in having a still larger hospital for which there is room on the site and which would serve the Borough of Wembley in addition to Hendon and Harrow. This proposal was acceptable to all three parties, and at the end of the year it seemed that the prospect of fulfilment was quite bright.

Not all infectious patients are admitted as a matter of routine to an isolation hospital—apart from the fact that it is not necessary, it would not be practicable. When isolation hospitals were first established, the three main infections admitted were scarlet fever, diphtheria and typhoid fever, about half of the accommodation being required for sufferers from scarlet fever. The type of illness of scarlet fever has undergone a marked change, so that what was at one time a most severe complaint, to-day is usually very mild. This waning in severity is reflected in the greater willingness of parents and of the attendant physicians for the child patients to remain at home. Diphtheria is warrantably classed as one of the more serious diseases which needs such constant nursing as can best be provided in hospital, so that in general all diphtheria patients to-day are admitted to hospital. On the other hand there has been such a marked decline in the prevalence of diphtheria that the accommodation required for such patients is much less now than formerly. The virtual elimination of typhoid fever is, of course, one of the outstanding successes in hygiene in this country, and to-day no special provision needs to be made for such patients. Against these lessening demands, though, must be set the increasing requirements for the nursing of other diseases, and because these occur more sporadically than in outbreaks of any size, cubicle accommodation is required to enable each patient to be housed separately. To such cubicles should be admitted those patients needing hospital treatment, but who because of an infectious state cannot be admitted to the ward of a general hospital. Cases of gastro-enteritis form one such group. In general, the patient suffering from measles, whooping cough or influenza, does not need to be treated in hospital, but the patient suffering from complications of one of these diseases does. The test, then, as to the necessity for hospital admission is very different from what it was. When first established, isolation hospitals were institutions to which were admitted patients suffering from some acute infectious illness with the object of removing an infective focus and so limiting the spread of infection. In this they very largely failed. To-day's conception of the isolation hospital, though, is of an institution to which are admitted patients suffering from something for which hospital treatment is necessary, but who, because of their infective state, cannot be admitted to a general hospital. This means, of course, that the standard of treatment and the facilities for treatment at the isolation hospital should be comparable to those obtaining in the general hospital.

CLINICAL ASPECTS.

Scarlet Fever.

ADMISSIONS :

Number admitted with a diagnosis of scarlet fever, 160.

Number suffering from scarlet fever, 148.

Number in whom the diagnosis was not confirmed, 12.

Of these cases in which the diagnosis was not confirmed, 2 suffered from tonsillitis, 1 from pharyngitis, 1 from teething rash, 1 from rubella, 1 from no obvious disease, and 6 from food or drug rashes.

DEATHS :

There were no deaths.

TREATMENT :

Of the 148 patients admitted who were considered to be suffering from scarlet fever, serum alone was given in 19 cases, prontosil alone in 61 cases and both serum and prontosil in 45 cases. 23 cases were given neither. Five of the serum cases had 6,000 units, the remainder had 3,000 units.

COMPLICATIONS :

27 per cent. of the scarlet fever patients suffered from some complication. The number who suffered from otorrhœa was 9, from adenitis 6, from rhinorrhœa 11, from rheumatism 2, secondary sore throat 7, septic sores 6 and relapse 1.

CROSS INFECTION :

Eleven patients developed other infections during their stay in hospital, the infections being measles in 6 cases and chickenpox in 5.

RETURN CASES :

One patient was admitted with tonsillitis six days after her son had been discharged from hospital.

PERIOD OF STAY :

49 per cent. of patients returned home on or before the twenty-first day from admission. 29 per cent. were in until the twenty-eighth day or longer, most of them being detained for some minor abnormality.

Diphtheria.

ADMISSIONS :

Number of cases admitted on a diagnosis of diphtheria, 41.

Number of cases clinically diphtheria (nasal, 5 ; faucial and laryngeal, 17), 22.

Number of positive swab carriers, 8.

Of the 11 cases in which the diagnosis was not confirmed, 8 were suffering from tonsillitis, 1 from Vincent's Angina and 2 from measles.

DEATHS :

Number of deaths from diphtheria, 3.

The first case was a child of 9 years old, admitted on the third day of the disease and died on the day of admission. The second was a child of 6 years, admitted on the second day of the disease and died one-and-a-half days later. The third was a child of 6 years, admitted on the seventh day of the disease and died shortly after admission.

None of these three children had been immunised against diphtheria.

COMPLICATIONS :

Five patients suffered from palatal paralysis, one from facial paralysis, one from otorrhœa and one from albuminuria. The heart musculature was involved in one case.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

PREVALENCE OF INFECTIOUS DISEASES (other than Tuberculosis).

Disease.	Und. 1 yr.	1–4 yrs.	5–9 yrs.	10–14 yrs.	15–19 yrs.	20–24 yrs.	25–34 yrs.	35–44 yrs.	45–54 yrs.	55–64 yrs.	65 & up	Total
Scarlet Fever...	1	62	156	40	8	6	3	2	—	—	—	278
Diphtheria ...	1	9	15	7	4	3	4	3	1	—	—	47
Pneumonia ...	7	10	14	5	8	3	9	11	15	8	19	109
Dysentery ...	2	5	7	2	3	5	3	2	4	3	2	38
Erysipelas ...	1	1	—	2	1	1	3	6	8	7	7	37
Cerebro-spinal Fever	—	1	2	1	1	—	—	1	1	2	—	9
Puerperal Pyrexia ...	—	—	—	—	—	3	12	7	—	—	—	22
Pemphigus Neonatorum	3	—	—	—	—	—	—	—	—	—	—	3
Malaria	—	—	—	—	—	1	5	7	—	—	—	13
Enteric Fever	—	—	—	2	1	—	—	—	1	—	—	4
Ophthalmia Neonatorum...	5	—	—	—	—	—	—	—	—	—	—	5
Food Poisoning	—	—	—	—	—	—	—	—	—	—	1	1
Poliomyelitis ...	—	—	1	1	—	—	—	1	—	—	—	3
Measles ...	80	922	1088	45	10	19	10	8	1	1	—	2184
Whooping Cough	20	120	71	3	—	—	3	3	—	—	—	220

Disease	Cases Notified	Admitted to Harrow Isolation Hospital	Admitted to other Isolation Hospitals	Admitted to other Hospitals	Deaths Registered
Scarlet Fever	278	161	2	—	—
Diphtheria	47	40	6	—	4
Pneumonia	109	—	—	—	106
Dysentery	38	—	13	7	—
Erysipelas	37	—	13	—	—
Cerebro-spinal Fever ...	9	—	3	6	2
Puerperal Pyrexia ...	22	—	11	—	1
Pemphigus Neonatorum	3	—	1	—	—
Malaria	13	—	—	—	—
Enteric Fever	4	—	4	—	—
Ophthalmia Neonatorum	5	—	2	—	—
Food Poisoning ...	1	—	—	—	—
Poliomyelitis	3	—	1	1	—
Measles	2184	—	37	—	2
Whooping Cough ...	220	—	9	—	2

CONTROL OF INFECTIOUS DISEASE.

Notifiable Diseases.

The notifiable diseases are those which under the provisions of the Public Health Acts are required to be notified to the Medical Officer of Health of the district and comprise smallpox, cholera, diphtheria, membranous croup, erysipelas, scarlet fever, and typhus, typhoid and enteric or relapsing fevers. Other diseases might be made notifiable in a particular district by the local authority of that area with approval of the Ministry of Health. Under these provisions pemphigus of the new born is notifiable here (order confirmed 31.7.35, and effective from 17.8.35). Notification is required by the head of the family or the nearest relative present in attendance on the patient, or any person in charge of or in attendance on the patient, or the occupier of the building ; and also by every medical practitioner attending or called to visit the patient.

Apart from these notifiable diseases are others which are required to be notified by a variety of orders or regulations ; these include plague, cerebro-spinal meningitis, acute poliomyelitis, tuberculosis, ophthalmia neonatorum, encephalitis lethargica, malaria, dysentery, acute primary pneumonia, acute influenzal pneumonia, puerperal pyrexia, measles and whooping cough.

Under the Food and Drugs Acts, 1938, medical practitioners are required to notify cases of food poisoning.

Veterinary Inspectors are required to notify to the Medical Officer of Health anthrax, glandular, farcy, and rabies, in animals. Industrial poisoning contracted in a factory must be notified to the Chief Inspector of factories.

Home Visits.

On receipt of a notification of one of the more usual notifiable diseases, a visit is paid by the health visitor and enquiries instituted, (a) to determine if possible the source of infection, with the object of taking whatever steps might be practicable to avoid others being infected from that source, and (b) to enable such steps as may be taken to minimise the spread of infection by the infected persons.

Admission to Hospital.

Not all patients suffering from a notifiable disease need to be admitted to hospital. For some years after the isolation hospitals were established, their purpose was the admission of infectious patients with the object of preventing the spread of infection to others, the diseases from which sufferers were admitted being scarlet fever, diphtheria and enteric fever. To-day's conception of the purpose of the isolation

hospital is very different, in that it is now accepted as being an institution to which are admitted patients suffering from conditions needing hospital treatment, but who because of their infectiousness cannot be admitted to a general hospital. The isolation hospital, therefore, admits a far wider range of case than formerly. As many of these are sporadic, patients have to be admitted to small, even individual, wards. The design of hospital construction has, therefore, been altered so that to-day's hospital contains a very high proportion of its accommodation in small units.

Of the three diseases which were first admitted, typhoid fever is no longer common, even during the autumn when the seasonal rise used to occur. Diphtheria, it is hoped, will be controlled and kept to low figures by immunisation. Scarlet fever at times is very prevalent, but of recent years its type has been mild. Public opinion, though, seems to consider that such patients should be admitted to hospital. Apart from the wastefulness of such a practice, there is the real disadvantage in that, when admitted to the general ward, the child is exposed to an infection by a more severe type of organism than that which gave him his attack. While less accommodation is required for this disease, though, the range of case admitted is widened, and during the epidemic periods of influenza, measles or whooping cough, many suffering from complications of these conditions might with advantage be admitted.

Exclusion.

Because a contact of any sufferer from an infectious disease might be a carrier either contact or incubationary, it was customary to insist on the exclusion of contacts on quite a large scale. The stringency of this practice has been gradually relaxed, until to-day many authorities exclude only those whose occupations bring them into contact with those of susceptible ages, or render them possible instruments of widespread outbreaks through their handling of milk, or some other medium—though even here the restriction is imposed only in the case of the more severe of the infectious diseases. For many years the procedure in regard to the exclusion of school child patients, suffering from infectious diseases and of school contacts, has been governed by the recommendations contained in the Memorandum on the Closure of and Exclusion from School, issued jointly by the Ministry of Health and the then Board of Education. An addendum, issued in 1942, recommended a modification of the procedure, the general effect of which was that a patient who had suffered from scarlet fever or diphtheria could be re-admitted to school one week after being freed, instead of two weeks as formerly ; while contacts of patients suffering from these diseases and treated at home could be admitted after seven days' exclusion from the date of isolation, instead of waiting until after the patient had been freed from infection.

The following is a summary of the recommendations in the addendum :—

Period of Exclusion

	Patients	Contacts, i.e., the other members of the family or household living together as a family, that is, in one tenement
Scarlet Fever	7 days after discharge from hospital or from home isolation (unless "cold in the head," discharge from the nose or ear, sore throat, or "septic spots" be present).	7 days after the removal of the patient to hospital or the beginning of his isolation at home.
Diphtheria	Until pronounced by a medical practitioner to be free from infection.	7 days after the removal of the patient to hospital or the beginning of his isolation at home. If there be any suspicious signs the child should be excluded further until pronounced by a medical practitioner to be free from infection.
Measles ...	14 days after the appearance of the rash if the child appears well.	Infants who have not had the disease should be excluded for 14 days from the date of appearance of the rash in the last case in the house. Other contacts can attend school. Any contact suffering from a cough, cold, chill or red eyes should be immediately excluded.
German Measles	7 days from the appearance of the rash.	None.
Whooping Cough	28 days from the beginning of the characteristic cough.	Infants who have not had the disease should be excluded for 21 days from the date of onset of the disease in the last case in the house.
Mumps ...	14 days from the onset of the disease or 7 days from the subsidence of all swelling.	None.
Chickenpox	14 days from the date of the appearance of the rash.	None.
Smallpox	Until the patient is pronounced by a medical practitioner to be free from infection.	21 days unless recently successfully vaccinated when exclusion is unnecessary.

Disinfection.

In November, 1934, it was agreed that fumigation and stoving be carried out free of charge at premises infected with a notifiable infectious disease. In other cases fumigation was to be undertaken only when demanded, an appropriate charge being made. In March, 1935, it was agreed (a) that except in cases of smallpox and typhoid fever, and in any exceptional cases approved by the Medical Officer of Health, where disinfection cannot be carried out in the home, when the present practice will be followed, in future all terminal fumigation and removal of bedding and other articles for stoving after the commoner notifiable infections be abandoned, and that the householder be instructed as to the precautionary measures to be taken ; (b) that where householders still require

the present routine to be followed, a charge be made, namely, for fumigation of a room 7s. 6d., for stoving of bedding 10s. for the first load, and 5s. for each subsequent load ; (c) that disinfectants be supplied free on application to householders where an infectious disease has occurred. In March, 1937, it was decided these facilities be modified so that terminal fumigation and stoving of articles be provided free in the case of open tuberculosis and of scabies.

DIPHTHERIA.

Incidence.

47 notifications were received during the year of cases occurring amongst the civilian population. In many instances the patient was suffering from some other condition, mostly tonsillitis. The corrected figure of 29 is a rate per 1,000 population of 0·15 compared with the national rate of 0·46. The local rates for the years 1934 to 1944 ranged from 0·08 to 0·60.

In three instances the patient was not suffering from a clinical attack of diphtheria, but was sent into hospital having a positive swab result. One patient was suffering from laryngeal diphtheria.

Of the cases proved to be diphtheria, 23 per cent. were in children under five years and 55 per cent. of ages 5 to 15.

Places of Treatment.

Most of the patients were admitted to the local isolation hospitals for treatment, only one remaining at home. During the period of staffing difficulties when cases of diphtheria were sent elsewhere, five patients were admitted to other isolation hospitals. The one laryngeal case was admitted to a general hospital.

Deaths.

Four cases proved fatal. The first was the laryngeal case, who died shortly after admission to a general hospital. The next was a boy of 10 admitted on what was apparently the second day of illness and who died shortly after admission. A few weeks later a boy of 6 living in the same road, but who had apparently had no contact with the other child was admitted, again apparently on the second day of illness, and died two days after admission. The last case was a girl of 6 who, though swab results showed the presence of K.L.B. on a clean throat, was admitted on the seventh day of pneumonia. She died a few hours after her admission.

The case fatality rate was 13 per cent. ; the mortality rate per 1,000 population 0·02, the same figure as that for the country as a whole.

Diphtheria Immunisation.

At their meeting on January 1st, 1935, the Council adopted the recommendation of the Public Health Committee at their December meeting that a sum not exceeding £200 be allocated for the period ending March 31st, 1935, to provide facilities for residents in the district whose annual income does not exceed £250 to receive immunising treatment against diphtheria, this sum to provide for payment of a fee of 10s. in

each case to medical practitioners carrying out the treatment and to cover the cost of the necessary propaganda, and that the Medical Officer of Health be authorised to take all necessary steps for circularising the practitioners, informing the public and generally bringing the scheme into operation as soon as possible.

The antigen used was T.A.M. in three doses of 1 c.c., spaced at one-month intervals. The immediate response was quite gratifying, though further publicity in the autumn following a fall in the summer, achieved little. 1,804 cases in all were treated under these arrangements. This did not represent the total number of the treated because, especially with the income limit, large numbers were treated privately. Some 7,548 units of T.A.M. were sold to medical practitioners, so that up to some 2,500 cases were possibly treated. The next year only 315 were immunised, and in 1937 only 226. In this year the one-shot A.P.T. was marketed, though not used in this district.

On the general question of propaganda, it was felt that better results would be obtained by concentrating on selected age groups, rather than in carrying on a more diffuse propaganda directed to children of all ages. As the immunity of infants passes off about one year of age, and the toddler is reaching the stage in which he is more likely to be exposed to risk, the age group chosen was 9 to 12 months. The practice was instituted, which has since been continued, of sending to the parents of all children of this age a letter pointing out the desirability of the child being immunised, more particularly at this age. There was a welcome increase in 1938 to a figure of 956 of those treated being largely infants of this age. At the end of the year it was agreed that A.P.T. in two doses should be accepted as a recognised method of immunising under the Council scheme. Nevertheless, most of the 1,129 children treated in 1939 were inoculated by T.A.M. and not A.P.T. The position was reversed though in the next year, largely because of the difficulties of obtaining anything other than A.P.T. 705 were treated in this year.

Up to this, the attitude of the central authority had advanced from the earlier one of guarded hesitancy, through that of benign neutrality to a mild encouragement. The position was completely altered at the end of 1941, when the Ministry of Health apparently decided that the immunising of children should be actively encouraged, and so, for the first time, there were official broadcasts advocating this practice. This meant that for the first time, the public appreciated that the scheme was approved by the Ministry of Health and it also meant that use could be made for the first time of broadcasting, so reaching the population not getatable by the propaganda of local authorities. This propaganda in the last weeks of 1940 brought in for treatment large numbers who received their first dose before the end of the year, but whose returns are classed in the next year, as it was not until then that their treatment was completed.

Up to this, children were treated only under the scheme by which they were dealt with by the family doctor. Early in 1941 arrangements were made in addition for treating children at the infant welfare centres, while the County school medical staff undertook inoculation of school

children in the schools and school clinics. A grand total of 6,858 were treated in this year, this including 1,184 at infant welfare centres and 1,094 at schools or school clinics. At the end of the year it was estimated some 31·5 per cent. of children under 15 had been immunised, and 25·6 per cent. of those under five. In 1942 7,366 altogether were treated, including 1,977 at infant welfare centres and 713 at schools. At the end of the year, of children under five, 42·5 per cent. were immunised and of children of school age 52·1 per cent. At one time authorities were advised that doses of A.P.T. as small as 0·1 c.c. and 0·3 c.c. were as effective as the previously recommended doses of 0·2 and 0·5 c.c. ; with larger supplies coming through the bigger doses were accepted as standard. The results of the Schick tests though were the same whatever had been the dosage.

Early in 1943 the income limit which precluded those above it being treated under the Council's arrangements was removed. From the same time A.P.T. was issued free of charge to medical practitioners. In the year, 5,427 children were treated, 1,532 at the centres and 2,220 at schools. At the end of the year 69 per cent. of children of school age and 46·1 per cent. of those under five were protected.

There was a marked falling off in the number of children immunised in 1944 only 2,359 being treated, 1,327 of them at the welfare centres, 149 at the local war nurseries and only 28 at the local schools. At the end of the year, 45·3 per cent. of those under five were thought to be protected, 54·7 per cent. of those of school age.

There was a slight improvement in 1945 when 3,111 were treated, of whom 1,934 were done at the infant welfare centres, 44 at the nurseries, and 110 at the schools. At the end of the year, 53·4 per cent. of children under 5 years of age and 53·7 per cent. of school children were protected. Local efforts in the way of posters, letters to medical practitioners, and the special efforts of medical officers and health visitors supporting the national campaign of publicity, were possibly responsible for the improvement. As mentioned in the report for 1944, though, it is felt that efforts should be concentrated on maintaining a high standard of immunity in the under-fives. In circular 194, the Ministry recommended that attention be devoted to children of 9 to 12 months of age. Fortunately, these are groups which can be most easily reached by those operating the maternity and child welfare services, and the offering of these facilities at the infant welfare centres should do much to ensure that a high proportion of children of these ages are treated. Theoretically, if a high proportion of the population have been treated the standard should be maintained if the number of children treated in any one year is not less than the number of births in the district. While under the influence of special conditions such as an outbreak of diphtheria or special propaganda these numbers might be exceeded, it is felt though, this is a desirable target which is capable of attainment. The Ministry decided (circular 194, dated 14.11.45) that in future the responsibility for immunising children under five years of age is to be placed on welfare authorities. Hitherto, as it was a measure to control the spread of infectious disease, it had been the responsibility of the sanitary authorities.

Diphtheria in the Inoculated : Vaccination against smallpox fell into disrepute partly, perhaps, because more had been claimed for it than

it could achieve. While recent vaccination is a certain protection, this high degree of immunity falls with the passage of time. A person vaccinated years ago, then, can succumb to smallpox. The lesson has been learned by most, and from the first, care had been taken to emphasize that protection against diphtheria wanes, and that immunity to-day does not necessarily indicate a permanent inability to contract the infection. More than this ; it is realised that while a certain dosage is effective in a very high proportion of children in conferring immunity, it is not effective in all, either because of something peculiar to the child, or because of the surroundings in which he has been brought up. Conferring immunity, then, connotes injections of adequate amounts of a suitable preparation in properly spaced doses, and this is followed by a test to determine that the Schick state is negative. Even this is not the whole story. An infant inoculated and even found Schick negative at one year of age might be brought so seldom into association with the diphtheria organism that by the time he is due to enter school his immunity might have seriously waned. For this reason it is recommended that infants immunised at about one year of age (the desirable age because of the risk they might shortly be exposed to at a time when they have lost their natural immunity) should receive a further dose before entering school so that they are fully armed before they are exposed to the further risks. When advocating protective measures then, it is not held out to the parents that their children if treated cannot in any circumstances contract infection—rather that the risk of their contracting infection is substantially reduced, and the risk of their contracting fatal infection almost eliminated.

The following statement summarises the instances in which diphtheria has occurred amongst those who have had, or are alleged to have had, protective inoculations against diphtheria :

1941. Number of cases clinically diagnosed 39
Amongst these the number of inoculated children ... 1

A mild case who had received 0·1 and 0·3 c.c. A.P.T. but had not been Schick tested.

1942. Number of cases clinically diagnosed 51
Amongst these the number of inoculated children ... 6

Of these one child received one dose of A.P.T. two weeks before and another child one dose four months before the onset of illness. A boy of 8 had been inoculated at one year of age. A girl of 12 had been treated in 1939 ; one of 13 in 1936 ; neither had been Schick tested. The last was a boy of 5 inoculated and found Schick negative in 1939. All these were very mild cases.

1943. Number of cases clinically diagnosed 40
Amongst these the number of inoculated children ... 4

The first was a boy of 7 inoculated in 1941, and found Schick negative in 1942. A baby of 15 months inoculated in January not Schick tested fell ill in January. Both were very mild cases. A boy of 3 who succumbed in February had received one dose in October, 1942. The remaining case was the only one to have a sharp attack of illness, a boy of 8 who was alleged to have been immunised at the age of two.

1944. Number of cases clinically diagnosed 16

Amongst these the number of inoculated children ... 2

The first child had been inoculated 12 months before, but had not been tested. The other was alleged to have been treated years before in another district. Both were mild cases.

1945. Number of cases clinically diagnosed 29

Amongst these the number of inoculated children ... 11

Of these eleven seven had been subsequently tested and found to be Schick negative ; two others received the usual course of treatment, but were not Schick tested, while the remaining two were reported to have been immunised. All cases were mild in character.

The following table summarises this information :

	No. of Cases	Inoculated at all	Full inoculation, but no Schick test	Full inoculation and Schick negative	Only one dose	Others	Mild att.	Sharp att.
1941 ...	39	1	1	–	–	–	1	–
1942 ...	51	6	3	1	2	–	6	–
1943 ...	40	4	1	1	1	1	3	1
1944 ...	16	2	1	–	–	1	2	–
1945 ...	29	11	2	7	–	2	11	–

In nine instances diphtheria occurred in those who after inoculation were found to be Schick negative. Another eight succumbed who had received the recognised course of treatment. In all, including those who had received one dose, only twenty-four cases occurred as against 146 in the total population and this although by 1943 substantially more of the children under 15 had been immunised than were unprotected. Not one of the thirteen deaths from diphtheria which occurred during these five years took place amongst children who had been immunised. When diphtheria did occur in an inoculated child, in all but one instance the attack was of mild character. The one case recorded as being a sharp attack was that in a child of 8 who was stated to have been immunised at two years of age.

SCHICK TESTING : The immunity of an individual to diphtheria is largely dependent on there being sufficient anti-toxin circulating in his tissues. A measure of the adequacy of this circulating anti-toxin is determined by the Schick test by which a small amount of toxin is injected subcutaneously. If there is sufficient circulating anti-toxin to neutralise the toxin there is no reaction ; the person is said to be Schick negative and is considered to be immune, by which it is understood that he can at that time withstand attack by a dose of diphtheria organism to which persons might ordinarily be exposed. If the amount of circulating anti-toxin is too small, though, un-neutralised injected toxin sets up a reaction which is manifested by a small red mark which persists for some days. This is the Schick positive reading, indicating susceptibility and the necessity for further inoculation. Apart from reacting to the toxin, the

tissues might react to the protein constituent of the serum, giving pseudo-reactions. To avoid errors from this cause, it was customary at the time of the Schick test to inject into the other arm as a control the same inoculum but with the toxins neutralised. Any reaction then to the control would be due to the protein. As a matter of practice this injection of the control has been abandoned here because it has been found in recent years that the proportion of pseudo-reactors was so very small that they could be discounted.

In the early days of diphtheria immunisation, stress was laid on the necessity of carrying out the Schick test after inoculation. It has always been customary to carry this out not less than three months after the completion of the course because that length of time has to elapse before the full benefit of the inoculation was attained. It is only by Schick testing that the reliability of preparations used can be confirmed. Since the national publicity campaign in favour of diphtheria immunisation it seems less stress has been laid on this point. Admittedly, the bigger numbers treated make it more difficult to carry out the tests. Then again experience has shown the reliability of the materials used in accepted doses. Some authorities too, feel that the time of the reduced staffs available for this work could be better employed in inoculating others, rather than in testing those treated. In some areas a percentage of those treated were tested, this step being taken to ensure that every batch of inoculum used was active. In this district attempts have been made to continue to offer facilities for having the test carried out on all treated. It was felt that as long as there was no assurance of a hundred per cent. success, and there is not, from the use of preparations that the parent who had accepted advice as to the necessity for having his child treated was also entitled to know whether the injection was a success in the case of his child, or whether that child was in the group of perhaps 2 per cent. who needed further injections to ensure immunity. It was only in the year 1940 that staff difficulties prevented these facilities being offered at the usual time. In general it is found that about half of those invited attend. Of these about 2·5 per cent. are found to be still Schick positive.

The actual figures of those invited for testing in 1945 were 3,914. Of these 1,801 attended, of whom 66 were found to be positive, a percentage of 3·7.

Provision of Anti-Toxin.

By the Diphtheria Anti-toxin Order of 1910, local authorities were empowered to provide a temporary supply of diphtheria anti-toxin for the poorer inhabitants of the district. These powers were extended under what is now Section 448 of the Middlesex County Council Act 1944, so that a local authority may provide and supply, with or without charge, to any registered medical practitioner antidotes and remedies against any notifiable disease.

By the kindness of the members of the fire service, arrangements have been made for serum to be obtainable at the various fire stations as well as at the two isolation hospitals. On a number of occasions medical practitioners have been circularised reminding them of these facilities. The practice of medical practitioners administering serum is not now the

rarity it was. It is of course understandable that if a patient is to be admitted to hospital soon, practitioners leave this to be done at the hospital. The greatest benefit is probably in the case in which the diagnosis is in doubt but where the disease really is diphtheria. Reliance on the swab for the making of a diagnosis which involves a lapse of time is harmful if nothing is done in the meantime. It is in such cases that it is felt that if there is sufficient suspicion on clinical grounds to warrant an examination of a swab, anti-toxin should be administered.

Many cases admitted to hospital prove not to be diphtheria. The admission of doubtful cases is a practice to be encouraged where facilities are available. One encouraging feature in regard to the administration of anti-toxin by general practitioners is that when injected it is now given in adequate doses.

During the year, 35 lots of anti-toxin were issued, totalling 280,000 units.

Schools and Spread of Infection.

Diphtheria is one of the diseases which might cause outbreaks of infection in schools, most commonly arising perhaps from a nasal carrier. There were no cases this year in which there was any suggestion that infection had been contracted in school.

SCARLET FEVER.

Incidence.

In the case of 8 of 278 cases notified as suffering from scarlet fever the diagnosis was amended, in three to tonsillitis and in another three to food rash. The net figure of 270 is an incidence rate per 1,000 population of 1·41, compared with the rate of 1·89 in the country as a whole. The local rates during the years 1934 to 1944 had ranged from 1·06 to 4·70.

The incidence was fairly uniform through the year with a weekly average of nearly 6 for the first quarter, just under five for each of the next two, and just over 6 for the last quarter.

Deaths.

No deaths occurred in this district from scarlet fever.

Places of Treatment.

Of the 265 cases, 115 or 43 per cent. were treated at home at the election of the patients. Of those removed it seems another 20 per cent. might have been so dealt with. In 22 per cent. the reason for removal was the presence of other children at home, in 5 per cent. the patient was an adult ; in the same number that there was a baby at home was the reason. In three cases only was the reason for admission to hospital the clinical condition of the patient.

Over the 12 years there have been marked fluctuations in the extent to which removal to hospital of scarlet fever cases has been requested. The proportions were entirely unrelated to the prevalence of the infection. For the six years 1934 to 1939, the average percentage of home treated cases was 26, though this included a figure of 41 in 1936. In the succeeding years the numbers were 25, 21, 30, 31, 43 and 43. Of those removed

the percentage of those who it seemed might well, or even possibly with advantage, have remained at home was anything from 21 to 44. In very few cases was the reason for removal the clinical condition of the patient. The presence of young children in the home accounted each year for 15 to 20 per cent. of the requests ; the presence of many children in the house from 5 to 10 per cent. The fact that there was no bedroom in which to isolate the patient was a common reason before the war, accounting for 15 per cent. of the cases, but has been responsible for a smaller number of requests since. Owing to difficulties in nursing them, adult patients, though suffering from a mild type, are mostly removed, and these have constituted about 10 per cent. of the admissions. The absence of anyone to nurse patients at home was of course a common reason for removal during the war years, and at times accounted for up to 6 per cent. of the admissions.

17 per cent. of the removals were made on the 1st day of onset, 30 per cent. on the 2nd day of illness, 31 per cent. on the 3rd, 17 per cent. on the 4th ; but in another 17 per cent. removal was not carried out until sometime after the 4th day of illness.

Secondary Infection.

More than one case occurred in 10 households, in most of them the first patient giving rise to one other infection, but in one instance to two. In two of these homes two patients sickened simultaneously. Of the remainder, the primary case was home treated in two instances, the intervals separating the onsets of illness of the first and of the secondary cases being two and four days. Where the primary patient was removed to hospital, in several instances the date of onset of the secondary was either the date of removal of the primary case or preceded removal. The interval between the onset of the primary to the onset of the secondary case was two days in four instances, three days in two and four days in one. In only one instance was it more than four days, and in that case, where it was seven, the secondary case was an adult.

A study of secondary infection is of interest from two aspects. The first is in regard to the effectiveness of removal of patients to hospital in preventing an attack in any other member of the household. In most instances where a secondary case occurs, when the primary patient was treated at home, the onset of illness of the secondary preceded the diagnosis of the first case. This means that in these instances it was not the failure to remove to hospital the first case that resulted in the second contracting the infection. Again, although nearly half the primary cases removed to hospital were at home until the 3rd day of illness and in 17 per cent. of cases were at home even over four days, only this very small number of secondary infections occurred. It is not suggested that there is not some increased risk to the household when a case of scarlet fever is nursed at home ; but it is felt it should not be assumed that because of this risk, which is slight, the proper place for the treatment of a case of to-day's mild scarlet fever patient is the general ward of an isolation hospital. The other point is in relation to the practice of disinfection. The routine of fumigation and stoving of bedding and clothing which was carried out for so many years was based on the premise that

inanimate objects contaminated by the exhalations of the infectious patients might be infective. If this procedure were necessary to eliminate this infectiousness, then the abandoning of the practice should have resulted in an increase in those secondary infections not the result of direct infection from the patient in his infective stage. Also it probably would have resulted in an increase in the number of return cases. Secondary infections this year are on much the same scale as other years, and, as has already been pointed out, can be assumed, because of the relationship of the onset of the secondary to that of the primary case, to be mostly attributable to infection by the original patient.

Return Cases.

Return cases are those which occur in a household, to which has returned a patient discharged from hospital in which he has been treated for scarlet fever within 28 days of that return. The period is a purely arbitary one. It is assumed that the vast majority of these infections occur because of the infectivity of the patient who returned home. In very many cases it is found that he has, since his return, developed some abnormal state, mostly a nasal discharge, though occasionally an otorrhœa. Though more common in epidemic times the rate remains fairly uniform, and seems to be unrelated to the hospital régime. This year there were no return cases.

Schools and Infection.

Scarlet fever is another of those diseases which might be spread in schools by an undetected carrier. Sometimes a group of cases in a class will by examination of all the pupils lead to the detection of a suspect whose exclusion is followed by an abatement in the incidence. In other cases a study of the register to detect absentees might throw suspicion on a child with a doubtful history. Most often, though, in spite of there being suspicious groupings of children attending the same class falling ill about the same time no carrier can be detected. Detection is of course very much more difficult in the case of the large school of to-day, with the meetings of children in places even in that school other than the classroom, apart from their meeting outside in sunday schools, clubs or cinemas. On the other hand, even a succession of one case in each of four consecutive weeks such as occurred in an infants' school in the spring term, assumes less importance when it is realised that in that department there are hundreds of children, and more particularly when different classes are involved. In the summer term the eight cases spread over eight weeks in Roxbourne school were the only suggestive grouping. In the autumn term there was again only one primary school involved, namely, Pinner Park. Three cases of the last two weeks in October were followed by a clear week, but this by the occurrence of six cases. One in the following week was followed by another three in the next week. Many, but by no means all, of the children were scholars of one class. Inspection failed to detect any but one child suspected of developing the disease. Two weeks of freedom was then followed by one case.

SMALLPOX.

A few contacts of cases came to the district and were kept under surveillance for the usual period. For freedom from outbreaks of smallpox, reliance cannot now be placed on the vaccinal state of the community, as this is admittedly very low, but rather on the active efforts to ring off a detected case. Control is far easier when the type is the more severe typical smallpox, which is that likely to be imported from abroad, than when it was the mild variant which overran the country a few years ago.

TYPHUS FEVER.

This, a louse-borne infection, is one of the diseases liable to be imported. In the present state of health of the country any large outbreak is most improbable. Air travel increases the risk of importation, so visits are paid to the homes of those about whom information is received that they have recently arrived by air from a suspected area.

MALARIA.

At one time endemic in large areas of this country, this disease, while probably remaining the most important of tropical infections, is ordinarily of minor importance here, although in areas the vector mosquito is prevalent. For the conveyance of this disease three conditions are necessary : the mosquito must, within a period of some 15 days, have bitten a person suffering from malaria ; the person must have had in his blood the sexual forms of the malarial parasite ; and the atmospheric conditions, particularly temperature, must be favourable to the mosquito. The return to this country of large numbers who, having contracted infection abroad and during their relapses, have the parasites in the proper stage of development in their blood stream, leads to a risk of conveyance of infection in those areas in which appropriate mosquito is present.

Under the 1919 Regulations malaria was made notifiable, but not in those cases occurring in an institution in which infection had been induced for therapeutic purposes, unless on discharge the patient was liable to a relapse. (Certain diseases are treated by the therapeutic introduction into the bloodstream of malarial parasites with a view to inducing a clinical attack of malaria.) The return of many men from service in countries in which malaria is common has resulted in many notifications of the disease being received on the occurrence of a relapse. Apart from three in service personnel, eight notifications were received in 1945, in every one of which the patients were suffering here from a relapse of an infection contracted abroad.

ENTERIC FEVER.

Each year a small number of cases of the enteric infections is notified. These have usually been due to the paratyphoid organism. The cases have occurred sporadically and no two seem to be related in origin. In the six years 1934 to 1939 the numbers recorded were 7, 5, 5, 2, 2 and 7. In 1940 two notifications were received ; then in 1941 the large increase to 17. This prevalence, which was due to a paratyphoid infection, formed part of a heavy incidence throughout the country, being indicative of the lower hygienic standards in food production, distribution and

handling. In the next years only 1, 4 and 3 cases were notified. Last year five were notified but in not one case was the diagnosis confirmed.

All notified cases were admitted to isolation hospitals for treatment.

DYSENTERY.

The incidence of bacillary dysentery in this country is unknown. For some years there have been occasional increases in the number of notifications throughout the country. In most instances the illness is of mild clinical degree, the causal organism being the Sonne bacillus. This can cause such a mild illness that no medical attendant is summoned, or should he be called in he does not consider the case to be one of dysentery. Even then, only if specimens are sent up for bacteriological examination and a dysentery organism discovered is the illness classed as dysentery and notified. On the other hand, this is one of the illnesses which spread in mental institutions, and its introduction might result in large numbers of notifications, but of cases of little public health significance. Again the investigation of one patient might result in the examination of specimens of contacts, and on the organism being detected, notifications are sent in. For these reasons, then, the notification figures probably only inaccurately reflect the incidence of dysentery. In the six years 1934-39 the number of notifications received were 1, 3, 3, 24, 13 and 5. In 1940 one case was notified. Since then each year the numbers have reached double figures, the actual numbers of notifications being 10, 19, 15 and 13.

Apart from those relating to service personnel 25 notifications were received last year. 4, 3 and 1 cases in the first three months were followed by 9 in April, 3 in May and 5 in June. In each of the next three months one case was notified, the last in the year being in September. In all 13 cases where the causative organism was known it was the Sonne bacillus. In two instances two members of the same family were affected ; though in many other cases some other members of the household had had similar symptoms but had not been notified. The ages of the patients ranged from one month to 91 years. Males were more commonly affected than females, the proportion being 3 to 2.

Eight patients had been admitted to and were notified from Redhill County Hospital. In 9 instances patients were admitted to isolation hospitals.

FOOD POISONING.

Food poisoning became generally notifiable by Section 17 of the Food and Drugs Act, 1938. Though the condition to be notified is not defined, it is presumed that what is indicated is that condition of public health significance, so this would exclude those reactions of an individual due to his idiosyncrasy. In 1939, the first year notification was called for, particulars were received of 11 cases. In the next two years there were 3 and 4, and in each of the succeeding two only one case. The number rose to 4 in 1944, but fell again to one in 1945. This was thought to be a salmonella infection, the result of the patient eating pork, at an address outside the district.

ERYSIPELAS.

Each year from 1934 onwards something between 31 and 48 cases of erysipelas have been notified. The incidence of this disease appears to be entirely unrelated to that other illness caused by a streptococcus, namely scarlet fever. Although the highest incidence did occur in the same year as the maximum prevalence of scarlet fever, when 716 cases were notified, it was almost as common the next year when there were only 390 cases of scarlet fever. On the other hand, the year of almost the lowest prevalence of erysipelas saw the next to the highest number of cases of scarlet fever.

38 notifications were received in 1945, but in three the diagnosis was amended. 24 of the patients were females. The face was affected in 27 instances, a leg in 5 and the ear in 3.

24 of the notified cases were treated at home, 13 in isolation hospitals and one in a general hospital.

CEREBRO SPINAL FEVER.

Each year sporadic cases of this infection occur, mostly in small numbers. This is one of the diseases expected to become more prevalent in war conditions, and the country was in fact subjected, during some of the war years, to the greatest prevalence it had hitherto experienced. While the height to which the incidence reached was probably attributable to war conditions, it is likely that even without the war an undue prevalence would have occurred, as the incidence of infection had been rising before the war. The number of cases notified locally in the years 1934-39 were 1, 2, 2, 7, 4 and 4. The 36 cases in 1940 were part of the national epidemic. In the next years notifications were 25, 13, 7 and 7.

In 1945, 11 cases were notified, but in three the diagnosis was amended. After one case in January, followed by two in February, there was a lull until the third case in May. The district was then free until three cases occurred in October. No case appeared to be associated one with another.

Two cases proved fatal. The first patient, a female of 60, succumbed the day after her return from a holiday and died 3 weeks later. The other was a baby of under one year of age.

Of the notified cases 6 were treated in Redhill County Hospital, two in general hospitals, and three in isolation hospitals.

ACUTE ANTERIOR POLIOMYELITIS.

Better known under the name of Infantile Paralysis, though of recent years not by any means confining itself to attacking infants, this is a disease of which sporadic cases occur each year, though at times taking on an epidemic prevalence, mostly in the late summer or early autumn.

The numbers of notifications received in the years 1934-39 were 0, 1, 5, 4, 6 and 6. In the next four years only in 1942 were any cases notified, namely, 4 in that year. There was one case in 1944 and three in 1945. Two of these occurred in July and the third, in which infection was probably contracted outside the district in July, had an onset in August.

One case was treated in an isolation hospital, one in Redhill Hospital, while the third was treated at home.

MEASLES.

Measles is an infection to which practically everyone succumbs, mostly in childhood, and rarely more than once. In many urban districts a periodicity of epidemic incidence occurs, probably the result of any epidemic having attacked most of the susceptibles, so that there is a lapse of time before the growth of sufficient numbers of susceptibles to be available to be attacked as an outbreak. This district apparently took on the periodicity of London, in which an epidemic occurred every two years, the even years. The usual course of events then was there to be a rising incidence from the November of the odd year, building up to the main outbreak in the early months of the even year, with a sharp decline of the epidemic in the early summer months. There would then be little measles until the developing incidence nearly 18 months later.

The war years saw a marked change in this periodicity. The 1940 outbreak was postponed until the summer. The odd years, which should have been relatively free, had an incidence approximately half of that of the epidemic years, while in 1944 no epidemic came along. The notification figures from the year 1940 (the first complete year for notification) were 2,285, 1,275, 2,509, 1,516 and 593. 138 of these 593 were the rising incidence presaging the explosive attack of 1945 when 1,316 cases occurred in the first quarter, a weekly average of 100, but of over 200 for March. 191 cases in the first week of April were followed by a rapid fall, the number declining from 97 to 25 in the last week of June, the weekly average for the quarter being 61. The disease faded out in the third quarter, in which altogether only 63 cases were notified. In all, 2,184 notifications were received during the year.

Measles is not one of the diseases that is ordinarily notifiable. It was made so temporarily in 1914-18, but in the inter-war period was notifiable only in a few districts, and in those notification was not ordinarily applicable to all cases. Notification of all cases in the household was called for in the latter part of 1939. While everything should be done to encourage a serious view to be taken of measles, as this is one of the killing diseases of childhood and notification is probably helpful in that way, it is unfortunate that notifications are received only from medical attendants, whereas it is the family which does not summon a doctor for a case of measles that needs the help the more. For this reason, then, the returns of the head teachers of the primary schools, about the absences of children from school on account of infection, are studied, and the health visitors call at those homes at which there are cases of measles and also small children. Routine visits are not paid to households from which the ordinary notification of measles have been received.

In the Spring term Roxbourne (146), Cannon Lane (134), Glebe (103), and Vaughan Road (101), all had over 100 cases. Stanburn, Welldon Park and Stag Lane had over 50. No schools were anything like so heavily infected in the summer term, only one, Whitefriars, in April having as many as 30 cases.

Two deaths were recorded as due to measles. The total number of visits paid to the homes by health visitors was 301, while 37 children were removed to hospital.

Hospital treatment is limited to those suffering from complications which are usually respiratory or aural. Unfortunately, patients who have already developed pneumonia do not stand removal to hospital well. Quite apart from the impossibility of admitting to hospital all cases notified (in some weeks in this year over 200 notifications were received) it is usually quite an unnecessary step. It is not the patient suffering from measles who needs special treatment, but the far rarer patient suffering from some serious complication of measles. Careful looking after of children will in most cases avert this. The precautionary measures then, are the care of those affected and steps to limit the spread of infection so that at least the very young do not contract the disease. Serum is obtainable which, in adequate doses, can avert an attack if given sufficiently early. On the other hand, though, children so treated soon become susceptible again and almost inevitably will succumb to an attack later. Unless, then, there is some special reason such as the age of the child, its illness, or the fact that it is in an institution which makes it desirable that it should not at that time contract the disease, there is little point in protecting him in this way.

WHOOPING COUGH.

This disease is another of those which are serious when attacking children of tender years. It does not exhibit any marked periodicity comparable to that of measles. In the ordinary way it is not notifiable but was made so at the same time as measles. Apart from the 8 cases notified in the last part of 1939, when notification was introduced, the cases of the years 1940-44 have been 296, 1,259, 468, 468 and 683. Last year, the incidence was very low, only 220 notifications being received. The weekly averages for the four quarters of the year were 6, 4, 3 and 3.

No school was affected to any extent.

There were two deaths from whooping cough.

The number of patients suffering from whooping cough who were removed to hospital for treatment was nine, and the number of visits paid by the health visitors 57.

Whooping cough, apart from being a most unpleasant complaint, is dangerous in its immediate risks to life, and in its sequelæ, so that it is understandable that much attention has been devoted to the preparation of a protective vaccine. Although at intervals encouraging reports appear on the efficacy of particular preparations, at the moment it does not seem a vaccine has yet been prepared which achieves certain results. While, then, a vaccine might be recommended in a particular case or group of cases, it has not been felt advisable to recommend the undertaking of arrangements for general inoculation against whooping cough. Quite apart from the undesirability of such a procedure, the possibility of repercussion on the diphtheria immunisation scheme would have to be borne in mind. When an efficient preparation becomes available, as it undoubtedly will, arrangements will then need to be made for the vaccination of children at a very early age, as contrasted with the practice in

the case of diphtheria immunisation, where the child is not treated before attaining the age of nine months. The reason for the difference is that whooping cough attacks, and is then most deadly in its effects, children of the youngest ages, so that postponement of inoculation to the same age as that at which diphtheria immunisation is carried out would result in many having succumbed to the infection before this time.

NON-NOTIFIABLE INFECTIONS.

Chickenpox.

Many, though by no means all, of the population suffer at some time, mostly in childhood, from an attack of chickenpox. One definite attack appears to confer complete immunity.

Last year intimations were received from the head teachers of the local schools of 496 cases amongst school children, almost all in the autumn term. Most occurred in two schools, namely 195 in Cannon Lane, and 108 in Kenmore.

Chickenpox is one of those diseases which though perhaps not to be deliberately contracted, because an exceptional case is severe and a particularly rare one might have serious complications, is sufficiently mild for no precautions to be taken to arrest spread beyond the obvious one of isolation of the infective patient. School contacts are not now excluded, a distinct advantage having regard to the very long incubation period.

Mumps.

This is another of those mild infections which, if a person has to suffer from it, is better contracted in childhood than later. This is because an attack in childhood is not only less liable to be accompanied by the complications which are common when the disease occurs amongst the older, especially adolescents, but because an attack at that age is less serious in the disturbances which occur to the adult life. Little beyond the isolation of the patient can be done to control the spread, and school contacts are not now excluded from attendance at day schools.

Last year only 128 intimations were received from head teachers. As was the case of the previous year most cases occurred in the summer term. Most schools escaped entirely, of all the cases half, 63, occurring in one school, Harrow Weald, while two others, Pinner County and St. Joseph's had 21 each.

German Measles.

The third of this group of diseases is German measles. At times an outbreak of this infection occurs by itself, but more commonly it prevails at the same time, but to nothing like the same extent, as measles. Again, beyond the isolation of the patients no preventive steps are taken, and school contacts of the day schools are not excluded.

No cases occurred in this district in 1945, a marked contrast to the position here in 1944, when during the months of February to May, most parts in the area suffered, in all about 1,600 cases occurring amongst children attending the public elementary schools.

Influenza.

This condition is not notifiable as such. For a statistical indication

of this incidence, then, reliance has to be placed on the fatalities ascribed to this disease, or to the notifications of acute influenzal pneumonia, which are probably not very accurate. Apart from the doubt as to whether anything like all the pneumonias that should be are notified, it is highly probable that many are that should not be ; the actual conditions which are notifiable are acute influenzal pneumonia and acute primary pneumonia.

Influenza is probably the reaction of the body to a virus, of which there might be a number. It has an epidemic periodicity and is usually most damaging in its results when its prevalence coincides with inclement atmospheric conditions. As is the case with some other infections it is not the original illness which causes fatalities, but the super-added conditions, particularly respiratory complications.

The disease has perhaps acquired an added respect since the epidemic or rather pandemic, which caused such devastation in 1918 and 1919. This outbreak being more or less coincident with the end of the world war, it was assumed its origin was related to conditions brought about by the war. For that reason any increasing prevalence of influenza during these last war years has caused feelings of apprehension, to be followed by relief when the period of danger was passed.

Throughout the year, 108 pneumonias were notified. Of these 16 were in January, 17 in February and 11 in March. For the rest of the year few notifications were received in any week until an increased prevalence in November and a higher one in the last weeks of December. The few fatalities which occurred took place at the time of this increase in infection.

Jaundice.

Jaundice is a manifestation of a variety of diseases, of very different causation. Quite apart from the leptospiral jaundice, which is presumably a rat infection transmittable to man, there is the so-called epidemic infective hepatitis. This complaint may attack at about the same time groupings of people such as school children attending the same day school especially in rural areas, children attending nurseries or occasionally adults employed in the same factory. The incubation period seems to be about one month. That, and the fact that the mode of transmission is unknown, prevents any effective action being taken to control the spread. A number of cases occurred in one school in this district just before the Christmas holidays.

Jaundice from another cause has been more prevalent these last few years, namely amongst those who have been inoculated with serum or in some cases with a vaccine. To assist in investigation of the various causes, jaundice was made notifiable in the Eastern Civil Defence Region.

VERMIN INFESTATION.

Scabies.

Before the war, beyond the occasional request from a local medical practitioner, all that was heard of this complaint was the application from a hospital almoner to assist a person attending as an out-patient.

The usual treatment was some form of sulphur preparation, while stress was laid on the necessity of treating clothing and bedding.

For some years before the war, in London amongst other places, the incidence of scabies had been on the increase. By 1941 it was apparent that there was a substantial volume of scabies in this area. Such an increase was not altogether unexpected in view of war conditions, though it remains undecided as to whether the increase was really due to the fact that so many men were in the services, or was attributable to the habits of the population, acquired as the result of enemy action on the country. This uncertainty as to the cause of the increase means there is a similar uncertainty as to the future incidence, though there would seem to be no real reason the incidence should not fall to the low pre-war level.

In August, 1941, arrangements were made by which facilities for treatment were offered at six First Aid Posts in the district, the work being undertaken by the Civil Defence personnel. 299 persons attended for treatment from then until the end of the year. Possibly more because the facilities became better known or were more taken advantage of than any actual increase in incidence, 1,701 persons attended in 1942, and 2,178 in 1943. In the latter part of 1944 most of the First Aid Posts were closed, leaving only two. The fall in the numbers treated in 1944, namely 1,915 persons, might have been partly attributable to the reduction in the facilities offered, partly to the evacuation of large numbers which occurred in the late summer. In May, 1945, another First Aid Post was closed, since when facilities have been available only at the one First Aid Post, 58, at the Car Park where work is undertaken by persons who were previously members of the Civil Defence Services, but are now engaged by the Council.

In all, 1,714 persons were treated in 1945, of whom 149 were children under five, 427 children of 5 to 15, and the remainder adults. Whereas of the children girls were in only slightly greater numbers than boys, in the case of adults three out of four were women. This might indicate not a lower incidence amongst men but a greater reluctance for them to attend for treatment, though should this be the case it is not reflected in a high rate of re-infection of the families, because this seems to be rare.

It was particularly fortunate that this increased prevalence of scabies was coincident with the discovery of a therapeutic preparation far exceeding in efficiency the pre-war sulphur treatment. Benzyl benzoate has been used throughout, two applications being given. Few patients failed to attend for the second application. On the other hand, there were very few who came for further treatment, and of these it seems as likely they were instances of re-infection rather than of failure of cure. Clothing as a factor of the spread of scabies is accepted now as being of far less account than it was once considered to be. To a growing extent, then, patients are relying on their own treatment of clothing, and much less is being removed for stoving. Again, the small numbers of relapse cases suggests the soundness of this practice.

For a while, at least, it looks as though facilities should continue to be made available for the treatment of those suffering from this complaint. Whereas it would seem the incidence of the complaint is declining in the provinces, this is not as yet the position in the London area.

TUBERCULOSIS.

Notifications.

	New Cases								Deaths			
	Primary Notification				Brought to notice other than by Form A				Pulmonary		Non-Pulmonary	
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary					
	M	F	M	F	M	F	M	F	M	F	M	F
Under 1	—	—	—	—	—	—	—	—	—	—	—	—
1–4 ...	—	2	2	2	—	—	—	2	—	—	2	1
5–9 ...	1	3	1	3	—	1	—	—	—	1	—	—
10–14...	3	4	2	—	1	—	—	—	—	—	—	—
15–19...	24	16	—	2	—	—	—	—	4	4	—	1
20–24...	12	28	—	3	3	3	—	—	—	4	—	—
25–34...	21	27	4	5	9	11	1	—	4	5	—	2
35–44...	22	14	1	3	3	2	1	—	13	7	—	1
45–54...	21	3	1	—	2	—	—	—	11	2	—	—
55–64...	12	1	1	—	—	—	—	—	3	2	1	—
65 & up	1	—	—	1	1	1	1	1	3	6	—	1
TOTAL	117	98	12	19	19	18	3	3	38	31	3	6

The notifications of pulmonary tuberculosis, which did not show any marked increase in 1939 and 1940, rose appreciably in 1941 to the figure of 354 as against that of 228 in the previous year. The fall from this peak in the next two years, with 319 and 271 cases, was arrested by a slight increase to 289 in 1944. Much of this increase was attributable to notifications amongst persons who were in the Services when the disease was first notified. There was a slight fall in the number of notifications in 1945 when 261 were received. 63 of these notifications (54 males and 9 females) were from people in whom the diagnosis was made while they were in the Services, or related to persons who were stationed locally at the time the diagnosis was made. Of those about whom particulars are known 52 (20 males and 32 females) had been notified in another district before they came here, having already contracted the infection before transfer. 133 (72 males and 61 females) were notified for the first time while living here and had presumably contracted the infection here. Even assuming the other 6 (1 male and 5 females) about whom particulars have not yet been received, had similarly contracted the infection here, the total figure of 139 is a welcome fall on that of not less than 184 for the year 1944. A family history of infection was obtained in only 12 per cent. of the males as against a figure of 23 per cent. in the case of females.

The figure of 33 non-pulmonary notifications was a fall on that for last year and was a continuation of the decline which has occurred each year since the peak figure of 51 in 1942. Of these, three notifications related to persons in whom the disease had been diagnosed while they were in the Services, and a further seven related to persons who were

already suffering from the disease when they came to live here. Apart from the five about whom particulars are not known, this leaves 18 (7 male and 11 female) who contracted the infection locally. In no case was a family history of tuberculosis obtainable. In nine of these patients, the lesions were of bones or joints, and in a further six of glands of the neck.

Register.

	Pulmonary		Non-pulmonary	
	Male	Female	Male	Female
No. on register January 1st, 1945 ...	584	513	102	95
No. of New Cases added	117	97	12	20
No. of cases added—other than on Form A	19	18	3	3
No. of cases restored to register ...	7	9	—	—
No. of cases removed	118	94	19	15
No. on Register December 31st, 1945	609	543	98	103

The following table is a summary of the cases removed from the register with the reasons for removal:

Reasons for Removal	Pulmonary		Non-pulmonary	
	Male	Female	Male	Female
Left the district	43	42	6	5
Died	40	33	5	4
Cured	21	14	8	4
Diagnosis not confirmed or withdrawn	14	5	—	2
Total	118	94	19	15

Deaths.

Sixty-nine persons (38 male and 31 female) died from pulmonary tuberculosis during the year, and nine (3 male and 6 female) from non-pulmonary tuberculosis. This infection therefore accounted for 4·5 per cent. of the total deaths of the district. The corresponding figures for last year were eighty-three deaths from pulmonary and fourteen from non-pulmonary tuberculosis, the disease accounting for 5·6 per cent. of the total deaths.

One-third only of the deaths of those who succumbed to pulmonary tuberculosis took place outside the district, these being mostly in institutions. The corresponding percentage of those suffering from non-pulmonary disease was 60.

Fifteen deaths occurred amongst those who had not been notified, though in only two cases was a posthumous diagnosis made. In two instances the disease was of many years' standing, and in another case the patient had transferred to the area suffering from the infection. Three patients were inmates of a mental institution, while in two instances the patient had only recently been admitted to hospital suffering from meningitis. Two of the remaining four deaths took place in sanatoria for the treatment of the tuberculous, one in a County hospital and one in a London hospital.

Preventive Measures.

Although the local sanitary authority is responsible for the sanitation of the premises in which a tuberculous patient is living, in this area the home visiting is undertaken by the tuberculosis sister attached to the staff of the local tuberculosis dispensary or chest clinic. Routine reports are received about the home circumstances, and the sanitary inspector visits homes where housing is unsatisfactory, either because of crowding or because of the structural condition of the premises.

Amongst the chief of the preventive measures is early diagnosis. To facilitate this, arrangements are available for the bacteriological examination of sputum from suspected patients.

Section 172 of the Public Health Act, 1936, repeats the powers previously granted under the 1925 Public Health Act, for the compulsory removal to hospital on a Court Order of infectious persons suffering from pulmonary tuberculosis where precautions to prevent the spread of infection cannot be or are not being taken, and when serious risk of infection is thereby caused to other persons. No application for such an Order has as yet been made. The very existence of such powers, though is helpful in difficult cases.

The insidiousness of the onset of tuberculosis, and the indefiniteness or even complete absence of symptoms add to the difficulties in the control and eradication of this disease. While the disease is unrecognised not only are the sufferers possibly communicating the infection to others, but in themselves the disease is progressing so that at best when recognised the lesions are so advanced that long-term treatment is necessary, while in many even that state has been passed. Although not invariably so, diagnosis can usually be made earlier by X-ray than by physical examination. To result in detection in the earliest stages, though, examination must precede even the onset of symptoms. To be successful, then, facilities must be available for the examination of normal healthy individuals. While this cannot as yet be arranged for the general population, something is being done for the examination of specially selected groups. It is found that about 1 per cent. of those examined by mass miniature radiography are found to be or are suspected to be suffering from tuberculosis and so require observation or treatment. A further 0·5 per cent. were found to need referring to their own doctors or to hospital because of some non-tuberculous condition of the chest requiring further investigation, treatment or observation. The immediate result of the testing of any

substantial numbers of the population will then be an increase in the number of notifications and an increase in the demand for accommodation to which the detected patients can be admitted. It will only be later by the removal from the community of undetected spreaders of infection that the resulting decline in incidence will be noticed. Some testing has been carried out on different sections of the population in this district.

The facilities by which those suffering from the disease in a curable stage might be financially assisted to enable them to take those steps necessary to become cured continued in force. This provision was made under a Defence of the Realm Regulation, primarily in the interests of increasing the man-power of the country. No comparable step under the ordinary Acts and of general application has yet been taken.

MATERNITY AND CHILD WELFARE.

REGISTRATION AND NOTIFICATION OF BIRTHS.

The Registration of Births and Deaths Acts require births to be registered within 42 days. The birth is registered with the local registrar of Births, Marriages, and Deaths, by the father, mother, or relative, occupier of the house, or other person present. This registration is quite independent of the notification of the birth which must be made to the Medical Officer of Health of the Welfare Authority within 36 hours by the father if he is resident in the house at the time of the birth, or by any person in attendance on the mother within 6 hours of birth. It is the receipt of this notification which sets in motion the machinery for bringing the child within the ambit of the authority's Child Welfare services. Particulars of notifications of babies born in an area other than that of the usual residence of the mother are transferred to the authority of the area in which she resides.

The total number of live births registered during the year was 3,068, 1,599 male and 1,469 female.

Of these 179 were illegitimate, being a percentage of total births of 5·8.

1,918 births occurred in the district (1,884 live and 34 stillbirths). Of this number 388 (385 live and 3 stillbirths) were to residents of other districts. Of the local confinements 1,846 were notified by midwives and 62 by doctors or parents.

1,585 (1,524 live and 61 stillbirths) notifications were transferred from other districts, being mostly of births occurring to Harrow mothers in Middlesex County Council or London hospitals.

STILLBIRTHS.

53 male and 39 female stillbirths were registered, being a rate per thousand population of 0·48 compared with the figure of 0·46 for the country as a whole.

Of the 61 cases about which any particulars have been obtained 11 were dead before the onset of a premature labour. In 7 others the baby was apparently alive at the onset of a premature labour. In 2 of these labour followed an ante-partum hæmorrhage, in 3 there had been some degree of toxæmia of pregnancy while in one case labour was surgically induced.

In 4 instances death had occurred some time before the onset of labour at full term. In 3 of these there was malformation and in one hydramnios.

In most cases the infant was alive at the onset of labour at term. In 11 cases there was definite difficulty in delivery arising from some such condition as impacted shoulders, transverse presentation, small pelvis, etc. Toxæmia was present in 3 cases, while in 12 there was abnormal development (hydrocephalus, anencephaly, spina bifida or monster). Prolapse of the cord or the cord round the neck was the ascribed cause of death in 2 cases, and hæmorrhage in two. In 4 cases, though, no explanation for the occurrence of the death could be obtained.

INFANT MORTALITY.

The infant mortality rate is the death rate per thousand births of infants under one year of age. It has been accepted as being a delicate index of the social or sanitary state of the community. It is customary to differentiate the rate of mortality of those under one month of age, the neo-natal mortality rate, from that occurring amongst those up to the age of twelve months. The former is related more to pre-natal or natal conditions. On the other hand the latter is dependent more on environmental conditions, and the very marked fall which has occurred in the infant mortality rate in this century in this country has mostly been the result of a decline in the number of deaths in this group.

The fall in the infant mortality rate in the early part of this century is, for those interested in public health, one of the most dramatic occurrences. Whereas from 1880 to 1900 there was little improvement in the rate, from 1900 to 1925 it fell from 154 to 75. Progress since then has been less rapid, but has been progressive except for set-backs in some of the war years, and the national figure is now under 50. The fall was largely co-incident with the growth of the child welfare services, and it is frequently, though largely erroneously, claimed as the result of the growth of that service. At one time 40 was accepted as being a probable irreducible minimum. The rates of 30 and under already attained in some places have shown there is a much higher standard to be aimed at.

Discounting the years 1940 and 1941, which were those in which the war conditions exerted their worst influence on the health of the district, as judged by the vital statistics, the neo-natal rate here for the years 1938-44, has ranged from 20·2 to 22·7. The real reason for these deaths is very doubtful in many of these cases which are grouped under a variety of headings, such as injury during birth, prematurity, malformation, debility, convulsions, etc. Even though the true cause were ascertainable, so frequently nothing can be done to prevent a similar occurrence in others. Many infants are born prematurely, in most cases no cause for the early onset of labour being ascertainable. Amongst those prematurely born a very high percentage fail to survive. Again, while in some, fatality following a birth injury points to the need for a higher standard of obstetrics, in others the infant is sacrificed either to the health or life of the mother or possibly as a result of a trial of labour. Practically nothing is known of the reason for developmental abnormalities though if it should be found there is an undue incidence of children born to mothers who while pregnant suffered from rubella, it might lead to the discovery of other causative conditions.

Deaths of infants after the one but under twelve months of age are much more related to environmental factors, the rate tending to be high in places where bad housing, overcrowding and defective sanitation prevail, coupled with maternal ignorance or neglect. Severe climatic conditions, even spells of harsh weather, can influence the infant mortality rate by causing deaths of infants in these age groups. The ascribed cause of death in the majority of these cases is either gastro-enteritis or some respiratory disease. It is in this group that those deaths are saved which result in a low infant mortality rate in any district. The following

are the local rates for the years 1938-44 : 17·3, 17·7, 19·9, 27·6, 11·3, 16·0 and 12·1. The outstandingly high rates occurred in 1940, but still more in 1941.

The local rates for the years 1939 onwards were : 38·5, 50·0, 55·6, 31·5, 38·0, 34·8 and 32·2. These follow under the same curve as the national rates which were : 50·6, 56·8, 60·0, 50·6, 49·1, 48·7 and 46·0.

In 1945, 100 (64 male and 36 female) infants died under one year of age, this being an infant mortality rate of 32·2.

63 failed to survive one month. The neo-natal rate was therefore 25·3, constituting 63 per cent. of the infant mortality rate. Of these 63, 19 failed to survive the twenty-four hours, the cause of death in 10 being prematurity, in 5 atelectasis, in 2 birth injury, and in one developmental abnormality. 23 deaths occurred in infants who survived twenty-four hours but failed to live seven days. Prematurity and abnormality were the causes of 7 each, atelectasis 4, pneumonia 3 and birth injury 2.

Of the 24 who survived one week but succumbed before the end of one month, in 12 the cause was prematurity, in 3 developmental abnormality, in 2 birth injury and in one atelectasis. Infections accounted for 3 (pneumonia 2 and gastro-enteritis one).

Of the 15 deaths amongst those of one to three months, 6 were due to respiratory complaints, 4 to gastro-enteritis, while prematurity and developmental abnormality accounted for one each.

22 survived three months but died before the twelve-month. Infections again accounted for most of these deaths. Of the 17 from these causes respiratory complaints numbered 9, gastro-enteritis 4 and whooping cough one. Developmental abnormality played a relatively unimportant part as a cause of death at this stage as contrasted with their importance in the earlier period, this resulting in only one death. Pyloric stenosis was the cause of 2 deaths.

MORTALITY AMONGST CHILDREN OF 1-5 YEARS OF AGE.

Infections which had started to exert their toll on the older of the infants under one year of age remained the most important cause in the next few years. Of the 12 deaths of those of one year of age, 6 were due to infections (pneumonia 2, tuberculous meningitis 2, gastro-enteritis one and measles one) ; accidents accounted for 3 deaths at this age. Two of the deaths of those of two years of age were due to infections (whooping cough one and tuberculous meningitis one), one to appendicitis and one to an accident. Diseases accounted for 2 of the 4 deaths of those of age 3, pneumonia one and an accident one. The two fatalities in children of 4 years of age were due to measles and to disease.

The death rates of the various groups were all slightly lower than the national rates which were estimated to be 4·6, 2·6, 2·2 and 1·8 per thousand living.

INFANT MORBIDITY.

Ophthalmia Neonatorum.

Ophthalmia neonatorum is an inflammation of the eyes of the new born. At one time it was responsible for much blindness. To-day the

position is more satisfactory, mainly as the result of preventive treatment carried out at the time of the birth of the infant. Because of its potentialities for harm the disease is treated seriously. It has been made notifiable and authorities have been empowered to assist in home treatment or in providing hospital treatment for those afflicted. Should the severity of the attack warrant admission of the young patient to hospital, it is in its interests that mother be admitted as well. Before the war infants needing hospital treatment were admitted by arrangement with the L.C.C. to St. Margaret's Hospital, Hampstead. During the war years admission has been to Whiteoak Hospital, Swanley, though at times, because of shortage of accommodation, patients are admitted to one of the Isolation hospitals. For home treatment the Council has an arrangement with the local District Nursing Association to whom patients are passed for treatment, as it is inadvisable that a midwife should continue on her ordinary duties while in attendance on a patient suffering from ophthalmia neonatorum.

It is a requirement of the Central Midwives' Board that midwives summon to their assistance a medical practitioner by issuing a medical aid notice whenever an infant is suffering from any discharge from the eyes, however slight. In some cases the doctor summoned appears to adopt the same standard in assessing the case for notification. For this reason not all cases notified are in fact suffering from the condition ophthalmia neonatorum as defined in the regulations.

While in general on the occurrence of ophthalmia neonatorum in an infant born in an area not that in which the parents normally reside, notification is sent to the medical officer of health of the area in which the birth occurred, this practice does not prevail in the case of births in hospitals in London. Such notifications are transferred to the areas in which the parents reside. For this reason notifications are received of ophthalmia occurring in babies born in London and who frequently are cured of the complaint before they arrive here.

During the year 1945, of the five notifications received, one related to a baby born in a hospital in London. Of the remaining four, three were treated at home, the fourth being admitted to a hospital. All cases made complete recovery with vision unimpaired.

Pemphigus.

This is a disease of the skin which occurring in the new born can be of the utmost severity, at times resulting in death. Outbreaks have occurred which seem definitely to be related to the practice of a particular midwife, though if a midwife is responsible for the conveyance of infection it is quite undecided what the mode of transmission is. For this reason the disease, even though of comparative rarity, is one to be treated with the greatest respect. Pemphigus is then the one disease for which this Authority has made application to, and obtained sanction from, the Ministry to add to the list of those notifiable in the area.

It is most inadvisable for anyone to continue midwifery practice while in attendance on such patients. Cases, then, which occur in the practice of one of the mdwives are passed over for treatment to the staff of the District Nursing Association, unless they are of sufficient severity

to require hospital treatment, in which case arrangements are made for them to be admitted to an isolation hospital with the mother.

Few notifications are received in any year, frequently none. In 1945 four were received, but two related to infants who had been born in a nursing home outside the district. Both these cases were mild. The other cases were more severe and were admitted to isolation hospitals.

MATERNAL MORTALITY.

Deaths in which pregnancy or childbirth is the primary cause are classified by the Registrar-General into those "classed to" pregnancy or childbirth. In addition there is a group of "associated deaths" in which the patient has died from some cause not directly due to pregnancy or childbirth, but in which one of these was a factor contributing to death. The total maternal mortality includes all deaths of women directly due to or associated with pregnancy or childbirth, expressed as a rate per 1,000 live and stillbirths registered in the year. The rate for the country from 1911 to 1935 ranged from 3·79 to 4·60. During this period puerperal sepsis was the largest single cause of death, puerperal toxæmia the second and puerperal hæmorrhage the third. The rate has since declined. The fall in the sepsis rate is probably associated with the success of chemotherapy. The total rate for the country as a whole for 1945 was only 1·79.

Below are set out the figures relating to the puerperal mortality in the district since 1934 :

	No. of deaths.	Sepsis rate.	Other causes.	Total.
1934	13	2·23	3·57	5·80
1935	9	1·92	1·54	3·46
1936	12	0·67	3·35	4·02
1937	13	2·19	1·88	4·07
1938	12	0·88	2·64	3·52
1939	8	0·58	1·75	2·33
1940	2	—	0·62	0·62
1941	9	1·06	2·12	3·18
1942	5	0·60	0·90	1·50
1943	9	1·14	1·43	2·57
1944	2	0·28	0·28	0·56
1945	4	0·31	0·93	1·24

The puerperal mortality rate can be only an insensitive index of the efficiency of the local maternity service, or at least of those services administered by the welfare authority, especially in such a district as this where there is so much division of responsibility. In a provincial county borough where the one authority is largely responsible for the ante-natal service, for the domiciliary confinements and for the institutional confinements, the one body is involved, and in such a district the rate might be accepted as an index. Here, though, much of the work is or was done by the voluntary hospitals in London. Any fatalities, and of those that did occur, many were in these institutions, would be debited to the local area and would reflect on the local services. In the same way the County Council, providing as it does accommodation for the institutional confinement of a large proportion of local mothers, is responsible

for much of that part of the service in which fatalities might occur. A study of the local deaths constantly brings home the fact that no provision by, or act of, the welfare authority could have avoided the issue of so very many of these cases.

Four deaths occurred which were classed as being from or associated with pregnancy, giving a maternal mortality rate per thousand births of 1·24 comprised of a rate of 0·31 for puerperal sepsis and 0·93 for other puerperal causes. The one death from sepsis was the result of general peritonitis following a septic abortion brought about by a fall. Two of the other fatalities were due to eclampsia. One of these patients died in a London maternity hospital of acute eclampsia, following twin delivery in the hospital. The other patient who for some long time had not been in this district was admitted to a hospital in an eclamptic fit. She was about six months pregnant and had had no ante-natal supervision. The remaining patient was admitted to hospital when about seven weeks pregnant suffering from a threatened abortion or ectopic pregnancy. When operated on, it was found the abdomen was filled with blood and there was generalised thrombosis of the pelvic veins. She made satisfactory though slow progress until the ninth day when her condition suddenly and very rapidly deteriorated.

PUERPERAL INFECTION.

Puerperal fever, undefined, was notifiable under the Infectious Diseases (Notification) Act. It acquired an ominous significance with associated culpability. For this reason and perhaps too because it was not defined, it seemed that many cases were not notified. It was sought to remedy this unsatisfactory state by introducing the term " puerperal pyrexia, " a condition separately notifiable under Regulation, being defined as any febrile condition other than the condition required to be notified as puerperal fever occurring in a woman within 21 days of childbirth or miscarriage in which a temperature of 104° F. had been sustained for 24 hours or had recurred. Whereas, then, puerperal fever was considered to be a pyrexia arising from an infection of some part of the birth canal, puerperal pyrexia might be the result of a variety of causes of which some, e.g. influenza, might be completely unassociated with the delivery. Puerperal fever was not included in the list of notifiable diseases in the consolidating Public Health Act 1936, so the only condition notifiable to-day is the puerperal pyrexia of the Regulations.

Some forms of puerperal infection are transmissible and liable to cause an illness of grave nature. Until then, an innocent cause of the pyrexia is determined, it is safer to assume a febrile patient is infective, and so should not be attended by anyone who is attending on other maternity cases. For this reason, by arrangement with the District Nursing Association, patients suffering from pyrexia if retained at home are treated by the staff of the Association. More severe cases needing treatment are admitted to hospital. Before the war, admission was usually to the isolation block of Queen Charlotte's Hospital, or failing that, to the puerperal block of the L.C.C. North Western Hospital. At times, admission could be obtained only to one of the isolation hospitals with which the Council has an agreement. It is desirable that the infant

should be admitted with the mother and this is arranged when possible.

It is especially necessary to consider as possibly infectious the pyrexial puerperal patient in a nursing home, and it is only in those cases where a consultant has given his opinion as to a non-infectious cause of pyrexia, that such patients remain in the nursing home. Otherwise, they are removed, almost invariably, to hospital.

The same conditions apply as to the transfer of notifications of puerperal pyrexia occurring in a mother confined in a hospital in London as was the case in notifications of ophthalmia in the infant. A number of notifications of puerperal pyrexia therefore, relate to mothers confined in hospitals in London and who have recovered before return to their homes in this district.

Last year, 22 notifications were received, of which five were in respect of patients delivered in hospitals in London. In three, the pyrexia followed an abortion. In five, the raised temperature was due to some abnormality other than of the birth canal (influenza 1 ; B.coli infection 2; inflamed breast 1 ; polyp 1). In two cases the placenta had been manually removed, and in three, a perineal suture had become infected.

Of the patients delivered locally, three were delivered at home, two in nursing homes. Nine were treated at home, and eight admitted to hospital. Three cases were treated by the staff of the District Nursing Association.

INFANT WELFARE SERVICES.

HOME VISITING BY THE HEALTH VISITORS.

The foundation of the child welfare services is the work undertaken by the health visitors. Their activity in the first place was the supervision of the child under one year. This was later extended, in the one direction, to embrace the child up to the age of five, and in the other direction, to include the expectant mother.

Many of the deaths in the days of the high infant mortality rates were the result of unsatisfactory environmental conditions. The health visitor then, to be enabled adequately to advise the mother, had to visit her in her own home. Visits were paid frequently at first, but at lengthening intervals as the child grew. In addition to these routine visits, which are paid as far as practicable according to a schedule, the health visitor pays many special visits to young children. These may be because the health visitor herself on her routine visits finds a child in need of observation, or the medical officer at the clinic suggests it, or perhaps, because a child is suffering from some infectious disease, such as measles or whooping cough, or a condition such as ophthalmia neonatorum. Special enquiries are made into cases of infant deaths, stillbirths, etc.

A run of special visits upsets the schedule of the routine visits. In such a district as this in which the environmental conditions are usually satisfactory, once the health visitor has satisfied herself about the suitability of the home conditions, it is questionable whether these routine home visits are necessary, that is, in cases where the health visitor is able to establish contact with the mother through her attending regularly at the infant welfare centre.

Where the mother has been attended at her confinement by one of the Council midwives, the midwife continues the supervision of the child up to the age of one month. It is felt that the encouragement of the midwife at the time the mother is starting to get up and run her home, a time when many seem temporarily to lose their milk, may result in fewer resorting to bottle-feeding their babies at this time.

The district is divided into fifteen areas, with roughly equal populations, each health visitor undertaking all the maternity and child welfare duties in her section.

The following is a summary of the number of visits paid by the health visitors during the year :

(a)	To children under one year of age...	First visits	2,916
		Total visits	8,060
(b)	To children between the ages of one and five years	Total visits	13,805

In addition visits were paid to 306 cases of measles and 57 cases of whooping cough in children under five years of age.

INFANT WELFARE CENTRES.

About half the time each health visitor devotes to maternity and child welfare work is spent at the clinics. Those dealing with children under five are either infant welfare centres or toddlers' clinics.

At most sessions of an infant welfare centre two health visitors are in attendance, together with the medical officer and a number of voluntary workers. Very frequent visits are encouraged while the baby is very young, attendances at longer intervals as the child gets older. While some mothers bring the child on a particular day only to have it weighed or for her to obtain some food-stuff, most mothers are interviewed by the health visitor who visits the district in which the mother resides. Each session a certain number are interviewed by the medical officer, these being either routine examinations, or because the mother desires it, or the health visitor advises it in any particular case. Of some fifty infants brought to a session, fifteen to twenty will be seen by the medical officer.

The centres are educational and advisory in function, and treatment is not undertaken at the clinic, children suffering from any complaint being referred to the general medical practitioner. On the other hand, though every maternity and child welfare authority provides some form of treatment as part of its service, and children needing these restricted classes of treatment are put into the way of receiving it.

Medicaments of various kinds are retailed at the clinic, some at cost price, others at reduced prices. The bulk of these sales are of the proprietary dried foods. Other items are dispensed in addition, the test being that there is a sufficient demand to warrant the item being stocked, and that it is possible to retail it at a cost appreciably lower than the price charged by the pharmacists. These preparations are issued to any patient only on the recommendation of the medical officer, and then only in the quantities specified.

Clinic attendances occupy much of the time of the health visitor. Every effort is made to try to ensure that the health visitor of the area, from which are drawn the mothers from any particular locality, is present at that session, and interviewing these mothers occupies her time entirely. It is desirable that a skilled person should be present at the weighing, not only to ensure the accuracy of the record, but perhaps, more important, in that she has an opportunity of seeing the naked child. There is much more work though at a clinic session, ensuring the flow of patients, the keeping of registers, the obtaining of record cards, in addition to the sale of the various medicaments. A session of any size would experience difficulty in catering for those attending, if it were not for the help of the voluntary workers.

Some of the infant welfare sessions are held at premises designed for the purpose, and at most of these more than one weekly session is held. The others are held mostly in church halls, at many of which just one weekly session is held. At the end of the year, in all, 23 weekly infant welfare sessions were being held in 14 separate premises.

The average weekly attendance at all the infant welfare centres was 1,170. The increase on the average for the previous year was attributable to the better attendances in the second half of the year, an increase which more than sufficed to counterbalance the lower average for the first six months. The highest rate of attendance was for the six weeks period ending the 6th October, when the average was 1,305. The lowest rate was in the early months of the year, with an average of under 900.

Not unnaturally, mothers come much less frequently to the clinic when the child is getting older. While such a child might be brought to the centre at the same time as a younger member of the family, the only child is not brought. To encourage their attendance and to enable them to be kept under regular supervision, special sessions for toddlers have been established. Under these arrangements, about twenty children are summoned by appointment to a regular session, the same child being invited every quarter. A weekly session can, in this way, keep about 250 children under observation. Staffing difficulties necessitated the closing of a number of toddlers' sessions during the war, and not all have been re-opened by the end of the year, when the equivalent of five weekly toddlers' sessions were held at eight premises.

The following is a summary of the attendances at the infant welfare centres during the year :

Total attendances at all centres :

(1)	By children under one year of age	44,546
(2)	By children between the ages of one and five years	17,337

Total number of children who first attended at the centres during the year and who, on the date of their first attendance were :

(1)	Under one year of age	2,764
(2)	Between the ages of one and five years	759

Total number of children under 5 years of age who attended at the centres during the year and who, at the end of the year were :

(1)	Under one year of age	2,274
(2)	Over one year of age	6,019

TREATMENT.

While treatment of the ill child brought to the infant welfare centre was banned, authorities were empowered to provide certain forms of treatment similar to those made available for school children under the school medical services. These in this district embrace dental treatment, physio-therapeutic treatment, treatment of orthopædic conditions, ophthalmic treatment and operative treatment of tonsils and adenoids.

The machinery by which welfare authorities have provided these services is far from uniform, some providing them all themselves, some providing part themselves and contracting for others, others such as this district contracting almost entirely. Patients requiring dental treatment and ophthalmic treatment are treated by the staff of the Middlesex Education Committee. Patients requiring physio-therapeutic treatment or attention to orthopædic conditions are treated by the staff of the Harrow Hospital at the clinic at 76, Marlborough Hill. Patients requiring operative treatment of tonsils and adenoids are referred either to the Redhill County Hospital or to the Harrow Hospital. By arrangement with the Middlesex Education Committee patients suitable for such treatment can attend the County Council's Child Guidance Clinic or Speech Therapy Clinic. Apart from these conditions there are some which are suitable for treatment by the nurses of the District Nursing Association with whom the Council has an agreement. Arrangements were

made before the war for suitable cases to be sent away for admission to convalescent homes. This provision was intended to apply to convalescents and the period of stay consequently is limited to a few weeks. Children requiring longer periods away are referred to the County Council to be dealt with through the machinery of their hospital service.

Up to recently it had been the practice of the Council, while providing advisory services free of cost, to make a charge for the treatment services. This charge was a percentage, in some cases of 100, of the cost of the service to the authority, the proportion being determined according to an approved scale in which regard was had to the number in family and the net income per head of family, an allowance being made for certain outgoings such as rent, insurance, travelling expenses. According to the provisions of the 1944 Education Act, treatment services provided by an education authority to children attending maintained schools were in future to be provided free of charge. The maternity and child welfare committee decided at its meeting in May that as from the 1st July treatment services available under the Council's maternity and child welfare activities be provided free of charge to all children under five years of age who are not within the scope of the school medical services to be provided under the Education Act, 1944. This includes the provision of appliances such as spectacles or orthopædic apparatus, and covers the cost of hospitals and convalescent home treatment.

The following are particulars of the various treatment facilities available :—

Dental Treatment : This is undertaken by the staff of the Middlesex Education Committee who treat patients in five clinics in the district. General anæsthetic sessions are held as required. The number of children under five treated during 1945 was 233.

Physio-therapeutic Treatment : Children are referred from the local clinics to be seen by the physio-therapist or the orthopædic surgeon at the Marlborough Hill Clinic, any treatment required being provided by the clinic staff and the clinic itself being administered by the Harrow Hospital. Children under five recommended for treatment by the Council's staff of the clinic are treated on behalf of the Council even though they were not in the first instance referred from a Council clinic. The forms of physio-therapy available include exposure to rays or mercury vapour and carbon arc lamps, short wave therapy, massage and active exercises. Class exercises are held for the correction of postural conditions. 173 new cases were referred during the year. The total number of attendances by patients was 1,551 (195 massage and 1,356 electro-therapeutic). 51 patients were seen by the consultant orthopædic surgeon and 384 by the consultant physio-therapist. Orthopædic patients requiring in-patient treatment are admitted to the Stanmore Orthopædic Hospital ; during the war years to St. Vincent's Hospital, Eastcote, as well.

Correction of Visual Defects : Children requiring ophthalmic treatment receive this at the hands of the Education Committee

staff, sessions being held twice weekly at the Marlborough Hill Clinic. Glasses where required are provided free of cost. Provision is made for children wearing glasses to be retested periodically. 92 children were referred for treatment during the year.

Operative Treatment of Tonsils and Adenoids: Children requiring this treatment are admitted either to the Harrow Hospital or to the Redhill County Hospital, the patients being detained in hospital the night before and the night after operation. During the year 40 children were treated under this arrangement.

Child Guidance Treatment: 24 children were referred during the year to the Child Guidance Clinic maintained at 2, St. John's Road, Harrow, by the Middlesex Education Committee.

Speech Therapy: 17 children were referred during the year to the Speech Therapy Centre maintained at 2, St. John's Road, Harrow, by the Middlesex Education Committee.

Convalescent Homes: Up to 1939 arrangements were made for suitable children to be admitted for short period stay to convalescent homes. It was getting more difficult to find accommodation and quite impossible when the war started. Some authorities maintain their own homes, others pay for the reservation of a certain number of beds at established homes.

Home Nursing: Welfare authorities are empowered to provide home nursing for certain groups of ailments of children under five. In this district such treatment is carried out on behalf of the Council by the staff of the local nursing association. During the year responsibility was accepted for the payment of fees for the treatment of five children.

CHILD LIFE PROTECTION.

Legislation was introduced about 1870 to attempt to control the worst aspects of baby farming. To-day's powers contained in the Public Health Act, 1936, are substantially a reproduction of those of the Children & Young Persons Act, 1932, which amended the provisions of the Children Act, 1908. By section 206 a person undertaking for reward the nursing and maintenance of a child under the age of nine years, apart from his parents, is required to give notice to the welfare authority ; also if residence is changed, or if the foster child dies or is removed. Every welfare authority is required to appoint child protection visitors. The powers of the authority are to prevent overcrowding where foster children are kept (S.211), while by withholding consent it can prohibit the keeping of foster children by certain undesirable classes of person. To obtain the removal of a child kept in unsuitable premises or by unsuitable persons, the authority applies for a Court Order.

These provisions do not extend to any relative of the child, while of course they are applicable only to persons who undertake for reward the nursing and maintenance. Exemption can also be granted by the author-

ity to such institutions as schools, and a number of boarding schools receiving children under the age of nine have been so exempted.

Before the war many women—usually mothers with their own small children—were prepared to accept foster children for the sum of about 12s. 6d. weekly. Usually there would be no agreement or understanding as to whether for this payment the foster parent was required to pay for medical treatment, clothing, etc.

There are many unsatisfactory features in to-day's legislative powers. Collusion between parents and foster parents can render it difficult to prove a child is received for reward ; failing proof, no action can be taken under the provisions relating to foster children. A foster parent is merely obliged to give notice of the receipt of the child, the authority then limiting the numbers as it thinks fit or taking steps to remove the child if conditions are unsatisfactory. In the latter event, though, there are conditions which, while making it undesirable the child should remain in the home, are not so serious as to justify an application for removal being made. It would be far more satisfactory if a foster home had to be licensed before any child is received. The financial aspects, too, are unsatisfactory. The reward of the foster mother is small and is uncertain. Higher charges might be more than the mother could afford. It would be helpful if approved foster mothers received their payments from the authority, who would in return recover from the parent, the proportion received depending on her financial circumstances. Presumably any such arrangement would apply only to those cases where the child's parent was entitled to the help of the authority, and help would not be provided to mothers living outside the area, but whose children were fostered here.

On a prospective foster mother making application, she is visited by the health visitor, each of whom is appointed child protection visitor for her area, and the premises are inspected by the sanitary inspector. In most cases the applicant wishes to foster only the one child. There are in the district a certain number of homes in which a number of children are cared for. In this case the number is determined by the area of the sleeping room, each child being allowed 40 square feet. In addition whenever there are more than three children a separate day nursery is required. The foster mother undertakes to keep the child under the supervision of her own medical attendant or attend the nearest infant welfare centre. The homes are visited by the health visitor once a month so that the older of these children receive much more attention from the health visitors than the other children in the district.

The following table summarises the information regarding the fostering of children in this district :

Number of persons on the register who were receiving infants for reward at the beginning of the year ... ... (Of these 56 had children ; 59 not)	115
Number of persons registered during the year	18
Number of persons removed from the register during the year (either by reason of removal from the district, no longer undertaking the care of the child etc.)	10

Number of persons on the register who were receiving children for reward at the end of the year		123
(Of these : 60 with children ; 63 without)		
Number of children on the register at the beginning of the year		77
Number of children received during the year...		58
Number of children removed from the register during the year		67
Removed to care of parents	35	
Removed to care of another foster mother ...	12	
Legally adopted by foster parent...	1	
Removed to charitable organisation, etc.... ...	4	
Removed to hospital	1	
At exempted premises	—	
Foster parent left the district taking the child with her	13	
Foster mother no longer receiving payment ...	—	
Child attained the age of nine years	—	
Died	—	
Number of children on the register at the end of the year ...		68

There are 39 homes where only one child is received. In addition, there are 20 homes where more than one child is accepted, the number of children in all these being 64. One residential school receives children under nine years of age. In addition, there are three schools exempted.

ADOPTION OF CHILDREN.

The purpose of the Adoption of Children (Regulation) Act, 1939, was to regulate arrangements made by adoption societies and other persons for the adoption of children, to provide for the supervision of adopted children by welfare authorities in certain cases, and to restrict the making and receipt of payments in connection with the adoption of children. Its introduction was deferred to 1st June, 1943.

Welfare authorities are interested in the child under nine years of age (that is until he attains the age of nine or is adopted) who is in the care of a person not the parent or guardian, in respect of the placing of whom arrangements have been made by any person not the parent or guardian, unless these were made by a registered adoption society or local authority. As regards such children, any person taking part in the arrangements, is required to give at least seven days' notice to the welfare authority of the area in which the adopter resides.

The Act seems to be little known and still less understood. In this district, as it was felt that any of them might be concerned in the making of arrangements for the adoption of new-born children, general medical practitioners, midwives and persons in charge of local maternity homes, had their attention drawn to the provisions of the Act relating to notification to the welfare authority. During the year, only 14 notices were received under section 7. 38 children were at the end of the year under supervision. It is unfortunate that the knowledge and experience of health visitors was not made more use of, by their opinion being sought on the suitability of homes. The well-known adoption societies do ask

for reports on the suitability of the homes, and of the prospective adopters both before placing the child and during the probationary period.

ILLEGITIMATE CHILDREN.

The death rate of illegitimate children under one year of age was at one time about double the general infant mortality rate. The excess applied throughout each period of the first year and for most of the fatal diseases. The causes of the increase were considered to be maternal ill-health and worry, leading to lack of breast feeding, and lack of maternal nurture and home influence. More recently, and co-inciding with the time that a more tolerant view was taken of such lapses, the mortality rate has fallen and frequently now differs little from the general rate.

The mother of the illegitimate child needs help before the confinement, and for a period after, during which she can feel sufficiently secure while adapting herself to her very altered circumstances. Homes maintained by certain voluntary agencies met this latter need to a certain extent, though left untouched the case of the girl pregnant for the second time.

During the war there was a rise in the percentage of births which were illegitimate. (It will be realised that a fall in the ordinary birth rate would be reflected in a rise of the percentage of illegitimate births, even though these latter had not increased in numbers.) In this district the percentage for the years 1934–39 was an average of 3·0. The figures from 1940 have been 3·4, 4·6, 4·1, 4·6, and 5·8 in 1945. It seems that quite a high percentage of women are pregnant at the time of their marriage, and this general increase in the percentage rate was probably, to a substantial extent, due to the added difficulties in their arranging a marriage with which the parties were confronted as a result of war conditions.

In October, 1943, the Ministry of Health in circular 2866, urged welfare authorities to consider the problem, suggesting they should recognise the work of existing moral welfare associations, and appoint a trained worker experienced in these special problems. It was agreed that the Council participate in a joint scheme with the County Council, by which suitable local cases might be admitted to a hostel in Hendon that would receive mothers and babies. In addition, the Council would avail itself of the services of the special services almoner appointed by the County Council. Later the County Council were able to arrange at another home, for the admission of the expectant mother. These arrangements have run smoothly, and during the year five expectant mothers were admitted to the one hostel, and three mothers with their children to the other.

SUPERVISION OF CHILDREN.

War Nurseries.

An enquiry before the war did not show any real demand for day nurseries in this area. Those mothers who went out to work were apparently able to arrange for their children to be looked after in households.

To enable mothers to be freed to undertake work, to aid the national effort during war time, a number of day nurseries was opened, the first in 1942. Seven in all were established, being sited in those parts of the district where enquiry showed the demand was greatest. Of these only that at Vancouver Road failed to be easily filled with children of mothers engaged on whole-time work, and in general accepting only one child from a household. The needs of two areas, South Harrow and Kenton, were met by extending the forty-place nurseries opened to cater for sixty children. In all, the nurseries provided some 360 places. Those earlier established were run in two sections, but experience showed the real advantage, or almost necessity, of running them in not less than three sections.

In April the Committee considered the future of the nurseries, being of the opinion that children over two were better provided for in a nursery school than in a nursery. Approach was made to the Education Committee as to their possibly taking over any of the buildings as nursery schools. The matter was reopened on receipt of the Ministry of Health circular 221 in December. The Education Committee decided that when each of five nurseries, namely all but Vancouver Road and Spencer Road, ceased to be used as a nursery, it should be maintained by the Education Committee as a nursery school. The case for the retention of any building as a nursery then rested largely on the demands for the care of children under two years of age. At some of the nurseries it was apparent that this demand was at the time very real, and likely to continue for some time. These nurseries it was decided to retain until such time as the demand faded. On the other hand at some the existing demand was light ; this number it was decided should become nursery schools as from the 1st April. As to Vancouver Road, the difficulties in staffing coupled with the poor demand led to the decision to close it at the end of March, 1946, the Education Committee not taking it over as a nursery school. The decisions in regard to the various nurseries, therefore, were (1) that Vancouver Road should be closed on the 31st March, 1946, (2) that Buckingham Road and Rayners Lane Nurseries would as from the 1st April be administered as nursery schools, (3) that the remaining four nurseries should continue as day nurseries, until the time came when the demand at any nursery for the care of the under two's had so fallen off that consideration should be given to the question of closing it as a nursery and the Education Committee taking it over as a nursery school.

Daily Guardians.

Particularly to meet the needs of those mothers in an area where there is not sufficient demand to justify the opening of a nursery to look after the children, the daily minder scheme was introduced. Under this certain persons were approved as minders. A mother undertaking approved work could have her child cared for in the day-time by the guardian on terms to be agreed mutually, the Ministry of Labour paying a sum of 4s. per week in addition. The scheme does not take on in this district to any extent. The reason was probably largely financial. Apart from the 4s. payment the guardian expected a sum from the mother appreciably greater than the mother was required to pay at a

nursery. If the Ministry payment had been nearer the net cost of looking after a child at a nursery, probably more use would have been made of the scheme. Only one child was cared for during the year under these arrangements.

Even though there might not in any area be sufficient children requiring looking after to enable their mothers to be free to accept work, generally because financially she is forced to do it, to create the need for a nursery in that locality, there must be scattered throughout the area large numbers of mothers so placed. Some of these cannot afford the daily guardian's charges. It would be a real help to some if the Authority could supplement the mother's payment to an approved guardian.

Residential Nursery.

There is room for a residential nursery which could accept for short-period stay children up to five years of age who temporarily cannot be looked after at home. Such an institution would be a useful supplement to any day nursery which was continued in the district.

MATERNITY SERVICES.

ANTE-NATAL SUPERVISION.

Home Visiting.

About one-third of the mothers confined are attended by the Council's midwives. Health visitors are brought in touch with many of the remaining two-thirds. The vast majority come to the ante-natal clinics and on failure to attend are visited. Again, the almoners of hospitals welcome the health visitor's reports on the home conditions of patients, to help them to decide whether the home circumstances are sufficiently serious to necessitate the confinement taking place elsewhere than at home. During the year the health visitors paid a total of 1,273 visits to expectant mothers, 853 being first visits.

Ante-natal Clinics.

Almost non-existent before the 1914-18 war, the ante-natal supervision of women has now reached the stage that few expectant mothers are not under medical care to some extent during their pregnancy. The vast majority of mothers now attend the welfare authority's ante-natal clinics. Here they are seen by the health visitors, their problems discussed, and certain clinical examinations made. Periodically the expectant mother is seen by the medical officer, and in cases of detection of any abnormality, seen frequently until she is better.

Midwives attend with their own patients, and when circumstances permit examine them. One of the rules of the Central Midwives' Board is that the midwife is responsible for the ante-natal care of her patient, and she is not absolved from this merely by encouraging her patient to attend the clinic. Where more than one session is held in any building, where possible one is held in the afternoon for the midwives' cases as they are the more likely to be able to attend at that time. In such circumstances the attendances at the morning sessions are largely made by the mothers who are to be admitted to a hospital or other institution for confinement. Understandings have been arrived at with many hospitals that the ante-natal supervision of the normal patient, who is to be admitted to the hospital, can be conducted at the local ante-natal clinic. This saves the mother the journey to, and often a very long wait at, the hospital. Of course the abnormal case when detected is referred to the hospital clinic.

The following is a summary of the work done at the clinics during the year :

Total number of expectant mothers attending the clinics	2,747
Total number of attendances by expectant mothers at all clinics	13,096
Percentage of total number of births (live and still) represented by the number of mothers attending the clinics	87·2

General Practitioner Ante-natal Scheme.

For many years the Council has had a scheme in force by which an expectant mother, to be attended at home by a midwife, can obtain her ante-natal supervision by her own doctor instead of attending the clinic, the Council paying the medical attendant an agreed fee. Most of the local medical practitioners agreed to participate in the scheme. Insured patients are entitled, as part of the service, to ante-natal supervision, but in such cases the authority is empowered to pay for the report received from the medical attendant. The scheme also extends to the post-natal examination. In no year has any large number of patients been dealt with under these arrangements. Last year the number was only two.

Consultant Ante-natal Clinic.

The Council's consultant obstetrician attends the clinic three weeks out of four. Most of the cases seen are those referred to him by the ante-natal clinic medical officers on account of some abnormality. Primiparæ are encouraged to attend as a routine. In addition, local medical practitioners can obtain the advice of the consultant for any of their patients ; in many of these cases the doctor attends with his patient.

As many of the patients seen are suffering from some departure from the normal, a number are recommended for admission to hospital for their confinement. In most cases arrangements are made for these, by the patient being referred to the obstetrician of Redhill County Hospital. A number of cases, though, the consultant wishes admitted under his own care. For these, arrangements are made for their acceptance at the City of London Maternity Hospital.

In 1945 the consultant paid 34 visits to the clinic, seeing 397 patients who made altogether 407 attendances.

Treatment.

Welfare authorities are empowered to arrange for expectant and nursing mothers, to receive treatment of a limited class of conditions. The arrangements made for them to receive this are the same as for children under five years of age. In May, the Committee decided that the following treatment services should be provided free of charge to expectant and nursing mothers : dental treatment, excluding the supply of dentures ; eye treatment ; sunlight treatment and home nursing.

Below is set out the scale of contributions to be recovered from applicants for assistance, in regard to those services not provided free of cost :

SCALE OF CONTRIBUTIONS BY APPLICANTS FOR ASSISTANCE

No. in Family	Nett income per head of family per week after deduction of rent, rates, compulsory insurance and fares to work, not exceeding								Above
2	12/6	13/6	15/–	17/3	19/3	21/3	23/6	25/6	25/6
3	10/6	11/6	13/–	15/–	17/3	19/3	21/9	23/6	23/6
4	8/3	9/3	11/–	13/–	14/6	16/9	18/3	19/9	19/9
5	7/9	8/3	9/3	11/6	12/6	14/6	15/6	17/9	17/9
6	6/9	7/9	8/3	9/9	11/–	13/–	14/6	16/–	16/–
7	6/3	7/3	7/9	8/9	9/9	11/6	13/–	14/6	14/6
8	5/9	6/9	7/3	8/3	9/3	10/6	11/6	12/6	12/6

Type of Service	Fees payable by Applicants								
Maternity Hospital up to	10%	20%	30%	40%	50%	60%	70%	80%	100%
Midwifery ...	Free	7/–	14/–	21/–	28/–	35/–	46/6	56/–	Full fees 70/–
Home Helps ...	Free	10/6	21/–	31/6	42/–	52/6	69/9	84/–	Full fees 105/–
Maternity Nurses ...	Free	5/–	10/–	15/–	20/–	25/–	33/–	40/–	Full fees 47/6
Dentures up to	10%	20%	30%	40%	50%	60%	70%	80%	Full charge
Convalescent Home up to...	10%	20%	30%	40%	50%	60%	70%	80%	100%

(Unborn child counted as member of family)

319 mothers received dental treatment of whom 49 were supplied with dentures. Five nursing mothers were treated by the staff of the District Nursing Association. Six mothers were treated at the physiotherapeutic Clinic at 76, Marlborough Hill.

ARRANGEMENTS FOR CONFINEMENT.

Domiciliary Confinements.

NUMBER OF CONFINEMENTS: The number of births attended in private houses in the district by midwives who gave notice of their intention to practise was 834, in 593 cases the attendant being present as a midwife, and in 241 as a maternity nurse. Of these 806 were attended by local midwives whose practice is limited to domiciliary work (573 as midwives and 233 as maternity nurses) and 28 as midwives from adjoining areas (20 as midwives and 8 as maternity nurses).

NUMBER OF MIDWIVES: The number of midwives who during the year notified their intention to practise in the district was 44. Of these 8 removed, leaving in practice at the end of the year 36. Of the total number 15 were engaged in local maternity homes, most of these restricting their activities to these duties. 25 were resident in the district and

carried on a domiciliary practice, while 6 though resident in adjoining areas attended cases in this district. At the end of the year there were in practice 10 independent midwives carrying on a domiciliary service, these between them attending 35 cases during the year, 25 as midwives and 10 as maternity nurses.

MIDWIVES' NOTIFICATIONS TO LOCAL SUPERVISING AUTHORITY: The Central Midwives Board is the body concerned with the education, registration and general control of midwives. Section E of the Rules provides for the regulating, supervising and restricting within due limits of the practice of midwives. The Harrow Urban (Supervision of Midwives) Order 1936, made by the Minister of Health under S.62 of the Local Government Act, 1929, constitutes the Council, the local supervising authority for the purpose of the Midwives Acts, 1902-1926.

Notifications on a prescribed form must be sent by a midwife to the local supervising authority in the following circumstances: when the death of a mother or child occurs; in all cases of still birth, when no doctor was in attendance at the time of the birth; when she has laid out a dead body; when she has been in contact with a person suffering from any condition which might raise suspicion of infection, or is herself liable to be a source of infection; and whenever it is proposed to substitute artificial feeding for breast feeding.

Rule 12 requires that in all cases of illness of the patient, or child, or of any abnormality occurring during pregnancy, labour or lying-in, a midwife must forthwith call in a registered medical practitioner. A medical practitioner responding to a call, will be paid his fee by the local supervising authority for his attendance in accordance with the scale prescribed by the Ministry of Health, if he submits his claim within a period of two months from the date on which he was called in. This fee may be recoverable from the patient according to her means. The Council decided some years ago not to seek the recovery of any part of this payment.

During the year the following numbers of notifications were received from all midwives including those engaged in local maternity homes:—

Sending for medical assistance	250
Still birth	5
Death of infant	11
Death of mother	—
Laying out the dead	2
Artificial feeding	16
Liable to be a source of infection	13

Of the 250 summonses to medical practitioners, 47 were on account of some condition during pregnancy, 67 during labour, 102 in the lying-in period, and 34, some abnormality of the infant.

Of the 47 summonses to a patient during pregnancy, 17 were because of albuminuria, œdema, or toxæmia, and 19 because of hæmorrhage.

Of the 67 summonses to a patient during labour, the reason in 44 instances was delayed labour, with cause unspecified. In a further 3 there was some abnormal presentation. Eleven summonses were to patients suffering from abortion (actual or threatened).

73 of the 102 summonses to patients in the puerperium, were on account of rupture of the perineum. Post-partum hæmorrhage, with or without adherence of the placenta was the reason in 6, a raised temperature in 3, phlebitis 2, and inflamed breast 2.

Of the 34 summonses to infants, 16 were on account of some discharge from the eye, 12 because of feebleness or asphyxia, one because of deformity, and one, some other abnormal state of condition.

250 out of 658 midwifery cases attended is a percentage rate of 38·0. The corresponding figures in the years 1942 to 1944 were, 33·1, 32·3 and 32·8.

Local Authority's Midwifery Service: The Midwives Act, 1936, imposed the duty on certain welfare authorities, of providing a domiciliary midwifery service. In many areas part, if not all, of the work was undertaken on behalf of the authority by the staff of nursing associations, or in some cases by the staff of local hospitals. In this district, the nursing association which covered most of the area, did not provide a maternity service, so there was no alternative but to the Council's engaging its own staff for the purpose. Most of these were, in the first place, recruited from those already engaged in domiciliary midwifery practice in the area. While this was not imposed in respect of those appointed in the first instance, a condition of later appointments was that the applicant should be a state-registered nurse as well as being a qualified midwife. At the inception of the scheme, the Minister of Health suggested, that each midwife in a district such as this should be able to attend 100 cases per annum. This calculation, however, did not sufficiently allow for the time-off of the midwives, nor for the time required for attendance at clinics. Experience has shown that the figure of 80 was too high, and 66 is to-day's standard. Over most years the average number of cases attended by the midwives here, is about 68. In 1943, probably because of evacuation, the figure fell to 61, while last year, when there was a sharp fall in home confinements as well as in the total number of births, the figure was 50.

The sixteen midwives work in four teams of four, this arrangement proving the most convenient to enable each to obtain the off duty time to which she is entitled. The general conditions of service of the midwives are now determined by the Rushcliffe award. It was not found necessary, materially, to vary the conditions of service to conform to this decision.

Last year the number of patients attended by the Council's midwives was 799, being a percentage of 25·4 of the total number of confinements of local mothers. To 568 they attended as midwives, and to 231 as maternity nurses.

Of the patients attended by midwives acting as such, 328 were assessed to pay the full cost, in 49 cases no charge was made, while 191 were assisted. The corresponding figures in regard to patients attended by midwives as maternity nurses were 183, 18 and 30.

One of the less satisfactory features of domiciliary midwifery at one time, was the use made of unqualified attendants. To control such

practice the Minister could in any district, were he satisfied that the authority had in pursuance of the Midwives Act provided a service of domiciliary midwives adequate to the needs of the district, by order apply the provisions of section 6 of the Act, after which the employment of unqualified persons acting as maternity nurses for gain was prohibited. An order of the Minister of Health dated 6th April, 1938, applied section 6 of the Act to this district, operating from the 1st June, 1938.

One of the less satisfactory features of to-day's service, is its impersonal aspect. Under the older arrangements an expectant mother booked the midwife she wanted, even though that midwife was not the nearest to her. She booked her, too, with a fair assurance that she would be attended at the confinement by her, and also be nursed by her throughout the puerperium. To-day the mother has usually allotted to her, the midwife living nearest to her. Having got to know one who up to that might have been a complete stranger, she then finds she has no assurance that she will be attended by her at the confinement, because the delivery might occur at a time when that midwife is off duty. Even though she might have been fortunate enough to be delivered by her, she cannot have her, and her only, for the nursings, because the midwife must be off duty sometime in the next fourteen days. It has happened that a mother has been attended in that period by as many as four midwives. However competent as midwives each of these might be, from the mother's point of view it must seem the service lacks something present under the older arrangements.

Home Helps : For many years before the war the Council provided a home help service in connection with their maternity arrangements. Suitable women were recruited, usually by the health visitors, and their names entered on the panel of home helps. The mother selected her help from a number offered, and the Council contributed towards the charges in accordance with an approved scale. Owing to the difficulty that some helps experienced in obtaining their remuneration, with the result that suitable people declined to remain on the panel, the Council decided to be responsible for the remuneration of the helps, paying them direct, and recovering the appropriate amount from the patients. Payment was not made to near relatives assisting in the home. Up to the outbreak of the war, it was usually possible to find a suitable help for any particular patient. With the competing demand of labour, though, and probably too, because of the higher remuneration offered, it was found some time after the beginning of the war it was much more difficult to find helps. To retain those on the panel and, if possible, recruit others, the remuneration was raised to £5 5s. 0d. for the 14 days' attendance. This step apparently achieved little more than resulting in a higher charge having to be made to the patients. Shortage of help necessitated payment being made to near relatives, if these gave up remunerative employment to act as helps, while contributions to the charge of the occasional help not on the panel were made, if the midwife was able to report that her services had been satisfactory.

During the year 119 cases were attended by home helps under the Council's scheme. During the financial year 67 cases were attended by

14 helps. Of these 4 attended only one confinement, 1 two, 2 three, 1 five, 2 six, 1 seven, 2 eight, and 1 fifteen.

CONSULTANT SERVICES: Medical practitioners can obtain the help of one of a panel of consultant obstetricians, while, in addition to the consultant from Redhill Hospital, it is possible for a practitioner to have the assistance of the " Flying Squad " from the hospital.

Last year, the services of these consultants were made use of on five occasions. In the one ante-natal case, the patient had developed a raised temperature before labour had started, though induction had been attempted the previous week. There were three cases of difficulty during labour ; in two, the consultant effected delivery, but the third patient was immediately admitted to hospital for labour. In the fifth case a blood transfusion was given for post-partum hæmorrhage.

Institutional Confinements.

NUMBER OF CONFINEMENTS: 970 births occurred in registered nursing homes in the district. 383 births to mothers from outside districts which occurred, took place in maternity homes, five in private houses. In 717 of the 782 confinements attended by midwives, they were present as maternity nurses.

Notifications were received of 1,585 births to Harrow mothers, which took place outside the district. Of these 1,331 were from hospitals, and 226 from nursing homes. Of the patients confined in hospitals outside the district 649 were delivered at Redhill County Hospital, and 403 at Bushey Maternity Hospital.

Of a total of 3,115 births, 943 occurred in the patients' own homes, 587 in local nursing homes and 1,585 in hospitals or homes outside the district. Some 2,172 or 70 per cent. of confinements therefore took place in institutions inside, or outside the district.

During the year, six patients were admitted to a London Hospital under the Council's arrangements.

Local Maternity Accommodation.

After the 1914-1918 war, maternity and child welfare authorities were encouraged to provide maternity accommodation. Pending their being able to provide beds, the Council found a bed at one of a number of London hospitals with which they had entered into agreement or, failing that, at one of the local maternity homes.

In November, 1934, the maternity and child welfare committee considered a report on the question of institutional accommodation for maternity cases. It was felt that, apart from the sixty beds to which the maternity unit at Redhill Hospital was to be extended, the hospital serving Hendon and Wembley as well as Harrow, local requirements were at least a further forty beds. The Wembley Council was approached as to the possibility of providing a joint institution of some 70 beds. The County Council considered the question of the provision of whatever further accommodation it was necessary to provide accommodation for 30-40 per cent. of all births (being of the opinion that this figure should be considered reasonably adequate for the average social condition obtaining

in Middlesex). The question was discussed with the officers of the Ministry of Health, as to whether this additional provision should be met by local district councils, or by the County Council. The Ministry's policy was based on the findings of the final report of the Departmental Committee on Maternal Mortality and Morbidity, which stressed the advantage of maternity provision being made in conjunction with general hospitals. In reference to the particular case of Harrow and Wembley, the Minister preferred the County Council making the necessary provision. In December, 1935, the County Council approved, in principle, of the provision as a public health measure of such maternity accommodation at the County general hospitals as may be necessary adequately to meet the legitimate needs of the County, that is to say, not only for those women who are financially necessitous, or who require hospital confinement for medical reasons, but for women not included in these classes who themselves desire to enter hospital for their confinement.

The Council continued to endeavour to be permitted to provide maternity accommodation apart from that proposed by the County Council, the grounds for their case being, (1) the inadequacy of the County Council's proposals, in that not only was no provision made for the further growth of the population, but that even at that time it was patent that the maximum figure of 40 per cent. adopted as the County's standard was too low ; (2) the dissociation of the services from the Council's maternity and child welfare scheme. These points were submitted by a deputation at a meeting early in 1937. Later in the year it was learned the County Council had purchased Bushey Heath Clinic, to be run as a maternity home. A deputation to the Ministry of Health, which urged that the district council was the proper authority to acquire the clinic as a maternity home, was informed that the Minister looked to the County Council, the authority responsible for the provision of hospital accommodation, as the authority responsible for the provision of maternity hospital accommodation. From this time onwards then, the Council accepted liability for the admission to hospital only of the small number of cases the consultant obstetrician wished admitted under his own care.

In 1938, the added accommodation available at Redhill Hospital, and its annexe at Bushey Heath, enabled many more than formerly to be admitted for institutional confinements, women being accepted even though on no other grounds than their own preference. This happy situation was not of long duration though, and it was not long before selection of cases for admission again had to be practised, preference being given to those whose needs were based on medical grounds, the next preference being given to primiparæ. During the war years the situation deteriorated still further, and admission had to be limited still more rigidly. The demand for admission rose not only because of the loss by destruction of certain accommodation in London, but also because of the great increase in the group of very difficult domestic circumstances, brought about partly by lack of accommodation in the home, and partly by the paucity of help in the home. Not many local mothers elected to take advantage of the facilities for admission to a hostel in the country before her confinement. During this last year there has been no easing up in the difficulties experienced by so many mothers, who are obliged to

have their confinements at home. On the contrary, there seems to be an increase in those where it is most undesirable that the confinement should take place at home. Approach was made to the Harrow Hospital to ascertain whether arrangements could not be come to, by which the Council could help the hospital to use as a maternity ward, the ward erected during the war and which was being released from E.M.S. purposes. At the time nothing could be done on these lines. Consideration was then given to the question of the possibility of using the Stanmore Isolation Hospital, which since March, 1944, had not been open for the reception of infectious cases, as a small maternity home for uncomplicated cases. The Minister, however, being of the opinion that a greater expenditure of labour and material than could then be afforded for this purpose would be necessary, declined to authorise the scheme. In the meantime, the County Council accepted responsibility as a County charge for the admission of mothers from Middlesex to some of the emergency maternity hostels which had been opened under the Government Evacuation Scheme

POST-NATAL SERVICES.

Post-natal Examination.

Mothers recently confined, are recommended to be examined some six weeks after delivery. No separate clinic for this purpose has been established here, as it is felt that there is more likelihood of the mothers attending if they come to the same building and are seen by the same staff as undertook their ante-natal care. Where considered necessary patients are referred to the consultant at his ante-natal clinic. During the year 234 mothers attended. No women took advantage this year, of the facilities by which they can receive this service from their own medical attendant in the same way as they received ante-natal care.

The question of the establishment of a gynæcological clinic, to be attended by those suffering from diseases peculiar to women, was considered. As it was felt that the service is one so intimately bound up with the question of hospital accommodation, and as it appears any suffering from such conditions can receive adequate attention at the Redhill County Hospital, no further steps were taken.

Consultant Services.

Any of the consultants on the Council's panel, and the obstetricians at Redhill Hospital are available to assist general medical practitioners in difficulties at the confinement or in the post-natal period. This year one was summoned, the patient suffering from post-partum hæmorrhage.

Puerperal Infection.

(a) Consultant Services: On no occasion this year was the consultant summoned on account of puerperal infection.

(b) Hospital Services: The admission to hospital of patients suffering from puerperal infection, who need institutional treatment, is arranged by the Council at no cost to the patient. Before the war patients were admitted, preferably with their infants to the isolation block of the L.C.C. North Western Isolation Hospital, Hampstead, or

the isolation block of Queen Charlotte's Hospital. During the war this last was not available, and sometimes not that at the L.C.C. Hospital, in which case, patients were admitted to the isolation hospitals of some of those authorities, with whom the Council has an arrangement for the acceptance of infectious patients. During the year eleven patients were admitted to hospital, including four who had been confined in local nursing homes.

(c) HOME NURSING: As some of the conditions causing puerperal pyrexia are communicable, it is undesirable for a midwife, attending such a patient, to attend to other maternity cases. In many instances it is only after a while that a non-infectious cause for the pyrexia can be demonstrated, and during this period, when it is not known whether the condition is or is not infectious, restricting a midwife to attend to the one patient in such circumstances would disorganise the service. The alternative practice, therefore, has been adopted, namely that by arrangement with the District Nursing Association the nursing of such patients is passed to suitably qualified nurses of the Association, who are in no danger of conveying any infection should the condition prove to be communicable as they do not attend maternity cases. In the meantime, the midwife takes precautionary measures as though she had attended an infective patient, and so later can resume her ordinary duties. The Association also, on behalf of the Authority, undertakes the nursing of patients suffering from such conditions as breast abscess, white leg, etc., occurring in the nursing mother. Three patients notified as suffering from puerperal pyrexia were nursed by the staff of the Association under these arrangements. In addition there were a further 12 cases of nursing mothers whose nursing the staff of the Association undertook on behalf of the Council.

BIRTH CONTROL CLINIC.

At a Birth Control Clinic established at a maternity centre, contraceptive advice may be given only to those in whose case further pregnancy would be detrimental to health. When started in 1935, the local clinic was held monthly, but increasing attendances necessitated fortnightly sessions. 1938 saw the largest number of patients attending in any year, namely 311. The figures in the succeeding years were 245, 136, 133, 177 and 175. 1944 saw a slight rise to 213, while last year 439 attended. Of these 166 were new patients and altogether 486 visits were paid. During the years of smaller attendances, monthly sessions were found to be sufficient, but the larger attendances last year necessitated a reversion to the previous practice of fortnightly sessions. Each year a small number who attend have to be denied any advice on contraceptive methods, as in their cases there were no medical grounds rendering a pregnancy undesirable.

CLINIC BUILDINGS.

The programme of erection of clinic buildings included the main central clinic and, in all, nine peripheral buildings. Facilities at these proposed sites would mean that practically the entire district would lie within circles of three quarters of a mile radius from these sites as centres.

The areas not included would be part of Hatch End and the Pinner Green Housing Estate, a small area north of Eastern Avenue at Rayners Lane, part of the Hill, Stanmore Village, and part of Edgware and South Stanmore. This latter area, though, would be served by clinic sessions held at the Chandos Recreation Ground Sports Pavilion. The needs of the areas unserved would probably have to be met by continuing the present practice of holding sessions in Church halls.

The Central clinic is to be erected on the site of Tyneholme, Headstone Drive. A building providing the services proposed to be held here is an urgent necessity, and this, of all the clinic buildings, is the one needed most.

Of the peripheral clinics two, the one at Broadway and the other at Elmgrove Road, already exist, having been erected by the former Wealdstone Council. Two others, namely those at Alexandra Avenue and at Honeypot Lane, are provided by the County Council, being part of the combined buildings which will provide library facilities as well.

On the clinic site on the L.C.C. Kenton Estate, the Kenton War Nursery was built. This building will probably be too useful for a while for there to be any question of its demolition, so alternative arrangements will be needed to serve this area. This problem too, is urgent, as the very many sessions required in this neighbourhood are now held in a building far from ideal for this purpose. There is sufficient demand for clinic facilities of different kinds to justify the erection in this locality of a building to be used solely, or at least primarily, for such purposes. On the other hand in a building intended as a community centre, it might be possible to ear-mark sufficient accommodation for this purpose, while leaving free for general use such accommodation as waiting halls, etc.

The needs of Pinner were to have been met by the use of rooms in a community centre to be erected in Cecil Park. It is understood that more ambitious proposals are now being considered. It is not contemplated that there will be sufficient demand for clinic services to warrant the erection in this area of a building intended primarily as a clinic.

The plan included the erection of a building on the new L.C.C. Headstone Estate, to be so sited as to meet the needs of the Hatch End area. Again, it is possible that a building primarily designed for other needs could offer accommodation suitable and adequate for clinic purposes.

The needs of an area badly requiring facilities will be met by the erection of a combined building on the site at Bessborough Road Depot, but unfortunately it seems that this will not be available for a long time, and there appears to be no alternative site. The building in which the maternity and child welfare clinic sessions are now held is far from suitable for the purpose, while the dental clinic occupied full-time, serving this locality, is even more unsatisfactorily housed.

The remaining site is one at North Harrow. This was acquired in anticipation of the needs of the area. These, though, cannot be assessed as yet, until the erection of other buildings serving adjacent areas shows what demands will remain to be met by a building in this locality.

SCHOOL MEDICAL SERVICES.

LOCAL EDUCATION AUTHORITIES.

When the old School Boards were abolished under the 1902 Education Act, county councils, county borough councils and the larger municipal borough and urban district councils were made the local education authorities for elementary education, though the responsibility for higher education was placed only on the councils of the counties and county boroughs. Boroughs of population of less than 10,000, and urban districts of less than 20,000 at the time of the 1901 census could not be made local education authorities. The effect of this was that Harrow with its very high school population was not directly responsible for the education services and so not for the administration of the school medical services. By the Education Act 1944, only the councils of counties and county boroughs were in future to be local education authorities. Provision was made in part III of the First Schedule of the Act, for the creation of excepted districts of areas of population of not less than 60,000 or of school population of 7,000. The scheme of divisional administration of education confirmed by the Minister of Education on the 24th July, 1945, provides for the exercise by the Council of those functions delegated to the divisional executive.

LOCAL SERVICES.

There are 55 school departments, of which 4 are secondary grammar, 10 secondary modern, one secondary technical and 40 primary.

The number of children on the school rolls approaches 25,000.

Development of School Medical Services.

Apart from the earlier acts relating to the special education of the blind, deaf, defective and epileptic children and the Provision of Meals Act of 1906, the act which established the foundation of the school medical services as seen to-dav was the Local Education (Administrative Provisions) Act of 1907. This required local education authorities to provide systematic medical inspection of school children, and empowered them to arrange for attention being given to their health and physical condition. Just as the object of the Provision of Meals Act was to ensure that a child should not because of hunger fail to benefit from the educational services provided, so the underlying principle of this Act was the removal of those handicaps which prevented the child deriving full benefit. The duties laid down included those of providing systematic medical inspection, the oversight of the sanitation of school buildings, the control of infectious diseases, and the medical supervision of the school life of the children. School medical officers and school nurses were appointed, and after the examination of the child, advice was given to the parents as to the treatment that should be obtained. Generally this was to be through existing agencies, the treatment of minor ailments by school nurses and the provision of spectacles being the only forms of activity it was anticipated would have to be undertaken by the education authorities.

Within a short time of the inception of the service, however, it was apparent that the existing provisions for treatment were inadequate, and that the limitations of the service of private practitioners, and of voluntary hospitals, resulted in only a small proportion of those requiring treatment obtaining it. Local authorities then started to make arrangements for dealing with such conditions as minor ailments, uncleanliness of children, defects of eyesight and hearing, enlarged tonsils and adenoids, and dental diseases. Authorities then came to accept it as their responsibility to provide the services necessary for the treatment of these conditions for any school child requiring it, irrespective of the parents' ability to pay the full cost of the treatment, the parents' contribution usually being assessed according to their financial circumstances. By the 1918 Education Act it was laid definitely as a duty on the education authorities to provide such treatment, while at the same time it became an obligation on the higher education authorities to arrange for the medical inspection of children attending secondary and continuation schools. From 1920 onwards special types of physically disabled children were brought within the scope of the service. The needs of the delicate child were met by his admission to an open-air school, and by treatment by general ultra-violet irradiation. Orthopædic schemes, including special schools for cripples, were established for the prevention and curing of crippling defects, while more recently the rheumatic child is being dealt with by the setting up of special clinics, from which children can be referred for admission to hospitals and residential schools. The maladjusted or the problem child is dealt with at the Child Guidance Clinic, while the needs of those suffering from speech defect are met by the attention of speech therapists.

The new Education Act rounds off this progressive development of the services, by making it the duty of every local education authority to make such arrangements for securing the provision of free medical treatment for pupils in attendance at any school or county college maintained by them, as are necessary for securing that comprehensive facilities for free medical treatment are available to them under this Act or otherwise, and every local education authority shall have the power to make similar arrangements for senior pupils in attendance at any other educational establishment maintained by them (Section 48 (3)).

With regard to medical inspection, the position is, that it is the duty of every local education authority to provide for the medical inspection at appropriate intervals of pupils in attendance at any school or county college maintained by them, and every local education authority shall have the power to provide for such inspection of senior pupils in attendance at any other educational establishment maintained by them.

Scheme of Divisional Administration of Education.

The scheme signed on 25th January, 1945, and approved on 24th July, 1945, authorised the Council to exercise on behalf of the County Council the functions relating to primary and secondary education, and the supplementary and ancillary functions specified in the scheme in respect of the urban district.

Included in the functions to be exercised by the Council are :

(q) The duty of carrying out, in accordance with the arrangements made by the County Council and approved by the Minister, the medical inspection of pupils in attendance at any school maintained by the County Council, and the duty of securing that such pupils are enabled to receive free medical treatment in accordance with the arrangements made by the County Council and approved by the Minister, and for the foregoing purposes to enforce the provisions of sub-sections 2, 4 and 5 of Section 48 of the Act.

(w) The exercise of the powers and duties under, and the enforcement of the provisions of, Section 54 of the Act relating to the power to ensure cleanliness.

(z) The powers and duties conferred and imposed by Section 57 of the Act relating to reports by local authorities under the Mental Deficiency Acts, and the enforcement of the provisions of that section.

(cc) The duty of carrying out, in accordance with the arrangements made by the County Council and approved by the Minister, the medical inspection of pupils receiving primary or secondary education otherwise than at school, and the duty of securing that such pupils are enabled to receive free medical treatment in accordance with the arrangements made by the County Council and approved by the Minister.

(dd) Where an agreement has been made between the County Council and the proprietor of an independent school in the urban district in accordance with the provisions of Section 78 of the Act, the duty of (a) carrying out, in accordance with the arrangements made by the County Council and approved by the Minister, the medical inspection of pupils in attendance at the school, and, (b) securing that the pupils in the school are enabled to receive free medical treatment in accordance with the arrangements made by the County Council and approved by the Minister.

Although part of the scheme became operative as from 1st April, at the request of the County Council the transfer of the school medical services was not made until 16th July.

Transferred Staff.

The staff transferred to operate the local school medical services included two medical officers, three school nurses, two health assistants and two clerks. Engaged on dental work there were five dental officers (four full-time and the fifth almost whole-time), each with her dental attendant. Some of these dental officers continued to deal with children of schools outside the district. On the other hand, children attending some local schools received dental attention from a dental officer working outside the area. Towards the end of the year application was made to the County Council for approval to augment the staff, so that on school medical work there would be engaged the equivalent of three whole-time medical officers, six health visitors and three clerks.

The Council had previously decided that on their assuming responsibility for the school medical services, the maternity and child welfare and the school medical services should as far as possible be merged,

medical, nursing and dental staff being engaged on duties in both spheres. This step was taken, with the result that while two medical officers transferred from the County Council to be engaged on school work, in point of fact all the medical officers spent some time on each, the total time so spent being the equivalent of the whole time of two officers. Similarly all the health visitors, including those who transferred, are engaged part-time on school work, the total time spent by them being equivalent to that of three whole-time school nurses.

LOCAL SCHOOL MEDICAL SERVICES.

1. Medical Inspection.

For many years the routine of the inspection of children attending elementary schools was that the child should be examined as soon as possible in the 12 months following his admission to school, on his attaining the age of eight years and on his attaining the age of twelve years. Each child was therefore examined as a routine three times in his school life. For a while many have advocated a fourth inspection, a policy adopted by the Middlesex Education Committee, the children being examined as entrants, at seven years, at ten years and as leavers.

The schedule of examination for scholars at places of higher education was an examination during the first term after admission, and an examination in each subsequent year, a complete examination being made at 12 and at 15 years of age.

At routine examinations time is spent by the medical officer seeing large numbers of normal children. This practice has been criticized by experienced school medical officers who feel the time could be better employed by the medical officer examining not all children, but those submitted by teachers, parents, or as the result of his own more cursory inspection. While many agree as to the defects of the existing practice and the desirability of its being replaced by some alternative, there is no agreement as to what that alternative should be. The local practice has been to continue these routine inspections, and as far as possible on the basis of four examinations in the school life of the child. Shortage of County Council staff prevented their aim to examine on this basis being anything like achieved. The result is that there has been so much lee-way to be made up, that it will be some time before it can be felt that the routine inspections are based on a smooth schedule of operation. Attention has been concentrated in the first place on the examination of the entrants. Each term, too, especially to enable certificates to be sent to the Employment Exchange, children due to leave at the end of the term have been dealt with. Many seven-year-olds have been seen, but few of the ten-year-olds had by the end of the year. By this time, though, most of the serious arrears of entrants had been overtaken, and the programme arranged that no school department would not have had the attention of the medical and nursing staff within twelve months of the service being locally administered.

Preparatory to the medical inspection of the children, it was common practice for them to be weighed and their heights taken. While use might at times be made of such records, and they can demonstrate, as

they have done, improvements in the heights and weights of present-day children as contrasted with children of the same ages years ago, not enough use is made of them to warrant the expenditure of time incurred, time which, particularly these days of shortage of nursing staff, might well be devoted more profitably. It was decided, therefore, that at least for the time being, the practice be discontinued.

When the difficulties brought about by the war are somewhat lessened, it is hoped that it might then be possible for all children to be weighed not once in three years, for the presumed purpose of obtaining records, but three times in the one year in the interests of the child, with much more frequent recording of the weight of the child who is not progressing.

2. Minor Ailment Clinics.

The treatment of minor ailments was one of the earliest of the activities of the school medical services, most authorities providing these clinics, at some of which medical officers would be present as well as school nurses.

At the time of taking over, a weekly clinic was held in four separate buildings in the district. It has since been found possible to open a clinic at another building, while at two of the clinics the school nurses attend on other mornings as well. It is anticipated that increasing attendances of children will necessitate more frequent attendances by the nursing and medical staff. As long as a doctor can attend only the once a week, it will remain impossible to deal with many classes of patient who must therefore, under to-day's arrangements, be referred to their own practitioners, as they should be seen within the week. At one time treatment had to be limited to those classed as minor ailments, including such conditions as impetigo and otorrhœa, the prescribing or dispensing of medicine being banned. It would seem, at least until the national medical service is introduced, that it is contemplated there will be a marked increase in the clinic activities, and that full treatment, including the prescribing and even dispensing of medicines, can be undertaken.

Apart from providing the treatment of children suffering from minor ailments, these clinics serve a most useful purpose as providing a place where children can be kept under regular observation, or where a child can be seen who needs more detailed examination than could be afforded him at the routine medical inspection at the school.

Maternity and child welfare sessions are held at about a dozen premises, in an endeavour so to place them that mothers do not need to travel more than half a mile, or at the outside three-quarters of a mile, to reach them. It is less necessary to provide school clinics at as many sites, and economy of staff will probably necessitate their being limited for a while to the smaller number of buildings, namely the clinics at Broadway, Elmwood Avenue, Alexandra Avenue, Honeypot Lane, the Church Hall at Love Lane, Pinner, and the Chandos Pavilion.

3. Dental Treatment.

Treatment is provided at five premises in the district, namely Elmwood Avenue Clinic, Alexandra Avenue Clinic, 76, Marlborough Hill,

Roxeth Clinic and at Stanburn School. At each of these clinics there is a full-time dental officer (except at Marlborough Hill where the dental officer works 8/11ths of her time), aided by a full-time attendant. The children from schools in the north-west part of the district are attended to by the dental officer working at the Northwood Clinic. Special cases are referred to the Orthodontic Clinic at Sudbury which serves part of the County and which is now being worked beyond capacity.

General anæsthetic (gas) sessions are held at regular intervals, the anæsthetic being administered by one of a rota of general medical practitioners. At these sessions a trained nurse is in attendance, this usually being one of the school nurses.

In ordinary circumstances the dental officers found it possible to visit their schools in something about a twelve-month. There was, however, no reserve to meet the case of absence from any cause. Dental officers are finding, too, that the dental condition of the children who were evacuated, and have now returned, is sufficiently poor that the extra time they require delays the schedule of visiting. It is hoped, too, that growing numbers of maternity and child welfare patients will avail themselves of the facilities for dental treatment offered them. The appointment of further dental officers is therefore urgently needed.

The first need is for premises at which can be treated the children from schools in the north and western part of the district. The balance of the time of the full-time services of a dental officer occupied here on these would provide some slight help, but especially bearing in mind the needs of the maternity and child welfare patients as well, additional appointments will be required, even of two officers, if the time of the dental officers is to be most economically used by their being able to get round their schools every six months. Then there is probably sufficient orthodontic work needing to be done to the children of this district to engage on this the whole time of one dental officer.

The premises at Roxeth Clinic are far from satisfactory, more especially in the winter months.

4. Other Forms of Treatment.

(a) Ophthalmic.

Children requiring ophthalmic treatment are seen by the ophthalmic surgeon who holds sessions twice weekly at the clinic at 76, Marlborough Hill. A member of a firm of opticians attends the sessions to dispense the prescriptions.

Children from some schools attend at other clinics in Wembley or in Ruislip. Arrangements were made for most of them to be treated at the Marlborough Hill Clinic, though until the session could be opened at South Harrow, those previously referred to the Ruislip Clinic had to continue there. The increase in the number of children examined at the schools led to so many more children being referred to the ophthalmic clinic, that before the end of the year a substantial waiting list had accumulated, and made more urgent than ever the need of the additional clinic sessions.

Children are re-examined at intervals of time determined in each case by the ophthalmic surgeon.

Glasses are provided free of cost, except that parents requesting special frames are required to pay the additional charge. Where the ophthalmic surgeon decides that it is advisable a child should have a second pair, because of the special need of avoiding his not wearing glasses for any period of time, these are provided. Repairs also are undertaken free of cost.

(b) Ear, Nose and Throat Cases.

Children considered to be in need of ear, nose and throat treatment are referred to the appropriate department of Redhill County Hospital, where up to the end of the year early appointments were made, and those considered to be in need of operative treatment were admitted within a few days, being kept in hospital both before and after the operation.

(c) Physio-therapy.

Children suffering from any defect of the limbs are referred to the clinic at 76, Marlborough Hill where they are seen in the first instance by the consultant physio-therapist. Most cases are treated by such means as active or passive exercises, by the provision of appliances, by various forms of electro-therapy or actinotherapy. Special cases are referred to the consultant orthopædic surgeon under whose care those needing in-patient stay are admitted. Children suffering from such general conditions as debility, or asthma, are seen by the physio-therapist, many being referred for such treatment as general ultra-violet irradiation or breathing exercises.

(d) Child Guidance.

A Child Guidance Clinic is held at 2, St. John's Road, Harrow, being maintained by the County Council and serving areas other than Harrow. The clinic cannot cope with the work referred so there is a considerable waiting list, and a long time has now to elapse before a patient can be seen after being referred. It is probable that the clinic could be kept fully engaged, dealing with patients only from this area.

(e) Speech Therapy.

A speech therapist works at 2, St. John's Road, Harrow, dealing with other districts as well as Harrow. Again, it is probable that if the staff and accommodation were available it would be possible to engage the time of two therapists, dealing with children only from this district.

(f) Cleansing.

Much of the time of school nurses was at one time taken up by their visiting schools to examine children's heads, and taking the necessary steps to ensure the cleansing of those requiring treatment. The fall in the infestation rate to to-day's relatively low level is a tribute to the good work done. These duties can, though, well be undertaken by someone who has had less training, and experience, than the present-day health visitor, so in this district the work is undertaken under the direction of the health visitors by two health assistants. Each is responsible for the schools in her own area. She examines the heads of all children in

the schools, and by the end of the year surveys had been completed in every department of every primary and secondary modern school. The results were most gratifying, particularly as it had previously not been found possible to devote the same attention to this duty. Of 18,866 children examined 417 were found to have infested heads, a percentage of 2·16.

Home visits are paid by the health assistants, mostly to find conditions remedied. Cleansing facilities are available at sessions held at the Broadway and at the Alexandra Avenue Clinics. In all 131 children were treated.

(g) Handicapped Pupils.

Certain classes of child cannot, either temporarily or permanently, adequately be provided for in the ordinary school.

Of those suffering from mental sub-normality, those classified as ineducable are reported under section 57 (3) to the District Education Officer and the particulars then forwarded for ultimate submission to the County Education Committee. Subject to the exercise of his right of appeal by the parent, the case is referred to the local authority for the purposes of the Mental Deficiency Act 1913. Those children so certified, if not admitted to an institution, can be helped by attending an occupation centre, and it is hoped that it will soon prove possible for some of these centres to be opened in this district. Children with slighter degrees of sub-normality, that is, still being educable but requiring some specialised form of education in substitution for that normally given in ordinary schools, are reported under section 34 to the District Education Officer, who refers them for admission to the appropriate school, most from here going to a day school in Willesden.

Among other categories of handicapped pupils are the physically handicapped who, by reason of disease, or crippling defect, cannot be satisfactorily educated in an ordinary school or cannot be educated in such a school, without detriment to health or educational development. Those less seriously handicapped who can attend a day school are taken to a school in Willesden. For the more seriously handicapped admission to a boarding school is necessary.

Children may similarly need to be educated at special schools, chiefly residential, because of blindness or of deafness or because they are epileptic. All arrangements for these special forms of education, including the admission of children to residential schools and open-air schools for long periods of convalescence, are made by the County Council.

There is a grave shortage of residential accommodation so that in most cases children requiring places have to wait a long time before being admitted. There is no doubt that the large school population of this area could provide sufficient children if all those who would benefit from admission to a day special school were to be catered for to justify the erection of such a school to meet the local needs.

ANNUAL RETURNS.

Primary Schools.

A. Routine Medical Inspection.

No. of code inspections:

Entrants	2,023
Age 7	889
Age 10	1,218
Leavers	1,060
Total	5,190

No. of other routine inspections 1,442

B. Other inspections:

Examined at	Specials	Re-inspections
Schools	19	14
Clinics	1,935	1,040

C. No. of individual children found at routine inspections to require treatment (excluding uncleanliness, nutrition and dental disease).

	For defective vision	For other conditions (see table D)	Total
Entrants ...	24	171	195
Age 7	35	130	165
Age 10	67	97	164
Leavers	57	100	157
Other ages ...	50	82	132
Total ...	233	580	813

D. Return of defects found by medical inspection.

Defect or disease		Routine Inspections		Special Inspections	
		No. of Defects		No. of Defects	
		A	B	A	B
Skin	Ringworm—Scalp	—	—	2	—
	do. Body	1	—	4	—
	Scabies	10	—	94	1
	Impetigo	10	—	83	—
	Other diseases—Non-Tb.... ...	30	8	183	6
Eye	Blepharitis	4	—	21	1
	Conjunctivitis	2	—	14	—
	Keratitis	—	—	—	—
	Corneal Opacities	—	—	—	—
	Defective Vision (excluding Squint)	233	100	165	18
	Squint	21	5	17	1
	Other conditions	6	4	79	2
Ear	Defective Hearing	7	14	11	3
	Otitis Media	5	3	18	4
	Other Ear Diseases	21	4	38	3
Nose and Throat	Chronic Tonsillitis	14	61	23	12
	Adenoids only	2	5	10	6
	Chronic Tonsillitis and Adenoids...	73	72	34	15
	Other conditions	20	61	70	16
Enlarged Cervical Glands (Non-Tb.)		2	9	3	3
Defective Speech		16	8	7	2
Heart and Circulation ...	Heart Disease—Organic	2	9	—	3
	do. Functional ...	3	17	3	4
	Anaemia	8	18	3	5
Lungs	Bronchitis	6	18	10	21
	Other Non-Tb. Disease	21	15	13	7
	Asthma	4	8	13	5
Tuberculosis ...	Pulmonary—Definite	—	—	—	—
	do. Suspected	2	2	—	2
	Non-Pulmonary—Glands... ...	1	2	—	—
	do. Bones and Joints	—	—	—	—
	do. Skin	—	—	—	—
	do. Other Forms ...	1	—	4	—
Nervous System	Epilepsy	—	2	1	4
	Chorea	—	—	4	2
	Enuresis	28	16	32	12
	Other conditions	17	12	35	17

D. Return of defects found by medical inspection (cont.)

Defect or disease		Routine Inspections		Special Inspections	
		No. of Defects		No. of Defects	
		A	B	A	B
Deformities ...	Rickets	2	7	—	—
	Spinal Curvature	22	7	4	2
	Other Forms	160	40	62	17
Maladjusted		6	1	27	11
Other Diseases and Defects		53	152	424	156
	Total ...	813	680	1,511	361

A = Requiring treatment.
B = Not requiring treatment, but requiring to be kept under observation.

E. Classification of nutrition of children inspected at routine inspections :

Age group	*Number*	A (*Excellent*)	B (*Normal*)	C (*Slightly sub-normal*)	D (*Bad*)
Entrants	2,023	348	1,522	151	2
Age 7 ...	889	158	651	77	3
Age 10 ...	1,218	218	895	105	–
Leavers...	1,060	218	778	62	2
Others ...	1,442	289	1,058	94	1
					–
Total ...	6,632	1,231	4,904	489	8
					–

Secondary Schools.

F. Routine Medical Inspection.

Age	10	11	12	13	14	15	16	17	18	19	*Total*
Boys	—	74	40	1	—	3	4	1	—	—	123
Girls	3	71	30	59	26	54	86	51	16	1	397
Total ...	3	145	70	60	26	57	90	52	16	1	520

G. Other Inspections.

	Specials	*Re-Examinations*
Boys	—	—
Girls	4	18
Total	4	18

H. Return of defects found by medical inspection.

Defect or Disease		Routine Inspections		Special Inspections	
		No. of Defects		No. of Defects	
		A	B	A	B
Skin	Ringworm—Scalp	—	—	—	—
	do. Body	—	—	—	—
	Scabies	—	—	—	—
	Impetigo	—	—	—	—
	Other Diseases—Non-Tb. ...	24	—	1	—
Eye	Blepharitis	1	—	—	—
	Conjunctivitis	—	—	—	—
	Keratitis	—	—	—	—
	Corneal Opacities	—	—	—	—
	Defective Vision (excluding Squint)	30	10	5	—
	Squint	1	—	—	—
	Other conditions	2	—	1	—
Ear	Defective Hearing	—	—	—	—
	Otitis Media	—	—	—	—
	Other Ear Diseases	—	—	1	—
Nose and Throat	Chronic Tonsillitis	—	—	—	—
	Adenoids only	—	—	—	—
	Chronic Tonsillitis and Adenoids ...	—	—	—	—
	Other conditions	3	1	—	1
Enlarged Cervical Glands (Non-Tb.)		1	1	—	—
Defective Speech		1	—	—	—
Heart and Circulation ...	Heart Disease—Organic	—	—	—	—
	do. Functional ...	1	—	—	—
	Anaemia	—	—	—	—
Lungs	Bronchitis	3	—	—	—
	Other Non-Tb. Disease	1	—	—	—
	Asthma	—	1	1	—
Tuberculosis ...	Pulmonary—Definite	—	—	—	—
	do. Suspected	—	—	—	—
	Non-Pulmonary—Glands	—	—	—	—
	do. Bones and Joints	—	—	—	—
	do. Skin	—	—	—	—
	do. Other Forms ...	—	—	—	—
Nervous System	Epilepsy	—	—	—	—
	Chorea	—	—	—	—
	Enuresis	1	—	—	—
	Other conditions	2	1	—	—

H. Return of defects found by medical inspection (cont.)

Defect or Disease		Routine Inspections		Special Inspections	
		No. of Defects		No. of Defects	
		A	B	A	B
Deformities ...	Rickets	—	—	—	—
	Spinal Curvature	5	9	—	—
	Other Forms	77	6	1	—
Maladjusted		—	—	1	—
Other Diseases and Defects		14	1	5	6
Total ...		167	30	16	7

A = Requiring treatment.

B = Not requiring treatment, but requiring to be kept under observation.

I. Classification of Nutrition of Pupils Examined:

Age	*Number*	A (*Excellent*)	B (*Normal*)	C (*Slightly sub-normal*)	D (*Bad*)
10	3	—	3	—	—
11	145	6	126	13	—
12	70	1	67	2	—
13	60	3	57	—	—
14	26	3	22	1	—
15	57	7	49	1	—
16	90	24	66	—	—
17	52	11	40	1	—
18	16	4	12	—	—
19	1	1	—	—	—
	—	—	—	—	—
Total	520	60	442	18	—
	—	—	—	—	—

All Schools.

J. Return of Defects Treated.

	At Clinic	*Otherwise*	*Total*
Skin			
Ringworm, scalp	2	—	2
,, body	4	—	4
Scabies	—	94	94
Impetigo	105	—	105
Others	192	4	196
Minor Eye Defects	109	—	109
Minor Ear Defects	59	3	62
Miscellaneous	318	7	325
Total	789	108	897
Defective Vision or Squint			
Errors of Refraction	136	—	136
Other Defects	18	—	18
Total	154	—	154
Spectacles prescribed	115		
Spectacles obtained	115		

K. Attendances at Minor Ailment Clinics:

Clinic	*Seen by doctor*		*Seen by nurse only*	
	New	*Old*	*New*	*Old*
Alexandra Ave.... ...	674	286	167	47
Broadway	541	400	153	87
Elmwood	378	183	54	31
Honeypot Lane ...	299	267	52	43
Pinner	43	4	1	—
Total	1,935	1,140	427	208

L. Examination of Children for Employment:

Number examined	40
Certificates granted	40

M. Children referred for treatment:

249 children were referred for operation treatment of tonsils and for adenoids.

At the child guidance and the speech clinic, apart from those continuing treatment started before the beginning of the year 82 schoolchildren attended. Of these 34 were for diagnosis only, 48 being taken on for treatment.

N. Dental Treatment :

	Primary Schools	*Secondary Schools*
Children examined :		
Routine	13,359	853
Special	1,253	37
Total	14,612	890
No. requiring treatment ...	10,083	537
No. treated	6,314	653
Fillings	11,147	1,656
Extractions	7,708	182
General anæsthetic	2,317	56
Other operations	3,131	1,053
Attendances made	12,906	2,354

O. School Meals :

Of the 15,565 children in primary schools one day in October, 1945, 7,521 took dinner and 13,124 milk. Of the 6,736 children in the secondary schools the corresponding figures were 3,577 and 4,302. Meals and milk are provided five days per week during term time and during holidays.